

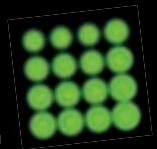
30 YEARS



PRODUCT CATALOGUE 2018

NETWORK TECHNOLOGY

**FIBER OPTIC
COPPER CABLING
CABINET SYSTEMS
MULTIMEDIA
ACTIVE COMPONENTS**



EFB-ELEKTRONIK IN PROFILE

EFB-Elektronik GmbH is a leading manufacturer and system provider of networking and security technology as well as industrial system solutions. Our expertise ranges from structured cabling using certified high-end products for data centres to custom developments for industrial clients.

Our team services customers worldwide from our headquarters in Bielefeld, Germany. Our customer base includes renowned household names from the IT and security industry, as well as medium sized companies and large corporations.

Our membership in the international TKH Group based in the Netherlands, with more than 5,500 employees and production facilities around the globe, gives us additional leverage for the benefit of our customers. The EFB group of companies has 260 employees across nine locations in Europe, six of them in Germany and three subsidiary companies located in Istanbul, Copenhagen and Vienna.

The current turnover of the TKH Group amounts to 1.341 million Euros (2016). With a sales volume of 59 million Euros (2016), the EFB-Elektronik GmbH ranks among the leading companies of the group.

www.efb-elektronik.de/en/aboutus

OUR PRODUCT PORTFOLIO



FIBER OPTIC



COPPER CABLING



CABINET SYSTEMS



INDUSTRIAL



MULTIMEDIA



ACTIVE COMPONENTS



SECURITY SOLUTIONS

INFRALAN® CABLING SYSTEM

Fiber Optic	14 - 21
Copper Cabling	22 - 27
INFRALAN® SYSTEM RACK.....	28 - 43

FIBER OPTIC

Fiber-Pigtails & Jumper

OM5 Fiber Optic.....	46 - 47
Duplex-Jumper.....	49 - 57
Our Service In The Field of Fiber Optic	58 - 59
Simplex-Jumper.....	60 - 62
Duplex-Jumper Steel Armored.....	63
Duplex-Jumper.....	64 - 65
Pigtails	66 - 67

Pre-Assembled Breakout- and Loose Tube Fiber Cable

Universal Cable Pre-Assembled	69 - 70
Breakout Cable Pre-Assembled.....	71
Outdoor Cable.....	72
Universal Cable.....	73

Connectors & Adapters

Adapters	75 - 78
Attenuators.....	79
Connectors	80

Splice-/ MTP-Systems & Subracks

Assembled 19" Splice Boxes	84 - 90
Partly Assembled 19" Splice Boxes	91
Unassembled 19" Splice Boxes.....	92 - 95
Assembled Wall Distributor	96 - 97
Wall Distributor & Compact Splice Distributor	98
Mini Wall Distributor	99
Splice Distributor.....	100 - 104
Outlets.....	105
Accessories	106 - 108
MTP®/ MPO	109 - 111
19" Subracks.....	112
Plug In Modules	113 - 115

Fiber Tools & Installation Material

Tools & Cleaning Sets	117
Fiber Optic Basic Cleaning & Inspection Kit.....	118
Tools	119 - 122
Cleaning Sets	123 - 125

Splicing & Measurement Equipment

Splice Devices	127 - 129
Measurement Devices & Accessories.....	130 - 133

FTTH

IP65 Connectionboxes.....	136 - 137
Wall Cabinets	138
In Wall Distributor	139
CPE.....	140
Indoor Connectionboxes	141 - 142
DIN Rail Boxes.....	143
Pre-Assembled Connectionboxes.....	144
Pigtails & Splitter.....	145
Installation Cable & Accessories.....	146
Outlets.....	147
Switches & Media Converter	148 - 149

Closures

Outdoor Pipe Closure	150
Dome Closure	152 - 153
Splice Closure	154 - 155

COPPER CABLING

Keystones & Connection Modules

Keystones shielded	159 - 160
Keystones unshielded.....	161 - 162
Distribution Panel 19"	163 - 164
Keystone Frames.....	165

Floor Tank Accesories / Din-Rail Adapter	166
Connection Boxes	167
Keystone Snap-In Adapter	168 - 169
Modular-Adapter.....	170 - 172
Modular-Adapter / Connection Modules	173

Patch Cable

Patch Cable Office shielded.....	175 - 181
Patch Cable Industrie shielded.....	182 - 185
Patch Cable Office shielded	186 - 189

IP67/68 Connecting Systems

IP67 RJ45 Components	192
IP67 LC Duplex Components	193
IP67 USB Components.....	194 - 195
IP67 HDMI™ Components	196
IP68 Components.....	197

Patchpanel & Data Outlets

Patchpanel shielded.....	199 - 201
Patchpanel unshielded 19"	202 - 203
Data Outlets	204
Network Installation Sets.....	205

Installation- & Stranded Cables

Construction Products Regulation.....	207
Installation Cables shielded.....	208 - 210
Cable Type Codes	211
Stranded Cables shielded.....	212 - 214
Installation Cables unshielded	215

RJ45 Connector & Accessories

RJ45 field-plug shielded	217
RJ45 field-plug shielded / Hirose RJ45 connector sets	218
Hirose RJ45 Connector Sets.....	219
Stewart RJ45 Connector Sets	220
RJ45 Connector & Accessories	221
Modular-Connector & Accessories	222 - 223

Tools & Meters

Crimping Tools & Accessories	225 - 226
Insertion Tools & Accessories	227
Stripping Tools.....	228
Multibit Screwdriver & Cable Tester	229
Network Tester	230
Qualifier / Cable Tester / Poe Checker	231
Certifier	232 - 233

Telecom

Wall and Standing Distributors	235
LSA - Range 1/2	236 - 238
LSA - Connection Cords Range 2	239
Oversupply Protection Range 2	240
Connection Wire / Identifying	241
LSA Tools	242
Accessories Main Distributor 71	243
VKA Steel Sheet Distribution Boxes	244 - 245
Plastic Distribution Boxes	246
Fire Protection Box / Subrack	247
ISDN Patch Panel	248
TAE / UAE Outlets	249
TAE / UAE Outlets	250
Port Doubler	251
Modular Cables	252
Modular Cables	253
Modular Flat Cables	254
RJ-Modular Plugs	255

CABINET SYSTEMS

Network Cabinets	258
Network Cabinet Basic	259
Network Cabinets Classic	260
Network Cabinets Classic Modular	261
Door and Side Walls Classic	262 - 263
Network Cabinets Classic with Swing Frame	264
Co-Location Racks Classic	265

Plinths for Cabinets Classic/BASIC.....	266
Line-Up Accessories for Cabinet Series Classic.....	267
Server Cabinets Classic.....	268 - 271
Network Cabinets IP40.....	272
Network Cabinets IP54.....	273
Filter + Fans Protection Degree IP54.....	274
Network CabinetS IP55.....	275
ACtive Cooling Solutions.....	276
IP-Thermometer.....	277
Active Cooling Solutions.....	278 - 279
ACOUSTICALLY INSULATED + DESIGN CABINETS.....	280 - 281
Wall Housings 1-Part.....	282 - 283
Wall Housings 2-Part.....	284 - 285
Accessories for Wall Housings.....	286
Wall Housings Protection Degree IP55.....	287
Wall Housings vertiCal.....	288 - 289
10" Wall HousingS.....	290
10" AccessoriEs.....	291
Wall Housings Flat Pack.....	292 - 293
Network Cabinets Flat Pack.....	294 - 295
19" Rackframes.....	296
Roof Fan Units	298
TemperaturE Controller + Filter Units	299
Lighting Units	300 - 301
Profile Rails + Depth Rails	302
DIN Rail Carrier	303
Shelves	30 - 305
Sliding Rails + Dokument Drawers	306
Keyboard Drawers.....	307
Cable Routing and Management	308 - 312
Dummy Plates	313
Mounting Plates / Side Covers.....	314
Earthing Accessories	315
Locking Accessories.....	317
Locking Accessories	318
IP-Thermometer.....	319
ELM Rack monitoring And Locking	320
ELM Sensors	321
Turning Handle Agent E Stand-alone	322
Turning Handle Agent E Wired	323
Turning Handle Agent E Wireless	324
ELM Control Cockpit.....	325
Power Supply	
Socket Strips DESK.....	327
BlueNET3000 RCM	328 - 329
BlueNET2000 Monitored	330 - 332
BlueNET500	333
Socket Strips Vertical.....	334 - 337
Socket Strips Vertical.....	338
DIN Rail Socket Outlets	339 - 340
19" Socket Strips	341
Socket Strips international	342 - 343
Power Cables CEE7/7	344 - 346
Power Cables IEC-Lock.....	347
Extension Cables & Euro	348
Power Cables International.....	349 - 351
MULTIMEDIA	
KVM	
19" KVM Switches + LCD Consoles.....	356 - 358
Desktop KVM Switches.....	359 - 360
Mini Kabel KVM Switches	361
KVM Extender	362 - 363
Active Video Components	
HDBaseT™	366
HDMI Extender	367
Video Fiber Extender	368
Video Extender & Converter	369
HDMI Switch.....	370
Video Splitter	371
Video Cabling & Adapter	
Type of Connectors.....	373
HDMI™ Cable.....	374 - 376
HDMI™ Video Adapter & Cable Test Tools	377
DVI Cable & Adapter	378
DVI Cable - good EMC Characteristic	379
DisplayPort Cable & Converter	380
Mini DisplayPort Cable & Converter	381
VGA/SVGA Cable & Adapter	382
Overview List	383
USB & Apple Cabling	
Types of connectors	385
USb WIKI & USB3.1 Type C Cable.....	386
USB3.0 Premium Cableg	387
USB3.0 Classic Cable	388
USB3.0 Classic Cable & USB3.0 Adapter	389
USB3.0 Active Devices	390
USB2.0 Premium Cable	391
USB2.0 LSZH Cable	392
USB2.0 Classic Cable	393 - 394
USB2.0 Apple Cable	395
USB2.0 Special Variants	396
USB2.0 Active Devices	397
USB2.0 Extension Cable & Converter	398
USB2.0 Adapter Cable	399
D-Sub	
Dsub Cable.....	401 - 402
Dsub Adapter & Converter	403
Dsub Plugs	404 - 405
Dsub Covers	406 - 407
Ribbon Cable & Accessories	408
Accessories	409 - 410
internal Power supply cables	411
BNC/Koax	
BNC - Plugs & sockets	413
BNC accessories & Coaxial cable	414
Coaxial cables	415
ACTIVE COMPONENTS	
Media Converter	
CTS Media Converter	420 - 421
Netzwerk Media Converter	422 - 424
VDSL Media Converter	425
Network Switches	
10G Ethernet Managed	427
Gigabit Ethernet Managed	428 - 429
Gigabit Ethernet UnManaged	430
Fast Ethernet UnManaged	431
Gigabit Ethernet Managed & PoE	432 - 433
Long Range PoE Switches	434
Fast Ethernet UnManaged & PoE	435
PoE Switches & Converter	436
PoE Accessories	437
managed Wireless LAN	438
Wireless LAN	439
Industrial Ethernet	
Media Converter	442
Fast Ethernet Switches Unmanaged	443 - 444
POE Ethernet Switches Unmanagedt	445 - 446
PoE Ethernet Switches Managed & Accessories	447
Transceiver & Transceiver Cable	
DAC/AOC	449
Tranceiver Modules	450 - 451

PRODUCTION SITES

In Germany, EFB-Elektronik is represented with two production sites in Bielefeld and Sonneberg. The well-balanced mixture of modern technology and precise handcraft ensures that our products meet the high quality standards of our customers. Our expertise lies in speed and flexibility.



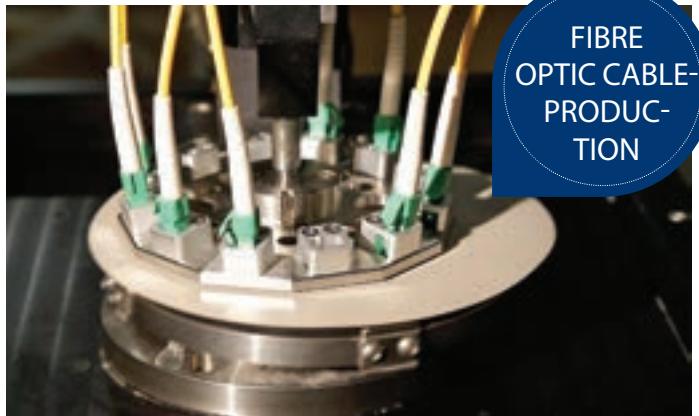
COPPER-
PRODUC-
TION



BIELEFELD



FIBRE
OPTIC CABLE-
PRODUC-
TION



SONNEBERG

www.efb-elektronik.de/en/production

THE HIGHEST REQUIREMENT FOR EVERY PRODUCT

Easy to use, strong in application and of the greatest value for the user. Quality is one of the outstanding features of our wires. By complying with standards and qualified production processes pursuant to UL E-337915, DIN EN ISO 9001:2015 as well as ISO 14001:2005, we guarantee quality at the highest level.



Quality management system



Active environmental management system



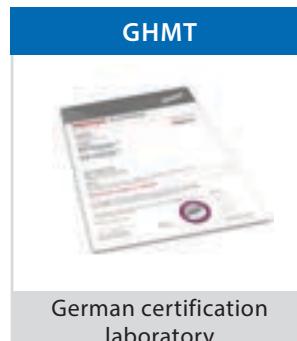
Occupational health and safety management system



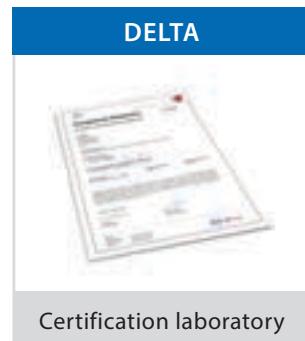
Compliance with prescribed safety requirements



Certification laboratory



German certification laboratory



Certification laboratory

SERVICE OFFER:

MORE THAN WELL-ADVISED ONSITE



Do you have any questions on our products or solutions? EFB-Elektronik offers competent and comprehensive support. Our objective is to provide the best possible service to our customers at all times. A sale is only the beginning of a constructive relationship with our customers: We will keep you updated on current technological developments.



EVERYTHING FROM A SINGLE SOURCE
– OVER 10,000 PRODUCTS



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OUR IN-HOUSE ASSEMBLING



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CONSULTANTS



COMPREHENSIVE PRE AND AFTER-
SALES SERVICE



OUR OWN BRANDS WITH A 25-YEAR
SYSTEM WARRANTY



A WIDE RANGE OF INFORMATIONAL
MATERIAL ON PRODUCTS AND
SOLUTIONS



RAPID IMPLEMENTATION OF SPECIAL
REQUIREMENTS



PRACTICE-ORIENTED EFB WORKSHOPS



MANY YEARS OF EXPERIENCE AND
EXPERTISE IN SMALL AND LARGE-
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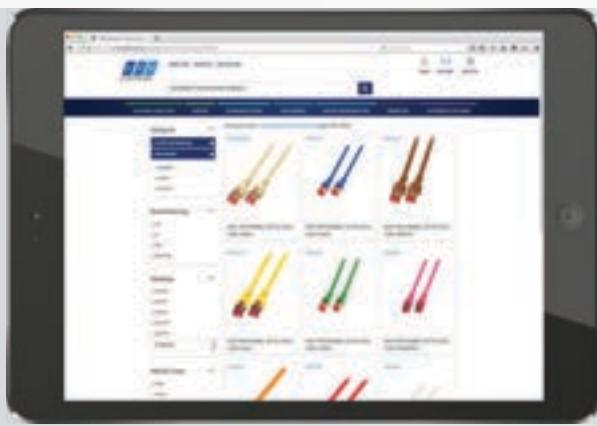
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The INFRALAN® brand from EFB-Elektronik offers planners and system administrators high-performance system solutions for structured cabling in buildings - from office buildings and data centers to production halls, machines/equipment, campuses to hospitals and shipbuilding.

We provide comprehensive support in planning preparation and also offer our support to installers. The INFRALAN® portfolio includes selected high-performance components for structured fiber optic- and copper cabling as well as cabinet systems.

The special feature of INFRALAN®: certified, coordinated components under one roof. In addition to our solid selection of products, INFRALAN® also boasts a range of highly skilled specialists.

OUR QUALITY BRAND AT A GLANCE

COPPER CABLING



- Shielded, structured system
- Numerous certifications, including GHMT, DELTA, ETL, etc
- Compliant with current transmission property standards as per ISO/IEC 11801 Cat.6A with high system reserves

FIBRE OPTIC CABLING



- Structured system, comprised of splice boxes, horizontal cable and corresponding connecting material
- Permanent links certified by GHMT, VDE, etc.
- Compliant with current transmission property standards as per IEC 14763-3

CABINET SYSTEMS

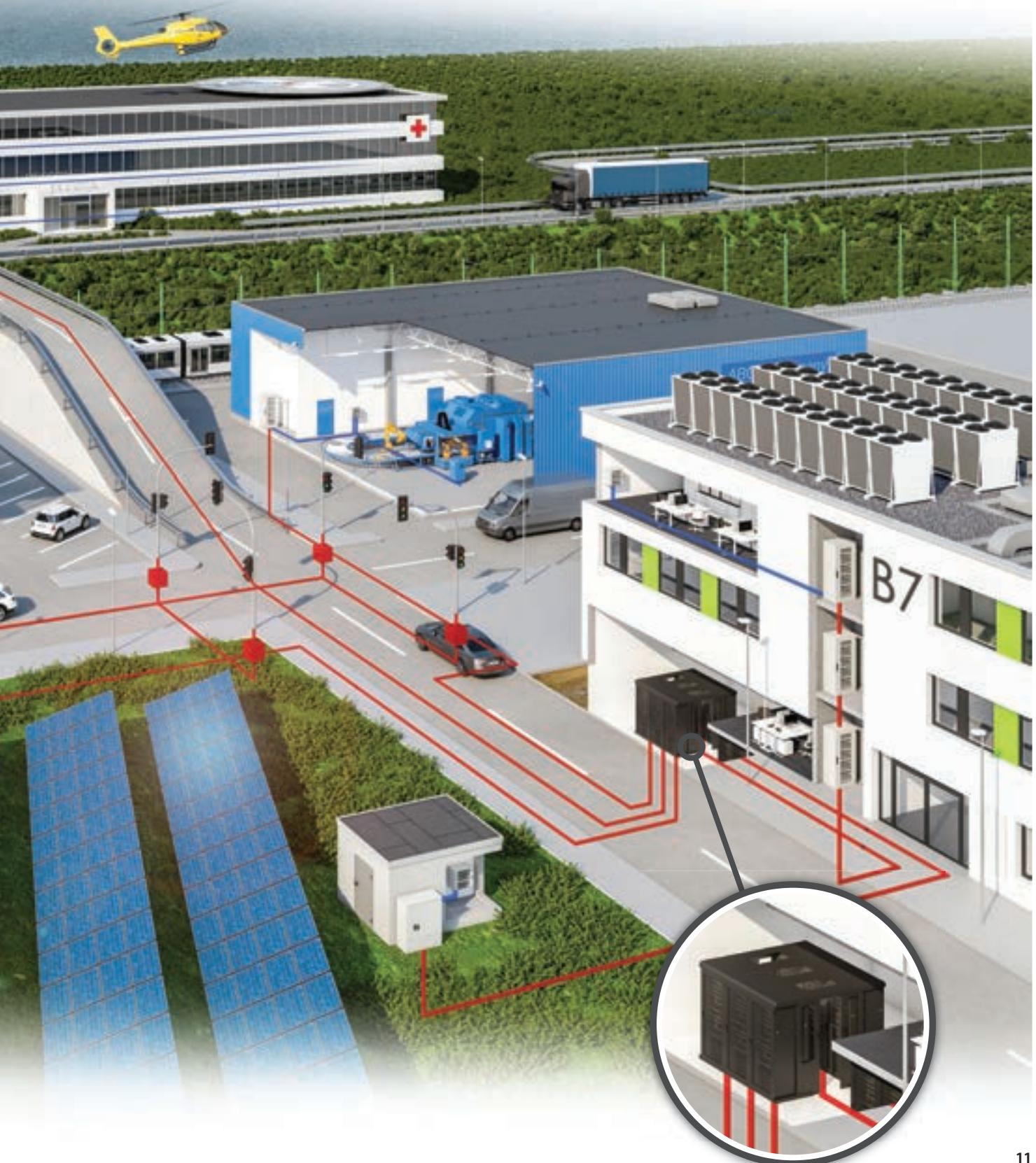


- Complete with high-end features, sophisticated detailed solutions and highly modular design
- High quality 19" rack systems: Free-standing and wall-mounted distribution boxes for structured cabling as per ISO 11801 / EN 50173
- Project-specific special solutions and wide-ranging selection of accessories



CUTLINE

- Fiber optic cable
- Copper cabling
- Cabinet systems



INFRALAN®: SYSTEM SOLUTIONS WITH BENEFITS

These days, in the business world, it's fundamentally important to have an excellent IT infrastructure that allows communication processes to function at their best. Meanwhile, the technical requirements for structured cabling are growing extremely fast. Infrastructure solutions have to meet very high quality standards with regard to signal transit time, crosstalk and shielding attenuation. Certified IT system solutions from INFRALAN® are physically guaranteed to provide reliable data- and telecommunication.



TOP STANDARDS OF QUALITY

Our in-house quality assurance ensures that components are thoroughly inspected, checked and continuously monitored.

INFRALAN

HIGH SECURITY OF INVESTMENT BASED ON CERTIFICATION

Repeatedly confirmed by independent testing authorities: certification of permanent links for fiber optic systems, as well as component certification and PVP component certification for copper cabling systems

INFRALAN

PERFECTLY MATCHED COMPONENTS

We use high performance and future-proof products from various product lines.

INFRALAN

EXCELLENT KNOWLEDGE OF THE MARKET

As many years of experience on the market can confirm, our proven components are precisely tailored to the needs of specialised users. Expertise is transmitted by our collection of highly skilled specialists.

INFRALAN

DO YOU HAVE QUESTIONS OR NEED ASSISTANCE?

We offer professional and comprehensive support. Our goal is to always offer our customers the best possible service. Our sales team is always at your disposal.

RELIABLE COOPERATION BASED ON MUTUAL TRUST

As a global player, EFB-Elektronik boasts a Europe-wide sales network and excellent connections with suppliers around the world. As a member of the powerful TKH-Group, our customers can take advantage of synergies and benefit from extensive know-how.

EUROPE-WIDE NETWORK OF INSTALLATION PARTNERS

The network includes certified partners with extensive experience working with INFRALAN® system components. Qualified installers receive valued support service, allowing them to better assist the customer with the implementation of their communication networks. Want to be one of our certified installation partners? Contact us today!

25-YEAR SYSTEM GUARANTEE

Every infrastructure is a strategic and long-term investment. That's why, as a sign of our special standards of quality, EFB Elektronik extends a 25-year system warranty on all passive, permanently installed cabling components in the fiber optic- and copper sector. To learn more about the requirements, click here: www.efb-elektronik.de/en/systemwarranty

SAFE AND EASY PLANNING

In addition to help with project planning and tender specification texts in two formats, we're also happy to compile the right planning documents for you.

CONSISTENT NOMENCLATURE

Save time thanks to a simple nomenclature with a logical structure.

HIGH AVAILABILITY

Permanent delivery, because a high stock availability can be ensured.



- Unshielded, structured system
- Certifications, including GHMT, ETL, etc
- Compliant with current standards for Cat.6 and Cat.6A with high system reserves

INFRALAN® Splice box sliding version LC

Completely equipped INFRALAN® splice box with adapter and through-dyed pigtails

The LC Pigtailed are stripped off and inserted into the splice cassette

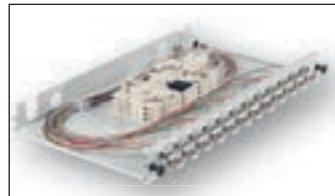
Measurement protocols of LC Pigtailed are stored in the box

Metal housing depth adjustable (45mm) via 19" mounting bracket

All versions of the splice box are supplied with 24 coupling openings and fitted with blind inserts if the number of used ports is reduced.

Cable entries at the rear, incl. 1 x PG16

6 x self-adhesive fiber guides



Height: 44.5 mm

Width: 483.0 mm

Depth: 244.0 mm

INFRALAN® Splice box sliding version LC OS2

Art.-No.	Fiber type	Fiber class	Pigtail	With number of couplings/adapters	Colour
ISB-LCDA-06-2-GR-ABA	Singlemode	OS2	12 x LC/APC	6/green	grey
ISB-LCDA-12-2-GR-ABA	Singlemode	OS2	24 x LC/APC	12/green	grey
ISB-LCDA-24-2-GR-ABA	Singlemode	OS2	48 x LC/APC	24/green	grey
ISB-LCDU-06-2-GR-ABA	Singlemode	OS2	12 x LC	6/ blue	grey
ISB-LCDU-12-2-GR-ABA	Singlemode	OS2	24 x LC	12/ blue	grey
ISB-LCDU-24-2-GR-ABA	Singlemode	OS2	48 x LC	24/ blue	grey

INFRALAN® Splice box sliding version LC OM5

Art.-No.	Fiber type	Fiber class	Pigtail	With number of couplings/adapters	Colour
ISB-LCDU-06-5-GR-ABA	Multimode 50/125	OM5	12 x LC	6/ limegreen	grey
ISB-LCDU-12-5-GR-ABA	Multimode 50/125	OM5	24 x LC	12/ limegreen	grey
ISB-LCDU-24-5-GR-ABA	Multimode 50/125	OM5	48 x LC	24/ limegreen	grey

INFRALAN® Splice box sliding version LC OM4

Art.-No.	Fiber type	Fiber class	Pigtail	With number of couplings/adapters	Colour
ISB-LCDU-06-4-GR-ABA	Multimode 50/125	OM4	12 x LC	6/ erica-violet	grey
ISB-LCDU-12-4-GR-ABA	Multimode 50/125	OM4	24 x LC	12/ erica-violet	grey
ISB-LCDU-24-4-GR-ABA	Multimode 50/125	OM4	48 x LC	24/ erica-violet	grey

INFRALAN® Splice box sliding version LC OM3

Art.-No.	Fiber type	Fiber class	Pigtail	With number of couplings/adapters	Colour
ISB-LCDU-06-3-GR-ABA	Multimode 50/125	OM3	12 x LC	6/ aqua	grey
ISB-LCDU-12-3-GR-ABA	Multimode 50/125	OM3	24 x LC	12/ aqua	grey
ISB-LCDU-24-3-GR-ABA	Multimode 50/125	OM3	48 x LC	24/ aqua	grey

INFRALAN® Splice box sliding version SC

Completely equipped INFRALAN® splice box with adapter and through-dyed pigtails

The SC Pigtailed are stripped off and inserted into the splice cassette

Measurement protocols of SC Pigtailed are stored in the box

Metal housing depth adjustable (45mm) via 19" mounting bracket

All versions of the splice box are supplied with 24 coupling openings and fitted with blind inserts if the number of used ports is reduced.

Cable entries at the rear, incl. 1 x PG16

6 x self-adhesive fiber guides

Height: 44.5 mm

Width: 483.0 mm

Depth: 244.0 mm

INFRALAN® Splice box sliding version SC OM5

Art.-No.	Fiber type	Fiber class	Pigtail	With number of couplings/adapters	Colour
ISB-SCDU-06-5-GR-ABA	Multimode 50/125	OM5	12 x SC	6/ limegreen	grey
ISB-SCDU-12-5-GR-ABA	Multimode 50/125	OM5	24 x SC	12/ limegreen	grey
ISB-SCDU-24-5-GR-ABA	Multimode 50/125	OM5	48 x SC	24/ limegreen	grey

INFRALAN® Splice box sliding version SC OM4

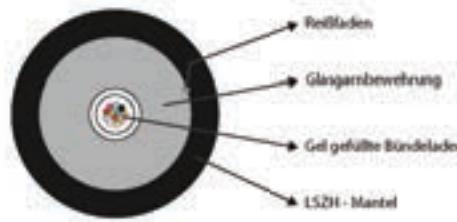
Art.-No.	Fiber type	Fiber class	Pigtail	With number of couplings/adapters	Colour
ISB-SCDU-06-4-GR-ABA	Multimode 50/125	OM4	12 x SC	6/ erica-violet	grey
ISB-SCDU-12-4-GR-ABA	Multimode 50/125	OM4	24 x SC	12/ erica-violet	grey
ISB-SCDU-24-4-GR-ABA	Multimode 50/125	OM4	48 x SC	24/ erica-violet	grey

INFRALAN® Splice box sliding version SC OM3

Art.-No.	Fiber type	Fiber class	Pigtail	With number of couplings/adapters	Colour
ISB-SCDU-06-3-GR-ABA	Multimode 50/125	OM3	12 x SC	6/ aqua	grey
ISB-SCDU-12-3-GR-ABA	Multimode 50/125	OM3	24 x SC	12/ aqua	grey
ISB-SCDU-24-3-GR-ABA	Multimode 50/125	OM3	48 x SC	24/ aqua	grey

INFRALAN® Universal Cable**Application:**

For fixed installation indoor and outdoor
In cable ducts, tubes and interconnections
Mechanical installation by winch is permitted only when using force meters with recording function
Not suitable for underground laying (direct buried)

**Characteristics:**

Universale cable
Longitudinally waterproof
Non-metallic rodent protection
Non-metallic, halogenfree, gel free
Suitable for connector assembly

Outer jacket:

Halogen-free and flame-retardant material (FRNC)

Standards:

Harmonised Standard: EN 50575
Flame retardant: IEC 60332-3-24 and IEC 60332-1-2
Halogenfree: IEC 60754-1
Acidity of the combustion gases: IEC 60754-2
Low smoke: IEC 61034
No resistance to oil, petrol, acid and leach

The cable diameter can vary.

The EURO Flame resistance class can vary.

U-DQ(ZN)BH 9/125µ G657A1

Art.-No.	Construct	Cable Ø	Bending radius	Colour outer sheath	Tensile Force	Temperature Range (Operation)	Euro Class
54404.1L-CPR	04E (1 x 4) singlemode G.657.A1	7.0 mm	140 mm	black	1750 N	-20..60 °C	Dca
54408.1L-CPR	08E (1 x 8) singlemode G.657.A1	7.0 mm	140 mm	black	1750 N	-20..60 °C	Dca
54412.1L-CPR	12e (1 x 12) singlemode G.657.A1	7.0 mm	140 mm	black	1750 N	-20..60 °C	Dca
54424.1L-CPR	24E (1 x 24) singlemode G.657.A1	7.5 mm	150 mm	black	1750 N	-20..60 °C	Dca
54448.1L-CPR	48E (4 x 12) singlemode G.657.A1	11.2 mm	170 mm	black	4000 N	-40..80 °C	Eca
54496.1L-CPR	96E (8 x 12) singlemode G.657.A1	13.1 mm	200 mm	black	4000 N	-40..80 °C	Eca

U-DQ(ZN)BH 50/125µ OM5

Art.-No.	Construct	Cable Ø	Bending radius	Colour outer sheath	Tensile Force	Temperature Range (Operation)	Euro Class
54504.10M5-CPR	4G (1 x 4) Multimode OM5	7.0 mm	140 mm	black	1750 N	-20..60 °C	Dca
54524.10M5-CPR	24G (1 x 24) Multimode OM5	7.5 mm	150 mm	black	1750 N	-20..60 °C	Dca

U-DQ(ZN)BH 50/125µ OM4

Art.-No.	Construct	Cable Ø	Bending radius	Colour outer sheath	Tensile Force	Temperature Range (Operation)	Euro Class
54504.2L-CPR	4G (1 x 4) Multimode OM4	7.0 mm	140 mm	black	1750 N	-20..60 °C	Dca
54508.2L-CPR	8G (1 x 8) Multimode OM4	7.0 mm	140 mm	black	1750 N	-20..60 °C	Dca
54512.2L-CPR	12G (1 x 12) Multimode OM4	7.0 mm	140 mm	black	1750 N	-20..60 °C	Dca
54524.2L-CPR	24G (1 x 24) Multimode OM4	7.5 mm	150 mm	black	1750 N	-20..60 °C	Dca
54548.2L-CPR	48G (4 x 12) Multimode OM4	11.2 mm	170 mm	black	4000 N	-40..80 °C	Eca

U-DQ(ZN)BH 50/125µ OM3

Art.-No.	Construct	Cable Ø	Bending radius	Colour outer sheath	Tensile Force	Temperature Range (Operation)	Euro Class
54504.1L-CPR	4G (1 x 4) Multimode OM3	7.0 mm	140 mm	black	1750 N	-20..60 °C	Dca
54508.1L-CPR	8G (1 x 8) Multimode OM3	7.0 mm	140 mm	black	1750 N	-20..60 °C	Dca
54512.1L-CPR	12G (1 x 12) Multimode OM3	7.0 mm	140 mm	black	1750 N	-20..60 °C	Dca
54524.1L-CPR	24G (1 x 24) Multimode OM3	7.5 mm	150 mm	black	1750 N	-20..60 °C	Dca
54548.1L-CPR	48G (4 x 12) Multimode OM3	11.2 mm	170 mm	black	4000 N	-40..80 °C	Eca

INFRALAN® Fiber pigtail LC



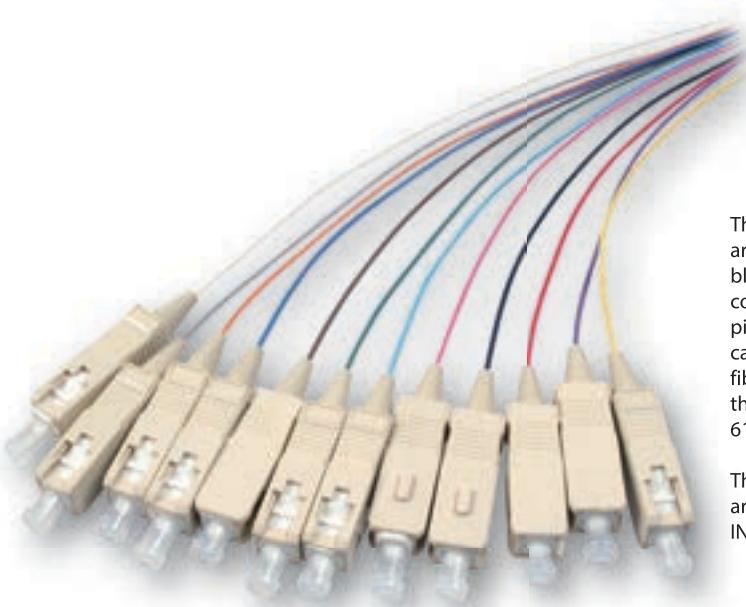
The INFRALAN® LC fiber pigtail set consists of 12 fiber pigtails whose colours are coloured according to color code DIN VDE 0888 in the colors red, green, blue, yellow, white, grey, brown, violet, aqua, black, orange and pink. The colour of the 900 μ coating is dyed through on the 250 μ coating. The single pigtail has a semi tight buffer, which allows the splicing process in a splice cassette to be carried out in a user-friendly way. The INFRALAN® singlemode fiber pigtails correspond to quality class B/2 according to IEC 61753-1 SM, the multimode fiber pigtails correspond to quality class A/1 according to IEC 61753-122-2 MM.

The INFRALAN® fiber pigtails are packed in a poly bag, in which the plugs are enclosed separately with a poly bag. The fiber and the connector of the INFRALAN® fiber pigtail are marked with the INFRALAN® logo.

Standard length: 2,0 m

Art.-No.	Category	Type of connector	Colour
IFP-LCA-2-12	OS2	LC/APC	12-coloured
IFP-LCU-2-12	OS2	LC	12-coloured
IFP-LCU-5-12	OM5	LC	12-coloured
IFP-LCU-4-12	OM4	LC	12-coloured
IFP-LCU-3-12	OM3	LC	12-coloured

INFRALAN® Fiber pigtail SC

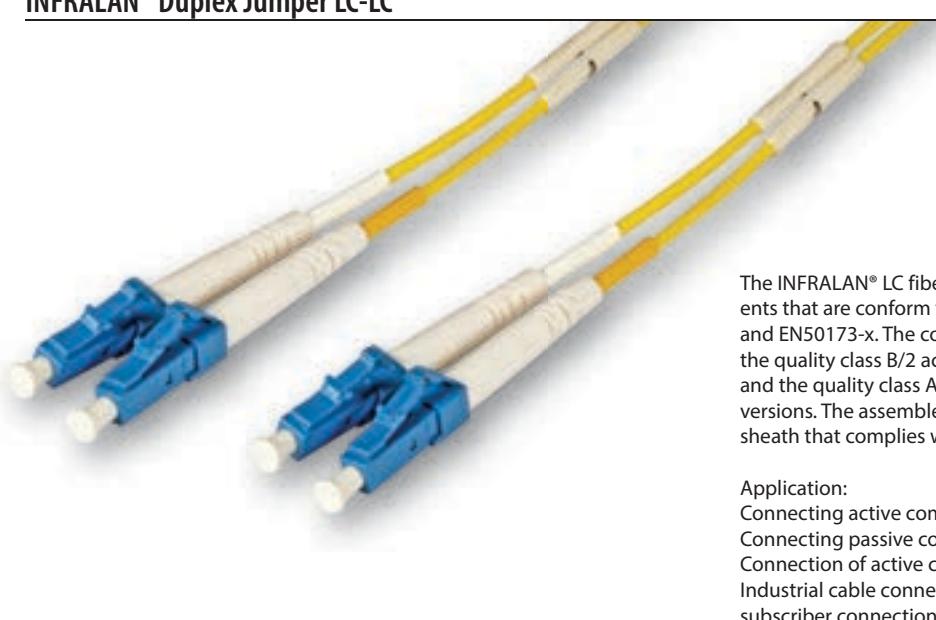


The INFRALAN® SC fiber pigtail set consists of 12 fiber pigtails whose colours are coloured according to color code DIN VDE 0888 in the colors red, green, blue, yellow, white, grey, brown, violet, aqua, black, orange and pink. The colour of the 900 μ coating is dyed through on the 250 μ coating. The single pigtail has a semi tight buffer, which allows the splicing process in a splice cassette to be carried out in a user-friendly way. The INFRALAN® singlemode fiber pigtails correspond to quality class B/2 according to IEC 61753-1 SM, the multimode fiber pigtails correspond to quality class A/1 according to IEC 61753-122-2 MM.

The INFRALAN® fiber pigtails are packed in a poly bag, in which the plugs are enclosed separately with a poly bag. The fiber and the connector of the INFRALAN® fiber pigtail are marked with the INFRALAN® logo.

Standard length: 2,0 m

Art.-No.	Category	Type of connector	Colour
IFP-SCA-2-12	OS2	SC/APC	12-coloured
IFP-SCU-2-12	OS2	SC	12-coloured
IFP-SCU-5-12	OM5	SC	12-coloured
IFP-SCU-4-12	OM4	SC	12-coloured
IFP-SCU-3-12	OM3	SC	12-coloured

INFRALAN® Duplex Jumper LC-LC

Stock length: 0,50 - 1,0 - 1,50 - 2,0 - 3,0 - 5,0 - 7,5 - 10 m

Art.-No.	Category	Colour outer sheath	Connector
IPL-DR-LCULCU-2-0100	OS2	yellow	LC-Duplex, blue, LC-Duplex, blue
IPL-DR-LCULCU-5-0100	OM5	lime green	LC-Duplex, beige, LC-Duplex, beige
IPL-DR-LCULCU-4-0100	OM4	erika-violett	LC-Duplex, beige, LC-Duplex, beige
IPL-DR-LCULCU-3-0100	OM3	aqua	LC-Duplex, beige, LC-Duplex, beige

The INFRALAN® LC fiber optic patch cables consist of defined components that are conform to structured cabling according to ISO/IEC 11801 and EN50173-x. The connectors used comply with IEC 61754-20 and meet the quality class B/2 according to IEC 61753-1 for the singlemode version and the quality class A/1 according to IEC 61753-222-2 for the multimode versions. The assembled patch cable has a halogen-free and flame-retardant sheath that complies with IEC 60754-2, IEC 60332-1 and IEC 61034 standards.

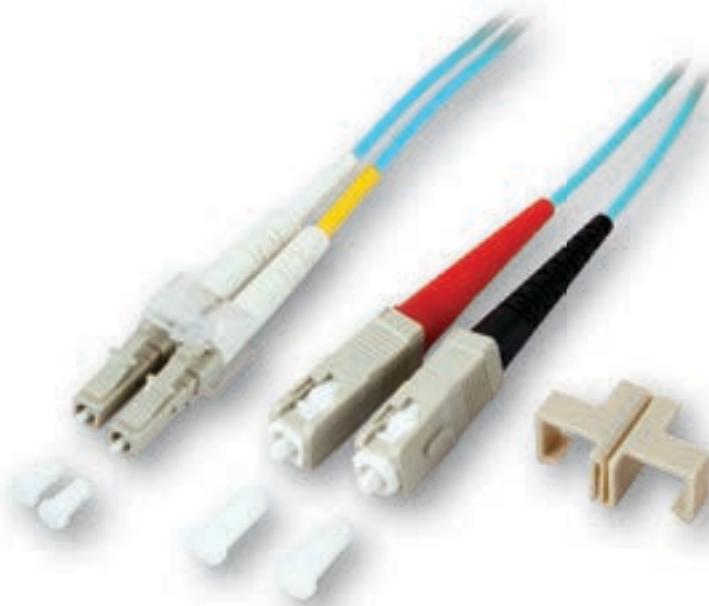
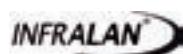
Application:

- Connecting active components
- Connecting passive components
- Connection of active connection elements
- Industrial cable connections
- subscriber connections

Delivery:

The INFRALAN® LC fiber optic patch cable is packed in a polybag containing a measurement report and clips for coding. Furthermore, the fiber is marked on the outer sheath with the INFRALAN® logo.

Cable type:	Duplex
Cable Construction:	Duplex
Jacket Material:	LSZH
Cable Ø:	2.0 mm
Operating Temperature:	-20 – 75 °C
Storage Temperatur:	-20 – 85 °C

INFRALAN® Duplex Jumper LC-SC

Stock length: 0,50 - 1,0 - 1,50 - 2,0 - 3,0 - 5,0 - 7,5 - 10 m

Art.-No.	Category	Colour outer sheath	Connector
IPL-DR-LCUSCU-2-0100	OS2	yellow	LC-Duplex, blue, SC-Duplex, blue
IPL-DR-LCUSCU-5-0100	OM5	lime green	LC-Duplex, beige, SC-Duplex, beige
IPL-DR-LCUSCU-4-0100	OM4	erika-violett	LC-Duplex, beige, SC-Duplex, beige
IPL-DR-LCUSCU-3-0100	OM3	aqua	LC-Duplex, beige, SC-Duplex, beige

The INFRALAN® LC-SC fiber optic patch cables consist of defined components that are conform to structured cabling according to ISO/IEC 11801 and EN50173-x. The connectors used comply with IEC 61754-20 and IEC 61754-4 and meet the quality class B/2 according to IEC 61753-1 for the singlemode version and the quality class A/1 according to IEC 61753-222-2 for the multimode versions. The assembled patch cable has a halogen-free and flame-retardant sheath that complies with IEC 60754-2, IEC 60332-1 and IEC 61034 standards.

Application:

- Connecting active components
- Connecting passive components
- Connection of active connection elements
- Industrial cable connections
- subscriber connections

Delivery:

The INFRALAN® LC-SC fiber optic patch cable is packed in a polybag containing a measurement report and clips for coding. Furthermore, the fiber is marked on the outer sheath with the INFRALAN® logo.

Cable type:	Duplex
Cable Construction:	Duplex
Jacket Material:	LSZH
Cable Ø:	2.0 mm
Operating Temperature:	-20 – 75 °C
Storage Temperatur:	-20 – 85 °C

INFRALAN® Flat Twin Jumper LC-LC**Application:**

- Connecting active components
- Connecting passive components
- Connection of active connection elements
- Industrial cable connections
- subscriber connections

Delivery:

The INFRALAN® LC Flat Twin Twin fiber optic patch cable is packed in a polybag containing a measurement report and clips for coding. Furthermore, the fiber is marked on the outer sheath with the INFRALAN® logo.

The INFRALAN® LC fiber optic Flat Twin Patch Cables consist of defined components that conform to structured cabling according to ISO/IEC 11801 and EN50173-x. The connectors used comply with IEC 61754-20 and meet the quality class B/2 according to IEC 61753-1 for the singlemode version and the quality class A/1 according to IEC 61753-222-2 for the multimode versions. The assembled patch cable has a halogen-free and flame-retardant sheath that complies with IEC 60754-2, IEC 60332-1 and IEC 61034 standards. In addition, the INFRALAN® Flat Twin patch cables have an additional outer sheath, which gives these special cables greater stability and can therefore also be used for cabinet-to-cabinet cabling. The whip length is 150mm including the plugs, the material of the cable whips is in the same colour as the sheath material.

INFRALAN® Flat Twin Jumper LC-SC**Application:**

- Connecting active components
- Connecting passive components
- Connection of active connection elements
- Industrial cable connections
- subscriber connections

Delivery:

The INFRALAN® LC-SC Flat Twin Twin fiber optic patch cable is packed in a polybag containing a measurement report and clips for coding. Furthermore, the fiber is marked on the outer sheath with the INFRALAN® logo.

The INFRALAN® LC-SC fiber optic Flat Twin Patch Cables consist of defined components that conform to structured cabling according to ISO/IEC 11801 and EN50173-x. The connectors used comply with IEC 61754-20 and meet the quality class B/2 according to IEC 61753-1 for the singlemode version and the quality class A/1 according to IEC 61753-222-2 for the multimode versions. The assembled patch cable has a halogen-free and flame-retardant sheath that complies with IEC 60754-2, IEC 60332-1 and IEC 61034 standards. In addition, the INFRALAN® Flat Twin patch cables have an additional outer sheath, which gives these special cables greater stability and can therefore also be used for cabinet-to-cabinet cabling. The whip length is 150mm including the plugs, the material of the cable whips is in the same colour as the sheath material.

Cable type: Duplex Flat Twin
Cable Construction: Duplex
Jacket Material: LSZH
Cable Ø: 3x5 mm
Operating Temperature: -40 – 70 °C
Storage Temperatur: -40 – 85 °C

Stock length: 0,50 - 1,0 - 2,0 - 3,0 - 5,0 - 10 m

Art.-No.	Category	Colour outer sheath	Connector
IPL-DF-LCULCU-2-0100	OS2	yellow	LC-Duplex, blue, LC-Duplex, blue
IPL-DF-LCULCU-4-0100	OM4	erika-violett	LC-Duplex, beige, LC-Duplex, beige
IPL-DF-LCULCU-3-0100	OM3	aqua	LC-Duplex, beige, LC-Duplex, beige

INFRALAN® 2-Port Frame Set F0



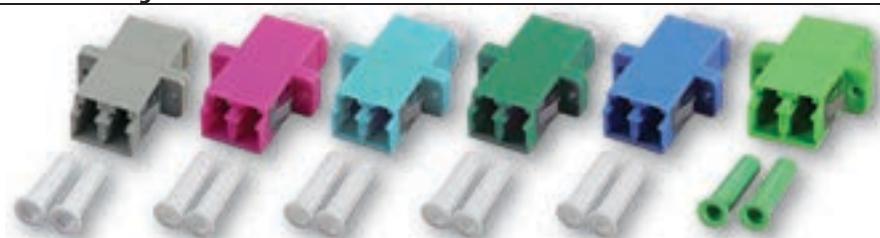
INFRALAN® frame set for 2 adapter
2 ports for SC Simplex, LC Duplex or E2000® Simplex
outlet: 40°
Colour: RAL9010, pure white
Outer ring 80x80mm and central plate 50x50mm according to DIN49075
Compatible with any switch range with the adapter plate of the switch range manufacturer
Integrated labelling field
Delivery unassembled

Scope of delivery:

- 1 x metal frame
- 1 x outer ring
- 1 x central plate
- 4 x M2 screws



Art.-No.	Description	Colour
IMT-02-RL-WS-KP	INFRALAN® 2-Port Frame Set F0, RAL9010 for 2xSC-Simplex / 2xLC-Duplex	white

INFRALAN® LC Adapter with Plastic housing

The INFRALAN® LC Duplex adapter in coloured plastic housing according to fiber class

For SC-Simplex breakouts

Conform to DIN EN 61754-20

Higher stability due to one-piece design and low sensitivity to temperature fluctuations

Mounting options via clips or sheet metal screws ST2.5

Type of connector connection 1:LC-Duplex

Type of connector connection 2:.....LC-Duplex

Type of fastening:.....screw/lock

Design:.....SC-Simplex

Accessories:.....Self-Tapping Screw

PU:.....12, Price/Piece

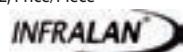
Art.-No.	Suitable for type of fiber	Type	Colour	Material sleeve
IKL-LCDA-SM-K-GN	Singlemode	LC/APC	green	ceramic
IKL-LCDU-SM-K-BL	Singlemode	LC / PC	blue	ceramic
IKL-LCDU-MM-K-LG	Multimode	LC / PC	lime green	ceramic
IKL-LCDU-MM-K-EV	Multimode	LC / PC	erica-violet	ceramic
IKL-LCDU-MM-K-AQ	Multimode	LC / PC	aqua	ceramic

INFRALAN® LC Adapter with Metal housing

The INFRALAN® LC Duplex adapter in metal housing
 For SC-Simplex breakouts
 Conform to DIN EN 61754-20
 High stability due to metal housing and lower sensitivity to temperature fluctuations
 Mounting options via clips or M2 threaded screws

Art.-No.	Type	Colour	Material sleeve
IKL-LCDU-SM-M-SI	LC / PC	Aluminium	ceramic

Type of connector connection 1:.....LC-Duplex
 Type of connector connection 2:.....LC-Duplex
 Type of fastening:.....screw/lock
 Design:.....SC-Simplex
 Accessories:.....Metric Screw
 PU:.....12, Price/Piece

INFRALAN® SC Adapter with Plastic housing

The INFRALAN® SC Duplex adapter in a coloured plastic housing according to the fiber class
 Conform to DIN EN 61754-4
 Mounting options via clips or sheet metal screws ST2.5

Art.-No.	Suitable for type of fiber	Type	Colour	Material sleeve
IKL-SCDA-SM-K-GN	Singlemode	SC / APC	green	ceramic
IKL-SCDU-SM-K-BL	Singlemode	SC / PC	blue	ceramic
IKL-SCDU-MM-K-LG	Multimode	SC / PC	lime green	ceramic
IKL-SCDU-MM-K-EV	Multimode	SC / PC	erica-violet	ceramic
IKL-SCDU-MM-K-AQ	Multimode	SC / PC	aqua	ceramic

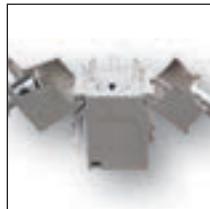
Type of connector connection 1:.....SC-duplex
 Type of connector connection 2:.....SC-duplex
 Type of fastening:.....screw/lock
 Design:.....SC-duplex
 Accessories:.....Self-Tapping Screw
 PU:.....12, Price/Piece

INFRALAN® SC Adapter with Metal housing

The INFRALAN® SC Duplex adapter in metal housing
 Conform to DIN EN 61754-4
 High stability due to metal housing and lower sensitivity to temperature fluctuations
 Mounting options via clips or M2 threaded screws

Art.-No.	Type	Colour	Material sleeve
IKL-SCDU-SM-K-SI	SC / PC	Aluminium	ceramic

Type of connector connection 1:.....SC-duplex
 Type of connector connection 2:.....SC-duplex
 Type of fastening:.....screw
 Design:.....SC-duplex
 Accessories:.....Metric Screw
 PU:.....12, Price/Piece

INFRALAN® Keystone Slimline, Cat.6A, silver

Cat.6 **10 Gbit** **GHMT** **500 MHz**

PVP certified

Extremely slim design „Slimline“ allows installation in UAE support rings, design-enabled

Fully shielded zinc die-cast housing

Cat. 6A component certification according to ISO/IEC 11801 Ed. 2.2 (2011-06) and IEC 60603-7-51 Ed. 1.1 (2010-03)

Compact wire pre-sorting machine for contacting the IDC strips of AWG26/1... AWG22/1 and AWG26/7... AWG24/7

Assembling can be repeated up to 5 times with the same cross-section
Cable diameter max.: 8,5mm

Pair management according to TIA/EIA 568 A/B colour codes (colour code printed on cable pre-sorting unit)

PoE and PoE Plus according to IEEE802.3af/at

Suitable for all distribution panels and support rings with keystone cut-out
360° shield contact and strain relief of the cable independently of each other (using 2-piece cable ties) sliding shielding contact adapts to a wide variety of cable diameters

Dust protection cap undetachable

Separate earthing lug on rear of housing

The Cat. 6A INFRALAN® RJ45 Slimline Keystone IKS-6A-PVP-12 is component certified by the Premium Verification Program (PVP) of GHMT. This module has outstanding electrical properties, but also impresses with its slim design and very robust zinc die-cast housing. The slimline shape allows it to be used in almost any distribution frame or support ring with keystone cut-out, UAE or TAE. The positive image is rounded off by the spring-loaded shield clamp, which guarantees a sliding 360 degree shield contact for different cable diameters. Excellent transmission quality, high system reserves, robust housing, slimline design and an uncomplicated fast field assembly are the convincing features for this keystone.

Art.-No.	Description	Colour
IKS-6A-PVP-12	INFRALAN® RJ45 Keystone Slimline, Cat.6A, silver, STP, PVP Component	Silver

Scope of delivery:

12 x RJ45 module, 12 x copper foil, 24 x cable ties, dust protection cap, assembly instructions (English)

INFRALAN® Cat.6A/Class EA, angled RJ45 Connector

Cat.6 **5 Gbit**

USPs

Field assembly: wire or strand

Cable diameter: AWG 22/1... 26/1, 22/7... 27/7

Cable entry: straight, angled

Variable 9 possible positions

Material: Zinc die-casting

Strain relief: metal gland

Standards: ISO11801, IEC60603-7-51

Transmission: 10 Gigabit Ethernet

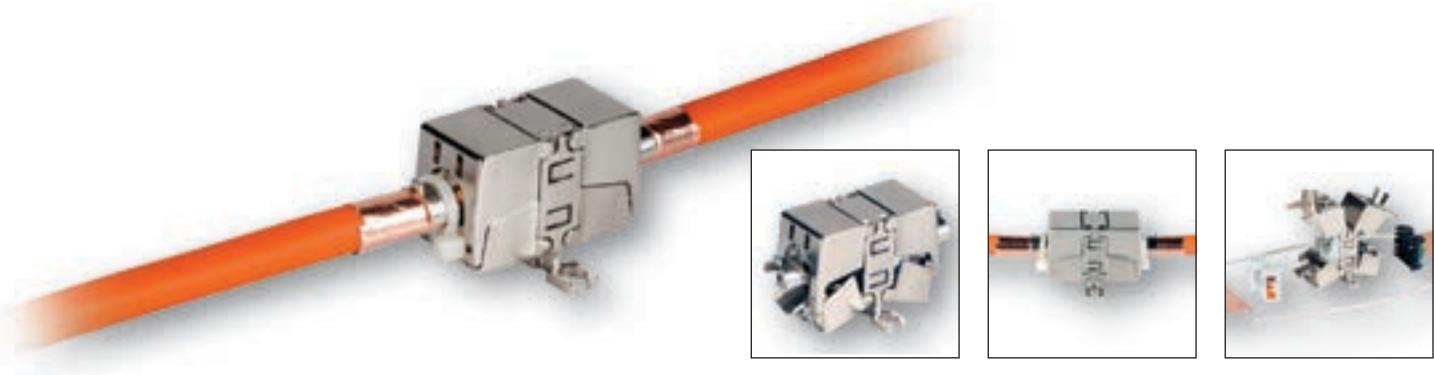
Contacts: 50μ" gold plated

Lifetime: > 750 mating cycles

Cable thickness: 6,0m to 9,0mm

The INFRALAN® Cat. 6A Premium RJ45 is a highlight in the chain of further development of RJ45 connectors for field assembly. An extraordinarily robust full metal housing made of zinc die-casting paired with the unique variable cable feed opens up a wide range of application possibilities. Installation can be done in 9 different positions: 8 different angled positions and a 180° straight cable entry. The conical metal cable gland allows cable diameters from 6.0mm to 9.0mm. The connector meets the requirements of transmission class Cat. 6A/Class EA and supports the Ethernet protocol up to 10 Gigabit per second. The premium connector IVB-6A-S is the RJ45 for all cases.

Art.-No.	Description	Colour
IVB-6A-S	INFRALAN® RJ45 Premium Connector Cat.6A/ClassEA, field assembly, full metal	Silver

INFRALAN® Cable Coupler

Cat.6A **Class EA**

Features:

Fully shielded zinc diecast bodyhousing
Dimension (W x H x L) 18 x 26 x 39 mm
Link performance 10 Gbit/s Class EA acc. to ISO 11801
2 x compact cable manager for AWG26/1..AWG22/1 and AWG26/7..AWG24/7
Pair management with colour code, printed on cable manager
Reliable differentiation of cable managers by mechanical and colour assignment (plastic black/ white) on the cable coupler and on cable managers
PoE and PoE Plus according to IEEE802.3af/at
360° shield contact and strain relief independent from each other
Gliding stored shield contact
Screw- and line-up through loops at the side of the module
19" panel for holding of 24 x modules available as accessory

The INFRALAN® Class EA connection module IVB-6A-V offers 10 Gbit/s performance with minimum space requirements and simple assembly without special tools.

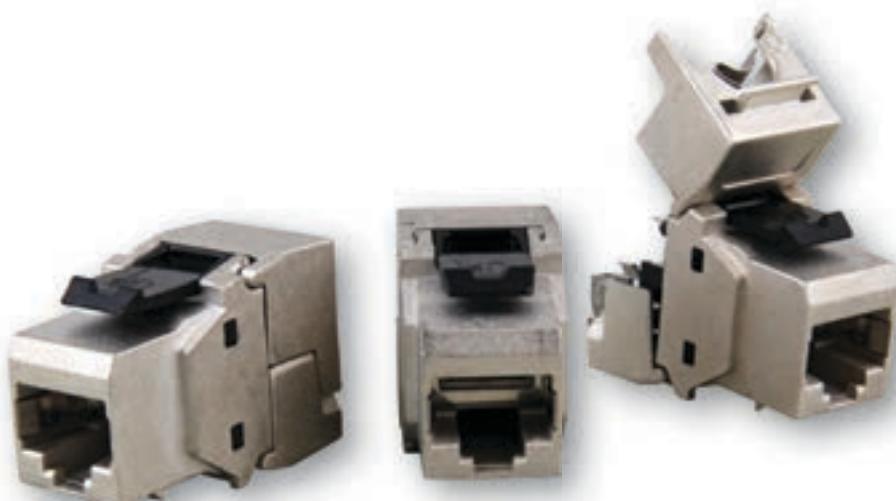
Universal mounting options through baying, screwing and an optional 19" wall mounting panel for up to 24 connectors allow a wide range of applications:

1. connection of installation cables to each other, e. g. in parapet ducts or cable ducts
2. connecting installation cable and patch cable for end-to-end links or consolidation point applications

A fully shielded zinc die-cast housing, proven insulation displacement termination technology from the Keystone module series and spring-loaded 360 degree shielded contacts ensure stable EMC safety.

Included in delivery:

1 x connection module, 2 x cable pre-sorter (black + white), 2 x copper foil, 2 x cable ties

INFRALAN® Keystone, Cat.6A / ClassEA

Fully shielded zinc die-cast Keystone housing with separate dust protection cap
Cat. 6A component certification according to ANSI/TIA-568-C. 2 and ISO/IEC 11801 and IEC 60607-7-51
Compact wire pre-sorting unit for AWG24/1... AWG22/1 and AWG 26/7... 24/7
Pair management according to TIA/EIA 568 A/B color codes
PoE and PoE Plus according to IEEE802.3af/at
Suitable for distribution panel and support rings with keystone cut-out, exclusive UAE
Strain relief by cable ties

Scope of delivery:
12 x RJ45 module, 12 x copper foil, 12 x cable tie, dust cap, assembly instructions (English)

Cat.6A **Class EA** **10GbE** **DHMT** **ETL**

The INFRALAN® IKS-6A-KOP-12 Keystone Module offers the combination of very good transmission characteristics and simple tool-free assembly. The module's high processing quality has been proven millions of times over, a secure Cat. 6A component of the cabling system for applications up to 10 Gigabit Ethernet.

Special tools are not required, the installation is easy and handy.

Art.-No.	Description	Colour
IKS-6A-KOP-12	INFRALAN® RJ45 Keystone, Cat.6A / ClassEA, Component	Silver

INFRALAN® Wall Frame for Keystone

To accommodate all INFRALAN® RJ45 Keystone modules

Frame set in 1-port, 2-port or 3-port

40° outlet

Outer ring 80x80mm and central plate 50x50mm according to DIN49075

Compatible with any switch range with the adapter plate of the switch range manufacturer

Separate earthing latch for Faston 6.3mm blade receptacle

With dust protection flaps and integrated labelling field



Art.-No.	Description	Colour
IMT-01-RK-WS-KP	INFRALAN® 1-Port Frame Set, RAL9010, for all INFRALAN® Keystone Moduls	white
IMT-02-RK-WS-KP	INFRALAN® 2-Port Frame Set, RAL9010, for all INFRALAN® Keystone Moduls	white
IMT-03-RK-WS-KP	INFRALAN® 3-Port Frame Set, RAL9010, for all INFRALAN® Keystone Moduls	white
IMT-02-RK-WS-DF	INFRALAN® 2-Port UAE Frame Set for Keystone, Slimline IKS-6A-PVP, design capable	white

INFRALAN® Distribution Panel 19", 1U

Art.-No.	Description
IVF-24-GR	INFRALAN® Distribution Panel 19" 24-Port, 1U, for Keystone Modul, RAL7035
IVF-24-SW	INFRALAN® Distribution Panel 19" 24-Port, 1U, for Keystone Modul, RAL9005
IVF-48-SI	INFRALAN® Distribution Panel 19" 48-Port, 1U, for Slimline Module, Metal Colour

For holding of modules in keystone format
Inclusive cable management
Labeling fields with transparent cover
Strain relief via cable tie
Delivery without modules

INFRALAN® Patchbox for Keystones

Height: 44,5 mm
Width: 483,0 mm
Depth: 244,0 mm

Art.-No.	Description	Colour
ISB-KS-24-GR	INFRALAN® Patchbox slidable for 24 Keystones IKS-6A-PVP-12	grey

INFRALAN® 1-Port RJ45 Keystone frame for DIN RAIL mounting

The INFRALAN® module support made of plastic in RAL7035 is suitable for mounting on DIN RAIL TH35 according to DIN EN 60715 and has a width of 1 TE. The end plate included in the scope of delivery serves to protect against contact and to terminate the stacking. The module holder allows the mounting of 1 Keystone module and can be mounted in rows without limitation.

Art.-No.	Description
IMT-01-HS-GR	INFRALAN® 1-Port RJ45 Keystone adapter for DIN RAIL mounting

The INFRALAN® Patchbox 19''/1U with its closed metal housing and extendable front, offers the possibility of accommodating up to 24 modules in keystone format due to its modular design. Fully equipped with IKS-6A-PVP is possible. The connection options for grounding cables, strain relief via cable ties and the sequential port numbering 1 - 24 round off the versatile application possibilities of this Patchbox.

deliver unequipped

INFRALAN® Cat.7 Installation Cable S/FTP 1000 MHz, CPR Cca

Stock Lengths Simplex: 100 - 500 - 1000 m

Stock Lengths Duplex: 100 - 500 m

Cat.7 **FRNC-C** **BHMT**

The INFRALAN® installation cable 99981.x-CPR is constructed for transmissions up to **1000 MHz** and exceeds with the electrical transmission properties the requirements of the category 7 and lower. With this cable transmission rates up to 10 GBit according to IEEE 802.3 are possible.

Conductor category: Kl.1 = single wire
Diameter conductor: 0.56

Art.-No.	Category	Type	sheath/Colour	AWG/Conductor	Ø in mm	Euro class
99981.x-CPR	7	simplex	FRNC/ orange	23 / CU, tinned	7,5	Cca
99981DX.x-CPR	7	duplex	FRNC/ orange	23 / CU, tinned	7,5 x 15,8	Cca

INFRALAN® Cat.7 Installation Cable S/FTP 1000 MHz, CPR**Eca**
CiLT **FRNC-BI** **GHMT** **ETL**

Stock Lengths Simplex: 100 - 500 - 1000 m
Stock Lengths Duplex: 100 - 500 m

The INFRALAN® installation cable 99980.x-CPR is constructed for transmissions up to **1000 MHz** and exceeds with the electrical transmission properties the requirements of the category 7 and lower. With this cable transmission rates up to 10 GBit according to IEEE 802.3 are possible.

Conductor category: KI.1 = single wire
Diameter conductor: 0.56

Art.-No.	Category	Type	Sheath/Colour	AWG/Conductor	Ø in mm	Euro class
99980.x-CPR	7	simplex	FRNC/ orange	23/ CU, tinned	7.3	Eca
99980DX.x-CPR	7	duplex	FRNC/ orange	23/ CU, tinned	7.3 x 14.6	Eca

INFRALAN® Cat.7A Installation cable S/FTP 1200 MHz, CPR**B2ca**
CiLT **FRNC-C** **DETA**

Stock Lengths Simplex: 1000 m

The Delta certified INFRALAN® installation cable MK7100.x-CPR is constructed for transmissions up to **1200 MHz** and exceeds with the electrical transmission properties the requirements of the category 7A. Suitable for structured cabling of Class E, EA, F and FA according to ISO/IEC 11801 (AMD 2:2009) resp. EN 50173-1 (2009). The twisted pairs are protected against interferences with a shielding foil (PiMF) and a total shielding. This excellent protection also prevents the radiation of signals out of the cables. The shielding ensures the compliance of emitted interferences according to class B EN 55022 and the interference resistance according to EN 55024. The stranding of the twisted pairs is optimized so that the delay skew between the pairs at the greatest possible uncoupling (crosstalk) is minimum. With this cable transmission rates up to 10 GBit according to IEEE 802.3 are possible.

Conductor category: KI.1 = single wire
Diameter conductor: 0.64

Art.-No.	Category	Type	Sheath/Colour	AWG/Conductor	Ø in mm	Euro class
MK7100.x-CPR	7A	simplex	FRNC/ orange	22/ CU, tinned	8.2	B2ca

INFRALAN® Cat.7A Installation Cable S/FTP 1200 MHz, CPR**Cca**
CiLT **FRNC-C** **GHMT**

Stock Lengths Simplex: 100 - 500 - 1000 m
Stock Lengths Duplex: 500 m

The INFRALAN® installation cable 99985.x-CPR is constructed for transmissions up to **1200 MHz** and exceeds with the electrical transmission properties and requirements of the category 7A. Suitable for structured cabling of Class E, EA, F and FA according to ISO/IEC 11801 (AMD 2:2009) resp. EN 50173-1 (2009). With this cable transmission rates up to 10 GBit according to IEEE 802.3 are possible.

Conductor category: KI.1 = single wire
Diameter conductor: 0.56

Art.-No.	Category	Type	Sheath/Colour	AWG/Conductor	Ø in mm	Euro class
99985.x-CPR	7A	simplex	FRNC/ rape yellow	23/ CU, tinned	7.7	Cca
99985DX.x-CPR	7A	duplex	FRNC/ rape yellow	23/ CU, tinned	7.7 x 16,1	Cca

INFRALAN® Cat.7A Installation Cable S/FTP 1500 MHz, CPR**Cca**
CiLT **FRNC-C** **GHMT**

Stock Lengths Simplex: 100 - 500 - 1000 m
Stock Lengths Duplex: 500 m

The INFRALAN® installation cable 99983.x-CPR is constructed for transmissions up to **1500 MHz** and exceeds with the electrical transmission properties and requirements of the category 7A. Suitable for structured cabling of Class E, EA, F and FA according to ISO/IEC 11801 (AMD 2:2009) resp. EN 50173-1 (2009). The individual stranded pairs are protected with a screen foil (PiMF) and a total braided shield against radiation into the cable, as well as this excellent protection prevents the radiation of signals from the cable out. This shielding guarantees compliance with the interference emission according to Class B EN 55022, as well as immunity to interference according to EN 55024. The stranding of the individual pairs is optimized in such a way that the delay skew between the pairs (skew) with the greatest possible decoupling (crosstalk) is minimal. With this cable transmission rates up to 10 GBit according to IEEE 802.3 are possible.

Conductor category: KI.1 = single wire
Diameter conductor: 0.64

Art.-No.	Category	Type	Sheath/Colour	AWG/Conductor	Ø in mm	Euro class
99983.x-CPR	7A	simplex	FRNC/ rape yellow	22/ CU, tinned	8.6	Cca
99983DX.x-CPR	7A	duplex	FRNC/ rape yellow	22/ CU, tinned	8.6 x 17,5	Cca

INFRALAN® Patch cord S/FTP Cat.6A TPE moulded



Cat.6A | 10 Gbit | 500 MHz | 100% CU | OHMT

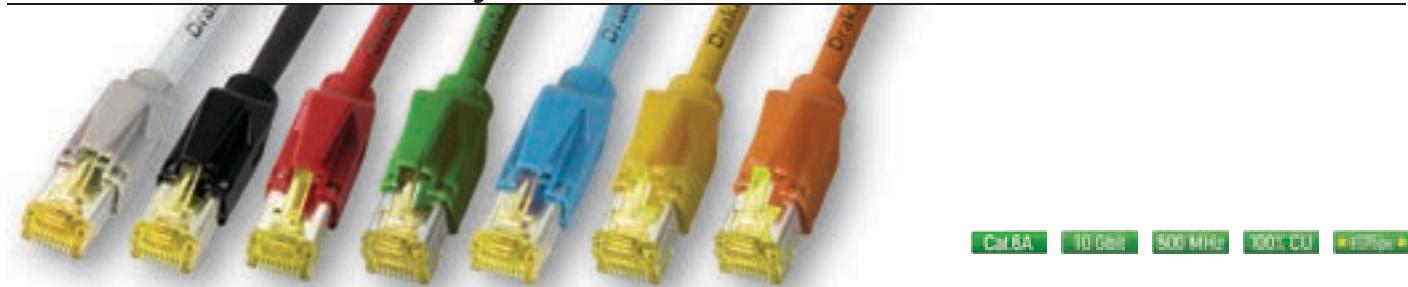
The INFRALAN® Premium patch cable contains several unique features:

Transmission quality: the Premium patch cable is component certified and is used in the following applications measured after assembly in a 4 Connector Channel Link Class EA.
100% testing: every single patch cord is measured and marked with a serial number for unique coding and traceability.
Measurement protocol: an extract of the Class EA measurement is contained in the package, the complete archived measurement can be viewed at any time.
Superflex: the LSZH outer jacket consists of a special plastic compound and ensures extreme flexibility.

Stock lengths: 0,25 - 0,50 - 1,0 - 2,0 - 3,0 - 5,0 - 7,5 - 10 - 15 - 20 m

Art.-No.	Description	Colour outer sheath
IPK-6A-U-TPE-GR-xxxx	INFRALAN® RJ45 Patch cable S/FTP, Cat.6A, TPE superflex	grey
IPK-6A-U-TPE-BL-xxxx	INFRALAN® RJ45 Patch cable S/FTP, Cat.6A, TPE superflex	blue
IPK-6A-U-TPE-GE-xxxx	INFRALAN® RJ45 Patch cable S/FTP, Cat.6A, TPE superflex	yellow
IPK-6A-U-TPE-GN-xxxx	INFRALAN® RJ45 Patch cable S/FTP, Cat.6A, TPE superflex	green
IPK-6A-U-TPE-RT-xxxx	INFRALAN® RJ45 Patch cable S/FTP, Cat.6A, TPE superflex	red
IPK-6A-U-TPE-SW-xxxx	INFRALAN® RJ45 Patch cable S/FTP, Cat.6A, TPE superflex	black

INFRALAN® Patchkabel S/FTP Cat.6A Halogenfree assembled



Cat.6A | 10 Gbit | 500 MHz | 100% CU | OHMT

The combination of a raw cable Cat. 7 UC900 and a RJ45 connector TM31 from Hirose, one of the best RJ45 Cat. 6A connectors worldwide, meets the requirements of transmission quality and mechanical reliability in equal measure.

The 360 degree shield contact of the TM31 and the very good coupling attenuation of the S/FTP raw cable even meets requirements in harsh industrial environments with high EMC safety.

Stock Length: 1,0 - 1,5 - 2,0 - 3,0 - 5,0 - 7,5 - 10 - 15 - 20 - 25 - 30 m

Art.-No.	Description	Colour outer sheath
IPK-6A-M-HFR-GR-xxxx	INFRALAN® RJ45 Patch cable S/FTP, Cat.6A, TM31, UC900	grey
IPK-6A-M-HFR-BL-xxxx	INFRALAN® RJ45 Patch cable S/FTP, Cat.6A, TM31, UC900	blue
IPK-6A-M-HFR-GE-xxxx	INFRALAN® RJ45 Patch cable S/FTP, Cat.6A, TM31, UC900	yellow
IPK-6A-M-HFR-GN-xxxx	INFRALAN® RJ45 Patch cable S/FTP, Cat.6A, TM31, UC900	green
IPK-6A-M-HFR-RT-xxxx	INFRALAN® RJ45 Patch cable S/FTP, Cat.6A, TM31, UC900	red
IPK-6A-M-HFR-SW-xxxx	INFRALAN® RJ45 Patch cable S/FTP, Cat.6A, TM31, UC900	black

Special features

Jacket material: LSZH
Cross section: 4 x 2 x AWG27/7
Cable diameter: 5.9mm
Cable Type: Draka UC900
Connector type: HRS TM31
Type of grommet: Mounted bend relief

General specifications

Category: Cat.6A
Transmission: 10Gbit
Bandwidth: 500MHz
Assignment: According to TIA/EIA 568B
Conductor material: Copper
Connector: 2x Cat.6A RJ45 shielded, IEC-60603-7-51
Contacts: Gold plated
Latch protection: available
Cable structure: S/FTP
Raw cable: Cat.7
Flame retardance: IEC60332-1
Halogen free: IEC60754-2
Low smoke: IEC61034

INFRALAN® Solid - Sophisticated - Compatible

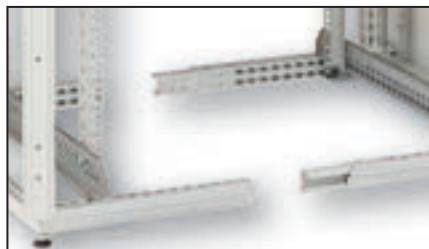
- Profile frame with load capacity of 1500 kg
- All-side surrounding raster holes in frame
- Lateral offset of 19" profiles possible
- Divisible frame available (option)

- Delivery with or without side walls
- Doors and walls all-side mountable
- All-side stackable
- Colours RAL7035 (light grey) or RAL9005 (jet black)



Professional features:

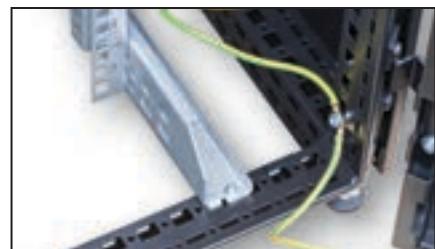
- Available widths 600 / 800 mm
- Available depths 600 / 800 / 1000 / 1200 mm
- Available heights 42 / 47 U



A divisible frame (option) enables easy transport without removing of the inner profiles



Reinforced 19" profiles increase stability and enable mounting of more than one lateral accessories (e.g. air routing & earthing at same profile)



The surrounding raster holes in the frame enable accessories mounting as well as lateral offset of the profile rails



Basic Configuration

19" Network/server cabinet according to DIN41494
 Welded profile frame, completely pre-assembled, self-ventilated
 Inside 4 x 19" profile rails (2 front, 2 rear), galvanised, depth-adjustable in 25 mm raster
 Continuous numbering of rack units at the profiles
 Numbering of depth steps at the profile carrying rails
 Profile carrying rails of the 19" profile lateral adjustable for mounting of other accessories like 21"/ETSI or for symmetrical side offset
 All common door variants available
 Doors with 3-point bar locking, turning handle lockable, with profile half-cylinder acc. to DIN 18252 / EN1303
 Profile half-cylinder exchangeable by customer (30/10 mm)
 Additional bar locking for second door wing for steel and perforated doors, only to open from inside for raised stability and security
 Door stop possible left and right sided
 Door opening angle 270° free-standing, stacked 180° due to outbound hinges
 Rear and side wall and detachable, with 4 x quick fastener, lock for access control available as accessory (Art.-No. ISR-SCH01)
 Rear and side walls are identic parts for equal cabinet depth and width

Side wall included in delivery
 Doors and walls all-sided mountable
 Cabinets all-side stackable with stacking set (Art.-No. ISR-ANR01)
 Roof with 4 pre-punched openings for cable entry (front/rear/left/right) and for accommodation of fan and filter units (for 600 mm cabinet width cable entry only front/rear)
 Roof raising about 40 mm possible with distance bolt set (Art.-No. ISR-DAH01)
 Transport eyes for roof mounting available (Art.-No. ISR-TRA01)
 Bottom set available as accessory (open cabinet bottom in delivery condition)
 All cabinet parts inside completely earthed
 Central earthing point rear-left in the cabinet
 Max. load 1500 kg
 Material steel profiles / steel sheet
 Paint finish RAL7035, light grey / RAL9005, jet black
 Protection degree IP20 (with bottom sheet)
 Included accessories: 1 x brush, 1 x set of captive nuts (PU 20 pieces), 4 x levelling feet M12, 2 x key
 Delivery in transport packaging on disposable pallet

Configuration Examples for INFRALAN® System Rack - Arbitrary Variants Possible

Art.-No.	U	Width in mm	Depth in mm	Height in mm	Front Door	Rear Door	Side Walls	Colour
ISR-4288GR.G1RW	42	800	800	1980	Glass door 1-part	Rear wall	left + right	RAL7035, light grey
ISR-4288SW.G1RW	42	800	800	1980	Glass door 1-part	Rear wall	left + right	RAL9005, jet black
ISR-4280GR.P1	42	800	1000	1980	Steel door perforated, 1-part	Steel door perforated, 1-part	left + right	RAL7035, light grey
ISR-4280SW.P2	42	800	1000	1980	Steel door perforated, 2-part	Steel door perforated, 2-part	left + right	RAL9005, jet black
ISR-4280GR.P10S	42	800	1000	1980	Steel door perforated, 1-part	Steel door perforated, 1-part	none	RAL7035, light grey
ISR-4782SW.P1P20S	47	800	1200	2200	Steel door perforated, 1-part	Steel door perforated, 2-part	none	RAL9005, jet black

Further Variants of INFRALAN® System Rack are easily to configure via Article Number:

Präfix	U	Cabinet Width	Cabinet Depth	Colour	Door Types	Side Walls	Option
ISR-	42	8	8	SW	.G1RW	OS	-T
	42	6 = 600 mm	8 = 800 mm	SW = RAL9005, jet black	G1 = Glass door, 1-part / G2 = Glass door, 2-part	OS = without side walls	-T = divisible frame
	47	8 = 800 mm	0 = 1000 mm	GR = RAL7035, light grey	S1 = Steel door, 1-part / S2 = Steel door, 2-part		
			2 = 1200 mm		P1 = Steel door perf., 1-part / P2 = Steel door perf., 2-part		
					RW = Rear wall		

The first + second digit after the point define the front door, third + fourth digit define the rear door (resp. wall).

For only one specification front + rear door are identically.

INFRALAN System Rack - Variant Overview (Examples)

19" Network/server cabinet according to DIN41494

Welded profile frame, max. load 1500 kg, completely pre-assembled, not divisible

Roof with pre-punched openings (450 x 90 mm) for cable entry (front/rear/left/right) and for accommodation of fan and filter units (for 600 mm cabinet width cable entry only front/rear)

Open cabinet bottom at delivery

Inside 4 x 19" profiles (2 front, 2 rear), galvanised, depth-adjustable in 25 mm raster

Contrari double-numbering of rack units at the profiles

Contrari double-numbering of depth steps at the profile carrying rails

Profile carrying rails of 19" profiles laterally adjustable in 25 mm raster for mounting of 21"/

ETSI accessories or for symmetrical side offset

Front door - see table

Rear door - see table

Front and rear door with 3-point bar locking, turning handle lockable with profile half-cylinder acc. to DIN 18252/EN1303, PHC exchangeable by customer (30/10 mm)

Door stop left and right-sided possible

Door opening angle 270° (free-standing)

Delivery with or without side walls

Side walls detachable with 4 x quick fastener

Lock for access control available as accessory (Art.-No. ISR-SCH01)

Rear and side walls identical for equal cabinet width and depth

Doors and walls all-sided mountable*

Cabinets all-side stackable with stacking set (Art.-No. ISR-ANR01)

Roof raising set 40 mm available as accessory (Art.-No. ISR-DAH01)

Transport lugs for roof mounting available as accessory (Art.-No. ISR-TRA01)

Bottom sets available as accessory (Art.-No. ISR-BODxx / ISR-BOMxx)

All cabinet parts completely earthed at the frame

Max. load 1500 kg

Material steel profiles / steel sheet

Paint finish RAL7035, light grey / RAL9005, jet black

Protection degree IP20 (with bottom sheet)

Included accessories: 1 x brush, 1 x set of captive nuts (PU 20 pcs.), 4 x leveling feet M12, 2 x

key

Delivery in transport packaging on disposable pallet

* not in any combination, see data sheet



Art.-No.	U	Width	Depth	Height	Front Door	Rear Door	With Side Walls	Paint Finish
ISR-4288GR.G1RW	42	800 mm	800 mm	1980 mm	Glass door 1-part	Rear wall	left + right	RAL7035, light grey
ISR-4288SW.G1RW	42	800 mm	800 mm	1980 mm	Glass door 1-part	Rear wall	left + right	RAL9005, jet black
ISR-4288GR.G1RW-T	42	800 mm	800 mm	1980 mm	Glass door 1-part	Rear wall	left + right	RAL7035, light grey
ISR-4288SW.G1RW-T	42	800 mm	800 mm	1980 mm	Glass door 1-part	Rear wall	left + right	RAL9005, jet black
ISR-4288GR.G1S1	42	800 mm	800 mm	1980 mm	Glass door 1-part	Steel door 1-part	left + right	RAL7035, light grey
ISR-4288SW.G1S1	42	800 mm	800 mm	1980 mm	Glass door 1-part	Steel door 1-part	left + right	RAL9005, jet black
ISR-4288GR.S1	42	800 mm	800 mm	1980 mm	Steel door 1-part	Steel door 1-part	left + right	RAL7035, light grey
ISR-4288SW.S1	42	800 mm	800 mm	1980 mm	Steel door 1-part	Steel door 1-part	left + right	RAL9005, jet black
ISR-4288GR.P1	42	800 mm	800 mm	1980 mm	Steel door perforated 1-part	Steel door perforated 1-part	left + right	RAL7035, light grey
ISR-4288SW.P1	42	800 mm	800 mm	1980 mm	Steel door perforated 1-part	Steel door perforated 1-part	left + right	RAL9005, jet black
ISR-4288GR.P2	42	800 mm	800 mm	1980 mm	Steel door perforated 2-part	Steel door perforated 2-part	left + right	RAL7035, light grey
ISR-4288SW.P2	42	800 mm	800 mm	1980 mm	Steel door perforated 2-part	Steel door perforated 2-part	left + right	RAL9005, jet black
ISR-4280GR.G1RW	42	800 mm	1000 mm	1980 mm	Glass door 1-part	Rear wall	left + right	RAL7035, light grey
ISR-4280SW.G1RW	42	800 mm	1000 mm	1980 mm	Glass door 1-part	Rear wall	left + right	RAL9005, jet black
ISR-4280GR.G1S1	42	800 mm	1000 mm	1980 mm	Glass door 1-part	Steel door 1-part	left + right	RAL7035, light grey
ISR-4280SW.P1	42	800 mm	1000 mm	1980 mm	Steel door perforated 1-part	Steel door perforated 1-part	left + right	RAL9005, jet black
ISR-4280GR.P1	42	800 mm	1000 mm	1980 mm	Steel door perforated 1-part	Steel door perforated 1-part	left + right	RAL7035, light grey
ISR-4280SW.P1P2	42	800 mm	1000 mm	1980 mm	Steel door perforated 1-part	Steel door perforated 2-part	left + right	RAL9005, jet black
ISR-4280GR.P1P2	42	800 mm	1000 mm	1980 mm	Steel door perforated 1-part	Steel door perforated 2-part	left + right	RAL7035, light grey
ISR-4280SW.P1OS	42	800 mm	1000 mm	1980 mm	Steel door perforated 1-part	Steel door perforated 1-part	none	RAL9005, jet black
ISR-4280GR.P1OS	42	800 mm	1000 mm	1980 mm	Steel door perforated 1-part	Steel door perforated 1-part	none	RAL7035, light grey
ISR-4280SW.P2	42	800 mm	1000 mm	1980 mm	Steel door perforated 2-part	Steel door perforated 2-part	left + right	RAL9005, jet black
ISR-4280GR.P2	42	800 mm	1000 mm	1980 mm	Steel door perforated 2-part	Steel door perforated 2-part	left + right	RAL7035, light grey
ISR-4280SW.P1P2OS	42	800 mm	1000 mm	1980 mm	Steel door perforated 1-part	Steel door perforated 2-part	none	RAL9005, jet black
ISR-4280GR.P1P2OS	42	800 mm	1000 mm	1980 mm	Steel door perforated 1-part	Steel door perforated 2-part	none	RAL7035, light grey
ISR-4282SW.P1	42	800 mm	1200 mm	1980 mm	Steel door perforated 1-part	Steel door perforated 1-part	left + right	RAL9005, jet black
ISR-4282GR.P1	42	800 mm	1200 mm	1980 mm	Steel door perforated 1-part	Steel door perforated 1-part	left + right	RAL7035, light grey



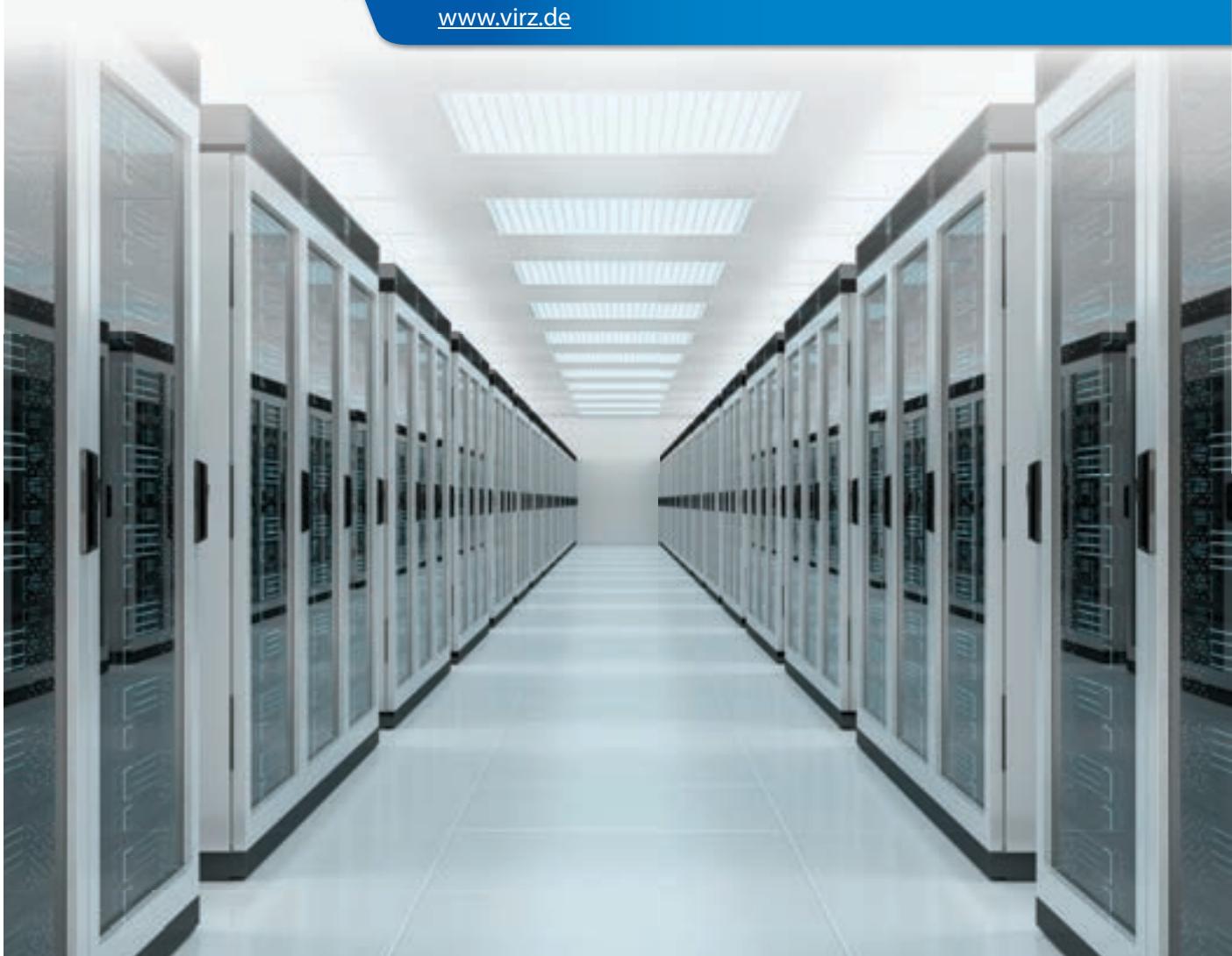
EFB-ELEKTRONIK IS A MEMBER IN THE VIRZ (ASSOCIATION OF INNOVATIVE DATA CENTRES) EXPERT NETWORK

As a member of the Verband Innovativer Rechenzentrum e.V. (Association of Innovative Data Centres), EFB-Elektronik advocates for innovative ideas and concepts that are being developed in cooperation with other members. This creates sustainable benefits within the collaboration.

Furthermore, the association promotes the exchange of experience between experts and those responsible for data centres to combine expertise and know-how, and thus ensure an ongoing qualification of experts, engineers and staff in charge of the computing centre.

The association also nurtures the constructive dialogue between operators of data centres and their planners, the industry as well as research and science. The association strives for a sustainable further development - demand and user ready - of planning, installation and operation of data centres and all associated products.

For further information regarding the association, please refer to:
www.virz.de





Profile rails depth-adjustable
and laterally adjustable



Reinforced 19" profiles for
double-row accessory mounting

19" rack frame according DIN 41494
Welded profile frame, completely pre-assembled, self-ventilated
Profile frame with completely surrounding raster holes, similar to INFRALAN® System Rack
Inside front and rear 4 x 19" rails (2 front, 2 rear), galvanised, depth-adjustable in 25 mm raster
Double contrariwise numbering of rack units at the profiles
Delivery without front / rear door and side walls for individual configuration or as open rack
For installed doors, door stop possible at right or left side
For installed door, door opening angle 270° (free standing)
Cabinets all-side stackable with stacking set ISR-ANR01.xx
Roof with pre-punched openings for cable entry and accommodation of fan units
All cabinets completely earthed
Earthing bolt at the frame rear-left
Max. load 1500 kg
Paint finish RAL7035 (light grey) / RAL9005 (jet black)
Protection degree IP20 possible via mounting of doors, side walls and roofs
Included accessories: 1 x brush, 1 x set of captive nuts (PU 20 pcs.), 4 x leveling feet M12
Delivery in transport packaging on disposable pallet

Also available in 47U

ISR Open Rack 42U, Width 600 mm, RAL7035/RAL9005

Art.-No.	U	Width	Depth	Height	Front Door	Rear Door	Colour
ISR-4268GR.0D	42	600 mm	800 mm	1980 mm	without	without	RAL7035, light grey
ISR-4260GR.0D	42	600 mm	1000 mm	1980 mm	without	without	RAL7035, light grey
ISR-4262GR.0D	42	600 mm	1200 mm	1980 mm	without	without	RAL7035, light grey
ISR-4268SW.0D	42	600 mm	800 mm	1980 mm	without	without	RAL9005, jet black
ISR-4260SW.0D	42	600 mm	1000 mm	1980 mm	without	without	RAL9005, jet black
ISR-4262SW.0D	42	600 mm	1200 mm	1980 mm	without	without	RAL9005, jet black

ISR Open Rack 42U, Width 800 mm, RAL7035/RAL9005

Art.-No.	U	Width	Depth	Height	Front Door	Rear Door	Colour
ISR-4288GR.0D	42	800 mm	800 mm	1980 mm	without	without	RAL7035, light grey
ISR-4280GR.0D	42	800 mm	1000 mm	1980 mm	without	without	RAL7035, light grey
ISR-4282GR.0D	42	800 mm	1200 mm	1980 mm	without	without	RAL7035, light grey
ISR-4288SW.0D	42	800 mm	800 mm	1980 mm	without	without	RAL9005, jet black
ISR-4280SW.0D	42	800 mm	1000 mm	1980 mm	without	without	RAL9005, jet black
ISR-4282SW.0D	42	800 mm	1200 mm	1980 mm	without	without	RAL9005, jet black

ISR Open Rack 42U, Width 800, Divisible Frame, RAL7035/RAL9005

Art.-No.	U	Width	Depth	Height	Front Door	Rear Door	Colour
ISR-4288GR.0D-T	42	800 mm	800 mm	1980 mm	without	without	RAL7035, light grey
ISR-4280GR.0D-T	42	800 mm	1000 mm	1980 mm	without	without	RAL7035, light grey
ISR-4282GR.0D-T	42	800 mm	1200 mm	1980 mm	without	without	RAL7035, light grey
ISR-4288SW.0D-T	42	800 mm	800 mm	1980 mm	without	without	RAL9005, jet black
ISR-4280SW.0D-T	42	800 mm	1000 mm	1980 mm	without	without	RAL9005, jet black
ISR-4282SW.0D-T	42	800 mm	1200 mm	1980 mm	without	without	RAL9005, jet black



Door for INFRALAN® System Rack

Door for INFRALAN® System Rack

3-point-locking with turning handle and profile half-cylinder acc. to DIN 18252 / EN1303 (PHC exchangeable by customer)

Door opening angle 270° (free-standing)

Material steel sheet

Paint finish RAL7035, light grey / RAL9005, jet black

Delivery pre-assembled incl. all hinges, screws, earthing cable, 2 x key

Art.-No.	Description	For Cabinet Width	Colour
ISR-TUR426G1.SW	Door for ISR 42U, 600 mm, Glass 1-Part	600 mm	RAL9005
ISR-TUR426P1.SW	Door for ISR 42U, 600 mm, Steel perf. 1-Part	600 mm	RAL9005
ISR-TUR426S1.SW	Door for ISR 42U, 600 mm, Steel 1-Part	600 mm	RAL9005
ISR-TUR426S2.SW	Door for ISR 42U, 600 mm, Steel 2-Part	600 mm	RAL9005
ISR-TUR428G1.SW	Door for ISR 42U, 800 mm, Glass 1-Part	800 mm	RAL9005
ISR-TUR428P1.SW	Door for ISR 42U, 800 mm, Steel perforated 1-Part	800 mm	RAL9005
ISR-TUR428P2.SW	Door for ISR 42U, 800 mm, Steel perforated 2-Part	800 mm	RAL9005
ISR-TUR428S1.SW	Door for ISR 42U, 800 mm, Steel 1-Part	800 mm	RAL9005
ISR-TUR428S2.SW	Door for ISR 42U, 800 mm, Steel 2-Part	800 mm	RAL9005



2-Part steel doors and 2-part perforated doors are equipped with a second bar locking operated from inside

Side/Rear Walls 42U for INFRALAN® System Rack

Wall element for INFRALAN® System Rack

Suitable as side and rear wall

With 4 x quick fastener, optional lock for upgrading (Art.-No. ISR-SCH01.XX)

Material steel sheet

Paint finish RAL7035, light grey / RAL9005, jet black

Art.-No.	Description	For Cabinet Depth	Colour
ISR-W426.SW	Wall Element for ISR 42U Depth 800 mm	600 mm	RAL9005
ISR-W428.SW	Wall Element for ISR 42U Depth 800 mm	800 mm	RAL9005
ISR-W420.SW	Wall Element for ISR 42U Depth 1000 mm	1000 mm	RAL9005
ISR-W422.SW	Wall Element for ISR 42U Depth 1200 mm	1200 mm	RAL9005
ISR-W478.SW	Wall Element for ISR 47U Depth 800 mm	800 mm	RAL9005
ISR-W470.SW	Wall Element for ISR 47U Depth 1000 mm	1000 mm	RAL9005
ISR-W472.SW	Wall Element for ISR 47U Depth 1200 mm	1200 mm	RAL9005



Lock for Side/Rear Wall of INFRALAN® System Rack



Lock for upgrading in wall elements of INFRALAN® System Rack

1 x lock mountable per wall element

Easy mounting in the prepared opening of the wall element resp. at profile frame (angle)

Paint finish bracket RAL7035, light grey / RAL9005, jet black

Delivery incl. 1 x lock, 2 x key, 1 x bracket incl. mounting material

Art.-No.	Description
ISR-SCH01.SW	Lock for Side / Rear Wall ISR, incl. 2 x Key T3, RAL9005

Plinth for INFRALAN® System Rack



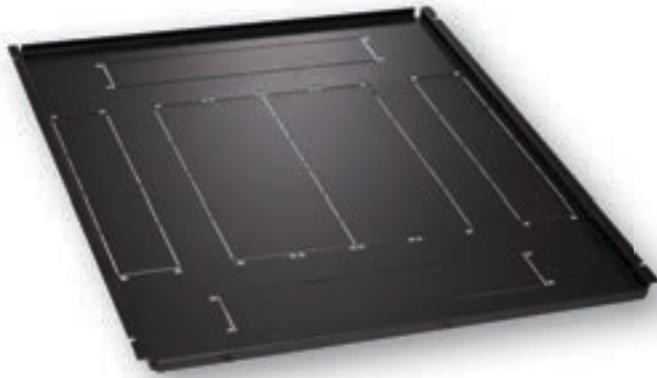
Plinth height 100 mm for INFRALAN® System Rack
Front element perforated for optimal air circulation
Rear element with 1 x pre-punched opening for cable entry (250 x 70 mm)

Side elements with 2 x pre-punched openings for cable entry (250 x 70 mm)
Levelling feet (incl. in the delivery of the cabinet) can be used with the plinth
Plinth is not stackable
Material steel sheet
Paint finish RAL7035, light grey / RAL9005, jet black
Delivery incl. mounting material



Art.-No.	Description	For Cabinet Width	For Cabinet Depth	Colour
ISR-SOK88.GR	Plinth H=100 mm for ISR 800 x 800 mm	800 mm	800 mm	RAL7035
ISR-SOK80.GR	Plinth H=100 mm for ISR 800 x 1000 mm	800 mm	1000 mm	RAL7035
ISR-SOK82.GR	Plinth H=100 mm for ISR 800 x 1200 mm	800 mm	1200 mm	RAL7035
ISR-SOK88.SW	Plinth H=100 mm for ISR 800 x 800 mm	800 mm	800 mm	RAL9005
ISR-SOK80.SW	Plinth H=100 mm for ISR 800 x 1000 mm	800 mm	1000 mm	RAL9005
ISR-SOK82.SW	Plinth H=100 mm for ISR 800 x 1200 mm	800 mm	1200 mm	RAL9005

Bottom Set One-Part for INFRALAN® System Rack



Bottom set 1-part for retrofitting in INFRALAN® System Rack
4 x pre-punched cable entries (450 x 90 mm, front/rear/left/right)
(for cabinet width 600 mm only front/rear, for depth 1200 mm 6 x cable entry)
Central, pre-punched openings for fan or filter units
Screw-mounting at the profile frame of ISR
For mounting, both lower profile mounting rails have to be removed temporarily
(multi-part bottom set for upgrading of assembled cabinets without removing the profile mounting rails available on request)
Material steel sheet
Paint finish RAL7035, light grey / RAL9005, jet black
Delivery incl. mounting material

Bottom Set Multi-Part for INFRALAN® System Rack



Bottom set multi-part for retrofitting in INFRALAN® System Rack
Consisting of 2 x mounting rail and 4, 6 or 8 bottom elements for depth 800, 1000 resp. 1200 mm
Front and rear elements with cable entry openings
For cabinets 800 x 800 mm 90° turned mounting is possible
Material steel sheet
Paint finish RAL7035, light grey / RAL9005, jet black
Delivery incl. brush

Art.-No.	For Cabinet Width	For Cabinet Depth	Colour
ISR-BOD60.GR	600 mm	1000 mm	RAL7035, light grey
ISR-BOD62.GR	600 mm	1200 mm	RAL7035, light grey
ISR-BOD88.GR	800 mm	800 mm	RAL7035, light grey
ISR-BOD80.GR	800 mm	1000 mm	RAL7035, light grey
ISR-BOD82.GR	800 mm	1200 mm	RAL7035, light grey
ISR-BOD60.SW	600 mm	1000 mm	RAL9005, jet black
ISR-BOD62.SW	600 mm	1200 mm	RAL9005, jet black
ISR-BOD88.SW	800 mm	800 mm	RAL9005, jet black
ISR-BOD80.SW	800 mm	1000 mm	RAL9005, jet black
ISR-BOD82.SW	800 mm	1200 mm	RAL9005, jet black

Art.-No.	For Cabinet Width	For Cabinet Depth	Colour
ISR-BOM60.GR	600 mm	1000 mm	RAL7035, light grey
ISR-BOM62.GR	600 mm	1200 mm	RAL7035, light grey
ISR-BOM88.GR	800 mm	800 mm	RAL7035, light grey
ISR-BOM80.GR	800 mm	1000 mm	RAL7035, light grey
ISR-BOM82.GR	800 mm	1200 mm	RAL7035, light grey
ISR-BOM60.SW	600 mm	1000 mm	RAL9005, jet black
ISR-BOM62.SW	600 mm	1200 mm	RAL9005, jet black
ISR-BOM88.SW	800 mm	800 mm	RAL9005, jet black
ISR-BOM80.SW	800 mm	1000 mm	RAL9005, jet black
ISR-BOM82.SW	800 mm	1200 mm	RAL9005, jet black

Vertical Cable Management for INFRALAN® System Rack



Vertical cable management for INFRALAN® System Rack

Suitable for cabinet width 800 mm

For mounting left- and right-sided beside the 19" level

Screw-mounting at the side of the 19" profiles

Consisting of 3 modules each with own cover and quick fasteners

Side and rear-sided openings for easy cable routing

Material steel sheet

Paint finish RAL7035, light grey / RAL9005, jet black

Usable inner dimensions (W x D) 85 x 62 mm

Included in delivery: 1 x cable management incl. mounting accessories, 1 x brush

Art.-No.	Description
ISR-VKM42.GR	Vertical Cable Management for ISR 42U, RAL7035
ISR-VKM47.GR	Vertical Cable Management for ISR 47U, RAL7035
ISR-VKM42.SW	Vertical Cable Management for ISR 42U, RAL9005
ISR-VKM47.SW	Vertical Cable Management for ISR 47U, RAL9005

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CABINET SYSTEMS

MULTIMEDIA

ACTIVE COMPONENTS

Multi Function Rails for INFRALAN® System Rack, Horizontal

Multi function rails for INFRALAN® System Rack
For horizontal mounting in the grid holes of the profile frame
For cabinet depths 600/800/1000/1200 mm
25 mm DIN grid-holes

Common mounting of horizontal and vertical MFR possible

Material steel, galvanised

Included in delivery: 1 x Multi function rail, mounting material

Art.-No.	Description	For Cabinet Depth
ISR-MFH06	Multi Function Rail Horizontal for ISR Depth 600 mm	600 mm
ISR-MFH08	Multi Function Rail Horizontal for ISR Depth 800 mm	800 mm
ISR-MFH10	Multi Function Rail Horizontal for ISR Depth 1000 mm	1000 mm
ISR-MFH12	Multi Function Rail Horizontal for ISR Depth 1200 mm	1200 mm

Multi Function Rails for INFRALAN® System Rack, Vertical

Multi function rail for INFRALAN® System Rack
For vertical mounting in the grid holes of the profile frame
For cabinet heights 42/45/47U
25 mm DIN grid-holes

Common mounting of vertical and horizontal MFR possible

Material steel, galvanised

Included in delivery: 1 x multi function rail, mounting material

Art.-No.	Description	For Cabinet Height
ISR-MFV42	Multi Function Rail Vertical for ISR 42U	42 U
ISR-MFV47	Multi Function Rail Vertical for ISR 47U	47 U

Swing Frame for INFRALAN® System Rack

Swing frame for retrofitting in ISR 42U
Only suitable for cabinet width 800 mm
Usable height 38U
Max. mounting depth of devices 450 mm
Lockable at 90° swing angle
Mountable left or right swinging
Material steel
Delivery unassembled, incl. mounting material

Art.-No.	For Cabinet Width	Max. Load
ISR-SWR42	800 mm	100 kg

Line-Up Connectors for INFRALAN® System Rack, Set of 4 Pieces

Line-up connectors for INFRALAN® System Rack
Screw mounting at the prepared thread openings in the profile frame
For stacking of 2 cabinets 4 connectors are necessary
Material Steel
Paint finish RAL7035, light grey / RAL9005, jet black
Scope of delivery: 4 x connector incl. mounting material

Art.-No.	Description
ISR-ANR01.GR	Line-Up Connectors, Set of 4 Pieces, RAL7035
ISR-ANR01.SW	Line-Up Connectors, Set of 4 Pieces, RAL9005

Sealing Kit for Stacking of INFRALAN® System Rack

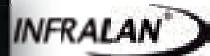
Rubber band for sealing the space between lined-up frames
 Length 7 m for 1 x sealing between two rack frames
 Material rubber
 Colour black

Art.-No.	Description
102280	Sealing Tape for Line-Up of ISR

**Roof Raising Set for INFRALAN® System Rack**

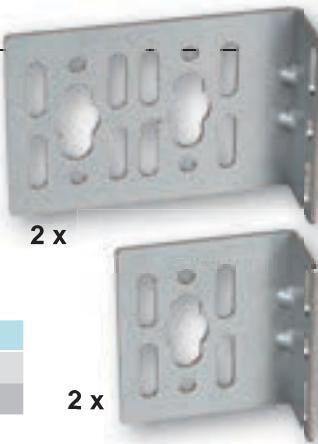
Set for raising the roof of ISR about 40 mm
 For optimal air circulation
 Consisting of 4 x distance bolt + 4 x screw
 Material steel
 Not suitable for common use with transport lugs

Art.-No.	Description
ISR-DAH01	Set for Roof Raising 40 mm

**PDU Holder for INFRALAN® System Rack**

Mounting bracket for 1 or 2 (parallel) socket strips vertical or horizontal
High stability with bend protection
 Mounting on the profile frame or laterally on the 19" profiles
 Material steel sheet 2 mm, galvanised
 Included in delivery: 2 x PDU holder, mounting material

Art.-No.	Description
ISR-PDU01	PDU Holder Single, Set of 2, Galvanised
ISR-PDU02	PDU Holder Double, Set of 2, Galvanised

**Side Covers with 3 x 19" 1U Opening for INFRALAN® System Rack**

Side covers for air routing and blinding in INFRALAN® System Rack
 Suitable for cabinet width 800 mm
 Variant with and without openings for accommodation of 3 devices to 1U available
 Identical panels, mountable left- and right-sided
 Screw-mounting beside the 19" profiles of the ISR
 Sealing to side wall via brush terminal
 Material steel sheet
 Paint finish RAL7035, light grey / RAL9005, jet black
 Included in delivery: 2 x panel, 2 x brush in full height, mounting material

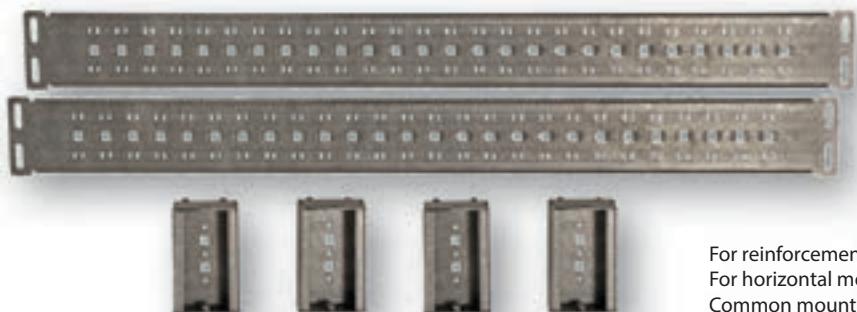
Art.-No.	Description	Colour
ISR-SA342.GR	Side Covers for ISR 42U, 3 x 19" 1U Openings	RAL7035, light grey
ISR-SA347.GR	Side Covers for ISR 47U, 3 x 19" 1U Openings	RAL7035, light grey
ISR-SA342.SW	Side Covers for ISR 42U, 3 x 19" 1U Openings	RAL9005, jet black
ISR-SA347.SW	Side Covers for ISR 47U, 3 x 19" 1U Openings	RAL9005, jet black
ISR-SA042.GR	Side Covers without Cutouts for ISR 42U W=800 mm	RAL7035, light grey
ISR-SA042.SW	Side Covers without Cutouts for ISR 42U W=800 mm	RAL9005, jet black



Air Sealing Element for INFRALAN® System Rack

For sealing the area above and below the 19" level
 Sealing to bottom/roof via brush terminal
 Mounting between the upper and lower profile mounting rails
 Material steel sheet
 Paint finish RAL7035, light grey / RAL9005, jet black
 Included in delivery: 1 x air sealing element

Art.-No.	Description	Colour
ISR-LUF01.GR	Air Sealing Element RAL7035 for Top/Bottom of 19" Level	RAL7035
ISR-LUF01.SW	Air Sealing Element RAL9005 for Top/Bottom of 19" Level	RAL9005

Depth Rail Sets for INFRALAN® System Rack

For reinforcement of the 19" profiles and middle ISR-MPRxx
 For horizontal mounting in the grid holes of the profile frame
 Common mounting of vertical and horizontal MFR possible
 Material steel, galvanised
 Included in delivery: 2 x depth rail (left/right), 4 x short crossbeam, mounting material

Art.-No.	Description	For Cabinet Depth
ISR-TST08	Depth Rails Set for ISR Cabinet Depth 800 mm	800 mm
ISR-TST10	Depth Rails Set for ISR Cabinet Depth 1000 mm	1000 mm
ISR-TST12	Depth Rails Set for ISR Cabinet Depth 1200 mm	1200 mm

Vertical Middle Profiles for INFRALAN® System Rack

2 x



Additional vertical middle profiles for INFRALAN® System Rack in 42/45/47U
 For stabilising very heavy devices (server, UPS, ...)
 For vertical mounting between the front and rear 19" level
 Recommended for common use with depth rail set ISR-TSTxx
 Material steel, galvanised
 Included in delivery: 2 x vertical middle profile, 2 x short crossbeam, mounting material

Art.-No.	Description	For Cabinet Height
ISR-MPR42	Vertical Middle Profile for ISR 42U	42 U
ISR-MPR47	Vertical Middle Profile for ISR 47U	47 U

Sliding Door for Cold / Warm Aisle Containment with INFRALAN® System Rack



All components available in RAL9005 and RAL7035

Sliding door for cold / warm aisle containment with INFRALAN® System Rack

For use at begin / end of aisle

For aisle width 1200 mm

With window of certified safety glass

With brush for sealing to the cabinet

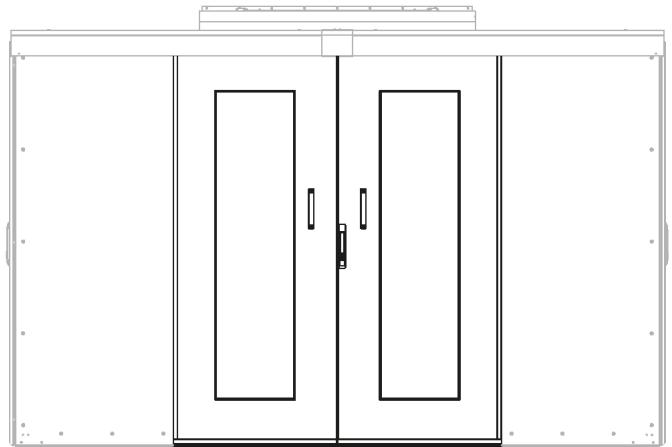
Opening possible from inside and outside

Material steel sheet, Paint finish RAL9005, jet black

Delivery as complete set including all necessary mounting materials

Note: for using the sliding door, special side walls at the rack are necessary

Art.-No.	Description
ISR-STR422FM.SW	Sliding Door, Complete Set for 42U, Aisle Width 1200 mm, RAL9005



Roof Elements for Cold-/Warm Aisle with INFRALAN® System Rack



Roof element for cold/warm aisle containment with INFRALAN® System Rack

For use at begin / end of aisle (outer cabinets) resp. in inner area

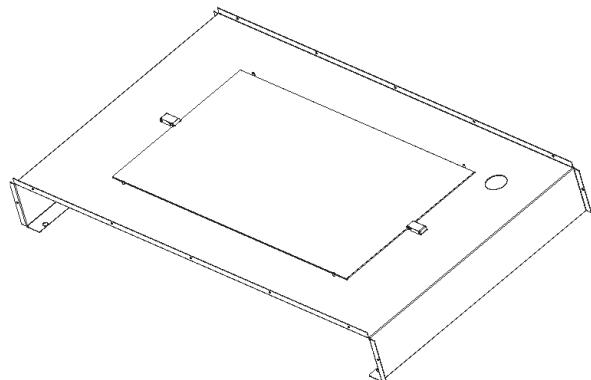
For aisle width 1200 mm

Raised aisle area 150 mm for better head freedom

With window (plastic)

Material steel sheet, paint finish RAL9005, jet black

Art.-No.	Description
ISR-GDA82F.SW	Roof Element for Begin/End of Aisle, 800 x 1200 mm, RAL9005
ISR-GDI82F.SW	Roof Element for Mid of Aisle, 800 x 1200 mm, RAL9005



Aisle End (Wall) for Cold / Warm Aisle Containment with INFRALAN® System Rack



Steel sheet wall for cold / warm aisle containment with INFRALAN® System Rack

For use at aisle end instead of a sliding door

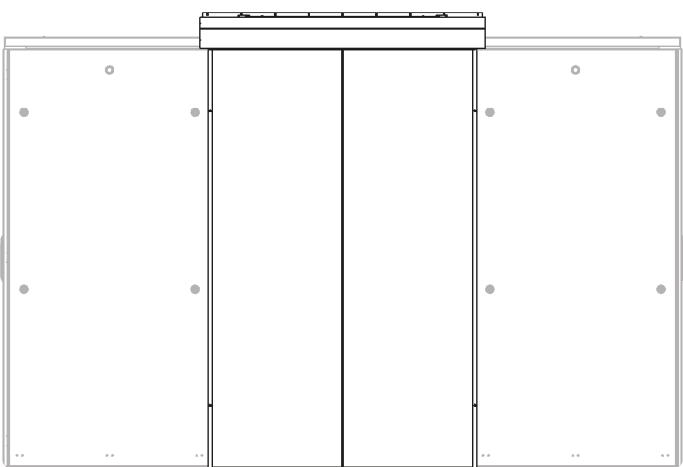
For aisle width 1200 mm

Material steel sheet

Paint finish RAL9005, jet black

Delivery incl. mounting material

Art.-No.	Description
ISR-GEN422S2.SW	Wall for Aisle End 42U, Aisle Width 1200 mm, RAL9005





INFRALAN® Network Cabinet



19" Network cabinet according to DIN 41494
 Steel sheet housing with welded frame, completely pre-assembled, self-ventilated, not dismountable
 Inside front and rear 4 x 19" profiles (2 front, 2 rear-sided), galvanised, depth-adjustable in 25 mm raster
 Numbering of rack units at the 19" profiles
 Front door with window of certified safety glass (thickness 5 mm)
 Front door with 1-point turning handle, lockable, incl. profile half-cylinder acc. to DIN 18252 / EN1303
 Rear door steel 1-part, full cabinet height with 1-point turning handle, lockable, incl. profile half-cylinder acc. to DIN 18252 / EN 1303
 Profile half-cylinder exchangeable by customer (30/10 mm)
 Door mounting possible swiveling to the left and right side (standard: right)
 Door opening angle front and rear 180° due to exterior hinges
 Detachable side walls with 2 x latch locking (keys equal to the door lock)
 Cabinets stackable side-by-side and rear-by-rear with and without removal of the side walls, bolt-set (Art.-No. 691644) suitable with removed walls, otherwise screwable via screws and nuts M6
 Roof and bottom with 4 pre-punched openings for cable entry (front/rear/left/right) and for accommodation of fan/filter units (for 600 mm cabinet width cable entry only front/rear)
 Internal earthing of all cabinet sections
 Central earthing bolt M8 rear-left in the cabinet
 Max. load 600 kg, increase to 1000 kg possible with traverse-set Art.-No. 691679N.x
 Paint finish RAL7035, light grey
 Protection degree IP20
 Included accessories: 1 x brush terminal, 1 x set of captive nuts (PU 20 pcs.), 4 x levelling feet M10, 2 x key
 Delivery in transport packaging on disposable pallet

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ACTIVE COMPONENTS

Art.-No.	U	Width	Depth	Height	Front Door	Rear Door	Colour
IDS-4288GR.G1S1	42	800 mm	800 mm	1980 mm	Glass door 1-part	Steel door 1-part	RAL7035, light grey
IDS-4280GR.G1S1	42	800 mm	1000 mm	1980 mm	Glass door 1-part	Steel door 1-part	RAL7035, light grey
IDS-2766GR.G1S1	27	600 mm	600 mm	1315 mm	Glass door 1-part	Steel door 1-part	RAL7035, light grey
IDS-2788GR.G1S1	27	800 mm	800 mm	1315 mm	Glass door 1-part	Steel door 1-part	RAL7035, light grey

19" Wall Housings RAL7035, Light Grey

Steel sheet housing with welded frame
 Completely pre-assembled, self-ventilated
 Rear-sided swing-frame for swiveling the front part of the housing
 Pre-punched openings for cable entry optionally from roof or bottom
 Prepared for mounting of single fan units in roof and bottom
 Inside front-sided 2 x 19" profile rails, galvanised, depth-adjustable
 Front door with window made of certified safety glass
 Front door lockable with latch
 Internal earthing of all cabinet sections
 Paint finish: RAL7035, light grey
 Protection degree IP20
 Included in delivery: 1 x brush terminal, 1 x set of captive nuts (PU 20 pcs.), 2 x key
 Delivery in transport packaging, from 30 kg / 12U on disposable pallet

19" Wall Housings RAL7035, Light Grey, Depth 500 mm

Art.-No.	U	Width	Height	Max. Load
IWG-0465S.GR	4	600 mm	240 mm	30 kg
IWG-0665S.GR	6	600 mm	330 mm	40 kg
IWG-0965S.GR	9	600 mm	465 mm	40 kg
IWG-1265S.GR	12	600 mm	600 mm	40 kg
IWG-1565S.GR	15	600 mm	730 mm	50 kg
IWG-1865S.GR	18	600 mm	860 mm	50 kg
IWG-2165S.GR	21	600 mm	997 mm	50 kg

19" Wall Housings RAL7035, Light Grey, Depth 600 mm

Art.-No.	U	Width	Height	Max. Load
IWG-0466S.GR	4	600 mm	240 mm	30 kg
IWG-0666S.GR	6	600 mm	330 mm	40 kg
IWG-0966S.GR	9	600 mm	465 mm	40 kg
IWG-1266S.GR	12	600 mm	600 mm	40 kg
IWG-1566S.GR	15	600 mm	730 mm	50 kg
IWG-1866S.GR	18	600 mm	860 mm	50 kg
IWG-2166S.GR	21	600 mm	997 mm	50 kg

19" Wall Housings, RAL9005, Jet Black

Steel sheet housing with welded frame
 Completely pre-assembled, self-ventilated
 Rear-sided swing-frame for swiveling the front part of the housing
 Pre-punched openings for cable entry optionally from roof or bottom
 Prepared for mounting of single fan units in roof and bottom
 Inside front-sided 2 x 19" profile rails, galvanised, depth-adjustable
 Front door with window made of certified safety glass
 Front door lockable with latch
 Internal earthing of all cabinet sections
 Paint finish: RAL9005, jet black
 Protection degree IP20
 Included in delivery: 1 x brush terminal, 1 x set of captive nuts (PU 20 pcs.), 2 x key
 Delivery in transport packaging, from 30 kg / 12U on disposable pallet

19" Wall Housings RAL9005, Jet Black, Depth 500 mm

Art.-No.	U	Width	Height	Max. Load
IWG-0465S.SW	4	600 mm	240 mm	30 kg
IWG-0665S.SW	6	600 mm	330 mm	40 kg
IWG-0965S.SW	9	600 mm	465 mm	40 kg
IWG-1265S.SW	12	600 mm	600 mm	40 kg
IWG-1565S.SW	15	600 mm	730 mm	50 kg
IWG-1865S.SW	18	600 mm	860 mm	50 kg
IWG-2165S.SW	21	600 mm	997 mm	50 kg

Wall Housings RAL9005, Jet Black, Depth 600 mm

Art.-No.	U	Width	Height	Max. Load
IWG-0466S.SW	4	600 mm	240 mm	30 kg
IWG-0666S.SW	6	600 mm	330 mm	40 kg
IWG-0966S.SW	9	600 mm	465 mm	40 kg
IWG-1266S.SW	12	600 mm	600 mm	40 kg
IWG-1566S.SW	15	600 mm	730 mm	50 kg
IWG-1866S.SW	18	600 mm	860 mm	50 kg
IWG-2166S.SW	21	600 mm	997 mm	50 kg



FIBER OPTIC CABLES FOR DIVERSE APPLICATIONS

In times of increasing amounts of data and ever-higher demands on IT, advanced fiber optic installations are not only in demand of data-processing centres. EFB-Elektronik is a powerful ally for the provision of high-quality products and services in all areas of Fiber optic cabling - from manufacturing to packaging to distribution and technical advice. Customized designs and special industrial solutions are also possible because the company manages its own production. EFB-Elektronik is of course certified for the assembly of R&M E2000® connectors. Because of many years of experience in Fiber optic cabling, requests can be processed within short project times and products, components and accessories can be quickly delivered. Under our own brand, INFRALAN®, we can provide certified cabling systems with a 25 years warranty system. Some of this components used in the warranty system have been additionally certified by an independent testing laboratory in accordance with current standards. Overall, the Fiber optic product range includes about 3,300 items - which range is from cables, through accessories and cleaning kits, to splice and test equipment.



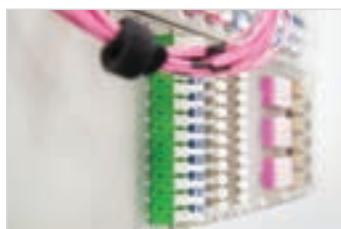
Fiber Pigtauls & Jumper



Pre-Assembled Breakout- and loose
Tube Fiber Cable



Connectors & Fiber Adapters



Splices/MTP Systems & Subracks



Fiber Tools & installation Material



Splicing- & Measurement
Equipment



FTTH



Closures

WIR SORGEN FÜR VERBINDUNG
WE CARE FOR CONNECTION





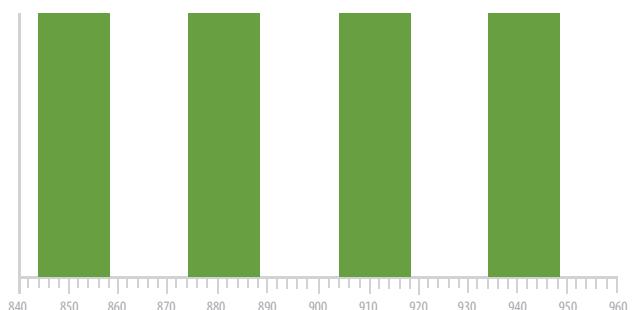
OM5 FIBER OPTIC CABLING

100 GBIT/S TRANSMISSION RATE WITH EXTREMELY HIGH PACKING DENSITY

Up to now there were the multimode fiber types OM1 with 62,5 µm and OM2, OM3 as well as OM4 with 50 µm core diameter. These are suitable for transmission in the range of 850nm wavelength. The new optical cabling class OM5 offers a Wideband Multimode Fiber, which allows a higher range and transmission speed by SWDM technology (Short Wave Division Multiplexing). Increase the performance and the quality of connectivity in your data centre through the EFB-OM5 fiber optic cabling.

YOUR ADVANTAGES

- Excellent performance and quality of connectivity for your data centre
- Higher range and transmission speed through SWDM technology
- Transmission rate up to 100 Gbit/s with only 2 fibers (instead of 8 fibers)
- Transmission range amounts up to 440m for 40Gbit-applications and 150m for 100Gbit-applications
- Backwards compatibility to multimode classes OM2, OM3, OM4 Economising in installation costs and reduced space requirements, as fewer fibers are required by Multiplexing



30 nm channel spacing
16 nm transmission channel
14 nm transmission range

Nominal wavelength nm							
850		880		910		940	
start	stop	start	stop	start	stop	start	stop
844	858	874	888	904	918	934	948

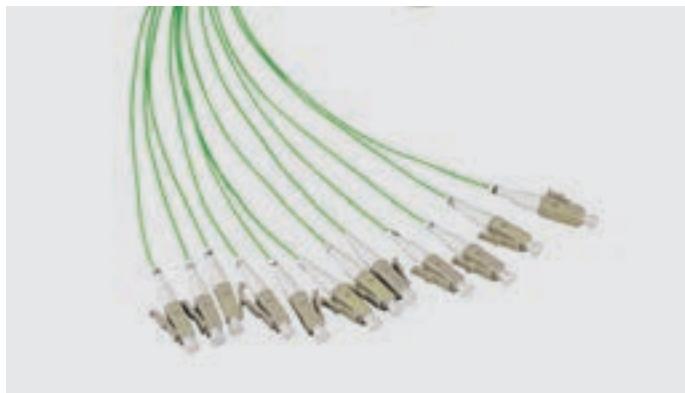
OUR SELECTION OF OM5 PRODUCTS



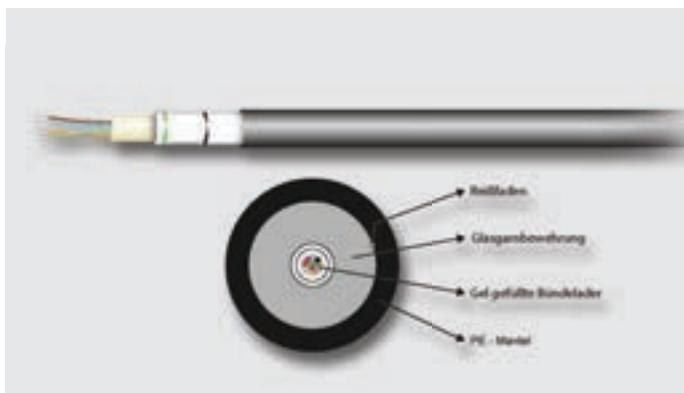
Art.-No.	Description
53334.xOM5	Adapter LC Duplex OM5,ceramic sleeve
53333.xOM5	Adapter SC Duplex OM5,ceramic sleeve



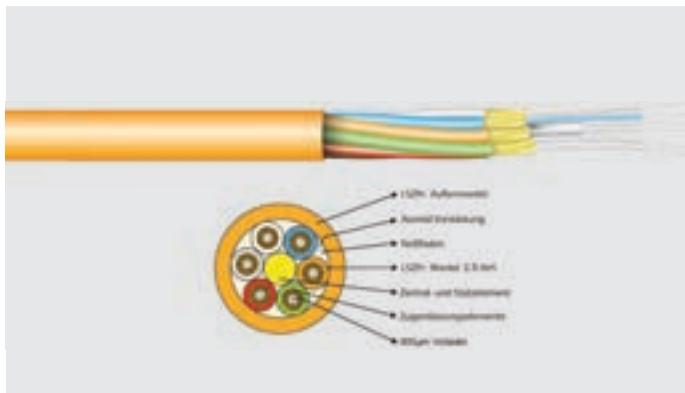
Art.-No.	Description
00319.xOM5	Duplex Jumper LC-LC 50/125µ, OM5
00323.xOM5	Duplex Jumper LC-SC 50/125µ, OM5
00318.xOM5	Duplex Jumper SC-SC 50/125µ, OM5



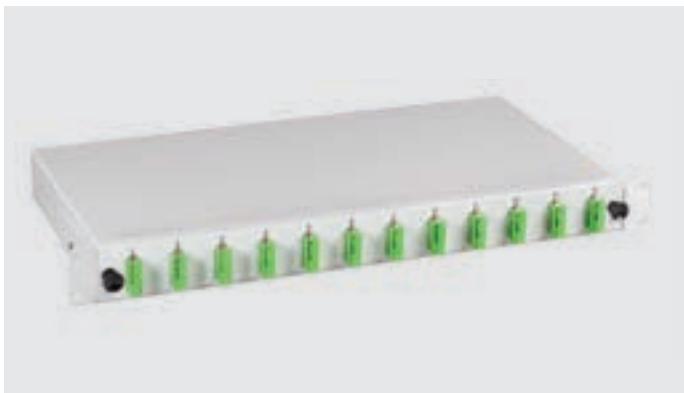
Art.-No.	Description
03686.xOM5	Fiber pigtail LC - lime green
03685.xOM5	Fiber pigtail SC - lime green
03326.xOM5	Fiber pigtail 12 set SC - 12 colours
03483.xOM5	Fiber pigtail 12 set LC - 12 colours



Art.-No.	Description
54524.10M5-CPR	U-DQ(ZN)BH 50/125µ, OM5



Art.-No.	Description
55002.xOM5	Breakout Indoor Cable I-V (ZN)HH, OM5



Art.-No.	Description
B71203.xxOM5	Splicebox sliding version SC
B71901.xxOM5	Splicebox sliding version LC
BA71203.xxOM5	Splicebox sliding version SC, stripped pigtails
BA71901.xxOM5	Splicebox sliding version LC, stripped pigtails



FIBER-PIGTAILS & JUMPER

EFB-Elektronik offers customers a wide range of fiber-optic pigtailed and jumper cables with high storage availability of all current types of fiber optic connectors, such as LC, SC, DIN, FSMA and ST. Thanks to our own fiber production in Germany, special solutions can be implemented and delivered quickly. In addition, EFB-Elektronik offers its own fiber optic cable assembling of E2000® plugs and patch cables with certification by Reichle & De-Massari.

FIBER OPTIC

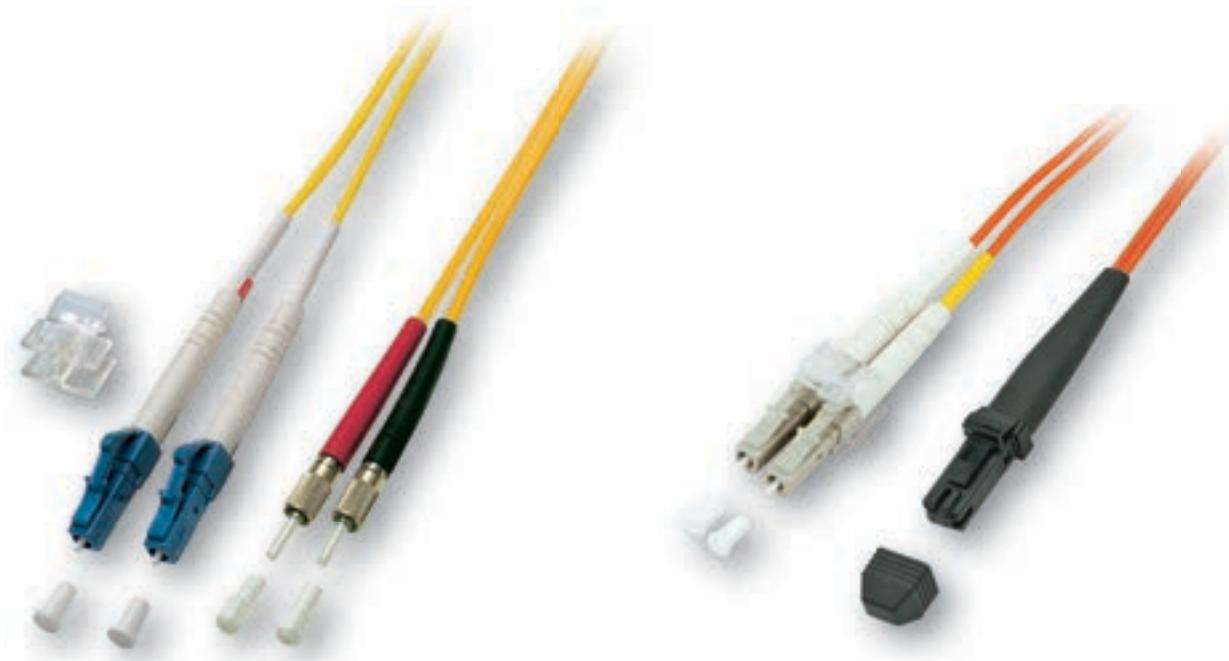
EFB-Elektronik offers a wide range of fiber optic jumpers. This ranges from standard jumpers in the duplex and simplex version to custom-made products for special customer applications.

The standard jumpers are available in different connector versions such as LC-LC, SC-SC, LC-SC, E2000® as well as in different cable versions. A big advantage is EFB-Elektronik keeps a high stock for the standard variants and can therefore offer short delivery times.



Block Diagram Standard Duplex Jumper						
	OS2	OM3	OM2	OM1	OM4	OM5
LC-Duplex, LC-Duplex	00350.x	00312.x	00310.x	00330.x	00319.x	00319.xOM5
LC-Duplex, SC-Duplex	00360.x	00314.x	00320.x	03061.x	00323.x	00323.xOM5
LC-Duplex, ST	00361.x	00313.x	00321.x	00371.x	00326.x	
SC-Duplex, SC-Duplex	02513.x	07413.x	06413.x	06423.x	00318.x	00318.xOM5
SC-Duplex, ST	02073.x	07353.x	06353.x	06363.x	00347.x	
ST, ST	02003.x	07013.x	06013.x	06023.x	00348.x	
LC-Duplex, E2000®	00364.x					
E2000®, SC-duplex	00940.x					
E2000®, ST	00909.x					
MT-RJ, MT-RJ	00724.x	00650.x	00700.x	00701.x		
MT-RJ, LC-Duplex	00704.x	00680.x	00730.x	00705.x		
MT-RJ, SC-Duplex	00722.x	00670.x	00720.x	00721.x		
MT-RJ, ST	00723.x	00660.x	00710.x	00711.x		
LC-Duplex, DIN	00349.x					
LC-Duplex, FC	00340.x					

Block Diagram Standard Duplex Jumper	
	OS2
LC-Duplex, LC-Duplex	00384.x
LC-Duplex, SC-Duplex	00383.x
SC-Duplex, SC-Duplex	02561.x
SC-Duplex, LC-Duplex	00362.x
E2000®, E2000®	00933.x
E2000®, LC-Duplex	00937.x
LC-Duplex, E2000®	00389.x
E2000®, SC-Duplex	00939.x
E2000®, ST	00920.x
LC-Duplex, DIN	00370.x



	SC-Connector Subscriber Connector	LC-Connector Lucent Connector	ST-Connector Straight Tip	DIN (LSA)-Connector Solder-, screw- and stripping-free
Relevant Producer	div.	div.	div.	div.
pro	low IL, sturdy Connector	low RL, small dimension, due to this high packing density	save lock due to bayonet locking	save lock due to screwing lock
con	no high packing density possible in comparance		high IL, measurement variation on mechanical forces	no high packing density possible in comparance
Connector cleaning/ Effect	Poor connector cleaning affects the RL and IL. This can also damage the geometry of the connector section.	Poor connector cleaning affects the RL and IL. This can also damage the geometry of the connector section.	Poor connector cleaning affects the RL and IL. This can also damage the geometry of the connector section.	Poor connector cleaning affects the RL and IL. This can also damage the geometry of the connector section.
Application	FO link/Switch Systems, Optical MDF (Multi Distribution Frames), LAN, CATV, SONET/ SDH, ATM, WDM Communication Systems, measurement- and test devices			
Ferrule diameter	2,5mm	1,25mm	2,5mm	2,5mm
APC version possible(angled polish)	yes	yes	yes	yes
Typical IL	0,2 - 0,3dB	0,2dB	0,2 - 0,4dB	0,2dB
Suitable fiber	1	1	1	1
Standard	IEC 61754-4	IEC 61754-20	IEC 61754-2	IEC 874-6
Locking mechanism	Push Pull principle	clamping bracket lock	Bayonet lock	screwing lock

	E2000®-Connector	MPO/MTP®-Connector Multipath Push-On/ MTP®=Brand name	MTRJ-Connector Mechanical Transfer Registered Jack	FC-Connector Fiber Connector
Relevant Producer	Reichle & de Massari, Huber & Suhner, Diamond	US Conec	div.	div.
pro	patent registered Connector for WAN, required for WAN, integrated dust- and laser protection	small Connector with high amount of connection possible, high packing density	Duplex housing	save lock due to screwing lock
con	high price, assembling can only be done by certified productions	complex assembling, high IL	high IL, low RL	no high packing density possible in comparance
Connector cleaning/ Effect	Poor connector cleaning affects the RL and IL. This can also damage the geometry of the connector section.			
Application	FO link/Switch Systems, Optical MDF (Multi Distribution Frames), LAN, CATV, SONET/ SDH, ATM, WDM Communication Systems, measurement- and test devices			FO link/Switch Systems, Optical MDF (Multi Distribution Frames), LAN, CATV, SONET/ SDH, ATM, WDM Communication Systems, measurement- and test devices
Ferrule diameter	2,5mm	MT- Ferrule	MT- Ferrule	2,5mm
APC version possible(angled polish)	yes	yes	yes	yes
Typical IL	0,2dB	0,3 - 0,5dB	0,3 - 0,5dB	0,2dB
Suitable fiber	1	4-96	2	1
Standard	IEC 61754-15	IEC 61754-5	IEC 61754-18	IEC 61754-13
Locking mechanism	Push Pull principle	Push Pull principle	clamping bracket lock	screwing lock

Duplex Jumper LC-LC

Stock length: 0,50 - 1,0 - 1,50 - 2,0 - 3,0 - 5,0 - 7,5 - 10 - 15 - 20 m

Cable type: I-V(ZN) H

Cable Construction: Duplex

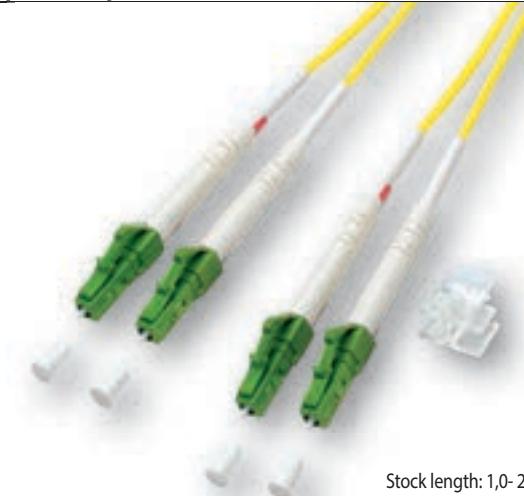
Jacket Material: LSZH

Cable Ø: 2.0 mm

Operating Temperature: -20 – 75 °C

Storage Temperature: -20 – 85 °C

Art.-No.	Category	Colour outer sheath	Connector
00350.x	OS2	yellow	LC-Duplex blue, LC-Duplex blue
00319.xOM5	OM5	lime green	LC-Duplex beige, LC-Duplex beige
00319.x	OM4	erica-violet	LC-Duplex beige, LC-Duplex beige
00312.x	OM3	aqua	LC-Duplex beige, LC-Duplex beige
00310.x	OM2	orange	LC-Duplex beige, LC-Duplex beige
00330.x	OM1	orange	LC-Duplex beige, LC-Duplex beige

Duplex Jumper LC/APC-LC/APC

Stock length: 1,0- 2,0 - 3,0 - 5,0 - 10 m

Cable type: I-V(ZN) H

Cable Construction: Duplex

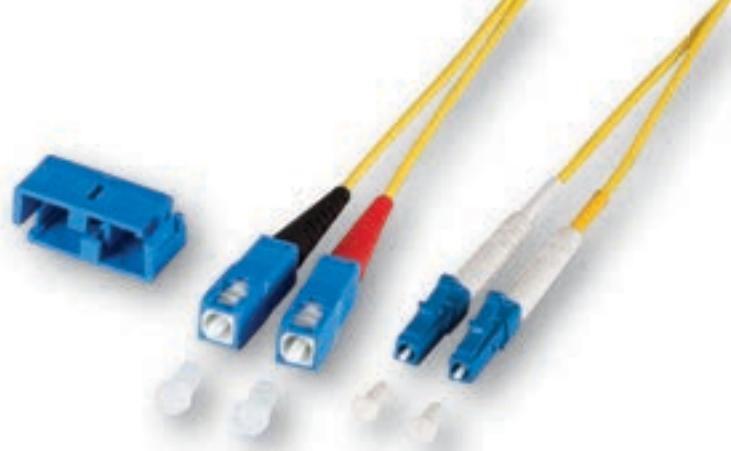
Jacket Material: LSZH

Cable Ø: 2.0 mm

Operating Temperature: -20 – 75 °C

Storage Temperature: -20 – 85 °C

Art.-No.	Category	Colour outer sheath	Connector
00381.x	OS2	yellow	LC-Duplex green, LC-Duplex green

Duplex Jumper LC-SC

Stock length: 0,50 - 1,0 - 2,0 - 3,0 - 5,0 - 7,5 - 10 - 15 - 20 m

Cable type: I-V(ZN) H

Cable Construction: Duplex

Jacket Material: LSZH

Cable Ø: 2.0 mm

Operating Temperature: -20 – 75 °C

Storage Temperature: -20 – 85 °C

Art.-No.	Category	Colour outer sheath	Connector
00360.x	OS2	yellow	LC-Duplex blue, SC-Duplex blue
00323.xOM5	OM5	lime green	LC-Duplex beige, SC-Duplex beige
00323.x	OM4	erica-violet	LC-Duplex beige, SC-Duplex beige
00314.x	OM3	aqua	LC-Duplex beige, SC-Duplex beige
00320.x	OM2	orange	LC-Duplex beige, SC-Duplex beige
03061.x	OM1	orange	LC-Duplex beige, SC-Duplex beige

Duplex Jumper LC/APC-SC/APC

Stock length: 1,0- 2,0 - 3,0 - 5,0 - 10 m

Cable type: I-V(ZN) H

Cable Construction: Duplex

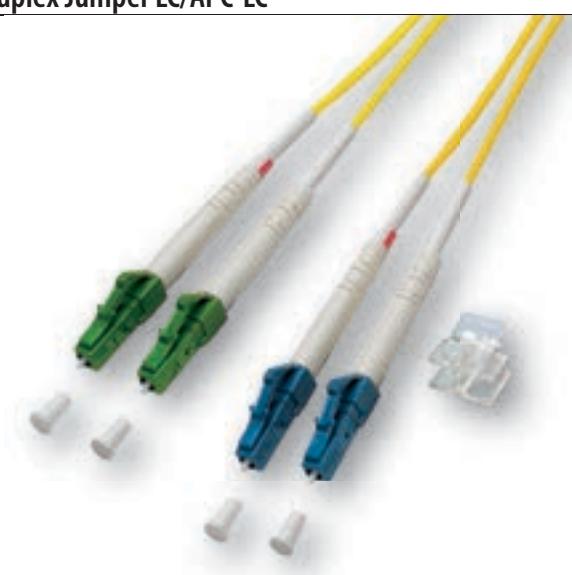
Jacket Material: LSZH

Cable Ø: 2.0 mm

Operating Temperature: -20 – 75 °C

Storage Temperature: -20 – 85 °C

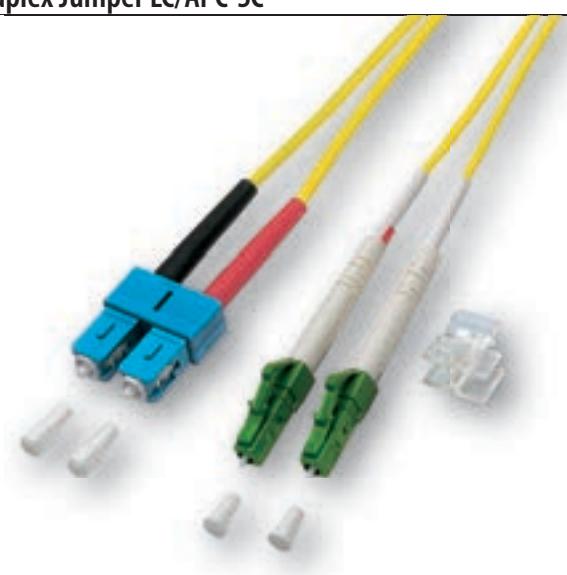
Art.-No.	Category	Colour outer sheath	Connector
00387.x	OS2	yellow	LC-Duplex green, SC-Duplex green

Duplex Jumper LC/APC-LC

Stock length: 1,0 - 2,0 - 3,0 - 5,0 - 10 m

Cable type:I-V(ZN) H
 Cable Construction:.....Duplex
 Jacket Material:.....LSZH
 Cable Ø:2.0 mm
 Operating Temperature:-20 – 75 °C
 Storage Temperature:-20 – 85 °C

Art.-No.	Category	Colour outer sheath	Connector
00384.x	OS2	yellow	LC-Duplex green, LC-Duplex blue

Duplex Jumper LC/APC-SC

Stock length: 1,0 - 2,0 - 3,0 - 5,0 - 7,5 - 10 m

Cable type:I-V(ZN) H
 Cable Construction:.....Duplex
 Jacket Material:.....LSZH
 Cable Ø:2.0 mm
 Operating Temperature:-20 – 75 °C
 Storage Temperature:-20 – 85 °C

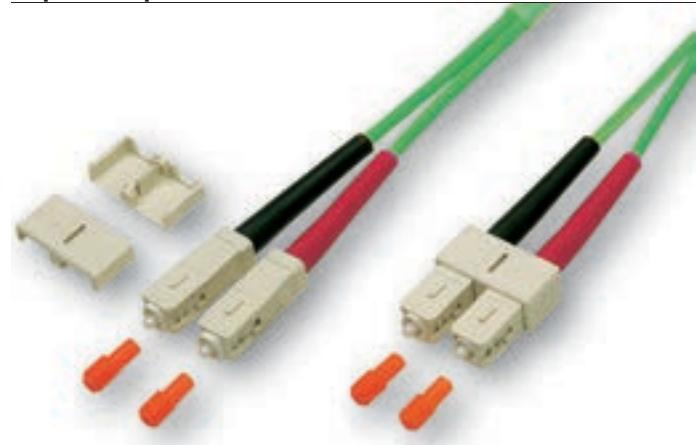
Art.-No.	Category	Colour outer sheath	Connector
00383.x	OS2	yellow	LC-Duplex green, SC-Duplex blue

Duplex Jumper LC-ST

Stock length: 0,5 - 1,0 - 2,0 - 3,0 - 5,0 - 7,5 - 10 - 15 - 20 m

Cable type:I-V(ZN) H
 Cable Construction:.....Duplex
 Jacket Material:.....LSZH
 Cable Ø:2.0 mm
 Operating Temperature:-20 – 75 °C
 Storage Temperature:-20 – 85 °C

Art.-No.	Category	Colour outer sheath	Connector
00361.x	OS2	yellow	LC-Duplex blue, ST
00326.x	OM4	erica-violet	LC-Duplex beige, ST
00313.x	OM3	aqua	LC-Duplex beige, ST
00321.x	OM2	orange	LC-Duplex beige, ST
00371.x	OM1	orange	LC-Duplex beige, ST

Duplex Jumper SC-SC

Stock length: 0,50 - 1,0 - 2,0 - 3,0 - 5,0 - 7,5 - 10 m

Cable type:I-V(ZN) H
 Cable Construction:.....Duplex
 Jacket Material:.....LSZH
 Cable Ø:3.0 mm
 Operating Temperature:-20 – 70 °C
 Storage Temperature:-20 – 85 °C

Art.-No.	Category	Colour outer sheath	Connector
02513.x	OS2	yellow	SC-Duplex blue, SC-Duplex blue
00318.xOM5	OM5	lime green	SC-Duplex beige, SC-Duplex beige
00318.x	OM4	erica-violet	SC-Duplex beige, SC-Duplex beige
07413.x	OM3	aqua	SC-Duplex beige, SC-Duplex beige
06413.x	OM2	orange	SC-Duplex beige, SC-Duplex beige
06423.x	OM1	orange	SC-Duplex beige, SC-Duplex beige

Duplex Jumper SC/APC-SC/APC

Stock length: 1,0 - 2,0 - 3,0 - 5,0 - 7,5 - 10 - 15 m

Cable type:I-V(ZN) H
 Cable Construction:Duplex
 Jacket Material:LSZH
 Cable Ø:3.0 mm
 Operating Temperature:-20 – 75 °C
 Storage Temperature:-20 – 85 °C

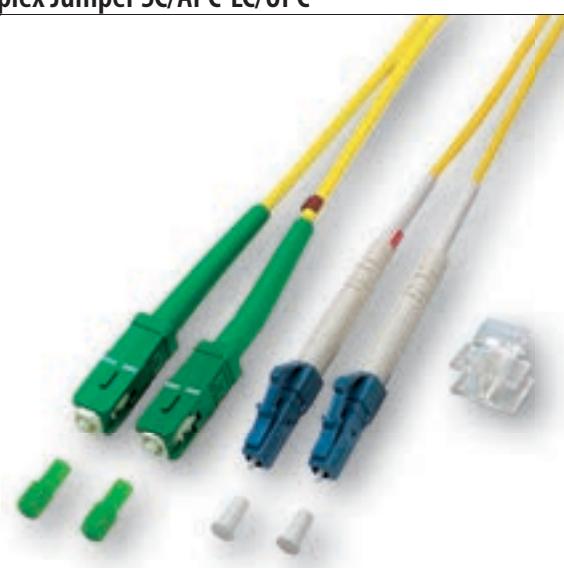
Art.-No.	Category	Colour outer sheath	Connector
02561.x	OS2	yellow	SC-Duplex green, SC-Duplex green

Duplex Jumper SC-ST

Stock length: 0,5 - 1,0 - 2,0 - 3,0 - 5,0 - 7,5 - 10 - 15 - 20 m

Cable type:I-V(ZN) H
 Cable Construction:Duplex
 Jacket Material:LSZH
 Cable Ø:3.0 mm
 Operating Temperature:-20 – 75 °C
 Storage Temperature:-20 – 85 °C

Art.-No.	Category	Colour outer sheath	Connector
02073.x	OS2	yellow	SC-Duplex blue, ST
00347.x	OM4	erica-violet	SC-Duplex beige, ST
07353.x	OM3	aqua	SC-Duplex beige, ST
06353.x	OM2	orange	SC-Duplex beige, ST
06363.x	OM1	orange	SC-Duplex beige, ST

Duplex Jumper SC/APC-LC/UPC

Stock length: 1,0 - 2,0 - 3,0 - 5,0 - 7,5 - 10 - 15 m

Cable type:I-V(ZN) H
 Cable Construction:Duplex
 Jacket Material:LSZH
 Cable Ø:2.0 mm
 Operating Temperature:-20 – 75 °C
 Storage Temperature:-20 – 85 °C

Art.-No.	Category	Colour outer sheath	Connector
00362.x	OS2	yellow	SC-Duplex green, LC-Duplex blue

Duplex Jumper ST-ST

Stock length: 0,5 - 1,0 - 2,0 - 3,0 - 5,0 - 7,5 - 10 - 15 - 20 m

Cable type:I-V(ZN) H
 Cable Construction:Duplex
 Jacket Material:LSZH
 Cable Ø:3.0 mm
 Operating Temperature:-20 – 75 °C
 Storage Temperature:-20 – 85 °C

Art.-No.	Category	Colour outer sheath	Connector
02003.x	OS2	yellow	ST , ST
00348.x	OM4	erica-violet	ST , ST
07013.x	OM3	aqua	ST , ST
06013.x	OM2	orange	ST , ST
06023.x	OM1	orange	ST , ST

Duplex Jumper E2000®/APC-E2000®/APC

Stock length: 0,50 - 1,0 - 2,0 - 3,0 - 5,0 - 7,5 - 10 - 15 - 20 - 25 - 30 m

Cable type:I-V(ZN) H
 Cable Construction:.....Duplex
 Jacket Material:.....LSZH
 Cable Ø:3.0 mm
 Operating Temperature:-20 - 75 °C
 Storage Temperature:-20 - 85 °C

Art.-No.	Category	Colour outer sheath	Connector
00933.x	OS2	yellow	E2000® green, E2000® green

Duplex Jumper E2000®/APC-LC

Stock length: 0,50 - 1,0 - 2,0 - 3,0 - 5,0 - 7,5 - 10 - 15 - 20 - 25 - 30 m

Cable type:I-V(ZN) H
 Cable Construction:.....Duplex
 Jacket Material:.....LSZH
 Cable Ø:3.0 mm
 Operating Temperature:-20 - 75 °C
 Storage Temperature:-20 - 85 °C

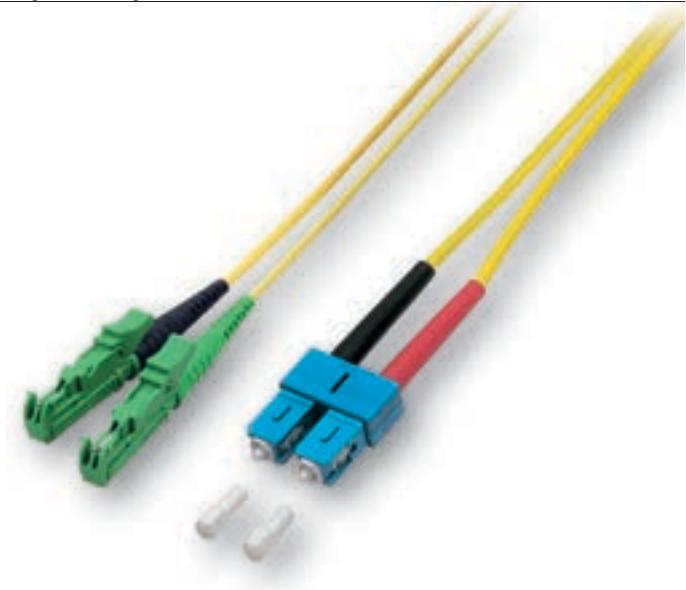
Art.-No.	Category	Colour outer sheath	Connector
00937.x	OS2	yellow	E2000® green, LC-Duplex blue

Duplex Jumper E2000®/APC-LC/APC

Stock length: 1,0 - 2,0 - 3,0 - 5,0 - 10 m

Cable type:I-V(ZN) H
 Cable Construction:.....Duplex
 Jacket Material:.....LSZH
 Cable Ø:2.0 mm
 Operating Temperature:-20 - 75 °C
 Storage Temperature:-20 - 85 °C

Art.-No.	Category	Colour outer sheath	Connector
00389.x	OS2	yellow	LC-Duplex green, E2000® green

Duplex Jumper E2000®/APC-SC

Stock length: 0,50 - 1,0 - 2,0 - 3,0 - 5,0 - 7,5 - 10 - 15 - 20 m

Cable type:I-V(ZN) H
 Cable Construction:.....Duplex
 Jacket Material:.....LSZH
 Cable Ø:3.0 mm
 Operating Temperature:-20 - 75 °C
 Storage Temperature:-20 - 85 °C

Art.-No.	Category	Colour outer sheath	Connector
00939.x	OS2	yellow	E2000® green, SC-Duplex blue

Duplex Jumper E2000®/APC-ST

Stock length: 0,50 - 1,0 - 2,0 - 3,0 - 5,0 - 7,5 - 10 - 15 - 20 m

Cable type:I-V(ZN) H
 Cable Construction:Duplex
 Jacket Material:LSZH
 Cable Ø:3.0 mm
 Operating Temperature:-20 – 75 °C
 Storage Temperature:-20 – 85 °C

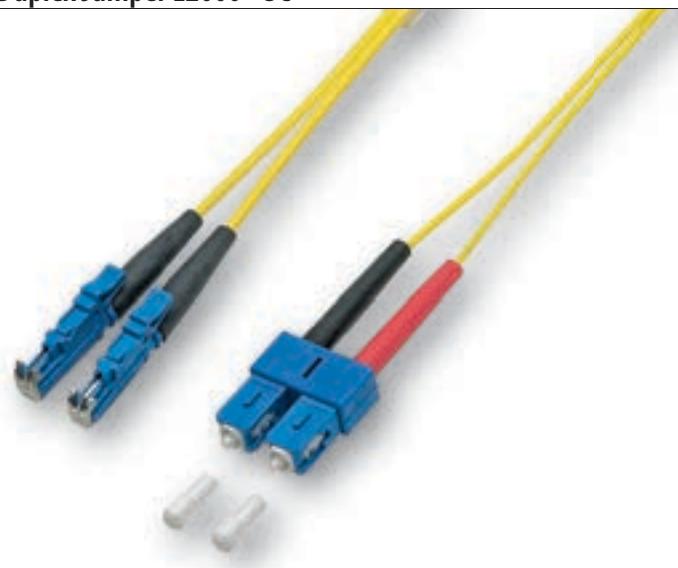
Art.-No.	Category	Colour outer sheath	Connector
00920.x	OS2	yellow	E2000® green, ST

Duplex Jumper E2000®-LC

Stock length: 1,0 - 2,0 - 3,0 - 5,0 - 10 m

Cable type:I-V(ZN) H
 Cable Construction:Duplex
 Jacket Material:LSZH
 Cable Ø:2.0 mm
 Operating Temperature:-20 – 75 °C
 Storage Temperature:-20 – 85 °C

Art.-No.	Category	Colour outer sheath	Connector
00364.x	OS2	yellow	LC-Duplex blue, E2000® blue

Duplex Jumper E2000®-SC

Stock length: 1,0 - 2,0 - 3,0 - 5,0 - 10 m

Cable type:I-V(ZN) H
 Cable Construction:Duplex
 Jacket Material:LSZH
 Cable Ø:3.0 mm
 Operating Temperature:-20 – 75 °C
 Storage Temperature:-20 – 85 °C

Art.-No.	Category	Colour outer sheath	Connector
00940.x	OS2	yellow	E2000® blue, SC-duplex blue

Duplex Jumper E2000®-ST

Stock length: 1,0 - 2,0 - 3,0 - 5,0 - 10 m

Cable type:I-V(ZN) H
 Cable Construction:Duplex
 Jacket Material:LSZH
 Cable Ø:3.0 mm
 Operating Temperature:-20 – 75 °C
 Storage Temperature:-20 – 85 °C

Art.-No.	Category	Colour outer sheath	Connector
00909.x	OS2	yellow	E2000® blue, ST

Duplex Jumper MTRJ-MTRJ

Stock length: 1,0- 2,0 - 3,0 - 5,0 - 10 m

Cable type:I-V(ZN) H
 Cable Construction:.....Duplex
 Jacket Material:.....LSZH
 Cable Ø:2.0 mm
 Operating Temperature:-20 – 75 °C
 Storage Temperature:-20 – 85 °C

Art.-No.	Category	Colour outer sheath	Connector
00724.x	OS2	yellow	MT-RJ black, MT-RJ black
00650.x	OM3	aqua	MT-RJ black, MT-RJ black
00700.x	OM2	orange	MT-RJ black, MT-RJ black
00701.x	OM1	orange	MT-RJ black, MT-RJ black

Duplex Jumper MTRJ-LC

Stock length: 1,0- 2,0 - 3,0 - 5,0 - 7,5 - 10 - 15 m

Cable type:I-V(ZN) H
 Cable Construction:.....Duplex
 Jacket Material:.....LSZH
 Cable Ø:2.0 mm
 Operating Temperature:-20 – 75 °C
 Storage Temperature:-20 – 85 °C

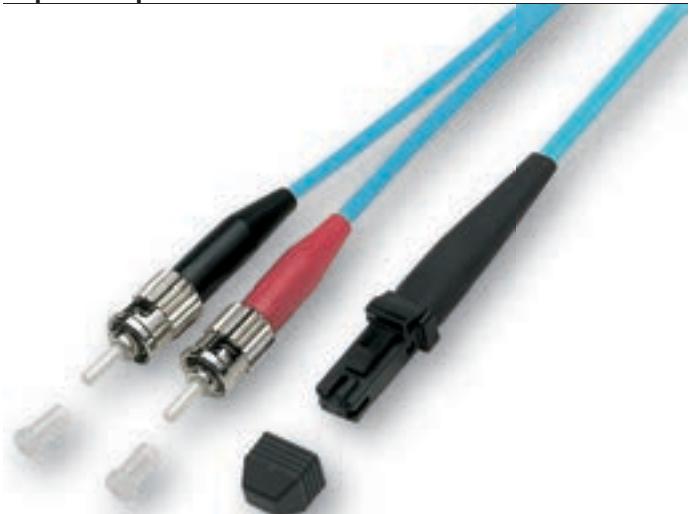
Art.-No.	Category	Colour outer sheath	Connector
00704.x	OS2	yellow	MT-RJ black, LC-Duplex blue
00680.x	OM3	aqua	MT-RJ black, LC-Duplex beige
00730.x	OM2	orange	MT-RJ black, LC-Duplex beige
00705.x	OM1	orange	MT-RJ black, LC-Duplex beige

Duplex Jumper MTRJ-SC

Stock length: 1,0- 2,0 - 3,0 - 5,0 - 10 m

Cable type:I-V(ZN) H
 Cable Construction:.....Duplex
 Jacket Material:.....LSZH
 Cable Ø:2.0 mm
 Operating Temperature:-20 – 75 °C
 Storage Temperature:-20 – 85 °C

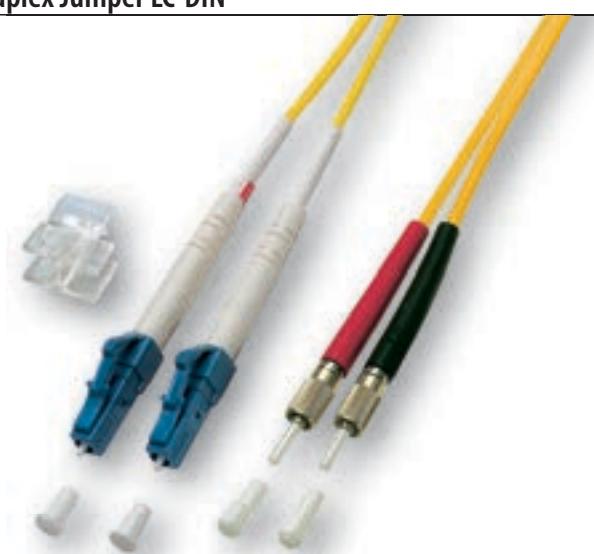
Art.-No.	Category	Colour outer sheath	Connector
00722.x	OS2	yellow	MT-RJ black, SC-Duplex blue
00670.x	OM3	aqua	MT-RJ black, SC-Duplex beige
00720.x	OM2	orange	MT-RJ black, SC-Duplex beige
00721.x	OM1	orange	MT-RJ black, SC-Duplex beige

Duplex Jumper MTRJ-ST

Stock length: 1,0- 2,0 - 3,0 - 5,0 - 10 m

Cable type:I-V(ZN) H
 Cable Construction:.....Duplex
 Jacket Material:.....LSZH
 Cable Ø:2.0 mm
 Operating Temperature:-20 – 75 °C
 Storage Temperature:-20 – 85 °C

Art.-No.	Category	Colour outer sheath	Connector
00723.x	OS2	yellow	MT-RJ black, ST
00660.x	OM3	aqua	MT-RJ black, ST
00710.x	OM2	orange	MT-RJ black, ST
00711.x	OM1	orange	MT-RJ black, ST

Duplex Jumper LC-DIN

Stock length: 1.0 - 2.0 - 3.0 - 5.0 - 10.0m

Cable type:I-V(ZN) H

Cable Construction:.....Duplex

Jacket Material:.....LSZH

Cable Ø:2.0 mm

Operating Temperature:-20 – 75 °C

Storage Temperature:-20 – 85 °C

Art.-No.	Category	Colour outer sheath	Connector
00349.x	OS2	yellow	LC-Duplex blue, DIN

Duplex Jumper LC-DIN/APC

Stock length: 1.0 - 3.0 - 5.0 - 10.0 m

Cable type:I-V(ZN) H

Cable Construction:.....Duplex

Jacket Material:.....LSZH

Cable Ø:2.0 mm

Operating Temperature:-20 – 75 °C

Storage Temperature:-20 – 85 °C

Art.-No.	Category	Colour outer sheath	Connector
00370.x	OS2	yellow	LC-Duplex blue, DIN

Duplex Jumper LC - FC

Stock length: 1,0 - 2,0 - 3,0 - 5,0 - 10 m

Cable type:I-V(ZN) H

Cable Construction:.....Duplex

Jacket Material:.....LSZH

Cable Ø:2.0 mm

Operating Temperature:-20 – 75 °C

Storage Temperature:-20 – 85 °C

Art.-No.	Category	Colour outer sheath	Connector
00340.x	OS2	yellow	LC-Duplex blue, FC



1. DLOLWL-Dämpfung	IL measurement for FO Jumper inclusive, label with serial number, lead time for 200pcs. approx. 5 working days plus regular picking time
2. DLOLWL-OTDR	OTDR-measurement of FO Links inclusive label with serial number, lead time for 200pcs. approx. 3 working days plus regular picking time
3. DLOLWL-Interfero	Interferometer measurement for Connectors inclusive label with serial number, lead time for 200pcs. approx. 3 working days plus regular picking time
4. DLO004	Assembling of label on both sides of cable, lead time for 200pcs. approx. 3 working days plus regular picking time

* lead time for other quantities on request



1.



2.



3.



Simplex Jumper LC-LC

Stock length: 1,0 - 2,0 - 3,0 - 5,0 - 10 m

Cable type:I-V(ZN) H
 Cable Construction:.....Simplex
 Jacket Material:.....LSZH
 Cable Ø:2.0 mm
 Operating Temperature:-20 – 75 °C
 Storage Temperature:.....-20 – 85 °C

Art.-No.	Category	Colour outer sheath	Connector
00948.x	OS2	yellow	LC blue, LC blue
05631.xOM3	OM3	aqua	LC beige, LC beige
05631.x	OM2	orange	LC beige, LC beige
05641.x	OM1	orange	LC beige, LC beige

Simplex Jumper LC-SC

Stock length: 1,0 - 2,0 - 3,0 - 5,0 - 10 m

Cable type:I-V(ZN) H
 Cable Construction:.....Simplex
 Jacket Material:.....LSZH
 Cable Ø:2.0 mm
 Operating Temperature:-20 – 75 °C
 Storage Temperature:.....-20 – 85 °C

Art.-No.	Category	Colour outer sheath	Connector
00947.x	OS2	yellow	LC blue, SC blue
05734.x	OM3	aqua	LC beige, SC beige
05671.x	OM2	orange	LC beige, SC beige
05681.x	OM1	orange	LC beige, SC beige

Simplex Jumper LC-ST

Stock length: 1,0 - 2,0 - 3,0 m

Cable type:I-V(ZN) H
 Cable Construction:.....Simplex
 Jacket Material:.....LSZH
 Cable Ø:2.0 mm
 Operating Temperature:-20 – 75 °C
 Storage Temperature:.....-20 – 85 °C

Art.-No.	Category	Colour outer sheath	Connector
05651.x	OM2	orange	LC beige, ST
05661.x	OM1	orange	LC beige, ST

Simplex Jumper E2000®/APC-E2000®/APC

Stock length: 0,50 - 1,0 - 2,0 - 3,0 - 5,0 - 10 - 15 - 20 m

Cable type:I-V(ZN) H
 Cable Construction:.....Simplex
 Jacket Material:.....LSZH
 Cable Ø:3.0 mm
 Operating Temperature:-20 – 75 °C
 Storage Temperature:.....-20 – 85 °C

Art.-No.	Category	Colour outer sheath	Connector
00833.x	OS2	yellow	E2000® green, E2000® green

Simplex Jumper E2000®/APC-LC/UPC

Stock length: 1,0 - 2,0 - 3,0 - 5,0 - 10 - 15 - 20 m

Cable type:I-V(ZN) H
 Cable Construction:.....Simplex
 Jacket Material:.....LSZH
 Cable Ø:3.0 mm
 Operating Temperature:-20 – 75 °C
 Storage Temperature:.....-20 – 85 °C

Art.-No.	Category	Colour outer sheath	Connector
01420.x	OS2	yellow	E2000® green, LC blue

Simplex Jumper E2000®/APC-SC

Stock length: 0,50 - 1,0 - 2,0 - 3,0 - 5,0 - 10 - 15 - 20 m

Cable type:I-V(ZN) H
 Cable Construction:.....Simplex
 Jacket Material:.....LSZH
 Cable Ø:3.0 mm
 Operating Temperature:-20 – 75 °C
 Storage Temperature:.....-20 – 85 °C

Art.-No.	Category	Colour outer sheath	Connector
00923.x	OS2	yellow	E2000® green, SC blue

Simplex Jumper SC/APC-SC/APC

Stock length: 0,50 - 1,0 - 2,0 - 3,0 - 5,0 - 10 - 15 - 20 m

Cable type:I-V(ZN) H
 Cable Construction:Simplex
 Jacket Material:LSZH
 Cable Ø:3.0 mm
 Operating Temperature:-20 - 75 °C
 Storage Temperatur:-20 - 85 °C

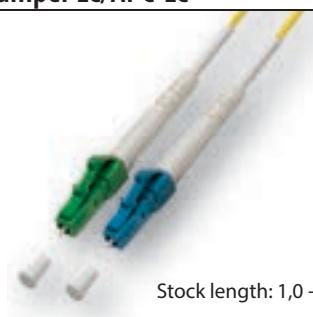
Art.-No.	Category	Colour outer sheath	Connector
00944.x	OS2	yellow	SC green, SC green

Simplex Jumper LC/APC-LC/APC

Stock length: 1,0 - 2,5 m

Cable type:I-V(ZN) H
 Cable Construction:Simplex
 Jacket Material:LSZH
 Cable Ø:2.0 mm
 Operating Temperature:-20 - 75 °C
 Storage Temperatur:-20 - 85 °C

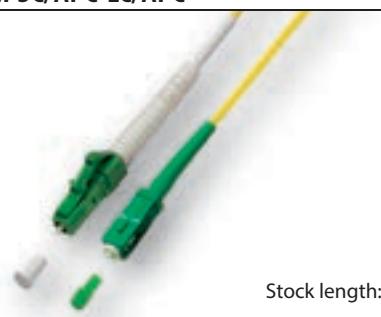
Art.-No.	Category	Colour outer sheath	Connector
02519.x	OS2	yellow	LC green, LC green

Simplex Jumper LC/APC-LC

Stock length: 1,0 - 3,0 - 5,0 - 6,0 - 7,5 - 8,0 - 20 m

Cable type:I-V(ZN) H
 Cable Construction:Simplex
 Jacket Material:LSZH
 Cable Ø:2.0 mm
 Operating Temperature:-20 - 75 °C
 Storage Temperature:-20 - 85 °C

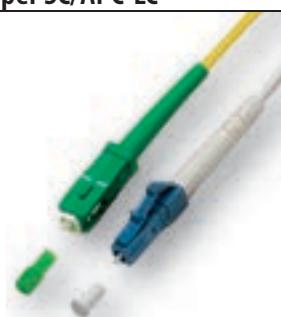
Art.-No.	Category	Colour outer sheath	Connector
01403.x	OS2	yellow	LC green, LC blue

Simplex Jumper SC/APC-LC/APC

Stock length: 1,0 - 2,5 - 15 m

Cable type:I-V(ZN) H
 Cable Construction:Simplex
 Jacket Material:LSZH
 Cable Ø:2.0 mm
 Operating Temperature:-20 - 75 °C
 Storage Temperature:-20 - 85 °C

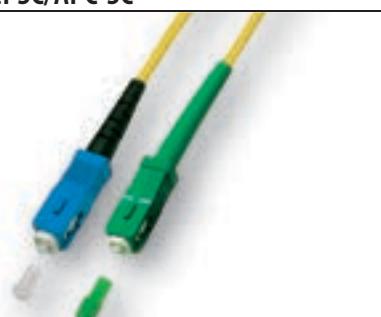
Art.-No.	Category	Colour outer sheath	Connector
02531.x	OS2	yellow	SC green, LC green

Simplex Jumper SC/APC-LC

Stock length: 1,0 - 2,0 - 3,0 - 5,0 - 10 - 15 m

Cable type:I-V(ZN) H
 Cable Construction:Simplex
 Jacket Material:LSZH
 Cable Ø:2.0 mm
 Operating Temperature:-20 - 75 °C
 Storage Temperature:-20 - 85 °C

Art.-No.	Category	Colour outer sheath	Connector
00946.x	OS2	yellow	SC green, LC blue

Simplex Jumper SC/APC-SC

Stock length: 1,0 - 2,0 - 3,0 - 5,0 - 10 m

Cable type:I-V(ZN) H
 Cable Construction:Simplex
 Jacket Material:LSZH
 Cable Ø:3.0 mm
 Operating Temperature:-20 - 75 °C
 Storage Temperature:-20 - 85 °C

Art.-No.	Category	Colour outer sheath	Connector
00928.x	OS2	yellow	SC green, SC blue

Simplex Jumper SC-SC

Stock length: 1,0 - 2,0 - 3,0 - 5,0 - 10 m

Cable type:I-V(ZN) H

Cable Construction:.....Simplex

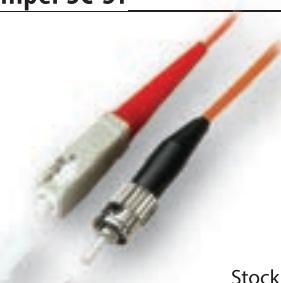
Jacket Material:.....LSZH

Cable Ø:3.0 mm

Operating Temperature:-20 – 75 °C

Storage Temperature:-20 – 85 °C

Art.-No.	Category	Colour outer sheath	Connector
01323.x	OS2	yellow	SC blue, SC blue
05093.x	OM2	orange	SC beige, SC beige
05103.x	OM1	orange	SC beige, SC beige

Simplex Jumper SC-ST

Stock length: 1,0 - 2,0 - 3,0 - 5,0 - 10 m

Cable type:I-V(ZN) H

Cable Construction:.....Simplex

Jacket Material:.....LSZH

Cable Ø:3.0 mm

Operating Temperature:-20 – 75 °C

Storage Temperature:-20 – 85 °C

Art.-No.	Category	Colour outer sheath	Connector
05133.x	OM2	orange	SC beige, ST
05143.x	OM1	orange	SC beige, ST

Simplex Jumper ST-ST

Stock length: 1,0 - 2,0 - 3,0 - 5,0 - 10 m

Cable type:I-V(ZN) H

Cable Construction:.....Simplex

Jacket Material:.....LSZH

Cable Ø:3.0 mm

Operating Temperature:-20 – 75 °C

Storage Temperature:-20 – 85 °C

Art.-No.	Category	Colour outer sheath	Connector
05013.x	OM2	orange	ST, ST
05023.x	OM1	orange	ST, ST

Simplex Jumper E2000®-LC

Stock length: 1,0 - 2,0 - 3,0 - 5,0 - 10 m

Cable type:I-V(ZN) H

Cable Construction:.....Simplex

Jacket Material:.....LSZH

Cable Ø:3.0 mm

Operating Temperature:-20 – 75 °C

Storage Temperature:-20 – 85 °C

Art.-No.	Category	Colour outer sheath	Connector
00863.x	OS2	yellow	E2000® blue, LC blue
05721.x	OM1	orange	E2000® black, LC beige

Simplex Jumper E2000®-SC

Stock length: 1,0 - 2,0 - 3,0 - 5,0 - 10 m

Cable type:I-V(ZN) H

Cable Construction:.....Simplex

Jacket Material:.....LSZH

Cable Ø:3.0 mm

Operating Temperature:-20 – 75 °C

Storage Temperature:-20 – 85 °C

Art.-No.	Category	Colour outer sheath	Connector
00839.x	OS2	yellow	E2000® blue, LC blue
00849.x	OM2	orange	E2000® black, SC beige
00859.x	OM1	orange	E2000® black, SC beige

Simplex Jumper LC-FC

Stock length: 1,0 - 2,0 - 3,0 - 5,0 - 10 m

Cable type:I-V(ZN) H

Cable Construction:.....Simplex

Jacket Material:.....LSZH

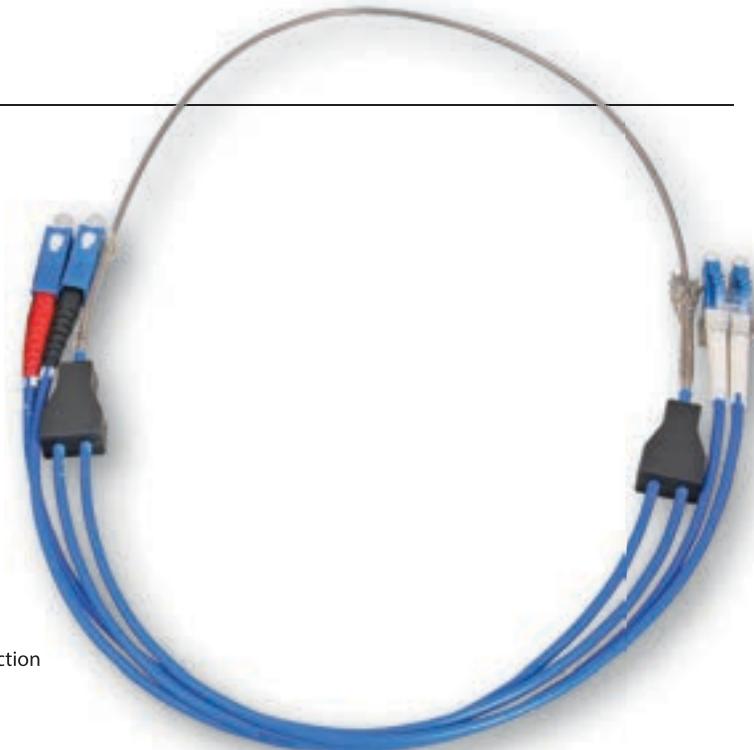
Cable Ø:2.0 mm

Operating Temperature:-20 – 75 °C

Storage Temperature:-20 – 85 °C

Art.-No.	Category	Colour outer sheath	Connector
00440.x	OS2	yellow	LC blue, FC

Duplex Jumper, steel armored



SOLID!

Crush-resistance = 30.000 N per square centimeter

equals 3 tons / cm²

Stainless steel spiral coil and stainless steel braid for high mechanical protection

Non-crushable, shock-proof, bend-resistant

Very high flexibility

High lateral pressure and tensile resistance

Duplex Jumper, steel armored, SC-Duplex, SC-Duplex

Stock length: 1,0 - 2,0 - 3,0 - 5,0 m

Art.-No.	Catergory	Colour outer sheath	Connector	Cable Ø
06500.x	OM2	grey	SC-Duplex beige, SC-Duplex beige	3,0 mm
06501.x	OS2	yellow	SC-Duplex blue, SC-Duplex blue	3,0 mm

Duplex Jumper, steel armored, SC-Duplex, ST

Art.-No.	Catergory	Colour outer sheath	Connector	Cable Ø
06502.x	OM2	grey	SC-Duplex beige, ST	3,0 mm
06503.x	OS2	yellow	SC-Duplex blue, ST	3,0 mm

Duplex Jumper, steel armored, LC-Duplex, LC-Duplex

Art.-No.	Catergory	Colour outer sheath	Connector	Cable Ø
06504.x	OM2	grey	LC-Duplex beige, LC-Duplex beige	3,0 mm
06505.x	OS2	blue	LC-Duplex blue, LC-Duplex blue	3,0 mm

Duplex Jumper, steel armored, LC-Duplex, SC-Duplex

Art.-No.	Catergory	Colour outer sheath	Connector	Cable Ø
06506.x	OM2	grey	LC-Duplex beige, SC-Duplex beige	3,0 mm
06507.x	OS2	yellow	LC-Duplex blue, SC-Duplex blue	3,0 mm

Duplex Jumper, steel armored, LC-Duplex, ST

Art.-No.	Catergory	Colour outer sheath	Connector	Cable Ø
06508.x	OM2	grey	LC-Duplex beige, ST	3,0 mm
06509.x	OS2	yellow	LC-Duplex blue, ST	3,0 mm

Duplex Jumper LC/Compact-LC/Compact, steel armored



Art.-No.	Description	Colour outer sheath	Connector	Cable Ø
065101.x	OS2	blue	LC-Duplex blue, LC-Duplex blue	3,0 mm
065100.x	OM2	grey	LC-Duplex beige, LC-Duplex beige	3,0 mm

Duplex Jumper, 1.2mm

Duplex Jumper with 1.2mm outer jacket
 Space-saving installation due to the small outer diameter
 Halogen free according to IEC-60754-2
 Flame retardant according to IEC-60332-1
 Low smoke according to IEC-61034
 Connector in colour of category (aqua, erika-violet or blue)
 LC connector in Compact design
 EFB fiber connectors meet the quality classes
 Grade B/2 according to IEC-61753-1 for Singlemode
 Grade A/1 according to IEC-61753-122-2 (Draft) for Multimode
 pre-coded
 100% tested and with individuell measuring protocol

Cable type:I-V(ZN) H

Cable Construction:.....Duplex

Jacket Material:.....LSZH

Cable Ø:1.2 mm

Operating Temperature:-20 – 75 °C

Storage Temperature:.....-20 – 85 °C



Stock length: 0,5 - 1,0 - 2,0 - 3,0 - 5,0 - 10,0 m

Art.-No.	Category	Colour outer sheath	Connector
00350.xx-1.2	OS2	yellow	LC-Duplex blue, LC-Duplex blue
00360.xx-1.2	OS2	yellow	LC-Duplex blue, SC-Duplex blue
02513.xx-1.2	OS2	yellow	SC-Duplex blue, SC-Duplex blue
00319.xx-1.2	OM4	erica-violet	LC-Duplex erica-violet, LC-Duplex erica-violet
00323.xx-1.2	OM4	erica-violet	LC-Duplex erica-violet, SC-Duplex erica-violet
00318.xx-1.2	OM4	erica-violet	SC-Duplex erica-violet, SC-Duplex erica-violet
00312.xx-1.2	OM3	aqua	LC-Duplex aqua, LC-Duplex aqua
00314.xx-1.2	OM3	aqua	LC-Duplex aqua, SC-Duplex aqua
07413.xx-1.2	OM3	aqua	SC-Duplex aqua, SC-Duplex aqua

Duplex Jumper, Flat Twin



Additional outer jacket for higher stability and easier installation
 Halogen free according to IEC-60754-2
 Flame retardant according to IEC-60332-1
 Low smoke according to IEC-61034
 Cable whip length of 150mm inclusive connector
 Same colour of Cable whip and jacket material
 Compact cable diameter of 5mm x 3mm
 Simple allocation of the fibers with boots in different colours or A/B markers
 Possibility of coding with clips enclosed to the delivery

Cable type: Duplex Flat Twin

Cable Construction:.....Duplex

Jacket Material:.....LSZH

Cable Ø:3x5 mm

Operating Temperature:-40 – 70 °C

Storage Temperature:.....-40 – 85 °C

Stock length: 0,50 - 1,0 - 2,0 - 3,0 - 5,0 - 10 m

Art.-No.	Category	Colour outer sheath	Connector
00350FT.x	OS2	yellow	LC-Duplex blue, LC-Duplex blue
00360FT.x	OS2	yellow	LC-Duplex blue, SC-Duplex blue
02513FT.x	OS2	yellow	SC-Duplex blue, SC-Duplex blue
00319FT.x	OM4	erica-violet	LC-Duplex beige, LC-Duplex beige
00323FT.x	OM4	erica-violet	LC-Duplex beige, SC-Duplex beige
00318FT.x	OM4	erica-violet	SC-Duplex beige, SC-Duplex beige
00312FT.x	OM3	aqua	LC-Duplex beige, LC-Duplex beige
00314FT.x	OM3	aqua	LC-Duplex beige, SC-Duplex beige
07413FT.x	OM3	aqua	SC-Duplex beige, SC-Duplex beige

Duplex Jumper HD Uniboot LC/UPC - LC/UPC



Stock length: 0,50 - 1,0 - 1,50 - 2,0 - 3,0 - 5,0 - 7,5 - 10 - 15 m

The LC HD Uniboot Jumper has a long unlock latch, due to unlock in the easiest way in HD patchpanel. The Polarity or Coding of the Duplex connector can be changed in the easiest way that it can reach the requirements of the application. The Jumper is available in the categories OM3, OM4 and G657A1.

Cable type: I-V(ZN) H

Cable Construction: Duplex

Jacket Material: LSZH

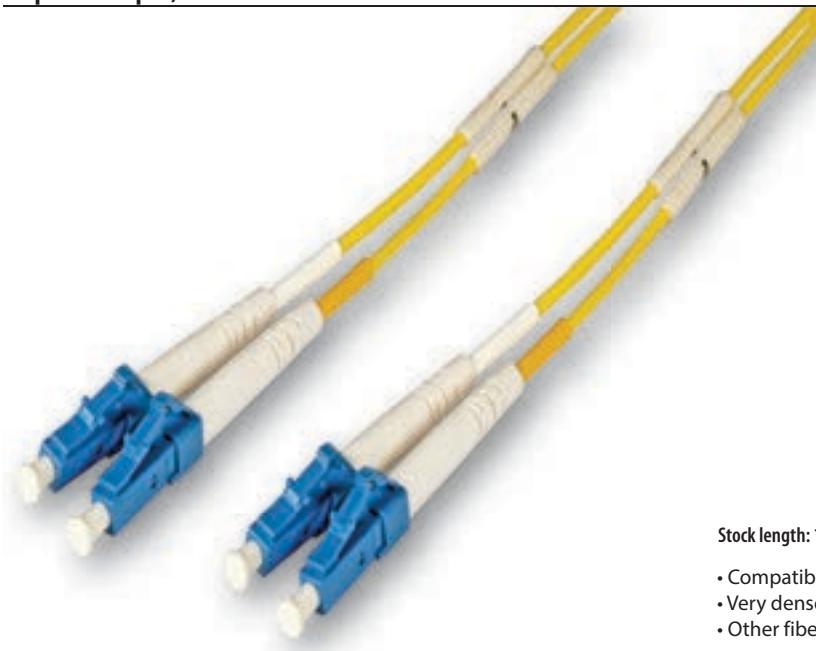
Cable Ø: 3.0

Operating Temperature: -20 – 70 °C

Storage Temperature: -20 – 70 °C

Art.-No.	Category	Colour outer sheath	Connector
DJP-LCLCOS2-UNI-xx	G657A1	yellow	LC blue, LC blue
DJP-LCLCOM4-UNI-xx	OM4	erica-violet	LC erica-violet, LC erica-violet
DJP-LCLCOM3-UNI-xx	OM3	aqua	LC aqua, LC aqua

Duplex Jumper, bend insensitive



Stock length: 1,0 - 2,0 - 3,0 - 5,0 m

- Compatible to ITU-T G.652D and OS2

- Very dense bendings are possible without loss of energy

- Other fiber qualities and types of connectors on request

Cable type: I-V(ZN) H

Cable Construction: Duplex

Jacket Material: LSZH

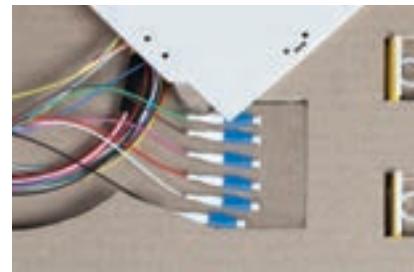
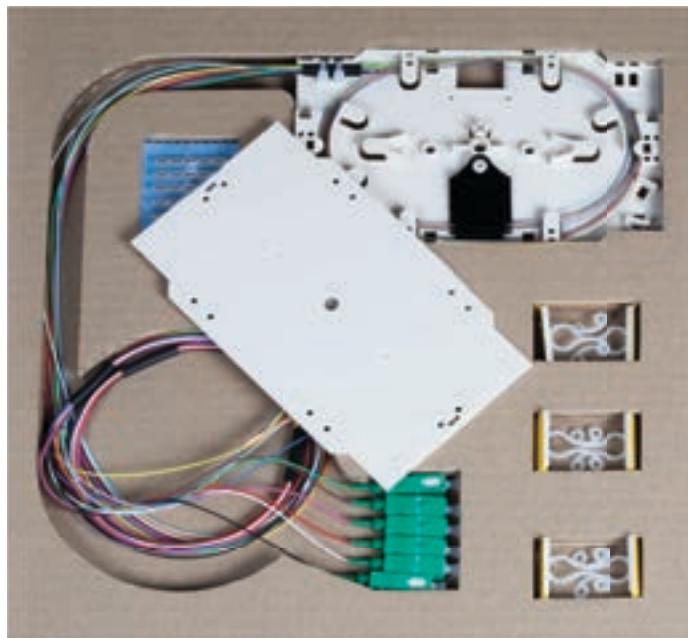
Cable Ø: 2.0 mm

Operating Temperature: -20 – 75 °C

Storage Temperature: -20 – 85 °C

Art.-No.	Category	Colour outer sheath	Connector
00350BI.x	OS2	yellow	LC-Duplex blue, LC-Duplex blue
00360BI.x	OS2	yellow	LC-Duplex blue, SC-Duplex blue

Easy Splice Pigtail Set



The pigtail set is ready for splice and direct use. The 12 SC fiber pigtails are coloured according to DIN VDE 0888 and bundled with shrink tube grommet around the fibers. The cable drillers in the set are bound for a decent laying and fiber guidance. The use of the special manufactured packaging warrants a safe transportation.

Scope of delivery

- 12x SC pigtauls
- 1x splice cassette
- 1x cover
- 1x splice holder
- 12x splice protection
- 6x cable driller for fiber guidance

Easy Splice Pigtailset, LC/APC

Art.-No.	Category	Colour	Type of connector
00482SET	0S2	12-colours	LC/APC green

Easy Splice Pigtailset, SC/APC

Art.-No.	Category	Colour	Type of connector
01015SET	0S2	12-colours	SC/APC green

Easy Splice Pigtailset, LC

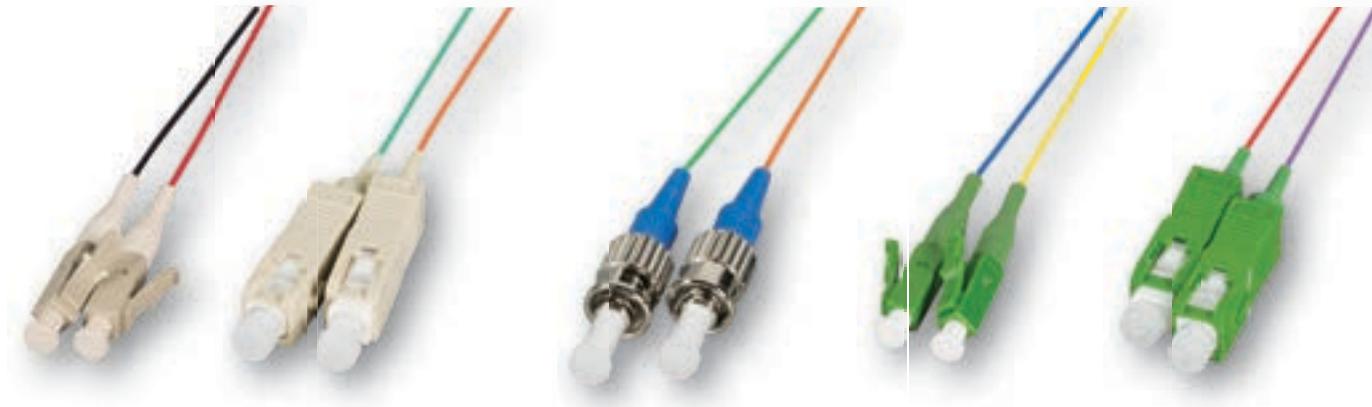
Art.-No.	Category	Colour	Type of connector
00481SET	0S2	12-colours	LC blue
034830M5SET	0M5	12-colours	LC beige
03483SET	0M4	12-colours	LC beige
03482SET	0M3	12-colours	LC beige
03484SET	0M2	12-colours	LC beige

Easy Splice Pigtailset, SC

Art.-No.	Category	Colour	Type of connector
01022SET	0S2	12-colours	SC blue
033260M5SET	0M5	12-colours	SC beige
03326SET	0M4	12-colours	SC beige
03325SET	0M3	12-colours	SC beige
03324SET	0M2	12-colours	SC beige

Pigtails

EFB-Elektronik offers a wide portfolio of fiber optic pigtails in the categories Multimode (OM1, OM2, OM3, OM4, OM5) and Singlemode (OS2). These are available in single colour and 12-coloured version as well as with different connectors such as SC, LC, E2000® etc.. The colour-code for the 12-coloured fiber pigtails is according to DIN VDE 0888 and the fiber is dyed accordingly except for the 250µ fiber. The fiber pigtails of the EFB-Elektronik have a semi tight buffer as standard and are therefore very easy to use.



12-Coloured Pigtails

	LC	SC	ST	LC/APC	SC/APC	E2000®/APC
OS2	00481.2	01022.2	01004.2	00482.2	01015.2	00769.2
OM5	03483.20M5	03326.20M5	-			
OM4	03483.2	03326.2	03307.2			
OM3	03482.2	03325.2	03305.2			
OM2	03484.2	03324.2	03304.2			

APC polish is not used in Multimode Category

PU 12, Price/PU



Single Coloured Pigtails

	LC	SC	ST	E2000®	FC	SC/APC	E2000	
OS2	00480.2	01023.2	01003.2	00779.2	01133.2	01019.2	00770.2	
OM5	03686.20M5	03685.20M5	-	-				
OM4	03686.2	03685.2	03687.2	-				
OM3	03681.2	03623.2	03603.2	-				
OM2	03481.2	03323.2	03303.2	-				
OM1	03491.2	03333.2	03313.2	-				

APC polish is not used in Multimode Category

PU 12, Price/piece



PRE-ASSEMBLED BREAKOUT- & LOOSE TUBE FIBER CABLE

EFB-Elektronik supplies pre-assembled breakout- and loose tube fiber cables of all current fiber optic connectors such as LC, E2000®, SC, DIN, FSMA and ST with PC or APC polishing. An extensive assortment with bulk stock of fiber optic cables and fiber optic connectors guarantees fast delivery. The identification of individual cables is enabled by labelling with letters or numbers. Thanks to our own production in Germany, customer orders with individual requirements are fully assembled and delivered in a timely manner.

Your benefits at a glance:

100% quality by means of repeated polishing and subsequent functional test on request, special versions with 2 to 48 fibers per cable (higher fiber number on request) are for example available combined in the categories OM5 and OS2. Depending on the length and type of cable, the delivery occurs either on a retractable drum or as a cable ring with cable lashings, with both sides offset and assembled breakout cables

FIBER OPTIC

**Cable divider**

Art.-Nr.	Description	Number of connectors	Ø in mm
B9000.1	Drawing-In Tube	up to 24	33,5
B9000.2	Premium „1“ cable divider, 1 M	up to 12	33,5
B9000.2-24	Premium „2“ cable divider, 1 M	up to 24	41,0

OS2 9/125µ**Universal Cable U-DQ(ZN) BH**

	4	8	12	24
ST - ST	08121.x	08131.x	08141.x	08821.x
LC - LC	08122.x	08132.x	08814.x	08832.x
SC - SC	08421.x	08431.x	08441.x	08831.x
LC - SC	08430.x	08432.x	08442.x	08829.x
ST - SC	08801.x	08451.x	08811.x	08161.x
LC - E2000°	08417.x			
LC - SC-APC	08418.x	08438.x	08446.x	08827.x
E2000° - E2000°	08125.x	08461.x	08146.x	08834.x
SC - E2000°	08126.x	08460.x	08147.x	08826.x
SC - SC-APC	08422.x	08435.x	08443.x	08162.x
SC-APC - SC-APC	08428.x	08439.x	08445.x	08835.x
E2000°-APC - SC-APC	08804.x			
ST - E2000°	08124.x	08454.x	08144.x	08833.x
ST - LC	08123.x	08133.x	08143.x	08828.x

OM5 50/125µ**Universal Cable U-DQ(ZN) BH**

	4	8	12	24
LC - LC		08303.x0M5		
SC - SC		08301.x0M5		

OM4 50/125µ**Universal Cable U-DQ(ZN) BH**

	4	8	12	24
ST - ST	08201.x0M4	08221.x0M4	08241.x0M4	08381.x0M4
LC - SC	08302.x0M4	08325.x0M4	08344.x0M4	08393.x0M4
LC - LC	08303.x0M4	08322.x0M4	08342.x0M4	08392.x0M4
ST - SC	09711.x0M4	09731.x0M4	09751.x0M4	08390.x0M4
ST - LC	08307.x0M4	08223.x0M4	08242.x0M4	08391.x0M4
SC - SC	08301.x0M4	08321.x0M4	08341.x0M4	08382.x0M4

OM3 50/125µ**Universal Cable U-DQ(ZN) BH**

	12	24	4	8
SC - SC	08341.x0M3	08382.x0M3	08301.x0M3	08321.x0M3
LC - SC	08344.x0M3	08393.x0M3	08302.x0M3	08325.x0M3
LC - LC	08342.x0M3	08392.x0M3	08303.x0M3	08322.x0M3
ST - ST	08241.x0M3	08381.x0M3	08201.x0M3	08221.x0M3
ST - SC	09751.x0M3	08390.x0M3	09711.x0M3	09731.x0M3
ST - LC	08242.x0M3	08391.x0M3	08307.x0M3	08223.x0M3

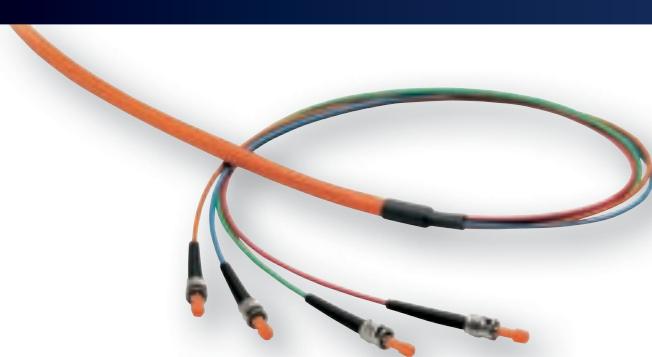
OM2 50/125µ**Universal Cable U-DQ(ZN) BH**

	4	8	12	24
ST - ST	08201.x	08221.x	08241.x	08381.x
SC - SC	08301.x	08321.x	08341.x	08382.x
LC - SC	08302.x	08325.x	08344.x	08393.x
LC - LC	08303.x	08322.x	08342.x	08392.x
LC - ST	08307.x	08223.x	08242.x	08391.x
ST - SC	09711.x	09731.x	09751.x	08390.x

OM1 62,5/125µ**Universal Cable U-DQ(ZN) BH**

	4	8	12	24
SC - SC	08311.x	08331.x	08351.x	08181.x
LC - LC	08214.x	08332.x	08360.x	08182.x
LC - SC	08312.x	08333.x	08352.x	08183.x
ST - ST	08211.x	08231.x	08251.x	08281.x
ST - LC	08212.x	08334.x	08252.x	08283.x
ST - SC	09721.x	09741.x	09761.x	08291.x

further versions available on request



Breakout I-V(ZN) HH				
	2	4	8	12
LC - SC	01790.x	01820.x	01832.x	01873.x
ST - LC	01792.x	01712.x	01732.x	01752.x
ST - ST	01800.x	01711.x	01731.x	01751.x
ST - SC	01801.x	01723.x	01740.x	01951.x
SC - SC	01802.x	01811.x	01831.x	01851.x
LC - LC	01803.x	01812.x	01840.x	01754.x
SC - SC/APC	01805.x	01815.x		01879.x
SC/APC - SC/APC	01806.x	01818.x		01885.x
LC - SC-APC	01780.x	01713.x	01846.x	01881.x
LC - E2000°	01794.x	01719.x		01755.x
ST - E2000°	01807.x	01714.x	01736.x	01825.x
SC - E2000°	01808.x		01834.x	01865.x
E2000° - E2000°	01809.x	01716.x	01839.x	01824.x
ST - SC/APC	01783.x	01715.x	01733.x	01878.x

Breakout I-V(ZN) HH				
	2	4	8	12
ST - LC	06122.x0M4	06512.x0M4	06532.x0M4	09872.x0M4
ST - ST	06131.x0M4	06511.x0M4	06531.x0M4	06551.x0M4
SC - SC	06771.x0M4	06711.x0M4	06671.x0M4	06751.x0M4
LC - SC	06772.x0M4	06712.x0M4	06674.x0M4	06752.x0M4
LC - LC	06773.x0M4	06720.x0M4	06672.x0M4	09873.x0M4
ST - SC	09811.x0M4	09831.x0M4	09851.x0M4	09871.x0M4

Breakout I-V(ZN) HH				
	2	4	8	12
ST - LC	06122.x0M3	06512.x0M3	06532.x0M3	09872.x0M3
ST - ST	06131.x0M3	06511.x0M3	06531.x0M3	06551.x0M3
SC - SC	06771.x0M3	06711.x0M3	06671.x0M3	06751.x0M3
LC - SC	06772.x0M3	06712.x0M3	06674.x0M3	06752.x0M3
LC - LC	06773.x0M3	06720.x0M3	06672.x0M3	09873.x0M3
ST - SC	09811.x0M3	09831.x0M3	09851.x0M3	09871.x0M3
LC - E2000°	06123.x0M3	06713.x0M3		
E2000° - E2000°	06774.x0M3		06534.x0M3	06754.x0M3
SC - E2000°	06775.x0M3	06714.x0M3		

Breakout I-V(ZN) HH				
	2	4	8	12
ST - LC	06122.x	06512.x	06532.x	09872.x
ST - ST	06131.x	06511.x	06531.x	06551.x
SC - SC	06771.x	06711.x	06671.x	06751.x
LC - SC	06772.x	06712.x	06674.x	06752.x
LC - LC	06773.x	06720.x	06672.x	09873.x
ST - SC	09811.x	09831.x	09851.x	09871.x
E2000° - E2000°	06774.x	06514.x	06534.x	06754.x
SC - E2000°	06775.x	06714.x	06535.x	06753.x
ST - E2000°	06779.x	06715.x		
LC - E2000°		06713.x		06755.x

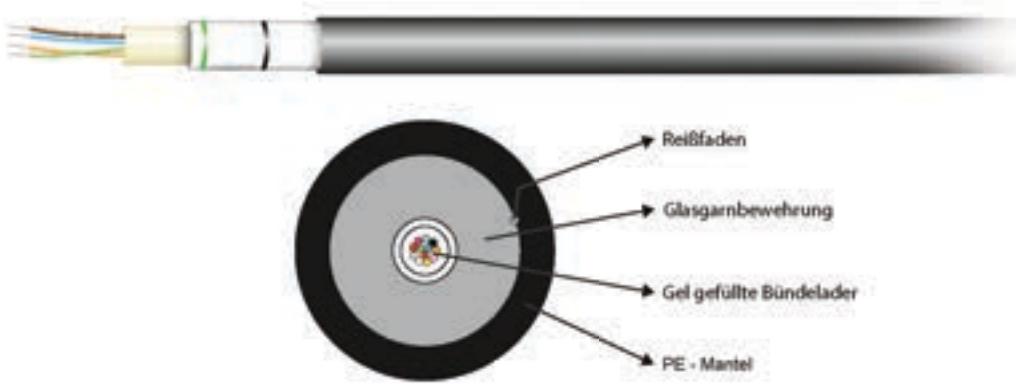
Breakout I-V(ZN) HH				
	2	4	8	12
LC - ST	06892.x	06523.x	06545.x	
ST - ST	06141.x	06521.x	06541.x	06561.x
SC - SC	06781.x	06721.x	06681.x	06761.x
LC - SC	06890.x	06722.x	06682.x	06562.x
LC - LC	06891.x	06522.x	06542.x	06570.x
ST - SC	09821.x	09841.x	09861.x	09881.x

OM-Classification ISO/IEC 11801		OM1	OM2	OM3	OM4	OM5
Min. modal bandwidth with overfilled launch [MHz*km]	850 nm 1300 nm	200 500	500 500	1500 500	3500 500	4700 2470
Min. modal bandwidth EMB (effective laser bandwidth) [MHz*km]	850 nm	n/s	n/s	2000	4700	n/s
Attenuation[dB/km]	1300 nm 850 nm	1.5 3.5	1.5 3.5	1.5 3.5	1.5 3.5	1.5 3.5

Fiber Grade	Core/Cladding	Attenuation[dB/km] 1300nm 850nm	Gigabit 1000BaseSX	Gigabit 1000BaseLX	10Gigabit 10GBaseSR	25 Gigabit 25GBaseSR	40 Gigabit 40GBaseSR4	100 Gigabit 100GBaseSR4
OM1	62.5/125µ	1.5 3.5	275 m	550 m	ca. 30 m	-	-	-
OM2	50/125µ	1.5 3.5	550 m	550 m	ca. 80 m	-	-	-
OM3	50/125µ	1.5 3.5	1000 m	550 m	300 m	70 m	100 m	70 m
OM4	50/125µ	1.5 3.5	>1000 m	550 m	550 m	100 m	150 m	100 m
OM5	50/125µ	1,5 3,5	>1000 m	550 m	550 m	440 m	150 m	150 m

BLP = Bandwidth - lengths per duct

Number	Parameters	Abbreviation	Property
1	Cable type	I	Indoor cable
		A	Outdoor cable
		AT	Breakout cable
2	Fiber protection	F	Fiber with 250 µm buffer
		V	Full core, i.e. F with 900 µm buffer
		H	Hollow core, one fiber dry
		W	Hollow core filled with GEL
		B	Bundled core, many fibers dry
		D	Bundled core filled with GEL
3	Central element	S	Metal strand as cable core
4	Cable filling	F	Hollow core filled with GEL
5	Outer jacket	H	Halogen-free material
		Y	PVC (polyvinyl chloride)
		2Y	PE (poly ethylene)
		(L)2Y	Sheath with PE
		(D)2Y	PE with plastic barrier layer
		(ZN)2Y	PE with non-metallic strain relief
		(BN)2Y	PE with non-metallic glas-fiber yarn armouring
		4Y	PA (rodent-proof polyamide)
		11Y	PUR (polyurethane, elastic, chemically resistant)
6	Armouring	B	Armouring, general
		BY	Armouring plus PVC protective sheath
		B2Y	Armouring plus PE protective sheath
		Q	Swelling fleece wrap
7	Number of fibers	e.g.:6	6 full cores or cable
		4x6	4 bundle cores, each with 6 fibers
8	Fiber Type	E	Single-mode fiber (Single-mode)
		G	Gradient index fiber (Multi-mode)
		S	Step index fiber, glass/glass
		K	Step index fiber, glass/plastic
		P	Plastic fiber
9	Fiber core	µm	e.g.: 9, 50 or 62.5
10	Fiber jacket	µm	e.g.: 125
11	Attenuation	dB/km	at the wavelength of No. 12
12	Wavelength	B	850 nm
		F	1300 nm (MM) and 1310 nm (SM)
		H	1550 nm
13	Dispersion	MHz x km	Bandwidth on multimode fibers
		ns/km	with single-mode also ps/nm/km
14	Special types	LG	Layer stranding of the cable
		SZ	SZ stranding of the cable

**Application:**

Outdoor
Suitable for direct burial, duct or shaft installation
Primary cabling (Campus), Backbone

Standards:

Longitudinal water tight: IEC 60794-1-2
Transmission specifications: IEC 60793
Cabling: ISO/IEC 11801, EN 50173

Characteristics:

PE jacket black, non-metallic, longitudinal water tight, halogen free
UV resistant, rodent resistant
Suitable for blowing in application
Central/Loose tubes, 250µm coating

The cable diameter can vary

Temperature Range (Operation): see table
Temperature Range (Storage): -30..70 °C
Temperaturer Range (Installation): 5..50 °C

Outdoor Cable A-DQ (ZN)B2Y SM G657.A1

Art.-No.	Construct	Cable Ø	Bending radius	Colour outer sheath	Tensile Force	Temperature Range (Operation)
55404.1	04E (1x4) Singlemode G.657.A1	7.0 mm	140 mm	black	1600 N	-40..70 °C
55408.1	08E (1x8) Singlemode G.657.A1	7.0 mm	140 mm	black	1600 N	-40..70 °C
55412.1	12E (1x12) Singlemode G.657.A1	7.0 mm	140 mm	black	1600 N	-40..70 °C
55424.1	24E (1x24) Singlemode G.657.A1	7.4 mm	150 mm	black	1600 N	-40..70 °C
55448.1	48E (4x12) Singlemode G.657.A1	10.6 mm	170 mm	black	3500 N	-40..70 °C
55496.1	96E (8x12) Singlemode G.657.A1	13.0 mm	260 mm	black	5000 N	-40..70 °C
554144.1	144E (12x12) Singlemode G.657.A1	16.3 mm	330 mm	black	5500 N	-40..70 °C

Outdoor Cable A-DQ (ZN)B2YMM OM4

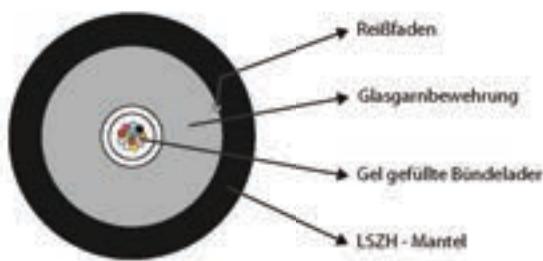
Art.-No.	Construct	Cable Ø	Bending radius	Colour outer sheath	Tensile Force	Temperature Range (Operation)
55204.10M4	4G (1x4) Multimode OM4	7.0 mm	140 mm	black	1600 N	-20..70 °C
55208.10M4	8G (1x8) Multimode OM4	7.0 mm	140 mm	black	1600 N	-20..70 °C
55212.10M4	12G (1x12) Multimode OM4	7.0 mm	140 mm	black	1600 N	-20..70 °C
55224.10M4	24G (1x24) Multimode OM4	7.4 mm	150 mm	black	1600 N	-20..70 °C
55248.10M4	48G (4x12) Multimode OM4	10.6 mm	170 mm	black	3500 N	-20..70 °C

Outdoor Cable A-DQ (ZN)B2Y MM OM3

Art.-No.	Construct	Cable Ø	Bending radius	Colour outer sheath	Tensile Force	Temperature Range (Operation)
55204.10M3	4G (1x4) Multimode OM3	7.0 mm	140 mm	black	1600 N	-20..70 °C
55208.10M3	8G (1x8) Multimode OM3	7.0 mm	140 mm	black	1600 N	-20..70 °C
55212.10M3	12G (1x12) Multimode OM3	7.0 mm	140 mm	black	1600 N	-20..70 °C
55224.10M3	24G (1x24) Multimode OM3	7.4 mm	150 mm	black	1600 N	-20..70 °C
55248.10M3	48G (4x12) Multimode OM3	10.6 mm	170 mm	black	3500 N	-20..70 °C

Outdoor Cable A-DQ (ZN)B2Y MM OM2

Art.-No.	Construct	Cable Ø	Bending radius	Colour outer sheath	Tensile Force	Temperature Range (Operation)
55204.1	4G (1x4) Multimode OM2	7.0 mm	140 mm	black	1600 N	-20..70 °C
55208.1A	8G (1x8) Multimode OM2	7.0 mm	140 mm	black	1600 N	-20..70 °C
55212.1A	12G (1x12) Multimode OM2	7.0 mm	140 mm	black	1600 N	-20..70 °C
55224.1	24G (1x24) Multimode OM2	7.4 mm	150 mm	black	1600 N	-20..70 °C
55248.1	48G (4x12) Multimode OM2	10.6 mm	170 mm	black	3500 N	-20..70 °C

**Application:**

For fixed installation indoor and outdoor

In cable ducts, tubes and interconnections

Mechanical installation by winch is permitted only when using force meters with recording function

Not suitable for underground laying (direct buried)

Characteristics:

Universale cable

Longitudinally waterproof

Non-metallic rodent protection

Non-metallic, halogenfree, gel free

Suitable for connector assembly

Outer jacket:

EURO Flame resistance class: see table

Halogen-free and flame-retardant material (FRNC)

Standards:

Harmonised Standard: EN 50575

Flame retardant: IEC 60332-3-24 and IEC 60332-1-2

Halogenfree: IEC 60754-1

Acidity of the combustion gases: IEC 60754-2

Low smoke: IEC 61034

No resistance to oil, petrol, acid and leach

The cable diameter can vary

Temperature Range (Operation): see table

Temperature Range (Storage): -25..70 °C

Temperature Range (Installation): -5..50 °C

Universal Cable U-DQ (ZN)BH SM G657.A1

Art.-No.	Construct	Cable Ø	Bending radius	Colour outer sheath	Tensile Force	Temperature Range (Operation)	Euro Class
54404.1L-CPR	04E (1 x 4) singlemode G.657.A1	7.0 mm	140 mm	black	1750 N	-20..60 °C	Dca
54408.1L-CPR	08E (1 x 8) singlemode G.657.A1	7.0 mm	140 mm	black	1750 N	-20..60 °C	Dca
54412.1L-CPR	12E (1 x 12) singlemode G.657.A1	7.0 mm	140 mm	black	1750 N	-20..60 °C	Dca
54424.1L-CPR	24E (1 x 24) singlemode G.657.A1	7.5 mm	150 mm	black	1750 N	-20..60 °C	Dca
54448.1L-CPR	48E (4 x 12) singlemode G.657.A1	11.2 mm	170 mm	black	4000 N	-40..80 °C	Eca
54496.1L-CPR	96E (8 x 12) singlemode G.657.A1	13.1 mm	200 mm	black	4000 N	-40..80 °C	Eca

Universal Cable U-DQ(ZN)BH 50/125µ OM5

Art.-No.	Construct	Cable Ø	Bending radius	Colour outer sheath	Tensile Force	Temperature Range (Operation)	Euro Class
54504.10M5-CPR	4G (1 x 4) Multimode OM5	7.0 mm	140 mm	black	1750 N	-20..60 °C	Dca
54524.10M5-CPR	24G (1 x 24) Multimode OM5	7.5 mm	150 mm	black	1750 N	-20..60 °C	Dca

Universal Cable U-DQ (ZN)BH OM4

Art.-No.	Construct	Cable Ø	Bending radius	Colour outer sheath	Tensile Force	Temperature Range (Operation)	Euro Class
54504.2L-CPR	4G (1 x 4) Multimode OM4	7.0 mm	140 mm	black	1750 N	-20..60 °C	Dca
54508.2L-CPR	8G (1 x 8) Multimode OM4	7.0 mm	140 mm	black	1750 N	-20..60 °C	Dca
54512.2L-CPR	12G (1 x 12) Multimode OM4	7.0 mm	140 mm	black	1750 N	-20..60 °C	Dca
54524.2L-CPR	24G (1 x 24) Multimode OM4	7.5 mm	150 mm	black	1750 N	-20..60 °C	Dca
54548.2L-CPR	4x12G (4 x 12) Multimode OM4	11.2 mm	170 mm	black	4000 N	-40..80 °C	Eca

Universal Cable U-DQ (ZN)BH OM3

Art.-No.	Construct	Cable Ø	Bending radius	Colour outer sheath	Tensile Force	Temperature Range (Operation)	Euro Class
54504.1L-CPR	4G (1 x 4) Multimode OM3	7.0 mm	140 mm	black	1750 N	-20..60 °C	Dca
54508.1L-CPR	8G (1 x 8) Multimode OM3	7.0 mm	140 mm	black	1750 N	-20..60 °C	Dca
54512.1L-CPR	12G (1 x 12) Multimode OM3	7.0 mm	140 mm	black	1750 N	-20..60 °C	Dca
54524.1L-CPR	24G (1 x 24) Multimode OM3	7.5 mm	150 mm	black	1750 N	-20..60 °C	Dca
54548.1L-CPR	4x12G (4 x 12) Multimode OM3	11.2 mm	170 mm	black	4000 N	-40..80 °C	Eca

Universal Cable U-DQ (ZN)BH OM2

Art.-No.	Construct	Cable Ø	Bending radius	Colour outer sheath	Tensile Force	Temperature Range (Operation)	Euro Class
54204.1L-CPR	4G (1 x 4) Multimode OM2	7.0 mm	140 mm	black	1750 N	-20..60 °C	Dca
54208.1L-CPR	8G (1 x 8) Multimode OM2	7.0 mm	140 mm	black	1750 N	-20..60 °C	Dca
54212.1L-CPR	12G (1 x 12) Multimode OM2	7.0 mm	140 mm	black	1750 N	-20..60 °C	Dca
54224.1L-CPR	24G (1 x 24) Multimode OM2	7.5 mm	150 mm	black	1750 N	-20..60 °C	Dca
54248.1L-CPR	4x12G (4 x 12) Multimode OM2	11.2 mm	170 mm	black	4000 N	-40..80 °C	Eca



CONNECTORS & ADAPTERS

Connectors and adapters are essential components of any fiber optic transmission link. Plugs and adapters influence the quality of the fiber optic connection. Adapters with a ceramic- or metal sleeve and connectors with PC/APC polishing are available, depending on the application.

FIBER OPTIC

LC Duplex Adapter with Plastic housing

Type of connector connection 1:.....LC-Duplex
 Type of connector connection 2:.....LC-Duplex
 Type of fastening:.....screw/lock
 Design:.....SC-Simplex
 Accessories:.....Self-Tapping Screw
 PU:.....12, Price/Pcs.

Art.-No.	Suitable for type of fiber	Material sleeve	Colour	Type
53343.31	Singlemode	ceramic	green	APC
53350.31	Singlemode	ceramic	blue	PC
53334.10M5	Multimode	ceramic	lime green	PC
53334.1	Multimode	ceramic	erika-violet	PC
53357.31	Multimode	ceramic	aqua	PC
53348.32	Multimode	ceramic	beige	PC

LC Duplex Adapter in one piece case with Plastic housing

Type of connector connection 1:.....LC-Duplex
 Type of connector connection 2:.....LC-Duplex
 Type of fastening:.....screw/lock
 Design:.....SC-Simplex
 Accessories:.....Self-Tapping Screw
 PU:.....12, Price/Pcs.

Art.-No.	Suitable for type of fiber	Material sleeve	Colour	Type
53350.2	Singlemode	ceramic	blue	PC
53334.2	Multimode	ceramic	erika-violett	PC
53357.2	Multimode	ceramic	aqua	PC
53348.3	Multimode	ceramic	beige	PC

LC Duplex Adapter with Metal housing

Type of connector connection 1:.....LC-Duplex
 Type of connector connection 2:.....LC-Duplex
 Type of fastening:.....screw/lock
 Design:.....SC-Simplex
 Accessories:.....Metric Screw
 PU:.....12, Price/Pcs.

Art.-No.	Suitable for type of fiber	Material sleeve	Colour	Type
53343.1	Singlemode	ceramic	metal	PC

LC Duplex Adapter flangeless with Plastic housing

Type of connector connection 1:.....LC-Duplex
 Type of connector connection 2:.....LC-Duplex
 Type of fastening:.....snap-in
 Design:.....SC-Simplex
 PU:.....12, Price/Pcs.

Art.-No.	Suitable for type of fiber	Material sleeve	Colour	Type
53519.1	Singlemode	ceramic	green	APC
53515.1	Singlemode	ceramic	blue	PC
53517.1	Multimode	ceramic	erika-violet	PC
53516.1	Multimode	ceramic	aqua	PC

LC quad Adapter with Metal housing

Type of connector connection 1:.....LC-quad
 Type of connector connection 2:.....LC-quad
 Type of fastening:.....screw/lock
 Design:.....SC-duplex
 Accessories:.....Metric Screw
 PU:.....12, Price/Pcs.

Art.-No.	Suitable for type of fiber	Material sleeve	Colour	Type
53353.1	Singlemode	ceramic	metal	PC

LC quad Adapter with Plastic housing

Type of connector connection 1:.....LC-quad
 Type of connector connection 2:.....LC-quad
 Type of fastening:.....screw/lock
 Design:.....SC-duplex
 Accessories:.....Self-Tapping Screw
 PU:.....12, Price/Pcs.

Art.-No.	Suitable for type of fiber	Material sleeve	Colour	Type
53353.31	Singlemode	ceramic	green	APC
53353.3	Singlemode	ceramic	blue	PC
53335.1	Multimode	ceramic	erika-violet	PC
53335.32	Multimode	ceramic	aqua	PC
53352.3V1	Multimode	ceramic	beige	PC

SC Simplex Adapter flangeless with plastic housing

Type of connector connection 1:.....SC
 Type of connector connection 2:.....SC
 Type of fastening:.....snap-in
 Design:.....SC-Simplex
 PU:.....12, Price/Pcs.

Art.-No.	Suitable for type of fiber	Material sleeve	Colour	Type
53518.1	Singlemode	ceramic	green	APC
53511.1	Singlemode	ceramic	blue	PC
53513.1	Multimode	ceramic	erika-violett	PC
53512.1	Multimode	ceramic	aqua	PC
53510.1	Multimode	ceramic	beige	PC

SC Simplex Adapter with Plastic housing

Type of connector connection 1:.....SC
 Type of connector connection 2:.....SC
 Type of fastening:.....screw/lock
 Design:.....SC-Simplex
 Accessories:.....Self-Tapping Screw
 PU:.....12, Price/Pcs.

Art.-No.	Suitable for type of fiber	Material sleeve	Colour	Type
53302.32	Singlemode	ceramic	green	APC
53302.31	Singlemode	ceramic	blue	PC
53302.33	Multimode	ceramic	beige	PC

SC Duplex Adapter with Metal housing

Type of connector connection 1:.....SC-duplex
 Type of connector connection 2:.....SC-duplex
 Type of fastening:.....screw
 Design:.....SC-duplex
 Accessories:.....Metric Screw
 PU:.....12, Price/Pcs.

Art.-No.	Suitable for type of fiber	Material sleeve	Colour	Type
53319.3	Singlemode	ceramic	metal	APC
53316.34	Singlemode	ceramic	metal	PC
53312.34	Multimode	ceramic	metal	PC

SC Duplex Adapter with Plastic housing

Type of connector connection 1:.....SC-duplex
 Type of connector connection 2:.....SC-duplex
 Type of fastening:.....screw/lock
 Design:.....SC-duplex
 Accessories:.....Self-Tapping Screw
 PU:.....12, Price/Pcs.

Art.-No.	Suitable for type of fiber	Material sleeve	Colour	Type
53316.35	Singlemode	ceramic	green	APC
53316.3	Singlemode	ceramic	blue	PC
53333.10M5	Multimode	ceramic	lime green	PC
53333.1	Multimode	ceramic	erika-violet	PC
53356.1	Multimode	ceramic	aqua	PC
53303.32	Multimode	ceramic	beige	PC

ST / SC Duplex Hybridadapter with Metal housing

Type of connector connection 1:.....ST-duplex
 Type of connector connection 2:.....SC-duplex
 Type of fastening:.....screw/lock
 Design:.....SC-duplex
 Accessories:.....Metric Screw
 PU:.....12, Price/Pcs.

Art.-No.	Suitable for type of fiber	Material sleeve	Colour	Type
53320.34	Singlemode	ceramic	metal	PC
53307.34	Multimode	ceramic	metal	PC

ST / SC Duplex Hybridadapter with Plastic housing

Type of connector connection 1:.....ST-duplex
 Type of connector connection 2:.....SC-duplex
 Type of fastening:.....screw/lock
 Design:.....SC-duplex
 Accessories:.....Self-Tapping Screw
 PU:.....12, Price/Pcs.

Art.-No.	Suitable for type of fiber	Material sleeve	Colour	Type
53320.3	Singlemode	ceramic	blue	PC
53305.31	Multimode	ceramic	beige	PC

ST Simplex Adapter with Metal Housing



Type of connector connection 1:.....ST
 Type of connector connection 2:.....ST
 Type of fastening:.....screw
 Design:.....ST
 PU:.....12, Price/Pcs.

Art.-No.	Suitable for type of fiber	Material sleeve	Colour	Type
53103.3	Singlemode	ceramic	metal	PC
53102.32	Multimode	ceramic	metal	PC

E2000® Simplex Adapter flangeless



Type of connector connection 1:.....E2000®
 Type of connector connection 2:.....E2000®
 Type of fastening:.....snap-in
 PU:.....12, Price/Pcs.

Art.-No.	Suitable for type of fiber	Material sleeve	Colour	Type
53526.1	Singlemode	ceramic	green	APC



E2000® Duplex compact Adapter



Art.-No.	Suitable for type of fiber	Material sleeve	Colour	Type
53523.1	Singlemode	ceramic	green	APC
53525.1	Multimode	ceramic	aqua	PC

ST/ST Duplex Adapter with Metal Housing



Type of connector connection 1:.....ST-duplex
 Type of connector connection 2:.....ST-duplex
 Type of fastening:.....screw
 Design:.....SC-duplex
 Accessories:.....Metric Screw
 PU:.....12, Price/Pcs.

Art.-No.	Suitable for type of fiber	Material sleeve	Colour	Type
53313.34	Singlemode	ceramic	metal	PC

E2000® Simplex Adapter



Type of connector connection 1:.....E2000®
 Type of connector connection 2:.....E2000®
 Type of fastening:.....screw
 PU:.....12, Price/Pcs.

Art.-No.	Suitable for type of fiber	Material sleeve	Colour	Type
53532.1	Singlemode	ceramic	green	APC
53531.1	Singlemode	ceramic	blue	PC
53529.1	Multimode	ceramic	beige	PC



Fiber Optic Hybridadapter Plug/Jack



PU: 1, Price/Pcs.

Art.-No.	Suitable for type of fiber	Connector
53432.1	Multimode	SC-male, LC-female, OM3
53422.1	Multimode	SC-male, LC-female, OM2
53426.1	Multimode	LC-male, SC-female, OM2
53420.1V1	Multimode	SC-male, ST-female, OM2

FC Adapter with Metal housing

Type of connector connection 1:..... FC/PC
 Type of connector connection 2:..... FC/PC
 Type of fastening:..... screw
 Design:..... FC
 PU:..... 12, Price/Pcs.

Art.-No.	Suitable for type of fiber	Material sleeve	Colour	Type
53344.3	Singlemode	ceramic	metal	PC

MTRJ / MTRJ Adapter, housing black

Type of connector connection 1:..... MTRJ
 Type of connector connection 2:..... MTRJ
 Type of fastening:..... screw
 PU:..... 12, Price/Pcs.

Art.-No.	Suitable for type of fiber	Material sleeve	Colour	Type
53416.1	Multimode	plastic	black	PC

MTP® / MPO Adapter, housing black

Type of connector connection 1:..... MTP/MPO
 Type of connector connection 2:..... MTP/MPO
 Type of fastening:..... screw/lock
 PU:..... 1, Price/Pcs.

Art.-No.	Material sleeve	Colour	Type
53458.1V2	plastic	black	PC

Keystone Adapter-frame

Fits in all patch panels or outlets with keystone design
 Suitable for adapters without flange E2000® Simplex, LC Duplex and SC Simplex
 Keystone adapter frame in black or white available
 PU: 1000, Price/Pcs.

Art.-No.	Description
37501SW.1	Keystone Adapter-Frame, black
37501WS.1	Keystone Adapter-Frame, white

Laser protection cover

PU: 12, Price/Pcs.

Art.-No.	Suitable for	Colour
53215.1	SC-Simplex	blue
53217.1	LC-Duplex	metal

Accessory Screws

Art.-No.	Description
80550.1-50	Tapping screw ST2,5 50pieces DIN7985
80550.1-100	Tapping screw ST2,5 100pieces DIN7985
80715.1-200	Screw, tinned with nut M2x8,PU 200

Attenuators



For increasing the attenuation of fiber optic lines
 To prevent overmodulation at short distances
 SPC = Return Loss max. 45 dB
 APC = Return Loss max. 60 dB
 Suitable for CWDM
 Attenuation in dB:
 1 - 2 - 3 - 4 - 5 - 6 - 7 - 8 - 10 - 15 - 20

PU: 1, Price/Pcs.

Singlemode

Art.-No.	Suitable for type of fiber	Material housing	Type
53360.x	Singlemode	metal	SC / SPC
53362.x	Singlemode	metal	FC / SPC
53364.x	Singlemode	metal	ST / SPC
533680.x	Singlemode	plastic	LC / SPC
53369.x	Singlemode	plastic	MU/SPC
53361.x	Singlemode	metal	SC / APC
53363.x	Singlemode	metal	FC / APC

Multimode

Art.-No.	Suitable for type of fiber	Material housing	Type
53365.x	Multimode	metal	SC/PC
53366.x	Multimode	metal	FC/PC
53370.x	Multimode	plastic	LC/PC

FC Connector Set with plug, ferrule and boot



PU: 100, Price/Pcs.

Art.-No.	Suitable for type of fiber	APC-version	Colour	Cable Ø
53216.3	Multimode	No	black	3.0 mm
53227.3	Singlemode	No	black	3.0 mm
53227.4	Singlemode	No	red	3.0 mm
53227.5	Singlemode	yes	green	3.0 mm

PU: 100, Price/Pcs.

Art.-No.	Suitable for type of fiber	APC-version	Colour	Cable Ø
53210.3	Singlemode	No	metal	3.0 mm
53202.3	Multimode	No	metal	3.0 mm



ST Connectors

LC Connectors

PU: 100, Price/pcs.

Art.-No.	Suitable for fiber	APC-version	Colour	Cable Ø
53233.8	Multimode	no	beige	2.0 mm
53233.9	Multimode	no	beige	3.0 mm
53232.6	Singlemode	no	blue	2.0 mm
53232.7	Singlemode	yes	green	2.0 mm

Art.-No.	Accessory
53234.6	LC duplex clip, transparent

SC Connectors

PU: 100, Price/Pcs.

Art.-No.	Suitable for type of fiber	APC-version	Grommet	Colour	Cable Ø
53206.11	Multimode	False	black	beige	3.0 mm
53206.12	Multimode	False	red	beige	3.0 mm

Art.-No.	Accessory
53205.31	SC duplex clip, blue
53205.30	SC duplex clip, beige

Boots for ST and SC Connectors

Art.-No.	Colour	Type of connector	Cable Ø
53202.31	black	ST/SC	0,9 mm
53202.32	black	ST	3,0 mm
53202.33	red	ST	3,0 mm
53206.31	red	SC	3,0 mm
53206.32	black	SC	3,0 mm

Boot, flexible, white**Flexible boot**

Bending 90° to the right side and 90° to the left side possible

Holds the position

PU: 100, Price/Pcs.

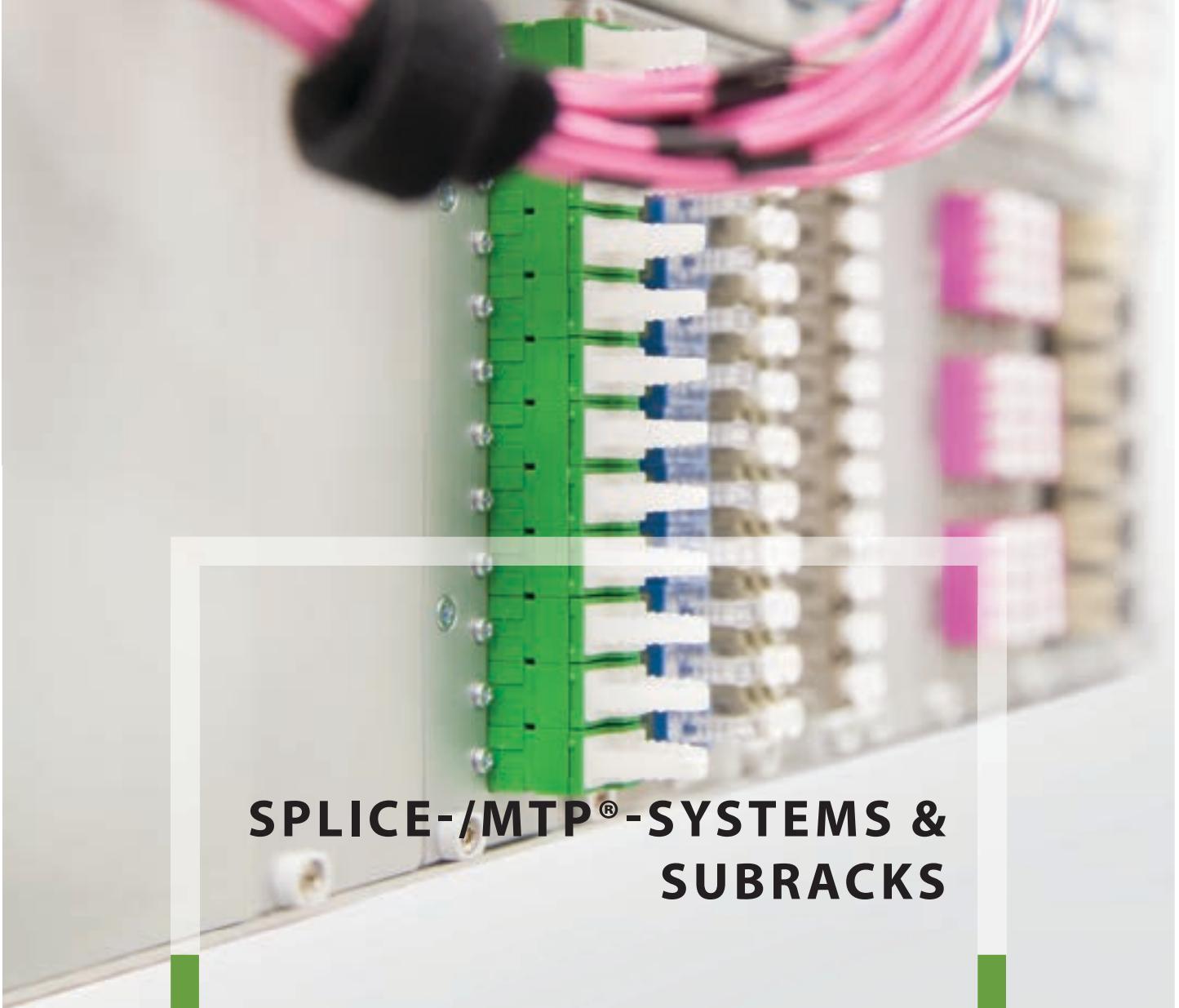
Art.-No.	Colour	Type of connector	Cable Ø
53210.1	white	LC	2.0 mm
53210.2	white	SC	2.0 mm



EFB-ELEKTRONIK PROVIDES GHMT-CERTIFICATION FOR FO TRANSMISSION LINKS

In the course of designing system warranties, EFB-Elektronik has had fiber optic components of the INFRALAN® brand certified by an independent testing laboratory. The test was carried out by the GHMT (Gesellschaft für Hochfrequenzmesstechnik) and included permanent links in the categories OM3, OM4 and OS2. The 2 Connector Type Approval has been issued. The certification ensures end customers and installers a high level of security in the use of offered EFB components.

The different certifications consists of: Splice box, pigtailed, adapters and cables. Depending on the category, the EFB components offered were used.



SPLICE-/MTP®-SYSTEMS & SUBRACKS

FIBER OPTIC

SPLICE BOXES:

EFB-Elektronik offers a wide range of equipped/unequipped splice boxes with a high stock availability. Thanks to the stocking, individual customer orders can be realised in company-specific fiber optics production and delivered with appropriate components in a timely manner.

Get an advantage of the simple and safe cable ducting for bundle- or breakout cables on the product's rear side due to the U-shaped recess for the cable gland.

Numbered ports also provide a clear label for the splice box. Ask for special variants, such as OM4 and OS2 combined. Our flexible production processes always provides the right solution for you.

MTP®/MPO-SYSTEMS:

The MTP®/MPO cabling system is attractive due to its high scalability and packing density and is standardised pursuant to IEC61754-7 and TIA604-5A. A MTP®/MPO connector has the size of a SC-Simplex or LC-Duplex connector, but with the theoretically maximum fiber density of 72 fibers, whereby today's applications are based on a 12-fiber matrix. Parallel optical Ethernet services such as 40G (4 x 10G) and 100G (4 x 25G) use 8 fibers, 4 fibers for speech, and 4 fibers for listening. The serial Ethernet services 10G and 25G can be transmitted with the known LC-Duplex connector as a 2 fiber matrix.

EFB-Elektronik has a flexible selection of MTP®/MPO patch cables, which can be selected with the coding A or B.

The pre-assembled MTP®/MPO trunk cables from EFB-Elektronik are provided 1:1 (TYPE A) as MTP®/MPO (FEMALE) on both sides, equipped and improved with a premium cable divider (for M25 recesses). Furthermore, EFB-Elektronik uses the coding TYPE A for cassette modules as standard, in order to avoid plug-in errors.

SUBRACKS:

Modular subracks have been developed especially for applications with a high pack density in a limited space, considering the modular design of the connection areas. By using a 3U/ 84DU subrack with a module card system, 12 different modules can be installed, which can have different connector plugs. As a result, various services can be realised with this system.

Completely Assembled Splice Box LC, Standard



Completely assembled splice box with adapters and coloured pigtailed
metal housing depth adjustable
cable entries at the rear, incl. 1 x PG16
6 x self adhesive fiber tray
Special assembly possible at short notice!

Completely Assembled Splice Box LC, Standard, sliding version, stripped, Plastic adapter

Art.-No.	Fiber class	Fiber type	Adapter colour	Colour
BA71901.xxOM5	OM5	Multimode 50/125	lime green	grau
BA71901.xxOM4	OM4	Multimode 50/125	violet	grey
BA71901.xxOM3	OM3	Multimode 50/125	aqua	grey
BA71901.xx	OM2	Multimode 50/125	beige	grey
BA71901.xx	OM2	Multimode 50/125	beige	grey
BA71921.xx	OS2	Singlemode	blue	grey
BA71921TS.xx	OS2	Singlemode	blue	black
BA71920.xx	OS2	Singlemode	green	grey

Completely Assembled Splice Box LC, Standard, sliding version, not stripped, Plastic adapter

Art.-No.	Fiber class	Fiber type	Adapter colour	Colour
B71901.xxOM5	OM5	Multimode 50/125	lime green	grau
B71901.xxOM4	OM4	Multimode 50/125	violet	grey
B71901TS.xxOM4	OM4	Multimode 50/125	violet	black
B71901.xxOM3	OM3	Multimode 50/125	aqua	grey
B71901TS.xxOM3	OM3	Multimode 50/125	aqua	black
B71901.xx	OM2	Multimode 50/125	beige	grey
B71901TS.xx	OM2	Multimode 50/125	beige	black
B71911.xx	OM1	Multimode 62.5/125	beige	grey
B71921.xx	OS2	Singlemode	blue	grey
B71921TS.xx	OS2	Singlemode	blue	black
B71920.xx	OS2	Singlemode	green	grey

Completely Assembled Splice Box LC, Standard, sliding version, not stripped, Metal adapter

Art.-No.	Fiber class	Fiber type	Adapter colour	Colour
B71902.xxOM4	OM4	Multimode 50/125	metal	grey
B71902TS.xxOM4	OM4	Multimode 50/125	metal	black
B71902.xxOM3	OM3	Multimode 50/125	metal	grey
B71902TS.xxOM3	OM3	Multimode 50/125	metal	black
B71902.xx	OM2	Multimode 50/125	metal	grey
B71902TS.xx	OM2	Multimode 50/125	metal	black
B71912.xx	OM1	Multimode 62.5/125	metal	grey
B71922.xx	OS2	Singlemode	metal	grey
B71922TS.xx	OS2	Singlemode	metal	black
B71924.xx	OS2	Singlemode	metal	grey

Completely Assembled Splice Box LC, Standard, sliding version, stripped, Metal adapter

Art.-No.	Fiber class	Fiber type	Adapter colour	Colour
BA71902.xxOM4	OM4	Multimode 50/125	metal	grey
BA71902TS.xxOM4	OM4	Multimode 50/125	metal	black
BA71902.xxOM3	OM3	Multimode 50/125	metal	grey
BA71902TS.xxOM3	OM3	Multimode 50/125	metal	black
BA71902.xx	OM2	Multimode 50/125	metal	grey
BA71912.xx	OM1	Multimode 62.5/125	metal	grey
BA71922.xx	OS2	Singlemode	metal	grey
BA71922TS.xx	OS2	Singlemode	metal	black
BA71924.xx	OS2	Singlemode	metal	grey

Completely Assembled Splice Box LC, slanted outlet



Completely assembled splice box with adapters and coloured pigtailed metal housing depth adjustable cable entries at the rear, incl. 1 x PG16
6 x self adhesive fiber tray

Special assembly possible at short notice!

Completely Assembled Splice Box LC, slanted outlet, sliding version, stripped, Plastic adapter

Art.-No.	Fiber class	Fiber type	Adapter colour	Colour
BA71921SA.xx	OS2	Singlemode	blue	grey

Completely Assembled Splice Box LC, slanted outlet, sliding version, not stripped, Plastic adapter

Art.-No.	Fiber class	Fiber type	Adapter colour	Colour
B71921SA.xx	OS2	Singlemode	blue	grey

Note: xx= set number of pigtaills

FIBER OPTIC

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MULTIMEDIA

ACTIVE COMPONENTS

Completely Assembled Splice Box LC, shifted arrangement

Completely assembled splice box with adapters and coloured pigtails
 metal housing depth adjustable
 cable entries at the rear, incl. 1 x PG16
 6 x self adhesive fiber tray

Special assembly possible at short notice!

Completely Assembled Splice Box LC, shifted arrangement, sliding version, stripped, Plastic adapter

Art.-No.	Fiber class	Fiber type	Adapter colour	Colour
BA71901V.xxOM3	OM3	Multimode 50/125	aqua	grey

Completely Assembled Splice Box LC, shifted arrangement, sliding version, stripped, Metal adapter

Art.-No.	Fiber class	Fiber type	Adapter colour	Colour
BA71902V.xxOM4	OM4	Multimode 50/125	metal	grey
BA71902V.xxOM3	OM3	Multimode 50/125	metal	grey
BA71902V.xx	OM2	Multimode 50/125	metal	grey
BA71922V.xx	OS2	Singlemode	metal	grey
BA71924VTS.xx	OS2	Singlemode	metal	black

Completely Assembled Splice Box LC, shifted arrangement, sliding version, not stripped, Metal adapter

Art.-No.	Fiber class	Fiber type	Adapter colour	Colour
B71902V.xxOM4	OM4	Multimode 50/125	metal	grey
B71902V.xxOM3	OM3	Multimode 50/125	metal	grey
B71902V.xx	OM2	Multimode 50/125	metal	grey
B71922V.xx	OS2	Singlemode	metal	grey

Completely Assembled Splice Box E2000®, Standard



Completely assembled splice box with adapters and coloured pigtailed
 metal housing depth adjustable
 cable entries at the rear, incl. 1 x PG16
 6 x self adhesive fiber tray
Special assembly possible at short notice!

Completely Assembled Splice Box E2000®, Standard, sliding version, stripped, Plastic adapter

Art.-No.	Fiber class	Fiber type	Adapter colour	Colour
BA71503.xx0M4	OM4	Multimode 50/125	beige	grey
BA71503.xx0M3	OM3	Multimode 50/125	beige	grey
BA71503.xx	OM2	Multimode 50/125	beige	grey
BA71523.xx	OS2	Singlemode	blue	grey
BA71533.xx	OS2	Singlemode	green	grey
BA71533TS.xx	OS2	Singlemode	green	black

Completely Assembled Splice Box E2000®, Standard, sliding version, not stripped, Plastic adapter

Art.-No.	Fiber class	Fiber type	Adapter colour	Colour
B71503.xx0M3	OM3	Multimode 50/125	beige	grey
B71503.xx	OM2	Multimode 50/125	beige	grey
B71503TS.xx	OM2	Multimode 50/125	beige	black
B71513.xx	OM1	Multimode 62.5/125	beige	grey

Completely Assembled Splice Box E2000®, Standard, sliding version, not stripped, Plastic adapter

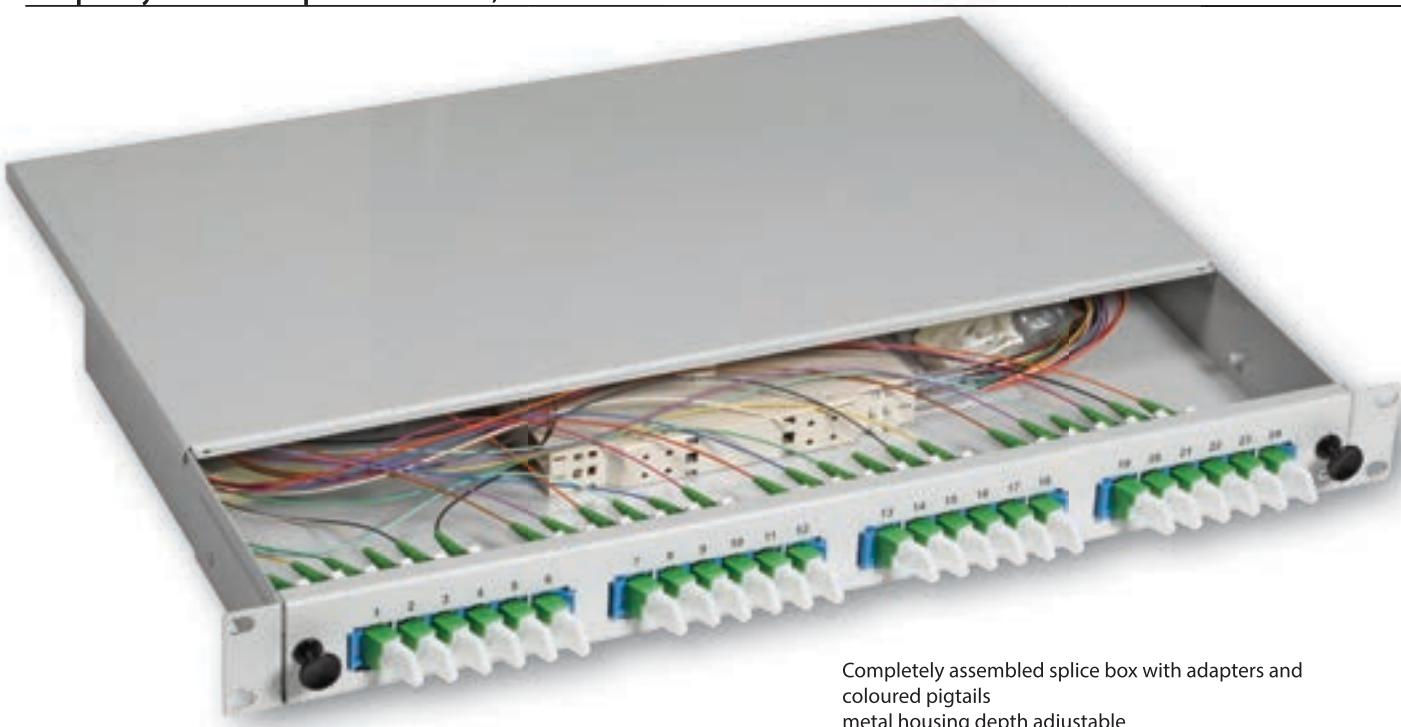
Art.-No.	Fiber class	Fiber type	Adapter colour	Colour
B71503.xx0M4	OM4	Multimode 50/125	beige	grey
B71533.xx	OS2	Singlemode	green	grey

Completely Assembled Splice Box E2000®, Standard, sliding version, not stripped, Plastic adapter

Art.-No.	Fiber class	Fiber type	Adapter colour	Colour
B71533TS.xx	OS2	Singlemode	green	black

Note: xx= set number of pigtailed

Completely Assembled Splice Box E2000®, slanted outlet



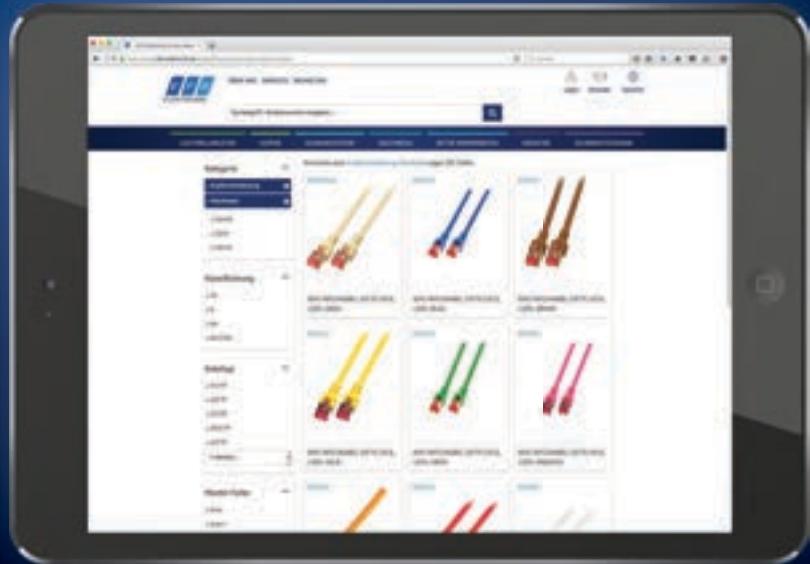
Completely assembled splice box with adapters and
coloured pigtails
metal housing depth adjustable
cable entries at the rear, incl. 1 x PG16
6 x self adhesive fiber tray
Special assembly possible at short notice!

Completely Assembled Splice Box E2000®, slanted outlet, sliding version, stripped, Plastic adapter

Art.-No.	Fiber class	Fiber type	Adapter colour	Colour
BA71533SA.xx	OS2	Singlemode	green	grey

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Completely Assembled Splice Box SC, Standard



Completely assembled splice box with adapters and coloured pigtailed
 metal housing depth adjustable
 cable entries at the rear, incl. 1 x PG16
 6 x self adhesive fiber tray
Special assembly possible at short notice!

Completely Assembled Splice Box SC, Standard, sliding version, stripped, Plastic adapter

Art.-No.	Fiber class	Fiber type	Adapter colour	Colour
B71203.xxOM5	OM5	Multimode 50/125	lime green	grey

Completely Assembled Splice Box SC, Standard, sliding version, stripped, Plastic adapter

Art.-No.	Fiber class	Fiber type	Adapter colour	Colour
BA71203.xxOM5	OM5	Multimode 50/125	lime green	grey

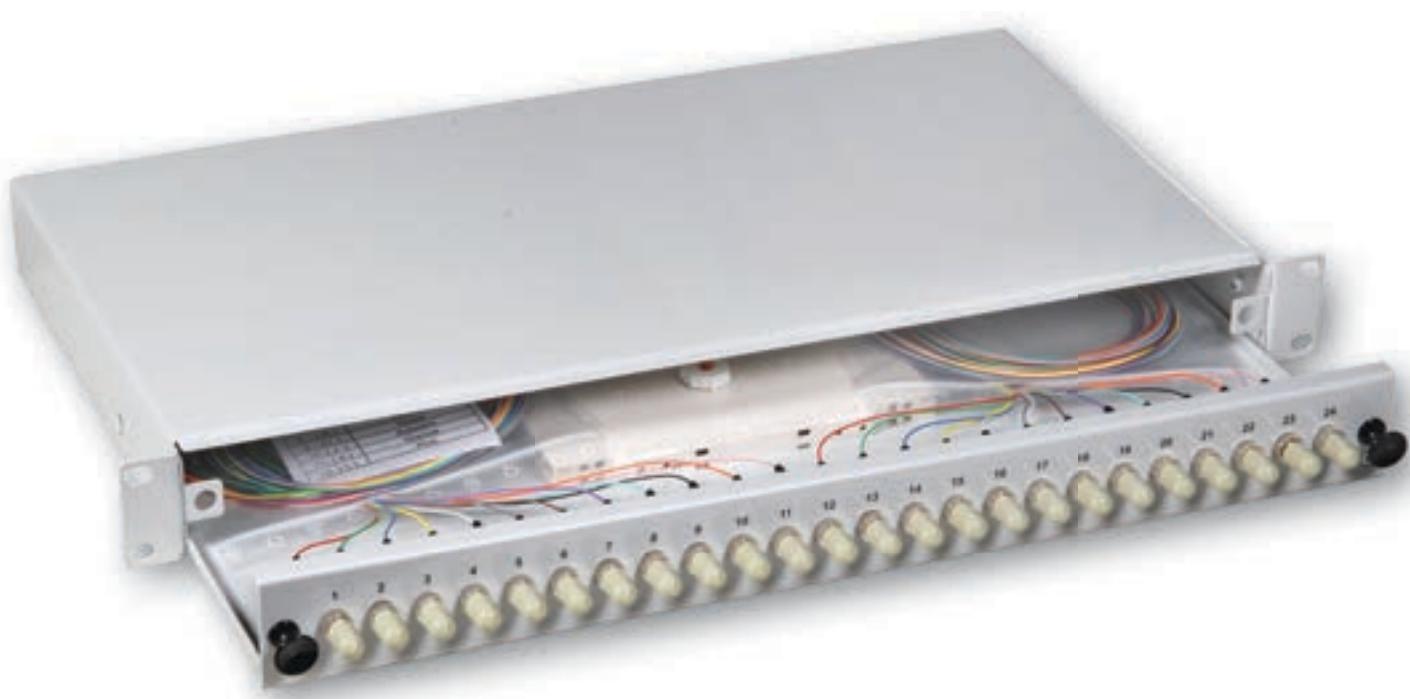
Completely Assembled Splice Box SC, Standard, sliding version, not stripped, Plastic adapter

Art.-No.	Fiber class	Fiber type	Adapter colour	Colour
B71203.xxOM4	OM4	Multimode 50/125	violet	grey
B71203TS.xxOM4	OM4	Multimode 50/125	violet	black
B71203.xxOM3	OM3	Multimode 50/125	aqua	grey
B71203TS.xxOM3	OM3	Multimode 50/125	aqua	black
B71203.xx	OM2	Multimode 50/125	beige	grey
B71203TS.xx	OM2	Multimode 50/125	beige	black
B71213.xx	OM1	Multimode 62.5/125	beige	grey
B71223TS.xx	OS2	Singlemode	blue	black
B71228.xx	OS2	Singlemode	green	grey

Completely Assembled Splice Box SC, Standard, sliding version, stripped, Plastic adapter

Art.-No.	Fiber class	Fiber type	Adapter colour	Colour
BA71203.xxOM4	OM4	Multimode 50/125	violet	grey
BA71203TS.xxOM4	OM4	Multimode 50/125	violet	black
BA71203.xxOM3	OM3	Multimode 50/125	aqua	grey
BA71203TS.xxOM3	OM3	Multimode 50/125	aqua	black
BA71203.xx	OM2	Multimode 50/125	beige	grey
BA71213.xx	OM1	Multimode 62.5/125	beige	grey
BA71223.xx	OS2	Singlemode	blue	grey
BA71223TS.xx	OS2	Singlemode	blue	black
BA71228.xx	OS2	Singlemode	green	grey
BA71228TS.xx	OS2	Singlemode	green	black

Completely Assembled Splice Box ST, Standard



Completely assembled splice box with adapters
and coloured pigtails

metal housing depth adjustable
cable entries at the rear, incl. 1 x PG16
6 x self adhesive fiber tray

Special assembly possible at short notice!

Completely Assembled Splice Box ST, Standard, sliding version, stripped, Metal adapter

Art.-No.	Fiber class	Fiber type	Adapter colour	Colour
BA71006.xxOM4	OM4	Multimode 50/125	metal	grey
BA71006.xxOM3	OM3	Multimode 50/125	metal	grey
BA71006.xx	OM2	Multimode 50/125	metal	grey
BA71023.xx	OS2	Singlemode	metal	grey

Completely Assembled Splice Box ST, Standard, sliding version, not stripped, Metal adapter

Art.-No.	Fiber class	Fiber type	Adapter colour	Colour
B71006.xxOM4	OM4	Multimode 50/125	metal	grey
B71006.xxOM3	OM3	Multimode 50/125	metal	grey
B71006TS.xxOM3	OM3	Multimode 50/125	metal	black
B71006.xx	OM2	Multimode 50/125	metal	grey
B71006TS.xx	OM2	Multimode 50/125	metal	black
B71016.xx	OM1	Multimode 62.5/125	metal	grey
B71023.xx	OS2	Singlemode	metal	grey

Partially Assembled Splice Box



Partly assembled splice box with adapters
 per 12 adapters 1 splice cassette with 1 splice holder
 suitable up to 4 splice cassettes
 metal housing sliding unit
 front panel screwed
 plastic adapters
 cable entries at the rear

Partially Assembled Splice Box, ST, ST, non sliding version

Art.-No.	Fiber type	Fiber type	Adapter colour	Colour
B61003.xx	Multimode 50/125	Multimode 50/125 / Singlemode	metal	grey

Partially Assembled Splice Box, ST, ST, sliding version

Art.-No.	Fiber type	Fiber type	Adapter colour	Colour
B61003TS.xx	Multimode 50/125	Multimode 50/125 / Singlemode	metal	black

Partially Assembled Splice Box, SC-duplex, SC-duplex, non sliding version

Art.-No.	Fiber class	Fiber type	Adapter colour	Colour
B61203TS.xxOM3	OM3	Multimode 50/125	beige	black

Partially Assembled Splice Box, SC-duplex, SC-duplex, sliding version

Art.-No.	Fiber class	Fiber type	Adapter colour	Colour
B61203.xx	OM2	Multimode 50/125	beige	grey
B61203.xxOM3	OM3	Multimode 50/125	aqua	grey
B61203.xxOM4	OM4	Multimode 50/125	violet	grey
B61223.xx	OM2	Multimode 50/125	beige	grey
B61223TS.xx	OS2	Singlemode	blue	black

Partially Assembled Splice Box, LC-Duplex, LC-Duplex, sliding version

Art.-No.	Fiber class	Fiber type	Adapter colour	Colour
B61901.xx	OM2	Multimode 50/125	beige	grey
B61901.xxOM3	OM3	Multimode 50/125	aqua	grey
B61901TS.xxOM3	OM3	Multimode 50/125	aqua	black
B61921.xx	OS2	Singlemode	blue	grey
B61921TS.xx	OS2	Singlemode	blue	black
B61902.xx		Multimode 50/125	metal	grey
B61902TS.xx		Multimode 50/125	metal	black
B61922.xx	OS2	Singlemode	metal	grey

Partially Assembled Splice Box, LC-Duplex, LC-Duplex, non sliding version

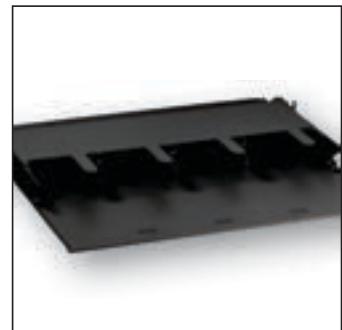
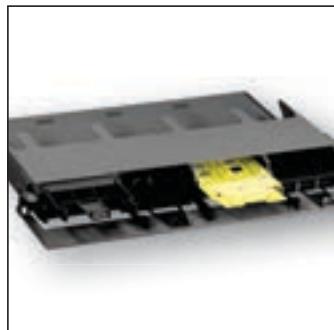
Art.-No.	Fiber class	Fiber type	Adapter colour	Colour
B61901.xxOM4	OM4	Multimode 50/125	violet	grey

Partially Assembled Splice Box, E2000®, sliding version

Art.-No.	Fiber class	Fiber type	Adapter colour	Colour
B61533.x	OS2	Singlemode	green	grey

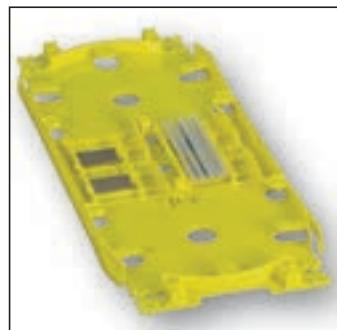
Note: xx= set number of adapter

HD Splice Box, modular mountable

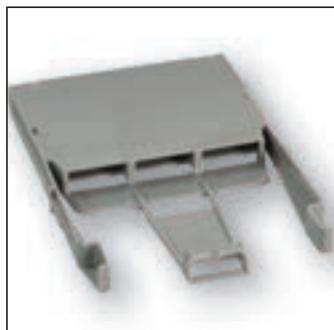


The HD splice box is designed for a high amount of ports on 1U
modular equipable due to insertion cassettes
up to 144 ports on 1U
insertion cassettes for example in the variants feedthrough, spliceable, MTP®/MPO

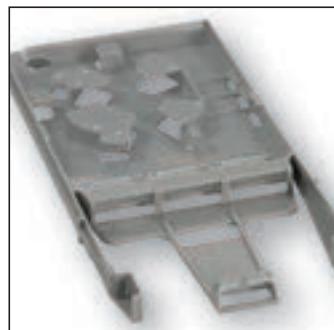
Art.-No.	Description	Colour
SB-HD-SW	HD Splicebox, modular equipable up to 144 port on 1U	Black



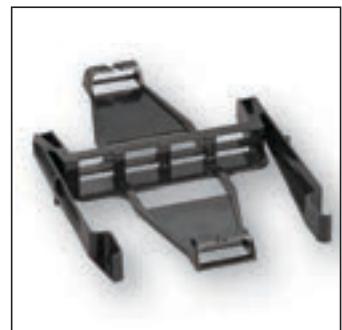
Accessory
SB-HD-ME-SVB



SB-HD-ME-3SCD



SB-HD-ME-3SCD-SVB



SB-HD-ME-4MTP

Art.-No.	Description
SB-HD-ME-3SCD	insertion slot for SB-HD-SW, 3x SC-Duplex or LC Quad, feed through
SB-HD-ME-4MTP	insertion slot for SB-HD-SW, 4x MTP®/MPO, feed through
SB-HD-ME-SVB	insertion slot for SB-HD-SW for 24x thermo splices(magnetic), feed through
SB-HD-ME-3SCD-SVB	insertion slot for SB-HD-SW, 3x SC-Duplex or LC Quad, splice modul

Splice Box sliding version 1U without frontpanel, RAL7035

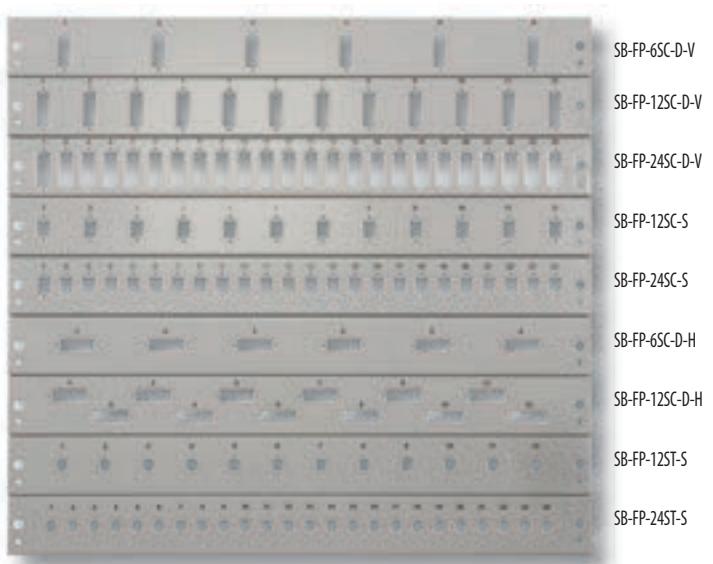


steel sheet 1.5 mm
with sleeve nut (Art.-No. 80555.1) max. 4 splice cassettes installable
cable entry at the rear, prepared for PG16/M20
changeable cable entry for straight and angled
cable entry in the middle for thinner cable

Art.-No.	Description	Colour
SB-A-GR	Splice box sliding version 1U without front panel, unequipped	Grey

Accessory

Art.-No.	Description
SB-FP-24SC-D-V	Front panel 24 x SC duplex vertical
SB-FP-6SC-D-H	Front panel 6 x SC duplex horizontal,
SB-FP-12SC-D-H	Front panel 12 x SC duplex horizontal,shifted
SB-FP-24SC-S	Front panel 24 x SC simplex or E2000 simpl., MTRJ or LC duplex
SB-FP-6SC-D-V	Front panel 6 x SC duplex vertical,
SB-FP-12SC-S	Front panel 12 x SC simplex or E2000 simpl., MTRJ or LC duplex
SB-FP-12SC-D-V	Front panel 12 x SC duplex vertical
SB-FP-24ST	Front panel 24 x ST / FC (D-hole)
SB-FP-12ST-S	Front panel 12 x ST / FC (D-hole)



19" 1U Splice Box, unassembled, sliding unit, RAL7035

Unassembled, depth adjustable
steel sheet 1.5 mm
6 x self adhesive fiber tray
front panel screwed
with sleeve nut (item 80555.1) max. 4 splice cassettes installable
cable entry at the rear, prepared for PG16/M20

Art.-No.	Suitable for connector	Suitable for number of couplings/adapters
53600.0	without Front panel	
53600.1	ST	24
53600.2	ST	12
53600.3	SC duplex/ LC quad	24
53600.4	SC duplex/ LC quad	12
53600.6	SC duplex/ LC quad, vertical	6
53600.7	SC duplex/ LC quad, horizontal	6
53600.8	SC duplex/ LC quad	12
53600.9	SC simplex/ E2000 simplex/ LC-duplex	12
53600.10	SC simplex/ E2000 simplex/ LC-duplex	24

19" 1U Splice Box with telescopic-pull out and quick-lock, RAL9005

sliding unit with telescopic pull-out, depth adjustable up to 60 mm
unassembled
steel sheet 1.5 mm
colour RAL9005, black
dimensions (W x H x D) 483 x 44.5 x 280 mm
6 x adhesive fiber tray
cable entry back sided, prepared for cable gland PG16/M20

Art.-No.	Suitable for connector	Suitable for number of couplings/adapters
53640TS.2	ST	12
53640TS.3	SC duplex/ LC quad	24
53640TS.4	SC duplex/ LC quad	12
53640TS.9	SC simplex/ E2000 simplex/ LC-duplex	12
53640TS.10	SC simplex/ E2000 simplex/ LC-duplex	24
53640TS.12	E2000	24

19" 1U Splice Box, unassembled, sliding unit, RAL9005

Unassembled, depth adjustable
steel sheet 1.5 mm
6 x self adhesive fiber tray
front panel screwed
with sleeve nut (item 80555.1) max. 4 splice cassettes installable
cable entry at the rear, prepared for PG16/M20

Art.-No.	Suitable for connector	Suitable for number of couplings/adapters
53600TS.0	without Front panel	
53600TS.1	ST	24
53600TS.2	ST	12
53600TS.3	SC duplex/ LC quad	24
53600TS.4	SC duplex/ LC quad	12
53600TS.6	SC duplex/ LC quad, vertical	6
53600TS.7	SC duplex/ LC quad, horizontal	6
53600TS.8	SC duplex/ LC quad	12
53600TS.9	SC simplex/ E2000 simplex/ LC-duplex	12
53600TS.10	SC simplex/ E2000 simplex/ LC-duplex	24

19" 1U Splice Box, slideless unit, RAL7035

steel sheet 1.5 mm
with sleeve nut (Art.-No. 80555.1) max. 4 splice cassettes installable
6 x self adhesive fiber tray
cable entry at the rear, prepared for PG16/M20

Art.-No.	Suitable for connector	Suitable for number of couplings/adapters
53601.0	without Front panel	
53601.1	ST	24
53601.2	ST	12
53601.3	SC duplex/ LC quad	24
53601.4	SC duplex/ LC quad	12
53601.6	SC duplex/ LC quad, vertical	6
53601.7	SC duplex/ LC quad, horizontal	6
53601.8	SC duplex/ LC quad	12
53601.9	SC simplex/ E2000 simplex/ LC-duplex	12
53601.10	SC simplex/ E2000 simplex/ LC-duplex	24

19" 1U Splice Box, slideless unit, RAL9005

Unassembled, depth adjustable
 steel sheet 1.5 mm
 6 x self adhesive fiber tray
 front panel screwed
 with sleeve nut (item 80555.1) max. 4 splice cassettes installable
 cable entry at the rear, prepared for PG16/M20

1 HE Breakout box, not extendible, RAL7035

steel sheet 1.5 mm
 6 x self adhesive fiber tray
 cable entry at the rear, prepared for cable gland PG16/M20
 fully assembled also available!

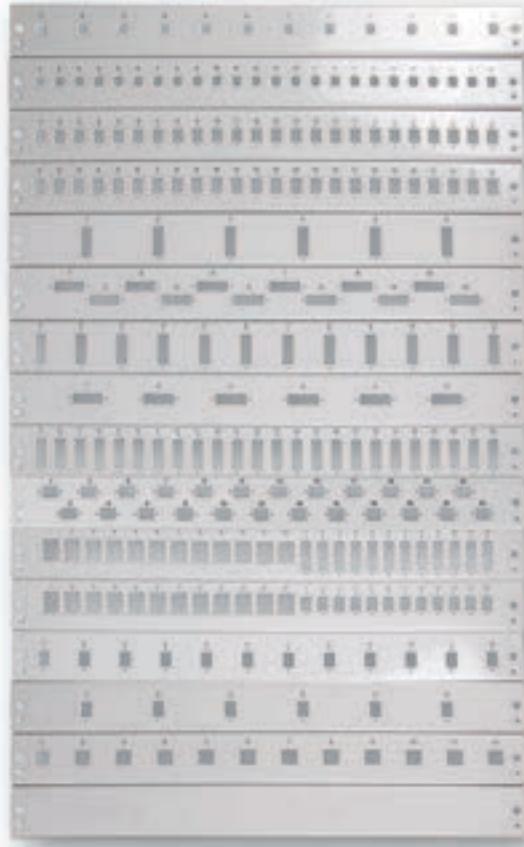
Art.-No.	Suitable for connector	Suitable for number of couplings/adapters
53601TS.0	without Front panel	
53601TS.1	ST	24
53601TS.2	ST	12
53601TS.3	SC duplex/ LC quad	24
53601TS.4	SC duplex/ LC quad	12
53601TS.6	SC duplex/ LC quad, vertical	6
53601TS.7	SC duplex/ LC quad, horizontal	6
53601TS.8	SC duplex/ LC quad	12
53601TS.9	SC simplex/ E2000 simplex/ LC-duplex	12
53601TS.10	SC simplex/ E2000 simplex/ LC-duplex	24

Art.-No.	Suitable for connector	Suitable for number of couplings/adapters
53608.0	without Front panel	
53608.1	ST	24
53608.2	ST	12
53608.3	SC duplex/ LC quad	24
53608.4	SC duplex/ LC quad	12
53608.9	SC simplex/ E2000 simplex/ LC-duplex	12
53608.10	SC simplex/ E2000 simplex/ LC-duplex	24

Front panel for Breakout- and Splice Boxes

Blind plate for 1U 53600.0 / 53601.0 splice box. Steel sheet 1.5 mm

Art.-No.	Description	Colour
53018.1	Front panel 1U 6xSC simplex	grey
53019.1	Front panel 1U 12 SC duplex, horizontal	grey
53019TS.1	Front panel 1U 12 SC duplex RAL9005, horizontal	black
53020.1	Front panel 1U 6 SC duplex, horizontal sh.	grey
53021.1	Front panel 1U 6 SC duplex, vertical sh.	grey
53022.1	Front panel 1U 12 ST	grey
53022.1TS	Front panel 12 x ST (D-hole) RAL9005, 1U	black
53022.4	Front panel 1U 24 ST duplex	grey
53022.4TS	Front panel 24 x ST (D-hole) RAL9005, 1U	black
53023.1	Front panel 1U 12 SC duplex, vertical sh.	grey
53023.1TS28	Front panel 12 x SC duplex 1U (LC-Quad), RAL9005, 2,8mm	black
53023.1SW	Front panel 1U 12SC duplex, RAL 9005	black
53023.4	Front panel 1U 24 SC duplex	grey
53023.4TS28	Front panel 24 x SC duplex 1U (LC-Quad), RAL9005, 2,8mm	black
53024.1	Front panel 1U 12 SC simplex, LC, E2000	grey
53024.1TS28	Front panel 12 x SC simplex 1U (LC-D,E2000s), RAL9005 2,8mm	black
53024.4	Front panel 1U 24 SC simplex, LC, E2000	grey
53024.4TS28	Front panel 24 x SC simplex 1U (LC-D,E2000s), RAL9005 2,8mm	black
53024.4TS	Front panel 24 x SC simplex 1U (LC-D,E2000s), RAL9005	black
53025.4	Front panel 1U 24SCS/24LCD, horizontal, RAL7035	grey
53025SW.4	Front panel 1U 24SCS/24LCD, horizontal, RAL7021	black
53025TS.4	Front panel 1U 24SCS/24LCD, horizontal, RAL9005	black
53034.1V2	Front panel 1U 12xE2000® Duplex, E2000® Compact (RDM) new version	grey
53036.1	Front panel 1U 12xKeystone+ 12x SC simplex, RAL7035	grey
53036.2	Front panel 1U 12xKeystone+ 12x SC duplex, RAL7035	grey
53042.1	Front panel 1U 24xMPO/MTP RAL7035	grey
53600.0B	Front panel for Splicebox 1U for 53600.0/53601.0, RA7035	grey
53600.0B	Front panel for Splicebox 1U for 53600.0/53601.0, RA7035	grey



Wall Distributor Splice Housing, pre-assembled



Included:

Completely assembled wall distributor with adapters and coloured pigtailed
1 or 2 x splice cassette inclusive cover
1 or 2 splice holder for each 12 splices
Housing with two swivel doors, lockable
2 different locks each with 2 keys
On top and bottom each 2 cable entries for PG16 plus
2 cable entries with sealing strip
Dimensions: 445x445x95mm

Wall Distributor Splice Housing, pre-assembled, LC, Plastic adapter

Art.-No.	Fiber class	Fiber type	Adapter colour	Colour
B79228.xx	OS2	Singlemode	green	grey
B79203.xxOM4	OM4	Multimode 50/125	violet	grey
B79203.xxOM3	OM3	Multimode 50/125	aqua	grey
B79203.xx	OM2	Multimode 50/125	beige	grey
B79213.xx	OM1	Multimode 62,5/125	beige	grey

Wall Distributor Splice Housing, pre-assembled, LC, Metal adapter

Art.-No.	Fiber class	Fiber type	Adapter colour	Colour
B79922.xx	OS2	Singlemode	metal	grey
B79902.xxOM3	OM3	Multimode 50/125	metal	grey
B79903.xxOM3	OM3	Multimode 50/125	metal	grey

Wall Distributor Splice Housing, pre-assembled, SC, Plastic adapter

Art.-No.	Fiber class	Fiber type	Adapter colour	Colour
B79920.xx	OS2	Singlemode	green	grey
B79921.xx	OS2	Singlemode	blue	grey
B79901.xxOM4	OM4	Multimode 50/125	violet	grey
B79901.xxOM3	OM3	Multimode 50/125	aqua	grey
B79901.xx	OM2	Multimode 50/125	beige	grey

Wall Distributor Splice Housing, pre-assembled, ST, Metal adapter

Art.-No.	Fiber class	Fiber type	Adapter colour	Colour
B79023.xx	OS2	Singlemode	metal	grey
B79006.xxOM4	OM4	Multimode 50/125	metal	grey
B79006.xxOM3	OM3	Multimode 50/125	metal	grey
B79006.xx	OM2	Multimode 50/125	metal	grey
B79016.xx	OM1	Multimode 62,5/125	metal	grey

Wall Distributor Splice Housing, pre-assembled, E2000®, Plastic adapter

Art.-No.	Fiber class	Fiber type	Adapter colour	Colour
B79533.xx	OS2	Singlemode	green	grey
B79523.xx	OS2	Singlemode	blue	grey
B79503.xx	OM2	Multimode 50/125	beige	grey

Mini Wall Distributor, pre-assembled


Included:

Completely assembled wall distributor with adapters and coloured pigtailed
 1 or 2 x Splice cassette inclusive cover
 1 or 2 x Spliceholder for 12 splices
 Housing with cover, lockable, 2 keys
 4 entries with sealing strip for incoming and outgoing cable

Dimensions: 280x320x54mm

Mini Wall Distributor, pre-assembled, LC, metal adapter

Art.-No.	Fibre class	Fibre type	Adapter colour	Colour
B78902.xxOM4	OM4	Multimode 50/125	metal	grey
B78902.xxOM3	OM3	Multimode 50/125	metal	grey
B78902.xx	OM2	Multimode 50/125	metal	grey

Mini Wall Distributor, pre-assembled, LC, plastic adapter

Art.-No.	Fiber Class	Fiber type	Adapter colour	Colour
B78203.xxOM4	OM4	Multimode 50/125	violett	grey
B78203.xxOM3	OM3	Multimode 50/125	aqua	grey
B78203.xx	OM2	Multimode 50/125	beige	grey

Note: xx= set number of pigtails

FIBER OPTIC

COPPER

CABINET SYSTEMS

MULTIMEDIA

ACTIVE COMPONENTS

Wall Distributor Splice Housing RAL7035



Housing with two swivel doors, lockable
2 different locks each with 2 keys
with each 2 cable entries on top and bottom for PG16
2 further cable entries with sealing strip
Additional strain relief clamps and guiding clips for pigtails or cables for fixing with cable ties
Max. 5 splice cassettes and one mountable distribution plate
Fixing of distribution plate with two M3-screws and two quick locks
Steel sheet 1.5 mm
Weight 5.2 kg

Art.-No.	Description	Colour
53604.1V1	Wall distribution, splice hou. W=445 x H=445 x D=95mm	grey

Accessory

Art.-No.	Description
53031.2	Distribution plate, RAL 7035 48 SC/SC, for 53604.1V1
53604.4	Distribution plate, RAL7035 24 SC/SC
53604.3	Distribution plate 48 SC-Simplex for 53604.1V1
53604.2	Distribution plate, RAL7035 48 pl/pl
53604.3V	Distribution plate 48 SC-Simplex Vertical for 53604.1V1
53031.2TS	Distribution plate, RAL 9005 48 SC/SC, for 53604.1V1
53604.3V0B	Distribution plate 48 SC-Simplex for 53604.1V1

Compact Splice Distributor Set



Housing with swivel lid lockable, 2 keys
2 openings with dust-tight strips for incoming and outgoing cable for fixing with cable ties
For max. 4 splice cassettes or 1 splice cassette plus one distribution plate
Steel sheet 1.5 mm

Scope of delivery:
Housing with 2 keys
1 x distribution plate for 12 x ST
1 x distribution plate for 6 x SC-Duplex

Dimensions: 265x150x55mm

Art.-No.	Description	Colour
53603.1	Compact splice dist. set RAL7035, W=265 x H=150 x D=55mm	grey
53603.1WS	Compact splice dist. set RAL9003, W=265 x H=150 x D=55mm	white

Accessory

Art.-No.	Description
53603.S	Spare lock for 53603.1, with 2 keys
53603.2	Distribution plate, RAL7035 12 ST or FC (D-hole) Adapters
53603.3	Distribution plate, RAL7035 6 SC dpx or 6 LC quad Adapters
53603.4	Distribution plate, RAL7035 6 SC spx or 6 LC quad Adapters

Mini Wall Distributor, RAL7035



Housing with cover, lockable, 2 keys
 4 openings with sealing strips for incoming and outgoing cable
 Strain relief via cable ties possible
 Mountable are max. 8 splice cassettes or 4 splice cassettes and one distribution plate
 Steel sheet 1.5mm
 Weight: 2 kg
 Delivery unassembled

Scope of delivery:
 Housing with 2 keys

Dimensions: 280x320x54mm



Art.-No.	Description	Colour
53605.1	Mini Wall Distributor RAL7035	grey

Accessory

Art.-No.	Description
53605.2	Distribution Plate, RAL7035 24 ST/ST, for 53605.1
53605.3	Distribution Plate, RAL7035 24 SC/SC, for 53605.1
53605.4	Distribution Plate, RAL7035 12 SC/SC, for 53605.1
53605.5	Distribution Plate, RAL7035 12 ST/ST, for 53605.1

Micro Splice Distributor with Telecom - Splice Cassette



For spliced connection of fiber optic cables
 Suitable for wall mounting
 Duct installation or installation on DIN Rail possible with cable duct fixing set (53702.1)
 Cable entries on top/bottom or at the rear
 Delivery unassembled

Scope of delivery:
 1 x splice cassette
 1 x splice holder crimp for 12 splices
 2 x grommets
 2 x cable ties

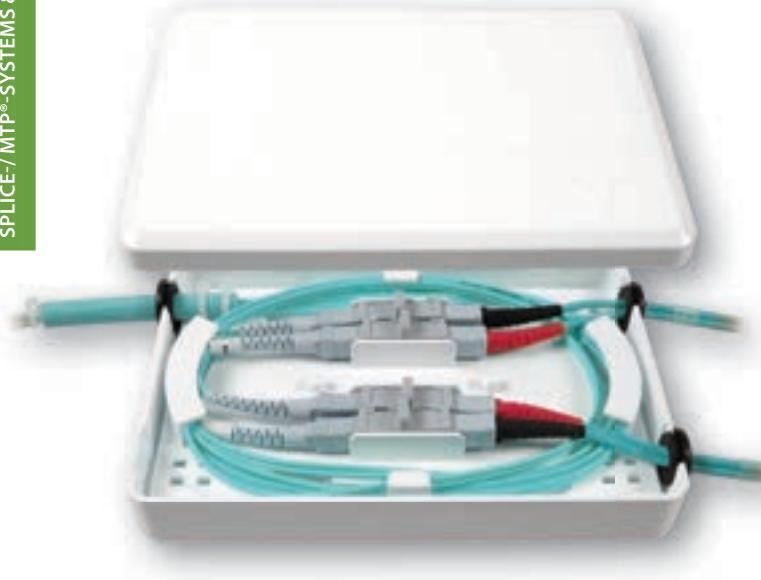
Dimensions: 160x110x30mm

Art.-No.	Description	Colour
53700.1V2	Micro Splicebox with telecom splice cassette for 12 spl.	grey

Accessory

Art.-No.	Description
53702.1	Cable duct fixing set C-rail or DIN Rail mountable
53703.1	Splice holder for 5 splices for Micro splice box

Micro Splice Distributor for 4 Adapter with SC simplex design



Plastic splice box including accessories:

1 x adapter plate for 4 x SC simplex adapters
1 x splice holder for 5 splices, 2 x cable clips
4 x cable grommets, 4 x cable ties

Wall- mounting or cable duct installation possible

2 cable entries (top/bottom) or 1 x through rear wall possible

For connection of optical fibre cable via splice or for max. 4 fibers via connector
Dimensions: 160x110x30mm

Art.-No.	Description	Colour
53701.1V2	Micro Splicebox for 4 adapters with SC simplex hole	grey

Accessory

Art.-No.	Description
53702.1	Cable duct fixing set C-rail or DIN Rail mountable
53703.1	Splice holder for 5 splices for Micro-splice box

F0 Mini Splice Distributor



With splice holder for 12 x crimp splice protections. Wall-, duct- or DIN Rail- installation (clip + screw, please order separately). Housing and cover made of plastic. 2 openings for incoming and outgoing cable. Strain relief via 4 included cable ties possible. weight ca. 30 g. delivery unassembled

Dimensions: 145x68x23mm

Art.-No.	Description
53704.1	F0 mini splice distributor plastic

Accessory

Art.-No.	Description
83030.2	DIN Rail holder, blank steel FM 4/TS35
81834.2	Screw M4 x 8mm for 83030.2 4.8 tinned DIN 7985

Micro Splice Distributor Housing, unassembled



Wall-, cable duct- or DIN Rail mounting possible (clip + screw please order separately)

Plastic housing with holder for adapters:

2 x SC-Simplex, 2 x LC-Duplex, 2 x E2000®, 2 x FC, 2 x ST, 1 x SC-Duplex or 1 x LC-Quad

1 x cable entry with 5 holes 5 mm

1 x cable entry with 5 holes 3 mm

Holder for 4 x shrink splice protection

Pre-stamped outlines for fiber depot

Scope of delivery: 5 x holders for several adapters, 2 x cable entries, 2 x S6 dowel and 6 x cable ties

Dimensions: 110x140x20mm

Art.-No.	Description
53712.1	Small Splice distributor housing, IP20, RAL7035

FTTx Kompakt-Anschlussbox



FTTx compact junction box with dimensions 100x80x23mm

An adjustable fiber overlength cassette is mounted in the box for an easier work on cable inlets or connecting a adapter. The splice protection holder is also in the fiber overlength cassette. There are breakouts for 2 cable inlets in the box and also 2 breakouts for flangeless SC-Simplex or LC-Duplex adapters.

Technical Specification:

Dimensions: 100x80x23mm

Adjustable fiber overlength cassette

In/Outputs: 2

Art.-No.	Description	Colour
53700.2	FTTx compact junction box, connection: 2x SC-Simplex/LC-Duplex	white

Splice Distributor Housing Set IP66



IP66 Plastic housing RAL7035
Suitable for wall mounting

Included:

Distributor board for fixing of 3 splice cassettes or 2 splice cassettes (53100.200) and one mounting bracket
1 mounting bracket for 6 x SC duplex / LC quad adapters
1 mounting bracket for 12 x ST simplex / FC simplex adapters (D-hole)
Prepared cable entries for 2 x M16/M25 and 4 x M20/M32

Delivery unassembled

Dimensions: 255x180x100mm

Art.-No.	Description
53710.1	Splice box housing IP66, grey

Micro Splice Distributor I Housing IP54



IP54 Plastic housing RAL7035
For 6 shrink splices
Lockable cover

Included:

Metal installation board
Holder for 6 shrink splices
Chart label
1 x key
1 x PG13.5 gland
1 x PG9 gland
2 x dowel M8
2 x screws 2.9x9.5mm

Dimensions: 103x185x100mm

Art.-No.	Description
53713.1	Micro Splice distributor I, RAL7035, IP54, lockable

Micro Splice Distributor II Housing IP54



IP54 Plastic housing RAL7035
 For 4 x SC simplex / LC duplex adapters
 Lockable cover

Included:
 Metal bracket for adapters
 Splice cassette
 Chart label
 Holder for 6 shrink splices
 1 x key
 2 x PG16 gland
 1 x PG9 gland
 2 x dowel M8
 2 x screws 2.9x9.5mm

Delivery unassembled
 Dimensions: 103x185x93mm

Art.-No.	Description
53714.1	Micro Splice distributor II IP54, RAL7035

Splice Distributor Housing IP54



IP54 Plastic housing RAL7035
 Suitable for wall mounting
 Lockable cover (screw) with 3,5mm hole for sealing

Included:
 Basic module plate for fixing one splice cassette (53100.200) and one mounting bracket
 Splice cassette with cover
 Mounting bracket with 12 x LC duplex / SC simplex / E2000® simplex mounting holes
 Mounting bracket with 6 x SC duplex / LC quad mounting holes
 Mounting bracket for 12 x ST simplex / FC simplex holes
 3 x PG cable glands (2 x PG11, 1 x PG16)
 4 x fixing screws for wall-mounting
 delivery unassembled

Dimensions: 190x375x115mm

Art.-No.	Description
53720.1	IP54 Splice housing set with wide range of accessories

Industrial Splice Distributor with Metal Housing, unassembled



Fully assembled metal housing
For DIN Rail mounting
Cable entries top/bottom, prepared for M20
Delivery incl. screws for front panel

Included: 1 x splice distributor housing
1x splice cassette
1 x splice holder for 12 crimp splices (Attach of an optional additional splice holder only with double-sided adhesive tape)
1 x cable gland M20
1 x Alu DIN Rail clip
Delivery unassembled and without front panel

Dimensions: 61x115x113mm

Art.-No.	Description	Colour
53705.1V3	Industrial Splice housing for DIN Rail without front panel RAL7035	grey

Accessory

Art.-No.	Description
53705.2V2B	Front plate for 6 x SC-D, LC-Quad with 2.8mm screw holes
53705.4V2B	Front plate for 12 x SC-S, LC-D, E2000® with 2.8mm screw holes
53705.3V2B	Front plate for 6 x SC-S, LC-D, E2000® with 2.8mm screw holes
53705.2V2B2	Front plate for 6 x SC-D, LC-Quad with Ø1,7mm screw hole
53705.3V2B2	Front plate for 6 x SC-S, LC-D, E2000® with Ø1,7mm screw holes
53705.5V2B	Front plate for 12 x ST-Simplex with Ø2,8mm screw holes
53705.4V2B2	Front plate for 12 x SC-S, LC-D, E2000® with Ø1,7mm screw holes

Multi System Fiber Optic Outlet



Clip and screw lock for the adapter plates
Die-cast housing, duct/in wall mount
Faceplate ABS 50x50mm
With laser symbol and text field
Delivery incl. 9 **unassembled** adapter plates
For SC-singlex, SC-duplex, E2000®-simplex, MTRJ, AMP/MTRJ, ST, FC, DIN, LC-duplex and a blanking plate

Art.-No.	Description	Colour
ET-25170	FO Outlet Multi System RAL 9010	white

Accessory

Art.-No.	Description
ET-25084	Surface frame RAL9010
ET-25074V2	Surface mount frame, RAL 1013

Fiber Optic Frame Set



For holding 2 adapters

2 Ports for E2000®simplex, SC simplex or LC duplex

40° slanted outlet

Colour: RAL9010, white

Outer ring 80x80mm and central plate 50x50mm according to **DIN49075**

Compatibel to common switch programms with adapter plate

Integrated label behind transparent cover

Delivery unassembled

Included:

1 x metal frame

1 x plastic cover

1 x plastic central plate
4 x M2-screws

Art.-No.	Description	Colour
ET-25085FO	FO Frame Set 2x E2000®, SC-Simplex, LC-Duplex, RAL9010	white

Floor Tank Holder



Floor tank holder for 2 or 3 adapter plates

For mounting in Obo Bettermann (Ackermann) floor tanks

Modular construction to mix twisted pair and fiber optic

Angled design for easy cable management

with space for label and markings

Accessory

Art.-No.	Description	Colour	Art.-No.	Description
ET-25173.1	Floor tank holder modular 2-fold	black	ET-25173.4	Adapter plate for ET-25173.1/ET-25173.2, for SC Duplex adapters, with screws
ET-25173.2	Floor tank holder modular 3-fold	black	ET-25173.5	Adapter plate for ET-25173.1/ET-25173.2, for 3x SC Simplex adapters, with screws

Splice Cassette

For 2 x 12 splice holders (max. 24 arc splices)

Stackable

Dimensions (W) x (H) x (D) 155 x 8 x 92 mm

Art.-No.	Description
53100.200	Splice cassette w/o Logo white
53100.201	Splice cassette cover, white 0

Stran relief for FO single fiber

Strain-relief (for mounting on splice cassette 53100.200)

Art.-No.	Description
53100.6	Strain relief (fitted in the splice cassette 53100.200)

Splice Holder for Thermo Splice Protection

Splice Holder for 6 x Arc Splices with Shrink Tube

Art.-No.	Description
53100.7	Splice holder for 6xarc splices with shrink tube,white
53100.8	Splice holder for 6 x arc splices with shrink tube,black

Splice Holder for Crimp Arc Splices

Splice Holder for 12 x Arc Splices Crimp

Art.-No.	Description
53100.21	Splicerholder for 12 arc splices

Splice Set Heat Shrink**Complete Set** for assembling splice boxes, distributor or wall cabinets

The Set contains:

- 1x splice cassette for 2 splice holder
- 1x cover with Symbol „attention laser“
- 1x splice holder
- 6x splice protection (heat shrink tube)
- 2x cable tie
- 1x spiral coiled tube

Art.-No.	Description
53100.203	Splice Set Heat shrink

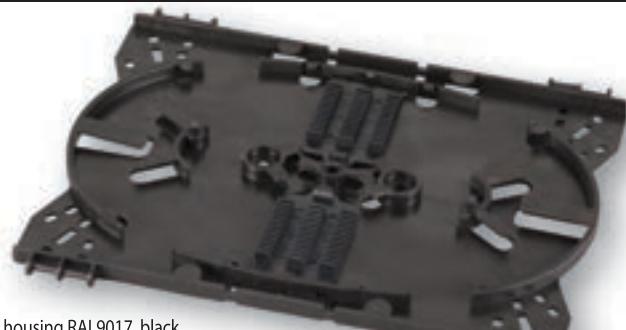
Splice Set Crimp**Complete Set** for assembling splice boxes, distributor or wall cabinets

The Set contains:

- 1x splice cassette for 2 splice holder
- 1x cover with Symbol „attention laser“
- 1x splice holder
- 12x splice protection (crimp splice protection)
- 2x cable tie
- 1x spiral coiled tube

Art.-No.	Description
53100.202	Splice Set Crimp

Splice Cassette PRO

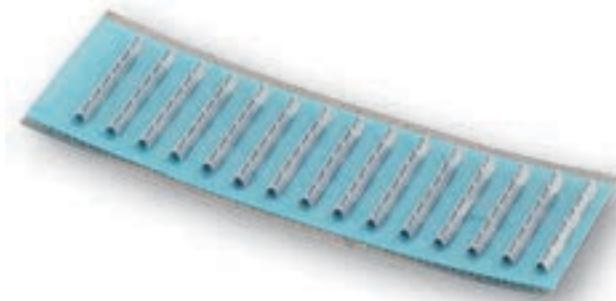


Plastic housing RAL9017, black
For holding 24 crimp splices
2 crimp splice holders each for 12 splices included in delivery
Stack- and **foldable**
Delivery without cover

Dimensions: 165x135x5mm

Art.-No.	Description
53100.10	Splice cassette Pro incl. holders for 2x12 splices
53100.110	Cover for splice cassette 53100.10

Crimp Splice protection(ANT)



Crimp splice protector for arc splices

Ordering info

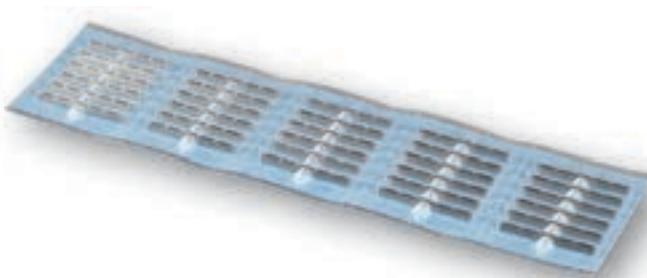
53100.3: Price per splice protector - smallest order unit: 15

Art.-No.	Description
53100.3	Crimp splice protector for arc splices, (min. PPU 15/ package 150pcs)

Termo-Splice-Protection for Arc splices



Crimp Splice protection



Crimp splice protector for arc splices
Telekom approved

Ordering info

53100.31: Price per splice protector - smallest order unit: 30

53100.31-30: Price per 30 splice protectors - smallest order unit: 1

Art.-No.	Description
53100.31	Crimp arc splice protection, Telekom approved, (min. PPU 30/ package 150pcs)
53100.31-30	Crimp arc splice protection, Telekom approved, PU 30

crimptool for crimp splice protection inc. 12 pcs. of crimp splice protection



Plastic Crimptool for multiple use
12 pieces of crimp splice protection in the set

Art.-No.	Description
53100.5	crimptool for crimp splice protection inc. 12 pcs. of crimp splice protection

Shrink splice protection to protect the splice from damage and environmental influences
Storage in lockable box

Metall bolt for bend protection integrated

Min. shrink temperature : 120°C

PPU: 100

Art.-No.	Description
53100.9-100	Splice Heat Shrink, transparent, length: 60mm, PU 100
53100.91-100	Splice Heat Shrink, transparent, length: 45mm, PU 100

Cable GlandsCable Gland, divisibleDummy Plug für PG-16 Couplings

Separable cable gland + nut M25, 17 mm inner diameter

Blind plug for unused PG16 holes
22,5 mm/1,6 mm, PVC black

Art.-No.	Description
53010.5	PG16 Cable Glands conical grey, RAL7035
53012.1	M20 Cable Glands grey, RAL7035

Art.-No.	Description
KVT25/17	Divisible cable gland M25 17mm inner diameter

Art.-No.	Description
40177.1	Dummy Plug for PG16 Couplings

Dust Covers for Front- + Distribution-platesScrewsSelf-tapping screw

Screw M5 x 8 mm for 83030.1

Art.-No.	Description
53025.1-100	Dust cover for ST or FC (D-hole), PU 100
53026.1-100	Dust cover for E2000®simplex, SCsimplex, LC-Duplex, PU 100
53028.1-100	Dust cover LC Duplex square cut, PU 100
53030.1-100	Dust cover LC Duplex, PU 100

Art.-No.	Description
81834.1	Screw M5 x 8mm for 83030.1

Art.-No.	Description
80550.1-50	Tapping screw ST2,5 50pieces DIN7971
80550.1-100	Tapping screw ST2,5 100pieces DIN7971

DIN-Rail clip with M5 screwingExpanding rivet nylon blackPan head sleeve nut

For Mounting in distribution panel 53605.x with mini wall distributor 53605.1.

Art.-No.	Description
83030.1	DIN Rail holder,blank steel FM 5/TS35

Art.-No.	Description
53697.1	Expanding Rivets nylon black

Art.-No.	Description
80555.1	Pan head sleeve nut, M4x7, (splicebox)

Distribution box for assembled MTP®/MPO-cassettes with quick lock



Art.-No.	Description	Colour
DC53600TS.MTP	Sliding distributionbox for 3xMTP®/MPO-Cassetten unass	black

Sliding unit distribution box for 3 cassettes
Front panel / sliding with quick lock
19" 1U steel sheet 1.5 mm

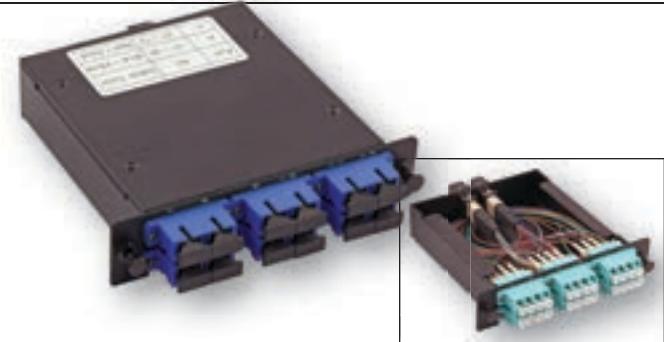
6 x adhesive fiber trays
cable entries back sided, prepared for M25
Unassembled

Dimensions: 483x244x44.5mm

Accessory

Art.-No.	Description
DCBK80000	Dummy Plate for Disb.box DC53600SW.MTP, RAL9005

MTP®/MPO cassettes assembled with adapters



MTP®/ MPO-Male Fanout units 900µm coloured in OM3, OM4 or OS2
SC or LC-adapters in OM3 aqua, OM4 violet or OS2 blue
LowLoss description means: attenuation per cassette max. 0,35dB
MTP®/ MPO adapters
Quick lock
Colour RAL9005



MTP®/ MPO-cassettes
assembled with MTP®/ MPO adapters
For direct connection of QSFP+ 40G or QSFP28 100G Transceiver
Quick lock
Colour RAL9005

Assembled MTP®/MPO-Fanout cassettes LowLoss OM4

Art.-No.	Description	Connection type front side	Connection type backside
DCBK81213.12LL	1xMTP®/MPO, 6xSC duplex violett	SC-duplex	MTP-M
DCBK81912.12LL	1xMTP®/MPO, 6xLC duplex violett	LC-Duplex	MTP-M
DCBK81913.24LL	2xMTP®/MPO, 6xLC quad violett	LC-quad	MTP-M

MTP®/MPO-Kassetten bestückt mit Kupplungen

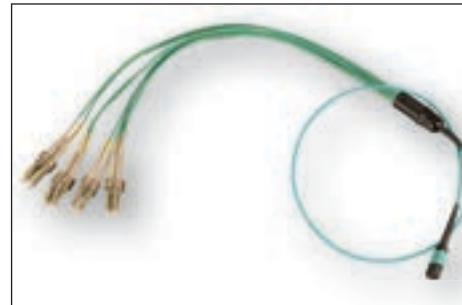
Art.-No.	Description	assembly
DCBK6XMTPA	MTP®/MPO-Fanout Cassette Typ A 1:1,6x MTP®/ MPO, Pin 1-12/ 1-12	without pigtailes
DCBK6XMTPB	MTP®/MPO-Fanout Cassette Typ B crossed,6x MTP®/MPO, Pin 1-12/ 12-1	without pigtailes

Assembled MTP®/MPO-Fanout cassettes LowLoss OM3

Art.-No.	Description	Connection type front side	Connection type backside
DCBK81213.120M3	1 MTP®/MPO, 6x SC duplex aqua	SC-duplex	MTP-M
DCBK81912.120M3	1xMTP®/MPO, 6xLC aqua	LC-Duplex	MTP-M
DCBK81913.240M3	2xMTP®/MPO, 6xLC quad aqua	LC-quad	MTP-M

Assembled MTP®/MPO-Fanout cassettes LowLoss OS2

Art.-No.	Description	Connection type front side	Connection type backside
DCBK81223.120S2	1MTP®/MPO, 6xSC duplex blau	SC-duplex	MTP-M
DCBK81922.120S2	1xMTP®/MPO, 6xLC duplex blau	LC-Duplex	MTP-M
DCBK81923.240S2	2xMTP®/MPO, 6xLC quad blau	LC-quad	MTP-M

MTP®/MPO-Female Mini-Breakout Trunk Cable 1:1

Application: Server to Server- / Switch to Switch connection,
Suitable for transmission links up to **100 Gigabit**

Connector manufacturer: **US Connec**

Matrix: 12 Fibers

Coding: 1:1

Furcation length: 600mm

Colour: OM4 and OM3 aqua, OS2 yellow

Singlemode variant always as APC version

Bothsided cable divider with cable gland for M25 / PG16-U-shape

Bothsided protection tube for connectors

Delivery: one way drum

Available lengths from 10 m up to 150 m in 10 m steps

Note: In each MTP® transmission link, a type B (crossed) patch cable is required

MTP®/MPO-Female Mini-Breakout Trunk cable 1:1,OM4,50/125µ

Art.-No.	Description	Coding	Connector connection 1	Numer of Fibers	Number of conectors connection 1
DCIB12MTP.xx	Mini-Breakout Trunk cable MTP®/MPO (Jack), OM4, LowLoss, 24 Fiber	1:1	MTP®-F	24	2
DCOMTP36.xx	Mini-Breakout Trunk cable MTP®/MPO (Jack), OM4, LowLoss, 36 Fiber	1:1	MTP®-F	36	3
DCOMTP48.xx	Mini-Breakout Trunk cable MTP®/MPO (Jack), OM4, LowLoss, 48 Fiber	1:1	MTP®-F	48	4
DCOMTP72.xx	Mini-Breakout Trunk cable MTP®/MPO (Jack), OM4, LowLoss, 72 Fiber	1:1	MTP®-F	72	6
DCOMTP96.xx	Mini-Breakout Trunk cable MTP®/MPO (Jack), OM4, LowLoss, 96 Fiber	1:1	MTP®-F	96	8

MTP®/MPO-Female Mini-Breakout Trunk cable 1:1,OM3,50/125µ

Art.-No.	Description	Coding	Connector connection 1	Numer of Fibers	Number of conectors connection 1
DCIB12YMTP.xx	Mini-Breakout Trunk cable MTP®/MPO (Jack), OM3, LowLoss, 24 Fiber	1:1	MTP®-F	24	2
DCOMTPY36.xx	Mini-Breakout Trunk cable MTP®/MPO (Jack), OM3, LowLoss, 36 Fiber	1:1	MTP®-F	36	3
DCOMTPY48.xx	Mini-Breakout Trunk cable MTP®/MPO (Jack), OM3, LowLoss, 36 Fiber	1:1	MTP®-F	48	4
DCOMTPY72.xx	Mini-Breakout Trunk cable MTP®/MPO (Jack), OM3, LowLoss, 72 Fiber	1:1	MTP®-F	72	6
DCOMTPY96.xx	Mini-Breakout Trunk cable MTP®/MPO (Jack), OM3, LowLoss, 72 Fiber	1:1	MTP®-F	96	8

MTP®/MPO-Female Mini-Breakout Trunk cable 1:1,OS2,9/125µ

Art.-No.	Description	Coding	Connector connection 1	Numer of Fibers	Number of conectors connection 1
DCIB12SMTP.xx	Mini-Breakout Trunk cable MTP®/APC (Jack), OS2, LowLoss, 24 Fiber	1:1	MTP®/APC-F	24	2
DCOMTPS36.xx	Mini-Breakout Trunk cable MTP®/APC (Jack), OS2, LowLoss, 36 Fiber	1:1	MTP®/APC-F	36	3
DCOMTPS48.xx	Mini-Breakout Trunk cable MTP®/APC (Jack), OS2, LowLoss, 48 Fiber	1:1	MTP®/APC-F	48	4
DCOMTPS72.xx	Mini-Breakout Trunk cable MTP®/APC (Jack), OS2, LowLoss, 72 Fiber	1:1	MTP®/APC-F	72	6
DCOMTPS96.xx	Mini-Breakout Trunk cable MTP®/APC (Jack), OS2, LowLoss, 96 Fiber	1:1	MTP®/APC-F	96	8

MTP®/ MPO Patch Cable Parallel Optics with 12 Fiber Matrix

Application: Server to Server- / Switch to Switch connection,
Suitable for transmission links up to **100 Gigabit**

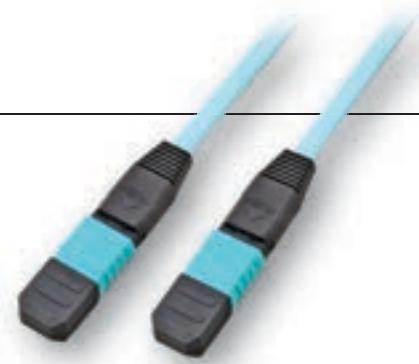
Connector manufacturer: **US Connec**

Matrix: 12 Fibers

Singlemode variant always as APC version

Colour: OM4 and OM3 aqua, OS2 yellow

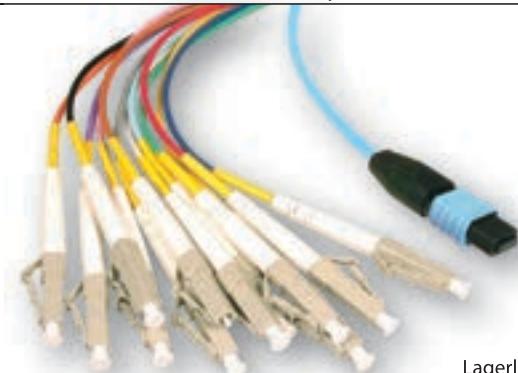
Available lengths: 1m up to 100m



Note: In each MTP® transmission link, a type B (crossed) patch cable is required

Art.-No.	Description	Connector connection 1	Fiber	Coding
DCIB4XMTP.xx	Patch cable MTP®/MPO (female), OM4, 12 fibers	MTP-F/1	50/125µ	1:1
DCIB4YMTP.xx	Patch cable MTP®/MPO (female), OM3, 12 fibers	MTP-F/1	50/125µ	1:1
DCIB4SMTP.xx	Patch cable MTP®/APC (female), OS2, 12 fibers	MTP-F APC/1	9/125µ	1:1
DCIB4SMTP.xx	Patch cable MTP®/APC (female), OS2, 12 fibers	MTP-F APC/1	9/125µ	1:1
DCIB4SMTP.xx-B	Patch cable MTP®/APC (female), OS2, 12 fibers, Typ B crossed	MTP-F APC/1	9/125µ	Type B crossed
DCIB4XMTP.xx-B	Patch cable MTP®/MPO (female), OM4, 12 fibers, Typ B crossed	MTP-F/1	50/125µ	Type B crossed
DCIB4YMTP.xx-B	Patch cable MTP®/MPO (female), OM3, 12 fibers, Typ B crossed	MTP-F/1	50/125µ	Type B crossed

MTP®/MPO-Female Fanout Cable, LowLoss



Lagerlängen: 2 - 5 m

Application: Suitable for transmission links up to **100 Gigabit**

Construction: 1 multi-connector MTP® on one side,

12 Single connector on the other side (e.g. LC)

LowLoss version: attenuation per Fanout max. 0,35dB

Matrix: 12 fibers

Furcation length: 50cm

Cable diameter multi-connector: 3mm

Cable diameter single-connector: 2mm

Colour: OM4, OM3 and OS2 acc. to colour code DIN VDE 0888

MTP®/MPO-Female Fanout Cable, LowLoss,OM4

Art.-No.	Connector connection 1	Numer of Fibers	Number of conectors connection 1
004000.2LL	MPO-F/ SC	12	1 x MTP® female
004000.5LL	MPO-F/ SC	12	1 x MTP® female
004001.2LL	MPO-F/ LC	12	1 x MTP® female
004001.5LL	MPO-F/ LC	12	1 x MTP® female

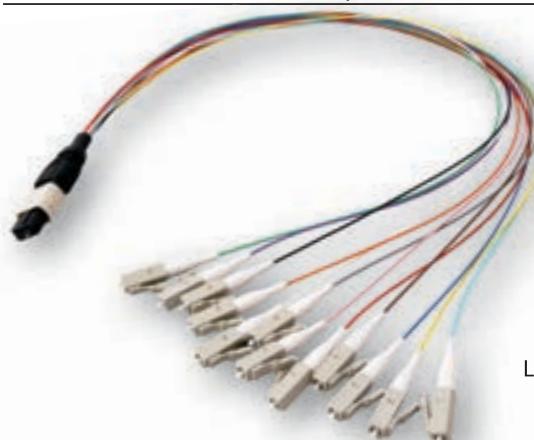
MTP®/MPO-Female Fanout Cable, LowLoss,OM3

Art.-No.	Connector connection 1	Numer of Fibers	Number of conectors connection 1
004101.2LL	MPO-F/ SC	12	1 x MTP® female
004101.5LL	MPO-F/ SC	12	1 x MTP® female
004009.2LL	MPO-F/ LC	12	1 x MTP® female
004009.5LL	MPO-F/ LC	12	1 x MTP® female
004009.18LL	MTP-F/ LC	12	1 x MTP® female

MTP®/MPO-Female Fanout Cable, LowLoss,OS2

Art.-No.	Connector connection 1	Numer of Fibers	Number of conectors connection 1
004103.2LL	MPO-F/ SC	12	1 x MTP® female
004103.5LL	MPO-F/ SC	12	1 x MTP® female
004007.2LL	MPO-F/ LC	12	1 x MTP® female
004007.5LL	MPO-F/ LC	12	1 x MTP® female

MTP®/MPO-Male Fanout Cable, Low Loss



Lagerlänge: 0,4m

Application: Suitable for transmission links up to **100 Gigabit**

Construction: 1 multi-connector MTP® on one side,

12 Single connector on the other side (e.g. LC)

LowLoss version: attenuation per Fanout max. 0,35dB

Matrix: 12 fibers

Cable diameter multi-connector: 900µm

Colour: OM4, OM3 and OS2 acc. to colour code DIN VDE 0888

MTP®/MPO-Male Fanout Cable, Low Loss,OM2

Art.-No.	Connector connection 1	Numer of Fibers	Number of conectors connection 1
004310.0,4LL	MTP/MPO-M/ LC	12	1 x MTP® male
004311.0,4LL	MTP/MPO-M/ SC	12	1 x MTP® male
004210.0,4LL	MTP/MPO-M/ LC	12	1 x MTP® male
004211.0,4LL	MTP/MPO-M/ SC	12	1 x MTP® male

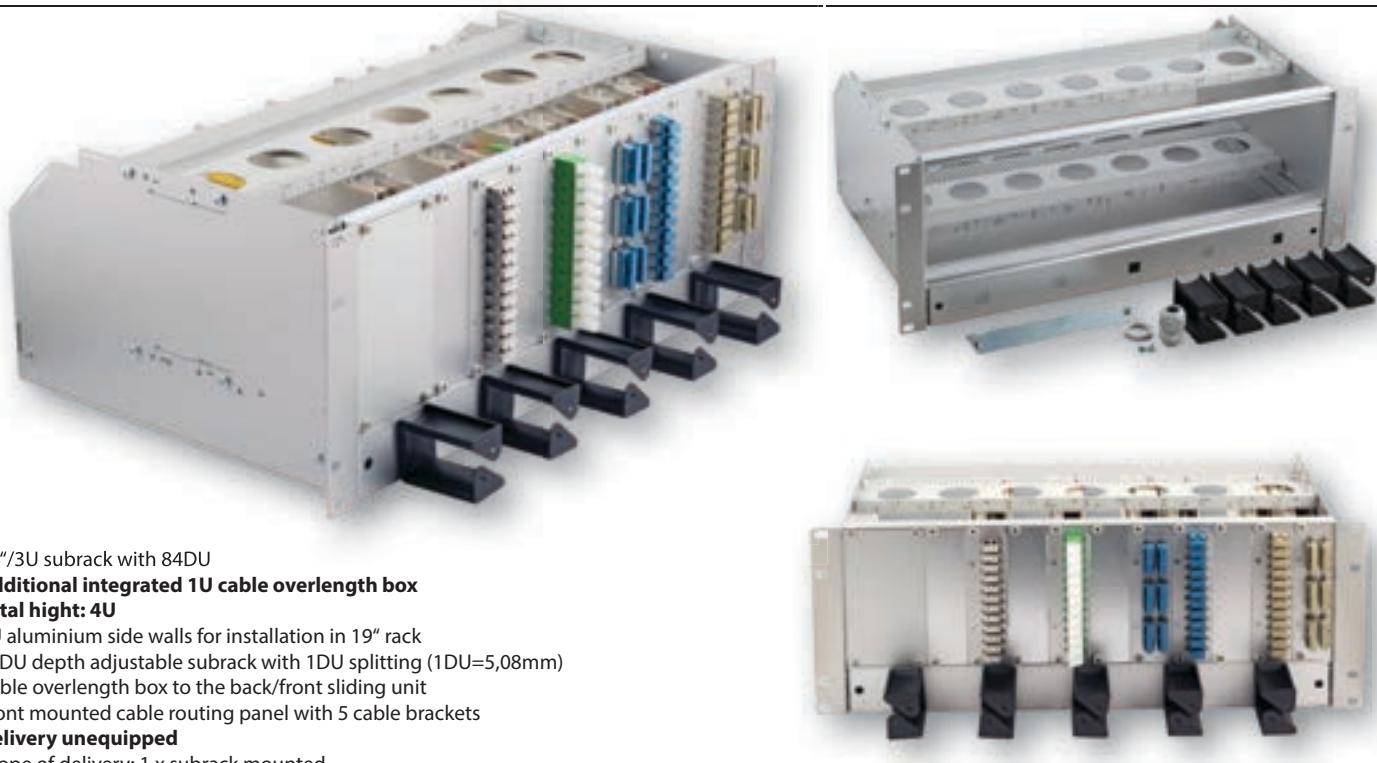
MTP®/MPO-Male Fanout Cable, Low Loss,OM4

Art.-No.	Connector connection 1	Numer of Fibers	Number of conectors connection 1
004010.0,4LL	MTP/MPO-M/ LC	12	1 x MTP® male
004011.0,4LL	MTP/MPO-M/ SC	12	1 x MTP® male

MTP®/MPO-Male Fanout Cable, Low Loss,OM3

Art.-No.	Connector connection 1	Numer of Fibers	Number of conectors connection 1
004110.0,4LL	MTP/MPO-M/ LC	12	1 x MTP® male
004111.0,4LL	MTP/MPO-M/ SC	12	1 x MTP® male

19" Subrack



19"/3U subrack with 84DU

Additional integrated 1U cable overlength box

Total height: 4U

4U aluminium side walls for installation in 19" rack

84DU depth adjustable subrack with 1DU splitting (1DU=5,08mm)

Cable overlength box to the back/front sliding unit

Front mounted cable routing panel with 5 cable brackets

Delivery unequipped

Scope of delivery: 1 x subrack mounted

1 x PG16 cable gland incl. locknut

5 x cable brackets

Dimensions: 483x178x295mm

Art.-No.	Description	max. Modules	Colour
53711.1	Subrack 4U 84TE/3U Incl. 1U Cable Overlength Box	12	alu/metal

Accessory

Art.-No.	Description
53711.10	Blind plate 3HE/7TE Alu elox. with screwing set
53711.30	Labeling bar Alu, self-adhesive L=100mm
53711.31	Paper strips for Labeling bar Alu, L=100mm
53711.32	Film strips for Labeling bar Alu, L=100mm
53711.21	Blind plate 3HE/14TE Alu elox. with screwing set

19" 3U/84TE Subrack



19"/3U subrack with 84DU

3U aluminium side walls for installation in 19" rack

84DU depth adjustable module bracket with 1DU splitting (1DU = 5,08mm)

Delivery unequipped

Dimensions: 483x135x227mm

Art.-No.	Description	max. Modules	Colour
53733.1	Module Housing 3U/84TE 1TE-part, 227mm depth	12	alu/metal

Accessory

Art.-No.	Description
53711.10	Blind plate 3HE/7TE Alu elox. with screwing set
53711.30	Labeling bar Alu, self-adhesive L=100mm
53711.31	Paper strips for Labeling bar Alu, L=100mm
53711.21	Blind plate 3HE/14TE Alu elox. with screwing set
53711.32	Film strips for Labeling bar Alu, L=100mm

Plug-In Module 3U/7DU LC-Duplex adapters



Fully equipped plug-in module with adapters and pigtails
For installation in 19 „subracks 53711.1 and 53733.1

3U/7DU

1x splice cassette including cover

12 pigtails with 1x splice holder (12 x crimp)

24 pigtails with 2x splice holder (12 x crimp)

Overlength cassette

Labelling strip

Art.-No.	Description	Quantity adapter	Adapter	APC	Fiber
B88206.12	Plug-in Module 3U/7DU, 9/125µ OS2, 6x LC/APC Duplex metal	6	LC duplex	True	OS2
B88921.12	Plug-in Module 3U/7DU, 9/125µ OS2, 6x LC Duplex blue	6	LC duplex	False	OS2
B88922.12	Plug-in Module 3U/7DU, 9/125µ OS2, 12x LC Duplex metal	6	LC duplex	False	OS2
B88901.120M4	Plug-in Module 3U/7DU, 50/125µ OM4, 6x LC Duplex erica-violet	6	LC duplex	False	OM4
B88901.120M3	Plug-in Module 3U/7DU, 50/125µ OM3, 6x LC Duplex aqua	6	LC duplex	False	OM3
B88902.120M3	Plug-in Module 3U/7DU, 50/125µ OM3, 6x LC Duplex metal	6	LC duplex	False	OM3
B88902.12	Plug-in Module 3U/7DU, 50/125µ OM2, 6x LC Duplex metal	6	LC duplex	False	OM2

Plug-In Module 3U/7DU LC-Quad adapters



Fully equipped plug-in module with adapters and pigtails
For installation in 19 „subracks 53711.1 and 53733.1

3U/7DU

1x splice cassette including cover

12 pigtails with 1x splice holder (12 x crimp)

24 pigtails with 2x splice holder (12 x crimp)

Overlength cassette

Labelling strip

Art.-No.	Description	Quantity Adapter	Adapter	APC	Fiber
B88206.24	Moduleinschub 3HE/7TE, 9/125µ OS2, 6x LC/APC Quad grün	6	LC quad	Ja	OS2
B88925.12	Moduleinschub 3HE/7TE, 9/125µ OS2, 3x LC Quad blau	3	LC quad	Nein	OS2
B88925.24	Moduleinschub 3HE/7TE, 9/125µ OS2, 6x LC Quad blau	6	LC quad	Nein	OS2
B88905.120M3	Moduleinschub 3HE/7TE, 50/125µ OM3, 3x LC Quad aqua	3	LC quad	Nein	OM3
B88905.240M3	Moduleinschub 3HE/7TE, 50/125µ OM3, 6x LC Quad aqua	6	LC quad	Nein	OM3

Plug-In Module 3U/7DU SC-Duplex adapters



Fully equipped plug-in module with adapters and pigtails
For installation in 19 „subracks 53711.1 and 53733.1
3U/7DU

1x splice cassette including cover
12 pigtails with 1x splice holder (12 x crimp)
24 pigtails with 2x splice holder (12 x crimp)
Overlength cassette
Labelling strip

Art.-No.	Description	Quantity adapter	Adapter	APC	Fiber
B88223.12	Plug-in Module 3U/7DU, 9/125µ OS2, 6x SC Duplex blue	6	SC duplex	False	OS2
B88226.12	Plug-in Module 3U/7DU, 9/125µ OS2, 6x SC/APC Duplex metal	6	SC duplex	True	OS2
B88228.12	Plug-in Module 3U/7DU, 9/125µ OS2, 6x SC/APC Duplex green	6	SC duplex	True	OS2
B88203.120M4	Plug-in Module 3U/7DU, 50/125µ OM4, 6x SC Duplex erica-violet	6	SC duplex	False	OM4
B88203.120M3	Plug-in Module 3U/7DU, 50/125µ OM3, 6x SC Duplex aqua	6	SC duplex	False	OM3
B88203.12	Plug-in Module 3U/7DU, 50/125µ OM2, 6x SC Duplex beige	6	SC duplex	False	OM2

Plug-In Module 3U/7DU SC-Simplex adapters



Fully equipped plug-in module with adapters and pigtails
For installation in 19 „subracks 53711.1 and 53733.1
3U/7DU

1x splice cassette including cover
12 pigtails with 1x splice holder (12 x crimp)
24 pigtails with 2x splice holder (12 x crimp)
Overlength cassette
Labelling strip

Art.-No.	Description	Quantity adapter	Adapter	APC	Fiber
B88224.12	Plug-in Module 3U/7DU, 9/125µ OS2, 6x SC Simplex blue	12	SC simplex	False	OS2
B88403.120M4	Plug-in Module 3U/7DU, 50/125µ OM4, 12x SC Simplex beige	12	SC simplex	False	OM4
B88403.120M3	Plug-in Module 3U/7DU, 50/125µ OM3, 12x SC Simplex beige	12	SC simplex	False	OM3

Plug-In Module 3U/7DU E2000® adapters



Fully equipped plug-in module with adapters and pigtails

For installation in 19 „subracks 53711.1 and 53733.1

3U/7DU

1x splice cassette including cover

12 pigtails with 1x splice holder (12 x crimp)

24 pigtails with 2x splice holder (12 x crimp)

Overlength cassette

Labelling strip

Art.-No.	Description	Quantity adapter	Adapter	APC	Fiber
B88523.12	Plug-in Module 3U/7DU, 9/125µ OS2, 12x E2000® blue	12	E2000®	False	OS2
B88533.12	Plug-in Module 3U/7DU, 9/125µ OS2, 12x E2000®/APC green	12	E2000®	True	OS2
B88503.120M4	Plug-in Module 3U/7DU, 50/125µ OM4, 12x E2000® beige	12	E2000®	False	OM4
B88503.120M3	Plug-in Module 3U/7DU, 50/125µ OM3, 12x E2000® beige	12	E2000®	False	OM3
B88503.12	Plug-in Module 3U/7DU, 50/125µ OM2, 12x E2000® beige	12	E2000®	False	OM2

Plug-In Module 3U/7DU ST adapters



Fully equipped plug-in module with adapters and pigtails

For installation in 19 „subracks 53711.1 and 53733.1

3U/7DU

1x splice cassette including cover

12 pigtails with 1x splice holder (12 x crimp)

24 pigtails with 2x splice holder (12 x crimp)

Overlength cassette

Labelling strip

Art.-No.	Description	Quantity adapter	Adapter	APC	Fiber
B88023.12	Plug-in Module 3U/7DU, 9/125µ OS2, 12x ST metal	12	ST	False	OS2
B88006.120M3	Plug-in Module 3U/7DU, 50/125µ OM3, 12x ST metal	12	ST	False	OM3
B88007.120M3	Plug-in Module 3U/7DU, 50/125µ OM3, 6x ST Duplex metal	6	ST duplex	False	OM3

Plug-In Module 3U/14DU SC-Duplex adapters



Fully equipped plug-in module with adapters and pigtails

For installation in 19 „subracks 53711.1 and 53733.1

3U/7DU

1x splice cassette including cover

12 pigtails with 1x splice holder (12 x crimp)

24 pigtails with 2x splice holder (12 x crimp)

Overlength cassette

Labelling strip

Art.-No.	Description	Quantity adapter	Adapter	APC	Fiber
B88223.24	Plug-in Module 3U/14DU, 9/125µ OS2, 12x SC Duplex blue	12	SC duplex	False	OS2
B88205.24	Plug-in Module 3U/14DU, 9/125µ OS2, 12x SC/APC Duplex green	12	SC duplex	True	OS2
B88203.240M4	Plug-in Module 3U/14DU, 50/125µ OM4, 12x SC Duplex erica-violet	12	SC duplex	False	OM4
B88203.240M3	Plug-in Module 3U/14DU, 50/125µ OM3, 12x SC Duplex aqua	12	SC duplex	False	OM3



FIBER TOOLS & INSTAL- LATION MATERIAL

The utilised tools and cleaning materials are a basic component in the installation and commissioning of fiber optic transmission links. According to the requirement of IEC 14763-3, the installed transmission links have to be checked before use and measurement. In practice, this means that all connections have to be cleaned and inspected with a microscope before the plugging process begins. The cleaning materials and tools offered by EFB-Elektronik have been specifically designed for fiber applications and show the appropriate fine tolerances and materials.

FIBER OPTIC

Professional Fiber Optic Tool Case

This solid tool case made of aluminium contains all what is necessary for the daily work with optical fibers. Equal if cleaning, stripping or testing - a suitable tool is provided in professional quality.

Scope of Supply:

- 1 x Aluminium case for fiber optical tools, bare aluminium (Art.-No: 39840.1), dimensions (W x H x D) ca. 345 x 100 x 260 mm
- 1 x Side cutter RDC 178 mm, (Art.-No: 39982.1)
- 1 x Pliers Knipex 3815 200, (Art.-No: 39984.1)
- 1 x Miller® stripping tool for 250µm (Art.-No: 39956.1)
- 1 x Miller® multi-stripping tool 721, for 0.6 - 2.6 mm cable (Art.-No: 39915.1)
- 1 x Fiber checker for single- and multimode for 2.5 mm ferrule, (Art.-No: 39990.1)
- 1 x Adapter for 1.25 mm ferrule, (Art.-No: 39990.2)
- 1 x Ferrule cleaner ST/SC and FC connectors for 2.5 mm ferrule, (Art.-No: 39988.2)
- 10 x Stick cleaner for 2.50 mm sleeves (Art.-No: 39976.1)
- 10 x Stick cleaner for 1.25 mm sleeves (Art.-No: 39975.1)
- 1 x Reel cleaner for fiber optical connectors (Art.-No: 39962.2)
- 1 x Stripping tool for round cable, 4.5 - 29 mm, length - crosswise - rotary (Art.-No: 39900.1)
- 1 x Kevlar® cutter KS-1 140 mm, (Art.-No: 39903.1)
- 1 x Stripping tool 0.60 - 1.10 mm, for secondary coating stripping (Art.-No: 39923.2)
- 1 x Stripping tool 0.18 - 0.30 mm, for primary coating stripping (Art.-No: 39923.1)
- 1 x Alcohol dispenser, without contents (Art.-No: 39920.2)
- 10 x Miller® cleaning sticks with fork head, alcohol soaked (Art.-No: 39925.1)
- 25 x Miller® cleaning tapes, alcohol soaked (Art.-No: 39926.1)



Art.-No.	Description
39843.1	Professional Fiber Optic Tool Case

Accessory

Art.-No.	Description
39988.2	Ferrule Cleaner for SC,FC and ST-adapters for 2.5mm ferrule
39989.2	Ferrule Cleaner for LC, MU for PC&APC 1.25mm ferrule

Fiber Optic Basic Cleaning & Inspection Kit



Basic Cleaning Kit consists of:

- 1x Bulb Blower (OD:42mm)
- 1x 2,5mm Fiber Optic Ferrule Cleaner
- 1x 1,25mm Fiber Optic Ferrule Cleaner
- 1x Fiber Optic Cleaning Cassette
- 1x Package of Lint free wiper
- 1x Bottle of Cleaning Liquid
- 1x Fiber Optic Microscope for PC and APC 2.5mm connector

Art.-No.	Description
39842.1	Fiber Optic Basic Cleaning & Inspection Kit

Accessory

Art.-No.	Description
39988.2	Ferrule Cleaner for SC,FC and ST-adapters for 2.5mm ferrule
39989.2	Ferrule Cleaner for LC, MU for PC&APC 1.25mm ferrule

Fiber Checker 3000 for Single- and Multimode 2.5 mm Ferrules



Compact design
 Suitable to check single-/multimode optical fibers
 Recognise faulty fiber optic components
 Identify and patching of fibers
 Operation distance ca. 3 km
 Due to 635 nm wavelength (visible red light) easier fault location
 Suitable 2.5 mm ferrule: DIN, E2000®, FC, SC, ST
 Temperature: -10°C ~ 45°C (operation), -40°C ~ 70°C (storage)
 Weight: 60 g (incl. batteries)
 Dimension: 167 mm x 12 mm

Scope of delivery:

Fiber checker with dust cap, battery set (2 x AAA), plastic etui and instruction manual

Accessory

Art.-No.	Description
39990.2	Adapter for Fiber Checker 3000 adapted from 2,5mm to 1,25mm
399910.2	Adapter for Fiber Checker 5000 2.5mm to 1.5mm and 2.2mm

Art.-No.	Description
39990.1	Fiber Checker 3000 for SM and MM 2.5mm Ferrules

Fiber Checker 5000 for Single- and Multimode 2.5 mm Ferrules



Compact design
 Suitable to check single-/multimode optical fibers
 Recognise faulty fiber optic components
 Identify and patching of fibers
 Operation distance ca. 5 km due to higher light power
 Due to 635 nm wavelength (visible red light) easier fault location
 Suitable 2.5 mm ferrule: DIN, E2000®, FC, SC, ST
 Temperature: -10°C ~ 45°C (operation), -40°C ~ 70°C (storage)
 Weight: 60 g (incl. batteries)
 Dimension: 167 mm x 12 mm

Scope of delivery:

Fiber checker with dust cap, battery set (2 x AAA), plastic etui and instruction manual

Accessory

Art.-No.	Description
39990.2	Adapter for Fiber Checker 3000 adapted from 2,5mm to 1,25mm
399910.2	Adapter for Fiber Checker 5000 2.5mm to 1.5mm and 2.2mm

Art.-No.	Description
399900.1	Adapter for Fiber Checker 5000 2.5mm to 1.5mm and 2.2mm

Miller® Fiber Stripper F0-103-S „One-Hole“

Miller® Fiber Stripper for stripping the primary coating 250µm to 125µm
Precision-made 127µm v-notch, no adjustment required
Length: 137mm
Weight: 71g

Art.-No.	Description
39956.1	Miller®Stripping-tool for stripping 250µ coating

Miller® Fiber Stripper CFS-2 „Dual-Hole“

Miller® Fiber Stripper with 140µm hole for stripping the primary coating 250µm to 125µm
Second hole for stripping the 2-3 mm outer jacket
Ergonomic handles
Lock to hold tool closed when it is not in use
Length: 165 mm
Weight: 119 g

Art.-No.	Description
39922.1	Miller CFS-2 stripping tool Dual-Hole,140µm

Miller® Fiber Stripper F0 103-T-250-J „Tri-Hole“

Miller® Fiber Stripper for stripping
Primary coating 250µm to 125µm
Secondary coating 900µm to 250µm
2-3 mm outer jacket
Length: 137mm
Weight: 71g

Art.-No.	Description
39901.1	Miller® Fiber Stripper „Tri-Hole“ F0 103-T-250

Miller® Stripping Tool WS 5

Miller® Fiber Stripper for stripping the coating
For diameter 0,6 - 0,8 - 1,0 - 1,3 - 1,6 - 2,0 - 2,6 mm
Lock to hold tool closed when it is not in use
Automatic return spring for ease of use and speed
With cutting device
Length: 159mm
Weight: 108g

Art.-No.	Description
39915.1	Miller stripping tool WS 5 for stripping from 0.8-2.6mm

Miller® Kevlar® Cutting Tool FOKC

Faster, more powerful cut with hardened blades and opening spring
Serrated blades for clean, smooth cut
Lightweight and compact, in a tried and tested quality
Ergonomically shaped handles with non-slip plastic covering
Length: 146 mm
Weight: 72 g

Art.-No.	Description
39902.1	Miller® Kevlar Cutter FOKC 0

Diagonal Cutter RDC

Drop-forged, hardened and tempered steel alloy
Soft ribbed molded grips for maximum comfort and durability
Unique torsion spring for one handed operation

Ideal for cutting and working with soft-core wire and cable
Length: 178mm
Weight: 227g

Art.-No.	Description
39982.1	Diagonal Cutter RDC 178mm, for soft-core wire and cable

Stripping Tool 180µm - 300µm

For stripping the primary coating 250µm to 125µm

Art.-No.	Description
39923.1	Stripping tool, 180µm - 300µm primary coating 250µm to 125µm

INFRALAN® Stripper

Fiber stripper for stripping the main jacket and primary coating 250µm to 125µm
Precision-made 127µm v-notch, no adjustment required

Art.-No.	Description
HS15-ABSETZZANGE	INFRALAN® Stripper

Loose tube tool blue

Loose tube tool for stripping the loose tube in fiber horizontal cables
Minimises risk to damage the fibers during stripping off the tube

Art.-No.	Description
39958.1	Loose tube tool blue, 3,2-6,3mm

Stripping Tool 600µm - 1100µm

For stripping the secondary coating 900µm to 250µm

Art.-No.	Description
39923.2	Stripping tool, 600µm - 1100µm stripping the sec. coating

Fiber Optic Scribe Ceramic

ceramic fiber optic scribe
For removing Fiber overlength at the connector assembly
both sides usable
Scratch fiber with scribe then split cautious
Dimensions: 50x50mm

Art.-No.	Description
39964.1	Fiber Optic Scribe Ceramic

Kevlar® Cutting Tool KS-1

Hardened blades made of carbon-molybdenum-vanadium steel
Universal tool for cutting of Kevlar® or aramid yarn
High-quality nylon case
Length: 140 mm, weight: 79 g

Art.-No.	Description
39903.1	Kevlar®-Cutting tool KS-1, 140mm

INFRALAN® Cleaver

Precision cleaver for optical fiber for a exact broken fiber endface
32.000 fiber cleaves possible with one blade (16 positions)
Dimensions: 60mm x 53mm x 52mm

Art.-No.	Description
HS18-CLEAVER	INFRALAN® Cleaver

accessory

Art.-No.	Description
HS18-CLEAVER-KLINGE	Blade for INFRALAN® Cleaver
HS15-FRB	Fiber garbage can for INFRALAN® Cleaver

Crimptool for crimp splice protection

Crimpingtool for all popular crimp splice protectors (e.g. item 53100.3, 53100.31). The tool has a compact and light design with the dimensions L:100mm, W:40mm, H:45mm and a weight of 200g. The robust tool made of black anodized steel is an internal development with a design protection and protection of utility models. The tool also offers a skid proof through rubberised pedestal and a defined insertion of the fiber through a big bearing area.

Cable Stripping Tool

Precision tool for stripping of the outer jacket of round cables
Knife is adjustable for longitudinal cut, circumferential and spiral slitting
„Tri-Action-Strip“
Adjustable cutting depth
Length: 138mm
Weight: 100g

Art.-No.	Description
HS15-CRIMPTOOL	Crimptool for crimp splice protection

Art.-No.	Description
39900.1	Cable Stripping Tool Miller® RCS-114
39900.2	Exchange blade for Miller® RCS-114 (39900.1)

Ferrule Cleaner for Simplex Connectors



IBC dry cloth cleaning tools specially designed to clean single fiber connectors Residing in an adapters, faceplate or bulkhead
Dust cap of the cleaning tool acts as an adapters for cleaning unmated connectors
39989.2: Cleaning tool for 1.25mm ferrules LC and MU with PC and APC polishes
39988.2: Cleaning tool for 2.5mm ferrules E2000®, SC, FC and ST with PC and APC polishes
Disposable with 525+ cleanings per unit
Made from antistatic resins
Cleaning micro fibers are densely stranded and debris free
Cleaning system rotates about 180° for a full sweep

Art.-No.	Description
39989.2	Ferrule Cleaner for LC, MU for PC&APC 1.25mm ferrule
39988.2	Ferrule Cleaner for SC,FC and ST-adapters for 2.5mm ferrule

Ferrule Cleaner for MPO-Connectors



Dry cloth cleaning tools specially designed to clean single fiber connectors Residing in an adapters, faceplate or bulkhead
Dust cap of the cleaning tool acts as an adapters for cleaning unmated connectors
Cleaning tool for MPO Adapter/ Connector
Disposable with 525+ cleanings per unit
Made from antistatic resins
Cleaning micro fibers are densely stranded and debris free
Cleaning system rotates about 180° for a full sweep

Art.-No.	Description
39989.4	Ferrule-Cleaner MPO II, push-pull-technology

Ferrulen Cleaner for E2000, SC, FC, ST



Dry cloth cleaning tools specially designed to clean single fiber connectors Residing in an adapters, faceplate or bulkhead
Dust cap of the cleaning tool acts as an adapters for cleaning unmated connectors
Cleaning tool for 2.5mm ferrules E2000®, SC, FC and ST with PC and APC polishes
Disposable with 525+ cleanings per unit
Made from antistatic resins
Cleaning micro fibers are densely stranded and debris free
Cleaning system rotates about 180° for a full sweep

Art.-No.	Description
39989.5	Ferrule cleaner for E2000®, SC, FC, ST with 2.5 mm ferrule

Cleaner „FCT-C410“ for fiber optic Connectors



Uses both sides of the cloth
Minimizes static attraction
Ultra clean micro-fiber cloth captures debris and other contamination
The cloth is robust, it does not fray or leave any fibrous materials behind
Easy to remove the cleaning reel without cause any contamination
More than 450 cleanings per unit
Dry cleaning
Suitable connector includes FC, SC simplex, ST, LC, MU simplex, D4, DIN

Art.-No.	Description
39961.1	Cleaner „FCT-C410“ for fiber optic Connector
39961.1A	Exchange roll for FCT-C410, single part

Reel Cleaner



Minimizes static attraction
Ultra clean micro-fiber cloth captures debris and other contamination
The cloth is robust, it does not fray or leave any fibrous materials behind
More than 400 cleanings per unit
Dry cleaning
Suitable connector includes FC, SC simplex, ST, LC, MU simplex, D4, DIN

Art.-No.	Description
39962.2	Reel Cleaner
39962.1A	Reel Cleaner Exchange roll, 6-Pack

Alcohol dispenser without contents



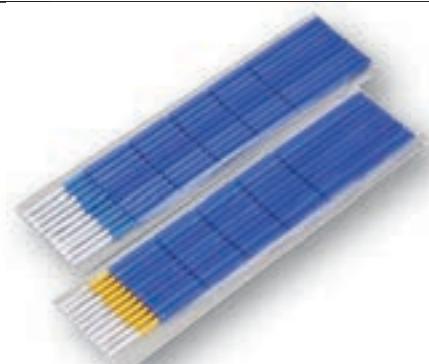
Suitable for cleaning liquid
Pumping mechanism economical dose
Seal of stainless steel
Without content

Art.-No.	Description
39920.2	Alcohol dispenser without contents

Miller® Cleaning Sticks FS400

Miller® cleaning sticks with fork head, soaked in alcohol
10 sticks, alcohol-impregnated, 99% isopropyl
For fiber cleaning after stripping or for cleaning ferrules

Art.-No.	Description
39925.1	Miller® FS5400 Cleaning Sticks

Cleaning Sticks

For cleaning optical fiber connectors at difficult to reach places in the adapter
The special fabric absorbs and retains dirt
Cleaning without alcohol
PU 10 pieces

Art.-No.	Description
39975.1	Stick Cleaner 1.25mm packing unit 10 pcs.
39976.1	Stick Cleaner 2.50mm packing unit 10 pcs.

Miller® Fiber Cleaning Tapes

25 non-linting cleaning cloths
Alcohol-impregnated, 91% isopropyl and 9% deionized water
For fiber cleaning after stripping or for cleaning ferrules

Art.-No.	Description
39926.1	Miller® Fiber Cleaning Tapes

Epoxy Resin, light 353

2-component adhesive for connector assembly
double pack with separation guarantees correct mixing proportion
Colour change to red after fully hardening
For about 100 connectors
Process time: max. 4 hours
Hardening time at 80°C: 15 min
Viscosity: 2000cps (typ)
PU: 10 pieces each 4g

Art.-No.	Description
53930.1	Epoxy Resin, light 353 4g, 2-component adhesiv

F0 Marking Strips „Vorsicht Glasfaserkabel“**F0 Marking Strips „Warnung vor Laserstrahlung“**

Warning: Laser radiation
12.5mm
Self adhesive
PU: 10 labeling stripes each with 10 labels

Art.-No.	Description
80361.1-50	F0 marking strips „Vorsicht Glasfaserkabel“, PU 50

Art.-No.	Description
80362.2-10	F0 marking strips „Warnung vor Laserstrahlung“, PU 10



SPLICING- & MEASUREMENT EQUIPMENT

Fiber optic splicers are used for the thermal connection of fiber optic transmission links. For the most part, installation cables are spliced onto installation cables or installation cables onto pigtails in order to generate an extension or a data outlet. The splicing units are available in different versions, such as three-axis units or one-axis units.

In addition, EFB-Elektronik offers measuring instruments in a wide range of designs. The easiest way to test a fiber optic transmission link is to measure the attenuation. Attenuation limits the range of the fiber optic link and thus its performance, which is why attenuation is one of the most important parameters in fiber optic technology. The attenuation results from the ratio of two power ratios. While only one optical receiver is required for the power measurement, both a transmitter and a receiver are required for the attenuation measurement. In addition, two persons are required for the attenuation measurement on installed fiber optic cables. First a normalization and then the measurement itself is carried out. The power of the transmitter must remain constant between normalization and measurement. For this purpose, there are the different standards: IEC14763-3, DIN EN 50346 and DIN EN 61280.

FIBER OPTIC

INFRALAN® Splicer HS 18 C



The innovative INFRALAN® Splicer has been specifically developed for Ftx and conventional splice applications. The slim design offers the user excellent manoeuvrability and reliability.

The robust splicer guarantees ultra-fast and effortless splicing. Each splicing process is made possible with the fiber holders 250 μ in black, 900 μ in blue and 900 μ in red for loose tube cables.

User-friendly and intuitive menu navigation via 2.8" colour TFT display and camera with 140x magnification.

included in delivery:

Splice Unit with crimping tool

150x Crimp protection

Power Supply

Fiber Stripper

Fiber Holder for 250 μ m (black)

Fiber Holder for 900 μ m Tightbuffer Fiber (Blue)

Fiber Holder for 900 μ m Semi Tightbuffer Fiber (Red)

Cleaver

SD Card



Art.-No.	Description	Model	Alignment
HS18C	INFRALAN Splicer HS 18 C (Crimptool Version)	Fusionsplicer	through fiber jacket

Accessory

Art.-No.	Description
HS18-FH-SET250	Fiberholder, 250 μ , 1 Pair (Black)
HS18-FH-SET900	Fiberholder, 900 μ , 1 Pair (Blue)
HS18-FH-SET900LT	Fiberholder, 900 μ , 1 Pair (Red) for Loose Tube Fiber
HS18-ELEKTRODE	1 pair exchange electrodes
HS15-WARTUNG-S	Maintenance Standard
HS15-WARTUNG-P	Maintenance Premium
HS15-WARTUNG3JS	Maintenance Contract Standard 3 years
HS15-WARTUNG3JP	Maintenance Contract Premium 3 years

INFRALAN® Splicer HS 18 0



The innovative INFRALAN® Splicer has been specifically developed for Ftx and conventional splice applications. The slim design offers the user excellent manoeuvrability and reliability.

The robust splicer guarantees ultra-fast and effortless splicing. Each splicing process is made possible with the fiber holders 250 μ in black, 900 μ in blue and 900 μ in red for loose tube cables.

User-friendly and intuitive menu navigation via 2.8" colour TFT display and camera with 140x magnification.

included in delivery:

- Splice Unit with heat shrink
- 100x heat shrink protection
- Power Supply
- Fiber Stripper
- Fiber Holder for 250 μ m (black)
- Fiber Holder for 900 μ m Tightbuffer Fiber (Blue)
- Fiber Holder for 900 μ m Semi Tightbuffer Fiber (Red)
- Cleaver
- SD card



Art.-No.	Description	Model	Alignment
HS180	INFRALAN Splicer HS 18 0 (Oven Version)	Fusionsplicer	through fiber jacket

Accessory

Art.-No.	Description
HS18-FH-SET250	Fiberholder, 250 μ , 1 Pair (Black)
HS18-FH-SET900	Fiberholder, 900 μ , 1 Pair (Blue)
HS18-FH-SET900LT	Fiberholder, 900 μ , 1 Pair (Red) for Loose Tube Fiber
HS18-ELEKTRODE	1 pair exchange electrodes
HS15-WARTUNG-S	Maintenance Standard
HS15-WARTUNG-P	Maintenance Premium
HS15-WARTUNG3JS	Maintenance Contract Standard 3 years
HS15-WARTUNG3JP	Maintenance Contract Premium 3 years

Fusion Splicer Swift K11



High robustness and compact design
 Fitted with special impact protectors
 High battery capacity by using a high-performance lithium polymer battery
 Illuminated fiber insertion area

Scope of delivery:

1 pcs. Arc Fusion splicer K11
 1 pcs. AC Adaptor model F1-1
 2 pcs. Sleeve loader S312
 1 pair. Spare Electrode set EL-14
 1 pcs. Battery pack K11-4700
 1 pcs. Alcohol Dispenser
 1 pcs. Cooling tray Ct-03 (60mm)
 1 pcs. Manual stripper CF-02
 1 pcs. DC Output cable
 1 pcs. Tool box
 1 pcs. Cleaver model CS-03AT
 1 pcs. User Manual
 1 pcs. Caring case (hard case)

Dimensions: 143x163x140mm

Weight: 2,5 kg (incl. battery pack)

Power supply: 1x Lithium-Polymer-battery, 100~240V power supply; 12V Car adapter (Option)

Splice protection: Integrated shrink oven / Crimping tool (Option)

Number of splices in battery operation: 200 splice- and shrink oven-cycles (without the use of shrink oven, more splices possible)

Interfaces: USB, external power supply

Operating temperature: -10 bis +50°C

Storage temperature: -40 bis +80°C

Humidity: Max. 95%, not condensing

Protection class: IP52

Wind protection: max. 15m/s wind speed

Electrode life: > 3.500 splices

Cleaver model CS-03AT

Blade life time: 75.000

Dimensions: 90x58x50mm

Weight: 276g

Technical specifications

Splice process control: Fully automatic core detection and core-to-core positioning

End face evaluation: Fiber layer analysis, Cleave angle measurement and End surfaces quality assessment

Fiber Alignment: 3-axis positioning with stepper motors via precise V-grooves, incl. automatic compensation of bad fiber axis angles and bad cleave angles

Suitable fiber types: Singlemode (ITU-T G.652), Multimode (ITU-T G.651), DS (ITU-T G.653), NZDS (ITU-T G.655), bend-optimized singlemode fibers (ITU-T G.657) as well as non-identical fibers

Automatic fiber type detection: SM (ITU-T G.652), MM (ITU-T G.651), DS (ITU-T G.653), NZDS (ITU-T G.655), SM Bend-Optimized (ITU-T G.657)

Time for splicing: Typical 6 seconds (Quick Modus)

Shrink oven time: Typical 9/13 seconds (45 mm /60 mm Heat-shrink protection)

Splice analysis: Splice loss evaluation and tensile test (2,0N / Option: 4,4N)

Splice data store: 10.000 Records including pictures

Display: 5" Colour-LCD-Touchscreen, swiveling

Art.-No.	Description	Model	Alignment
K11-SPLICER	Fusion Splicer Swift K11 incl. CS-03AT Cleaver	Fusionsplicer	through fiber core

Accessory

Art.-No.	Description
53100.31	Crimp arc splice protection, Telekom approved, (min. PU 30/ package 150pcs)
53100.31-30	Crimp arc splice protection, Telekom approved, PU 30
53100.9-100	Splice Heat Shrink, transparent, length: 60mm, PU 100
53100.91-100	Splice Heat Shrink, transparent, length: 45mm, PU 100

Fiber Optic Power Meter 850/1300/1310/1550nm



Fiber Optic Power Meter for measurement of the Insertion Loss of Fiber-Communication links. The unit is used with the Light Sources HS15-LS1 (850nm/1300nm) and/or HS15-LS2 (1310nm/1550nm). Robust and compact case Internal storage for 39 measurements
Data transfer through with PC is possible
Communication Connector: USB
Visual Fault Locator included in the unit
Detector Type: InGaAs
Visual Fault Locator: 1mW
Optical Connector: SC/PC
Measurement Range: +8dBm ~ -70dBm
Measurement Wavelength: 850nm, 1300nm, 1310nm, 1550nm
Resolution: 0,01dB
Accuracy: +/- 0,2dB
Modulation Detection: 270Hz, 1kHz, 2kHz
Low Battery Warning
Display Backlight
Operation Temperature -10°C ~ +60°C
Operation Humidity < 90% RH
Storage Temperature -20°C ~ +70°C
Storage Humidity < 90% RH
Power Source: 2x AA/LR6 1,5V (not included)
Dimensions: 170x97x38mm
Weight: 330g

Art.-No.	Description	Measured value memory	Suitable for	Model	Type of indication	With PC/printer interface	Suitable for network protocol measurement
HS15-MESS	LWL Power Meter 850/1300/1310/1550nm	yes	Fiber Optic	IL measurement unit	LCD/Monitor	yes	no

Fiber Optic Lightsource for H15-MESS



HS15-LS1: Light Source 1310nm and 1550nm
HS15-LS1: Light Source 1310nm and 1550nm
To use with item HS15-MESS
Power Stability: +/-0,05db for 1 hour, +/- 0,1dB for 8 hours
Optic Connector: SC/PC
Signal Modulation: 270Hz, 1kHz, 2kHz
Low Battery warning
Storage Temperature: -20°C ~ +70°C
Storage Humidity: < 90%RH
Operating Temperature: -10°C ~ +60°C
Operating Humidity: < 90%RH
Power Source: 2x 1,5V AA batteries (not included)
Dimension: 165x80x35mm
Weight: 280g



Fiber Optic Light Source 850nm and 1300nm to use with item HS15-MESS. In combinatated use this units are for measuring IL attenuattuation of Multimode fiber transmission link.

Art.-No.	Description
HS15-LS1	Fiber Optic Light Source 1310/1550nm, for HS15-MESS
HS15-LS2	Fiber Optic Light Source 850/1300nm, for HS15-MESS

Fiber Optic Inspection Microscope for 2,5mm and 1,25mm ferrules



Fiber Optic Microscope for inspection of connector endfaces
 E.g. SC, LC, ST, E2000®, FC, DIN or FSMA connector
 Adapter for 2,5mm ferrules and 1,25mm ferrules included
 Eye-Safe video viewing, Ergonomic design
 Fast and easy focus due to one hand operation
 Large 3,5" display
 Operation by rechargeable battery pack
 Inspection of different kind of cable with mounted connectors possible
 Change inspection tips in seconds

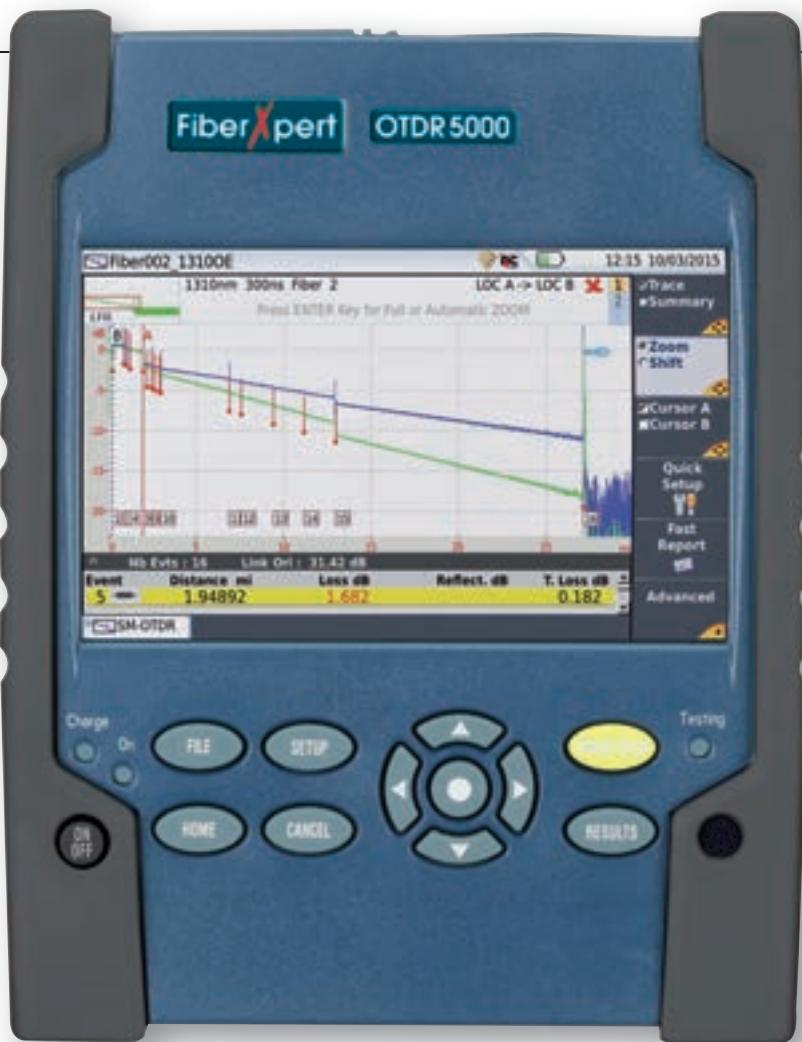
Specifications Camera:

Field of view: ~ 0,425mm x 0,320mm
 Optical Resolution: 0,5µm
 Optical Magnification: 400 times
 Focus: Manual adjustment
 Light Source: Blue LED
 Dimensions: 35x175mm (without cap)
 Weight 200g

Specifications Display:

Display: 3,5" LCD-TFT, 960 x 240 pixel
 Adjustable brightness and contrast
 Dimensions: 105x90x45mm (folded)
 Weight: 255g (without battery)
 Power Supply: 9,6V battery pack or AC power supply
 Battery Life: 4 hours

Art.-No.	Description	Zoom factor
CI-1100	Fiber Optic Inspection Microscope for 2,5mm and 1,25mm ferrules	400

FiberXpert OTDR 5000 Quad

OTDR for 850/1300nm multimode or combined for 850/1300nm multimode and 1310/1550nm singlemode

Standards compliant Tier 2 measurement of fiber optic cabling

Automatic Pass/Fail analysis of the test results according to the limits specified by TIA/IEC

Display of the OTDR trace in a graphical format for a length-dependent analysis of all events for reflection and attenuation

All fiber link events and analysis listed in a table of results

Automatic macro-bend detection

Built-in optical loss test set

Optional fiber inspection probe

5 inch colour LCD touch screen

Hand-free operation due to a special carrying case

Generation of professional reports with the central eXport evaluation software

Laser safety class: M1

Interchangeable optical connectors: FC, SC, DIN, and ST

Calibrated wavelengths MM: 850 and 1300 nm

Calibrated wavelengths SM: 1310, 1490, 1550, 1625 and 1650 nm

Measurement accuracy MM: ± 1 dB (At -15 dBm)

Measurement accuracy SM: ± 0.5 dB (At -30 dBm)

Event dead zone MM: 0.8m

Event dead zone MM: 0.9 m

Scope of delivery:

Main measurement unit, SC compatible Multimode/ Singlemode module

Li-Po batteries, power supplies, soft case with shoulder strap,

hard carry case, calibration certificate

Weight: 0.4 kg

Dimensions: 128x134x40mm



Art.-No.	Description	Measured value memory	Suitable for	Model
FX5000-QU	FiberXpert OTDR 5000 Quad, Multimode/Singlemode	yes	Fiber Optic	OTDR Quad

Copper- and Fiber Optic-Cable Certifier up to 2500MHz

For standard conformance measurement of structured cabling in buildings
 Certification up to 2500 MHz
 Support new TIA CAT 8 und ISO Class I and II draft standard
 Operating concept Dual Control System (DCS™) with two identical hand tools
 Autotest in less than 9 Seconds
 Professional documentation generator
 Impact-resistant housing, impact and shock-proof design, long battery life
 Complete glass fiber certification for MM and SM with optional fiber optic measuring adapters
 Supports two-wavelength end-to-end measurements for MM and SM glass fibers

General Specifications

Interfaces: Probe Interface, RJ-45 Ethernet, USB host and device, talkset, power jack
Display: 6" industrial LCD, touch sensitive area on both units
Enclosure: Ruggedized plastic with rubber over-mold, withstands 1.5m drop test on hard surface
Remote unit abilities: View test results, save tests, start autotest
Power supply: AC 100-240V to 12V, 3A power adapter
Input over-voltage protection: Protected against Telco voltages
Battery: Removable and rechargeable Li-Ion
Battery Capacity: >8 hours continuous operation
Internal Storage Capacity: 2000 copper test results with full plot information
External Storage: USB Flash Drive 1 GB in delivery (21 GB max.)
Supported Languages: Chinese, Czech, English, Finnish, French, German, Italian, Japanese, Korean, Polish, Portuguese, Russian, Spanish, Swedish, Turkish
Calibration period: 1 year
Dimensions: 232 X 126 X 87 mm³ (9.1 X 5.0 X 3.4 inch³) /unit
 Weight: Approx. 1.4 kg (3.0 lb) / unit

Environmental

Operating Temperature: 0 to 40 °C
Storage Temperature: -20 to 60 °C
Relative humidity: 10% to 80%

Copper testing

Certification Testing: TIA 568-C.2 CAT 5e, 6, 6A, draft CAT 8
 ISO/IEC 11801, EN 50173 Class D,E,EA,F,FA
 draft Class I and Class II Permanent link and channel



CAT 5e, 6, 6A, 7, 7A and patch-cord

Autotest time - CAT6A: 9 sec

Autotest time - Class FA: 15 sec

Max cable length for dual ended Autotest: 500m

Insertion Cycles: Channel: 10000 typical

Permanent link: 5000 typical

Advanced Diagnostics: Time-domain fault Locator for RL and NEXT

Measurement Accuracy: Exceeds TIA 1152 Level IIIe, IEC 61935 level IV

Measurement Frequency Range: 1- 2,500 MHz

Fiber Testing - SM

Wavelengths: 1310nm, 1550nm

Autotest Time: 6 seconds for dual ended test

Connector Type: SC, LC (optional adapter needed)

Fiber Testing - MM

Wavelengths: 850nm, 1300nm

Autotest Time: 6 seconds for dual ended test

Connector Type: SC

Art.-No.	Description
WX4500-FA-V2	Copper- and FO-Cable Certifier up to 2500MHz

Fiber Optic Module for WX4500



Mandrel for WX4500



MPO Multimode Test Kit



Art.-No.	Description
WX_AD_MM2	WX4500 Multimode-FO-measurement module (850nm and 1300nm)
WX_AD_SM2	WX4500 Singlemode-FO- measurement module (1310nm and 1550nm)

Art.-No.	Description
WX_AD_MANDREL	Mandrel Tester for Multimode FO

Art.-No.	Description
WX_AD_MM_MPO_KIT	MPO Multimode Test Kit for WireXpert 4500



FTTH

As an experienced specialist in cabling solutions, EFB-Elektronik has been offering the entire range of high-quality fiber- and copper technology for a wide range of telecommunication and data centre applications for 25 years. Thanks to EFB's own fiber production in Germany, our customers benefit from high-quality delivery and a rapid(prompt) implementation of individual requirements. The FTTH program of EFB-Elektronik offers carriers and municipal telecommunication providers a perfectly matched selection of in-line cables, connection closures, small distribution boards and subscriber equipment for the successful implementation of local Fiber-to-the-Home projects – combined with comprehensive services.

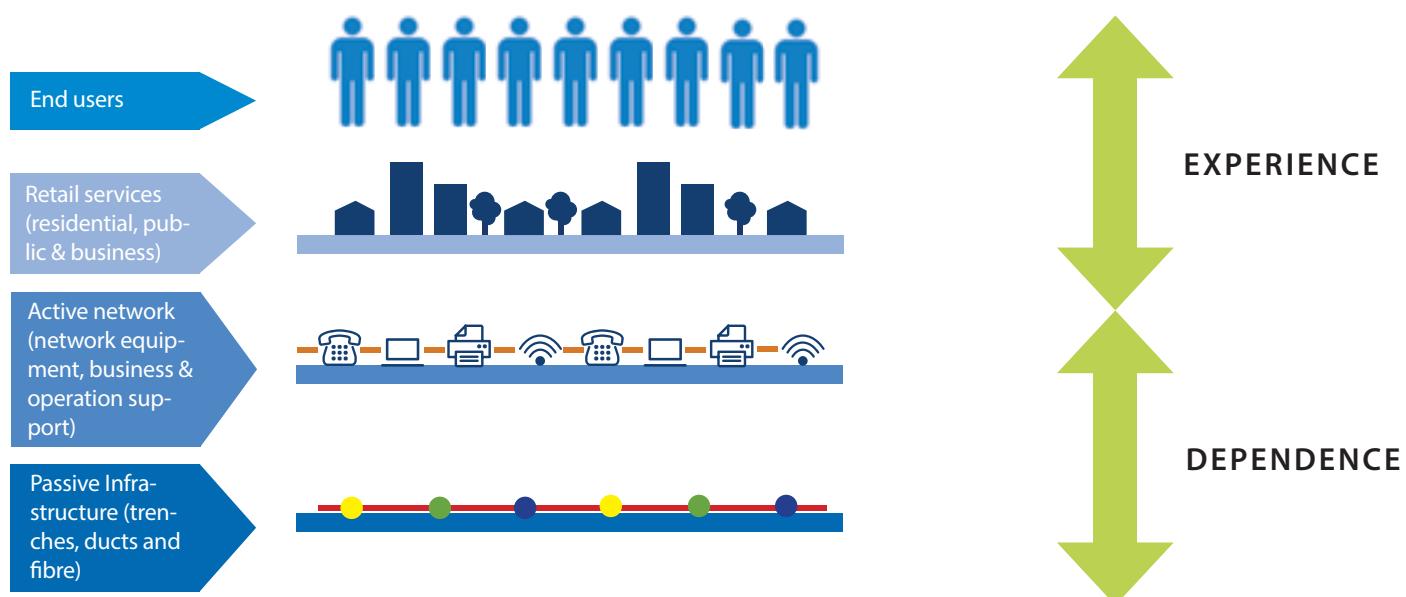
FIBER OPTIC

FTTH STRUCTURE

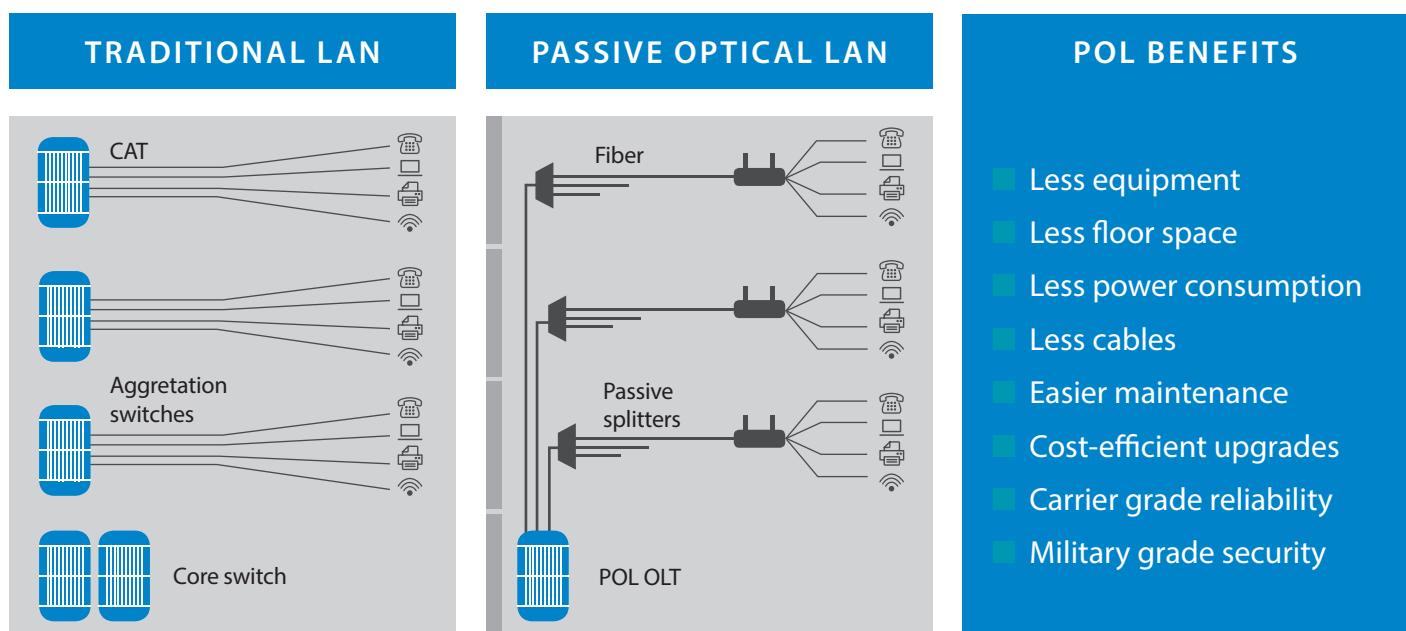
In the sector of FTTH, EFB-Elektronik focuses on the so-called „last mile“. Components that are used by street distributors to buildings and generally in buildings are offered.

This means that components for house connection in protection class IP65 are available in various sizes and port numbers. The same applies to components for indoor connection in protection class IP20, i. e. components for extending existing buildings have been integrated into the portfolio by means of DIN rail systems. Furthermore, the pre-assembled boxes and adapters are equipped with class G657A2 fibers. The installation cables offered comply with the G657A2 standard and are classified to the Euro flame classes according to the Construction Products Regulation.

OVERVIEW NETWORK TOPOLOGY



SETTING UP PASSIVE OPTICAL NETWORKS



FTTH IP65 Connectionbox 16 ports

IP65 Wall housing
suitable for 16 adapter
SC-Simplex/ LC-Duplex, E2000® adapter
Fiber overlength cassette
hinged splicecassette
intake for splitter
delivery unassembled



Application:

Optical Telecommunication Networks
LAN, Optical fiber Communication Network
CATV Networks
FTTH access Network
PON, G-PON

Technical Specification:

18 Cable entries (2x PG13,5)
Temperature Range: -25°C - 70°C
Material: plastic
Colour: white
Access Protection: Key
Dimension: 295mm x 220mm x 85mm



Art.-No.	Description	IP Protection	Max. Assembly (Adapter)
FTTH-BOX-OUT-1	FTTH IP65 Connectionbox for 16fiber, 16adapter and Fiber overlength box	IP65	16

FTTH IP65 Connectionbox 8 ports

IP65 Wall housing
suitable for 8 adapter
SC-Simplex/ LC-Duplex, E2000® adapter
Fiber overlength cassette
hinged splicecassette
delivery unassembled



Application:
Optical Telecommunication Networks
LAN, Optical fiber Communication Network
CATV Networks
FTTH access Network
PON, G-PON

Technical Specification:

11 Cable entries
Temperature Range: -25°C - 70°C
Material: plastic
Colour: white
Access Protection: Special Screw
Dimension: 213mm x 163mm x 47mm



Art.-No.	Description	IP Protection	Max. Assembly (Adapter)
FTTH-BOX-OUT-2	FTTH IP65 Connectionbox for 8fiber, 8adapter and Fiber overlength box	IP65	8

Accessory

Art.-No.	Description
53350.2	Adapter LC Duplex SM plastic blue, one piece case: SC-Simplex, Ceramic
53334.2	Adapter LC Duplex OM4 plastic, violet,one piece case: SC-Simplex, Ceramic
53357.2	Adapter LC Duplex OM3 plastic, aqua,one piece case: SC-Simplex, Ceramic
53348.3	Adapter LC Duplex OM2, plastic beige,one piece case: SC-Simplex, Ceramic
53100.9-100	Splice Heat Shrink, transparent, length: 60mm, PU 100
53100.91-100	Splice Heat Shrink, transparent, length: 45mm, PU 100

FTTH IP65 Connectionbox 4 ports

IP65 Wall housing
 suitable for 4 adapter
 SC-Simplex/ LC-Duplex, E2000® adapter
 Fiber overlength cassette
 hinged splicecassette
 delivery unassembled

Application:
 Optical Telecommunication Networks
 LAN, Optical fiber Communication Network
 CATV Networks
 FTTH access Network
 PON, G-PON



Technical Specification:
 5 Cable entries
 Temperature Range: -25°C - 70°C
 Material: plastic
 Colour: white
 Access Protection: Special Screw
 Dimension: 172mm x 136mm x 40mm



Art.-No.	Description	IP Protection	Max. Assembly (Adapter)
FTTH-BOX-OUT-3	FTTH IP65 Connectionbox for 4fiber, 4adapter and Fiber overlength box	IP65	4

FTTH IP65 Connectionbox 2 ports

IP65 Wall housing
 suitable for 2 adapter
 SC-Simplex/ LC-Duplex, E2000® adapter
 Fiber overlength cassette
 hinged splicecassette
 delivery unassembled

Application:
 Optical Telecommunication Networks
 LAN, Optical fiber Communication Network
 CATV Networks
 FTTH access Network
 PON, G-PON

Technical Specification:
 3 Cable entries
 Temperature Range: -25°C - 70°C
 Material: plastic
 Colour: white
 Access Protection: Special Screw
 Dimension: 165mm x 100mm x 30mm



Art.-No.	Description	IP Protection	Max. Assembly (Adapter)
FTTH-BOX-OUT-4	FTTH IP65 Connectionbox for 2fiber, 2adapter and Fiber overlength box	IP65	2

Accessory

Art.-No.	Description
53350.2	Adapter LC Duplex SM plastic blue, one piece case: SC-Simplex, Ceramic
53334.2	Adapter LC Duplex OM4 plastic, violet,one piece case: SC-Simplex, Ceramic
53357.2	Adapter LC Duplex OM3 plastic, aqua,one piece case: SC-Simplex, Ceramic
53348.3	Adapter LC Duplex OM2, plastic beige,one piece case: SC-Simplex, Ceramic
53100.9-100	Splice Heat Shrink, transparent, length: 60mm, PU 100
53100.91-100	Splice Heat Shrink, transparent, length: 45mm, PU 100

19" Wall Housing 3U Vertical + 5U Horizontal



Steel sheet housing for wall mounting, completely pre-assembled, self-ventilated

Wall raising (overall depth) only 150 mm

3U for vertical mounting of 19" components, max. depths each 1 x 360 / 340 / 300 mm

5U additionally for horizontally mounting of 19" components, max. depth 80 mm

3U level 180° swiveling

Cover with window, hinged and lockable

Pre-punched ventilation openings in housing

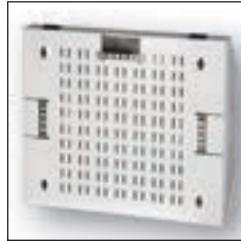
Pre-punched cable clamps in rear wall

Material steel sheet

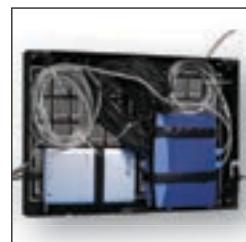
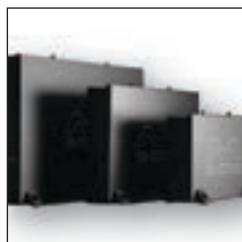
Paint finish RAL7035, light grey / RAL9005, jet black / RAL9010, white

Protection degree IP20

Included in delivery: 1 x key



Universal Periphery Box M-Box



Clever, sophisticated box for storage of peripheral devices and cables
Ensures order e.g. on or under the desk or at a wall

Cable entry possible from 3 directions (left/right/below)

2 x 3 Openings for lead out of antennas at the upper side

Devices can be easily fixed at the special rear-sided raster with hook-and-loop tape

Suitable for standing or wall mounting

Closing via quick fasteners (not lockable)

Included in delivery: 1 x M-Box with cover, 4 x standing / wall mounting brackets, hook-and-loop tape, cable tie, mounting material incl. dowels and screws

Art.-No.	Description
691830.1	Periphery Box M-Box, Small, (WxHxD) 280x195x60 mm, RAL9005, IP10
691830.2	Periphery Box M-Box, Medium, (WxHxD) 365x250x60 mm, RAL9005, IP10
691830.3	Periphery Box M-Box, Large, (WxHxD) 460x320x60 mm, RAL9005, IP10

FTTH In Wall Distributor



FTTH In Wall Distributor for Splice cassette and adapter

IP20 metal housing

pre-assembled with one splice cassette (without adapters and pigtailed)

Dimension: 380mm x 380mm x 83mm

Colour: RAL 7035

Delivery:

holder for adapters (6x SC Duplex or LC Quad; 12x LC Duplex, E2000 or SC

Simplex; 12x ST or FC)

4x Cable management

1x edge protector

Art.-No.	Description	IP Protection	Max. Assembly (Adapter)
FTTH-BOX-IN-UP	FTTH In Wall Distributor incl. splice cassette and holder for adapters	IP20	24

Accessory

Art.-No.	Description
53350.2	Adapter LC Duplex SM plastic blue, one piece case: SC-Simplex, Ceramic
53334.2	Adapter LC Duplex OM4 plastic, violet, one piece case: SC-Simplex, Ceramic
53357.2	Adapter LC Duplex OM3 plastic, aqua, one piece case: SC-Simplex, Ceramic
53348.3	Adapter LC Duplex OM2, plastic beige, one piece case: SC-Simplex, Ceramic
53100.202	Splice Set Crimp
53100.203	Splice Set Heat shrink

XON Series CPE



FTTH



XON1300.P



XON1300.P



XON1300.S



XON1300.S

FTTx CPE: XON1300

Modularity Saves Investment and Service Costs

No matter if it concerns the housing industry, a city carrier or a utility company, easy planning and scaling of the FTTH network is a key point in the deployment process. Terminating the network with the XON1300 provides the ideal solution.

Flexibility:

The XON30.W wallmount unit acts as a passive network termination and can be installed independently from the active XON1300 unit.

Reduction of Operational Costs:

Simple insertion of the XON1300 into the wallmount unit and placing into operation is carried out by the end user. Modification in services requires only an exchange of the active equipment.

Durable & Robust Technology:

Excellent quality and robustness guarantee a long life time and a high reliability of the device preparing the network for future bandwidth requirements.

Designed for the Living Room:

A timeless housing design in the smallest form factor suitable for the living area. Winner of the RedDot Award 2014 for the effective housing concept.

Art.-No.	Description	Max. Assembly (Adapter)
XON30	Wall mounting for XON1300 & APL with integrated fiber management	2

Accessory

Art.-No.	Description
XON1300.S	Gigabit Ethernet Switch, 4xLAN incl. 6VDC power supply, bidirect. to SC/APC
XON1300.P	Passive Network termination, optical CATV/Outlet SC/PC

FTTH Indoor Connectionbox for 4Fiber, 4Adapter



suitable for 4 adapter
SC Simples adapter or LC Duplex adapter
Application:
Optical Telecommunication Networks
LAN, Optical fiber Communication Network
CATV Networks
FTTH access Network
Dimension: 150mm x 110mm x 34mm



Art.-No.	Description	IP Protection	Max. Assembly (Adapter)
FTTH-BOX-IN-1	FTTH Indoor Connectionbox for 4fiber, 4adapter,fiber overlength box, IP20	IP20	4

FTTH Indoor Connectionbox for 1Fiber, 1Adapter



suitable for 1 adapter
SC Simples adapter or LC Duplex adapter
Application:
Optical Telecommunication Networks
LAN, Optical fiber Communication Network
CATV Networks
FTTH access Network
Dimension: 115mm x 86mm x 23mm



Art.-No.	Description	IP Protection	Max. Assembly (Adapter)
FTTH-BOX-IN-3	FTTH Indoor Connectionbox for 1fiber 1adapter, connector protection, IP20	IP20	2

FTTH Indoor Connectionbox for 2Fiber, 2Adapter



suitable for 2 adapter
SC Simples adapter or LC Duplex adapter
Application:
Optical Telecommunication Networks
LAN, Optical fiber Communication Network
CATV Networks
FTTH access Network
Dimension: 84mm x 130mm x 24mm

Art.-No.	Description	IP Protection	Max. Assembly (Adapter)
FTTH-BOX-IN-2	FTTH Indoor Connectionbox for 2fiber, 2adapter,connector protection, IP20	IP20	2

Accessory

Art.-No.	Description
53350.2	Adapter LC Duplex SM plastic blue, one piece case: SC-Simplex, Ceramic
53334.2	Adapter LC Duplex OM4 plastic, violet,one piece case: SC-Simplex, Ceramic
53357.2	Adapter LC Duplex OM3 plastic, aqua,one piece case: SC-Simplex, Ceramic
53348.3	Adapter LC Duplex OM2, plastic beige,one piece case: SC-Simplex, Ceramic
53100.9-100	Splice Heat Shrink, transparent, length: 60mm, PU 100
53100.91-100	Splice Heat Shrink, transparent, length: 45mm, PU 100

FTTH Indoor Connectionbox for 1Fiber, 1Adapter



suitable for 1 adapter
SC Simples adapter or LC Duplex adapter
Application:
Optical Telecommunication Networks
LAN, Optical fiber Communication Network
CATV Networks
FTTH access Network
Dimension: 148mm x 90mm x 16mm

Art.-No.	Description	IP Protection	Max. Assembly (Adapter)
FTTH-BOX-IN-4	FTTH Indoor Connectionbox for 1fiber 1adapter IP20, feedthrough box	IP20	1

Accessory

Art.-No.	Description
53350.2	Adapter LC Duplex SM plastic blue, one piece case: SC-Simplex, Ceramic
53334.2	Adapter LC Duplex OM4 plastic, violet,one piece case: SC-Simplex, Ceramic
53357.2	Adapter LC Duplex OM3 plastic, aqua,one piece case: SC-Simplex, Ceramic
53348.3	Adapter LC Duplex OM2, plastic beige,one piece case: SC-Simplex, Ceramic
53100.9-100	Splice Heat Shrink, transparent, length: 60mm, PU 100
53100.91-100	Splice Heat Shrink, transparent, length: 45mm, PU 100

FTTH Indoor DIN RAIL Box for 4Fiber, 4Adapter



For Wall mounting and DIN RAIL mounting suitable for 4 adapter

SC Simples adapter or LC Duplex adapter

Application:

Optical Telecommunication Networks

LAN, Optical fiber Communication Network

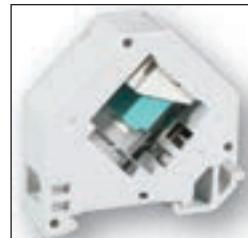
CATV Networks

FTTH access Network

Dimension: 101mm x 81mm x 29mm

Art.-No.	Description	IP Protection	Max. Assembly (Adapter)
FTTH-BOX-IN-5	FTTH Indoor DIN RAIL Box for 4fiber, 4adapter and Fiber overlength box	IP20	4

DIN RAIL adapter for fiber connection



Module holder for mounting on DIN-Rail TH35 acc. to DIN EN60715.

width: 22mm

For LC Duplex adapter APC Singlemode

Side-by-side mountable, with earthing spring

Colour: RAL7035, light grey, plastic

delivery assembled with 1 LC Duplex APC Singlemode adapter

Art.-No.	Type of fastening	Type of DIN-rail adapter	Material	max. assembly
FTTH-DINRAIL-LC	DIN RAIL 35 mm	slanted	plastic	1 LC Duplex
FTTH-DINRAIL-LCA	DIN RAIL 35 mm	slanted	plastic	1 LC APC Duplex
FTTH-DINRAIL-SC	DIN RAIL 35 mm	slanted	plastic	1 SC Simplex
FTTH-DINRAIL-SCA	DIN RAIL 35 mm	slanted	plastic	1 SC APC Simplex

FTTX Compact Box pre-assembled, G.657.A2

Pre-assembled House Connection Box with a 4 fiber installation cable



fiber class: G.657.A2 bend insensitive
 Cable entry: rear side
 Assembly: 4 spliced and connected Pigtailed LC/APC
 Outgoing Port: 2x LC/APC Duplex
 Dimension: 100mm x 80mm x 22mm
 Colour House Connection Box: White
 Colour installation cable: white
 Installation cable coiled on cardboard roll

10m - 20m - 30m - 40m - 50m - 60m - 70m - 80m

Art.-No.	Description	Max. Assembly (Adapter)
53670.x	FTTX Compact Box pre-assembled, 2xLC/APC Duplex, G.657.A2	2 x LC-duplex
53680.x	FTTX Compact Box pre-assembled, 2xSC/APC Simplex, G.657.A2	2 xSC/APC Simplex

FTTH DIN RAIL Adapter, SC/APC adapter, Laserprotection integrated



This kit is dedicated for installation inside new buildings. It allows a quick and fast implementation in customer communication box. It is directly mounted on DIN rail inside communication box. This solution does not need splicing operation for customer installation thanks to preterminated drop cables 1 fiber up 4 fiber.

Each kit with dedicated serial number is packaged individually in plastic bag.

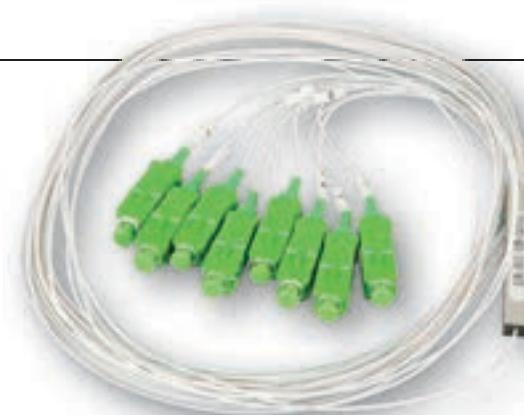
15m - 30m - 50m - 100m

VPE 10pcs

Art.-No.	Description	Max. Assembly (Adapter)
53681.x	FTTH DIN RAIL Adapter,1x SC/APC adapter, Laserprotection integrated, xx m DropCable	1
53682.x	FTTH DIN RAIL Adapter,2x SC/APC adapter, Laserprotection integrated, xx m DropCable	2
53683.x	FTTH DIN RAIL Adapter,4x SC/APC adapter, Laserprotection integrated, xx m DropCable	4

PLC Splitter

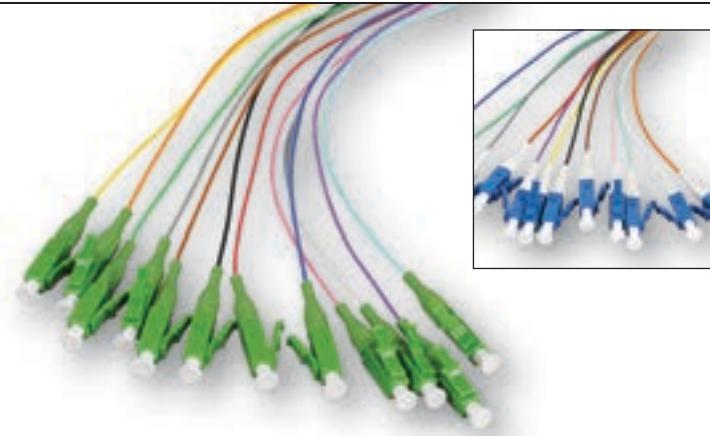
Singlemode G657A1 Fiber
 900 μ m Fiber
 Entry side without connector
 Output side with SC/APC connector or LC/APC connector
 Main application in optical distributor boxes



Art.-No.	Type of Accessory	Connection type front side	Connection type backside	Application	Split
FTTH-PLC16-LCA	PLC Splitter	open	LC/APC	CATV	1 to 16
FTTH-PLC8-LCA	PLC Splitter	open	LC/APC	CATV	1 to 8
FTTH-PLC4-LCA	PLC Splitter	open	LC/APC	CATV	1 to 4
FTTH-PLC16-SCA	PLC Splitter	open	SC/APC	CATV	1 to 16
FTTH-PLC8-SCA	PLC Splitter	open	SC/APC	CATV	1 to 8
FTTH-PLC4-SCA	PLC Splitter	open	SC/APC	CATV	1 to 4

Fiber pigtail - 12-colours

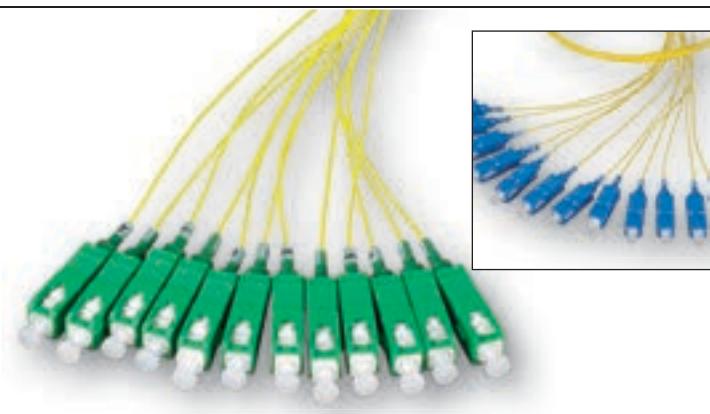
The LC and SC fiber pigtail set consists of 12 pigtails. The 12 pigtails are coloured according to colour code DIN VDE 0888 red, green, blue, yellow, white, grey, brown, violet, turquoise, black, orange and pink. The colour of the 900 μ jacket is equal to the colour of the 250 μ jacket. All 12 pigtails are packed in a polybag. Each connector is packed separately for an easy remove of each pigtail. Every PU contains an individual measuring protocol.



Art.-No.	Fibre type	Category	Colour	APC-version	Type of connector
FTTH-PIGTAIL-LC12	Singlemode	G657A2	12-colours	False	LC
FTTH-PIGTAIL-LCA12	Singlemode	G657A2	12-colours	True	LC/APC
FTTH-PIGTAIL-SC12	Singlemode	G657A2	12-colours	False	SC
FTTH-PIGTAIL-SCA12	Singlemode	G657A2	12-colours	True	SC/APC

Fiber pigtail - single colour

The LC and SC fiber pigtail has a primary coating (900 μ) in the colour of the respective category (see table). The colour of the primary coating is equal to the colour of the secondary coating. A numeric connector coding 1 .. 12 simplifies the allocation of the ports. **The pigtails can be ordered separately.** Because the standard batch size for ordering pigtails is 12, in a polybag are 12 pigtails. Each connector is packed separately for an easy remove of each pigtail. Every PU contains an individual measuring protocol.



Art.-No.	Fibre type	Category	Colour	APC-version	Type of connector
FTTH-PIGTAIL-LC1	Singlemode	G657A2	yellow	False	LC
FTTH-PIGTAIL-LCA1	Singlemode	G657A2	yellow	True	LC/APC
FTTH-PIGTAIL-SC1	Singlemode	G657A2	yellow	False	SC
FTTH-PIGTAIL-SCA1	Singlemode	G657A2	yellow	True	SC/APC

Broadband Outdoor Cable MDIC - Micro Drop Installation Cable



Micro Drop Installation Cable, special Access cable with low bend radius, no waterpeak G.657.A1 fibers. Ruggedized construction with excellent installation performance, easy strippable for fast installation. This cable solves all in-house installation problems.

Art.-No.	Construct	Cable Ø	Bending radius	Colour outer sheath	Tensile Force
56204.1	2 x singlemode G. 657.A1	2.0 x 3.1 mm	30 mm	white	150 N
56204.2	4 x singlemode G.657.A1	3.7 mm	37 mm	white	150 N

Broadband Outdoor Cable DAC - Direct Access Cable



DAC Direct Access Cable - light-weight, non-metallic, central tube direct-buried Access cable with low bend radius, no waterpeak G.657.A1 fibers, with small diameter for easy installation, longitudinally water-protected. This cable has a very high crush resistance and tensile strength, is fast strippable (over >4 meter in one stroke). Due to extra strength-members in the cable outer sheath, this central tube design has an improved temperature range.

Art.-No.	Construct	Cable Ø	Bending radius	Colour outer sheath	Tensile Force
59602.1	02E (1 x 2) singlemode G.657.A1	5.9 mm	60 mm	orange	1200 N
59604.1	04E (1 x 4) singlemode G.657.A1	5.9 mm	60 mm	orange	1200 N
59606.1	06E (1 x 6) singlemode G.657.A1	5.9 mm	60 mm	orange	1200 N
59608.1	08E (1 x 8) singlemode G.657.A1	5.9 mm	60 mm	orange	1200 N
59612.1	12e (1 x 12) singlemode G.657.A1	5.9 mm	60 mm	orange	1200 N

LC Fieldinstallable Connector



Compatible with all standard LC connectors and adapter
Easy installation in less than 2 minutes
No need of special tools or glue
No need of electrical power
All necessary parts for assembly are included

SC Fieldinstallable Connector



Compatible with all standard SC connectors and adapter
Easy installation in less than 2 minutes
No need of special tools or glue
No need of electrical power
All necessary parts for assembly are included

Art.-No.	Description
53196.2	LC Plug connectors SM9/125 OS2 blue, field plug
53197.2	LC Plug connectors MM50/125 OM3 aqua, field plug
53198.2	LC Plug connectors MM50/125 OM2 black, field plug

Art.-No.	Description
53199.2	SC Plug connectors SM9/125 OS2 blue, field plug
53200.2	SC Plug connectors MM50/125 OM3 aqua, field plug
53201.2	SC Plug connectors MM50/125 OM2 black, field plug

Fiber Optic Frame Set



For holding 2 adapters
 2 Ports for E2000° simplex, SC simplex or LC duplex
 40° slanted outlet
 Colour: RAL9010, white
 Outer ring 80x80mm and central plate 50x50mm according to **DIN49075**
 Compatibel to common switch programs with adapter plate
 Integrated label behind transparent cover
Delivery unassembled

Included:

1 x metal frame
 1 x plastic cover
 1 x plastic central plate
 4 x M2-screws

Art.-No.	Colour	Outlet direction	Number of buses/couplings
ET-25085FO	white	angled	2



Multi System Fiber Optic - Outlet



Clip and screw lock for the adapter plates
 Die-cast housing, duct/in wall mount
 Faceplate ABS 50x50mm
 With laser symbol and text field
 Delivery incl. 9 **unassembled** adapter plates
 For SC-simplex, SC-duplex, E2000°-simplex, MTRJ, AMP/MTRJ, ST, FC, DIN, LC-duplex and a blanking plate

Art.-No.	Colour	Outlet direction	Number of buses/couplings
ET-25170	white	angled	2

GEL-1061, 10-Port L2 Managed Gigabit Ethernet Switch, 2 x GE SFP

8 Gigabit Ethernet ports + 2 Gigabit SFP Slots
 IEEE-802.1d/w/s Spanning Tree Protocol (STP) and port-mirroring
 IEEE-802.3ad LACP for Auto-Port-Aggregation
 Port-based IEEE-802.1X-authentication over access list (ACL) with over 512 entries for easy protection
 IP Multicast Filtering with IGMP Snooping V1/ V2/ V3
 Supports Port-based VLAN, IEEE 802.1Q-4K-VLAN-Tagging
 Supports IPv4/IPv6
 IEEE 802.1p QoS with 8 priority queues

Art.-No.	Description
GEL-1061	10-Port L2 Managed Gigabit Ethernet Switch, 2x GE SFP

Art.-No.	Accessory
FTLF8519P3BNL	MiniGBIC MM 1000SX 550m SFP, 850nm 1.25G -20..85°C, LC
FTLF1318P3BTL	MiniGBIC SM 1000LX 10km SFP, 1310nm 1.25G -40..85°C, LC

GEP-1061, 10-Port L2 Managed Gigabit Ethernet PoE+ Switch, 2x SFP, PoE+ (125W)

8x Gigabit Ethernet Ports with PoE+, 2 Gigabit Ethernet SFP Slots
 SFP Slots supports MiniGBICs for Gigabit 1000Base-X
 PoE+ up to 30W pro Port
 IEEE-802.3af / at PoE compliance with PoE detection
 QoS, VLAN, Port mirroring, Autonegotiation and Auto MDI/MDIX
 Max. PoE Power: 125W
 Management: SNMP, WEB, RMON
 19" Mounting brackets included
 Metal housing (L x W x D): 330 x 204 x 43 mm

Art.-No.	Description
GEP-1061	10-Port L2 Managed Gigabit PoE Switch,,2x SFP, 802.3at PoE+, 125W

Art.-No.	Accessory
FTLF8519P3BNL	MiniGBIC MM 1000SX 550m SFP, 850nm 1.25G -20..85°C, LC
FTLF1318P3BTL	MiniGBIC SM 1000LX 10km SFP, 1310nm 1.25G -40..85°C, LC

GEL-2861, 28-Port L2 Managed Gigabit Switch, 4x GE Combo RJ45/SFP


24x Gigabit-Ethernet-Ports + 4x shared GE RJ45/SFP slots
 SFP slot supports MGBIC for Gigabit 1000BaseX
 Management: SNMP, WEB, RMON, Telnet, CLI and TFTP administration
 Features: IPv6, Multicast, IGMP, VLAN, Port Mirroring, Autonegotiation, Auto MDI/MDIX and much more.
 Diagnostic LEDs
 19" Mounting brackets included
 Metal housing fanless (L x W x H): 440 x 220 x 44 mm

Art.-No.	Description
GEL-2861	28-Port L2 Managed Gigabit Switch, 4x GE Combo RJ45/SFP

Art.-No.	Accessory
FTLF8519P3BNL	MiniGBIC MM 1000SX 550m SFP, 850nm 1.25G -20..85°C, LC
FTLF1318P3BTL	MiniGBIC SM 1000LX 10km SFP, 1310nm 1.25G -40..85°C, LC

MCT-3002SFP-DR, CTS Compact Media Converter, Gigabit Ethernet, SFP


Very compact design, space- and cost-saving solution
 For single device use or in MCT-RACK-Chassis series to mix installation with MCT series converter

SFP Fiber Port für 100-FX (Fast Ethernet) und 1000-BaseX (Gigabit Ethernet-Autonegotiation, Auto MDI/MDIX and Link Alarm for port monitoring
 With integrated dip-switches for more adjustments
 With diagnose LEDs
 Target Application: Point-to-point fiber connection for long distance
 External power supply included
 Metal housing (D x W x H): 74 x 51 x 20 mm

Art.-No.	RJ45-Port	LWL-Port	Mode	Distance
MCT-3002SFP-DR	10/100/1000	1 x MGBIC 1000Mbit/s	MM or SM	-

Art.-No.	Accessory
FTLF8519P3BNL	MiniGBIC MM 1000SX 550m SFP, 850nm 1.25G -20..85°C, LC
FTLF1318P3BTL	MiniGBIC SM 1000LX 10km SFP, 1310nm 1.25G -40..85°C, LC

GEP-2681, 26-Port L3 Lite Managed Gigabit Ethernet PoE+ Switch, 2x SFP/RJ45 Combo (185W)


24 PoE-Plus Gigabit Ethernet Ports + 2 Gigabit Ethernet SFP/RJ45 Combo Slots
 SFP Slots supports MiniGBICs for Gigabit 1000Base-X
 IEEE-802.3af / at PoE compliance with PoE detection
 PoE+ up to 30W pro Port
 Max. PoE Power: 185W
 QoS, VLAN, LACP, Port mirroring, Autonegotiation and Auto MDI/MDIX
 Management: SNMP, WEB, RMON
 19" Mounting brackets included
 Metal housing (L x W x D): 442 x 211 x 44 mm

Art.-No.	Description
GEP-2681	26-Port L3 Lite Managed Gigabit PoE Switch, 24x PoE+, 185W, 2x1G SFP/RJ45

Art.-No.	Accessory
FTLF8519P3BNL	MiniGBIC MM 1000SX 550m SFP, 850nm 1.25G -20..85°C, LC
FTLF1318P3BTL	MiniGBIC SM 1000LX 10km SFP, 1310nm 1.25G -40..85°C, LC

Compact Media Konverter RJ45-SC

W2A

TX: 1310nm

RX: 1550nm

W2B

TX: 1550nm

RX: 1310nm

Should be used in combination W2A/W2B as transmitter and receiver, or with other WDM MiniGbic!

Single device use or with Chassis MCT-RACK-18-2A / MCT-RACK-18-MGM-2A
 Gigabit Ethernet over RJ45 - SC Singlemode
 Link Alarm
 Diagnostic LEDs

frame checking and error filtering

External power supply included

Metal housing (D x W x H): 74 x 51 x 20 mm

Art.-No.	RJ45-Port	LWL-Port	Mode	Distance
MCT-3002W2A-SM10	10/100/1000	1 x MGBIC 100/1000Mbit/s	SM	10000
MCT-3002W2B-SM10	10/100/1000	1 x MGBIC 100/1000Mbit/s	SM	10000



CLOSURES

Fiber optic cable closures can be branching or connecting closures for outdoor use. They include, for example, splice cassettes as well as other passive elements for fiber management and protect the fibers against external influences. The cable entries of the fiber optic closures can vary in terms of diameter. For this purpose, different types of closures are offered which optionally have one or two oval feedthroughs for uncut pipe loops, as well as six or eight outputs for spur lines (inputs/outputs) and access cables. Depending on the type of cable and installation, suitable sealing sets are also available.

FIBER OPTIC

Outdoor Pipe Closure, for Junction and Connecting



Suitable for number of fibres:	24
In-/Output:	3
Cable Diameter:	4,5 – 10 mm
Dimension (LxBxH):	320 x 68 mm
Material:	plastic
Operating Temperature:	-40 – 70
Splice Cassette:	integrated
Splice Holder:	shrink
Degree of protection (IP):	IP68
Direct Burial:	True



Art.-No.	Description
83189.1	Outdoor Pipe Closure, for Junction and Connecting

Outdoor Pipe Closure, for Connecting



Suitable for number of fibres:	24
In-/Output:	2
Cable Diameter:	4,5 – 10 mm
Dimension (LxBxH):	320 x 68 mm
Material:	plastic
Operating Temperature:	-40 – 70
Splice Cassette:	integrated
Splice Holder:	crimp
Degree of protection (IP):	IP68
Direct Burial:	True

Art.-No.	Description
83187.1	Outdoor Pipe Closure, for Connecting

Step 1: selection of housing type

Dome closure FOC, round Ø 285 mm, protection degree IP68

Two oval ports for uncut tubes or loop-cable

Eight round ports with each 32mm diameter

Cable entries with mechanical seal at customers choice, see accessories

Splice trays with crimp- or heat splice holder, see accessories

Dome closure CFOC, flach 290 x 150 mm, protection degree IP68

One oval port for uncut tubes or loop-cable

Six round ports with each 32mm diameter

Cable entries with mechanical seal at customers choice, see accessories

Splice trays with crimp- or thermo splice holder, see accessories


 Design: round
Height: 525 mm

 Design: round
Height: 770 mm

 2 x oval entry
8 x round entry

 Design: flat
Height: 380 mm

 Design: flat
Height: 450 mm

 1 x oval entry
6 x round entry

Standards

Direct burial (underground) or for areal-applications (overground)

Protection degree: IP68, Material: plastic, Colour: black

Temperature Range

Operation: -40°C .. +70°C

Transport /Storage: -10°C .. +40°C

Art.-No.	capacity: Tray count / Fiber count			
	STHD-6A (ANT)	STHD-6H (Heat)	STHD-4A (ANT)	STHD-4H (Heat)
FOC-CB-525	60 / 720	60 / 480	40 / 480	40 / 480
FOC-CC-770	132 / 1584	132 / 1056	88 / 1056	88 / 1056

Art.-No.	capacity: Tray count / Fiber count			
	STHD-6A (ANT)	STHD-6H (Heat)	STHD-4A (ANT)	STHD-4H (Heat)
CFOC-AA-380	12 / 144	12 / 96	8 / 96	8 / 96
CFOC-AB-450	24 / 288	24 / 192	16 / 192	16 / 192

Step 2: selection of tray type


Shelf tray set height 4 mm / 6 mm - both variants suitable for both housing types (round/flat)

- Shelf tray set with 4 mm height
- For high density

- or**
- Shelf tray set with 6 mm height
 - For optimised fiber management

Art.-No.	Tray set count	Splices	Splice protection	Height
STHD-6A	6 cassettes	72 (6 x 12)	Crimp (ANT)	4 mm
STHD-6H	6 cassettes	48 (6 x 8)	Thermo (Heat)	4 mm
STHD-COVER	cover for STHD-6A, STHD-6H, STHD-4A and STHD-4H			

Art.-No.	Tray set count	Splices	Splice protection	Height
STHD-4A	4 cassettes	48 (4 x 12)	Crimp (ANT)	6 mm
STHD-4H	4 cassettes	48 (4 x 12)	Thermo (Heat)	6 mm
STHD COVER	cover for STHD-6A, STHD-6H, STHD-4A and STHD-4H			

Step 3: selection of cable entries



Art.-No.	Entries/Outlets	Suitable for cable	Design
FOC-MRS-6X8	6 x 8 mm	max. 6 x 4 .. 8 mm	round
FOC-MRS-8X6	8 x 6 mm	max. 8 x 0 .. 6 mm	round
FOC-MRS-16X3	16 x 3 mm	max. 16 x 0 .. 3 mm	round
FOC-MRS-1X20	1 x 20 mm	max. 1 x 10 .. 20 mm	round
FOC-MRS-2X12	2 x 12 mm	max. 2 x 8 .. 12 mm	round
FOC-MOS-2X20	2 x 20 mm	max. 2 x 10 .. 20 mm	oval
FOC-MOS-4X10	4 x 10 mm	max. 4 x 5 .. 10 mm	oval

Step 4: selection of accessories



Mounting bracket for FOC (round)



Mounting bracket for CFOC (flat)

Cable fixing bracket for FOC + CFOC
(round + flat)Pole mounting bracket for FOC + CFOC
(round + flat)

Art.-No.	Description	Closure type
FOC-MB	Mounting bracket for Dome closure rand	FOC round
CFOC-MB	Mounting bracket for Dome closure oval	CFOC flat
FOC-CFB	Cable fixing bracket for round or flat	FOC + CFOC
FOC-PMB	Pole mounting bracket for round or flat	FOC + CFOC

Further closures or special types on request !

FO Coupling Splice Closure Outdoor II

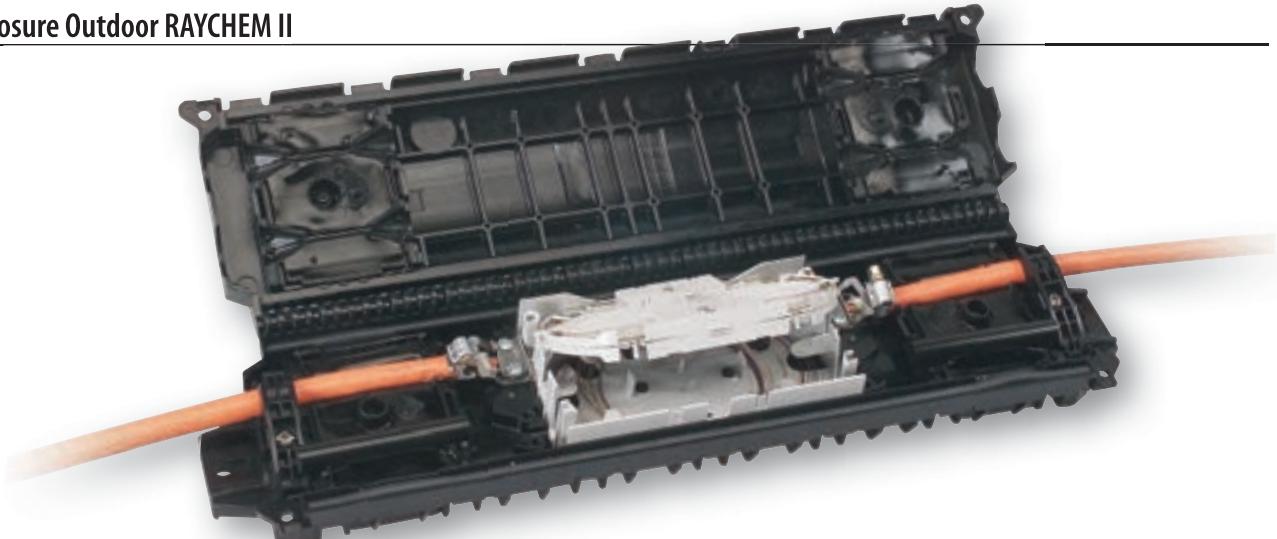
Suitable for number of fibres:	24
In-/Output:	4
Cable Diameter:	8 – 23 mm
Dimension (LxBxH):	470 x 123 x 104 mm
Material:	plastic
Operating Temperature:	-40 – 70 °C
Splice Cassette:	integrated
Splice Holder:	crimp/ shrink
Degree of protection (IP):	IP68
Direct Burial:	True



Art.-No.	Description
83184.1	FO Coupling Splice Closure Outdoor II

FO Splice Closure Outdoor RAYCHEM II

Suitable for number of fibres:	24
In-/Output:	4
Cable Diameter:	5 – 15 mm
Dimension (LxBxH):	422 x 125 x 65 mm
Material:	plastic
Operating Temperature:	-30 – 60 °C
Splice Cassette:	integrated
Splice Holder:	crimp/ shrink
Degree of protection (IP):	IP68
Direct Burial:	True



Art.-No.	Description
83127.1	FO Splice Closure Outdoor RAYCHEM II

FO Splice Closure Outdoor 3M



Suitable for number of fibres:	48
In-/Output:	4
Cable Diameter:	10 – 25 mm
Dimension (LxBxH):	399 x 175 x 107 mm
Material:	plastic
Operating Temperature:	-45 – 60 °C
Splice Cassette:	without cassette
Splice Holder:	without
Degree of protection (IP):	IP68
Direct Burial:	True

Art.-No.	Description
83200.1	FO Splice Closure Outdoor 3M

Accessory

Art.-No.	Description
53100.200	Splice Cassette for 2 x 12 Splice Holder
53100.201	Cover for Splice cassette 53100.200
53100.21	Splice Holder for Crimp Arc Splices
53100.3	Crimp Splice protection(ANT)

FO Splice Closure compact



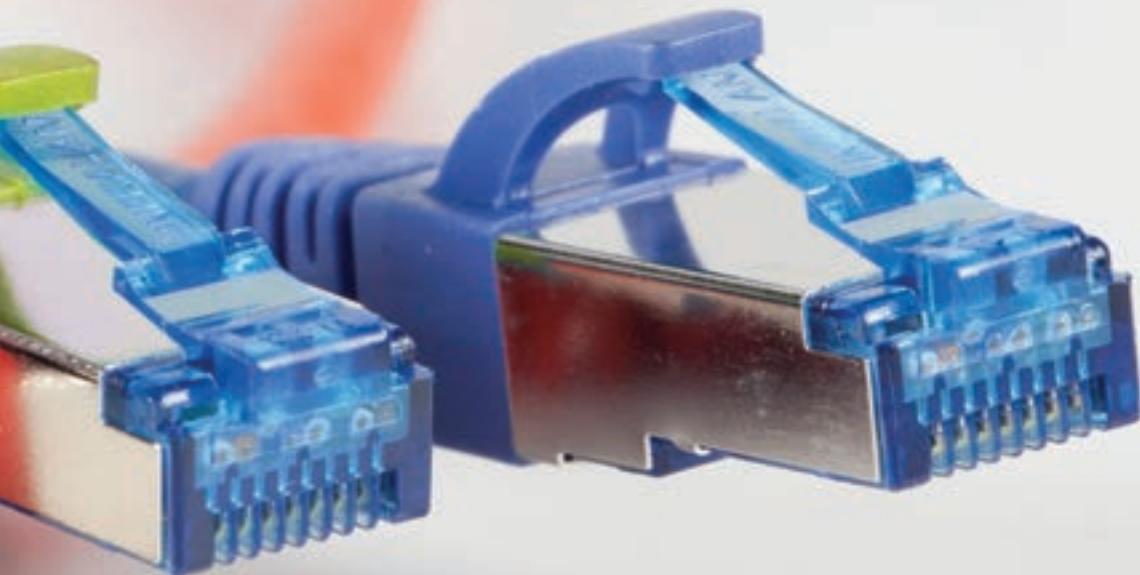
Suitable for number of fibres:	12
In-/Output:	4
Cable Diameter:	4 – 9 mm
Dimension (LxBxH):	194 x 232 x 42 mm
Material:	plastic
Operating Temperature:	-45 – 60 °C
Splice Cassette:	integrated
Splice Holder:	crimp/ shrink
Degree of protection (IP):	IP68
Direct Burial:	True

Art.-No.	Description
83205.1	FO Splice Closure compact

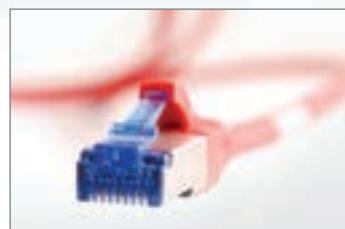


HIGH-QUALITY COMPONENTS FOR **COPPER CABLING**

The technical demands on IT building infrastructure are growing in line with developments in communication, data and video integration. Reliable IT cabling is therefore a top priority in ensuring that business processes function optimally. High quality copper cables are mainly used as they are extremely easy to install and ensure persuasively low investment costs. As a copper cabling specialist, EFB-Elektronik offers a wide range of products, which ranges from patch cables, through keystones and adapters, to measuring devices and special solutions. The EFB-Elektronik product portfolio in copper cabling includes about 2,500 products. Under its own brands, INFRALAN® and ECOLAN®, which include certified items in accordance with, DELTA and ETL, EFB-Elektronik also provides a 25-year warranty system for cabling systems.



Keystones & Connection Modules



Patch Cable



IP67/68 Connecting Systems



Patch Panel & Data Outlets



Installation- & Stranded Cables



RJ45 Connector & Accessories



Tools & Meters



Telecom



WIR SORGEN FÜR VERBINDUNG
WE CARE FOR CONNECTION

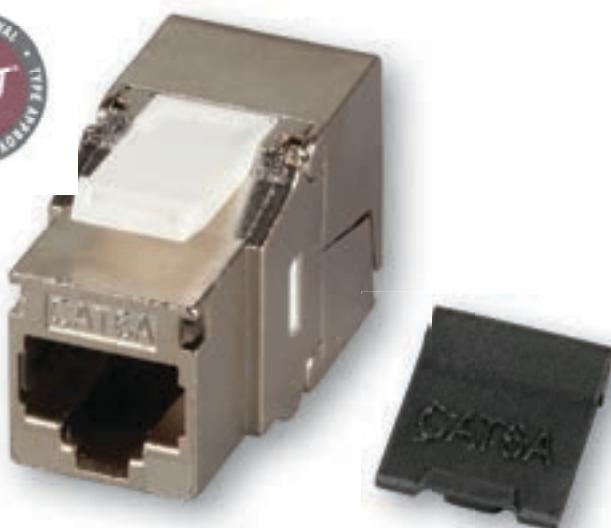


KEYSTONES & CONNECTION MODULES

A modular cabling system with keystone technology offers many advantages. In addition to flexible snap-in mounting and a wide selection of standard plug-in connectors in fibre optic cable and copper technology, a special highlight of the shielded copper variants is their self-contained keystone housing. It provides excellent transfer characteristics and allows flexible maintenance and repair. Besides, „tool-free“ keystones can be installed very quickly, because no special tool is required. Just a side cutter is sufficient to shorten the wires to the appropriate length and to assemble the keystone in a professional manner.

COPPER

RJ45 Keystone STP, Cat.6A 500MHz 10Gbit

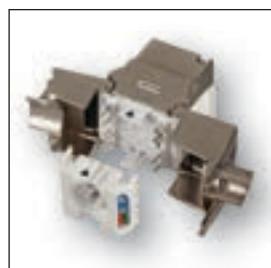
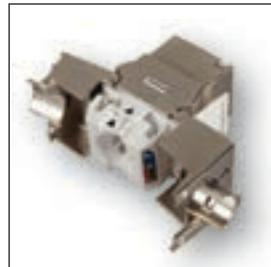


Cat.6A **10 Gbit** **GHMT** **500 MHz**

Shielded keystone zinc diecast body
Cat.6A component certified acc. to ISO/IEC 11801 Ed.2.2 (2011-06) and IEC 60603-7-51 Ed.1.1 (2010-03)
Compact cable presorter for AWG 24/1 .. 22/1 and AWG 26/7 .. AWG 24/7
Max. cable diameter: 8,5mm
Pair management according to TIA 568A /B colour codes
PoE and PoE Plus according to IEEE802.3af/at
Appropriate for distribution panels and frames with keystone slots, not for UAE
Independent 360 °-shield contact and strain relief of the cable with two cable ties
Flexibel strain relief for different cable diameter
Separate grounding contact at the back side

Scope of delivery:

1 x RJ45 keystone, captive dust cover, copper foil, cable ties, mounting instruction



Accessory

Art.-No.	Description	Colour
E-20091	RJ45 Keystone STP, Cat.6A, 500MHz, component certified	silver

RJ45 Keystone STP, Cat.6A / Class EA 500MHz 10Gbit

Cat.6A **Class EA** **10 Gbit** **GHMT** **ETL** **500 MHz**

Shielded keystone zinc diecast body with separate dust cap
Cat.6A components certified according to ANSI/TIA-568-C.2, ISO/IEC 11801 and IEC 60603-7-51
Compact cable presorter for AWG 24/1 .. AWG 22/1 and AWG 26/7 .. AWG 24/7
Max. cable diameter: 8,0mm
Pair management according to TIA 568A /B colour codes
PoE and PoE Plus according to IEEE802.3af/at
Appropriate for distribution panels and frames with keystone slots, not for UAE
Strain relief with cable ties



Scope of delivery:

1 x RJ45 keystone, 1 x copper foil, 1 x cable tie, dust cover, mounting instruction

Art.-No.	Description	Colour
E-20070	RJ45 Keystone STP, Cat.6A, 500MHz, component certified	silver

RJ45 Keystone STP, Cat.6A / Class EA 500MHz 10Gbit, angled



Shielded keystone zinc diecast body with separate dust cap
 Class EA performance according to ISO 11801 AMD2 2010-04
 Compact cable presorter for AWG 24/1 .. AWG 22/1 and AWG 26/7 .. AWG24/7
 Max. cable diameter: 8,0mm
 Pair management according to TIA 568A /B colour codes
 PoE and PoE Plus according to IEEE802.3af/at
 Appropriate for distribution panels and frames with keystone slots, not for UAE
 Side entry 90° left or right
 Strain relief with cable ties

Scope of delivery:
 1 x RJ45 keystone, 1 x copper foil, 1 x cable tie, dust cover, mounting instruction

RJ45 Keystone STP, Cat.6 250MHz 5Gbit

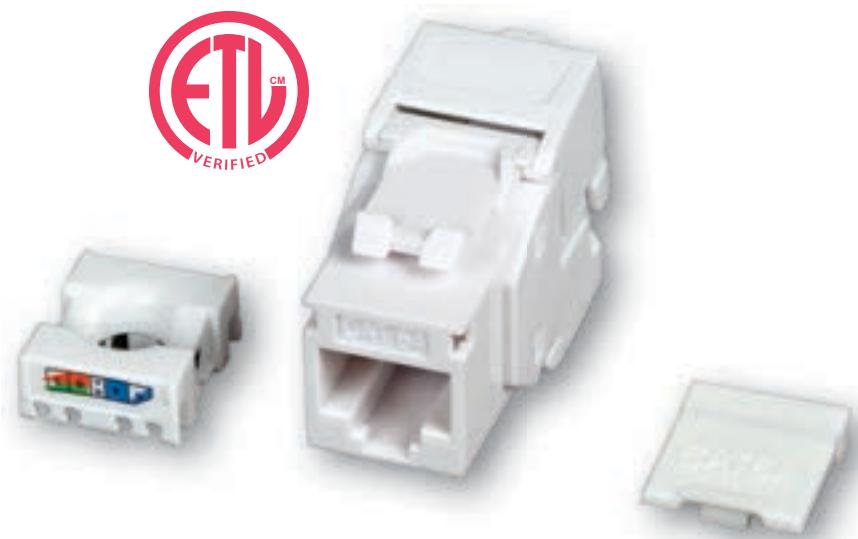


Shielded keystone zinc diecast body with separate dust cap
 Compact cable presorter for AWG 24/1 .. AWG 22/1 and AWG26/7 .. AWG24/7
 Max. cable diameter: 8,0mm
 Pair management according to TIA 568A /B colour codes
 PoE and PoE Plus according to IEEE802.3af/at
 Appropriate for all distribution panels and frames with keystone slots, not for UAE
 Strain relief with cable ties

Scope of delivery:
 1 x RJ45 keystone, 1 x copper foil, 1 x cable tie, dust cover, mounting instruction

Art.-No.	Description	Colour
E-20072	RJ45 Keystone STP, Cat.6, 250 MHz	silver

ECOLAN® RJ45 Keystone UTP, Cat.6A 500MHz 10Gbit



Plastic housing PC+ABS

Cat.6A component certified acc. to ANSI/TIA-568-C.2 and ISO/IEC 11801

Compact cable presorter for AWG 24/1 .. 22/1 and AWG 26/7 .. AWG 24/7

Max. cable diameter: 8,5mm

Pair management according to TIA 568A /B colour codes

PoE and PoE Plus according to IEEE802.3af/at

Appropriate for all distribution panels and frames with keystone slots, not for UAE

Recommended distribution panel, ANEXT optimized: 37589.1

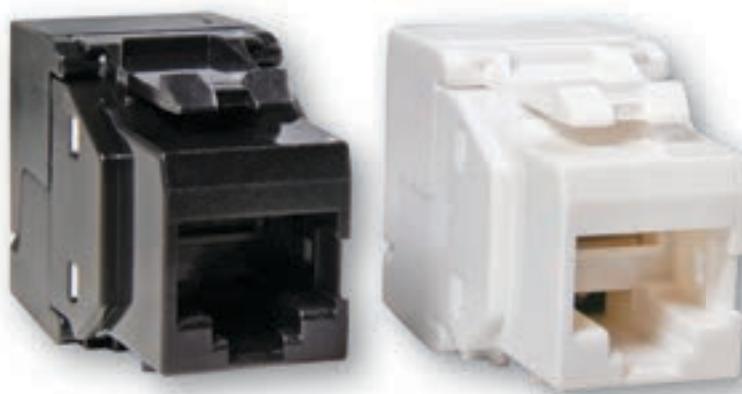
Scope of delivery:

1 x RJ45 keystone, 1 x hinged dust cover, 1 x cable tie, 1 x mounting instruction



37589.1

ECOLAN® RJ45 Keystone UTP, Cat.6 250MHz 5Gbit



Cat.6 de-embedded zertifiziert (DELTA) acc. to ISO 11801 2nd Edition 2002

PoE Plus acc. to IEEE 802.3at

Plastic housing PC+ABS

Compact cable presorter for AWG 24/1 .. 22/1 and AWG 26/7 .. AWG 24/7

Max. cable diameter: 8,5mm

Pair management according to TIA 568A /B colour codes

PoE and PoE Plus according to IEEE802.3af/at

Appropriate for distribution panels and frames with keystone slots, not for UAE

Strain relief via cable tie

Scope of delivery:

1 x RJ45 keystone, 1 x hinged dust cover, 1 x cable tie, 1 x mounting instruction

Art.-No.	Description	Colour
E-20080	ECOLAN® RJ45 Keystone UTP, Cat.6, component certified	white
E-20081	ECOLAN® RJ45 Keystone UTP, Cat.6, component certified	black

ECOLAN® RJ45 Keystone Set UTP, Cat.6 250MHz 5Gbit

Cat.6 **5Gbit** **250MHz** **ETL** **250 MHz**

Plastic housing PC+ABS for AWG26/1 .. AWG22/1
Cat.6 component certified acc. to ANSI/TIA-568-C.2 and ISO/IEC 11801
Max. cable diameter: 8,5mm
PoE and PoE Plus according to IEEE802.3af/at
Appropriate for distribution panels and frames with keystone slots, not for UAE
LSA terminal with colour code according to TIA/EIA 568A/B
Fixing aid (39908.1) and LSA insertion tool (39951.1) or EHT-040 recommended

Scope of delivery:

12 polybags each with:1 x RJ45 keystone, 1 x dust cover, 1 x cable tie, 1 x mounting instruction

**ECOLAN® RJ45 Keystone Set UTP, Cat.5e 100MHz 2.5Gbit**

Cat.5E **2.5Gbit** **100MHz** **ETL** **100 MHz**

Plastic housing PC+ABS for AWG26/1 .. AWG22/1
Max. cable diameter: 8,5mm
PoE and PoE Plus according to IEEE802.3af/at
Appropriate for distribution panels and frames with keystone slots, not for UAE
LSA terminal with colour code according to TIA/EIA 568A/B
Fixing aid (39908.1) and LSA insertion tool (39951.1) or EHT-040 recommended

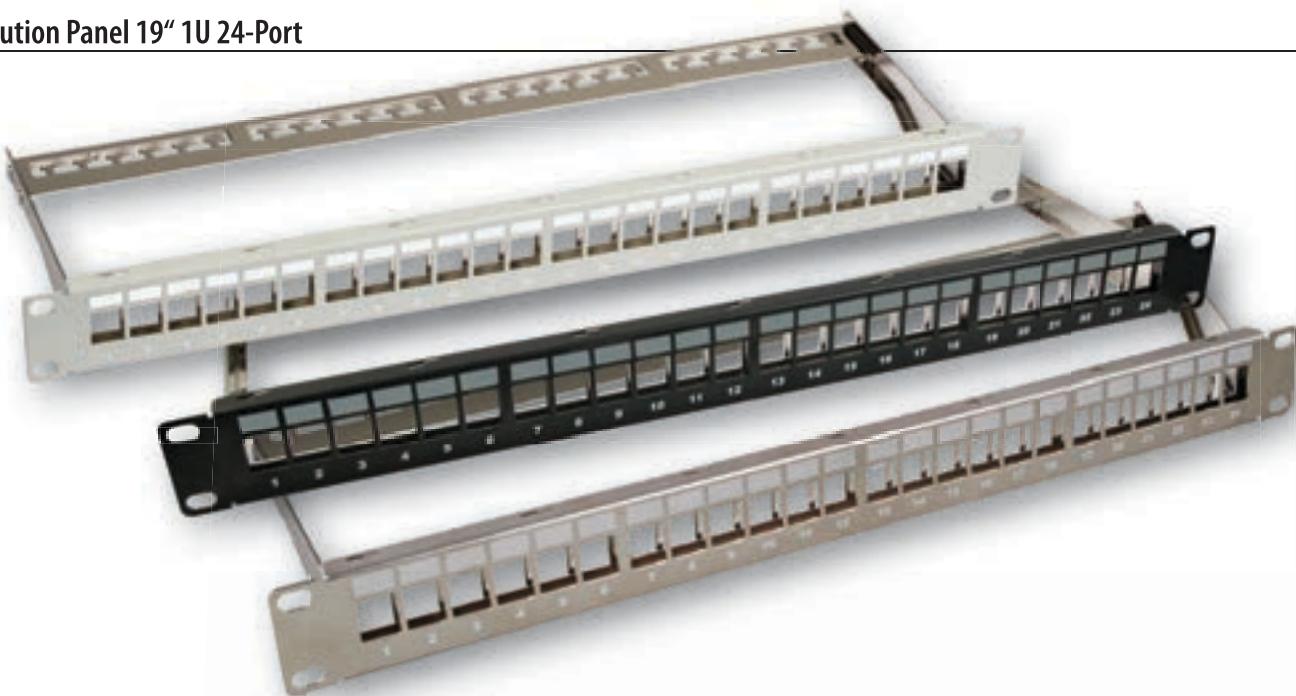
Scope of delivery:

12 polybags each with:1 x RJ45 keystone, 1 x dust cover, 1 x cable tie, 1 x mounting instruction

Art.-No.	Description	Colour
11201155	ECOLAN® RJ45 Keystone UTP, Cat.5e, 100MHz, Set 12 pieces	white



Distribution Panel 19" 1U 24-Port



For holding of modules in keystone format

Inclusive cable management

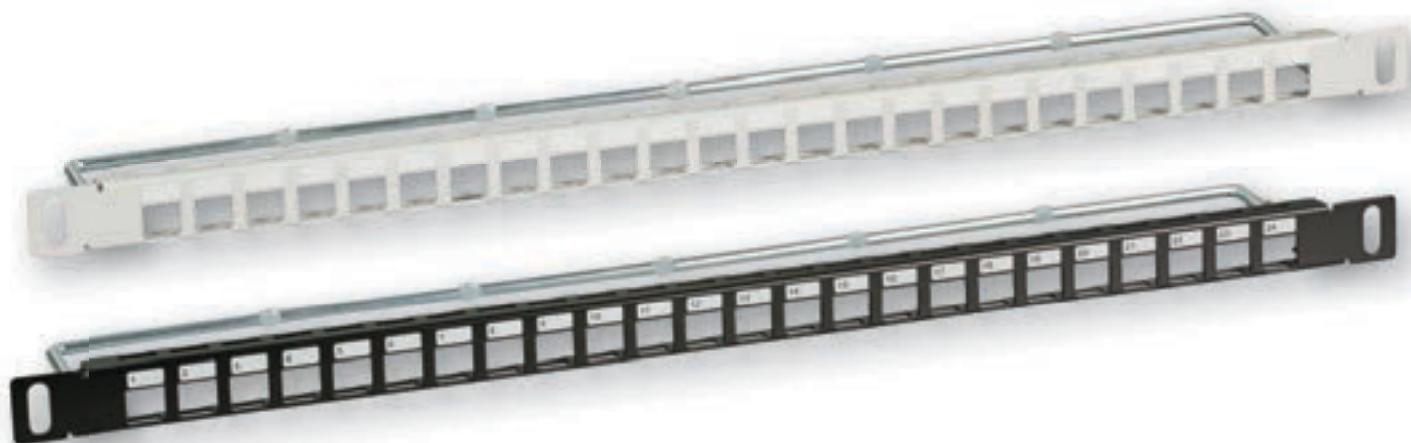
Labeling fields with transparent cover

Stain relief via cable tie

Delivery without modules

Art.-No.	Description
37576.1	Distribution Panel 19" 1U, 24-Port, metallic
37578.1	Distribution Panel 19" 1U, 24-Port, grey RAL7035
37580.1	Distribution Panel 19" 1U, 24-Port, black RAL9005

Distribution Panel 19" 0,5U 24-Port



For holding of modules in keystone format

Inclusive cable management

Labeling fields with transparent cover

Stain relief via cable tie

Delivery without modules

Art.-No.	Description
37586.1	Distribution Panel 19", 0,5U, 24-Port, grey RAL7035
37586.1SW	Distribution Panel 19", 0,5U, 24-Port, black RAL9005

Distribution Panel 19" 1U 24-Port, slanted



For holding of modules in keystone format
Inclusive cable management
Labeling fields with transparent cover
Stain relief via cable tie
Delivery without modules

ECOLAN® Distribution Panel 19" 1U 24-Port



For holding of modules in keystone format
Inclusive cable management
Labeling fields with transparent cover
Stain relief via cable tie
Delivery without modules

ECOLAN® Distribution Panel 19" 1U 24-Port, shifted



ECOLAN® Unshielded distribution panel 19" for holding up to 24 keystones modules
ANSI/TIA-568-C.2 and ISO/IEC 11801 Cat.6A certified by ETL
Steel frame with (ABS+PC) plastic frontcover
Compatible to each UTP Keystone from EFB-Elektronik
Alien NEXT optimized for the E-20085 keystone due to shifted 24-port layout
Inclusive cable management
Strain relief via cable tie
Delivery without modules

Art.-No.	Description
37589.1	ECOLAN® Distribution Panel 19" 1U, 24-Port shifted, ANEXT optimized, black

The E-20085 Keystone is Cat.6_A certified only in combination with this distribution panel

Keystone Frame 1/2/3 - Port for Keystones

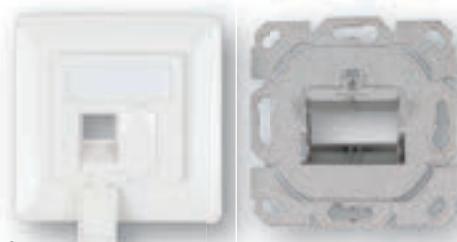


For holding all EFB RJ45 Keystone modules
 Frame set in 1-Port, 2-Port or 3-Port
 40° slanted outlet
 RAL9010
 Special designed central plate + cover plates
 With dust covers and labeling fields

Scope of delivery: Metal frame, outer ring, central plate

Art.-No.	Description	Colour
ET-25108	Frame Set 1-Port, for keystones, RAL9010	white
ET-25109	Frame Set 2-Port, for keystones, RAL9010	white
ET-25110	Frame Set 3-Port, for keystones, RAL9010	white

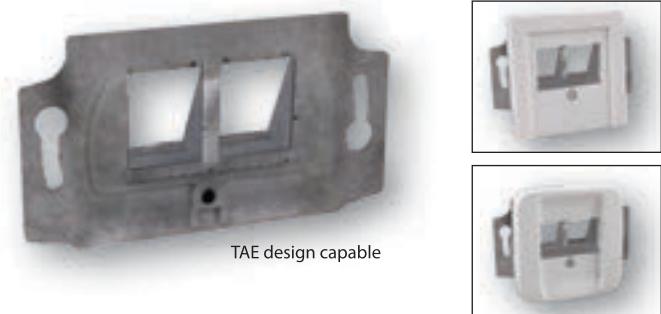
Frame Set for 2 x IKS-6A-PVP-12, design capable UAE



UAE design capable
 Zinc diecast mounting frame
 For holding 2 keystone slimline modules e.g. IKS-6A-PVP-12
 40° slanted outlet
 RAL 9010
 Design capable, compatible to the **UAE** central plates of switch range manufacturers
 Embedded dust cap
 Embedded grounding lead for 6.3mm blade receptacle
Scope of delivery: keystone frame, outer ring, central plate

Art.-No.	Description	Colour
ET-25090	Frame Set 2-Port, for keystone module slimline E-20095, design capable UAE	white

Frame Set 2-Port, for Keystones, design capable TAE



Takes 2 RJ45 keystone modules
 Housing material: aluminium diecast
 40° slanted outlet
 Design capable, compatible to the **TAE** central plates of switch range manufacturers
 Delivery without modules and central frame

Art.-No.	Description	Colour
ET-25111	Frame Set 2-Port, for Keystones, design capable TAE	aluminium

Frame Set 1/2/3 - Port for Keystones, DIN49075



For holding all EFB RJ45 Keystone modules
 Frame set in 1-port, 2-port or 3-port
 40° slanted outlet
 Outer ring 80x80mm and central plate 50x50mm according to DIN49075
 Compatibel to common switch programmes with adapter plate
 Separate earthing lead for 6.3mm fast-on connection
 With dust covers and labeling fields

Scope of delivery: Keystone frame, outer ring, central plate

Art.-No.	Description	Colour
ET-25087V2	Frame Set 1-port, for keystones, DIN49075, RAL9010	white
ET-25085V2	Frame Set 2-port, for keystones, DIN49075, RAL9010	white
ET-25089V2	Frame Set 3-port, for keystones, DIN49075, RAL9010	white

Keystone Frame revolving 2-Port, for Keystones, design capable TAE



Takes 2 RJ45 keystone modules
 Housing material: aluminium diecast
 40° slanted outlet
 Design capable, compatible to the **TAE** central plates of switch range manufacturers
 Revolving mounting ring at ET-25111K for horizontal and vertical fixing
 Delivery without modules and central frame

Art.-No.	Description	Colour
ET-25111K	Keystone Frame revolving 2-Port, for Keystones, design capable TAE	aluminium

Keystone installation frame 1-Port



Keystone installation frame 1-Port
 Takes 1 keystone modul

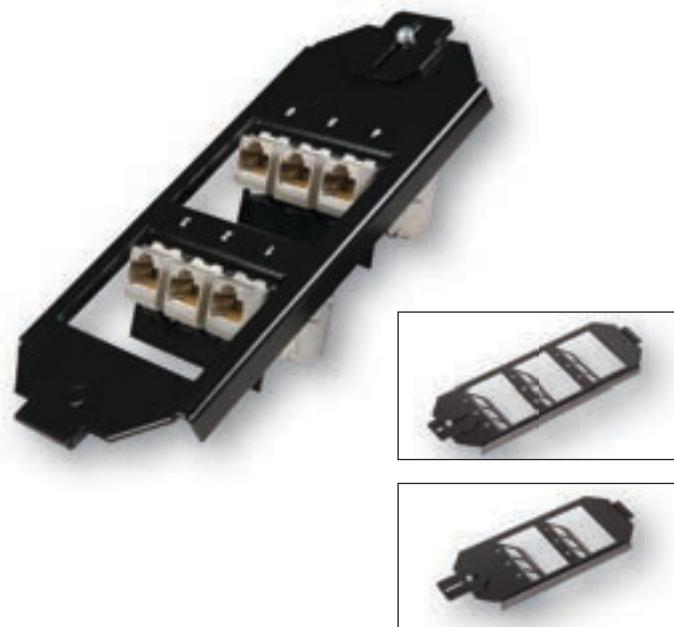
Features:

Housing material: zinc-diecast
 Universal use on every flat surface/housing, cable duct or wood/metal cover
 Straight outlet: 0°

Dimensions: Length: 35.5mm Width: 19.2mm Height: 9.8mm

Scope of delivery: Installation frame 1-Port (without modules),
 2x installation screws

Art.-No.	Description	Colour
ET-25188.1	Keystone installation frame 1-Port, zinc diecast, metal coloured	Zinc

Floor Tank Holder for 6 or 9 Keystones

Frame set for mounting 6(ET-25178V2) or 9(ET-25179V2) keystone modules
For installation in OBO Bettermann floor tanks GB2/GB3
Delivery unequipped

Art.-No.	Description
ET-25178V2	Floor tank holder 2 x for 6 Keystones
ET-25179V2	Floor tank holder 3 x for 9 Keystones

Consolidation Point Box

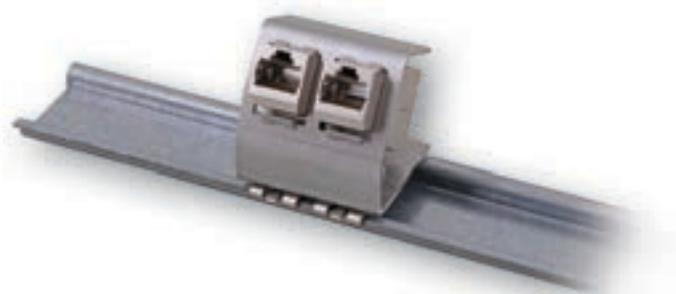
Robust steel case with divided cover
Suitable for installation of 4, 8, 12 or 24 keystone modules
Front cover hinged and can be opened tool-free
Screwed Rear cover for protection against access
Cable entries front and rear with dust-tight sealing strips
Separate grounding bolt
Protection class IP20
Black powder coating

Art.-No.	Description
ET-25172	Consolidation Point Box, for 4x Keystones
ET-25172.1	Consolidation Point Box, for 8x Keystones
ET-25172.2	Consolidation Point Box, for 12x Keystones
ET-25172.3	Consolidation Point Box, for 24x Keystones

Keystone holder 1-Port, for DIN-Rail, Plastic

Keystone holder 1-Port, plastic
For mounting on DIN-Rail TH35 acc. to DIN EN60715
Width: 22mm
For Keystones
Side-by-side mountable, with earthing spring
Colour: RAL7035, light grey
Closed on one side
Delivery unloaded and without end plate left (ET-25185.1)
An end plate is always necessary. Module holder requires an end plate,
several connected module holders also require only one end plate.

Art.-No.	Description
ET-25186.V2	Keystone Holder 1-Port for DIN-Rail
ET-25185.1	Endplate left for Keystone holder ET-25186.V2

Keystone holder for DIN-Rail, Stainless Steel

Keystone holder, stainless steel
Intended for mounting on DIN-Rail
Delivery without Keystone Modules

Art.-No.	Description
ET-25184.V2	Keystone holder for DIN-Rail, Stainless Steel, for 1 x Keystone
ET-25184.1V2	Keystone holder for DIN-Rail, Stainless Steel, for 2 x Keystone
ET-25184.2V2	Keystone holder for DIN-Rail, Stainless Steel, for 3 x Keystone

Keystone Distribution Box

For 6 or 12 keystone modules from the EFB-Elektronik portfolio

Colour: pure white, RAL9010

Material: ABS

Dimensions: 170 x 110 x 40 mm (L x W x D)

Suitable for wall mounting

Plastic housing consisting of:

1 x upper housing shell, 1 x lower housing shell, 2 x adapter inserts with openings for 6 keystones, 1 x adapter insert for 6 cable entries, 2 x side cover
Delivery without modules

Art.-No.	Description
ET-25174.1	Keystone distribution box surface mounting 6 / 12 Keystones



Keystone distribution box surface mounting, Dust protection self-closing

For 1 or 2 keystone modules from the EFB-Elektronik portfolio

Colour: pure white, RAL9010

Material: ABS

Dimensions ET-25166: 37 x 65 x 30 mm (L x W x D)

Dimensions ET-25168: 63 x 65 x 30 mm (L x W x D)

Suitable for wall mounting

Dust cap self closing

Labeling field hinged

Delivery without modules

Scope of delivery:

1 x case, 1 x double sided tape, 1 x cable tie, 2 x self tapping screws 4x14

Art.-No.	Description
ET-25166	Keystone distribution box surface mounting, 1-Port, Dust protection self-closing
ET-25168	Keystone distribution box surface mounting, 2-Port, Dust protection self-closing



KDO-Outlet (AP), IP44

Labeling field hinged

Lockable

Colour similar RAL7035, light grey

Dimensions: 93x90x90mm / Weight ca. 265 g

ET-25021V2: For Data outlets

ET-25023V2: For Keystone Modules

Cable entry upside M25 (optional left/right/downside or in the base prepared)

Plastic material poly carbonate + PE

Cable entry for cable Ø up to 18 mm

2 keys included in delivery

Delivery without modules

Art.-No.	Description	Colour
ET-25021V2	KDO-Outlet(AP), IP44, for Data Outlet with labeling field	grey
ET-25023V2	KDO-Outlet(AP), IP44 , for 2 x Keystones with labeling field	grey



Surface frame RAL9010

Surface frame 80x80x40mm

Without cover

Type of plastic: ABS

RAL9010

For data outlets and keystones frame sets

Scope of delivery:

1x Surface frame, 2x Screws: 3mm x 10mm

Art.-No.	Description	Colour
ET-25084V3	Surface frame RAL9010	white



Accessory

Art.-No.	Description	Farbe
ET-25081	Cover RAL9010	white

Keystone Snap-In Adapter RJ45 STP, Cat.6A, 90° angled

Cat.6A

Snap-In mounting (Keystone)
Cat.6A
90° angled
Connecting adapter for patch cables
2x RJ45 connectors shielded
Allocation: 1:1
Metal housing
Snap-in spring: plastic



Art.-No.	Description
37484.2V2	Keystone Snap-In Adapter RJ45 STP, Cat.6A, 90° angled

Keystone Snap-In Adapter RJ45 STP, Cat.6A 90° access

Cat.6A

Snap-In mounting (Keystone)
Cat.6A
Connecting adapter for patch cables
2x RJ45 connectors shielded, with on one side 90° entry
Allocation: 1:1
Stainless steel housing
Snap-in spring: metal



Art.-No.	Description
37483.1	Keystone Snap-In Adapter RJ45 STP, Cat.6A, 90° access

Keystone Snap-In Adapter RJ45 UTP, Cat.6

Cat.6

Snap-In mounting (Keystone)
Cat.6
Connecting adapter for patch cables
2x RJ45 connectors unshielded
Allocation: 1:1
Plastic housing
Snap-in spring: plastic

Art.-No.	Description
37488.1	Keystone Snap-In Adapter RJ45 UTP, Cat.6

Keystone Snap-In Adapter RJ45 STP, Cat.6A

Cat.6A

Snap-In mounting (Keystone)
Cat.6A/Class EA
Connecting adapter for patch cables
2x RJ45 connectors shielded
Allocation: 1:1
Metal housing
Snap-in spring: plastic

Art.-No.	Description
37521.1V2	Keystone Snap-In Adapter RJ45 STP, Cat.6A

Keystone Snap-In Adapter RJ45 STP, Cat.6

Cat.6

Snap-In mounting (Keystone)
Cat.6
Connecting adapter for patch cables
2x RJ45 connectors shielded
Allocation: 1:1
Metal housing
Snap-in spring: plastic

Art.-No.	Description
37486.1	Keystone Snap-In Adapter RJ45 STP, Cat.6

Keystone Snap-In Adapter RJ45 STP, Cat.5e

Cat.5e

Snap-In mounting (Keystone)
Cat.5e
Connecting adapter for patch cables
2x RJ45 connectors shielded
Allocation: 1:1
Snap-in spring



37508.1V2

Art.-No.	Description
37508.1V2	Keystone Snap-In Adapter RJ45 STP, Cat.5e, Stainless Steel
37508.2	Keystone Snap-In Adapter RJ45 STP, Cat.5e, Plastic

Keystone Snap-In Adapter HDMI A - A



EB479V2



EB520V2

Snap-In mounting (Keystone)
 Connecting adapter for HDMI cables
 2x HDMI connectors Type A
 Plastic housing
 Snap-in spring: plastic

Art.-No.	Description
EB479V2	Keystone Snap-In Adapter HDMI A - A, white
EB520V2	Keystone Snap-In Adapter HDMI A - A, black

Keystone Snap-In Adapter USB2.0 A - A



US2.0

EB498V2



EB527V2

Snap-In mounting (Keystone)
 Connecting adapter for USB cables
 2x USB connectors Type A
 Mounting depth: 32 mm
 Plastic housing
 Snap-in spring: plastic

Art.-No.	Description
EB498V2	Keystone Snap-In Adapter USB2.0 A - A, white
EB527V2	Keystone Snap-In Adapter USB2.0 A - A, black

Keystone Snap-In Adapter USB3.0 A - A



US3.0

Snap-In mounting (Keystone)
 Connecting adapter for USB cables
 2x USB connectors Type A
 For data transmission rates up to 5Gbit/s
 Plastic housing
 Snap-in spring: plastic

Art.-No.	Description
EB537	Keystone Snap-In Adapter USB3.0 A - A, black

Keystone Snap-In Adapter F-Connector



EB539V2



EB540V2

Snap-In mounting (Keystone)
 Connecting adapter for Sat cables
 2x F connectors
 Plastic housing
 Snap-in spring: plastic

Art.-No.	Description
EB539	Keystone Snap-In Adapter F connector, white
EB540	Keystone Snap-In Adapter F connector, black

Keystone Snap-In Adapter Cinch (RCA)



EB522V2



EB495V2

Snap-In mounting (Keystone)
 Connecting adapter for Audio cables
 2x Cinch connectors
 Mounting depth: 22.5 mm
 Plastic housing
 Snap-in spring: plastic

Art.-No.	Description
EB493	Keystone Snap-In Adapter Cinch white, red ring
EB494	Keystone Snap-In Adapter Cinch white, white ring
EB495	Keystone Snap-In Adapter Cinch white, yellow ring
EB522	Keystone Snap-In Adapter Cinch black, red ring
EB523	Keystone Snap-In Adapter Cinch black, white ring
EB524	Keystone Snap-In Adapter Cinch black, yellow ring

Keystone Blind Inserts



To cover unused ports
 Keystone format

Art.-No.	Description
38018.1-100	RJ45 Blind Inserts white RAL9010, for keystone holes, PU 100
38018.2-100	RJ45 Blind Inserts black RAL9011, for keystone holes, PU 100

Modular-Adapter RJ45 UTP, Cat.6

Cat.6

Connecting adapter for patch cables
2x RJ45 connectors unshielded
Allocation: 1:1
Plastic housing

Art.-No.	Description
37487.1	Modular-Adapter RJ45 UTP, Cat.6

Modular-Adapter RJ45 STP, Cat.6

Cat.6

Cat.6
Connecting adapter for patch cables
2x RJ45 connectors shielded
Allocation: 1:1
Metal housing

Art.-No.	Description
37489.1	Modular-Adapter RJ45 STP, Cat.6

Modular-Adapter RJ45 STP, Cat.5e, metal coloured

Connecting adapter for patch cables
2x RJ45 connectors shielded
Allocation: 1:1 wired (37529.1) / crossed (37529.2)
Housing metal coloured

Art.-No.	Description
37529.1	Modular-Adapter RJ45 STP, Cat.5e, metal coloured, 1:1
37529.2	Modular-Adapter RJ45 STP, Cat.5e, metal coloured, Crossover

**Modular-Adapter RJ45 STP, metal coloured**

Connecting adapter for patch cables
2x RJ45 connectors shielded
Allocation: 1:1
Housing metal coloured

Art.-No.	Description
37507.1	Modular-Adapter RJ45 STP, metal coloured

Modular-Adapter RJ45 UTP

Connecting adapter for patch cables
2x RJ45 connectors unshielded
Allocation: 1:1
Plastic housing

Art.-No.	Description
37503.1	Modular-Adapter RJ45 UTP

Modular-Adapter RJ12 UTP

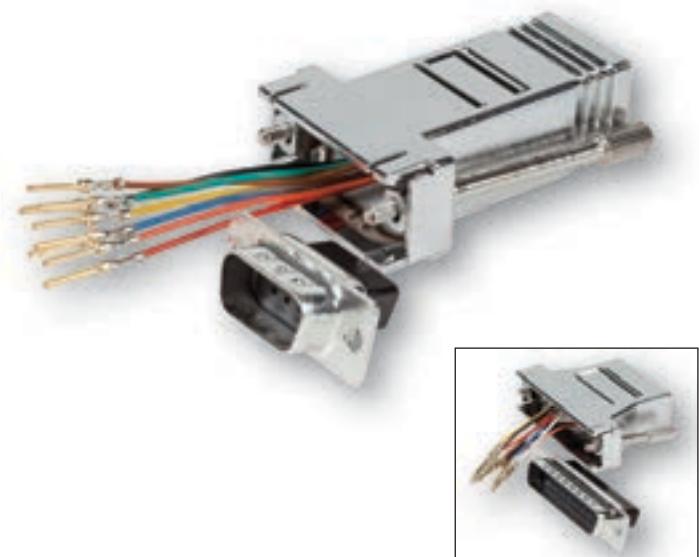
Connecting adapter for ISDN telephone cables
2x RJ12 connectors unshielded
Allocation: 1:1
Plastic housing

Art.-No.	Description
37502.1	Modular-Adapter RJ12 UTP

Gigabit Crossover Adapter RJ45 UTP

Unshielded
Assignment 1/2-3/6, 3/6-1/2, 4/5-7/8, 7/8-4/5

Art.-No.	Description
37537.1	Gigabit RJ45 crossover adapter plug/Jack

Modular-Adapter D-Sub / RJ45

Freely configurable
D-Sub to RJ45 8P8C
Metallized housing
Also available pre-assembled with pin allocation as requested

Art.-No.	Description
ETM23054	Modular-Adapter D-Sub25 Plug / RJ45 Jack, metallized housing
ETM23066	Modular-Adapter D-Sub09 Plug / RJ45 Jack, metallized housing
ETM23055	Modular-Adapter D-Sub25 Jack/ RJ45 Jack, metallized housing
ETM23067	Modular-Adapter D-Sub09 Jack / RJ45 Jack, metallized housing

Connection module Cat.7 600MHz**Cat.7**

Connection module Cat.7 up to 600 MHz
With IDC-terminals
For extending installation cables
For reconnecting damaged cables
For all standard 4- or 8-core installation cables from AWG 26-22
Max. sheath diameter of 10 mm
Housing metallized inside

Accessory

Screw-type strain relief (M3x12)
Cable inlet (4 x)
With adhesive tapes for fixing

Art.-No.	Description	Colour
37596.1	Connecting module Cat.7 600MHz with IDC - terminal	black

Connection module Cat.6 250MHz**Cat.6**

Connection module Cat.6 up to 250 MHz
With IDC-terminals
For extending installation cables
For reconnecting damaged cables
For all standard 4- or 8-core installation cables from AWG 26-22
Screw-type strain relief
Max. sheath diameter of 7.5 mm
Housing metallized

Accessory

Screw-type strain relief (M3x12)
Cable inlet (4 x)
With adhesive tapes for fixing

Art.-No.	Description	Colour
37596.2	Connecting module Cat.6 250MHz with IDC - terminal	silver

Connection Module Cat.6A / Class EA 10Gbit/s



Cat.6A **Class E_A**



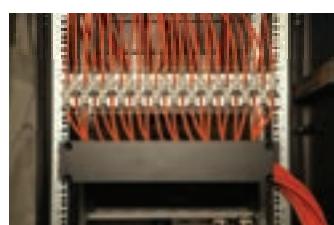
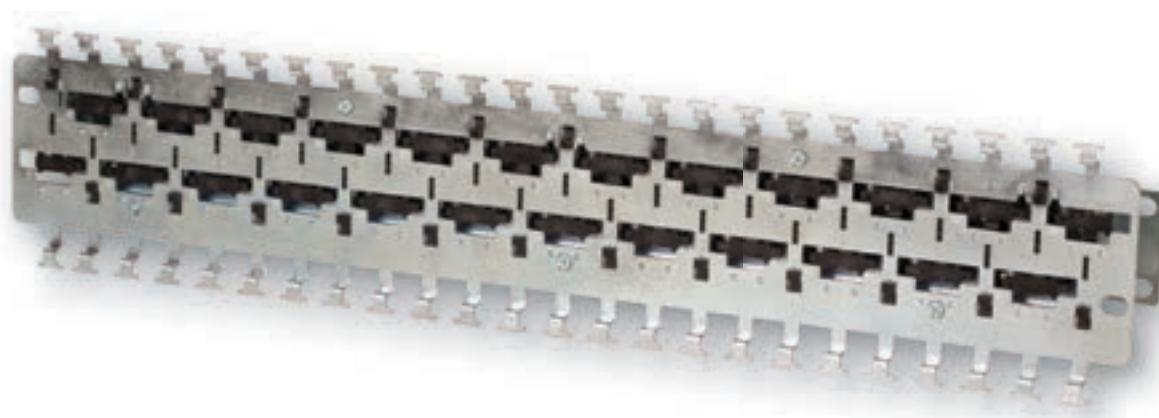
Fully shielded zinc diecast bodyhousing
Dimension (W x H x L) 18 x 26 x 39 mm
Link performance 10 Gbit/s Class EA acc. to ISO 11801
2 x compact cable manager for AWG26/1..AWG22/1 and AWG26/7..AWG24/7
Pair management with colour code, printed on cable manager
Reliable differentiation of cable managers by mechanical and colour assignment (plastic black / white) on the cable coupler and on cable managers
PoE and PoE Plus according to IEEE802.3af/at
360° shield contact and strain relief independent from each other
Gliding stored shield contact
Screw- and line-up through loops at the side of the module
19" panel for holding of 24 x modules available as accessory

Scope of delivery:

1 x connection module, 2 x cable pre-sorter (black + white), 2 x copper foil, 2 x cable ties

Art.-No.	Description	Colour
37597.1	Connection Module Cat.6A / Class EA 10Gbit/s	silver

Holding Panel for 24 x Connection Module 37597.1



Holding panel for carrying 24 Class E_A cable coupler 37597.1
Suitable for 19" and wall mounting
Easiest Snap-In mounting of the couplers
Coupler removable at any time
Height 100 mm
Material steel, galvanised

Art.-No.	Description
37597.P	Holding Panel for 19" / Wall Mounting of 24 x Coupler 37597.1

Frame Set with central plate for 1x Keystone, outlet direct

Cover frame 80x80mm
 With central plate 45x45mm outlet straight for 1 x keystone
 For the countries Poland, France, Turkey, Mediterranean Area

Art.-No.	Description	Colour
ET-25040	Frame Set 80x80 with central plate 45x45 for 1 Keystone, outlet direct	white

Frame Set with central plates for 2 Keystones, outlet direct

Cover frame 80x80mm
 With 2 central plates each with 22.5x45mm, for 2 x keystones
 For the countries Poland, France, Turkey, Mediterranean Area

Art.-No.	Description	Colour
ET-25041	Frame Set 80x80 with central plates 22.5x45 for 2 Keystones, outlet direct	white

Central plate 45x45mm for 1 keystone, outlet direct

Central plate 45x45 mm for 1 x keystone
 For the countries Poland, France, Turkey and Mediterranean area

Art.-No.	Description	Colour
ET-25025	Central plate 45x45mm for 1 keystone, outlet direct	white

Central plate 22.5x45mm for 1 Keystone, outlet direct

Central plate 22.5x45mm for 1 x keystone
 For the countries Poland, France, Turkey and Mediterranean area

Art.-No.	Description	Colour
ET-25026	Central plate 22.5x45mm for 1 keystone, outlet direct	white

Central plate 45x45mm for 1 Keystone, outlet slanted

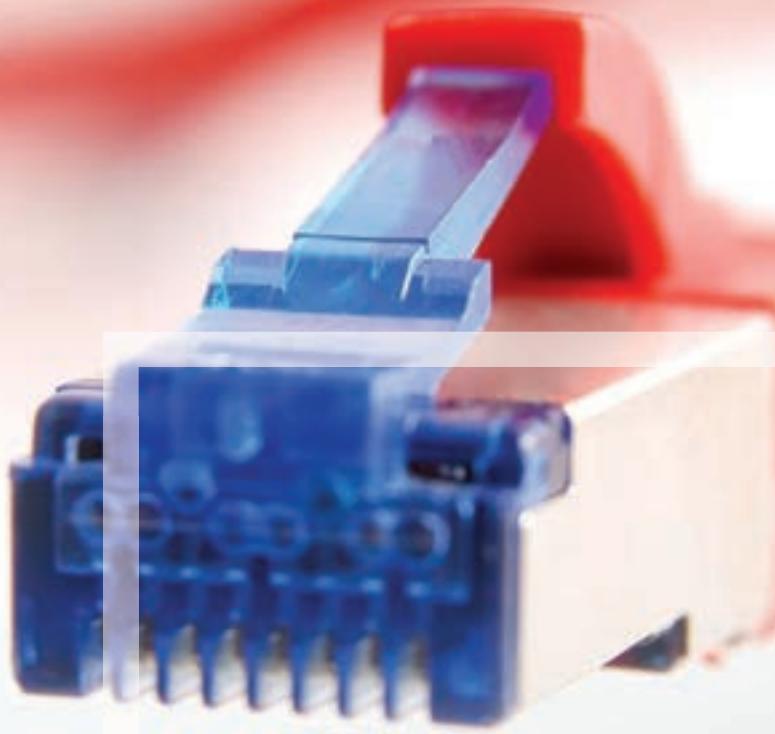
Central plate 45x45mm outlet slanted for 1 x keystone
 For the countries Poland, France, Turkey and Mediterranean area

Art.-No.	Description	Colour
ET-25027	Central plate 45x45mm for 1 keystone, outlet slanted	white

Central plate 45x45mm for 2 Keystones, outlet slanted

Central plate 45x45mm outlet slanted for 2 x keystones
 For the countries Poland, France, Turkey and Mediterranean area

Art.-No.	Description	Colour
ET-25028	Central plate 45x45mm for 2 keystones, outlet slanted	white



PATCH CABLE

EFB-Elektronik supplies twisted pair patch cables in various colours, lengths and categories – starting with Cat.5e U/UTP up to Cat.6A S/FTP. Furthermore, EFB-Elektronik supplies patch cables with different kind of jacket materials, like PVC, LSZH or PUR for industrial application. In addition to standard products, our manufacturing has much expertise for special required assembling of patch cables with specific cable material, individual labelling and plug connectors of your choice. By orders with only 500 pieces or more, you can create your personal patch cable with your own logo and item number.

COPPER

Category/ Bandwidth		Art.-No.:	Shielded AWG	Boot / Length Imprint	Jacket	Conductive Shield	Flexibility	Cable Diameter	Raw cable acc. to Cat.7	Exceptional Features		UL Approved	Certifications	Temperature Range	IP Protection	Connector	Conductor	
										UL Approved	Certifications							
DCK1001xx.x	Cat.6A / 500MHz	S/FTP AWG27/7	mounted / yes	LSZH coloured	6,2mm	yes	yes	yes	usual	RJ45 with 360° shield contact	yes	100% Copper	RJ45 LED	IP20	-20°C - +60°C	FLUKE 2C CLASS EA	no	Visual control, EMC safe
K0993.x	Cat.5e / 100MHz	S/UTP AWG26/7	mounted / no	PVC coloured Dätwyler 5502	5,1mm	yes	yes	—	good	RJ45 with 360° shield contact	—	100% Copper	1x TM11 HRS 1x TM11 90°	IP20	-20°C - +60°C	FLUKE 2C CLASS D	no	Made in Europe, flexible, TM11 90°
K2793.x	Cat.5e / 100MHz	SF/UTP AWG26/7	mounted / no	LSZH red Draka UC300	5,7mm	yes	yes	—	usual	RJ45 with 360° shield contact	—	100% Copper	TM11 HRS	IP20	-20°C - +60°C	FLUKE 2C CLASS D	no	Made in Europe, EMC safe, TM11, crossover
K4137xx.x	Cat.6A / 500MHz	S/FTP AWG27/7	mounted / no	LSZH coloured Draka UC900	5,9mm	yes	yes	yes	usual	RJ45 with 360° shield contact	yes	100% Copper	TM21 90° HRS red	IP20	-20°C - +60°C	GHMT 2C CLASS EA	no	Made in Europe, EMC safe, TM21 90°
K54xxx.x	Cat.5e / 100MHz	SF/UTP AWG26/7	moulded / yes	PVC coloured	5,7mm	yes	yes	—	usual	selected shield	—	CCA	Standard	IP20	0°C - +60°C	FLUKE 2C CLASS D	no	6 colours, good value, top-selling
K5450.x	Cat.5e / 100MHz	SF/UTP AWG26/7	red, moulded / yes	PVC grey	5,7mm	yes	yes	—	usual	selected shield	—	CCA	Standard	IP20	0°C - +60°C	FLUKE 2C CLASS D	no	Crossover, good value
K551xx.x	Cat.6 / 250MHz	S/FTP AWG27/7	moulded / yes	LSZH coloured	6,2mm	yes	yes	yes	usual	selected shield	yes	100% Copper	RJ45 red	IP20	0°C - +60°C	GHMT 2C CLASS EA	no	11 colours, good value, top-selling
K5525Fxx.x	Cat.6A / 500MHz	S/FTP AWG26/7	moulded / yes	TPE coloured	6,0mm	yes	yes	yes	superflex	selected shield	yes	100% Copper	RJ45 blue	IP20	-20°C - +75°C	GHMT 2C CLASS EA	no	Superflex, good value
K5545xx.x	Cat.6A / 500MHz	U/FTP AWG30/7	moulded / no	PVC coloured	7,0x2,2mm	yes	yes	yes	very good	selected shield	—	100% Copper	RJ45 ultra short	IP20	-20°C - +55°C	FLUKE 2C CLASS EA	no	Flat patch cable, flexible, short boot
K5547xx.x	Cat.6A / 500MHz	U/FTP AWG30/7	moulded / no	TPE coloured	4,0mm	yes	yes	yes	ultraflex	selected shield	—	100% Copper	RJ45 ultra short	IP20	-20°C - +75°C	FLUKE 2C CLASS EA	no	Ultraflex, high density, low bending radius (16mm)
K801xx.x	Cat.5e / 100MHz	SF/UTP AWG26/7	mounted / no	LSZH coloured Draka UC300	5,7mm	yes	yes	—	usual	RJ45 with 360° shield contact	—	100% Copper	TM11 HRS	IP20	-20°C - +60°C	FLUKE 2C CLASS D	no	Made in Europe, EMC safe, TM11
K805xx.x	Cat.6A / 500MHz	S/FTP AWG27/7	mounted / no	LSZH coloured Draka UC900	5,9mm	yes	yes	yes	usual	RJ45 with 360° shield contact	yes	100% Copper	TM21 HRS red	IP20	-20°C - +60°C	GHMT 2C CLASS EA	no	Made in Europe, EMC safe, TM21
K807xx.x	Cat.5e / 100MHz	F/UTP AWG26/7	mounted / no	LSZH coloured	5,4mm	yes	yes	—	usual	RJ45 with 360° shield contact	—	100% Copper	TM11 HRS	IP20	-20°C - +60°C	FLUKE 2C CLASS D	no	Made in Europe, good value, TM11
K8210xx.x	Cat.6A / 500MHz	S/FTP AWG27/7	mounted / no	Leoni-Kerpen	5,7mm	yes	yes	yes	usual	RJ45 with 360° shield contact	yes	100% Copper	TM21 HRS red	IP20	-20°C - +60°C	GHMT 2C CLASS EA	no	Made in Europe, EMC safe, TM21
K8452.x	Cat.5e / 100MHz	F/UTP AWG26/7	mounted / no	LSZH grey	5,4mm	yes	yes	—	usual	RJ45 with 360° shield contact	—	100% Copper	TM11 HRS	IP20	-20°C - +60°C	FLUKE 2C CLASS D	no	Made in Europe, good value, TM11
K8560xx.x	Cat.6A / 500MHz	S/FTP AWG27/7	mounted / no	LSZH coloured Draka UC900	5,9mm	yes	yes	yes	usual	RJ45 with 360° shield contact	yes	100% Copper	TM31 HRS yellow	IP20	-20°C - +60°C	FLUKE 2C CLASS EA	no	Made in Europe, EMC safe, TM31
K8580xx.x	Cat.6A / 500MHz	S/FTP AWG27/7	mounted / no	LSZH coloured Dätwyler	5,9mm	yes	yes	yes	usual	RJ45 with 360° shield contact	yes	100% Copper	TM31 HRS yellow	IP20	-20°C - +60°C	FLUKE 2C CLASS EA	no	Made in Europe, EMC safe, TM31
K870xx.x	Cat.5e / 100MHz	S/FTP AWG26/7	mounted / no	PVC coloured Dätwyler 5502	5,1mm	yes	yes	—	good	RJ45 with 360° shield contact	—	100% Copper	TM11 HRS	IP20	-20°C - +60°C	FLUKE 2C CLASS D	no	Made in Europe, flexible, TM11
K8708xx.x	Cat.6A / 500MHz	S/FTP AWG27/7	mounted / no	LSZH coloured Dätwyler	6,0mm	yes	yes	yes	usual	RJ45 with 360° shield contact	yes	100% Copper	TM21 HRS red	IP20	-20°C - +60°C	GHMT 2C CLASS EA	no	Made in Europe, EMC safe, TM21
MK7001xxx	Cat.6A / 500MHz	S/FTP AWG26/7	moulded / yes	LSZH coloured	6,5mm	yes	yes	yes	usual	selected shield	yes	100% Copper	RJ45 yellow	IP20	0°C - +60°C	FLUKE 2C CLASS EA	no	8 colours, good value, top-selling

RJ45 Patch cable S/FTP, Cat.6A, Cat.7 Raw cable TPE superflex



SUPERFLEX

LINK CERTIFIED

Stock Lengths: 0,15 - 0,25 - 0,5 - 1,0 - 1,5 - 2,0 - 3,0 - 5,0 - 7,5 - 10 - 15 - 20 - 25 - 30 m

Cat.6A | 10 Gbit | 500 MHz | 100% CU | SHIELDED | TPE

Special featuresJacket material: **Extremely flexible TPE jacket (superflex)**

Cross section: 4 x 2 x AWG26/7

Cable diameter: 6.5mm

Type of grommet: moulded bend relief, slim version

Length imprint: on bend relief**General specifications**

Category: Cat.6A

Transmission: 10Gbit

Bandwidth: 500MHz

Assignment: According to TIA/EIA 568B

Conductor material: Copper

Connector: RJ45 shielded, IEC-60603-7-51

Contacts: Gold plated

Latch prediction: available

Cable structure: S/FTP

Raw cable: Cat.7

Flame retardance: IEC60332-1

Halogen free: IEC60754-2

Low smoke: IEC61034

Art.-No.	Description	Colour outer sheath
K5525FB.L.x	RJ45 Patch cable S/FTP, Cat.6A, Cat.7 Raw cable TPE superflex	blue
K5525FGE.x	RJ45 Patch cable S/FTP, Cat.6A, Cat.7 Raw cable TPE superflex	yellow
K5525FGN.x	RJ45 Patch cable S/FTP, Cat.6A, Cat.7 Raw cable TPE superflex	green
K5525FGR.x	RJ45 Patch cable S/FTP, Cat.6A, Cat.7 Raw cable TPE superflex	grey
K5525FRT.x	RJ45 Patch cable S/FTP, Cat.6A, Cat.7 Raw cable TPE superflex	red
K5525FSW.x	RJ45 Patch cable S/FTP, Cat.6A, Cat.7 Raw cable TPE superflex	black

RJ45 Patch cable S/FTP, Cat.6, LSZH



Stock Lengths: 0,15 - 0,25 - 0,5 - 0,75 - 1,0 - 1,5 - 2,0 - 3,0 - 5,0 - 7,5 - 10 - 15 - 20 - 25 - 30 - 40 - 50 m

Cat.6 | 5 Gbit | 250 MHz | 100% CU

Special features

Jacket material: LSZH

Cross section: 4 x 2 x AWG27/7

Cable diameter: 6.2mm

Type of grommet: moulded bend relief (**patented**)**Length imprint: on bend relief**

11 COLOURS

INEXPENSIVE!

TOPSELLER

General specifications

Category: Cat.6

Transmission: 5Gbit

Bandwidth: 250MHz

Assignment: According to TIA/EIA 568B

Conductor material: Copper

Connector: RJ45 shielded, IEC-60603-7-5

Contacts: Gold plated

Latch prediction: available

Cable structure: S/FTP

Flame retardance: IEC60332-1

Halogen free: IEC60754-2

Low smoke: IEC61034

Art.-No.	Description	Colour outer sheath
K5510.x	RJ45 Patch cable S/FTP, Cat.6, LSZH	grey
K5511.x	RJ45 Patch cable S/FTP, Cat.6, LSZH	yellow
K5512.x	RJ45 Patch cable S/FTP, Cat.6, LSZH	red
K5513.x	RJ45 Patch cable S/FTP, Cat.6, LSZH	blue
K5514.x	RJ45 Patch cable S/FTP, Cat.6, LSZH	green
K5515.x	RJ45 Patch cable S/FTP, Cat.6, LSZH	black
K5516.x	RJ45 Patch cable S/FTP, Cat.6, LSZH	orange
K5517.x	RJ45 Patch cable S/FTP, Cat.6, LSZH	brown
K5518.x	RJ45 Patch cable S/FTP, Cat.6, LSZH	white
K5519.x	RJ45 Patch cable S/FTP, Cat.6, LSZH	magenta
K5521.x	RJ45 Patch cable S/FTP, Cat.6, LSZH	purple/violet

RJ45 Patch cable S/FTP, Cat.6A, LSZH, Cat.7 Raw cable



INEXPENSIVE!

TOPSELLER

Stock Lengths: 0,25 - 0,5 - 1,0 - 1,5 - 2,0 - 3,0 - 5,0 - 7,5 - 10 - 15 - 20 - 25 - 30 m

Cat.6A | 10 Gbit | 500 MHz | 100% CU

Special features

Jacket material: LSZH

Cross section: 4 x 2 x AWG26/7

Cable diameter: 6.5mm

Type of grommet: moulded bend relief, slim version

Length imprint: on bend relief**General specifications**

Category: Cat.6A

Transmission: 10Gbit

Bandwidth: 500MHz

Assignment: According to TIA/EIA 568B

Conductor material: Copper

Connector: RJ45 shielded, IEC-60603-7-51

Contacts: Gold plated

Latch prediction: available

Cable structure: S/FTP

Raw cable: Cat.7

Flame retardance: IEC60332-1

Halogen free: IEC60754-2

Low smoke: IEC61034

Art.-No.	Description	Colour outer sheath
MK7001.xBL	RJ45 Patch cable S/FTP, Cat.6A, LSZH, Cat.7 Raw cable	blue
MK7001.xR	RJ45 Patch cable S/FTP, Cat.6A, LSZH, Cat.7 Raw cable	red
MK7001.xG	RJ45 Patch cable S/FTP, Cat.6A, LSZH, Cat.7 Raw cable	grey
MK7001.xB	RJ45 Patch cable S/FTP, Cat.6A, LSZH, Cat.7 Raw cable	black
MK7001.xW	RJ45 Patch cable S/FTP, Cat.6A, LSZH, Cat.7 Raw cable	white
MK7001.xO	RJ45 Patch cable S/FTP, Cat.6A, LSZH, Cat.7 Raw cable	orange
MK7001.xY	RJ45 Patch cable S/FTP, Cat.6A, LSZH, Cat.7 Raw cable	yellow
MK7001.xGR	RJ45 Patch cable S/FTP, Cat.6A, LSZH, Cat.7 Raw cable	green

RJ45 Patch cable S/FTP, Cat.6A, TM21, UC900

HIROSE TM21 **EMC SAFE** **360° SHIELD CONTACT**

General specifications

Category: Cat.6A
 Transmission: 10Gbit
 Bandwidth: 500MHz
 Assignment: According to TIA/EIA 568B
 Conductor material: Copper
 Connector: RJ45 shielded, IEC-60603-7-51

Contacts: Gold plated
 Latch prediction: available
 Cable structure: S/FTP
 Raw cable: Cat.7
 Flame retardance: IEC60332-1
 Halogen free: IEC60754-2
 Low smoke: IEC61034

Art.-No.	Description	Colour outer sheath
K8050.x	RJ45 Patch cable S/FTP, Cat.6A, TM21, UC900	black
K8051.x	RJ45 Patch cable S/FTP, Cat.6A, TM21, UC900	grey
K8052.x	RJ45 Patch cable S/FTP, Cat.6A, TM21, UC900	red
K8053.x	RJ45 Patch cable S/FTP, Cat.6A, TM21, UC900	green
K8054.x	RJ45 Patch cable S/FTP, Cat.6A, TM21, UC900	blue
K8055.x	RJ45 Patch cable S/FTP, Cat.6A, TM21, UC900	yellow
K8056.x	RJ45 Patch cable S/FTP, Cat.6A, TM21, UC900	orange
K8058.x	RJ45 Patch cable S/FTP, Cat.6A, TM21, UC900	white



Stock Lengths: 0,15 - 0,25 - 0,5 - 1,0 - 1,5 - 2,0 - 3,0 - 5,0 - 7,5 - 10 - 15 - 20 - 25 - 30 - 50 m

Special features

Certification: **Class EA Link certificate**
 Jacket material: LSZH
 Cross section: 4 x 2 x AWG27/7
 Cable diameter: 5.9mm
 Cable Type: **Draka UC900 SS27**
 Connector type: **HRS TM21**
 Type of grommet: Mounted bend relief

RJ45 Patch cable S/FTP, Cat.6A, TM31, UC900

HIROSE TM31 **EMC SAFE** **360° SHIELD CONTACT**

General specifications

Category: Cat.6A
 Transmission: 10Gbit
 Bandwidth: 500MHz
 Assignment: According to TIA/EIA 568B
 Conductor material: Copper
 Connector: RJ45 shielded, IEC-60603-7-51

Contacts: Gold plated
 Latch prediction: available
 Cable structure: S/FTP
 Raw cable: Cat.7
 Flame retardance: IEC60332-1
 Halogen free: IEC60754-2
 Low smoke: IEC61034

Art.-No.	Description	Colour outer sheath
K8560BL.x	RJ45 Patch cable S/FTP, Cat.6A, TM31, UC900	blue
K8560GE.x	RJ45 Patch cable S/FTP, Cat.6A, TM31, UC900	yellow
K8560GN.x	RJ45 Patch cable S/FTP, Cat.6A, TM31, UC900	green
K8560GR.x	RJ45 Patch cable S/FTP, Cat.6A, TM31, UC900	grey
K8560OR.x	RJ45 Patch cable S/FTP, Cat.6A, TM31, UC900	orange
K8560RT.x	RJ45 Patch cable S/FTP, Cat.6A, TM31, UC900	red
K8560SW.x	RJ45 Patch cable S/FTP, Cat.6A, TM31, UC900	black
K8560WS.x	RJ45 Patch cable S/FTP, Cat.6A, TM31, UC900	white



Stock Lengths: 0,5 - 1,0 - 1,5 - 2,0 - 3,0 - 5,0 - 7,5 - 10 - 15 - 20 - 25 - 30 m

Special features

Jacket material: LSZH
 Cross section: 4 x 2 x AWG27/7
 Cable diameter: 5.9mm
 Cable Type: **Draka UC900 SS27**
 Connector type: **HRS TM31**
 Type of grommet: Mounted bend relief

RJ45 Patch cable S/FTP, Cat.6A, TM21, Dätwyler 7702

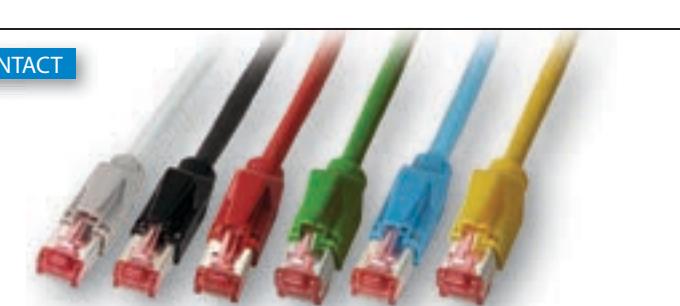
HIROSE TM21 **EMC SAFE** **360° SHIELD CONTACT**

General specifications

Category: Cat.6A
 Transmission: 10Gbit
 Bandwidth: 500MHz
 Assignment: According to TIA/EIA 568B
 Conductor material: Copper
 Connector: RJ45 shielded, IEC-60603-7-51

Contacts: Gold plated
 Latch prediction: available
 Cable structure: S/FTP
 Raw cable: Cat.7
 Flame retardance: IEC60332-1
 Halogen free: IEC60754-2
 Low smoke: IEC61034

Art.-No.	Description	Colour outer sheath
K8708BL.x	RJ45 Patch cable S/FTP, Cat.6A, TM21, Dätwyler 7702	blue
K8708GE.x	RJ45 Patch cable S/FTP, Cat.6A, TM21, Dätwyler 7702	yellow
K8708GN.x	RJ45 Patch cable S/FTP, Cat.6A, TM21, Dätwyler 7702	green
K8708GR.x	RJ45 Patch cable S/FTP, Cat.6A, TM21, Dätwyler 7702	grey
K8708RT.x	RJ45 Patch cable S/FTP, Cat.6A, TM21, Dätwyler 7702	red
K8708SW.x	RJ45 Patch cable S/FTP, Cat.6A, TM21, Dätwyler 7702	black
K8708OR.x	RJ45 Patch cable S/FTP, Cat.6A, TM21, Dätwyler 7702	orange



Stock Lengths: 0,5 - 1,0 - 1,5 - 2,0 - 3,0 - 5,0 - 7,5 - 10 - 15 - 20 - 25 - 30 m

Special features

Jacket material: LSZH
 Cross section: 4 x 2 x AWG27/7
 Cable diameter: 5.8mm
 Cable Type: **Dätwyler Uninet 7702 flex**
 Connector type: **HRS TM21**
 Type of grommet: Mounted bend relief

RJ45 Patch cable S/FTP, Cat.6A, TM21, Leoni-Kerpen F6-90 S/F



Stock Lengths: 0,5 - 1,0 - 1,5 - 2,0 - 3,0 - 5,0 - 7,5 - 10 - 15 - 20 - 25 - 30 m

Special features

Jacket material: LSZH
Cross section: 4 x 2 x AWG27/7
Cable diameter: 5.7mm
Cable Type: **Leoni-Kerpen F6-90 S/F**
Connector type: **HRS TM21**
Type of grommet: Mounted bend relief

HIROSE TM21

EMC SAFE

360° SHIELD CONTACT

General specifications

Category: Cat.6A
Transmission: 10Gbit
Bandwidth: 500MHz
Assignment: According to TIA/EIA 568B
Conductor material: Copper
Connector: RJ45 shielded, IEC-60603-7-51

Contacts: Gold plated
Latch predetction: available
Cable structure: S/FTP
Raw cable: Cat.7
Flame retardance: IEC60332-1
Halogen free: IEC60754-2
Low smoke: IEC61034

Art.-No.	Description	Colour outer sheath
K8210BL.x	RJ45 Patch cable S/FTP, Cat.6A, TM21, Leoni-Kerpen F6-90 S/F	blue
K8210GE.x	RJ45 Patch cable S/FTP, Cat.6A, TM21, Leoni-Kerpen F6-90 S/F	yellow
K8210GN.x	RJ45 Patch cable S/FTP, Cat.6A, TM21, Leoni-Kerpen F6-90 S/F	green
K8210GR.x	RJ45 Patch cable S/FTP, Cat.6A, TM21, Leoni-Kerpen F6-90 S/F	grey
K8210RT.x	RJ45 Patch cable S/FTP, Cat.6A, TM21, Leoni-Kerpen F6-90 S/F	red

RJ45 Patch cable S/FTP, Cat.6A, TM31, Dätwyler 7702



Stock Lengths: 0,5 - 1,0 - 1,5 - 2,0 - 3,0 - 5,0 - 7,5 - 10 - 15 - 20 - 25 - 30 m

Special features

Jacket material: LSZH
Cross section: 4 x 2 x AWG26/7
Cable diameter: 5.8mm
Cable Type: **Dätwyler Uninet 7702 flex**
Connector type: **HRS TM31**
Type of grommet: Mounted bend relief

HIROSE TM31

EMC SAFE

360° SHIELD CONTACT

General specifications

Category: Cat.6A
Transmission: 10Gbit
Bandwidth: 500MHz
Assignment: According to TIA/EIA 568B
Conductor material: Copper
Connector: RJ45 shielded, IEC-60603-7-51

Contacts: Gold plated
Latch predetction: available
Cable structure: S/FTP
Raw cable: Cat.7
Flame retardance: IEC60332-1
Halogen free: IEC60754-2
Low smoke: IEC61034

Art.-No.	Description	Colour outer sheath
K8580BL.x	RJ45 Patch cable S/FTP, Cat.6A, TM31, Dätwyler 7702	blue
K8580GE.x	RJ45 Patch cable S/FTP, Cat.6A, TM31, Dätwyler 7702	yellow
K8580GN.x	RJ45 Patch cable S/FTP, Cat.6A, TM31, Dätwyler 7702	green
K8580GR.x	RJ45 Patch cable S/FTP, Cat.6A, TM31, Dätwyler 7702	grey
K8580RT.x	RJ45 Patch cable S/FTP, Cat.6A, TM31, Dätwyler 7702	red
K8580SW.x	RJ45 Patch cable S/FTP, Cat.6A, TM31, Dätwyler 7702	black

RJ45 Patch cable S/FTP, Cat.6A, 2x TM21 90°, UC900



Stock Lengths: 0,5 - 1,0 - 1,5 - 2,0 - 3,0 - 5,0 - 7,5 - 10 m

Special features

Jacket material: LSZH
Cross section: 4 x 2 x AWG27/7
Cable diameter: 5.9mm
Cable Type: **Draka UC900 SS27**
Connector type: **HRS TM21 90° angled**
Type of grommet: Mounted bend relief

HIROSE TM21

EMC SAFE

360° SHIELD CONTACT

General specifications

Category: Cat.6A
Transmission: 10Gbit
Bandwidth: 500MHz
Assignment: According to TIA/EIA 568B
Conductor material: Copper
Connector: RJ45 shielded, IEC-60603-7-51

Contacts: Gold plated
Latch predetction: available
Cable structure: S/FTP
Raw cable: Cat.7
Flame retardance: IEC60332-1
Halogen free: IEC60754-2
Low smoke: IEC61034

Art.-No.	Description	Colour outer sheath
K4137BL.x	RJ45 Patch cable S/FTP, Cat.6A, 2x TM21 90°, UC900	blue
K4137GE.x	RJ45 Patch cable S/FTP, Cat.6A, 2x TM21 90°, UC900	yellow
K4137GN.x	RJ45 Patch cable S/FTP, Cat.6A, 2x TM21 90°, UC900	green
K4137GR.x	RJ45 Patch cable S/FTP, Cat.6A, 2x TM21 90°, UC900	grey
K4137OR.x	RJ45 Patch cable S/FTP, Cat.6A, 2x TM21 90°, UC900	orange
K4137RT.x	RJ45 Patch cable S/FTP, Cat.6A, 2x TM21 90°, UC900	red
K4137SW.x	RJ45 Patch cable S/FTP, Cat.6A, 2x TM21 90°, UC900	black
K4137WS.x	RJ45 Patch cable S/FTP, Cat.6A, 2x TM21 90°, UC900	white

RJ45 Patch cable S/FTP, Cat.6A, VC LED

LED CONNECTOR

EMC SAFE

360° SHIELD CONTACT

General specifications

Category: Cat.6A
 Transmission: 10Gbit
 Bandwidth: 500MHz
 Assignment: According to TIA/EIA 568B
 Conductor material: Copper
 Connector: RJ45 shielded, IEC-60603-7-51

Contacts: Gold plated
 Latch predetion: available
 Cable structure: S/FTP
 Raw cable: Cat.7
 Flame retardance: IEC60332-1
 Halogen free: IEC60754-2
 Low smoke: IEC61034



Art.-No.	Description	Colour outer sheath
DCK1001BL.x	RJ45 Patch cable S/FTP, Cat.6A, VC LED	blue
DCK1001GE.x	RJ45 Patch cable S/FTP, Cat.6A, VC LED	yellow
DCK1001GN.x	RJ45 Patch cable S/FTP, Cat.6A, VC LED	green
DCK1001GR.x	RJ45 Patch cable S/FTP, Cat.6A, VC LED	grey
DCK1001RT.x	RJ45 Patch cable S/FTP, Cat.6A, VC LED	red
DCK1001SW.x	RJ45 Patch cable S/FTP, Cat.6A, VC LED	black
DCK1001WS.x	RJ45 Patch cable S/FTP, Cat.6A, VC LED	white
DC10001	Detektor, activates LED in LED patch cable	

Stock Lengths: 0,5 - 1,0 - 1,5 - 2,0 - 3,0 - 5,0 - 7,5 - 10 - 15 - 20 - 30 m

Cat.6A 10 Gbit 500 MHz 100°C CU LED
Special features

Jacket material: LSZH
 Cross section: 4 x 2 x AWG27/7
 Connector Type: **VC LED Connector for traceability of the cable run**
 Type of grommet: Mounted bend relief
Length imprint: On bend relief

RJ45 Flat patch cable U/FTP, Cat.6A, PVC

FLAT AND FLEXIBLE

SHORT CONNECTOR

**General specifications**

Category: Cat.6A
 Transmission: 10Gbit
 Bandwidth: 500MHz
 Assignment: According to TIA/EIA 568B

Conductor material: Copper
 Connector: RJ45 shielded, IEC-60603-7-51
 Contacts: Gold plated
 Latch predetion: available
 Cable structure: U/FTP

Art.-No.	Description	Colour outer sheath
K5545BL.x	RJ45 Flat patch cable U/FTP, Cat.6A, PVC	blue
K5545GE.x	RJ45 Flat patch cable U/FTP, Cat.6A, PVC	yellow
K5545GN.x	RJ45 Flat patch cable U/FTP, Cat.6A, PVC	green
K5545GR.x	RJ45 Flat patch cable U/FTP, Cat.6A, PVC	grey
K5545RT.x	RJ45 Flat patch cable U/FTP, Cat.6A, PVC	red
K5545SW.x	RJ45 Flat patch cable U/FTP, Cat.6A, PVC	black
K5545WS.x	RJ45 Flat patch cable U/FTP, Cat.6A, PVC	white

Stock Lengths: 0,25 - 0,5 - 1,0 - 1,5 - 2,0 - 3,0 - 5,0 m

Cat.6A 10 Gbit 500 MHz 100°C CU PVC
Special features

Jacket material: PVC
 Cross section: 4 x 2 x **AWG30/7**
 Cable diameter: **7.0x2.2mm**
 Cable Type: **Flat patch cable**
 Connector type: **Short connector**
 Type of grommet: Moulded bend relief, slim version

RJ45 Patch cable U/FTP, Cat.6A, Raw cable TPE, 4,0mm ultraflex

ULTRAFLEX

SMALL BENDING RADIUS

PACKING DENSITY

**General specifications**

Category: Cat.6A
 Transmission: 10Gbit
 Bandwidth: 500MHz
 Assignment: According to TIA/EIA 568B

Conductor material: Copper
 Connector: RJ45 shielded, IEC-60603-7-51
 Contacts: Gold plated
 Latch predetion: available
 Cable structure: U/FTP

Art.-No.	Description	Colour outer sheath
K5547SW.x	RJ45 Patch cable U/FTP, Cat.6A, Raw cable TPE 4,0mm ultraflex	black
K5547WS.x	RJ45 Patch cable U/FTP, Cat.6A, Raw cable TPE 4,0mm ultraflex	white

Stock Lengths: 0,15 - 0,25 - 0,5 - 1,0 - 2,0 - 3,0 - 5,0 - 7,5 - 10 m

Cat.6A 10 Gbit 500 MHz 100°C CU TPE
Special features

Jacket material: **TPE**
 Cross section: 4 x 2 x **AWG30/7**
 Cable diameter: **4.0mm**
 Connector type: **Short connector**
 Type of grommet: Moulded bend relief, slim version

RJ45 Patch cable S/UTP, Cat.5e, TM11, Dätwyler UNINET PVC



Stock Lengths: 0,5 - 1,0 - 2,0 - 3,0 - 5,0 - 7,5 - 10 - 15 - 20 - 25 - 30 m
Stock Lengths K0993: 0,5 - 1,0 - 3,0 - 5,0 - 10 - 20 m

Cat 5e **25 Gbit** **100 MHz** **100% Cu** **EMC safe**

Special features

Jacket material: PVC
Cross section: 4 x 2 x AWG26/7
Cable diameter: 5.1mm
Cable Type: **Dätwyler Uninet 5502 flex**
Connector type: **HRS TM11**
Type of grommet: Mounted bend relief



K0993.x

HIROSE TM11
360° SHIELD CONTACT

EMC SAFE
S/UTP FLEXIBLE

General specifications

Category: Cat.5e
Transmission: 2.5Gbit
Bandwidth: 100MHz
Assignment: According to TIA/EIA 568B

Conductor material: Copper

Connector: RJ45 shielded, IEC-60603-7-3

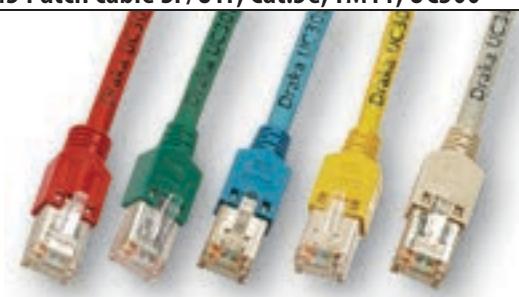
Contacts: Gold plated

Latch prediction: not available

Cable structure: S/UTP

Art.-No.	Description	Colour outer sheath
K8701.x	RJ45 Patch cable S/UTP, Cat.5e, TM11, Dätwyler UNINET PVC	grey
K8702.x	RJ45 Patch cable S/UTP, Cat.5e, TM11, Dätwyler UNINET PVC	yellow
K8703.x	RJ45 Patch cable S/UTP, Cat.5e, TM11, Dätwyler UNINET PVC	red
K8704.x	RJ45 Patch cable S/UTP, Cat.5e, TM11, Dätwyler UNINET PVC	blue
K8705.x	RJ45 Patch cable S/UTP, Cat.5e, TM11, Dätwyler UNINET PVC	black
K8706.x	RJ45 Patch cable S/UTP, Cat.5e, TM11, Dätwyler UNINET PVC	green
K0993.x	RJ45 Patch cable S/UTP, Cat.5e, 1x TM11 90° / TM11, PVC	black

RJ45 Patch cable SF/UTP, Cat.5e, TM11, UC300



Stock Lengths: 0,5 - 1,0 - 1,5 - 2,0 - 3,0 - 5,0 - 7,5 - 10 - 15 - 20 - 25 - 30 m
Stock Lengths K2793: 0,5 - 1,0 - 2,0 - 3,0 - 5,0 - 7,5 - 10 - 15 - 20 m

Cat 5e **25 Gbit** **100 MHz** **100% Cu** **EMC safe**

Special features

Jacket material: LSZH
Cross section: 4 x 2 x AWG26/7
Cable diameter: 5.7mm
Cable Type: **Draka UC300 HS26**
Connector type: **HRS TM11**
Type of grommet: Mounted bend relief



K2793.x

HIROSE TM11

EMC SAFE

360° SHIELD CONTACT

General specifications

Category: Cat.5e
Transmission: 2.5Gbit
Bandwidth: 100MHz
Assignment: According to TIA/EIA 568B
Conductor material: Copper
Connector: RJ45 shielded, IEC-60603-7-3

Contacts: Gold plated

Latch prediction: not available

Cable structure: **SF/UTP, double shielded**

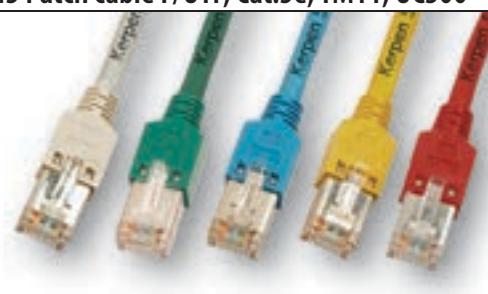
Flame retardance: IEC60332-1

Halogen free: IEC60754-2

Low smoke: IEC61034

Art.-No.	Description	Colour outer sheath
K8012.x	RJ45 Patch cable SF/UTP, Cat.5e, TM11, UC300	red
K8013.x	RJ45 Patch cable SF/UTP, Cat.5e, TM11, UC300	green
K8014.x	RJ45 Patch cable SF/UTP, Cat.5e, TM11, UC300	blue
K8015.x	RJ45 Patch cable SF/UTP, Cat.5e, TM11, UC300	yellow
K8017.x	RJ45 Patch cable SF/UTP, Cat.5e, TM11, UC300	grey
K2793.x	RJ45 Crossover Patch cable SF/UTP, Cat.5e, TM11, UC300	red

RJ45 Patch cable F/UTP, Cat.5e, TM11, UC300



Stock Lengths: 0,5 - 1,0 - 1,5 - 2,0 - 3,0 - 5,0 - 7,5 - 10 - 15 - 20 - 25 - 30 m

Cat 5e **25 Gbit** **100 MHz** **100% Cu** **EMC safe**

HIROSE TM11

EMC SAFE

360° SHIELD CONTACT

General specifications

Category: Cat.5e
Transmission: 2.5Gbit
Bandwidth: 100MHz
Assignment: According to TIA/EIA 568B
Conductor material: Copper
Connector: RJ45 shielded, IEC-60603-7-3

Contacts: Gold plated

Latch prediction: not available

Cable structure: F/UTP

Flame retardance: IEC60332-1

Halogen free: IEC60754-2

Low smoke: IEC61034

Art.-No.	Description	Colour outer sheath
K8072.x	RJ45 Patch cable F/UTP, Cat.5e, TM11, UC300	black
K8073.x	RJ45 Patch cable F/UTP, Cat.5e, TM11, UC300	green
K8074.x	RJ45 Patch cable F/UTP, Cat.5e, TM11, UC300	blue
K8075.x	RJ45 Patch cable F/UTP, Cat.5e, TM11, UC300	yellow
K8076.x	RJ45 Patch cable F/UTP, Cat.5e, TM11, UC300	red
K8452.x	RJ45 Patch cable F/UTP, Cat.5e, TM11, UC300	grey

RJ45 Patch cable SF/UTP, Cat.5e, PVC, CCA

INEXPENSIVE!

TOPSELLER

General specifications

Category: Cat.5e
 Transmission: 2.5Gbit
 Bandwidth: 100MHz
 Assignment: According to TIA/EIA 568B
 Connector: RJ45 shielded, IEC-60603-7-3
 Contacts: Gold plated

Art.-No.	Description	Colour outer sheath
K5455.x	RJ45 Patch cable SF/UTP, Cat.5e, PVC, CCA	grey
K5456.x	RJ45 Patch cable SF/UTP, Cat.5e, PVC, CCA	black
K5457.x	RJ45 Patch cable SF/UTP, Cat.5e, PVC, CCA	yellow
K5458.x	RJ45 Patch cable SF/UTP, Cat.5e, PVC, CCA	red
K5459.x	RJ45 Patch cable SF/UTP, Cat.5e, PVC, CCA	blue
K5460.x	RJ45 Patch cable SF/UTP, Cat.5e, PVC, CCA	green
K5450.x	RJ45 Crossover Patch cable SF/UTP, Cat.5e, CCA (red boot)	grey



Stock Lengths: 0,15 - 0,25 - 0,3 - 0,5 - 0,7 - 1,0 - 1,5 - 2,0 - 3,0 - 5,0 - 7,5 - 10 - 15 - 20 - 25 - 30 m
 Stock Lengths K5450: 0,5 - 1,0 - 2,0 - 3,0 - 5,0 - 10 - 15 - 20 m

Cat.5e | 2.5 Gbit | 100 MHz | CCA | PVC



K5450.x

Special features

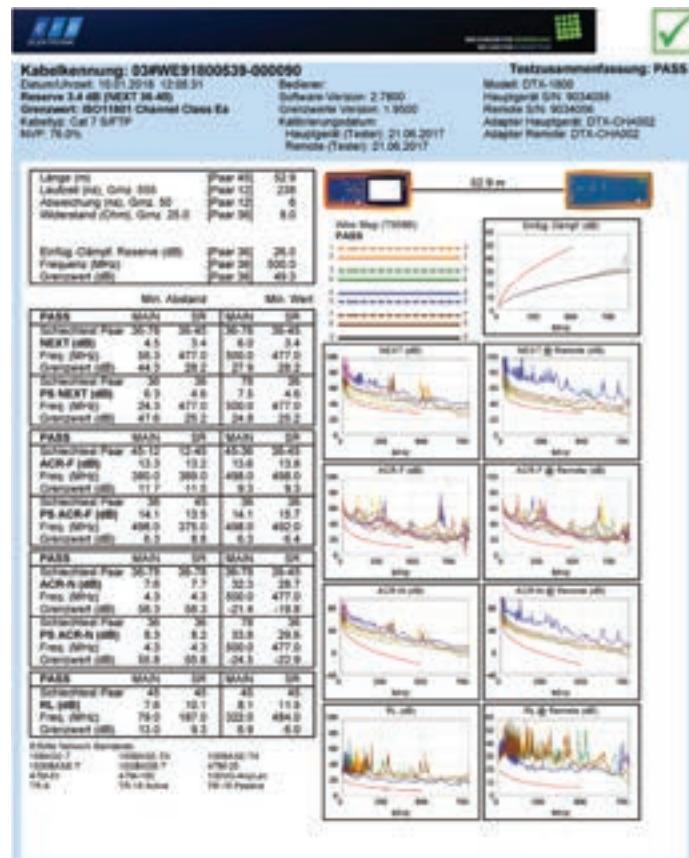
Conductor material: CCA
 Jacket material: PVC
 Cross section: 4 x 2 x AWG26/7
Cable structure: SF/UTP, double shielded
 Cable diameter: 5.7mm
 Type of grommet: moulded bend relief (**patented**)
 Latch predetection: available
Length imprint: on bend relief

OUR SERVICE IN THE FIELD OF COPPER CABLING

EFB-Elektronik offers various measurements for all kind of cable assemblies of the portfolio. At the Headquarter in Bielefeld, attenuation measurements are carried out on patch cables or pre-assembled links. The measured cables can be assigned via a serial number attached to the cable.

1. DLOKUPFER-Dämpfung	IL measurement for patch cable inclusive, label with serial number, lead time for 200pcs. approx. 3 working days plus regular picking time
2. DLO004	Assembling of label on both sides of cable, lead time for 200pcs. approx. 3 working days plus regular picking time

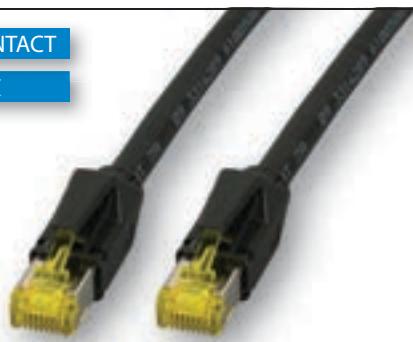
* lead time for other quantities on request



Category/ Bandwidth	Art.-No.:	Shielded AWG	Boot / Length Imprint	Jacket	Cable Diameter	Conductive Shield	Flexibility	Raw cable acc. to Cat.7	Temperature Range		Certifications		Exceptional Features		
									IP Protection	Connector	Conductor	UL Approved			
10 Gigabit Ethernet	K2460.x	Cat.6 / 250MHz	S/FTP AWG26/7	moulded / no	FR-PVC black	6,2mm	yes	yes	—	usual	selected shield contact	yes	100% Copper	RJ45 ultra short	IP20 -10°C - +75°C Fluke 2 CLASS E yes VOIP use favored
5 Gigabit Ethernet	K3130.x	Cat.6A / 500MHz	S/FTP AWG26/7	mounted / no	PUR red	6,4mm	yes	yes	yes	superflex	RJ45 with 360° shield contact	yes	100% Copper	TM31 HIROSE	IP20 -40°C - +70°C Fluke 2 CLASS EA no Superflex, UV-resistant, outdoor, temperature stable, Made in Europe, EMC safe, TM31
2.5 Gigabit Ethernet	K5530.x	Cat.5e / 100MHz	S/UTP AWG26/7	moulded / no	PUR RAL6018 green	6,2mm	yes	yes	—	superflex	RJ45 with 360° shield contact	no	100% Copper	RJ45 Standard	IP20 -40 °C - +80°C Fluke 2 CLASS D no EtherCat, temperature stable
Gigabit Ethernet	K5535xx.x	Cat.6A / 500MHz	S/FTP AWG26/7	moulded / no	FR-PVC grey	6,2mm	yes	yes	yes	usual	selected shield contact	yes	100% Copper	RJ45 Standard	IP20 -10°C - +75°C Fluke 4 CLASS EA yes 100% test, single test protocol
	K5537xx.x	Cat.6A / 500MHz	S/FTP AWG24/7	moulded / no	FR-PVC grey	6,8mm	yes	yes	yes	usual	RJ45 with 360° shield contact	yes	100% Copper	RJ45 special	IP20 -10°C - +75°C Fluke 2 CLASS EA yes Longlink up to 90m
	K5538xx.x	Cat.6A / 500MHz	S/FTP AWG26/7	moulded / no	TPF black	6,2mm	yes	yes	yes	superflex	RJ45 with 360° shield contact	yes	100% Copper	RJ45 special	IP20 -40 °C - +80°C Fluke 4 CLASS EA no Superflex, UV-resistant, temperature stable
	K8032.x	Cat.5e / 100MHz	S/UTP AWG26/19	mounted / no	PUR RAL1021 yellow	6,9mm	yes	yes	—	extremely good / drag chain	RJ45 with 360° shield contact	no	100% Copper	TM21 HIROSE	IP20 -40 °C - +85°C Fluke 2 CLASS D no Extremely flexible, dragline capable, oil-resistant, Made in Europe, EMC safe, TM21
	K8048PUx	Cat.6A / 500MHz	S/FTP AWG27/7	mounted / no	PUR red	5,9mm	yes	yes	yes	superflex	RJ45 with 360° shield contact	yes	100% Copper	TM21 HIROSE	IP20 -35°C - +75°C Fluke 2 CLASS EA no Superflex, oil-and UV-resistant, Made in Europe, EMC safe, TM21
	K8670.x	Cat.6A / 500MHz	S/FTP AWG27/7		IP20 + IP67 mounted / no	5,9mm	yes	yes	yes	superflex	RJ45 with 360° shield contact	yes	100% Copper	TM21 HIROSE + IP67	IP20 -35°C - +75°C Fluke 2 CLASS EA no Superflex, oil-and UV-resistant, Made in Europe, EMC safe, TM21 + TM21IP67

RJ45 Patch cable S/FTP, Cat.6A, PUR, Cat.7 Raw cable, TM31

HIROSE TM31	EMC SAFE	360° SHIELD CONTACT
OUTDOOR USE	UV RESISTANT	SUPERFLEX



Special features

Jacket material: PUR

Suitable for outside use, not for direct burial

Cross section: 4 x 2 x AWG26/7

Cable diameter: 6.4mm

Cable Type: Draka PATCH PRO FLEX CAT 7

Connector type: HRS TM31

Type of grommet: Mounted bend relief

Art.-No.	Description	Colour outer sheath
K3130.x	RJ45 Patch cable S/FTP, Cat.6A, PUR, Cat.7 Raw cable, TM31	black

Stock Lengths: 0,3 - 0,5 - 1,0 - 2,0 - 3,0 - 5,0 - 7,5 - 10 - 30 - 50 m

Cat.6A 10 Gbit 500 MHz 100% CU 100% SR PUR

General specifications

Category: Cat.6A

Transmission: 10Gbit

Bandwidth: 500MHz

Assignment: According to TIA/EIA 568B

Conductor material: Copper

Connector: RJ45 shielded, IEC-60603-7-51

Contacts: Gold plated

Latch prediction: available

Cable structure: S/FTP

Raw cable: Cat.7

Flame retardance: IEC60332-1

Halogen free: IEC60754-2

Low smoke: IEC61034

RJ45 Patch cable S/FTP, Cat.6A, TM21, UC900, PUR

HIROSE TM21	EMC SAFE	360° SHIELD CONTACT
OIL RESISTANT	UV RESISTANT	SUPERFLEX



Special features

Resistant to mineral oil, ASTM oil

UV resistance: IEC60068-2-5

Ozone resistance: EN60811-2-1

Jacket material: PUR, highly abrasion-resistant

Temperature range: -35°C ~ +75°C

Cross section: 4 x 2 x AWG27/7

Cable diameter: 5.9mm

Cable Type: Draka UC900 SS27 Cat.7 PUR

Connector type: HRS TM21

Type of grommet: Mounted bend relief

Art.-No.	Description	Colour outer sheath
K8048PUlx	RJ45 Patch cable S/FTP, Cat.6A, TM21, UC900, PUR	red

Stock Lengths: 1,0 - 2,0 - 3,0 - 5,0 m

Cat.6A 10 Gbit 500 MHz 100% CU 100% SR PUR

General specifications

Category: Cat.6A

Transmission: 10Gbit

Bandwidth: 500MHz

Assignment: According to TIA/EIA 568B

Conductor material: Copper

Connector: RJ45 shielded, IEC-60603-7-51

Contacts: Gold plated

Latch prediction: available

Cable structure: S/FTP

Raw cable: Cat.7

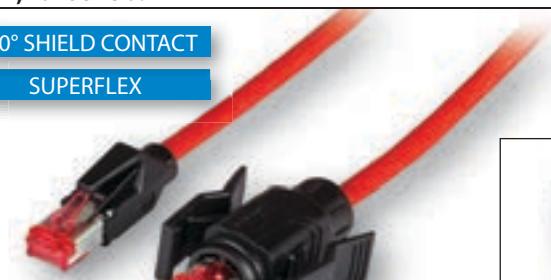
Flame retardance: IEC60332-1

Halogen free: IEC60754-2

Low smoke: IEC61034

RJ45 Patch cable S/FTP, Cat.6A, IP67/TM21, PUR, for 53730.1V2

HIROSE TM21/IP67	EMC SAFE	360° SHIELD CONTACT
OUTDOOR USE	UV RESISTANT	SUPERFLEX



Special features

Resistant to mineral oil, ASTM oil

UV resistance: IEC60068-2-5

Ozone resistance: EN60811-2-1

Jacket material: PUR, highly abrasion-resistant

Temperature range: -35°C ~ +75°C

Cross section: 4 x 2 x AWG27/7

Cable diameter: 5.9mm

Cable Type: Draka UC900 SS27 Cat.7 PUR

Connector type: 1x HRS TM21, 1x HRS TM21 IP67

Type of grommet: Mounted bend relief

Art.-No.	Description	Colour outer sheath
K8670.x	RJ45 Patch cable S/FTP, Cat.6A, IP67/TM21, PUR, for 53730.1V2	red

Stock Lengths: 1,0 - 2,0 - 5,0 - 10 - 15 m

Cat.6A 10 Gbit 500 MHz 100% CU 100% SR PUR

General specifications

Category: Cat.6A

Transmission: 10Gbit

Bandwidth: 500MHz

Assignment: According to TIA/EIA 568B

Conductor material: Copper

Connector: RJ45 shielded, IEC-60603-7-51

Contacts: Gold plated

Latch prediction: available

Cable structure: S/FTP

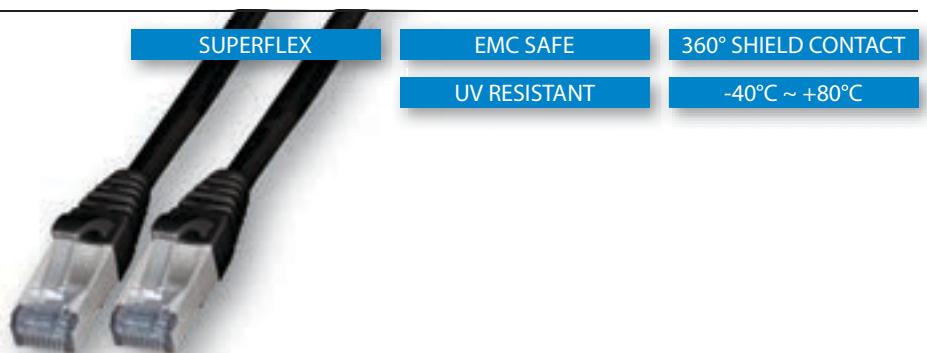
Raw cable: Cat.7

Flame retardance: IEC60332-1

Halogen free: IEC60754-2

Low smoke: IEC61034

RJ45 Patch cable S/FTP, Cat.6A, TPE



Stock Lengths: 1,0 - 2,0 - 3,0 - 5,0 - 7,5 - 10 - 15 - 20 m

Cat.6A **10 Gbit** **500 MHz** **100% CU** **TPE**

Special features

Jacket material: **Extremely flexible TPE jacket (superflex)**

UV resistance

Cross section: 4 x 2 x AWG26/7

Cable diameter: 6.2mm

Type of grommet: moulded bend relief, slim version

Temperature range: **-40°C ~ +80°C**

General specifications

Category: Cat.6A

Transmission: 10Gbit

Bandwidth: 500MHz

Assignment: According to TIA/EIA 568B

Conductor material: Copper

Connector: RJ45 shielded, IEC-60603-7-51

Contacts: Gold plated

Latch predetction: available

Cable structure: S/FTP

Flame retardance: IEC60332-1

Halogen free: IEC60754-2

Low smoke: IEC61034

Art.-No.	Description	Colour outer sheath
K5538SW.x	RJ45 Patch cable S/FTP, Cat.6A, TPE	black

RJ45 Patch cable S/FTP, Cat.6A, PVC, UL



Stock Lengths: 0,5 - 1,0 - 2,0 - 3,0 - 5,0 - 10 - 20 - 30 m

Cat.6A **10 Gbit** **500 MHz** **100% CU** **UL**

Special features

UL approbated

Jacket material: PVC

Cross section: 4 x 2 x AWG26/7

Cable diameter: 6.5mm

Type of grommet: moulded bend relief, slim version

Temperature range: **-25°C ~ +60°C**

Serial number: Label on cable

Measuring predocol: **100% tested**

General specifications

Category: Cat.6A

Transmission: 10Gbit

Bandwidth: 500MHz

Assignment: According to TIA/EIA 568B

Conductor material: Copper

Connector: RJ45 shielded, IEC-60603-7-51

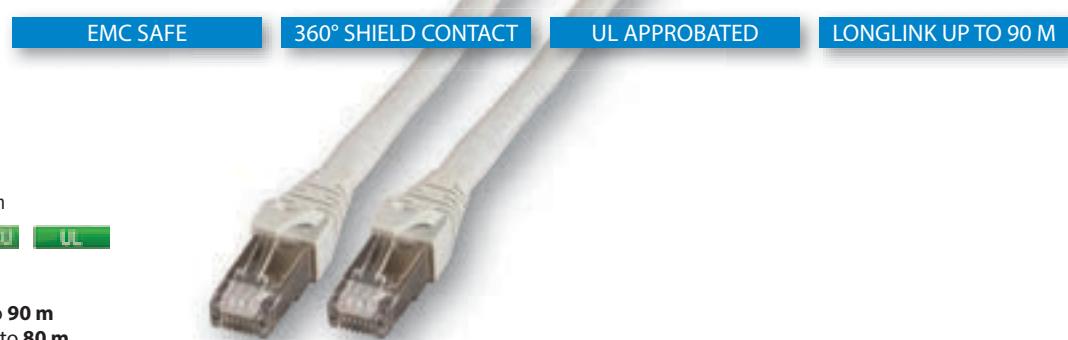
Contacts: Gold plated

Latch predetction: available

Cable structure: S/FTP

Art.-No.	Description	Colour outer sheath
K5535GR.x	RJ45 Patch cable S/FTP, Cat.6A, PVC, UL	grey

RJ45 Patch cable S/FTP, Cat.6A, PVC, UL, Longlink



Stock Lengths: 20 - 30 - 40 - 50 - 60 - 70 - 80 - 90 m

Cat.6A **10 Gbit** **500 MHz** **100% CU** **UL**

Special features

Cat.6A (TIA) patch cable length: Up to **90 m**

Class EA (ISO) patch cable length: Up to **80 m**

Advantages compared to installation cable with field assembled RJ45 plugs:

More cable flexibility, smaller bending radius, pre-assembled

UL approbated

Jacket material: PVC

Cross section: 4 x 2 x **AWG24/7**

Cable diameter: 6.5mm

Type of grommet: moulded bend relief, slim version

Packaging: ring or drum

General specifications

Category: Cat.6A

Transmission: 10Gbit

Bandwidth: 500MHz

Assignment: According to TIA/EIA 568B

Conductor material: Copper

Connector: RJ45 shielded, IEC-60603-7-51

Contacts: Gold plated

Latch predetction: available

Cable structure: S/FTP

Art.-No.	Description	Colour outer sheath
K5537GR.x	RJ45 Patch cable S/FTP, Cat.6A, PVC, UL, Longlink	grey

RJ45 Patch cable S/FTP, Cat.6, PVC, short connector, UL

VOIP-USE

SHORT CONNECTOR

UL APPROBATED



Stock Lengths: 1,0 - 2,0 - 3,0 - 6,0 - 10 m

Cat.6 5 Gbit 250 MHz 100% CU UL
General specifications

Category: Cat.6
 Transmission: 5Gbit
 Bandwidth: 250MHz
 Assignment: According to TIA/EIA 568B

Conductor material: Copper
 Connector: RJ45 shielded, IEC-60603-7-5
 Contacts: Gold plated
 Latch predetion: available
 Cable structure: S/FTP

Art.-No.	Description	Colour outer sheath
K2460.x	RJ45 Patch cable S/FTP, Cat.6, PVC, short boot, UL	black

Special features

For VOIP-applications

UL approbated

Jacket material: PVC
 Cross section: 4 x 2 x AWG26/7
 Cable diameter: 6.5mm

Connector type: **Extremely short (27.3mm incl. bend relief)**
 Type of grommet: moulded bend relief, slim version

RJ45 Patch cable S/UTP, Cat.5e, PUR Superflex drag chain suitable

EXTREMELY FLEXIBLE

FOR DRAG CHAIN

EMC SAFE

OIL RESISTANT

360° SHIELD CONTACT

HIROSE TM21



Stock Lengths: 1,0 - 2,0 - 3,0 - 5,0 m

Cat.5e 2.5 Gbit 100 MHz 100% CU HRS TM21 PUR
General specifications

Category: Cat.5e
 Transmission: 2.5Gbit
 Bandwidth: 100MHz
 Assignment: According to TIA/EIA 568B
 Conductor material: Copper
 Connector: RJ45 shielded, IEC-60603-7-3

Contacts: Gold plated
 Latch predetion: available
 Cable structure: S/UTP
 Flame retardance: IEC60332-1
 Halogen free: IEC60754-2
 Low smoke: IEC61034

Art.-No.	Description	Colour outer sheath
K8032.x	RJ45 Patch cable S/UTP, Cat.5e, PUR Superflex drag chain	yellow

Special featuresBending test (with load): VDE0472 part 603, **suitable for draglines****Oil-resistant:** EN60811-2-1**Ozone-resistant:** EN60811Jacket material: **Pur, RAL1021 rape yellow**Cross section: 4 x 2 x **AWG26/19**

Cable diameter: 6.8mm

Cable Type: **Leoni-Kerpen MegaLine superflex**Connector type: **HRS TM21**

Type of grommet: Mounted bend relief

RJ45 Patch cable SF/UTP, Cat.5e, PUR, RAL6018

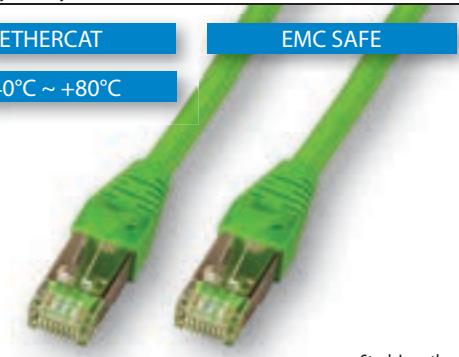
SUPERFLEX

ETHERCAT

EMC SAFE

360° SHIELD CONTACT

-40°C ~ +80°C



Stock Lengths: 0,5 - 1,0 - 2,0 - 3,0 - 5,0 - 7,5 - 10 - 15 - 20 - 25 m

Cat.5e 2.5 Gbit 100 MHz 100% CU PUR
General specifications

Category: Cat.5e
 Transmission: 2.5Gbit
 Bandwidth: 100MHz
 Assignment: According to TIA/EIA 568B

Conductor material: Copper
 Connector: RJ45 shielded, IEC-60603-7-3
 Contacts: Gold plated
 Latch predetion: available
 Cable structure: **SF/UTP, double shielded**

Art.-No.	Description	Colour outer sheath
K5530.x	RJ45 Patch cable SF/UTP, Cat.5e, PUR, RAL6018	green

Special featuresApplication: **EtherCat**Jacket material: **Pur, RAL6018**Temperature range **-40°C .. +80°C**

Cross section: 4 x 2 x AWG26/7

Cable diameter: 6.2mm

Type of grommet: Moulded bend relief, slim version

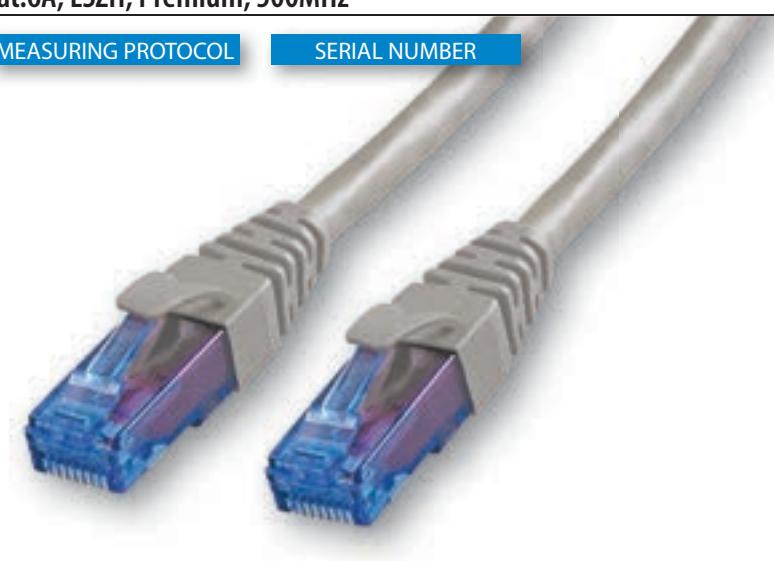
Exceptional Features										
UL Approved										
Certifications										
Temperature Range										
IP Protection										
Connector										
Conductor										
Klinkenschutz										
Flexibility										
10 Gigabit Ethernet										
5 Gigabit Ethernet										
2.5 Gigabit Ethernet										
Gigabit Ethernet										
Cable Diameter										
Jacket										
Boot / Length Imprint										
Unshielded AWG										
Category/ Bandwidth										
Art.-No.:										
K8097.x	Cat.5e / 100MHz	U/UTP AWG24/7	red moulded / yes	PVC grey	5,4mm	yes	—	usual	no	CCA RJ45 Standard
K809x.x	Cat.5e / 100MHz	U/UTP AWG24/7	moulded / yes	PVC coloured	5,4mm	yes	—	usual	no	CCA RJ45 Standard
K8100xx.x	Cat.6 / 250MHz	U/UTP AWG24/7	moulded / yes	PVC coloured	5,9mm	yes	—	usual	no	CCA RJ45 Standard
K8103GR.x	Cat.6A / 500MHz	U/UTP AWG24/7	moulded / no	LSZH grey	6,0mm	yes	yes	usual	yes	RJ45 blue
K8104xx.x	Cat.6 / 250MHz	U/UTP AWG30/7	moulded / yes	LSZH coloured	5,9mm	yes	yes	—	usual	CCA RJ45 Standard
K8107xx.x	Cat.6A / 500MHz	U/UTP AWG30/7	moulded / no	PVC coloured	6,0x1,6mm	yes	yes	yes	very good	RJ45 ultra short
K8108xx.x	Cat.6A / 500MHz	U/UTP AWG30/7	moulded / yes	TPE coloured	3,6mm	yes	yes	yes	ultraflex	yes
K8110xx.x	Cat.5e / 100MHz	U/UTP AWG24/7	moulded / yes	LSZH coloured	5,4mm	yes	—	—	usual	yes
K8456.x	Cat.5e / 100MHz	U/UTP AWG24/7	moulded / yes	PVC grey	5,4mm	yes	—	—	usual	no

RJ45 Patch cable U/UTP, Cat.6A, LSZH, Premium, 500MHz

100%-TESTED

MEASURING PROTOCOL

SERIAL NUMBER



General specifications

Category: Cat.6A
 Transmission: 10Gbit
 Bandwidth: 500MHz
 Assignment: According to TIA/EIA 568B
 Conductor material: Copper
 Connector: RJ45 unshielded, IEC-60603-7-51

Contacts: Gold plated
 Latch predetion: available
 Cable structure: U/UTP
 Flame retardance: IEC60332-1
 Halogen free: IEC60754-2
 Low smoke: IEC61034

Art.-No.	Description	Colour outer sheath
K8103GR.x	RJ45 Patch cable U/UTP, Cat.6A, LSZH, Premium, 500MHz	grey

Stock Lengths: 0,5 - 1,0 - 2,0 - 3,0 - 5,0 - 7,5 - 10 - 15 m

Cat.6A
10 Gbit
500 MHz
100% CU

Special features

Jacket material: LSZH
 Cross section: 4 x 2 x **AWG24/7**
 Cable diameter: 6.0mm
 Type of grommet: moulded bend relief, slim version
Serial number: Label on cable
 Measuring predocol: **100% tested**

RJ45 Patch cable U/UTP, Cat.6A, Raw cable TPE, 3,6mm ultraflex

ULTRAFLEX

SMALL BENDING RADIUS

PACKING DENSITY



General specifications

Category: Cat.6A
 Transmission: 10Gbit
 Bandwidth: 500MHz
 Assignment: According to TIA/EIA 568B
 Conductor material: Copper

Connector: RJ45 unshielded, IEC-60603-7-51
 Contacts: Gold plated
 Latch predetion: available
 Cable structure: U/UTP

Art.-No.	Description	Colour outer sheath
K8108SW.x	RJ45 Patch cable U/UTP, Cat.6A, Raw cable TPE 3,6mm ultraflex	black
K8108WS.x	RJ45 Patch cable U/UTP, Cat.6A, Raw cable TPE 3,6mm ultraflex	white

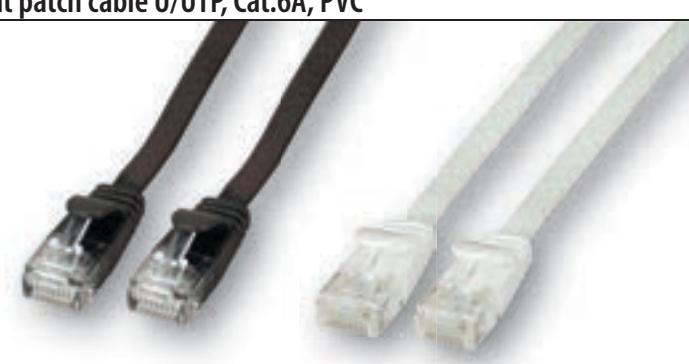
Stock Lengths: 0,15 - 0,25 - 0,5 - 1,0 - 2,0 - 3,0 - 5,0 - 7,5 - 10 m

Cat.6A
10 Gbit
500 MHz
100% CU

Special features

Jacket material: **TPE**
 Cross section: 4 x 2 x **AWG30/7**
 Cable diameter: **3.6mm**
Connector type: Short connector
 Type of grommet: Moulded bend relief, slim version

RJ45 Flat patch cable U/UTP, Cat.6A, PVC



FLAT AND FLEXIBLE

SHORT CONNECTOR

Stock Lengths: 0,25 - 0,5 - 1,0 - 1,5 - 2,0 - 3,0 - 5,0 m

Cat.6A | 10 Gbit | 500 MHz | 100% CLU | PVC

Special features

Jacket material: PVC

Cross section: 4 x 2 x AWG30/7

Cable diameter: 6.0x1.6mm

Cable Type: Flat patch cable

Connector type: Short connector

Type of grommet: Moulded bend relief, slim version

General specifications

Category: Cat.6A

Transmission: 10Gbit

Bandwidth: 500MHz

Assignment: According to TIA/EIA 568B

Conductor material: Copper

Connector: RJ45 unshielded, IEC-60603-7-51

Contacts: Gold plated

Latch predetion: available

Cable structure: U/UTP

Art.-No.	Description	Colour outer sheath
K8107SW.x	RJ45 Flat patch cable U/UTP, Cat.6A, PVC	black
K8107WS.x	RJ45 Flat patch cable U/UTP, Cat.6A, PVC	white

RJ45 Patch cable U/UTP, Cat.6, PVC, CCA

9 COLOURS

INEXPENSIVE!

TOPSELLER



Stock Lengths: 0,25 - 0,5 - 1,0 - 1,5 - 2,0 - 3,0 - 5,0 - 7,5 - 10 - 15 - 20 - 30 m

Cat.6 | 5 Gbit | 250 MHz | CCA | PVC

Special features

Jacket material: PVC

Cross section: 4 x 2 x AWG24/7

Cable diameter: 5.9mm

Type of grommet: moulded bend relief, slim version

Length imprint: on bend relief

General specifications

Category: Cat.6

Transmission: 5Gbit

Bandwidth: 250MHz

Assignment: According to TIA/EIA 568B

Conductor material: CCA

Connector: RJ45 unshielded, IEC-60603-7-5

Contacts: Gold plated

Without latch predetion

Cable structure: U/UTP

Art.-No.	Description	Colour outer sheath
K8100GR.x	RJ45 Patch cable U/UTP, Cat.6, PVC, CCA	grey
K8100BL.x	RJ45 Patch cable U/UTP, Cat.6, PVC, CCA	blue
K8100GE.x	RJ45 Patch cable U/UTP, Cat.6, PVC, CCA	yellow
K8100GN.x	RJ45 Patch cable U/UTP, Cat.6, PVC, CCA	green
K8100MA.x	RJ45 Patch cable U/UTP, Cat.6, PVC, CCA	magenta
K8100OR.x	RJ45 Patch cable U/UTP, Cat.6, PVC, CCA	orange
K8100RT.x	RJ45 Patch cable U/UTP, Cat.6, PVC, CCA	red
K8100SW.x	RJ45 Patch cable U/UTP, Cat.6, PVC, CCA	black
K8100WS.x	RJ45 Patch cable U/UTP, Cat.6, PVC, CCA	white

RJ45 Patch cable U/UTP, Cat.6, LSZH, CCA

7 COLOURS

INEXPENSIVE!



Stock Lengths: 0,25 - 0,5 - 1,0 - 1,5 - 2,0 - 3,0 - 5,0 - 7,5 - 10 - 15 - 20 m

Cat.6 | 5 Gbit | 250 MHz | CCA

Special features

Jacket material: LSZH

Cross section: 4 x 2 x AWG24/7

Cable diameter: 5.9mm

Type of grommet: moulded bend relief, slim version

General specifications

Category: Cat.6

Transmission: 5Gbit

Bandwidth: 250MHz

Assignment: According to TIA/EIA 568B

Conductor material: CCA

Connector: RJ45 unshielded, IEC-60603-7-5

Contacts: Gold plated

Latch predetion: available

Cable structure: U/UTP

Flame retardance: IEC60332-1

Halogen free: IEC60754-2

Low smoke: IEC61034

Art.-No.	Description	Colour outer sheath
K8104BL.x	RJ45 Patch cable U/UTP, Cat.6, LSZH, CCA	blue
K8104GE.x	RJ45 Patch cable U/UTP, Cat.6, LSZH, CCA	yellow
K8104GN.x	RJ45 Patch cable U/UTP, Cat.6, LSZH, CCA	green
K8104GR.x	RJ45 Patch cable U/UTP, Cat.6, LSZH, CCA	grey
K8104RT.x	RJ45 Patch cable U/UTP, Cat.6, LSZH, CCA	red
K8104SW.x	RJ45 Patch cable U/UTP, Cat.6, LSZH, CCA	black
K8104WS.x	RJ45 Patch cable U/UTP, Cat.6, LSZH, CCA	white

RJ45 Patch cable U/UTP, Cat.5e, PVC, CCA

9 COLOURS

INEXPENSIVE!

TOPSELLER


General specifications

Category: Cat.5e	Contacts: Gold plated
Transmission: 2.5Gbit	Latch predetion: not available
Bandwidth: 100MHz	Cable structure: U/UTP
Assignment: According to TIA/EIA 568B	
Conductor material: CCA	
Connector: RJ45 unshielded, IEC-60603-7-3	

Art.-No.	Description	Colour outer sheath
K8091.x	RJ45 Patch cable U/UTP, Cat.5e, PVC, CCA	magenta
K8092.x	RJ45 Patch cable U/UTP, Cat.5e, PVC, CCA	white
K8093.x	RJ45 Patch cable U/UTP, Cat.5e, PVC, CCA	green
K8094.x	RJ45 Patch cable U/UTP, Cat.5e, PVC, CCA	blue
K8095.x	RJ45 Patch cable U/UTP, Cat.5e, PVC, CCA	yellow
K8096.x	RJ45 Patch cable U/UTP, Cat.5e, PVC, CCA	red
K8098.x	RJ45 Patch cable U/UTP, Cat.5e, PVC, CCA	black
K8099.x	RJ45 Patch cable U/UTP, Cat.5e, PVC, CCA	orange
K8456.x	RJ45 Patch cable U/UTP, Cat.5e, PVC, CCA	grey

Stock Lengths: 0,5 - 1,0 - 1,5 - 2,0 - 3,0 - 5,0 - 7,5 - 10 - 15 - 20 - 30 m

Special features

Jacket material: PVC
Cross section: 4 x 2 x **AWG24/7**
Cable diameter: 5.4mm
Type of grommet: Moulded bend relief

RJ45 Patch Cable Cat.5e U/UTP LSZH, CCA

6 COLOURS

INEXPENSIVE!


General specifications

Category: Cat.5e	Contacts: Gold plated
Transmission: 2.5Gbit	Latch predetion: not available
Bandwidth: 100MHz	Cable structure: U/UTP
Assignment: According to TIA/EIA 568B	Flame retardance: IEC60332-1
Conductor material: CCA	Halogen free: IEC60754-2
Connector: RJ45 unshielded, IEC-60603-7-3	Low smoke: IEC61034

Art.-No.	Description	Colour outer sheath
K8110BL.x	RJ45 Patch cable U/UTP, Cat.5e, LSZH, CCA, AWG24/7	blue
K8110GE.x	RJ45 Patch cable U/UTP, Cat.5e, LSZH, CCA, AWG24/7	yellow
K8110GN.x	RJ45 Patch cable U/UTP, Cat.5e, LSZH, CCA, AWG24/7	green
K8110GR.x	RJ45 Patch cable U/UTP, Cat.5e, LSZH, CCA, AWG24/7	grey
K8110RT.x	RJ45 Patch cable U/UTP, Cat.5e, LSZH, CCA, AWG24/7	red
K8110WS.x	RJ45 Patch cable U/UTP, Cat.5e, LSZH, CCA, AWG24/7	white

Stock Lengths: 0,5 - 1,0 - 1,5 - 2,0 - 3,0 - 5,0 - 7,5 - 10 - 15 - 20 - 25 - 30 - 50 m

Special features

Jacket material: LSZH
Cross section: 4 x 2 x **AWG24/7**
Cable diameter: 5.4mm
Type of grommet: Moulded bend relief, slim version

RJ45 Crossover Patch cable U/UTP, Cat.5e, PVC, CCA

CROSSOVER

INEXPENSIVE!



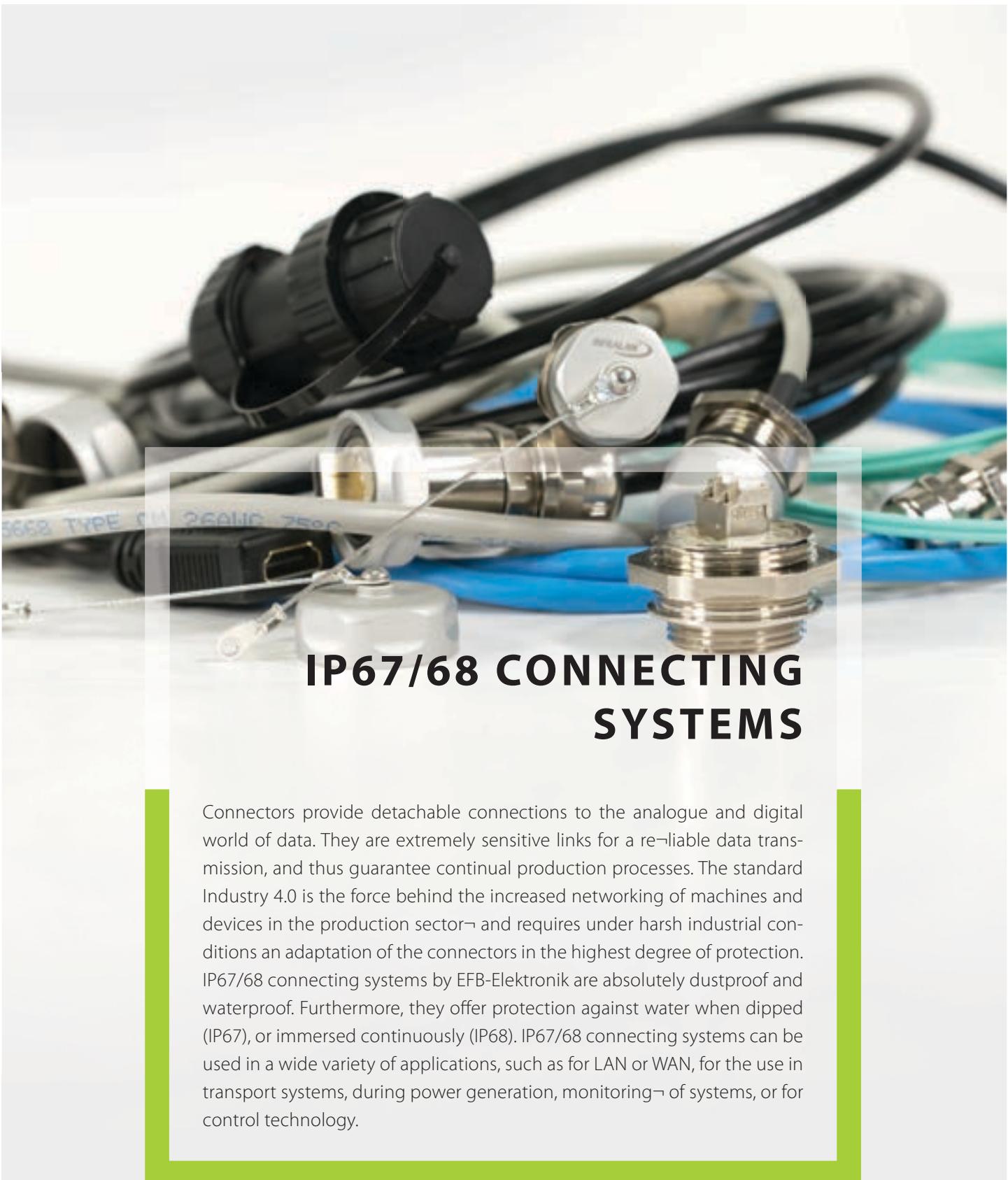
Stock Lengths: 0,5 - 2,0 - 7,5 - 10 - 15 - 20 - 25 - 30 m

General specifications

Category: Cat.5e	Connector: RJ45 unshielded, IEC-60603-7-3
Transmission: 2.5Gbit	Contacts: Gold plated
Bandwidth: 100MHz	Latch predetion: not available
Assignment: According to TIA/EIA 568B	Cable structure: U/UTP
Conductor material: CCA	

Art.-No.	Description	Colour outer sheath
K8097.x	RJ45 Crossover Patch cable U/UTP, Cat.5e, PVC, CCA, (red boot)	grey

Special features
Type of cable: **Gigabit Crossover patch cable**
Assignment: 1-3, 2-6, 3-1, 4-7, 5-8, 6-2, 7-4, 8-5
Jacket material: PVC
Cross section: 4 x 2 x **AWG24/7**
Cable diameter: 5.4mm
Type of grommet: Moulded bend relief, slim version, red



IP67/68 CONNECTING SYSTEMS

Connectors provide detachable connections to the analogue and digital world of data. They are extremely sensitive links for a reliable data transmission, and thus guarantee continual production processes. The standard Industry 4.0 is the force behind the increased networking of machines and devices in the production sector and requires under harsh industrial conditions an adaptation of the connectors in the highest degree of protection. IP67/68 connecting systems by EFB-Elektronik are absolutely dustproof and waterproof. Furthermore, they offer protection against water when dipped (IP67), or immersed continuously (IP68). IP67/68 connecting systems can be used in a wide variety of applications, such as for LAN or WAN, for the use in transport systems, during power generation, monitoring of systems, or for control technology.

COPPER

IP protection ratings according to IEC 60 529 (EN 60 529)

The abbreviation IP stands for International Protection.

Connecting systems fit for industry are divided according to their suitability for various environmental conditions by IP coding, in the form of a two-digit number. The first digit stands for the extent of protection of a connection with regard to contact and/or foreign bodies. The second digit classifies the protection against humidity.

IP 67/68 connectors

- dustproof
- waterproof
- 100% contact protection
- 100% humidity protection
- 100% weather protection

1. Characteristic numeral Protection against foreign bodies and electric shock		2. Characteristic numeral Protection against water
0	No protection	No protection
1	Protection against foreign bodies - protection against the ingress of solid foreign bodies with a diameter greater than 50 mm	Protection against vertically falling water drops Protection against dripping water that falls vertically
2	Protection against medium-sized foreign bodies - protection against the ingress of foreign bodies with a diameter greater than 12 mm	Protection against water drops falling at an angle Protection against water drops falling up to 15° from the vertical
3	Protection against small foreign bodies - protection against the ingress of solid foreign bodies with a diameter greater than 2.5 mm	Protection against spraying water Protection against water drops falling up to 60° from the vertical (spraying water)
4	Protection against grainy foreign bodies - protection against the ingress of solid foreign bodies with a diameter greater than 1 mm	Protection against splashing water Protection against water coming from all directions (splashing water)
5	Protection against dust deposits - protection against harmful dust deposits. The ingress of dust is not completely prevented, but the way in which the equipment works must not be impaired (dust-protected)	Protection against jet water - protection against a water jet from a nozzle coming from all directions (jet-water)
6	Protection against ingress of dust - Protection against ingress of dust (dust-tight)	Flooding protection - Protection against the effects of heavy seas or strong water jets
7		Protection when immersed - Protection against water when immersed under defined pressure and time conditions (e.g. 1m for 0.5 h)
8		Suitable for continuous submersion under defined conditions (e.g. 1m for 1.0 h)

Example:	IP67		
1st characteristic numeral	6	Protection against the ingress of dust	
2nd characteristic numeral	7	Protection when immersed	

IP67 Distribution Box Cat.6A

Housing: Complete with 2 x Cat.6A RJ45 Keystone, IP67 strip for patch cable IP67 (K8670.x) and 2 x cable glands M16

Housing entry: 2 x cable glands M16 for data cable (reference Cat.7 UC900)

Housing outlet: 2 x Cat.6A RJ45 Keystone with IP67 strip

Plastic housing

Dimension W x H x D: 80 x 45 x 110 mm

Recommended Patch Cable: K8670.x

Art.-No.	Description
53730.1V2	IP67 Distribution Box with 2xRJ45 Ports, Cat.6A, 2xM16 couplings

IP67 Receptacle, M25, RJ45 Cat.6A E-20070

Category:..... 6A (TIA)

Model:..... Jack (Jack)

Type of connector:..... RJ45 8(8)

Screened:..... Yes

Connection type:..... IDC

AWG-range for litz wire conductor:..... 26 – 24

AWG-range for solid core:..... 24 – 22

Type of housing:..... Brass Nickel-plated

Type of locking:..... M25

Dust cover:..... Yes

Art.-No.	Description
IP67EBRJ45KSFL	IP67 Receptacle, M25, RJ45 Cat.6A E-20070, for Cat.5/6/7 cable

IP67 Metal adapter, M25, RJ45 Cat.6A, F-F, guy rope

Category:..... 6A (TIA)

Screened:..... Yes

Type of connector connection 1:..... RJ45 8(8)

Type of connector connection 2:..... RJ45 8(8)

Type of housing:..... Brass Nickel-plated

Connection 1:..... RJ45 8(8) jack

Type of locking:..... M25

Dust cover:..... Captive

Suitable for degree of protection (IP):.... IP67

Art.-No.	Description
IP67DFKRJ45FLHS	IP67 Metal adapter, M25, RJ45 Cat.6A, F-F, service port, guy rope

RJ45 Patch cable S/FTP, Cat.6A, IP67/TM21 / TM21, PUR, for 53730.1V2

Category:..... 6A (IEC)

Cable type:..... S/FTP

Type of connector connection 1:..... RJ45 8(8)

Type of connector connection 2:..... RJ45 8(8)

Halogen free:..... True

Cable construction:..... 4x2

Pin assignment:..... 1:1

AWG-size:..... 27

Degree of protection (IP):..... IP67

Stock Lengths: 1.0 - 2.0 - 5.0 - 10 - 15 m

Art.-No.	Description	Colour outer sheath
K8670.x	RJ45 Patch cable S/FTP, Cat.6A, IP67/TM21 / TM21, PUR, for 53730.1V2	red

IP67 Cable gland, M25, RJ45 TM31, M-M

Stock Lengths: 1.0 - 2.0 - 5.0 - 10 m

Category:..... 6A (TIA)

Cable type:..... S/FTP

Type of connector connection 1:..... RJ45 8(8)

Type of connector connection 2:..... RJ45 8(8)

Flame retardant version:..... Yes

Halogen free:..... Yes

Cable construction:..... 4x2

Pin assignment:..... 1:1

AWG-size:..... 27

Type of housing:..... Brass Nickel-plated

Art.-No.	Description	Colour outer sheath
IP67KVRJ45TM31-x	IP67 Cable gland, M25, RJ45 TM31, Plug to TM31 Plug	blue

IP67 Metal adapter, M25, RJ45 Cat.6A, F-F

Category:..... 6A (TIA)

Screened:..... Yes

Type of connector connection 1:..... RJ45 8(8)

Type of connector connection 2:..... RJ45 8(8)

Type of housing:..... Brass Nickel-plated

Connection 1:..... RJ45 8(8) jack

Type of locking:..... M25

Dust cover:..... Yes

Suitable for degree of protection (IP):.... IP67

Art.-No.	Description
IP67DFKRJ45FL	IP67 Metal adapter, M25, RJ45 Cat.6A, F-F

IP67 Metal adapter, M25, LC Duplex ceramic sleeve

Type of connector connection 1:.....LC-Duplex
 Type of connector connection 2:.....LC-Duplex
 Type of housing:.....Brass Nickel-plated
 Type of locking:.....M25
 Dust cover:Yes
 Suitable for degree of protection (IP):.....IP67

Art.-No.	Description
IP67DFKLCDM	IP67 Metal adapter, M25, LC Duplex ceramic sleeve

IP67 Metal adapter, M25, LC Duplex ceramic sleeve, guy rope

Type of connector connection 1:.....LC-Duplex
 Type of connector connection 2:.....LC-Duplex
 Type of housing:.....Brass nickel-plated
 Type of locking:.....M25
 Dust cover:Captive
 Suitable for degree of protection (IP):.....IP67

Art.-No.	Description
IP67DFKLCDMHS	IP67 Metal adapter, M25, LC Duplex ceramic sleeve, service port, guy rope

IP67 Cable gland, M25, LC Duplex, OM3

Stock Lengths: 2.0 - 5.0 - 10 - 20 m

Fibre type:.....Multimode 50/125
 Category:.....OM3
 Number of fibres:.....2
 Cable Ø:2.0
 Flame retardant:.....According to EN 50265-2-1
 Halogen free (according to EN 50267-2-3):.....Yes
 Type of connector connection 1:.....LC-Duplex
 Type of connector connection 2:.....LC-Duplex

Art.-No.	Description	Colour outer sheath
IP67KVLCDOM3-x	IP67 Cable gland, M25, LC-D Plug to LC-D Plug, OM3	aqua

IP67 Cable gland, M25, LC Duplex, OS2

Stock Lengths: 2.0 - 5.0 - 10.0 - 20.0 m

Fibre type:.....Singlemode
 Category:.....OS2
 Number of fibres:.....2
 Cable Ø:2.0
 Flame retardant:.....According to EN 50265-2-1
 Halogen free (according to EN 50267-2-3):.....Yes
 Type of connector connection 1:.....LC-Duplex
 Type of connector connection 2:.....LC-Duplex

Art.-No.	Description	Colour outer sheath
IP67KVLCDOS2-x	IP67 Cable gland, M25, LC-D Plug to LC-D Plug, OS2	yellow

IP67 Cable gland, M20, USB2.0, M-M, A-A**IP67 Cable gland, M20, USB2.0, M-M, B-A**

IP 67 | IP 68

Type of connector connection 1:.....USB-A plug
 Type of connector connection 2:.....USB-A plug
 Type of housing:.....Brass Nickel-plated
 Type of locking:.....M20
 Suitable for degree of protection (IP):....IP67

Art.-No.	Description	Colour
IP67KVUSBA-A1,0	IP67 Cable gland, M20, USB2.0 Plug Type-A to Plug Type-A, 1.0m	grey

IP67 Metal adapter, M20, USB3.0, F-F, A-A

Connection 1:.....USB-A jack
 Connection 2:.....USB-A jack
 Type of housing:.....Brass nickel-plated
 Type of locking:.....M20
 Dust cover:Yes
 Suitable for degree of protection (IP):....IP67

Art.-No.	Description
IP67DFKUSBFL	IP67 Metal adapter, M20, USB3.0 jack Type-A to jack Type-A

Type of connector connection 1:.....USB-B plug
 Type of connector connection 2:.....USB-A plug
 Type of housing:.....Brass Nickel-plated
 Type of locking:.....M20
 Suitable for degree of protection (IP):....IP67

Art.-No.	Description	Colour
IP67KVUSB-B-A1,0	IP67 Cable gland, M20, USB2.0 Plug Type-B to Plug Type-A, 1.0m	grey

IP67 Metal adapter, M20, USB3.0, F-F, A-A, guy rope

Connection 1:.....USB-A jack
 Connection 2:.....USB-A jack
 Type of housing:.....Brass nickel-plated
 Type of locking:.....M20
 Dust cover:Captive
 Suitable for degree of protection (IP):....IP67

Art.-No.	Description
IP67DFKUSBFLHS	IP67 Metal adapter, M20, USB3.0, F-F, A-A, service port, guy rope

IP67 Receptacle, M20, USB2.0, F-M, A-A

Type of connector connection 1:.....USB-A jack
 Type of connector connection 2:.....USB-A plug
 Type of housing:.....Brass Nickel-plated
 Type of locking:.....M20
 Dust cover:Yes
 Suitable for degree of protection (IP):....IP67

Art.-No.	Description	Colour
IP67EBUSBA-A0,5FL	IP67 Receptacle, M20, USB2.0, F-M, A-A, 0.5m	grey

IP67 Receptacle, M20, USB2.0, F-M, A-B

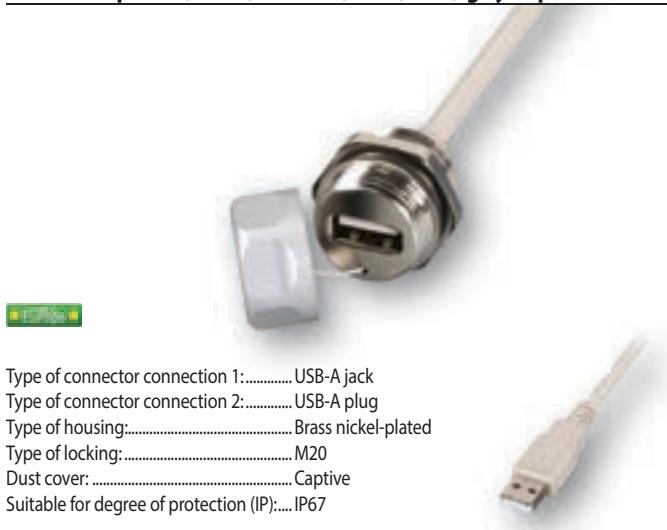
Type of connector connection 1:.....USB-A jack
 Type of connector connection 2:.....USB-B plug
 Type of housing:.....Brass Nickel-plated
 Type of locking:.....M20
 Dust cover:Yes
 Suitable for degree of protection (IP):....IP67

Art.-No.	Description	Colour
IP67EBUSBA-B0,5FL	IP67 Receptacle, M20, USB2.0, F-M, A-B, 0.5m	grey

IP67 Receptacle, M20, USB2.0, F-M, B-B

Type of connector connection 1:.....USB-B jack
 Type of connector connection 2:.....USB-B plug
 Type of housing:.....Brass Nickel-plated
 Type of locking:.....M20
 Dust cover:Yes
 Suitable for degree of protection (IP):....IP67

Art.-No.	Description	Colour
IP67EBUSBB-B0,5FL	IP67 Receptacle, M20, USB2.0, F-M, B-B, 0.5m	grey

IP67 Receptacle, M20, USB2.0, F-M, A-A, guy rope

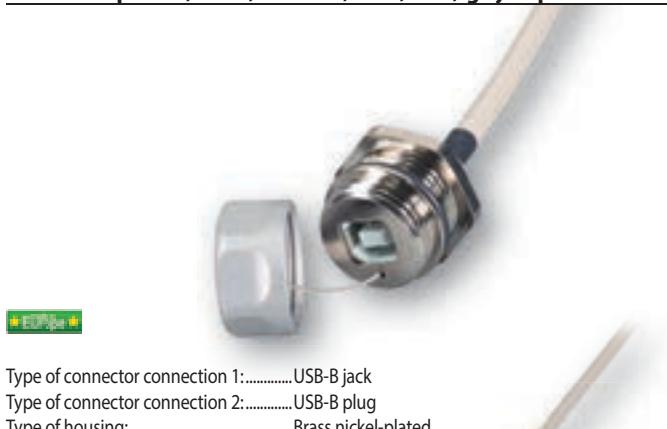
Type of connector connection 1:.....USB-A jack
 Type of connector connection 2:.....USB-A plug
 Type of housing:.....Brass nickel-plated
 Type of locking:.....M20
 Dust cover:Captive
 Suitable for degree of protection (IP):....IP67

Art.-No.	Description	Colour
IP67EBUSBA-A0,5FLHS	IP67 Receptacle, M20, USB2.0, F-M, A-A, service port, guy rope, 0.5m	grey

IP67 Receptacle, M20, USB2.0, F-M, A-B, guy rope

Type of connector connection 1:.....USB-A jack
 Type of connector connection 2:.....USB-B plug
 Type of housing:.....Brass nickel-plated
 Type of locking:.....M20
 Dust cover:Captive
 Suitable for degree of protection (IP):....IP67

Art.-No.	Description	Colour
IP67EBUSBA-B0,5FLHS	IP67 Receptacle, M20, USB2.0, F-M, A-B, service port, guy rope, 0.5m	grey

IP67 Receptacle, M20, USB2.0, F-M, B-B, guy rope

Type of connector connection 1:.....USB-B jack
 Type of connector connection 2:.....USB-B plug
 Type of housing:.....Brass nickel-plated
 Type of locking:.....M20
 Dust cover:Captive
 Suitable for degree of protection (IP):....IP67

Art.-No.	Description	Colour
IP67EBUSBB-B0,5FLHS	IP67 Receptacle, M20, USB2.0, F-M, B-B, service port, guy rope, 0.5m	grey

IP67 Cable gland, M25, HDMI2.0, M-M, A-A

Type of connector connection 1:.....HDMI jack
 Type of connector connection 2:.....HDMI plug
 Type of housing:.....Brass nickel-plated
 Type of locking:.....M25
 Suitable for degree of protection (IP):....IP67



Art.-No.	Description	Colour
IP67KVHDMIA-A1,0	IP67 Cable gland, M25, HDMI2.0, Plug Type-A to Plug Type-A, 1.0m	black

IP67 Metal adapter, M25, HDMI2.0, F-F, A-A

Connection 1:.....HDMI-A jack
 Connection 2:.....HDMI-A jack
 Type of housing:.....Brass nickel-plated
 Type of locking:.....M25
 Dust cover:Yes
 Suitable for degree of protection (IP):....IP67



Art.-No.	Description
IP67DFKHMIFL	IP67 Metal adapter, M25, HDMI2.0, F-F, A-A

IP67 Receptacle, M25, HDMI2.0, F-M, A-A

Type of connector connection 1:.....HDMI jack
 Type of connector connection 2:.....HDMI plug
 Type of housing:.....Brass Nickel-plated
 Type of locking:.....M25
 Dust cover:Yes
 Suitable for degree of protection (IP):....IP67



Art.-No.	Description	Colour
IP67EBHDMIA-A0,5FL	IP67 Receptacle, M25, HDMI2.0, F-M, A-A, 0.5m	black

IP67 Metal adapter, M25, HDMI2.0, F-F, A-A, guy rope

Connection 1:.....HDMI-A jack
 Connection 2:.....HDMI-A jack
 Type of housing:.....Brass nickel-plated
 Type of locking:.....M25
 Dust cover:Captive
 Suitable for degree of protection (IP):....IP67



Art.-No.	Description
IP67DFKHMIFLHS	IP67 Metal adapter, M25, HDMI2.0, F-F, A-A, service port, guy rope

IP67 Receptacle, M25, HDMI2.0, F-M, A-A, guy rope

Type of connector connection 1:.....HDMI jack
 Type of connector connection 2:.....HDMI plug
 Type of housing:.....Brass nickel-plated
 Type of locking:.....M25
 Dust cover:Captive
 Suitable for degree of protection (IP):....IP67



Art.-No.	Description	Colour
IP67EBHDMIA-A0,5FLHS	IP67 Receptacle, M25, HDMI2.0, F-M, A-A, service port, guy rope, 0.5m	black

IP68 Receptacle for keystone modules and adapters



IP68 Socket Housing for all EFB-Elektronik keystone modules and adapters
With bayonet lock to IEC61076-3-106
M30 mounting with silicone seal
Mounting diameter: 30mm
Suitable for use with Keystone modules, Snap-in and keystone mounting adapters
Straight outlet 180 °
Delivery unequipped

Accessories:

IP68 Cap: IP68EBCAP

Utilization:.....Modular-Jack
With dust cover:.....Yes
Material:.....Plastic
Type of locking:.....Bayonet lock
Suitable for degree of protection (IP):.....IP68

Art.-No.	Description
IP68EBKS	IP68 Receptacle for keystone modules and adapters, Bayonet locking



IP68 Dust cap



IP68 Dust cap
With Bayonet locking acc. to IEC61076-3-106
Mounting ring - captive
Material: Plastic black

IP68EBCAP

Accessories for: IP68 Receptacle: IP68EBKS

IP68STCAP

Accessories for: IP68 Cable gland: IP68FST6AA, IP68FST6AB, IP68ST6ATM

Utilization:.....Blind cover
With dust cover:.....Yes
Material:.....Plastic
Type of locking:.....Bayonet lock
Suitable for degree of protection (IP):.....IP68

Art.-No.	Description
IP68EBCAP	IP68 Dust cap for receptacles, Bayonet locking acc. to IEC61076-3-106
IP68STCAP	IP68 Dust cap for cable gland, Bayonet locking acc. to IEC61076-3-106

IP68 Cable gland for RJ45 field assembly plugs, 4.5-6.5mm



IP68 cable gland for RJ45 field-assembly plugs
With bayonet lock to IEC61076-3-106
Straight outlet 180 °

Delivery unequipped

Scope of delivery:

3-part consisting of:
1x IP68 cable gland housing (without plug)
1x Cable seal (IP68FST6AA: 4.5-6.5mm / IP68FSP6AB: 6.5-9.0mm)
1x Strain relief fitting

Accessories:

IP68 cap: IP68STCAP
Field assembly plug: 88035.1, 88035UTP.1, 88035AV.1, IVB-6A-S

Utilization:.....Cable outlet
With dust cover:.....Yes
Material:.....Plastic
Type of locking:.....Bayonet lock
Suitable for degree of protection (IP):.....IP68



Art.-No.	Description
IP68FST6AA	IP68 Cable gland for RJ45 field assembly plugs, sealing for 4.5-6.5mm OD
IP68FST6AB	IP68 Cable gland for RJ45 field assembly plugs, sealing for 6.5-9.0mm OD

IP68 Cable gland for RJ45 HRS TM11/21/31 St



IP68 cable gland for RJ45 plug: Hirose TM11/21/31
With bayonet lock to IEC61076-3-106
Straight outlet 180 °

Delivery unequipped

Scope of delivery:

3-part consisting of:
1x IP68 cable gland housing (without plug)
1x Cable gland 4,5-6,5mm
1x Strain relief fitting

Accessories:

IP68 Cap: IP68STCAP

Utilization:.....Cable outlet
With dust cover:.....Yes
Material:.....Plastic
Type of locking:.....Bayonet lock
Suitable for degree of protection (IP):.....IP68

Art.-No.	Description
IP68ST6ATM	IP68 Cable gland for RJ45 HRS TM11/21/31 St, Bayonet locking



PATCH PANEL & DATA OUTLET

A patch panel is a handover point that is used to connect, distribute and patch connections, and can be used to organize complex cable structures. Patch panels are located in distribution cabinets and are the passive components of a network. Examples for active components are switches or routers. A simple change of patch cables, enables the problem-free switching of communication services in a workstation without changing the wiring. EFB-Elektronik offers various types of patch panels, such as 0.5 U and 1 U patch panels with 8 ports, 12 ports or 24 ports in 10" and 19". To connect the distribution cabinet to the user, the horizontal cables are installed into data outlets, which can be used in floor tanks, ducts or wall outlets. For this purpose, EFB-Elektronik offers 2-port data outlets in various category up to Cat. 6A.

COPPER

Patchpanel STP 24xRJ45 Cat.6A, 19" 1U

Special features

Category: Cat.6A
 Transmission: 10Gbit
 Bandwidth: 500MHz
 Number of height units: 1
 Cover: with quick release

General specifications

Ports: 24 x RJ45
 Shielded Version
 Mounting method: 19"
 Cross section: AWG24..AWG22
 Connection type: LSA terminal
 Colour code: according to TIA/EIA 568A/B
 Contacts: gold plated
 Ground terminal

Cat.6A
10 Gbit
500 MHz

Art.-No.	Description	Colour
37666.1M	Patchpanel STP 24xRJ45 Cat.6A, 19" 1U, RAL7035	grey
37666SW.1M	Patchpanel STP 24xRJ45 Cat.6A, 19" 1U, RAL9005	black



Patchpanel STP 24xRJ45 Cat.6A, 19" 0,5U

Special features

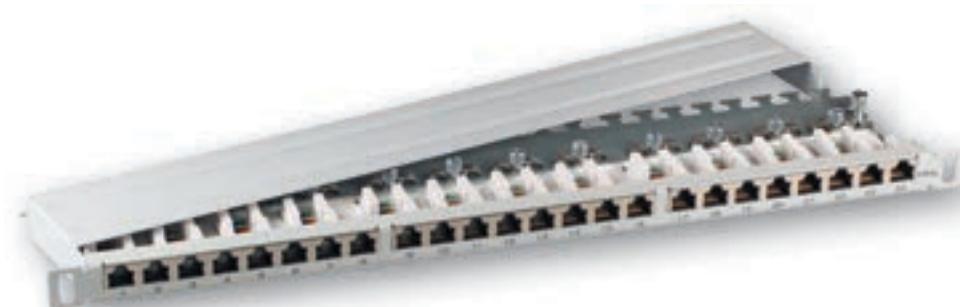
Category: Cat.6A
 Transmission: 10Gbit
 Bandwidth: 500MHz
 Number of height units: 0.5
 Cover: with clip closure

General specifications

Ports: 24 x RJ45
 Shielded Version
 Mounting method: 19"
 Cross section: AWG24..AWG22
 Connection type: LSA terminal
 Colour code: according to TIA/EIA 568A/B
 Contacts: gold plated
 Ground terminal

Cat.6A
10 Gbit
500 MHz

Art.-No.	Description	Colour
37666.5V1	Patchpanel STP 24xRJ45 Cat.6A, 19" 0,5U, RAL7035	grey
37666SW.5V1	Patchpanel STP 24xRJ45 Cat.6A, 19" 0,5U, RAL9005	black



Patchpanel STP 24xRJ45 Cat.6A/Class EA, 19" 1U

Special features

Category: Cat.6A
 Transmission: 10Gbit
 Bandwidth: 500MHz
 Number of height units: 1
 Cover: with screw closure
With captive dust protection

General specifications

Ports: 24 x RJ45
 Shielded Version
 Mounting method: 19"
 Cross section: AWG24..AWG22
 Connection type: LSA terminal
 Colour code: according to TIA/EIA 568A/B
 Contacts: gold plated
 Ground terminal

Cat.6A
10 Gbit
500 MHz

Art.-No.	Description	Colour
37656.1	Patchpanel STP 24xRJ45 Cat.6A/Class EA, 19" 1U, RAL9005	black

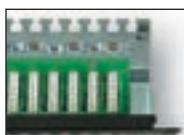


Patchpanel STP 24xRJ45 Cat.6, 19" 1U



Special features
 Category: Cat.6
 Transmission: 5Gbit
 Bandwidth: 250MHz
 Number of height units: 1
 Cover: with quick release

General specifications
 Ports: 24 x RJ45
 Shielded Version
 Mounting method: 19"
 Cross section: AWG24..AWG22
 Connection type: LSA terminal
 Colour code: according to TIA/EIA 568A/B
 Contacts: gold plated
 Ground terminal



Cat.6 2.5 Gbit 250 MHz

Art.-No.	Description	Colour
37667.1M	Patchpanel STP 24xRJ45 Cat.6, 19" 1U, RAL7035	grey
37667SW.1M	Patchpanel STP 24xRJ45 Cat.6, 19" 1U, RAL9005	black

Patchpanel STP 24xRJ45 Cat.5e, 19" 1U



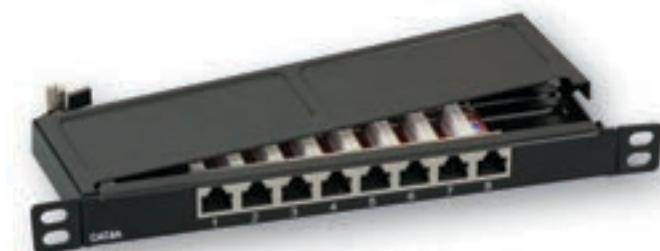
Special features
 Category: Cat.5e
 Transmission: 2.5Gbit
 Bandwidth: 100MHz
 Number of height units: 1
 Cover: with quick release

General specifications
 Ports: 24 x RJ45
 Shielded Version
 Mounting method: 19"
 Cross section: AWG24..AWG22
 Connection type: LSA terminal
 Colour code: according to TIA/EIA 568A/B
 Contacts: gold plated
 Ground terminal

Cat.5e 2.5 Gbit 100 MHz

Art.-No.	Description	Colour
37668.1M	Patchpanel STP 24xRJ45 Cat.5e, 19" 1U, RAL7035	grey

Mini-Patchpanel STP Cat.6A, 10" 0,5U



Special features
 Category: Cat.6A
 Transmission: 10Gbit
 Bandwidth: 500MHz
 Number of height units: 0.5
 Cover: with quick release

General specifications
 Shielded Version
 Mounting method: 10" / Wall / DIN rail
 Cross section: AWG24..AWG22
 Connection type: LSA terminal
 Colour code: according to TIA/EIA 568A/B
 Contacts: gold plated
 Ground terminal



Cat.6A 10 Gbit 500 MHz

Art.-No.	Description	Colour
37738.8	Mini-Patchpanel STP 8xRJ45 Cat.6A, 10" 0,5U, RAL7035	grey
37738SW.8	Mini-Patchpanel STP 8xRJ45 Cat.6A, 10" 0,5U, RAL9005	black
37738.12	Mini-Patchpanel STP 12xRJ45 Cat.6A, 10" 0,5U, RAL7035	grey
37738SW.12	Mini-Patchpanel STP 12xRJ45 Cat.6A, 10" 0,5U, RAL9005	black

Suitable mounting for 10"-, wall- and optional DIN rail via DIN rail holder set (H83030.1)

Mini-Patchpanel STP Cat.6A, 10" 1U

Special features

Category: Cat.6A
 Transmission: 10Gbit
 Bandwidth: 500MHz
 Number of height units: 1
 Cover: with quick release

General specifications

Shielded Version
 Mounting method: 10" / Wall / DIN rail
 Cross section: AWG24..AWG22
 Connection type: LSA terminal
 Colour code: according to TIA/EIA 568A/B
 Contacts: gold plated
 Ground terminal

Art.-No.	Description	Colour
37737.8	Mini-Patchpanel STP 8xRJ45 Cat.6A, 10" 1U, RAL7035	grey
37737SW.8	Mini-Patchpanel STP 8xRJ45 Cat.6A, 10" 1U, RAL9005	black
37737.12	Mini-Patchpanel STP 12xRJ45 Cat.6A, 10" 1U, RAL7035	grey
37737SW.12	Mini-Patchpanel STP 12xRJ45 Cat.6A, 10" 1U, RAL9005	black



Cat.6A 10 Gbit 500 MHz



Suitable mounting for 10"-, wall- and optional DIN rail via DIN rail holder set (H83030.1)

Mini-Patchpanel STP Cat.6, 10" 1U

Special features

Category: Cat.6
 Transmission: 5Gbit
 Bandwidth: 250MHz
 Number of height units: 1
 Cover: with quick release

General specifications

Shielded Version
 Mounting method: 10" / Wall / DIN rail
 Cross section: AWG24..AWG22
 Connection type: LSA terminal
 Colour code: according to TIA/EIA 568A/B
 Contacts: gold plated
 Ground terminal

Art.-No.	Description	Colour
37736.8	Mini-Patchpanel STP 8xRJ45 Cat.6, 10" 1U, RAL7035	grey
37736SW.8	Mini-Patchpanel STP 8xRJ45 Cat.6, 10" 1U, RAL9005	black
37736.12	Mini-Patchpanel STP 12xRJ45 Cat.6, 10" 1U, RAL7035	grey
37736SW.12	Mini-Patchpanel STP 12xRJ45 Cat.6, 10" 1U, RAL9005	black



Cat.6 5 Gbit 250 MHz



Suitable mounting for 10"-, wall- and optional DIN rail via DIN rail holder set (H83030.1)

Mini-Patchpanel STP Cat.5e, 10" 1U

Special features

Category: Cat.5e
 Transmission: 2.5Gbit
 Bandwidth: 100MHz
 Number of height units: 1
 Cover: with quick release

General specifications

Shielded Version
 Mounting method: 10" / Wall / DIN rail
 Cross section: AWG24..AWG22
 Connection type: LSA terminal
 Colour code: according to TIA/EIA 568A/B
 Contacts: gold plated
 Ground terminal

Art.-No.	Description	Colour
37735.8	Mini-Patchpanel STP 8xRJ45 Cat.5e, 10" 1U, RAL7035	grey
37735SW.8	Mini-Patchpanel STP 8xRJ45 Cat.5e, 10" 1U, RAL9005	black
37735.12	Mini-Patchpanel STP 12xRJ45 Cat.5e, 10" 1U, RAL7035	grey
37735SW.12	Mini-Patchpanel STP 12xRJ45 Cat.5e, 10" 1U, RAL9005	black



Cat.5e 2.5 Gbit 100 MHz



Suitable mounting for 10"-, wall- and optional DIN rail via DIN rail holder set (H83030.1)

ECOLAN® Patchpanel UTP 24xRJ45 Cat.6, 19" 1U**Special features**

Category: Cat.6
Transmission: 5Gbit
Bandwidth: 250MHz
Number of height units: 1

General specifications

Ports: 24 x RJ45
Unshielded Version
Mounting method: 19"
Cross section: AWG24..AWG22
Connection type: LSA terminal
Colour code: according to
TIA/EIA 568A/B
Contacts: gold plated

Cat.6	5 Gbit	Class E	DHMT	ETL	250 MHz	Art.-No.	Description	Colour
						11324126	ECOLAN® Patchpanel UTP 24xRJ45 Cat.6, 19" 1U, RAL9005	black

Patchpanel UTP 24xRJ45 Cat.6, 19" 1U, 180°**Special features**

Category: Cat.6
Transmission: 5Gbit
Bandwidth: 250MHz
Number of height units: 1
Compact design

General specifications

Ports: 24 x RJ45
Unshielded Version
Mounting method: 19"
Cross section: AWG24..AWG22
Connection type: LSA terminal
Colour code: according to
TIA/EIA 568A/B
Contacts: gold plated

Cat.6	5 Gbit	Class E	DHMT	ETL	250 MHz	Art.-No.	Description	Colour
						37585.1	Patchpanel UTP 24xRJ45 Cat.6, 19" 1U, 180°, RAL9005	black

Patchpanel UTP 24xRJ45 Cat.6, 19" 1U**Special features**

Category: Cat.6
Transmission: 5Gbit
Bandwidth: 250MHz
Number of height units: 1

General specifications

Ports: 24 x RJ45
Unshielded Version
Mounting method: 19"
Cross section: AWG24..AWG22
Connection type: LSA terminal
Colour code: according to
TIA/EIA 568A/B
Contacts: gold plated

Cat.6	5 Gbit	Class E	DHMT	ETL	250 MHz	Art.-No.	Description	Colour
						37583SW.1	Patchpanel UTP 24xRJ45 Cat.6, 19" 1U, RAL9005	black

ECOLAN® Patchpanel UTP 24xRJ45 Cat.5e, 19" 1U

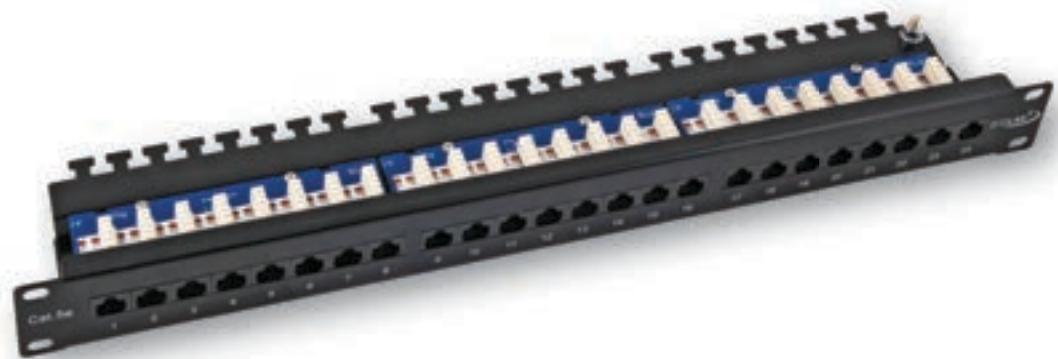


Special features

Category: Cat.5e
 Transmission: 2.5Gbit
 Bandwidth: 100MHz
 Number of height units: 1

General specifications

Ports: 24 x RJ45
 Unshielded Version
 Mounting method: 19"
 Cross section: AWG24..AWG22
 Connection type: LSA terminal
 Colour code: according to TIA/EIA 568A/B
 Contacts: gold plated



Art.-No.	Description	Colour	Cat.5E	2.5 Gbit	100 MHz
11324123	ECOLAN® Patchpanel UTP 24xRJ45 Cat.5e, 19" 1U, RAL9005	black			

Patchpanel UTP 24xRJ45 Cat.5e, 19" 1U, 180°

FIBER OPTIC

Special features

Category: Cat.5e
 Transmission: 2.5Gbit
 Bandwidth: 100MHz
 Number of height units: 1
Compact design

General specifications

Ports: 24 x RJ45
 Shielded Version
 Mounting method: 19"
 Cross section: AWG24..AWG22
 Connection type: LSA terminal
 Colour code: according to TIA/EIA 568A/B
 Contacts: gold plated



Art.-No.	Description	Colour	Cat.5E	2.5 Gbit	100 MHz
37584.1	Patchpanel UTP 24xRJ45 Cat.5e, 19" 1U, 180°, RAL9005	black			

Patchpanel UTP 24xRJ45 Cat.5e, 19" 1U

COPPER

Special features

Category: Cat.5e
 Transmission: 2.5Gbit
 Bandwidth: 100MHz
 Number of height units: 1

General specifications

Ports: 24 x RJ45
 Unshielded Version
 Mounting method: 19"
 Cross section: AWG24..AWG22
 Connection type: LSA terminal
 Colour code: according to TIA/EIA 568A/B
 Contacts: gold plated



Art.-No.	Description	Colour	Cat.5E	2.5 Gbit	100 MHz
37582SW.1	Patchpanel UTP 24xRJ45 Cat.5e, 19" 1U, RAL9005	black			

CABINET SYSTEMS

MULTIMEDIA

ACTIVE COMPONENTS

Data outlet Cat.6A

Cat.6A **10 Gbit** **Class E**

Cat.6A (500 MHz) according to ISO/IEC 11801 and EN50173 **ET-25133AV5-R**
40°-outlet, LSA IDC terminals, incl. 6.3 mm grounding connection

Fully shielded aluminium die-cast housing

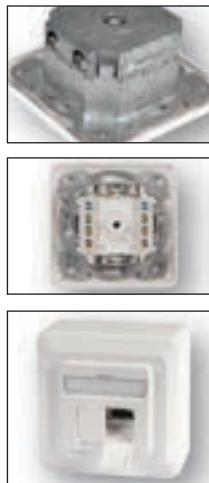
Labeling field with transparent cover

For installation in ducts and underfloor systems (ET-25133AV5-R - Surface)

Central plate according to DIN49075

Central plate 50 x 50 mm, including cover plate 80 x 80 mm

Design capable, compatible with all common switch programmes

**Data outlet Cat.6, Flush mounting**

Cat.6 **10 Gbit** **Class E**

Cat.6 (250 MHz) according to ISO/IEC 11801 and EN50173

40° outlet, 8-pole IDC terminals

Fully shielded diecast housing

Labelling field with transparent cover

For installation in ducts and underfloor systems

Central plate according to DIN49075

Central plate 50 x 50 mm, including cover plate 80 x 80 mm

Design capable, compatible with all common switch programmes

Art.-No.	Description	Colour
ET-25130.1V1	Data outlet Cat.6A 500MHz right/left, Flush, 2xRJ45, RAL9010	white
ET-25133.1V1	Data outlet Cat.6A 500MHz up/down, Flush, 2xRJ45, RAL9010	white

Art.-No.	Description	Colour
ET-25211.1V1	Data outlet Cat.6 250MHz, up/down, Flush, 2xRJ45, RAL9010	white
ET-25211.2V1	Data outlet Cat.6 250MHz, right/left, Flush, 2xRJ45, RAL9010	white

Data outlet Cat.5e, Flush mounting

Cat.5e

Cat.5e (100 MHz) according to ISO/IEC 11801 and EN50173
40° outlet, 8-pole IDC terminals
Fully-shielded diecast housing
For installation in ducts and underfloor systems
Surface-mounting possible in conjunction
with the surface frame ET-25084V3
Central plate 50 x 50 mm, including cover plate 80 x 80 mm

Art.-No.	Description	Colour
ET-25201	Data outlet Cat.5e 100MHz, Flush, 2xRJ45, RAL9010	white

Surface frame RAL9010

ET-25084V3



ET-25081

Surface frame 80x80x40mm
Without cover
Type of plastic: ABS
RAL9010
For data outlets and keystones frame sets

Scope of delivery:

1x Surface frame, 2x Screws: 3mm x 10mm

Art.-No.	Description	Colour
ET-25084V3	Surface frame RAL9010	white

Art.-No.	Accessory	Colour
ET-25081	Cover plate RAL9010	white


Cat.6
50m

Home / - Office Cat.6 Installation Set 1

Fast, easy and optimal match to each other

Cat.6 Installation Sets

Strucured cabling is the base for future oriented, financial and application-neutral building networking. Our installation sets consist of all essential components you need for the start of your home/office network. The components are optimal matched to each other and are Cat.6 components up to 250 MHz. Also included in the Installationsets are a LSA+ insertion tool and a cable cutter.

Set consist of:

- 1x 99980.x-CPR m Cat.7 Installation Cable,
- 4x K5518.3 Cat.6 Patch Cable 3m, white,
- 1x 37653SW.1V2 Cat.6 8-Port Patchpanel, black,
- 2x ET-25211.2V1 Cat.6 Flush-Mount Outlet, white,
- 1x 39912.1 Cable Cutter, 1x 39933.1 LSA+ Insertion Tool

Art.-No.	Description
N10001.V1-25	Home / - Office Cat.6 - 25 m Installation Set 1
N10001.V1-50	Home / - Office Cat.6 - 50 m Installation Set 1

Cat.6
50m

Home / - Office Cat.6 Installation Set 2

Fast, easy and optimal match to each other

Cat.6 Installation Sets

Strucured cabling is the base for future oriented, financial and application-neutral building networking. Our installation sets consist of all essential components you need for the start of your home/office network. The components are optimal matched to each other and are Cat.6 components up to 250 MHz. Also included in the Installationsets are a LSA+ insertion tool and a cable cutter.

Set consist of:

- 1x 99980.x-CPR m Cat.7 Installation Cable,
- 8x K5518.3 Cat.6 Patch Cable 3m, white,
- 1x 37653SW.1V2 Cat.6 8-Port Patchpanel, black,
- 4x ET-25211.2V1 Cat.6 Flush-Mount Outlet, white,
- 1x 39912.1 Cable Cutter, 1x 39933.1 LSA+ Insertion Tool

Art.-No.	Description
N10002.V1-50	Home / - Office Cat.6 - 50 m Installation Set 2
N10002.V1-100	Home / - Office Cat.6 - 100 m Installation Set 2



INSTALLATION- & STRANDED CABLES

Installation and stranded cables are the key element of a copper-based transmission link. EFB-Elektronik has a wide range of installation cables for indoor and outdoor use as well as for various applications up to 10 Gigabit Ethernet pursuant to Cat.7A S/FTP (up to 1500 MHz). The delivery takes place in batch sizes from 100 to 1,000 meters, as well as lengths according to customer request. The jacket material is available in PVC, LSZH and in industrial PUR versions. In addition to installation cables, EFB-Elektronik also offers patch cables for own assembling as bulk goods.

COPPER

Construction Products Regulation

For the benefit of our clients, we always ensure that the cables offered meet the requirements of the Construction Products Regulation. The implementation of the standard has been completed. The manufacturer of the respective installation cables assumes responsibility for their classification. For EFB's own brands, INFRALAN® and ECOLAN®, corresponding Euro fire classes are shown in the product tables. In addition, the declarations of performance of our own brands are provided on the EFB website. Of course, all labels and miscellaneous delivery details are in conformity with EU regulations.

Euroclasses overview

Reaction to fire classes Flame propagation, heat development	Additional classes			Security requirements in a building
	Smoke production/density	Acidity development/corrosivity	Flaming droplets/particles	
A _{CA}				very high
B1 _{CA}				very high
B2 _{CA}	s1	a1	d1	very high 
C _{CA}	s1	a1	d1	high
D _{CA}	s2	a1	d2	medium
E _{CA}				low
F _{CA}				none

Source: ZVEI – Low fire-hazard cables improve safety (12.10.2016)

CONSTRUCTION PRODUCTS REGULATION PRODUCT OVERVIEW

Art.-No	Fire class	Category/construction	AWG/material	MHz	Ø in mm	Colour	Type	Length types	Brand
99980.x-CPR	E _{ca}	Cat.7/ S/FTP	23/Cu	1000	7.3	orange	simplex	100m, 500m 1000m	
99980DX.x-CPR	E _{ca}	Cat.7/ S/FTP	23/Cu	1000	7.3x14.6	orange	duplex	100m, 500m	
99969.305-CPR	E _{ca}	Cat.6/ U/UTP	23/Cu	250	6.1	grey	simplex	305m	
99969.500-CPR	E _{ca}	Cat.6/ U/UTP	23/Cu	250	6.1	grey	simplex	500m	
11930515-CPR	E _{ca}	Cat.5e/ U/UTP	24/Cu	100	5.0	grey	simplex	305m	
99820.x-CPR	D _{ca}	Cat.6A/ U/UTP	23/Cu	500	6.6	grey	simplex	500m, 1000m	
99981.x-CPR	C _{ca}	Cat.7/ S/FTP	23/Cu	1000	7.5	orange	simplex	100m, 500m 1000m	
99981DX.x-CPR	C _{ca}	Cat.7/ S/FTP	23/Cu	1000	7.5x15.8	orange	duplex	100m, 500m	
99983.x-CPR	C _{ca}	Cat.7A/ S/FTP	22/Cu	1500	8.6	yellow	simplex	500m, 1000m	
99985.x-CPR	C _{ca}	Cat.7A/ S/FTP	23/Cu	1500	7.7	yellow	simplex	500m, 1000m	
99985DX.x-CPR	C _{ca}	Cat.7A/ S/FTP	23/Cu	1500	7.7x16.1	yellow	duplex	500m, 1000m	
MK7100.x-CPR	B2 _{ca}	Cat.7A/ S/FTP	22/Cu	1200	8.2	orange	simplex	1000m	

Cat.8.2 Installation cable 2000MHz AWG22, CPR Dca

Draaka Comteq

Stock Lengths: 1000m

Cat.8 **FRNC-C**

The installation cable 99827.x is constructed for transmissions up to **2000 MHz** and exceeds with the electrical transmission properties the requirements of the category 8 and lower. With this cable transmission rates up to **40 GBit** according to IEEE 802.3 are possible.

Conductor category: Kl.1 = single wire

Diameter conductor: 0.64

Art.-No.	Category	Type	Jacket/Colour	AWG/Conductor	Ø in mm	Euro class
99827.x	8.2	simplex	FRNC-C/ yellow	22/ CU, tinned	8.5	Dca

INFRALAN® Cat.7 Installation cable S/FTP 1000 MHz, CPR Eca

INFRALAN®

Stock Lengths: 25 - 50 - 100 - 500 - 1000 m

Cat.7 **FRNC-B** **GHMT** **ETL**

The INFRALAN® installation cable 99980.x-CPR is constructed for transmissions up to **1000 MHz** and exceeds with the electrical transmission properties the requirements of the category 7 and lower. With this cable transmission rates up to 10 Gbit according to IEEE 802.3 are possible.

Conductor category: Kl.1 = single wire

Diameter conductor: 0.56

Art.-No.	Category	Type	Jacket/Colour	AWG/Conductor	Ø in mm	Euro class
99980.x-CPR	7	simplex	FRNC/ orange	23/ CU, tinned	7.3	Eca
99980DX.x-CPR	7	duplex	FRNC/ orange	23/ CU, tinned	7.3 x 14.6	Eca

INFRALAN® Cat.7 Installation cable S/FTP 1000 MHz, CPR Cca

INFRALAN®



Stock Lengths: 100 - 200 - 500 - 1000 m

Cat.7 **FRNC-C** **GHMT**

The INFRALAN® installation cable 99981.x-CPR is constructed for transmissions up to **1000 MHz** and exceeds with the electrical transmission properties the requirements of the category 7 and lower. With this cable transmission rates up to 10 Gbit according to IEEE 802.3 are possible.

Conductor category: Kl.1 = single wire

Diameter conductor: 0.56

Art.-No.	Category	Type	Jacket/Colour	AWG/Conductor	Ø in mm	Euro class
99981.x-CPR	7	simplex	FRNC/ orange	23/ CU, tinned	7.5	Cca
99981DX.x-CPR	7	duplex	FRNC/ orange	23/ CU, tinned	7,5 x 15,8	Cca

INFRALAN® Cat.7A Installation cable S/FTP 1200 MHz, CPR Cca

INFRALAN®



Stock Lengths: 500 - 1000 m

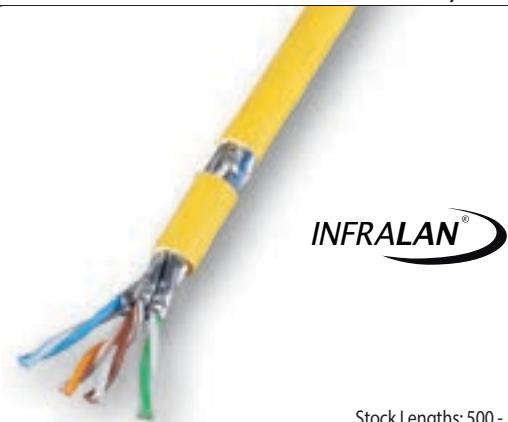
Cat.7A **FRNC-C** **GHMT**

The INFRALAN® installation cable 99985.x-CPR is constructed for transmissions up to **1200 MHz** and exceeds with the electrical transmission properties and requirements of the category 7A. Suitable for structured cabling of Class E, EA, F and FA according to ISO/IEC 11801 (AMD 2:2009) resp. EN 50173-1 (2009). With this cable transmission rates up to 10 Gbit according to IEEE 802.3 are possible.

Conductor category: Kl.1 = single wire

Diameter conductor: 0.56

Art.-No.	Category	Type	Jacket/Colour	AWG/Conductor	Ø in mm	Euro class
99985.x-CPR	7A	simplex	FRNC/ rape yellow	23/ CU, tinned	7.7	Cca
99985DX.x-CPR	7A	duplex	FRNC/ rape yellow	23/ CU, tinned	7,7 x 16,1	Cca

INFRALAN® Cat.7A Installation cable S/FTP 1500 MHz, CPR Cca

Stock Lengths: 500 - 1000 m

Cat.7
FRNC-C
BHMT

The INFRALAN® installation cable 99983.x-CPR is constructed for transmissions up to **1500 MHz** and exceeds with the electrical transmission properties and requirements of the category 7A. Suitable for structured cabling of Class E, EA, F and FA according to ISO/IEC 11801 (AMD 2:2009) resp. EN 50173-1 (2009). The individual stranded pairs are protected with a screen foil (PiMF) and a total braided shield against radiation into the cable, as well as this excellent protection prevents the radiation of signals from the cable out. This shielding guarantees compliance with the interference emission according to Class B EN 55022, as well as immunity to interference according to EN 55024. The stranding of the individual pairs is optimized in such a way that the delay skew between the pairs (skew) with the greatest possible decoupling (crosstalk) is minimal. With this cable transmission rates up to 10 GBit according to IEEE 802.3 are possible.

Conductor category:..... Kl.1 = single wire

Diameter conductor:..... 0.64

Art.-No.	Category	Type	Jacket/Colour	AWG/Conductor	Ø in mm	Euro class
99983.x-CPR	7A	simplex	FRNC/ rape yellow	22/ CU, tinned	8.6	Cca

Cat.7 LAN Outdoor cable UC900 AWG23 PE

Draka Comteq

Stock Lengths: 100 - 500 m

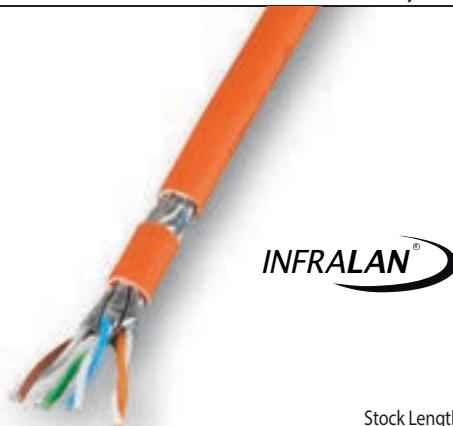
CMT
PE

The data cable is an installation cable with a thick-walled polyethylene outer sheath, suitable for **direct burial, UV-resistant**, and for transmission rates up to **1000 MHz**. Exceeds the electrical transmission properties and requirements of the category 7 and lower. Suitable for structured cabling of Class E, EA, F and according to ISO/IEC11801 (AMD 2:2009) resp. EN50173-1 (2009). With this cable transmission rates up to 10 GBit according to IEEE 802.3 are possible.

Conductor category:..... Kl.1 = single wire

Diameter conductor:..... 0.56

Art.-No.	Category	Type	Jacket/Colour	AWG/Conductor	Ø in mm
99731.x	7	simplex	PE/ black	23/ CU, tinned	8.4

INFRALAN® Cat.7A Installation cable S/FTP 1200 MHz, CPR B2ca

Stock Lengths: 1000 m

Cat.7
FRNC-C
DELTA

The Delta certified INFRALAN® installation cable MK7100.x-CPR is constructed for transmissions up to **1200 MHz** and exceeds with the electrical transmission properties the requirements of the category 7A. Suitable for structured cabling of Class E, EA, F and FA according to ISO/IEC 11801 (AMD 2:2009) resp. EN 50173-1 (2009). The twisted pairs are protected against interferences with a shielding foil (PiMF) and a total shielding. This excellent protection also prevents the radiation of signals out of the cables. The shielding ensures the compliance of emitted interferences according to class B EN 55022 and the interference resistance according to EN 55024. The stranding of the twisted pairs is optimized so that the delay skew between the pairs at the greatest possible uncoupling (crosstalk) is minimum. With this cable transmission rates up to 10 GBit according to IEEE 802.3 are possible.

Conductor category:..... Kl.1 = single wire

Diameter conductor:..... 0.64

Art.-No.	Category	Type	Jacket/Colour	AWG/Conductor	Ø in mm	Euro class
MK7100.x-CPR	7A	simplex	FRNC/ orange	22/ CU, tinned	8.2	B2ca

Cat.7 LAN In-/Outdoor cable UC900 AWG23 FRNC-C

Draka Comteq

Stock Lengths: 100 - 500 m

CMT
FRNC-C

Installation cable with halogen free and radially watertight layer sheath. Universal cable for indoor and outdoor use, also for direct burial and for transmission up to **1000 MHz**. Exceeds the electrical transmission properties and requirements of the category 7 and lower. Suitable for structured cabling of Class E, EA, F and according to ISO/IEC11801 (AMD 2:2009) resp. EN50173-1 (2009). With this cable transmission rates up to 10 GBit according to IEEE 802.3 are possible.

Conductor category:..... Kl.1 = single wire

Diameter conductor:..... 0.56

Art.-No.	Category	Type	Jacket/Colour	AWG/Conductor	Ø in mm	Euro class
99732.x	7	simplex	FRNC-C/ black	23/ CU, tinned	9.5	Eca

Cat.6A/ Class EA Installation Link S/FTP PIMF Cat.7 Installation cable + Cat.6A RJ45 Keystones

Robust special rubber cable drum, complete with Cat.7 S/FTP installation cable, integrated outlet Cat.6A 1 x RJ45 with dust cap and 1 x Cat.6A RJ45. Very well suited to mobile use, for exhibitions, presentations, outside broadcasting vans, measuring sections etc. A standardised installation section in accordance with structured cabling Cat.6A / Class EA.

Art.-No.	Description	Colour outer sheath
K9201.50	Cat.6A/classEA Installation link, S/FTP, 50m on drum	orange
K9201.90	Cat.6A/classEA Installation link, S/FTP, 90m on drum	orange

Cat.5e/ Class D Installation Link F/UTP PIMF Cat.5e Installation cable + Cat.5e RJ45 Keystones

Robust special rubber cable drum, complete with F/UTP Cat.5e installation cable, integrated outlet 1 x RJ45 with dust cap and 1 x RJ45 modular jack. Very well suited to mobile use, for exhibitions, presentations, outside broadcasting vans, measuring sections etc. A standardised installation section in accordance with structured cabling Cat.5e.

Art.-No.	Description	Colour outer sheath
K9200.50	Cat.5e Installation link F/UTP, 50m on drum	grey
K9200.90	Cat.5e Installation link F/UTP, 90m on drum	grey

Cable-Type Codes

according to ISO/IEC11801 (2002)

X X/X X X

symmetric pair/quad

TP (Twisted Pair)

shielding over twisted pair - element

U = unshielded
F = foil shielded

overall screen of the cable

F = foil shielding
S = braid shielding
SF = foil- and braid shielding
U = unshielded

Example:

SF/UTP = Double shielded cable, overall shield of foil/braid with unshielded pairs

S/FTP = Braid as overall shield, pairs foil shielded

Cable type S/FTP

- Pair shielding with aluminium foil
- Copper braid as overall shield
- Area of application up to > 1000MHz
- Very good EMC-characteristics

Cable type SF/UTP

- Aluminium foil and copper braid as overall shielding
- Unshielded pairs
- Area of application up to > 500MHz
- Good EMC-characteristics

Cable type F/UTP

- Aluminium foil als overall shielding
- Unshielded pairs
- Area of application up to > 100MHz
- Sufficient EMC-characteristics

Cable type U/UTP

- No overall shielding
- Unshielded pairs
- Recommended for closed, metallic installation systems
- No EMC-characteristics

Cat.7 Patch cable Draka UC900 1000MHz S/FTP AWG27 FRNC-B



Cat.7 FRNC-B

Stock Lengths: 100 - 1000 m

Cat.7 Patch cable - overtakes the requirements of ISO/IEC 11801, IEC 61156-6, EN 50173-1 and EN 50288-4-2. Useable for all ICT - applications up to class F according to EN 50173-1 and ISO/IEC 11801, furthermore also for multimedia - applications in CATV - frequency range up to 862 MHz according to IEC 15018. Suitable for performance of Power over Ethernet (PoE) / PoE+.

Conductor category: Class 2 = stranded

Art.-No.	Category	Jacket/Colour	AWG/Conductor	Ø in mm
99701.x	7	FRNC-B/ grey	27/7 CU, tinned	5.9
99702.x	7	FRNC-B/ yellow	27/7 CU, tinned	5.9
99703.x	7	FRNC-B/ red	27/7 CU, tinned	5.9
99704.x	7	FRNC-B/ blue	27/7 CU, tinned	5.9
99705.x	7	FRNC-B/ black	27/7 CU, tinned	5.9
99706.x	7	FRNC-B/ green	27/7 CU, tinned	5.9
99707.x	7	FRNC-B/ orange	27/7 CU, tinned	5.9
99708.x	7	FRNC-B/ white	27/7 CU, tinned	5.9
99709.x	7	FRNC-B/ magenta	27/7 CU, tinned	5.9

Cat.7 Patch cable Leoni Kerpen 900MHz S/FTP AWG27 FRNC-B



KERPEN
Competence in Cable Technology

Cat.7 FRNC-B

Stock Lengths: 100 - 1000 m

Exceeding the requirements of Category 7 according to EN50288 and IEC61156. Excellent NEXT, excellent shielding characteristics, low Skew, bandwidth 900 MHz. Ideal for all class D to F multimedia applications (video, data, voice), >10 GbE according to IEEE 802.3, Cable sharing, VoIP, PoE.

Conductor category: Class 2 = stranded

Art.-No.	Category	Jacket/Colour	AWG/Conductor	Ø in mm
99620.x	7	FRNC-B/ yellow	27/7 CU, tinned	5.7
99621.x	7	FRNC-B/ red	27/7 CU, tinned	5.7
99622.x	7	FRNC-B/ green	27/7 CU, tinned	5.7
99625.x	7	FRNC-B/ blue	27/7 CU, tinned	5.7
99728.x	7	FRNC-B/ grey	27/7 CU, tinned	5.7

Cat.7A Patch cable Leoni Kerpen 1200MHz S/FTP AWG26 FRNC-B



KERPEN
Competence in Cable Technology

Cat.7 FRNC-B

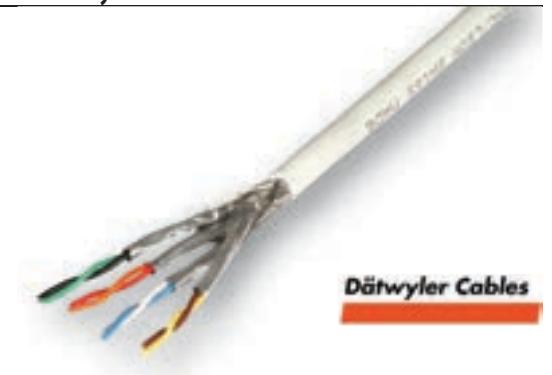
Stock Lengths: 100 - 1000 m

Cat.7A patch cable - exceeds the requirements of ISO/IEC 11801, IEC 61156-6, EN 50173-1 and EN 50288. Excellent NEXT, low Attenuation and low SKEW. Suitable for applications from class D up to F, multimedia (tv, video, data, voice) >10GbE according to IEEE 802.3 (design), cable sharing, VoIP, PoE.

Conductor category: Class 2 = stranded

Art.-No.	Category	Jacket/Colour	AWG/Conductor	Ø in mm
99726.x	7A	FRNC-B/ grey	26/7 CU, tinned	6.0

Cat.7 Patch cable Dätwyler 7702 1200MHz S/FTP AWG26 FRNC-B



Dätwyler Cables

Cat.7 FRNC-B

Stock Lengths: 100 - 1000 m

Electrically and mechanically excellent Cat.7 Patch cable- Exceeding the requirements of ISO/IEC 11801, IEC 61156-6, EN 50173-1 and EN50288-4-2. Excellent shielding due to pair and foil shielding. Good assemblage of connectors because of different wire colours. Compatible with all relevant connection systems of EN50173, ISO/IEC 11801 and IEC 60603-x. Use as a data patch cable or connection cable, special used for Consolidation points. Usable for all ICT Network application until Class F (600MHz) in accordance with EN50173-1 and ISO/IEC 11801. Also usable for Multimedia applications in CATV Frequency level till 862MHz according to IEC15018. Suitable for data connection on power over ethernet (PoE/PoE+). Conductor category: Class 2 = stranded

Art.-No.	Category	Jacket/Colour	AWG/Conductor	Ø in mm
98711.x	7	FRNC-B/ grey	26/7 CU, tinned	5.8
98712.x	7	FRNC-B/ blue	26/7 CU, tinned	5.8
98713.x	7	FRNC-B/ yellow	26/7 CU, tinned	5.8
98714.x	7	FRNC-B/ red	26/7 CU, tinned	5.8
98715.x	7	FRNC-B/ green	26/7 CU, tinned	5.8
98716.x	7	FRNC-B/ black	26/7 CU, tinned	5.8

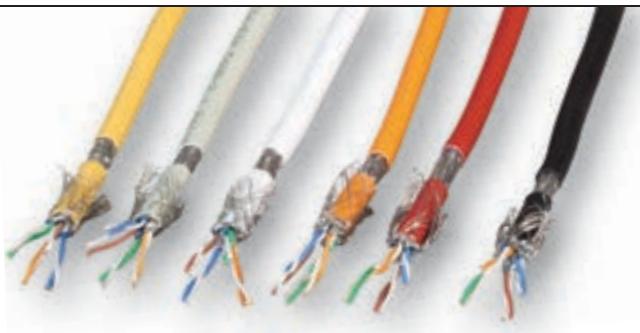
Cat.7A Patch cable 1000MHz S/FTP AWG26 PUR**Cat.7 Patch cable Draka UC900 1000MHz S/FTP AWG27 PUR****Cat.7 PUR**

Stock Lengths: 500 m

Cat.7A patch cable - exceeds the requirements of ISO/IEC 11801, IEC 61156-6, EN 50173-1 and EN 50288. Application area: Data cable for studio application, Video-Ethernet; IEEE 802.3; 10Base-T; 100Base-T; 1000Base-T; IEEE 802.5 16 MB; ISDN; FDDI; ATM. **Suitable for outdoor (uv resistant)**, but not for direct burial. Suitable for constant movements.

Conductor category:.....Class 2 = stranded

Art.-No.	Category	Jacket/Colour	AWG/Conductor	Ø in mm
99262.500	7A	PUR (polyurethane)/ black	26/7 CU, tinned	6.4

Cat.7 Patch cable S/FTP AWG26 FRNC-B**CAT7 FRNC-B**

Stock Lengths: 100 - 1000 m

The patch cable MK7104 is constructed for transmissions up to 600 MHz and exceeds with the electrical transmission properties and requirements of the category 7. With this cable transmission rates up to 10 GBit according to IEEE 802.3 are possible.

Conductor category:.....Class 2 = stranded

Art.-No.	Category	Type	Jacket/Colour	AWG/Conductor	Ø in mm
MK7104.100B	7	simplex	FRNC-B/ black	26/7 CU, tinned	6.5
MK7104.100BL	7	simplex	FRNC-B/ blue	26/7 CU, tinned	6.5
MK7104.100BR	7	simplex	FRNC-B/ brown	26/7 CU, tinned	6.5
MK7104.100G	7	simplex	FRNC-B/ grey	26/7 CU, tinned	6.5
MK7104.100GR	7	simplex	FRNC-B/ green	26/7 CU, tinned	6.5
MK7104.100LR	7	simplex	FRNC-B/ light green	26/7 CU, tinned	6.5
MK7104.1000	7	simplex	FRNC-B/ orange	26/7 CU, tinned	6.5
MK7104.100P	7	simplex	FRNC-B/ pink	26/7 CU, tinned	6.5
MK7104.100R	7	simplex	FRNC-B/ red	26/7 CU, tinned	6.5
MK7104.100V	7	simplex	FRNC-B/ violet	26/7 CU, tinned	6.5
MK7104.100W	7	simplex	FRNC-B/ white	26/7 CU, tinned	6.5
MK7104.100Y	7	simplex	FRNC-B/ yellow	26/7 CU, tinned	6.5

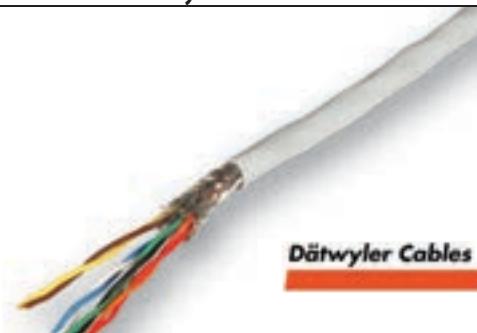
Cat.7 PUR

Stock Lengths: 100 - 500 - 1000 m

Cat.7 patch cable - exceeds the requirements of ISO/IEC11801, IEC61156-6, EN50173-1 and EN50288-4-2. **Resistance against mineral-oil, ASTM-oil and UV-radiation.** Suitable for outdoor use, but not for direct burial.

Conductor category:.....Class 2 = stranded

Art.-No.	Category	Jacket/Colour	AWG/Conductor	Ø in mm
99710.x	7	PUR (polyurethane)/ red	27/7 CU, tinned	5.9

Cat.5e Patch cable Dätwyler S/UTP AWG26 PVC**CAT5E PVC**

Stock Lengths: 100 - 1000 m

Dätwyler Cables Uninet 5502 flex 4P. The structure is tuned to a fast and reliable packing! Electrically and mechanically high-quality 300 MHz patch cords - exceeds the highest expectations! Guaranteed limits according to Cat.5: ISO / IEC 11801 and EN 50173-1, EN 50288-2-2. As data jumper cables in patch panels and as Cord. For the transmission of digital and analogue voice, image and data signals. ISDN, Ethernet 10 BASE-T, 100 BASE-T Fast Ethernet, Gigabit Ethernet 1000 Base-T, Token Ring 16.4 Mbit / s, TP-PMD / TP-DDI 125 Mbit / s, ATM 155 Mbit / s. Especially suitable for all applications of class D.

Conductor category:.....Class 2 = stranded

Art.-No.	Category	Jacket/Colour	AWG/Conductor	Ø in mm
98701.x	5e	PVC/ grey	26/7 CU, tinned	5.1
98702.x	5e	PVC/ yellow	26/7 CU, tinned	5.1
98703.x	5e	PVC/ red	26/7 CU, tinned	5.1
98704.x	5e	PVC/ blue	26/7 CU, tinned	5.1
98705.x	5e	PVC/ black	26/7 CU, tinned	5.1
98706.x	5e	PVC/ green	26/7 CU, tinned	5.1

Cat.5e Patch cable Leoni Kerpen S/UTP AWG26 PUR Superflex draig chain suitable



KERPEN
Competence in Cable Technology



KERPEN
Competence in Cable Technology

Stock Lengths: 100 - 1000 m

MegaLine® D1-20 SF/U flex. Electrically and mechanically high-quality 200 MHz patch cable.
Especially for application of class D.
Conductor category: Class 2 = stranded

Art.-No.	Category	Jacket/Colour	AWG/Conductor	Ø in mm
99525.x	5e	PVC/ grey	26/7 CU, tinned	5.3
99526.x	5e	FRNC-C/ grey	26/7 CU, tinned	5.3

Cat.5e Patch cable SF/UTP AWG26 PVC UL approbated

Cat.5e **PUR** Stock Lengths: 1000 m

The MegaLine® D1-20 S/U PUR superflex is an electrically and mechanically high-quality 200 MHz patch cable also **suitable for drag chain**. Especially for application of class D.
Conductor category: Class 2 = stranded

Art.-No.	Category	Jacket/Colour	AWG/Conductor	Ø in mm
99526MC.x	5e	PUR (polyurethane)/ yellow	26/19 CU, tinned	6.8

Cat.5e Patch cable Draka UC300 SF/UTP AWG26 FRNC-B



Draka Comteq

Cat.5e **FRNC-B** Stock Lengths: 100 - 1000 m

DRAKA Patch cable UC300 HS26. Electrically and mechanically high-quality 300 MHz patch cable. Especially for application of class D.
Conductor category: Class 2 = stranded

Art.-No.	Category	Jacket/Colour	AWG/Conductor	Ø in mm
99253.x	5e	FRNC-B/ green	26/7 CU, tinned	5.7
99254.x	5e	FRNC-B/ blue	26/7 CU, tinned	5.7
99255.x	5e	FRNC-B/ yellow	26/7 CU, tinned	5.7
99256.x	5e	FRNC-B/ red	26/7 CU, tinned	5.7
99258.x	5e	FRNC-B/ grey	26/7 CU, tinned	5.7

Cat.5e **UL** **PVC**

Stock Lengths: 1000 m

Electrical and mechanical **high-quality UL patch cable**. Especially for application of class D.
Conductor category: Class 2 = stranded

Art.-No.	Category	Jacket/Colour	AWG/Conductor	Ø in mm
99956.x	5e	PVC/ grey	26/7 CU, tinned	6.2

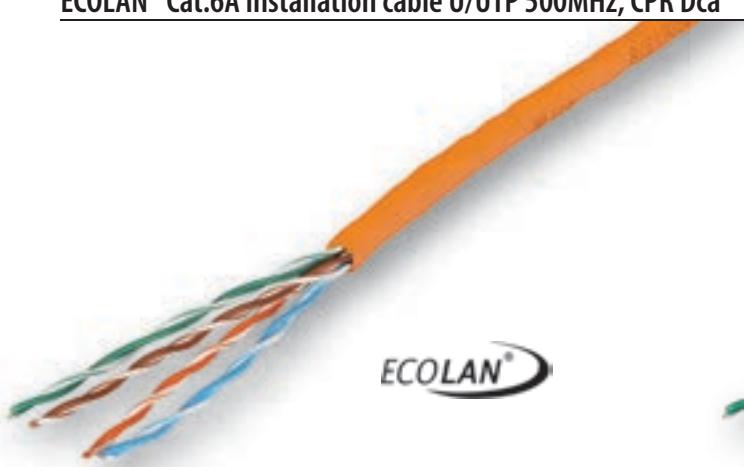
Cat.5e Patch cable Draka UC300 F/UTP AWG26 FRNC-B

Draka Comteq

Cat.5e **FRNC-B** Stock Lengths: 100 - 1000 m

DRAKA Patch cable UC300 S26. Electrically and mechanically high-quality 300 MHz patch cable. Especially for application of class D.
Conductor category: Class 2 = stranded

Art.-No.	Category	Jacket/Colour	AWG/Conductor	Ø in mm
99153.x	5e	FRNC-B/ green	26/7 CU, tinned	5.0
99154.x	5e	FRNC-B/ blue	26/7 CU, tinned	5.0
99155.x	5e	FRNC-B/ yellow	26/7 CU, tinned	5.0
99156.x	5e	FRNC-B/ red	26/7 CU, tinned	5.0
99157.x	5e	FRNC-B/ black	26/7 CU, tinned	5.0
99158.x	5e	FRNC-B/ grey	26/7 CU, tinned	5.0

ECOLAN® Cat.6A Installation cable U/UTP 500MHz, CPR Dca**ECOLAN® Cat.6 Installation cable U/UTP 250MHz, CPR Eca**

Cat.6 FRNC-D

Stock Lengths: 100 - 1000 m

The ECOLAN® installation cable 99820.x-CPR is constructed for transmissions up to 500MHz and exceeds with the electrical transmission properties and requirements of the category 6A. With this cable transmission rates up to 10 GBit according to IEEE 802.3 are possible.
Conductor category:.....Kl.1 = single wire
Diameter conductor:.....0.56

Art.-No.	Category	Type	Jacket/Colour	AWG/Conductor	Ø in mm	Euro class
99820.x-CPR	6A	simplex	FRNC/ orange	23/ CU, tinned	6.6	Dca

Cat.6 CCA Installation cable U/UTP 250MHz, CPR Eca

Cat.6 FRNC-S DCA

Stock Lengths: 100 - 1000 m

The unshielded installation cable 99963.305-CPR is constructed for transmissions up to 250MHz.
Conductor category:.....Kl.1 = single wire
Diameter conductor:.....0.57

Art.-No.	Category	Type	Jacket/Colour	AWG/Conductor	Ø in mm	Euro class
99963.305-CPR	6	simplex	FRNC/ grey	23/ CCA	6.4	Eca

Cat.6 FRNC-S

Stock Lengths: 100 - 1000 m

The ECOLAN® installation cable 99969.x-CPR is constructed for transmissions up to 250MHz and exceeds with the electrical transmission properties and requirements of the category 6. Conductor category:.....Kl.1 = single wire
Diameter conductor:.....0.56

Art.-No.	Category	Type	Jacket/Colour	AWG/Conductor	Ø in mm	Euro class
99969.x-CPR	6	simplex	FRNC/ grey	23/ CU, tinned	6.1	Eca

ECOLAN® Cat.5e Installation cable U/UTP 250MHz, PVC, CPR Eca

Cat.5e PVC

Cat.5e PVC

Stock Lengths: 100 - 1000 m

The unshielded ECOLAN® installation cable Cat.5e is constructed for transmissions up to 100MHz. Best suitable for cabling systems of the channel class D.
Conductor category:.....Kl.1 = single wire
Diameter conductor:.....0.49

Art.-No.	Category	Type	Jacket/Colour	AWG/Conductor	Ø in mm	Euro class
11930515-CPR	5e	simplex	PVC/ grey	24/ CU, tinned	5.0	Eca



RJ45 CONNECTOR & ACCESSORIES

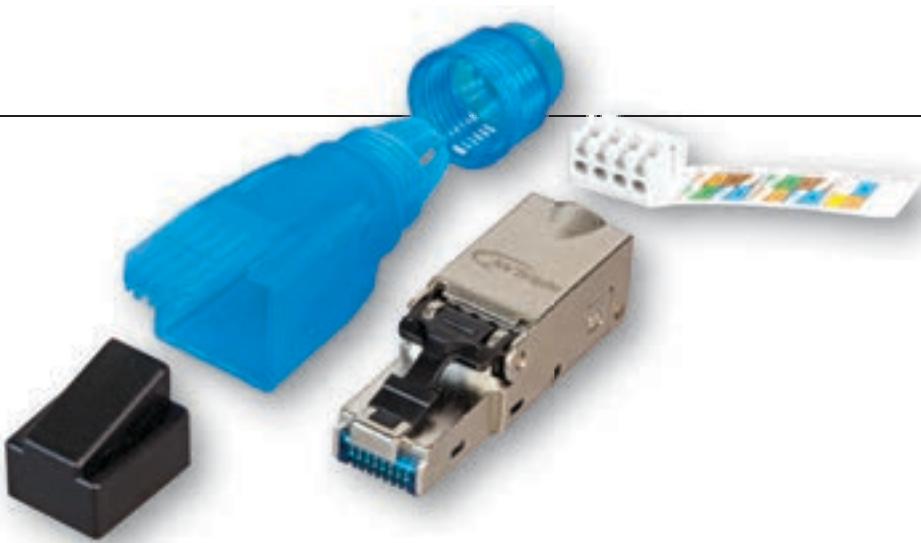
There are different names for the probably best-selling plug connector in the world: Telephone plug, modular plug, data plug, network plug or Ethernet plug. The most accurate term is probably „Ethernet plug“. The Ethernet success story is inevitably linked to the RJ45 connector; with the step of the Ethernet protocol to the twisted pair medium. This has changed the simple remote control plug to the digital high speed star and, simultaneously, to the analogue power connector (PoE).

Today's RJ45 connector is internationally standardised pursuant to IEC60603-7-x and therefore classified according to the well-known categories, such as Cat. 5e, Cat. 6 and Cat. 6A.

Whether shielded or unshielded, classic crimp technology or tool-free assembling in the field – with EFB-Elektronik, you will find a comprehensive range for various applications.

COPPER

RJ45 Connector STP, Cat.6A, Field-Plug



The RJ45 plug provides a combination of excellent transmission quality and fast and easy tool-free assembly. Fully shielded zinc diecast housing ensures the best EMC features especially in industrial environments. IDC terminals and very low contact resistances assure high quality contacting for installation cables up to 9mm diameter and wire gauge from AWG22 - AWG27.

Shielded zinc diecast body with separate dust cap and anti-kink sleeve
 Class EA performance according to ISO/IEC11801 and IEC60603-7-51
 Compact cable manager for AWG 22/1 .. AWG 26/1 or AWG22/7 .. AWG27/7
 Pair management according to TIA 568A /B colour codes and industrial Profinet 1-2-3-6
 Re-termination capability up to 5 times with the same width, for AWG27/7 up to 2 times
 Suitable for cable dia from 6,0mm .. 9,0mm
 Strain relief with cable gland
 Tension relief with cable gland and sliding lever

Art.-No.	Description	Colour	Cat.E.	10 Gbit
88035AV.1	RJ45 Connector STP, Cat.6A, Field-Plug	aqua		

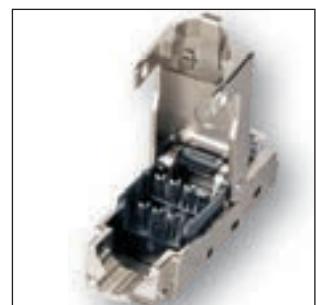
RJ45 Connector STP, Cat.6, Field-Plug



The RJ45 plug provides a combination of excellent transmission quality and fast and easy tool-free assembly. Fully shielded zinc diecast housing ensures the best EMC features especially in industrial environments. IDC terminals and very low contact resistances assure high quality contacting for installation cables up to 9mm diameter and wire gauge from AWG22 - AWG27.

Shielded zinc diecast body with separate dust cap and anti-kink sleeve
 Class E performance according to ISO/IEC11801 and IEC60603-7-5
 Compact cable manager for AWG 22/1 .. AWG 26/1 or AWG22/7 .. AWG27/7
 Pair management according to TIA 568A /B colour codes and industrial Profinet 1-2-3-6
 Re-termination capability up to 5 times with the same width, for AWG27/7 up to 2 times
 Suitable for cable dia from 6,0mm .. 9,0mm
 Strain relief with cable tie

Art.-No.	Description	Colour	Cat.E.	10 Gbit
88035.1	RJ45 Connector STP, Cat.6, Field-Plug	black		



ECOLAN® RJ45 Connector UTP, Cat.6, Field-Plug

The ECOLAN® RJ45 plug provides a combination of excellent transmission quality and fast and easy tool-free assembly. IDC terminals and very low contact resistances assure high quality contacting for installation cables up to 9mm diameter and wire gauge from AWG22 - AWG27.

Unshielded polycarbonate body with separate dust cap and anti-kink sleeve
Cat.6/Class E performance according to ISO/IEC11801 and IEC60603-7-4
Compact cable manager for AWG 22/1 .. AWG 26/1 or AWG22/7 .. AWG27/7
Pair management according to TIA 568A /B colour codes and industrial Profinet 1-2-3-6
Re-termination capability up to 5 times with the same width, for AWG27/7 up to 2 times
Suitable for cable dia from 6,0mm .. 9,0mm
Strain relief with cable tie

Art.-No.	Description	Colour
88035UTP.1	ECOLAN® RJ45 Connector UTP, Cat.6, Field-Plug	black

RJ45 Hirose Connector Set STP, TM31 Cat.6A

-1 PU 1 Piece, -10 PU 10 Pieces, -100 PU 100 Pieces

Channel Class EA up to 500 MHz (Cat.6A)
For stranded wires (AWG 24/7, AWG 26/7, AWG 27/7)
Shielded version
Core insulation about 0.9 - 1.0 mm
Cable diameter max. 6.6 mm
The set consists of RJ plug, anti-kink sleeve and guide Plate
Suitable crimping tool DCW1002 + DCW1002.1 or 39934.11

Art.-No.	Description	Colour
H7642.1-x	RJ45-Hirose Connector STP,TM31 Cat.6A, 3 Elements	beige
H7642.4-x	RJ45-Hirose Connector STP,TM31 Cat.6A, 3 Elements	black
H7642.5-x	RJ45-Hirose Connector STP,TM31 Cat.6A, 3 Elements	yellow
H7642.6-x	RJ45-Hirose Connector STP,TM31 Cat.6A, 3 Elements	red
H7642.7-x	RJ45-Hirose Connector STP,TM31 Cat.6A, 3 Elements	blue
H7642.8-x	RJ45-Hirose Connector STP,TM31 Cat.6A, 3 Elements	green
H7642.10-x	RJ45-Hirose Connector STP,TM31 Cat.6A, 3 Elements	orange
H7642.12-x	RJ45-Hirose Connector STP,TM31 Cat.6A, 3 Elements	grey

Accessory

Art.-No.	Description
39934.1	Crimping tool for RJ45 Hirose connector TM11,TM21,TM31
DCW1002	Crimping tool(frame) for die inserts DCW1002.x
DCW1002.1	Die insert Hirose TM11/21/31 for DCW1002



RJ45 Hirose Connector Set STP, TM21 Cat.6



-1 PU 1 Piece, -10 PU 10 Pieces, -100 PU 100 Pieces

Channel Class E up to 250 MHz (Cat.6)

For stranded wires (AWG 24/7, AWG 26/7, AWG 27/7)

Shielded version

Core insulation about 0.9 - 1.0 mm

Cable diameter max. 6.6 mm

The set consists of RJ plug, anti-kink sleeve and guide Plate

Suitable crimping tool DCW1002 + DCW1002.1 or 39934.27

Cat.6



Accessory

Art.-No.	Description
H7641.1-x	RJ45-Hirose Connector STP, TM21 Cat.6, 3 Elements
H7641.4-x	RJ45-Hirose Connector STP, TM21 Cat.6, 3 Elements
H7641.5-x	RJ45-Hirose Connector STP, TM21 Cat.6, 3 Elements
H7641.6-x	RJ45-Hirose Connector STP, TM21 Cat.6, 3 Elements
H7641.7-x	RJ45-Hirose Connector STP, TM21 Cat.6, 3 Elements
H7641.8-x	RJ45-Hirose Connector STP, TM21 Cat.6, 3 Elements
H7641.10-x	RJ45-Hirose Connector STP, TM21 Cat.6, 3 Elements
H7641.12-x	RJ45-Hirose Connector STP, TM21 Cat.6, 3 Elements

RJ45 Hirose Connector Set STP, TM11 Cat.5e



-1 PU 1 Piece, -10 PU 10 Pieces, -100 PU 100 Pieces

Up to 100 MHz (Cat.5e)

For stranded wires (AWG 24/7, AWG 26/7, AWG 27/7)

Shielded version

Core insulation about 0.9 - 1.0 mm

Cable diameter max. 5.8 mm

The set consists of RJ plug, anti-kink sleeve and guide Plate

Suitable crimping tool DCW1002 + DCW1002.1 or 39934.2

Cat.5e



Accessory

Art.-No.	Description
39934.1	Crimping tool for RJ45 Hirose connector TM11,TM21,TM31
DCW1002	Crimping tool(frame) for die inserts DCW1002.x
DCW1002.1	Die insert Hirose TM11/21/31 for DCW1002

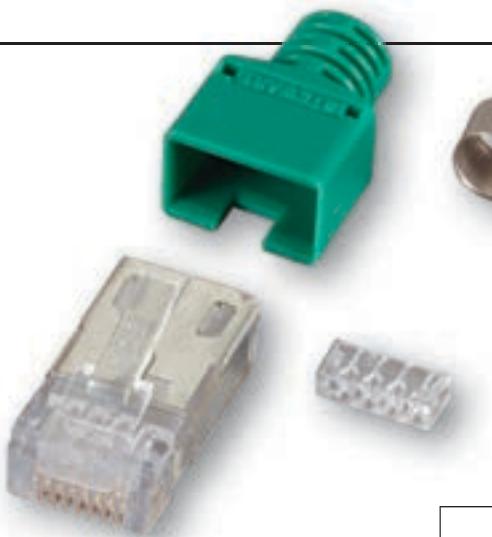
RJ45 Stewart Connector STP, SS39200-012 Cat.6

Up to 250 MHz (Cat.6)
For stranded wires (AWG 24/7, AWG 26/7, AWG 27/7)
Shielded version
Core insulation about 0.9 - 1.0 mm
Cable diameter max. 6.3 mm
The set consists of RJ plug, and guide Plate
Suitable crimping tool DCW1002 + DCW1002.2

Anti-kink sleeve not included

**Accessory**

Art.-No.	Description	Colour
37563.T	RJ45 Stewart Connector STP, SS39200-012 Cat.6, without anti-kink sleeve	transparent

RJ45 Stewart Connector Set STP, SS37 Cat.5e

-10 PU 10 Pieces, -50 PU 50 Pieces, -100 PU 100 Pieces

Up to 100 MHz (Cat.5e)
For stranded wires (AWG 24/7, AWG 26/7, AWG 27/7)
Shielded version
Core insulation about 0.9 - 1.0 mm
Cable diameter max. 5.72 mm
The set consists of RJ plug, anti-kink sleeve and guide Plate
Suitable crimping tool 39946.14

**Accessory**

Art.-No.	Description
39946.1	Crimping tool for RJ45 Stewart

RJ45 Connector STP, Cat.6

Cat.6

Up to 250 MHz (Cat.6)
 For stranded wires (AWG 24/7, AWG 26/7, AWG 27/7)
 Shielded version
 Core insulation about 0.9 - 1.0 mm
 Cable diameter max. 6.2 mm
 Suitable crimping tool DCW1003 + DCW1003.1
Anti-kink sleeve not included

Art.-No.	Description	Colour
37640.1-100	RJ45 Connector STP, Cat.6, 100pcs	silver

Art.-No.	Accessory
DCW1003	Crimping tool (frame) for die inserts DCW1003.x
DCW1003.1	Die insert for DCW1003, suit. 37640.1, 37541.3, 37519.1
E-SK312	Crimping tool for Modular-Connector

RJ45 Connector UTP, Cat.6

Up to 250 MHz (Cat.6)
 For stranded wires (AWG 24/7, AWG 26/7, AWG 27/7)
 Unshielded version
 Core insulation about 0.9 - 1.0 mm
 Cable diameter max. 6.5 mm
 Suitable crimping tool E-MUC410
Anti-kink sleeve not included

Art.-No.	Description	Colour
34600.1-100	RJ45 Connector UTP, Cat.6, 100pcs	transparent

Art.-No.	Accessory
E-MUC410	Crimping tool for Modular-Connector

RJ45 Connector STP, Cat.5e

Cat.5e

Up to 100 MHz (Cat.5e)
 For stranded wires (AWG 24/7, AWG 26/7, AWG 27/7)
 Shielded version
 Core insulation about 0.9 - 1.0 mm
 Cable diameter max. 6.3 mm
 Suitable crimping tool DCW1003 + DCW1003.1
Anti-kink sleeve not included

Art.-No.	Description	Colour
37541.3-100	RJ45 Connector STP, Cat.5e, 100pcs	silver

Art.-No.	Accessory
DCW1003	Crimping tool (frame) for die inserts DCW1003.x
DCW1003.1	Die insert for DCW1003, suit. 37640.1, 37541.3, 37519.1
E-SK312	Crimping tool for Modular-Connector

RJ45 Anti-kink sleeve

Anti-kink sleeve for 37541.3, 37514.1, 37519.1, 37539.1, 37640.1, 34600.1
 Cable entry max. 6.6 mm

Art.-No.	Description	Colour
37546.1-100	Anti-kink sleeve RJ45 with Latch Protection, 100 pcs.	beige
37546.4-100	Anti-kink sleeve RJ45 with Latch Protection, 100 pcs.	black
37546.5-100	Anti-kink sleeve RJ45 with Latch Protection, 100 pcs.	yellow
37546.6-100	Anti-kink sleeve RJ45 with Latch Protection, 100 pcs.	red
37546.7-100	Anti-kink sleeve RJ45 with Latch Protection, 100 pcs.	blue
37546.8-100	Anti-kink sleeve RJ45 with Latch Protection, 100 pcs.	green

Modular-Connector UTP for Flat Cable

Modular-Connector unshielded RJ10/RJ11/RJ12/RJ45
For Flat cable
Suitable crimping tools for RJ10/RJ11/RJ12/RJ45: E-MUC41

Art.-No.	Description	Colour
37511.1-100	Modular-Connector RJ11 UTP, E-MO 6/4 SF, 100 pcs.	transparent
37512.1-100	Modular-Connector RJ10 UTP, E-MO 4/4 SF, 100 pcs.	transparent
37513.1-100	Modular-Connector RJ12 UTP, E-MO 6/6 SF, 100 pcs.	transparent
37514.1-100	Modular-Connector RJ45 UTP, E-MO 8/8 SF, 100 pcs.	transparent
37542.1-100	Modular-Connector DEC UTP, E-MO 6/6 SF, 100 pcs.	transparent
37673.1-100	Modular-Connector RJ45 UTP, E-MO 8/4 SF, 100 pcs.	transparent

Art.-No.	Accessory
E-MUC410	Crimping tool for Modular-Connector

RJ12 Modular-Connector STP

Modular-Connector unshielded RJ12
For Round cable
Suitable crimping tool for RJ12: E-MUC410

Art.-No.	Description	Colour
37500.1-100	Modular-Connector RJ12 STP, E-MO 6/6G, 100pcs	silver

Art.-No.	Accessory
E-MUC410	Crimping tool for Modular-Connector

Dust protection cap for RJ45 Connector

Dust cap for RJ45 connectors

Art.-No.	Description
88048.1-10	dust protection cap for RJ45 Connector, black

Modular-Connector UTP for Round Cable

Modular-Connector unshielded RJ10/RJ11/RJ12/RJ45
For Round cable
Suitable crimping tool for RJ10/RJ11/RJ12/RJ45: E-MUC410

Art.-No.	Description	Colour
37516.1-100	Modular-Connector RJ11 UTP, E-MO 6/4 SR, 100 pcs.	transparent
37517.1-100	Modular-Connector RJ10 UTP, E-MO 4/4 SR, 100 pcs.	transparent
37518.1-100	Modular-Connector RJ12 UTP, E-MO 6/6 SR, 100 pcs.	transparent
37519.1-100	Modular-Connector RJ45 UTP, E-MO 8/8 SR, 100 pcs.	transparent

Art.-No.	Accessory
E-MUC410	Crimping tool for Modular-Connector

Modular-Connector RJ69 (RJ45 10/10) UTP

Modular-Connector unshielded RJ69
For Round cable
Suitable crimping tool: Art.-No. 39945.2

Art.-No.	Description	Colour
37539.1-100	Modular-Connector RJ69 UTP, E-MO 10/10 SR, 100 pcs.	transparent

Art.-No.	Accessory
39945.2	Crimping tool for UTP-Modular, RJ69 10pol 37539.1

Dummy plug for RJ45 Jacks

Dust protection for unused ports
For RJ45 patch panels, RJ45 outlets and RJ45 Keystone jacks

Art.-No.	Description
37520.2-100	RJ45 Dummy Plug Black, PU 100
37520.3-100	RJ45 Dummy Plug Pearl White, PU 100
37520.4-100	RJ45 Dummy Plug Grey, PU 100
37520.5-100	RJ45 Dummy Plug Red, PU 100
37520.6-100	RJ45 Dummy Plug Green, PU 100
37520.7-100	RJ45 Dummy Plug Blue, PU 100
37520.8-100	RJ45 Dummy Plug Yellow, PU 100

Cable Ties

Art.-No.	Description
81022.100	Cable ties, L 100mm W 2.5mm 100 pcs., transparent
81041.100	Cable ties, L 165mm W 2.6mm 100 pcs., transparent
81043.100	Cable ties, L 150mm W 3.5mm 100 pcs., transparent
81044.100	Cable ties, L 200mm W 3.6mm 100 pcs., transparent

High-Performance Cable Tie, black

Cable holder for holding of multiple cable or trunk cable
Very robust, solid and suitable for heavy duty
Separate fixing for cable ties for mounting in data cabinets

Art.-No.	Description
HD-3033	Heavy Duty Hook-and-Loop Tape length 320x100mm

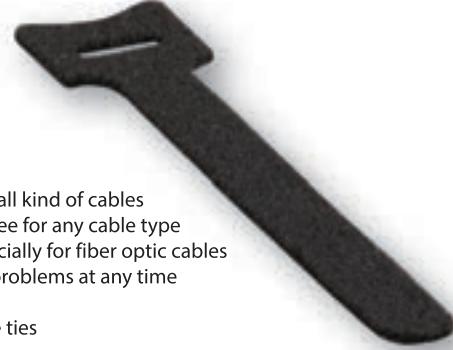
Hook & Loop Tape 20mm, black

Robust construction and extra strong adhesion
Reusable
Hook and strip material: Polyamide
Colour: black
25 m on rolls

Art.-No.	Description
81150.25	Hook & Loop Tape 20mm, black, 25m Roll

Cable Tie with Marking Surface

Art.-No.	Description
81132.100	Cable Tie with marking surf. 100x2.5mm, 100 pcs./bag, transparent

Hook & Loop Cable Tie, black

Perfect bundling for all kind of cables
Toolfree and stressfree for any cable type
Recommended especially for fiber optic cables
Resolvable without problems at any time

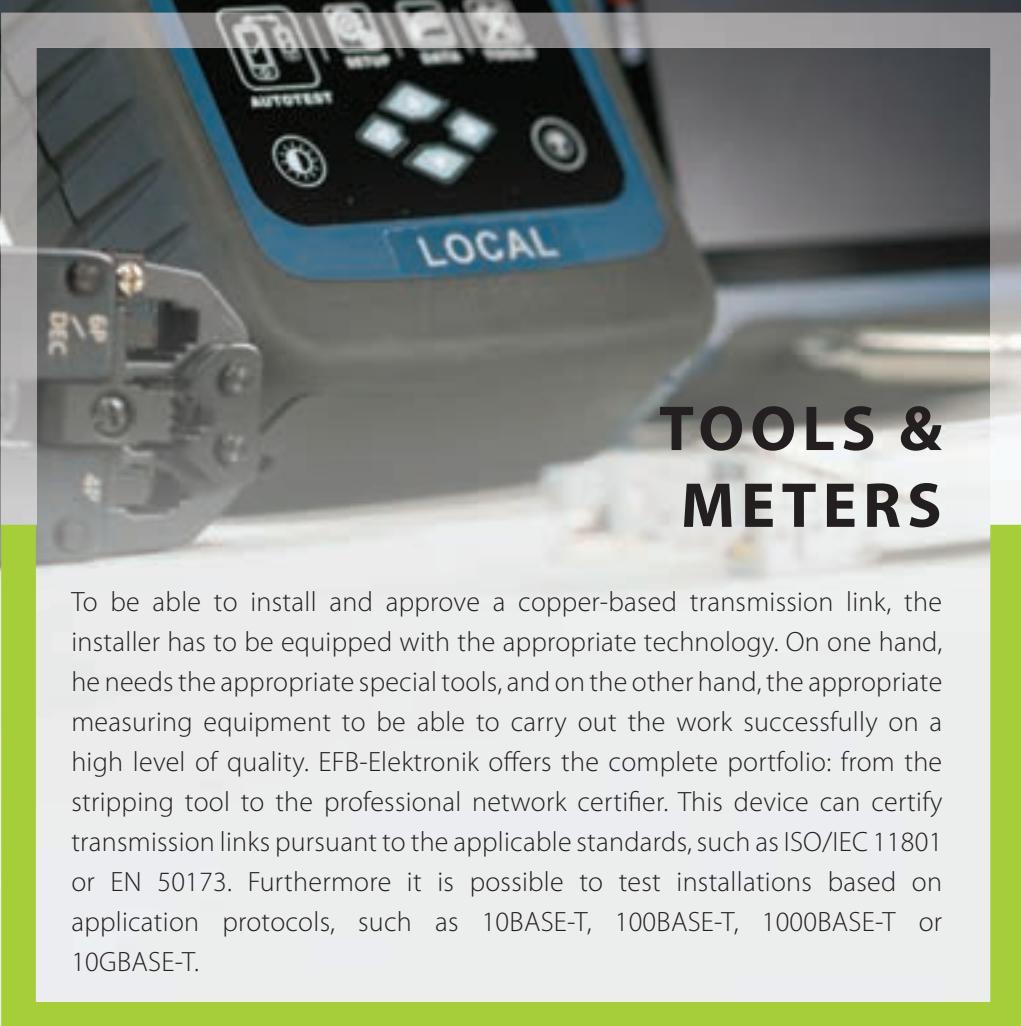
With slot
Hook-and-loop cable ties
10 pieces / bag

Art.-No.	Description
KB12-130B	Hook & Loop Cable Tie, lenght 130mm, width 12mm, 10piec./bag, black
KB12-160B	Hook & Loop Cable Tie, lenght 160mm, width 12mm, 10piec./bag, black
KB12-230B	Hook & Loop Cable Tie, lenght 230mm, width 12mm, 10piec./bag, black

Hook & Loop Tape 20mm, ultra-thin, black

Ultra slim
Reusable
Hook and strip material: Polyamide
Colour: black
25 m on rolls

Art.-No.	Description
KB20-2500B	Hook & Loop Tape 20mm, ultra-thin, black, 25m Roll



TOOLS & METERS

To be able to install and approve a copper-based transmission link, the installer has to be equipped with the appropriate technology. On one hand, he needs the appropriate special tools, and on the other hand, the appropriate measuring equipment to be able to carry out the work successfully on a high level of quality. EFB-Elektronik offers the complete portfolio: from the stripping tool to the professional network certifier. This device can certify transmission links pursuant to the applicable standards, such as ISO/IEC 11801 or EN 50173. Furthermore it is possible to test installations based on application protocols, such as 10BASE-T, 100BASE-T, 1000BASE-T or 10GBASE-T.

COPPER

DCW Crimping tool without die inserts



High precision crimping tool
 Delivery without inserts
 Inserts for DCW1002: DCW1002.x
 Inserts for DCW1003: DCW1003.x
 High-quality aluminium case for transport and protection available as accessories

Art.-No.	Description
DCW1002	Crimping Tool(frame) for die inserts DCW1002.x
DCW1003	Crimping tool (frame) for die inserts DCW1003.x

Accessory

Art.-No.	Description
39841.1	PRIMO Hirose Crimping Tools Case, Alu
DCW1002.1	Die insert Hirose TM11/21/31 for DCW1002
DCW1002.2	Die insert Stewart SS39200-12 for DCW1002
DCW1003.1	Die insert for DCW1003, suit. 37640.1, 37541.3, 37519.1

Crimping tool for RJ45 Hirose TM Serie



For crimping 8-pole Hirose plugs incl. strain relief in one operation
 Particularly suitable for local assembly
 Without Accessories

Art.-No.	Description
39934.1	Crimping tool for RJ45 Hirose connector TM11,TM21,TM31

Crimping tool E-MUC410 for RJ Connectors



For 4-, 6-, 6-DEC-, 8-, AMP, and shielded RJ45 Far East and for cutting and stripping
 Ideal for local assembly
 Following plugs can be crimped:
 37517.1, 37516.1, 37518.1, 37512.1, 37511.1, 37513.1, 37514.1, 37542.1

Art.-No.	Description
E-MUC410	Crimping tool for modular connector

Crimping tool for RJ45 Stewart Connectors

For 8-pole Stewart plugs
Recommended for field preassembly
The following plugs can be crimped: 37560.T, 37515.T

Art.-No.	Description
39946.1	Crimping tool for RJ45 Stewart

Crimping tool for RJ69 Modular-Connector UTP

Appropriate to UTP RJ69 modular connector Type: 37539.1

Art.-No.	Description
39945.2	Crimping tool for UTP-Modular, RJ69 10pol 37539.1

Crimping tool E-SK310 for RJ Connectors

For crimping 4-pole, 6-pole, 8-pole, cutting and stripping
Ideal for local assembly
Following plugs can be crimped:
37516.1, 37518.1, 37519.1, 37511.1, 37513.1, 37514.1, 37541.3, 37640.1

Art.-No.	Description
E-SK310	Crimping tool for modular connector

Crimping tool E-SK312 for RJ45 Connectors

For crimping 8-pole plugs and for cutting and stripping
Ideal for local assembly
Suitable for following plugs: 37519.1, 37514.1, 37541.3

Art.-No.	Description
E-SK312	Crimping tool for modular connector

Crimping tool ffor RJ12 6P6C Connector 37500.1

Crimping tool for 37500.1, shielded RJ12 6P6C Plug

Art.-No.	Description
39907.1	Crimptool for 37500.1, RJ12, 6/6 Modular Connector, shielded

LSA/IDC Insertion Tool with Sensor

LSA Insertion tool for LSA terminals and simultaneous cutting
The sensor ensures correct positioning of the wire in the LSA/IDC contact

Art.-No.	Description
39951.1	Krone LSA Insertion Tool with Sensor

LSA/IDC Insertion Tool

For applying the cable cores to LSA connection technology
For cable diameter 0.4..0.8 mm
Simultaneous wire cutting

Art.-No.	Description
39933.1	LSA Insertion Tool

LSA/IDC Insertion Tool for UTP Keystones

Insertion tool for twisted pair cables
Especially recommended for UTP keystone jacks

Art.-No.	Description
39931.1	LSA/IDC Insertion Tool for UTP Keystones

Crimping tool & Mounting Aid for RJ45 Keystone Modules

Suitable for Keystones type:
EHT-010: E-20070 and E-20091
EHT-040: 11201166 and 11201155

Art.-No.	Description
EHT-010	Crimping tool for E-20070 and E-20091
EHT-040	Crimping tool for UTP Keystones

Mounting Aid for UTP Keystone Jack

Mounting Aid during installation with LSA insertion tool
Recommended for 11201155 & 11201166
Fixing of RJ45 modules (keystone jack) during installation

Art.-No.	Description
39908.1	Mounting Aid for UTP Keystone Jack



Stripping Tool

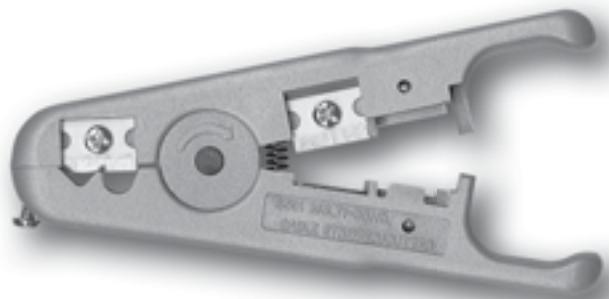
Tool for stripping the jacket and additionally the metal foil shield of data cables (S/FTP, U/FTP)
Material plastic, colour blue

Art.-No.	Description
DCW1008	Stripping Tool for jacket and foil shield

Cable knife Ø 8 - 28 mm

For stripping of all standard round cable
Blade titan-nitride coated,
which allows an higher cutting speed, lower erosion, higher tool life
Cutting depth adjusting screw on handle end
Automatic setup to round- or longitudinal cut
Secure grip through soft components inlay on handle and frame
Titan-Nitride coated blade of high-grade wear resistant polyamide
TÜV/GS-tested
Dimension (LxWxH): 132 x 29 x 35 mm, Weight: 75 g

Art.-No.	Description
39950.3	Cable cutting tool for Ø 8 - 28mm

Stripping tool for Twisted Pair Kabel

For all kinds of round cable like Twisted pair or Koax
For Flat cable in Telekom- and Networkarea
Stop screw to adjust the cable diameter

Art.-No.	Description
39911.1	Stripping tool for Twisted Pair Cable

Stripping Tool for PIMF Cable

For removing the outer jacket and shielding of PIMF cables
With adjustment block for fixing the correct length of wire for easy installation

Art.-No.	Description
39910.1	Stripping Tool for PIMF cable

Cable cutter

For installation and patch cables
For cutting and stripping the individual wires

Art.-No.	Description
39912.1	Cable Cutter

Quickloader Multibit Screwdriver



Quickloader:
 Multi-bit screwdriver with multi-bit automatic magazine
 Bit changing in less than 2 seconds
 Including 6 bits (3 x cross-recess/ 3 x slotted)
 Each 1 x P1, P2, P3 (cross-recess)
 Each 1 x 1/4, 3/16, 1/8 (slotted)

Art.-No.	Description
39935.1V2	QUICKLOADER Multi-Bit screwdriver

Art.-No.	Accessory
39935.3	Bitset 31-pieces, metric for Quickloader

Crimping tool for RJ Connectors UTP plus Cable Tester



Testing for both UTP and STP cable
 Testing cable for continuity, opens, shorts, and mis-wires
 Pin-to-pin indication
 Test mode selection for run once or test repeatedly
 Auto Power Saving
 Low power indications
 Single and multi-wired cable crimping
 Modular Crimping Plugs: 8P8C (RJ45), 6P6C (RJ12), 6P4C (RJ11)
 Integrated cable stripped and cutter
 Crimping Tool and Cable Tester in One
 Cable Tester can be detachable from the Tool

Art.-No.	Description
39969.1	Crimping tool for RJ Connectors UTP plus Cable Tester

Quickloader Multibit Screwdriver Mini



Quickloader Mini:
 Multi-Bit screw driver with multi-bit automatic magazine
 Bit changing in less than 2 seconds
 Including 6 bits (3 x cross-recess / 3 x slotted)

Art.-No.	Description
39935.4	QUICKLOADER Mini 6 in 1 Multi-Bit screwdriver

LAN Test Kit



Network and modular test
 Line tester for structured cabling and patch cables
 Advantage: Not pairs only, but any individual core can be tested for assignment
 For testing 10BaseT, 10Base2 Thin Ethernet (coax), RJ45 / RJ11 modular cable
 TIA-568A, 568B

Art.-No.	Description
39936.1	Lan test kit, network and modular cable

Cable Tester



For structured cabling and patch cables
Save expensive troubleshooting with a LAN analyzer
Standardisation TIA/EIA 568A, TIA/EIA 568B, 365A and Token Ring

Art.-No.	Description
39938.1	Cable tester, remote adapter case

LANSmart Network Tester



Handy high-tech measuring for network professionals
Technology: Time-domain reflectometer based
Cable length measurement possible without remote unit
RJ45 patch cable or raw cable measurable
Detects pinning, pair assignment, short-cuts
Port finder function:
LANSmart makes the link LED of the hub/switch/MC/NIC light up
Master and remote unit RJ45, pluggable
LCD display: 122x32 dot matrix 56x29mm
Measuring accuracy: Below 10m +/-2m, above 10m +/-5%
Length measuring range: min.: 1m - max.: 500m
Tone generator: 1kHz
Dimensions: 82x138x32mm, 220g
Power supply: 4.5VDC (3 x AAA micro) (not included)
CE tested

Art.-No.	Description
39978.1	LANSmart network tester with LCD display, TDR technology

LANTester Network



LAN test kit, master and remote unit network and modular test
Cable tester for twisted pair cabling and patch cables
RJ11/12/45 local or remote connections can be tested
Separate LED for Pin 1 - 8 and ground
Each individual core is automatically scanned
Scan speed low/high, adjustable
Incl. black plastic case
Battery 9 V, E-block not included

Art.-No.	Description
39939.1	Lantester network & modular cable, RJ11/12/45

Network Tool Set



This Tool Kit is ideal for field service. You can use the Tool Kit for fault diagnostics, testing and for new installations.

Scope of delivery:
LAN-Tester RJ11/RJ12/RJ45 (battery 9 V E-Block not included)
39918.1: Crimping Tool for Hirose connectors TM11 / TM21 / TM31
39919.1: Crimping Tool for RJ11/RJ12/RJ45
Cut and Stripping Tool
IDC Insert Tool

Art.-No.	Description
39919.1	Network Tool Kit with 4 units
39918.1	Network Tool Kit Hirose, with 4 units, with bag

NetXpert 1400 LAN Qualifier

The NetXpert 1400 provides a complete solution for cable qualification and troubleshooting of active networks, enabling rapid, simple verification and documentation of the capability of cabling links to support Gigabit Ethernet operation compliant with the IEEE 802.3ab standard.

Irrespective of the category of cables and connectors installed, a "Pass/Fail" result indicates whether the existing cabling can support data rates up to 1Gbit/s.

Link test up to 1 Gbit/s to identify link capability and link status
 Ping to a single or lists of IPv4 and IPv6 addresses (Ipv6 planned) as well as any URL on the internet
 CDP/LLDP/NDP and VLAN discovery
 PoE / PoE+ detection and load test for voltage drop
 DHCP test
 Traceroute
 Switch Port identification by blinking the port LED

Art.-No.	Description
PS_NX1400	NetXpert 1400 LAN Qualifier



WX450, Kable tester for Voice-, Data- and Koax cable

Specification:
 Tests Voice (6 wires), Data (8 wires) and Video (coax)
 Tests and indicates pins with shorts, opens, reversals, miswires and split-pairs
 Synthesizer for cable identification
 LCD Display
 Checking shielded and unshielded cable
 Warning signal for adjacent voltage
 Determining of cable lengths
 Power supply: 9V block

Scope of delivery:
 Test equipment WX400 / WX450
 5 x Coax-remote unit
 5 x RJ45-remote unit
 1 x F-jack to F-jack
 Audio cable RJ45 to crocodile clip

Art.-No.	Description
WX450	CableMaster 450



PoE Checker, Power over Ethernet Test Tool

Scan pins and detects PoE type if either Midspan or Endspan
 Display the PoE DC voltage and pinouts in an instance
 Able to determined the PoE standard if either IEEE 802.3af, IEEE 802.3at or a nonstandard PoE accurately
 Phone service detection and displays the DC voltage of phone service power
 Measurement of power drawn from Powered Device

Art.-No.	Description
37678.1	PoE Checker, Power over Ethernet Test Tool



WX4500 - Copper- and Fiber Cable Certifier



For standard conformance measurement of structured cabling in buildings
 Professional documentation generator
 Complete glass fiber certification for MM and SM with optional fiber optic measuring adapters
 Supports two-wavelength end-to-end measurements for MM and SM glass fibers

General Specifications

Interfaces: Probe Interface, RJ-45 Ethernet, USB host and device, talkset, power jack

Display: 6" industrial LCD, touch sensitive area on both units

Enclosure: Ruggedized plastic with rubber over-mold, withstands 1.5m drop test on hard surface

Remote unit abilities: View test results, save tests, start autotest

Power supply: AC 100-240V to 12V, 3A power adapter

Input over-voltage protection: Protected against Telco voltages

Battery: Removable and rechargeable Li-Ion

Battery Capacity: >8 hours continuous operation

Internal Storage Capacity: 2000 copper test results with full plot information

External Storage: USB Flash Drive 1 GB in delivery (21 GB max.)

Supported Languages: Chinese, Czech, English, Finnish, French, German, Italian, Japanese, Korean, Polish, Portuguese, Russian, Spanish, Swedish, Turkish

Calibration period: 1 year

Dimensions: 232 X 126 X 87 mm³ (9.1 X 5.0 X 3.4 inch³) /unit

Weight: Approx. 1.4 kg (3.0 lb) / unit

Art.-No.	Description
WX4500-FA-V2	Copper- and FO-Cable Certifier up to 2500MHz

Accessory

Art.-No.	Description
WX_AD_6ACH2	Class Ea Channel Adapter, (1 Pair)
WX_AD_GGARJCH2	Class Fa-Channel Adapter, GG45/ARJ45 interface
WX_AD_GGARJCH_KIT2	Class Fa-Channel Measurement-Adapter, GG45/ARJ45 / Cat. 7a (1Pair)
WX_AD_TERACH2	Class Fa TERA Channel Adapter with interface class F/Fa
WX_AD_6ALKIT2	Permanent Link-Adapter-Set, Class Ea
WX_AC_6ALCORD2	Permanent Link Test Cable, completely assembled (1 Pair)
WX_AD_TERAL2	Fa Permanent Link-Adapter, TERA-interface
WX_AD_FA-LKIT_T2	Class Fa TERA Permanent Link, Test Cable (KIT)
WX_AD_BIX1	Belden BIX, Permanent Link Adapter

Environmental

Operating Temperature: 0 to 40 °C

Storage Temperature: -20 to 60 °C

Relative humidity: 10% to 80%

Copper testing

Certification Testing: TIA 568-C.2 CAT 5e, 6, 6A, draft CAT 8 ISO/IEC 11801, EN 50173 Class D, E, EA, F, FA draft Class I and Class II Permanent link and channel CAT 5e, 6, 6A, 7, 7A and patch-cord

Autotest time - CAT6A: 9 sec

Autotest time - Class FA: 15 sec

Max cable length for dual ended Autotest: 500m

Insertion Cycles: Channel: 10000 typical

Permanent link: 5000 typical

Advanced Diagnostics: Time-domain fault Locator for RL and NEXT

Measurement Accuracy: Exceeds TIA 1152 Level IIIe, IEC 61935 level IV

Measurement Frequency Range: 1- 2500 MHz

Fiber Testing - SM

Wavelengths: 1310nm, 1550nm

Autotest Time: 6 seconds for dual ended test

Connector Type: SC, LC (optional adapter needed)

Fiber Testing - MM

Wavelengths: 850nm, 1300nm

Autotest Time: 6 seconds for dual ended test

Connector Type: SC

Scope of delivery:

WireXpert Handheld units: 2

Li-Ion Batteries: 2

Stylus with Cords: 2

Display Protection Covers: 2

CAT 6A Permanent Link Interface Adapters: 2

CAT 6A Permanent Link Test Cords: 2

CAT 6A Channel Adapters: 2

USB Thumb Drive incl. Manual and Software: 1

Talk Head Sets: 2

AC Power Adapters: 2

Country Specific Power Cord: 2

Calibration Certificate: 1

Carrying Case: 1

Quick Reference Guide: 1

WireXpert 500 Set



Key Features:

Advanced cable certification up to 500 MHz
 Certifies to Industry standards – Class D/E/EA & Category 5e/6/6A
 Meets TIA and ISO Level IIIe accuracy requirements
 Certification testing of Patch cords
 Industrial Ethernet testing with RJ45 and M12 connectivity, E2E link testing
 Advanced reporting and documentation
 Affordable certifier for premise cabling and Industrial Ethernet
 Possible Upgrades with cost to WX4500 through softwareupdate and recalibration

Scope of delivery:

2 Measurement units, LOCAL and REMOTE
 Pair of CAT 6A channel adapters, Pair of CAT 6A link adapters
 2 headsets, Li-Ion batteries, Power supplies, USB thumb drive, Soft carrying case,
 Calibration certificate and reporting software



Art.-No.	Description
WX500	Copper Cable Certifier 500MHz



TELECOM

In the field of telecommunication technology, the proven technology of the twin-wire systems is well known. Two-wire cables with a 0.6 or 0.8 mm wire diameter bridge the last mile from the cable distribution panel to the customer. The "solder-screw-stripping-free+- technology" is used for the connection. It is a fast, reliable contacting technology between the double-wire and the corresponding components. "Solder-screw-stripping-free+- technology" continues to provide reliable services with respect to current vectoring technologies.

COPPER

Wall-Mounted Distribution Cabinets TWL



Closed sheet steel cabinet with swivel turning handle for profile half-cylinder
 Cable entry at top and bottom via brush terminal
 Colour RAL7035, light grey
 Degree of protection IP40

Art.-No.	Type	Module Slots	in Pairs	Width	Height	Depth	Weight
46074.1V2	TWL 300	2 x 18	300	600 mm	600 mm	240 mm	25 kg
46075.1V2	TWL 500	2 x 26	500	600 mm	800 mm	240 mm	29 kg
46076.1V2	TWL 900	2 x 46	900	600 mm	1300 mm	240 mm	35 kg
46077.1V2	TWL 1350	3 x 46	1350	800 mm	1300 mm	240 mm	40 kg

Profile Half-Cylinder



Profile half-cylinder according to DIN 18252 / EN1303
 Suitable for EFB standard turning handle (Art.-No. 102179), compact turning handle (Art.-No. 699989) and Telecom distributor TWL/TSL
 Incl. 2 x key

Art.-No.	Description
46086.1	Profil Half-Cylinder Locking 15, with 1 Key Q15
46087.1	Profil Half-Cylinder Locking T3, incl. 2 Keys
46087.2	Profil Half-Cylinder Locking T4, incl. 2 Keys
46087.3	Profile Half-Cylinder for Locking 3524E
46087.4	Profile Half-Cylinder with Push-Button

Free-Standing Distribution Cabinets TSL



Cabinet with removable side walls, suitable for in-line arrangement
 With turning handle for profile half-cylinder and three-point bar lock
 Cable entry from top via rubber clamp, from bottom via three-part base plate
 Colour RAL7035, light grey
 Protection degree IP54 with cable infeed from bottom, otherwise IP40
 Socket 100/200 mm as accessory

Art.-No.	Type	Module Slots	in Pairs	Width	Height	Depth	Weight
46078.1V2	TSL 1200	2 x 72	1200	600 mm	2000 mm	400 mm	98 kg
46079.1V2	TSL 1800	3 x 72	1800	800 mm	2000 mm	400 mm	120 kg
46080.1V2	TSL 2400	4 x 72	2400	1000 mm	2000 mm	400 mm	135 kg

Plinth for Free-Standing Distribution Cabinet TSL



Plint for standing distributor TSL

Art.-No.	Suitable for	Width	Height	Depth
46121.1	TSL 1200	600 mm	100 mm	400 mm

LSA - Connection Module 1/20 20pairs

Printed with numbers 2 x 1..10
For screw fastening
Fixing dimension 170 mm

Art.-No.	Description
46001.1V2	LSA-connection module 1/20 20pairs

LSA - Earth Module 1/84 84-pole

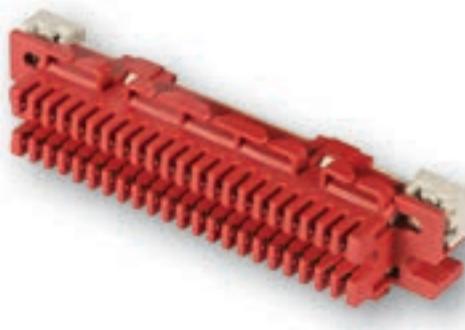
All contacts jumpered with the earth connection
For screw fastening
Fixing dimension 170 mm

Art.-No.	Description
46002.1V2	LSA-earth module 1/84 84pole

LSA - Connection Module 1/10 10pairs

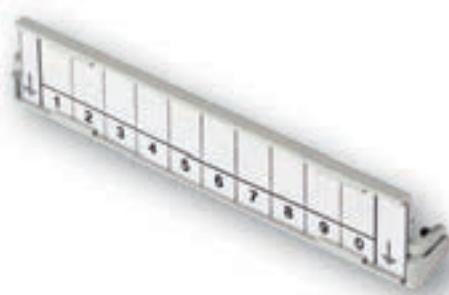
Printed with numbers 1..10
For screw fastening
Fixing dimension 96 mm

Art.-No.	Description
46001.2	LSA-connection module 1/10 10pairs

LSA - Earth Module 1/44 44-pole

All contacts jumpered with the earth connection
For screw fastening
Fixing dimension 96 mm

Art.-No.	Description
46002.2	LSA-earth module 1/44 44pole

Hinged Label Holder 1/10

Hinged
One-side printed with 1..10 (46003.2)

Art.-No.	Description
46003.2	Hinged Label Holder 1/10

Hinged Label Holder 1/20

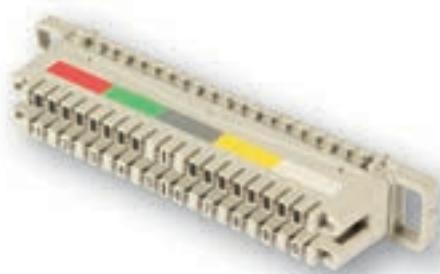
Hinged
One-side printed with 2 x 1..10 (46003.1)

Art.-No.	Description
46003.1	Hinged Label Holder 1/20

Test Cords 1/2 with 2 Jacks

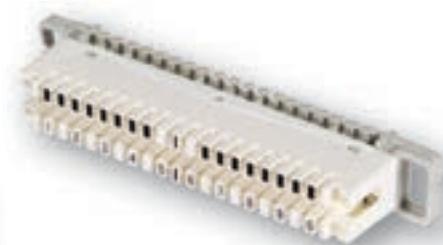
For parallel connection to a wire pair
Suitable for LSA connection modules 1/20 and 1/10

Art.-No.	Description
46004.1	Test Cord 1/20 (7040) with 2 Bushings

LSA - Connection Module 2/10 10pairs

For LSA backmount frames/channels
With large routing eyes, printed with numbers 1..0
Cable and routing side permanently connected

Art.-No.	Description
46006.1	LSA Connection Module 2/10 10pairs w/o Colour Code
46006.1F	LSA Connection Module 2/10 10pairs with Colour Code

LSA Disconnection Module 2/10 for 10pairs

For LSA backmount frames/channels
With large wire routing eyes, printed with numbers 1..0
Cable and routing side can be separated by disconnection plug

Art.-No.	Description
46005.1	LSA Disconnection Module 2/10 10pairs w/o Colour Code
46005.1F	LSA Disconnection Module 2/10 10pairs with Colour Code

LSA - Earth Module 2/38 38-pole

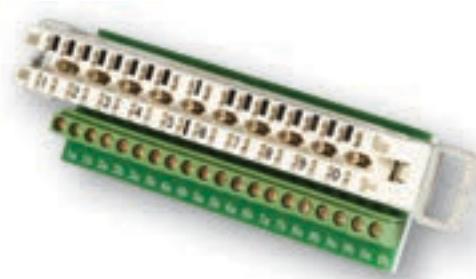
For LSA backmount frames / channels
All contacts jumpered with the earth connection

Art.-No.	Description
46007.1	LSA Earth Module 2/38 38-pole

Modular Label Holder 2/10 for Backmount Frames

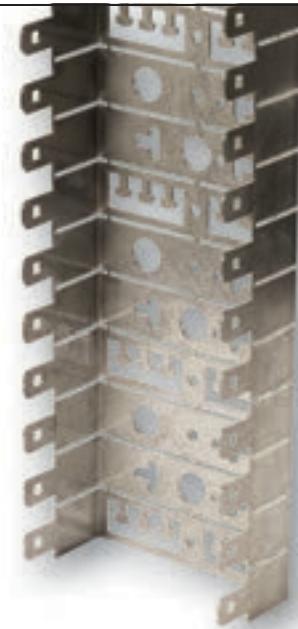
For snapping onto LSA backmount frames / channels
Not printed

Art.-No.	Description
46008.1	Modular Label Holder 2/10

LSA Adapters Disconnection Module/ Screw Contact

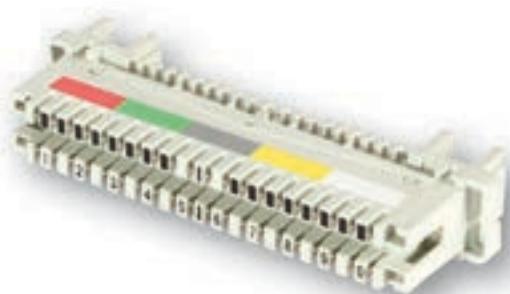
For LSA backmount frames / channels
Disconnection module with 20 screw contacts on the routing side for wires up to 2.5 mm²

Art.-No.	Description
46085.1	LSA Adapter Disc. Module 10 pairs / Screw Terminals

LSA - Backmount Frames Universal

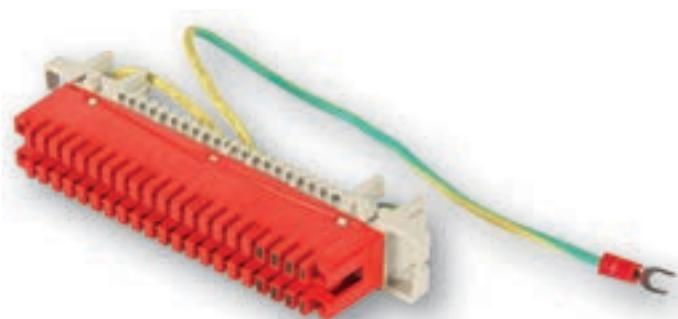
For LSA modules 2/10 10pairs
Pitch (terminal-terminal distance) 25 mm
The depths are 22 / 30 / 50 mm
Individual modules are easy to cut off from the LSA backmount frame with diagonal cutter by customer, making them universally usable
Number of modules = 50

Art.-No.	Description
46010.50	LSA Back Mount Frame, 50 Modules, D=22 mm, P=25 mm, PU 2 pcs.
46011.50	LSA Back Mount Frame, 50 Modules, D=30 mm, P=25 mm, PU 2 pcs.
46012.50	LSA Back Mount Frame, 50 Modules, D=50 mm, P=25 mm, PU 2 pcs.

LSA - Connection Module 2/10 10pairs

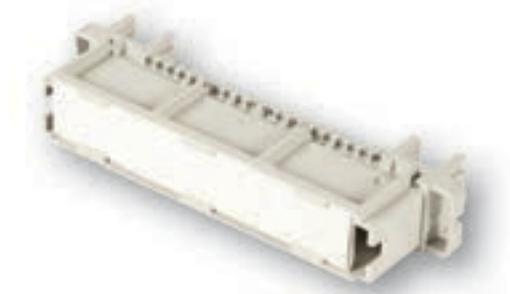
For profile rod mounting
With large routing eyes - printed with numbers 1..0
Cable and routing side permanently connected

Art.-No.	Description
46006.2	LSA Connection Module 2/10 10pairs for Profil Rods, w/o Colour Code
46006.2F	LSA Connection Module 2/10 10pairs for Profil Rods, with Colour Code

LSA - Earth Module 2/34 34-pole

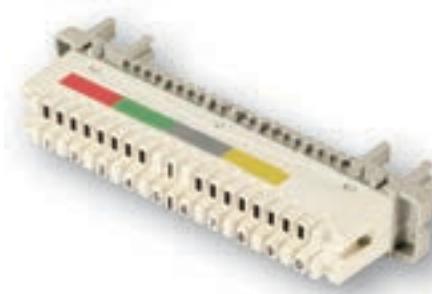
For profil rod mounting
All contacts jumpered with the earth connection

Art.-No.	Description
46007.2	LSA Earth Module 2/34 34pole for Profil Rods

Profil Modular Label Holder 2/10 for profil rod mounting

For snapping onto profile rods
Not printed

Art.-No.	Description
46008.2	Profil Modular Label Holder

LSA - Disconnection Module 2/10 for 10pairs

For profile rod mounting
Printed with numbers 1..0
Cable and routing side can be separated by disconnection plug

Art.-No.	Description
46005.2	LSA Disconnection Module 2/10 10pairs for Profile Rods, w/o Colour Code
46005.2F	LSA Disconnection Module 2/10 10pairs for Profile Rods, with Colour Code

Hinged Label Holder 2/10

Can be mounted on LSA modules 2/10 10pairs and surge protection magazines
Not printed
Can be labelled on both sides

Art.-No.	Description
46009.1	Hinged Label Holder 2/10

LSA/IDC Insertion Tool

Art-Nr. 39951.1



For applying the cable cores to LSA connection technology
For cable diameter 0.4..0.8 mm
Simultaneous wire cutting
The sensor is for correctly positioning the core in the LSA contact (only 39951.1)

Art.-No.	Description
39933.1	LSA Insertion Tool
39951.1	Krone LSA Insertion Tool with Sensor

Connection Cord 2/4 4-pole, Plugs for LSA Disconnection-Modules 2/10 10pairs



With 2 LSA plugs 2/4 4-pole, for 2 and 4-pole switching

Art.-No.	Description
46119.x	Connection Cord 2/4 4-pole, Plugs for LSA Disconnection-Modules 2/10 10pairs
46119.x	Connection Cord 2/4 4-pole, Plugs for LSA Disconnection-Modules 2/10 10pairs

Connection Cord RJ45 - LSA 1pair 2-pole



For the connection of 2 wiring telecommunication services into structured cabling systems
Assignment 4/5

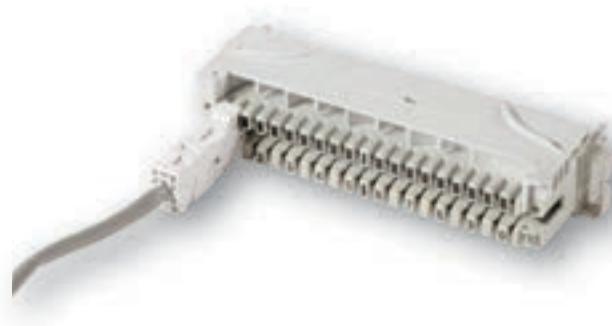
Art.-No.	Description
46130.x	Connection Cord RJ45 - LSA 1pair 2-pole
46130.x	Connection Cord RJ45 - LSA 1pair 2-pole

Connection Cord RJ45 - LSA 1pair 4-pole

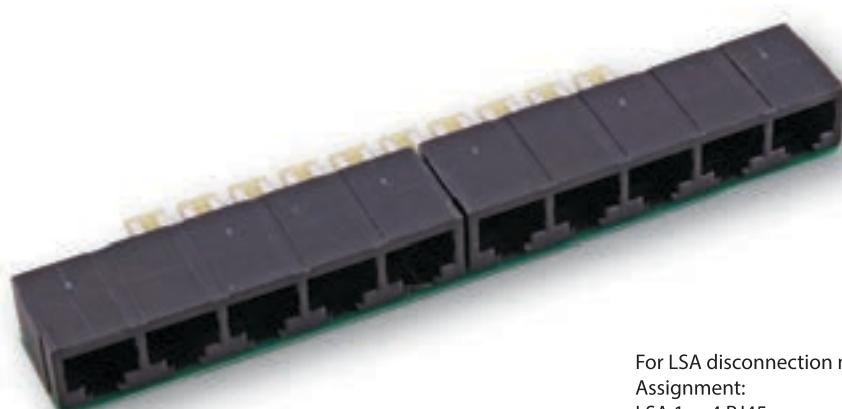


For the connection of 4 wiring telecommunication services into structured cabling systems
Assignment 4/5 - 3/6

Art.-No.	Description
46131.x	Connection Cord RJ45 - LSA 1pair 4-pole
46131.x	Connection Cord RJ45 - LSA 1pair 4-pole



Plug-In Board 10 x RJ45 - LSA



For LSA disconnection modules 2/10 10pairs
Assignment:
LSA 1a - 4 RJ45
LSA 1b - 5 RJ45

Art.-No.	Description
46169.1	10 x RJ45 - LSA Module 2-pole Telephone

LSA Overvoltage Protection Magazin 2/10



46140.1 - 20 arresters per magazine
46141.1 - 10 arresters per magazine

Art.-No.	Description
46140.1	LSA - Overvoltage Protection Magazine 2/10 10pairs 8x6
46141.1	LSA - Overvoltage Protection Magazine 2/10 10pairs 8x13

LSA Surge Arrester ÜsAg



8 x 6

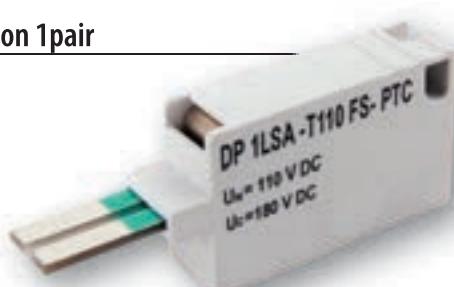


8 x 13

Gas-filled
Rated discharge current 10 kA

Art.-No.	Description
46142.1	8x6 / 90V / 10kA
46143.1	8x6 / 230V / 10kA
46144.1	8x6 / 230V / 10kA + Failsafe
46145.1	8x13 / 90V / 10kA
46146.1	8x13 / 230V / 10kA
46147.1	8x13 / 230V / 10kA + Failsafe

Fine Protection 1pair



Overvoltage and overcurrent protection for signal and data lines
Coarse protection, fine protection, overload protection » fail-safe
Integrated overcurrent protection by PTC resistor
Leakage current 10 kA, impulse spark-over voltage 230 V
For direct and alternating voltage
Operating current 150 mA nominal

Earthing Contact Clip



For overvoltage protection contacting during profile rod installation
Per magazine 2 pieces required

Art.-No.	Description
46148.1	Earth Connection Clip for Profil Rod

Earthing Bar 2/10



For connecting the 1 pair fine protection plug to the earth potential
1 x earthing bar required per LSA connection module 2/10

Art.-No.	Type
46150.24	1DA fine protection with failsafe V= 24 V
46150.48	1DA fine protection with failsafe V= 48 V
46150.60	1DA fine protection with failsafe V= 60 V

Art.-No.	Description
46152.1	Earthing Bar 2/10

Connection Wire YV, Wires x Ø Conductor /Ø Insulation: 2 x 0.5 / 0.9 mm

Other types on request

Art.-No.	Description
46088.100	YV 2 x 0.5/0.9 Red-Green, Ring 100 m
46090.100	YV 2 x 0.5/0.9 White-Brown, Ring 100 m
46091.100	YV 2 x 0.5/0.9 Red-Blue, Ring 100 m
46092.100	YV 2 x 0.5/0.9 White-Green, Ring 100 m
46093.100	YV 2 x 0.5/0.9 White-Yellow, Ring 100 m
46094.100	YV 2 x 0.5/0.9 White-Blue, Ring 100 m
46095.100	YV 2 x 0.5/0.9 White-Red, Ring 100 m
46096.100	YV 2 x 0.5/0.9 White-Black, Ring 100 m
46097.100	YV 2 x 0.5/0.9 White-Pink, Ring 100 m
46098.100	YV 2 x 0.5/0.9 Black-Red, Ring 100 m

Disconnection Plug 1pair

For LSA disconnection modules 2/10 10pairs

Disconnects the line path

Other colours on request

Art.-No.	Description
46154.1	Disconnection Plug 1Pair Red

Identifying Cap 1pair

For identifying special line paths

Other colours on request

Art.-No.	Description
46155.1	Identifying Cap 1Pair Red

Connection Wire YV, Wires x Ø Conductor /Ø Insulation: 2 x 0.6 / 1.1 mm

Other types on request

Art.-No.	Description
46099.100	YV 2 x 0.6/1.1 White-Brown, Ring a 100 m
46100.100	YV 2 x 0.6/1.1 White-Blue, Ring a 100 m
46101.100	YV 2 x 0.6/1.1 White-Pink, Ring a 100 m
46102.100	YV 2 x 0.6/1.1 White-Green, Ring a 100 m
46103.100	YV 2 x 0.6/1.1 White-Red, Ring a 100 m
46104.100	YV 2 x 0.6/1.1 White-Black, Ring a 100 m
46106.100	YV 2 x 0.6/1.1 Red-Black, Ring a 100 m
46107.100	YV 2 x 0.6/1.1 White-Yellow, Ring a 100 m
46108.100	YV 2 x 0.6/1.1 Red-Green, Ring a 100 m

Disconnection Plug 2/10 10pairs

Cable and routing side can be separated on LSA disconnection modules 2/10 to 10pairs

Art.-No.	Description
46014.1	LSA Disconnection Plug 2/10 10pairs

Set of Number Flags

Printed from 1..0 and 10..100

For counting the LSA modules 2/10 10pairs step by step

Art.-No.	Description
46167.2	Set of Number Flags 1 Set = 10 Pieces, Printing 1..0
46167.3	Set of Number Flags 1 Set = 10 Pieces, Printing 10..100

LSA/IDC Insertion Tool



For applying the cable cores to LSA connection technology
For cable diameter 0.4..0.8 mm
Simultaneous wire cutting

Art.-No.	Description
39933.1	LSA Insertion Tool

LSA/IDC Insertion Tool for Keystones



Insertion tool for twisted pair cables
Especially recommended for UTP keystone jacks

Art.-No.	Description
39931.1	LSA/IDC Insertion Tool for UTP Keystones

LSA/IDC Insertion Tool with Sensor



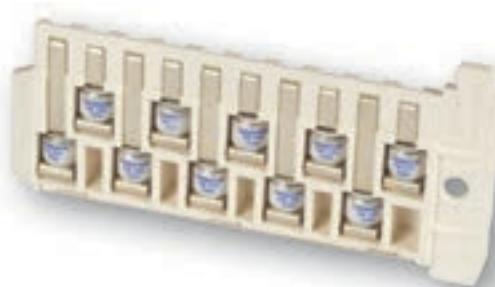
LSA insertion tool for LSA terminals and simultaneous cutting
The sensor (only Art.-No. 39951.1) ensures correct positioning of the wire in
the LSA/IDC contact

Art.-No.	Description
39951.1	Krone LSA Insertion Tool with Sensor

Insertion Tool for System 71/ System 5000

Insertion tool for pressing the wires in to the IDC contacts
 With integrated cutting tool for cutting wire overlength and hook for loosening contacted wires
 Colour red/grey

Art.-No.	Description
46072.1	Insertion Tool for System 71

Magazin 71/5 5pairs

Magazine 71/5 to 5pairs
 For installation in overvoltage protection contact with disconnection module 71/100 to 100pairs deep
 With 10 arresters 90 V resp. 230 V and fail-safe (230 V) as overload protection

Art.-No.	Description
460710.1	Arrester Magazine for HVT 71, 5pairs, MTH 90
460711.1	Arrester Magazine for HVT 71, 5pairs, MTH 230 (10kA)

THE DIGITAL FIBER OPTIC SALES ADVISOR

THE CLEVER WAY TO CONFIGURE BREAKOUT OR LOOSE TUBE FIBER CABLES



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VKA Housing



Consists of sheet steel box with basic plate and cover with latch
 VKA mounting kits for 10pairs and 20pairs can be screwed on the basic plate
 Cable entries on the bottom and the top of the cover
 Colour of the cover: RAL9016 traffic white
 Protection degree IP30
 Sheet of paper for connection registration
 Advice: weight including mounting kit

Art.-No.	Type	Width	Height	Depth	Weight
46017.1V1	VKA2	200 mm	330 mm	100 mm	2.8 kg
46018.1V1	VKA4	330 mm	330 mm	100 mm	3.22 kg
46019.1V1	VKA8	330 mm	550 mm	100 mm	5.23 kg
46020.1V1	VKA12	550 mm	550 mm	100 mm	9.0 kg

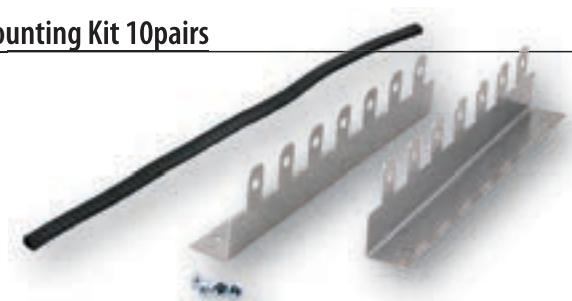
Locking T3 for VKA



With 2 keys

Art.-No.	Description
46040.1	Locking T3/1333 for VKA and VKU with 2 Keys

VKA Mounting Kit 10pairs



Mounting kit for snapping of LSA technology 2/10 10pairs
 Including cable entry protection and set of screws for mounting
 Overvoltage protection magazines mountable
 (VKA2 50pairs, VKA4 100pairs, VKA8 240pairs, VKA12 380pairs)

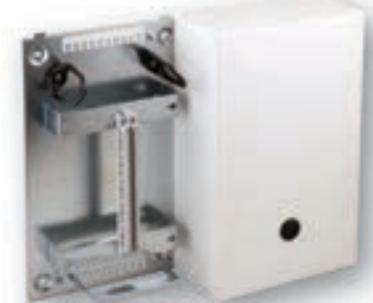
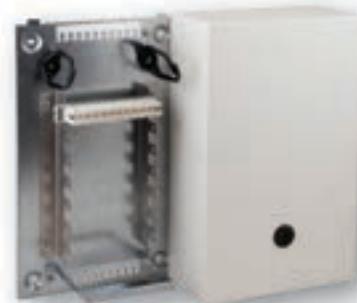
Art.-No.	Type	Module Slots	Max. Pairs
46017.10	VKA2	1 x 7	70
46018.10	VKA4	2 x 7	140
46019.10	VKA8	4 x 7	280
46020.10	VKA12	6 x 7	420

VKA Mounting Kit 20pairs



Mounting kit for screwing of LSA technology 1/20 20pairs
 Including cable entry protection and set of screws for mounting

Art.-No.	Type	Module Slots	Max. Pairs
46017.20	VKA2	1 x 5	100
46018.20	VKA4	2 x 5	200
46019.20	VKA8	4 x 5	400
46020.20	VKA12	6 x 5	600



VKA with Assembled Mounting Kit 10pairs

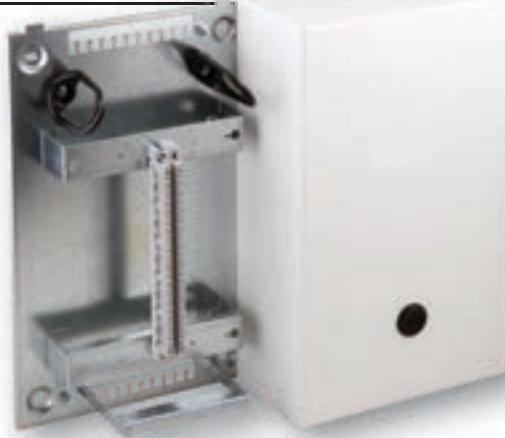
Consists of sheet steel box with basic plate and cover with latch
 With assembled mounting kit 10pairs (for LSA modules 2/10 10pairs)



Art.-No.	Type	Module Slots	in Pairs	Width	Height	Depth	Weight
46017.1V10	VKA2	1x7	70	200 mm	330 mm	100 mm	2.8 kg
46018.1V10	VKA4	2x7	140	330 mm	330 mm	100 mm	3.22 kg
46019.1V10	VKA8	4x7	280	330 mm	550 mm	100 mm	5.23 kg
46020.1V10	VKA12	6x7	420	550 mm	550 mm	100 mm	9.0 kg

VKA with Assembled Mounting Kit 20pairs

Consists of sheet steel box with basic plate and cover with latch
 With assembled mounting kit 20pairs (for LSA module 1/20 20pairs)



Art.-No.	Type	Module Slots	in Pairs	Width	Height	Depth	Weight
46017.1V20	VKA2	1x5	100	200 mm	330 mm	100 mm	2.8 kg
46018.1V20	VKA4	2x5	200	330 mm	330 mm	100 mm	3.22 kg
46019.1V20	VKA8	4x5	400	330 mm	550 mm	100 mm	5.23 kg
46020.1V20	VKA12	6x5	600	550 mm	550 mm	100 mm	9.0 kg

VKU with Assembled Mounting Kit 20pairs



Consists of sheet steel box with basic plate and cover with latch
 With assembled VKU mounting kit 20pairs (for LSA technology 1/20 20pairs)

LSA Miniboxes 201C 20pairs



Fitted with 2 LSA disconnection modules 2/10 10pairs

Art.-No.	Type	in Pairs	Width	Height	Depth	Weight
46017.3	VKU2	20	280 mm	380 mm	83 mm	2.8 kg
46018.3	VKU4	20	380 mm	380 mm	83 mm	2.8 kg

Art.-No.	Type	in Pairs	Width	Height	Depth	Weight
46053.1	LSA Mini Box 201C 20DA	20	120 mm	170 mm	42 mm	0.25 kg

BOX I for 30pairs

Plastic distributor, indoor
Protection degree IP30
With 1 x backmount frame for 3 x LSA connection modules 2/10 10pairs
Incl. 4 top strip

Art.-No.	Type	in Pairs	Width	Height	Depth	Weight
46025.3	Box I 30pairs with latch	30	140 mm	170 mm	76 mm	0.5 kg
46025.4	Box I 30pairs with lock	30	140 mm	170 mm	76 mm	0.5 kg

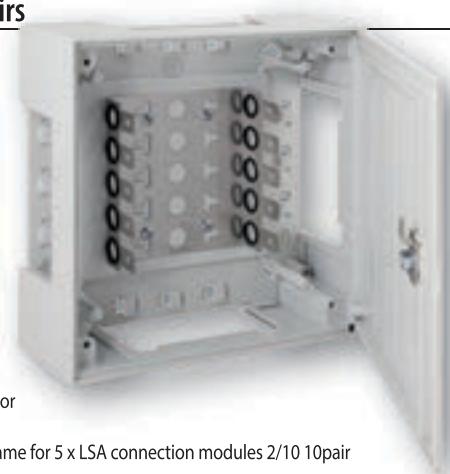
Accessories

Art.-No.	Description
46025.6	Flush Mounting Frame Box I (46025.3, 46025.4)
46025.5	Stacking Frame for Box I - Necessary for Plug-In of Overvoltage Protection

BOX II for 50pairs

Plastic distributor, indoor
Protection degree IP30
With 1 x backmount frame for 5 x LSA connection modules 2/10 10pair
Incl. 4 top strip

Art.-No.	Type	in Pairs	Width	Height	Depth	Weight
46025.1	Box II 50pairs with latch	50	215 mm	215 mm	76 mm	0.83 kg
46025.2	Box II 50pairs with lock	50	215 mm	215 mm	76 mm	0.83 kg

BOX II for 50pairs

Plastic distributor, indoor
Protection degree IP30
With 1 x backmount frame for 5 x LSA connection modules 2/10 10pair
Incl. 4 top strip

Art.-No.	Type	in Pairs	Width	Height	Depth	Weight
46025.1	Box II 50pairs with latch	50	215 mm	215 mm	76 mm	0.83 kg
46025.2	Box II 50pairs with lock	50	215 mm	215 mm	76 mm	0.83 kg

Accessories

Art.-No.	Description
46028.1	Flush mounting frame BOX-II (46025.1, 46025.2)
46027.1	Stacking Frame for Box II - Necessary for Plug-In of Overvoltage Protection

TT Small Distributor 1 / 2 / 3 IP54

With LSA backmount frame for LSA 2/10 to 10pairs
With screw closure
Protection degree IP54

Art.-No.	Type	in Pairs	Width	Height	Depth	Weight
46050.2	TT Small Distribution Box 1	30	166 mm	240 mm	99 mm	0.37 kg
46051.1	TT Small Distribution Box 2	50	190 mm	215 mm	90 mm	0.52 kg
46052.1	TT Small Distribution Box 3	100	190 mm	375 mm	115 mm	1.04 kg

TT Small Distribution Boxes 4 IP54

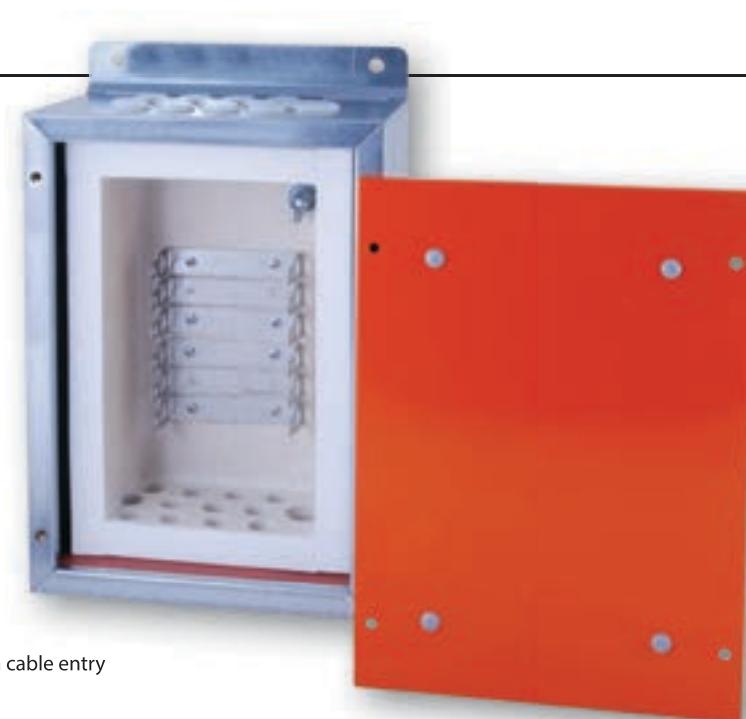
With LSA backmount frame for LSA connection modules 2/10 10pairs
With lock
Protection degree IP54

Art.-No.	Type	Modules	in Pairs	Width	Height	Depth	Weight
46049.1	TT Small Distribution Box 4	2	20	103 mm	185 mm	90 mm	0.3 kg

Accessories

Art.-No.	Description
46030.1	Flush Mounting Frame for Box III
46029.1	Stacking Frame for Box III - Necessary for Plug-In of Overvoltage Protection

Fire Protection Boxes VKA E30



With built-in LSA backmount frame 2/10

Galvanised sheet steel housing

Protection degree IP43

Lining with fire protection panels and intumescence material in cable entry area

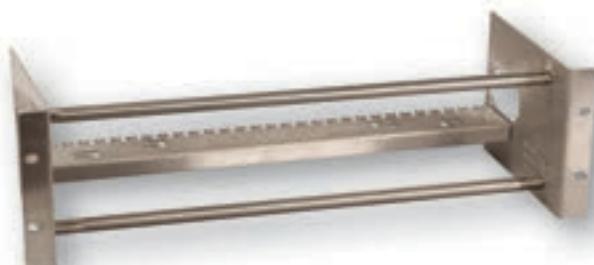
Inner depth enables plug-in of surge protection magazines

Tested acc. to DIN 4102 Part 2

Building approval by the DIBT-Berlin Z-86.1-39

Art.-No.	Type	Width	Height	Depth	Module Slots	in Pairs	Cable Entry	Weight	Inside width	Inside height	Inside depth
46042.1	VKA E30/20	200 mm	250 mm	130 mm	2	20	2 x PG29, 8 x PG16	5.1 kg	105 mm	155 mm	90 mm
46042.2	VKA E30/60	250 mm	350 mm	130 mm	6	60	2 x PG29, 24 x PG16	7.9 kg	155 mm	255 mm	90 mm
46042.3	VKA E30/100	250 mm	450 mm	130 mm	10	100	2 x PG29, 24 x PG16	10 kg	155 mm	255 mm	90 mm
46042.4	VKA E30/200	450 mm	450 mm	130 mm	20	200	4 x PG29, 40 x PG16	16.3 kg	355 mm	355 mm	90 mm
46042.5	VKA E30/400	450 mm	750 mm	130 mm	40	400	4 x PG29, 40 x PG16	24.2 kg	355 mm	605 mm	90 mm

19" Subracks 3U - 84DU



AL7035, light grey

With 2 horizontal stainless steel profile rods 12 mm

For accommodating up to 15 LSA connection modules 2/10 10pairs vertical

For profil rod mounting

Earth connection with nut M6

Tapered mantle terminal with drain wire

Cable strain relief at rear

Art.-No.	Description
46054.1	19" subrack 3U 150pairs with profile rods

19" Subracks 1U - 4U



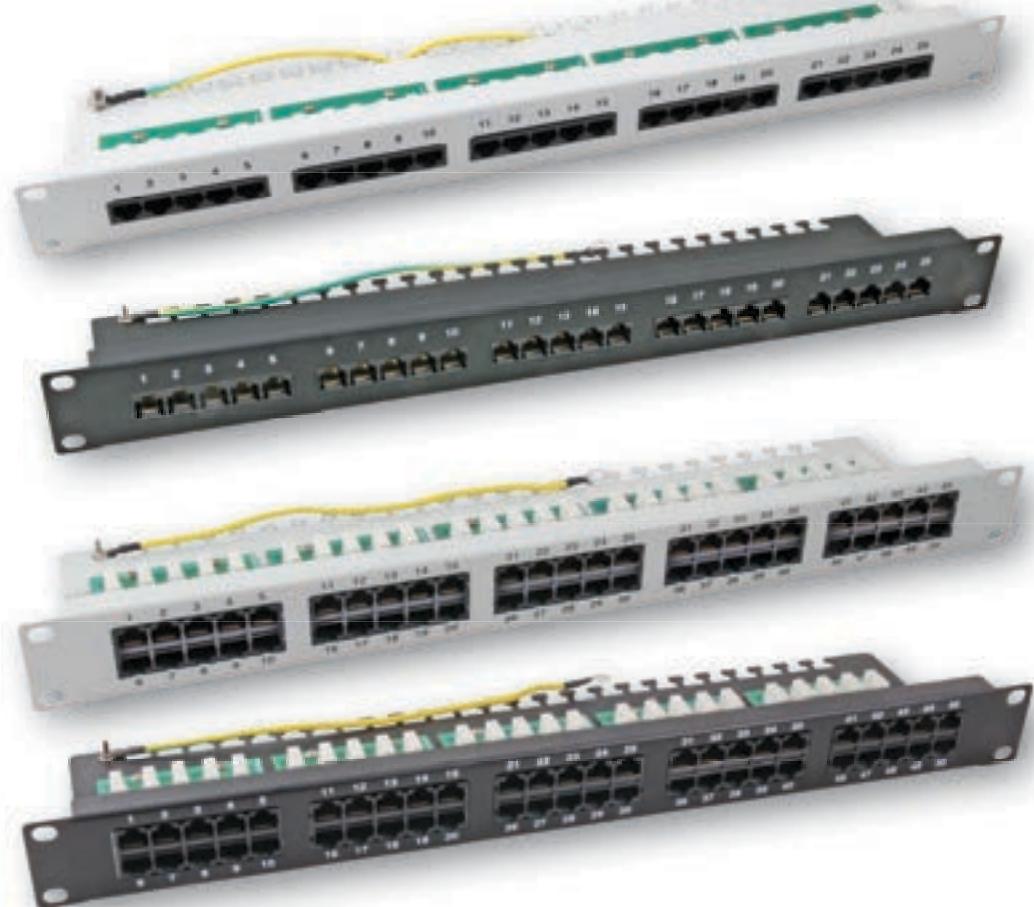
With LSA backmount frames

For accommodating from 3 x 2 to 3 x 7 LSA modules 2/10 10pairs horizontal

Width 480 mm, depth 100 mm

RAL9005, jet black

Art.-No.	Description
46055.2	19" Subrack 1U 60pairs with Backmount Frames
46055.1	19" Subrack 2U 120pairs with Backmount Frames
46055.3	19" Subrack 3U 150pairs with Backmount Frames
46056.1	19" Subrack 4U 210pairs with Backmount Frames

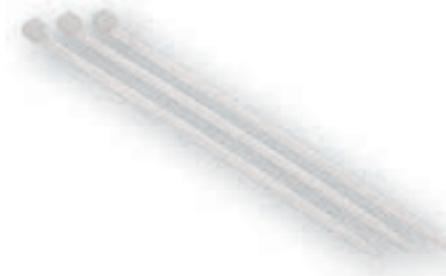
ISDN Patch Panel 19"1U, Unshielded, Cat.3

1U, Category 3
Unshielded RJ45 8(4) jacks
4-pole LSA IDC terminals
Assignment: 3-6/4-5
High packing density
Strain relief via cable ties

Art.-No.	Description
37588.1	Patchpanel 25xRJ45 8/4 1HE ISDN, RAL7035, Cat. 3
37588SW.1	Patchpanel 25xRJ45 8/4 1HE ISDN, RAL9005, Cat. 3
37595.2	Patchpanel 50xRJ45 8/4 1HE ISDN, RAL7035, Cat. 3
37595SW.2	Patchpanel 50xRJ45 8/4 1HE ISDN, RAL9005, Cat. 3

RJ45 Dummy Plugs

Dust protection for unused ports
For RJ45 patch panels, RJ45 outlets and RJ45 Keystone jacks

Cable Ties

Cable Tie 100 x 2.5 mm

Art.-No.	Description
37520.2-100	RJ45 Dummy Plug Black, PU 100
37520.3-100	RJ45 Dummy Plug Pearl White, PU 100
37520.4-100	RJ45 Dummy Plug Grey, PU 100
37520.5-100	RJ45 Dummy Plug Red, PU 100
37520.6-100	RJ45 Dummy Plug Green, PU 100
37520.7-100	RJ45 Dummy Plug Blue, PU 100
37520.8-100	RJ45 Dummy Plug Yellow, PU 100

Art.-No.	Description
81022.100	Cable Ties, L=100 mm W=2.5 mm, 100 pcs., transparent

TAE 3 x 6 NFN - Outlet (Flush-Mount)

For 1 telephone and 2 extension devices (answering machine, fax)
With metal ring for fixing
Flush mounting frame

Art.-No.	Description
ET-25307.2	3 x 6 TAE NFN Flush-Mount Metal-Frame, RAL9010

TAE 2 x 6/6 NF/F - Outlet (Flush-Mount)

For 2 telephones and 1 extension device (answering machine, fax)
With metal ring for fixing
Flush mounting frame

Art.-No.	Description
ET-25312.1	TAE 2 x 6/6 NF/F Flush-Mount Metal-Frame, RAL1013
ET-25314.1	TAE 2 x 6/6 NF/F Flush-Mount Metal-Frame, RAL9010

TAE 3 x 6 NFN - Outlet (Surface-Mount)

For 1 telephone and 2 extension devices (answering machine, fax)

Art.-No.	Description
ET-25317.1	TAE 3 x 6 NFN Surface-Mount, RAL9010

TAE 2 x 6/6 NF/F - Outlet (Surface-Mount)

For 2 telephones and 1 extension device (answering machine, fax)

Art.-No.	Description
ET-25315.1	TAE 2 x 6/6 NF/F Surface-Mount, RAL9010

UAE/Western 8/8 + 8/8 ISDN (Flush-Mount)

For 2 separate lines
2 x RJ45 8/8
2 x 8-pole LSA terminal for cable connection
Reducers for RJ11/RJ12 plugs included
With metal ears for fixing
Flush mounting frame

Art.-No.	Description
ET-25309.1	UAE/Western 8/8 + 8/8 ISDN Flush-Mount, RAL1013
ET-25309.2	UAE/Western 8/8 + 8/8 ISDN Flush-Mount, RAL9010

2 x UAE/Western 8/8 ISDN (Flush-Mount)

For 2 ISDN devices in bus circuit
2 x RJ45 8/8
1 x 8-pole LSA terminal for cable connection
Reducers for RJ11/RJ12 plugs included
With metal ears for fixing
Flush mounting frame

Art.-No.	Description
ET-25311.2	2 x UAE/Western 8/8 ISDN Flush-Mount, RAL9010

2 x UAE/Western 8/8 ISDN (Surface-Mount)

For 2 ISDN devices in bus circuit
2 x RJ45 8/8
1 x 8-pole LSA terminal for cable connection
Reducers for RJ11/RJ12 plugs included

Art.-No.	Description
ET-25310.2	2 x UAE/Western 8/8 ISDN Surface-Mount, RAL9010

UAE/Western 8/8 + 8/8 ISDN (Surface-Mount)

For 2 separate lines
2 x RJ45 8/8
2 x 8-pole LSA terminal for cable connection
Reducers for RJ11/RJ12 plugs included

Art.-No.	Description
ET-25308.2	UAE/Western 8/8 + 8/8 ISDN Surface-Mount, RAL9010

ISDN SO-Bus Tester SiTi

Fault detection by 4 LEDs

The combination of LED and display state red/green/off makes up to 42 different connection situations recognisable

The SiTi requires no additional power supply unit or batteries

Art.-No.	Description
39960.1	ISDN SO-Bus Tester SiTi

ISDN Adapters

37532.1

K5067.015

Pins 3-6, 4-5 terminated

Art.-No.	Description
37532.1	ISDN Adapter RJ45 Plug / Jack
K5067.015	ISDN Adapter RJ45 Plug/Jack, Terminated, 0.15 m

ISDN 2 x Adapter

RJ45 plug to 2 x RJ45 jack
Shielded RJ45 jacks
Assignment 1:1
Pins 3-6, 4-5 terminated

Art.-No.	Description
K5116.015	ISDN 2 x Adapter, RJ45 Plug / 2 x RJ45 Jack, Terminated

ISDN 5 x Adapter

RJ45 plug to 5 x RJ45 jack
Shielded RJ45 jacks
Assignment 1:1
Pins 3-6, 4-5 terminated

Art.-No.	Description
K5117.015	ISDN 5 x Adapter RJ45 Plug / 5 x RJ45 Jack, Terminated

ISDN 8 x Adapter

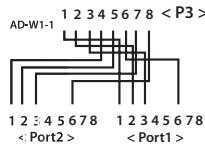
RJ45 plug to 8 x RJ45 jack
Shielded RJ45 jacks
Assignment 1:1
Pins 3-6, 4-5 terminated

Art.-No.	Description
K5269.015	ISDN 8 x Adapter, RJ45 Plug / 8 x RJ45 Jack, Terminated

Multi-Port Adapters

RJ45 plug to 4 x RJ45 jack
Shielded
Assignment 1:1
Without resistors

Art.-No.	Description
37531.1	Multiport-Adapter 1 x RJ45 Plug to 4 x RJ45 Jack, 0.15 m

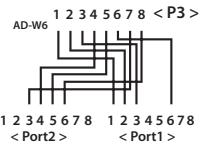
Cat.5e 2 x 10/100BaseT

RJ45 plug to 2 x RJ45 jack

15 cm cable

Serves as port doubler for the structured cabling

Art.-No.	Description
K5122.015	T-Adapter Cat.5e 2 x 10/100BaseT for Cable Sharing

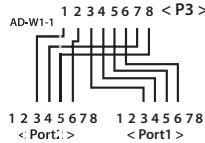
Cat.5e 2 x 10/100BaseT / ISDN

RJ45 plug to 2 x RJ45 jack

15 cm cable

Serves as port doubler for the structured cabling

Art.-No.	Description
K5123.015	T-Adapter Cat.5e 1x10/100BaseT 1xISDN, for Cablessharing

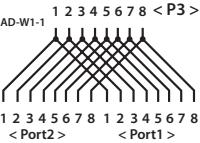
2 x ISDN

RJ45 plug to 2 x RJ45 jack

15 cm cable

Serves as port doubler for the structured cabling

Art.-No.	Description
K5124.015	T-Adapter 2 x ISDN for Cable Sharing

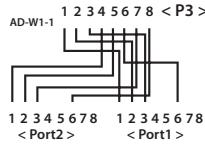
2 x 1:1

RJ45 plug to 2 x RJ45 jack

15 cm cable

Serves as port doubler for the structured cabling

Art.-No.	Description
K5125.015	T-Adapter 1:1 parallel

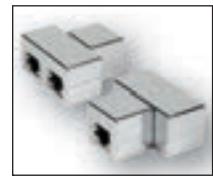
Cat.6 2 x 10/100BaseT

RJ45 plug to 2 x RJ45 jack

15 cm cable

Serves as port doubler for the structured cabling

Art.-No.	Description
K5126.015	T-Adapter Cat.6 2x10/100BaseT for Cable Sharing

T-Adapter Modular

T adapter for network cables
 RJ45 jack / 2 x RJ45 jack
 8-pole wired
 RJ45 jacks shielded, assignment 1:1

Art.-No.	Description
37528.1	T-Modular-Adapter, RJ45 Jack/2x Jack 1:1, shielded

TAE-N to RJ12 6pol.

Stock lengths: 3,0 - 6,0 - 10 m

N-coding for extension devices (e.g. answering machine, modem, fax)

Art.-No.	Description
K5400.x	TAE-N to RJ12 6pol.

Telephone Adapter RJ45 - 3 x TAE

Stock lengths: 1,0 - 3,0 - 6,0 - 15,0 m

TAE cable adapter
TAE jacks N/F/N codedAssignment: 1-2, 2-3, 3-4, 4-5, 5-6, 6-7
Flat cable
Colour black

Art.-No.	Description
K5418.020	Telephone Adapter RJ45 - 3 x TAE

Art.-No.	Description
K2406SW.x	Modular Cables RJ12 - RJ45 black

Modular Cable RJ10 - RJ10 black

Stock lengths: 0,30 - 0,50 - 1,0 - 1,5 - 2,0 - 3,0 - 5,0 - 10 - 15 - 20 - 25 m

Assignment 1:1
Colour black

Art.-No.	Description
K2402SW.x	Modular Cable RJ10 - RJ10 black

ISDN-Cable RJ45 - RJ45

Stock lengths: 1,0 - 2,0 - 3,0 - 6,0 - 10 m

Assignment 1:1
Colour black

Art.-No.	Description
K2407SW.x	ISDN-Cable RJ45 - RJ45

Modular Cable RJ12 - RJ12 black

Stock lengths: 1,0 - 2,0 - 3,0 - 6,0 m

Assignment 1:1
Colour black

Art.-No.	Description
K2404SW.x	Modular Cable RJ12 - RJ12 black

ISDN-Cables RJ45 - RJ45

Stock lengths: 0,50 - 1,0 - 2,0 - 3,0 - 6,0 - 10 m

- Assignment: 3-3, 4-4, 5-5, 6-6
 - Round cable, black
- Stock lengths in metres:
0,5 - 1,0 - 1,5 - 2,0 - 3,0 - 6,0 - 10,0

Art.-No.	Description
K2408.x	ISDN-Cables RJ45 - RJ45

Modular Cable RJ11 - RJ11 black

Stock lengths: 0,15 - 0,20 - 0,50 - 1,0 - 1,5 - 2,0 - 3,0 m

Assignment 1:1
Colour black

Art.-No.	Description
K2413SW.x	Modular Cable RJ11 - RJ11 black

ISDN-Cable RJ45 - RJ45, Moulded

Stock lengths: 0,50 - 1,0 - 1,5 - 2,0 - 3,0 - 6,0 - 10 m

- Assignment: 3-3, 4-4, 5-5, 6-6
Round cable

Art.-No.	Description
K2422.x	ISDN-Cable RJ45 - RJ45, Moulded

Modular Flat Cable Unshielded, black

According German Post Office standard
1=white, 2=brown, 3=green, 4=yellow, 5=grey, 6=pink, 7=blue, 8=red,
9=black, 10=violett
Unshielded

Art.-No.	Description
91104.100	Modular Flat Cable Unshielded, black
91104.500	Modular Flat Cable Unshielded, black
91106.100	Modular Flat Cable Unshielded, black
91106.500	Modular Flat Cable Unshielded, black
91108.100	Modular Flat Cable Unshielded, black
91108.500	Modular Flat Cable Unshielded, black
91110.100	Modular Flat Cable Unshielded, black
91105.100	Modular Flat Cable Unshielded, black
91107.100	Modular Flat Cable Unshielded, black
91109.100	Modular Flat Cable Unshielded, black

Modular Flat Cable Unshielded, International, Black

According international standard
1=grey, 2=orange, 3=black, 4=red, 5=green, 6=yellow, 7=blue, 8=brown
Unshielded

Art.-No.	Description
92804.100	Modular Flat Cable Unshielded, International, Black
92806.100	Modular Flat Cable Unshielded, International, Black
92808.100	Modular Flat Cable Unshielded, International, Black

Modular Flat Cable Shielded, black

According German Post Office standard
1=white, 2=brown, 3=green, 4=yellow, 5=grey, 6=pink, 7=blue, 8=red,
9=black, 10=violet
Colour black, with drain wire

Art.-No.	Description
92704.100	Modular Flat Cable Shielded, black
92706.100	Modular Flat Cable Shielded, black
92708.100	Modular Flat Cable Shielded, black

Modular Plug UTP for Round Cable

RJ western plug unshielded RJ12 6P6C
For round cable
Suitable crimping tool for RJ10/RJ11/RJ12/RJ45: Art.-No. E-MUC410
Suitable crimping tool for RJ69: Art.-No. 39945.2

Art.-No.	Description
37517.1-100	Modular Plug RJ10 UTP, E-MO 4/4 SR, 100 pcs.
37516.1-100	Modular Plug RJ11 UTP, E-MO 6/4 SR, 100 pcs.
37518.1-100	Modular Plug RJ12 UTP, E-MO 6/6 SR, 100 pcs.
37519.1-100	Modular Plug RJ45 UTP, E-MO 8/8 SR, 100 pcs.
37539.1-100	Modular Plug RJ69 UTP, E-MO 10/10 SR, 100 pcs.

Modular Plug UTP for Flat Cable



RJ western plug unshielded RJ45 8P4C

For flat cable

Suitable crimping tool for RJ10/RJ11/RJ12/RJ45: Art.-No. E-MUC410

Suitable crimping tool for RJ69: Art.-No. 39945.2

Art.-No.	Description
37512.1-100	Modular Plug RJ10 UTP, E-MO 4/4 SF, 100 pcs.
37511.1-100	Modular Plug RJ11 UTP, E-MO 6/4 SF, 100 pcs.
37513.1-100	Modular Plug RJ12 UTP, E-MO 6/6 SF, 100 pcs.
37514.1-100	Modular Plug RJ45 UTP, E-MO 8/8 SF, 100 pcs.
37542.1-100	Modular Plug DEC UTP, E-MO 6/6 SF, 100 pcs.
37673.1-100	Modular Plug RJ45 UTP, E-MO 8/4 SF, 100 pcs.

RJ45 Strain Relief Boots



Strain relief boots for 37541.3, 37514.1, 37519.1, 37539.1, 37640.1

Cable entry max. 6.6 mm

Art.-No.	Description
37546.1-100	Strain Relief Boot RJ45 Beige, with Latch Protection, 100 pcs.
37546.4-100	Strain Relief Boot RJ45 Black, with Latch Protection, 100 pcs.
37546.5-100	Strain Relief Boot RJ45 Yellow, with Latch Protection, 100 pcs.
37546.6-100	Strain Relief Boot RJ45 Red, with Latch Protection, 100 pcs.
37546.7-100	Strain Relief Boot RJ45 Blue, with Latch Protection, 100 pcs.
37546.8-100	Strain Relief Boot RJ45 Green, with Latch Protection, 100 pcs.

Crimping Tool for Modular Plugs



For 4-, 6-, 6-DEC-, 8-, AMP, and shielded RJ45 Far East and for cutting and stripping

Ideal for field assembly

Following plugs can be crimped:

37517.1, 37516.1, 37518.1, 37512.1, 37511.1, 37513.1, 37514.1, 37542.1

Art.-No.	Description
E-MUC410	Crimping Tool for Modular Connectors 4-8 pole



CABINET SYSTEMS FOR FLEXIBLE USE

Network and server cabinets are essential to protect active and passive network components from external influences. In the industrial and outdoor sectors, for example, they provide optimum protection against dirt and moisture. In data centre environments, thanks to air conditioning, air filters and professional cable management, they minimize the risk of technical defects and ensure a high level of system availability. Our network cabinets are therefore able to provide optimally-protected housings for all active and passive network components such as optical fibres, splice boxes, patch panels, routers, switches, servers and accessories. EFB-Elektronik offers a broad range of cabinet systems and accessories, which are available in a number of variations in terms of fittings and functions. The product portfolio consists of about 300 items in total. As a result of European manufacturing in accordance with our own in-house specifications, the highest quality and delivery capability are always guaranteed. And what is more, individual solutions can be implemented at any time.



Network Cabinets Classic - P. 260



Server Cabinets Classic - P. 268



Network Cabinets Flat Pack - P. 292



Industrial Cabinets IP40/IP54 - P. 272



Active Cooling Systems - P. 276



Wall Housings - P. 282



19" Rack Frames and Open Racks - P. 296



Climatisation and Lighting - P. 298



Inner Accessories and
Cable Management - P. 316



Access Control and
Rack Monitoring - P. 316



Power Supply - P. 326



WIR SORGEN FÜR VERBINDUNG
WE CARE FOR CONNECTION



NETWORK CABINETS CLASSIC

The Network cabinet series Classic combines practical equipment and solid quality with an excellent price/performance ratio. In addition to the use as a classic 19" standing distributor, the diversity of variations offers all the common door arrangements, even in the basic version. Special types for use as a co-location rack, network cabinet with an increased degree of protection or for device mounting through swivelling frames complete the range. Market-oriented equipment features, such as exchangeable profile half-cylinders, a high maximum load of up to 1,000 kg and extensive modularity allow a wide range of applications.

19" Network Cabinet Basic 800 x 800, RAL7035



19" Network cabinet according to DIN 41494
 Steel sheet housing with welded frame, completely pre-assembled, self-ventilated
 Inside 2 x 19" profiles front-sided, galvanised, depth-adjustable in 25 mm raster
 Double-numbering of rack units at the profiles
 Front door full glass with 2 x latch locking, made of certified safety glass (5 mm)
 Front door opening angle 120°
 Rear wall and side walls removable, with 2 x latch locking (keys equal to the door locks)
 Cabinets stackable with and without removal of the side walls (screwable at the frames with screws and nuts M6, not included in delivery)
 Roof and bottom with 2 pre-punched openings for cable entry (front/rear) and 2 central openings for accommodation of fan/filter units
 Internal earthing of all cabinet sections
 Max. load 400 kg with retrofitted rear-sided 19" profiles
 Paint finish RAL7035, light grey
 Protection degree IP20
 Included accessories: 1 x brush terminal, 1 x set of captive nuts (PU 20 pcs.), 4 x levelling feet M10, 2 x key
 Delivery in transport packaging on disposable pallet

Art.-No.	U	Width	Depth	Height	Front Door	Back Door
691742B	42	800 mm	800 mm	1980 mm	Full glass door 1-part	Rear wall

FIBER OPTIC

COPPER

CABINET SYSTEMS

MULTIMEDIA

ACTIVE COMPONENTS

19" Network Cabinet Classic, RAL7035



Roof and bottom with cable entries and openings for fans and filter units

All cabinet parts are grounded
Door opening angle 180°

19" Network cabinet according to DIN 41494

Steel sheet housing with welded frame, completely pre-assembled, self-ventilated
Inside front and rear 4 x 19" profiles (2 front, 2 rear-sided), galvanised, depth-adjustable in 25 mm raster
Numbering of rack units at the 19" profiles
Front door with window of certified safety glass (thickness 5 mm)
Front door with 1-point turning handle and profile half-cylinder acc. to DIN 18252 / EN1303
Profile half-cylinder exchangeable by customer (30/10 mm)
Rear door steel, 1-part, full cabinet height with 2 x latch locking (locks equal to the door lock)
Door mounting possible swiveling to the left and right side (standard: right)
Door opening angle front and rear 180° due to exterior hinges
Detachable side walls with 2 x latch locking (keys equal to the door lock)
Cabinets stackable side-by-side and rear-by-rear with and without removal of the side walls, bolt-set (Art.-No. 691644) suitable with removed walls, otherwise screwable via screws and nuts M6
Roof and bottom with 4 pre-punched openings for cable entry (front/rear/left/right) and for accommodation of fan/filter units (for 600 mm cabinet width cable entry only front/rear)
Internal earthing of all cabinet sections
Central earthing bolt M8 rear-left in the cabinet
Max. load 600 kg, increase to 1000 kg possible with traverse-set Art.-No. 691679N.x
Paint finish RAL7035, light grey
Protection degree IP20
Included accessories: 1 x brush terminal, 1 x set of captive nuts (PU 20 pcs.), 4 x levelling feet M10, 2 x key
Delivery in transport packaging on disposable pallet

Art.-No.	U	Width	Depth	Height	Front Door	Back Door
692515N	15	600 mm	600 mm	780 mm	Glass door 1-part	Steel door 1-part
692615N	15	600 mm	800 mm	780 mm	Glass door 1-part	Steel door 1-part
692715N	15	800 mm	800 mm	780 mm	Glass door 1-part	Steel door 1-part
692518N	18	600 mm	600 mm	915 mm	Glass door 1-part	Steel door 1-part
692618N	18	600 mm	800 mm	915 mm	Glass door 1-part	Steel door 1-part
692718N	18	800 mm	800 mm	915 mm	Glass door 1-part	Steel door 1-part
692522N	22	600 mm	600 mm	1095 mm	Glass door 1-part	Steel door 1-part
692622N	22	600 mm	800 mm	1095 mm	Glass door 1-part	Steel door 1-part
692722N	22	800 mm	800 mm	1095 mm	Glass door 1-part	Steel door 1-part
692527N	27	600 mm	600 mm	1315 mm	Glass door 1-part	Steel door 1-part
692627N	27	600 mm	800 mm	1315 mm	Glass door 1-part	Steel door 1-part
692727N	27	800 mm	800 mm	1315 mm	Glass door 1-part	Steel door 1-part
692532N	32	600 mm	600 mm	1535 mm	Glass door 1-part	Steel door 1-part
692632N	32	600 mm	800 mm	1535 mm	Glass door 1-part	Steel door 1-part
692732N	32	800 mm	800 mm	1535 mm	Glass door 1-part	Steel door 1-part
691942N	42	600 mm	600 mm	1980 mm	Glass door 1-part	Steel door 1-part
691842N	42	600 mm	800 mm	1980 mm	Glass door 1-part	Steel door 1-part
692642N	42	600 mm	1000 mm	1980 mm	Glass door 1-part	Steel door 1-part
692542N	42	800 mm	600 mm	1980 mm	Glass door 1-part	Steel door 1-part
691742N	42	800 mm	800 mm	1980 mm	Glass door 1-part	Steel door 1-part
692442N	42	800 mm	1000 mm	1980 mm	Glass door 1-part	Steel door 1-part
693342N	42	800 mm	1200 mm	1980 mm	Glass door 1-part	Steel door 1-part
691847N	47	600 mm	800 mm	2200 mm	Glass door 1-part	Steel door 1-part
691747N	47	800 mm	800 mm	2200 mm	Glass door 1-part	Steel door 1-part
692447N	47	800 mm	1000 mm	2200 mm	Glass door 1-part	Steel door 1-part
693347N	47	800 mm	1200 mm	2200 mm	Glass door 1-part	Steel door 1-part

19" Network Cabinet Advanced, Front + Rear Door Full Height with Turning Handle

Art.-No.	U	Width	Depth	Height	Front Door	Back Door
691742N1	42	800 mm	800 mm	1980 mm	Glass door 1-part	Steel door 1-part
692442N1	42	800 mm	1000 mm	1980 mm	Glass door 1-part	Steel door 1-part

Network Cabinets Modular, RAL7035



Frame basing on cabinet series Classic
with up to 1000 kg max. load

19" rack frame according to DIN 41494
Steel sheet frame, welded, self-ventilated
Inside 4 x 19" profiles (2 front, 2 rear), galvanised, depth-adjustable in 25 mm raster
Numbering of rack units at the profiles
Delivery without front/rear door and side walls for modular, individual configuration
For installed front and rear door, door stop left or right-sided possible
For installed front and rear door, door opening angle 180° due to exterior hinges
For installed side walls, these are detachable via 2 x latch locking (lock equal to the door lock)
Cabinets stackable side-by-side and rear-by-rear with and without side walls, line-up bolt set (Art.-No. 691644) suitable for detached walls, else screwable with screws and nuts M6
Roof and bottom with 4 pre-punched openings for cable entry (front/rear/left/right) and for accommodation of fans and filter units (for 600 mm cabinet width cable entry front/rear)
Internal earthing of all cabinet parts
Central earthing bolt M8 rear-left in the cabinet
Max. load 600 kg, increase to 1000 kg possible via traverse set Art.-No. 691679N.x
Paint finish RAL9005, jet black
Protection degree IP20 reachable with mounting of front door, rear door and side walls
Included accessories: 1 x brush terminal, 1 x set of captive nuts (PU 20 pcs.), 4 x levelling feet M10
Delivery in transport packaging on disposable pallet

Art.-No.	U	Width	Depth	Height	Front Door	Back Door
691942U	42	600 mm	600 mm	1980 mm	Without	Without
691842U	42	600 mm	800 mm	1980 mm	Without	Without
692542U	42	800 mm	600 mm	1980 mm	Without	Without
691742U	42	800 mm	800 mm	1980 mm	Without	Without
692442U	42	800 mm	1000 mm	1980 mm	Without	Without
693342U	42	800 mm	1200 mm	1980 mm	Without	Without
692447U	47	800 mm	1000 mm	2200 mm	Without	Without
693347U	47	800 mm	1200 mm	2200 mm	Without	Without

Vertical Cable Management



Side Panels 3 x 1U

Climatisation & Filters



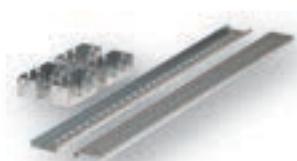
Page 298

Lighting Units



Page 300

Depth Rails, Profiles, Accessories



Page 302

Plinths & Line-Up Accessories



Page 308

Shelves



Page 304

Cable Routing & Management



Page 308



All components available in RAL7035 and RAL9005

Glass Door for Cabinets Classic 42U, 1-Part, Width 600/800 mm, 1-Point-Locking

1-part glass door for 42U cabinet series Classic
Window made of certified safety glass (thickness 5 mm)
1-point-locking with turning handle and profile half-cylinder acc. to DIN18252 / EN1303 (PHC exchangeable by customer)
Door opening angle 180°
Paint finish (steel elements) RAL7035, light grey / RAL9005, jet black
Delivery pre-assembled incl. all hinges, screws, earthing cable, 2 x key

Art.-No.	Description	For Cabinet Width	Colour
1023-N426G1.GR	Door for Standard Cabinet 42U, W=600, Glass, 1-Part, RAL7035, 1-Pt.-Lock	600 mm	RAL7035, light grey
1023-N428G1.GR	Door for Standard Cabinet 42U, W=800, Glass, 1-Part, RAL7035, 1-Pt.-Lock	800 mm	RAL7035, light grey

Glass Door for Cabinets Classic 42U, 2-Part, Width 600/800 mm, 1-Point-Locking

2-part glass door for 42U cabinet series Classic
Window made of certified safety glass (thickness 5 mm)
1-point-locking with turning handle and profile half-cylinder acc. to DIN 18252 / EN1303 (PHC exchangeable by customer)
Door opening angle 180°
Paint finish (steel elements) RAL7035, light grey / RAL9005, jet black
Delivery pre-assembled incl. all hinges, screws, earthing cable, 2 x key

Art.-No.	Description	For Cabinet Width	Colour
1023-N426G2.GR	Door for Standard Cabinet 42U, W=600, Glass, 2-Part, RAL7035, 1-Pt.-Lock	600 mm	RAL7035, light grey
1023-N428G2.GR	Door for Standard Cabinet 42U, W=800, Glass, 2-Part, RAL7035, 1-Pt.-Lock	800 mm	RAL7035, light grey

Steel Door for Cabinets Classic 42U, 1-Part, Width 600/800 mm, with Turning Handle

1-part steel door for 42U cabinet series Classic
1-point-locking with turning handle and profile half-cylinder acc. to DIN18252 / EN1303 (PHC exchangeable by customer)
Door opening angle 180°
Material steel sheet
Paint finish RAL7035, light grey / RAL9005, jet black
Delivery pre-assembled incl. all hinges, screws, earthing cable, 2 x key

Art.-No.	Description	For Cabinet Width	Colour
1023-N426S1.GR	Door for Standard Cabinet 42U, W=600, Steel, 1-Part, RAL7035, 1-Pt.-Lock	600 mm	RAL7035, light grey
1023-N428S1.GR	Door for Standard Cabinet 42U, W=800, Steel, 1-Part, RAL7035, 1-Pt.-Lock	800 mm	RAL7035, light grey

Steel Door for Cabinets Classic 42U, 1-Part, Width 600/800 mm, with 2 x Latch



1-part steel door for 42U scabinets Classic
Use as standard rear door for cabinets
2 x latch locking (no profile half-cylinder)
Door opening angle 120°
Material steel sheet
Paint finish RAL7035, light grey / RAL9005, jet black
Delivery pre-assembled incl. quick fasteners, earthing cable, 2 x key

Art.-No.	Description	For Cabinet Width	Colour
1023-V426S1.GR	Door for Standard Cabinet 42U, W=600, Steel, 1-Part, RAL7035, 2 x Latch	600 mm	RAL7035, light grey
1023-V428S1.GR	Door for Standard Cabinet 42U, W=800, Steel, 1-Part, RAL7035, 2 x Latch	800 mm	RAL7035, light grey

Article Number Code for Doors of Cabinet Series CLASSIC

Prefix	Category	Height	Cabinet Width	Type	Division	Colour
1023-	N	42	8	S	1	.GR
	N = 1-Point Locking	42 U	6 = 600 mm	G = Glass door	1 = 1-part	.GR = RAL7035, light grey
	S = 3-Point Bar-Locking		8 = 800 mm	S = Steel door	2 = 2-part	.TS = RAL9005, jet black
	V = 2-Point Latch-Locking			P = Steel, perforated		
				V = Full glass		

Steel Door for Cabinets Classic 42U, 2-Part, Width 600/800 mm, with Turning Handle

2-part steel door for 42U cabinet series Classic
 3-point-locking with turning handle and profile half-cylinder acc. to DIN18252 / EN1303 (PHC exchangeable by customer)
 Door opening angle 180°
 Material steel sheet
 Paint finish RAL7035, light grey / RAL9005, jet black
 Delivery pre-assembled incl. all hinges, screws, earthing cable, 2 x key

Art.-No.	Description	For Cabinet Width	Colour
1023-S426S2.GR	Door for Standard Cabinet 42U, W=600, Steel, 2-Part, RAL7035, 3-Pt.-Lock	600 mm	RAL7035, light grey
1023-S428S2.GR	Door for Standard Cabinet 42U, W=800, Steel, 2-Part, RAL7035, 3-Pt.-Lock	800 mm	RAL7035, light grey

Steel Door for Cabinets Classic 42U, Perforated, 1-Part, Width 600/800 mm, with Turning Handle

1-part perforated steel door for 42U cabinet series Classic
 Door perforation 80 %
 3-point-locking with turning handle and profile half-cylinder acc. to DIN 18252 / EN1303 (PHC exchangeable by customer)
 Door opening angle 180°
 Material steel sheet
 Paint finish RAL7035, light grey / RAL9005, jet black
 Delivery pre-assembled incl. all hinges, screws, earthing cable, 2 x key

Art.-No.	Description	For Cabinet Width	Colour
1023-S426P1.GR	Door for Standard Cabinet 42U, W=600, Steel Perf., 1-Part, RAL7035, 3-Pt.-Lock	600 mm	RAL7035, light grey
1023-S428P1.GR	Door for Standard Cabinet 42U, W=800, Steel Perf., 1-Part, RAL7035, 3-Pt.-Lock	800 mm	RAL7035, light grey

Steel Door for Cabinets Classic 42U, Perforated, 2-Part, Width 600/800 mm, with Turning Handle

2-part perforated steel door for 42U cabinet series Classic
 Door perforation 80 %
 3-point-locking with turning handle and profile half-cylinder acc. to DIN 18252 / EN1303 (PHC exchangeable by customer)
 Door opening angle 180°
 Material steel sheet
 Paint finish RAL7035, light grey / RAL9005, jet black
 Delivery pre-assembled incl. all hinges, screws, earthing cable, 2 x key

Art.-No.	Description	For Cabinet Width	Colour
1023-S426P2.GR	Door for Standard Cabinet 42U, W=600, Steel Perf., 2-Part, RAL7035, 3-Pt.-Lock	600 mm	RAL7035, light grey
1023-S428P2.GR	Door for Standard Cabinet 42U, W=800, Steel Perf., 2-Part, RAL7035, 3-Pt.-Lock	800 mm	RAL7035, light grey

Side Walls for Cabinets Classic 42U

Side wall 42U for cabinet series Classic
 For cabinet depth 800 mm
 With 2 x latch locking (locking T3 / 1333)
 Material steel sheet
 Paint finish RAL7035, light grey / RAL9005, jet black
 Scope of delivery: side wall, earthing cable, 2 x key

Art.-No.	Description	For Cabinet Width	Colour
1023-W426N.GR	Side Wall for Standard Cabinet 42U, Depth 600 mm	600 mm	RAL7035, light grey
1023-W428N.GR	Side Wall for Standard Cabinet 42U, Depth 800 mm	800 mm	RAL7035, light grey
1023-W420N.GR	Side Wall for Standard Cabinet 42U, Depth 1000 mm	1000 mm	RAL7035, light grey
1023-W422N.GR	Side Wall for Standard Cabinet 42U, Depth 1200 mm	1200 mm	RAL7035, light grey

Article Number Code for Side Walls of Cabinet Series CLASSIC

Prefix	Category	Height	Cabinet Depth	Type	Colour
1023-	W	42	8	N	.GR
	W = Side wall	42U	6 = 600 mm	N = suitable for cabinet series 6917xxN/U	.GR = RAL7035, light grey
			8 = 800 mm		.TS = RAL9005, jet black
			0 = 1000 mm		
			2 = 1200 mm		



All Doors suitable for network and server cabinets Classic

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CABINET SYSTEMS

MULTIMEDIA

ACTIVE COMPONENTS

Network Cabinet with Swing Frame, Right- or Left-Swinging, max. Load 150 kg



Ramp for stabilisation
of the swing frame

Cabinet with front-sided swing frame basing on standard cabinet
Pre-assembled swing frame, 38U usable, max. load 150 kg
Max. depth of installed components: 450 mm
Rear-sided 2 x 19" profiles 42U
Especially reinforced construction of cabinet and swing frame
Ramp stabilises the swing frame for heavy loads
Available as right or left-swinging type (see picture)
Further technical specifications corresponding with cabinets Classic

Art.-No.	U	Width	Depth	Height	Front Door	Rear Door	Swinging Direction
691742NSR	42	800 mm	800 mm	1980 mm	Glass door 1-part	Steel door 1-part	Right
691742NSL	42	800 mm	800 mm	1980 mm	Glass door 1-part	Steel door 1-part	Left

Swing Frame for Retrofitting



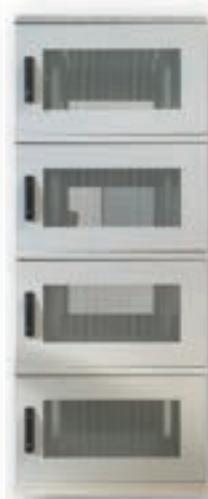
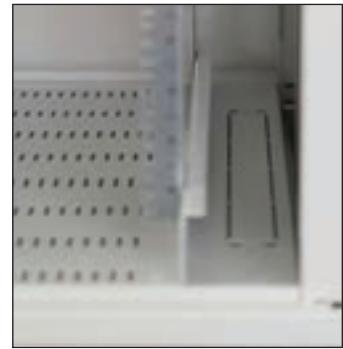
19" swing frame for retrofitting network cabinets Classic width 800 mm
38U usable height
Mountable right- org left-swinging
Max. load 100 kg
Max. depth of installed components: 450 mm
Included in delivery: 1 x swing frame, 2 x mounting rail, mounting accessories

Art.-No.	Description
691676	19" 38U Swing Frame for Cabinets 42U / Width 800 mm

19" Co-Location Racks 2 x 20U / 4 x 9U, RAL7035



Rear view

Variant with 4 boxes
and
perforated doorsPerforated intermediate bottom
with openings for cable routingDue to 4 quick fasteners per rear
wall these are only to open from
inside

19" Network cabinet according to DIN 41494

Steel sheet housing with welded frame. completely pre-assembled, self-ventilated
2 x 20U / 4 x 9U boxes for individual access

Divisions in 2 or 4 boxes possible - please contact us

Inside 4 x 19" profiles per box (2 front, 2 rear), galvanised, depth-adjustable in 25 mm raster

Numbering of height units at the profiles

2 x 20U front door with window of certified safety glass (thickness 5 mm)

Front doors with 1-point turning handle, lockable, incl. profile half-cylinder acc. to DIN 18252 / EN 1303

Door stop of front door left and right-sided possible

Profile half-cylinder exchangeable by customer (30/10 mm)

2 x 20U rear wall, only to open from inside

Detachable side walls with 2 x latch locking (lock equal to the door lock)

Side walls also available as only to open from inside

Cabinets stackable with and without detaching of side walls, bolt set (Art.-No. 691644) usable for detached walls, else screwable via screws and nuts M6

Roof and bottom with 4 pre-punched openings for cable entry (front/rear/left/right) and for accommodation of fans and filter units (for 600 mm cabinet width cable entry only front/rear)

Inserted floor with pre-punched cable feedthrough right/left and perforation for optimizing the air flow between the boxes

Internal earthing of all cabinet parts

Max. load 600 kg

Paint finish RAL7035, light grey

Protection degree IP20

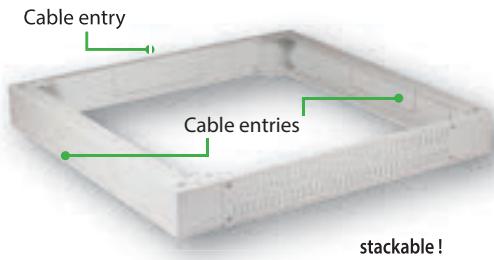
Included accessories: 1 x brush terminal, 1 x set of captive nuts (PU 20 pcs.), 4 x levelling feet M10, 2 x key

Delivery in transport packaging on disposable pallet



Art.-No.	U	Width	Depth	Height	Front Door	Back Door
691742CL2GW	2 x 20	800 mm	800 mm	1980 mm	Glass door 1-part	Rear wall
691742CL2PW	2 x 20	800 mm	800 mm	1980 mm	Steel perforated 1-part	Rear wall
691742CL2GG	2 x 20	800 mm	800 mm	1980 mm	Glass door 1-part	Glass door 1-part
691742CL2PP1	2 x 20	800 mm	800 mm	1980 mm	Steel perforated 1-part	Steel perforated 1-part
691742CL4PP1	4 x 9	800 mm	800 mm	1980 mm	Steel perforated 1-part	Steel perforated 1-part

Plinths 100 mm for Network/Server Cabinets Classic/Basic



Also suitable for use with server cabinets Classic
All plinths are also available in RAL9005, jet black

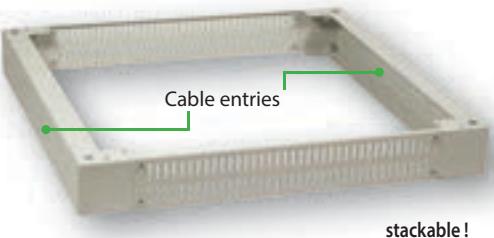
Side and rear elements with pre-punched openings for cable entry
Front element perforated
Easy mounting on the network and server cabinets Classic with included screws M5 x 8
Material steel sheet
Plinth height 100 mm
Increase to 200 mm plinth height via screwing of two plinths (screw set M10 x 20 please order separately)
Screw Set (4 x screw + 4 x washer): Art.-No. 89310.4
Paint finish RAL7035 light grey / RAL9005, jet black
Included in delivery: 1 x plinth, 1 x brush, mounting material

Art.-No.	Description	For Cabinet Width	For Cabinet Depth	Colour
691750	Plinth H=100 for cabinets Classic B=600 T=600	600 mm	600 mm	RAL7035, light grey
691751	Plinth H=100 for cabinets Classic B=600 T=800	600 mm	800 mm	RAL7035, light grey
691757	Plinth H=100 for cabinets Classic B=600 T=1000	600 mm	1000 mm	RAL7035, light grey
691747	Plinth H=100 for cabinets Classic B=800 T=600	800 mm	600 mm	RAL7035, light grey
691752	Plinth H=100 for cabinets Classic/Basic B=800 T=800	800 mm	800 mm	RAL7035, light grey
691749	Plinth H=100 for cabinets Classic B=800 T=1000	800 mm	1000 mm	RAL7035, light grey
691755	Plinth H=100 for cabinets Classic B=800 T=1200	800 mm	1200 mm	RAL7035, light grey
691752TS	Plinth H=100 for cabinets Classic B=800 T=800	800 mm	800 mm	RAL9005, jet black
691749TS	Plinth H=100 for cabinets Classic B=800 T=1000	800 mm	1000 mm	RAL9005, jet black
691755TS	Plinth H=100 for cabinets Classic B=800 T=1200	800 mm	1200 mm	RAL9005, jet black

Plinths 100 mm for Network/Server Cabinets Classic, Perforated Covers

Also suitable for use with server cabinets Classic

All plinths are also available in RAL9005, jet black



Side elements with pre-punched openings for cable entry
Front and rear element perforated
Easy mounting on the cabinet with included screws M6 x 8
Material steel sheet
Plinth height 100 mm
Increase to 200 mm plinth height via screwing of two plinths (screw set M10 x 20 please order separately)
Screw Set (4 x screw + 4 x washer): Art.-No. 89310.4
Paint finish RAL7035 light grey / RAL9005 jet black
Included in delivery: 1 x plinth, 1 x brush, mounting material

Art.-No.	Description	For Cabinet Width	For Cabinet Depth	Colour
691752PF	Plinth 100 mm for Cabinets Classic, Perforated, RAL7035	800 mm	800 mm	RAL7035

Screw-Set for Stacking of Plinths



Set 4 x screw M10x20, 4 x washer M10
Material stainless steel

Art.-No.	Description
89310.4	Set 4 x Screw/Washer M10 x 20 for Stacking of Plinths

Heavy-Duty Castor Set for Network/Server Cabinets Classic



Heavy-duty castor set for installation under the cabinet
Height 150 mm

Art.-No.	Description	Colour
691645	Heavy-Duty Castor Set, Cabinet Width 800 mm, 600 kg max.	RAL7035, light grey
691645.1	Heavy-Duty Castor Set, Cabinet Width 600 mm, 600 kg max.	RAL7035, light grey

Set of Captive Nuts



Consisting of
20/50 x captive nuts M6
20/50 x washer M6 plastic
20/50 x screw M6 x 20 mm

Art.-No.	Description
691099	Set of Captive Nuts 20 x M6, complete
691100	Set of Captive Nuts 50 x M6, complete

Set of Captive Nuts for Front Mounting



For front-sided mounting into the 19" profile
Easy and fast - no more wounded fingers!
Set of 50 x screw, washer and cage nut
Material steel, nylon

Art.-No.	Description
691102	Set of Captive Nuts for Front Mounting

Line-Up Bolts for Network-/Server Cabinets Classic



For connecting and line-up of network and server cabinets
Up to cabinet depth 900 mm upside and downside each 2 bolts, for cabinet depth 1000/1200 mm each 3 bolts necessary
Screw thread M6, bolt diameter 10 mm
Material steel, galvanised

Art.-No.	Description
691644	Line-Up Set 4 x Bolt 55 x 10 mm and 8 x M6 Nuts

Levelling Feet for Network/Server Cabinets Classic



Height-adjustable up to 70 mm
Thread M10

Art.-No.	Description
691648	Levelling Feet M10, Set of 4 pcs.

19" Dummy Plates, RAL7035 / RAL9005

For covering open areas in the 19" level
High stability
Paint finish RAL7035, light grey / RAL9005, jet black

Art.-No.	Description	Colour
691265	19" 1U Dummy Plate, RAL7035	RAL7035, light grey
691266	19" 2U Dummy Plate, RAL7035	RAL7035, light grey
691267	19" 3U Dummy Plate, RAL7035	RAL7035, light grey
691268	19" 6U Dummy Plate, RAL7035	RAL7035, light grey
691269	19" 9U Dummy Plate, RAL7035	RAL7035, light grey
691265TS	19" 1U Dummy Plate, RAL9005	RAL9005, jet black
691266TS	19" 2U Dummy Plate, RAL9005	RAL9005, jet black
691267TS	19" 3U Dummy Plate, RAL9005	RAL9005, jet black
691268TS	19" 6U Dummy Plate, RAL9005	RAL9005, jet black
691269TS	19" 9U Dummy Plate, RAL9005	RAL9005, jet black



19" Server Cabinets Classic 26U / 42U / 47U, RAL9005

19" server cabinet according to DIN41494

Steel sheet housing with welded frame, completely pre-assembled, self-ventilated

Inside 4 x 19" profiles (2 front, 2 rear-sided), galvanised, depth-adjustable in 25 mm raster

Numbering of rack units on the 19" profiles

Doors with perforation 80 %

Front- and rear door with 3-point turning handle, lockable, incl. profile half-cylinder acc. to DIN 18252 / EN1303

Profile half-cylinder exchangeable by customer (30/10 mm)

Door mounting for front- and rear door possible left- and right-sided

Door opening angle for front- and rear door 180°

Detachable side walls with 2 x latch locking (lock equal to the door lock)

Cabinets stackable side-by-side and rear-by-rear with and without detaching the side walls, bolt-set (Art.-No. 691644) suitable with detached walls, else screwable via screws and nuts M6

Roof and bottom with 4 pre-punched openings for cable entry (front/rear/left/right) and for accommodation of fans and filter units (for 600 mm cabinet width cable entry only front/rear)

Internal earthing of all cabinet parts

Central earthing bolt M8 rear-left in the cabinet

Max. load 1000 kg

Paint finish RAL9005, jet black

Degree of protection IP20

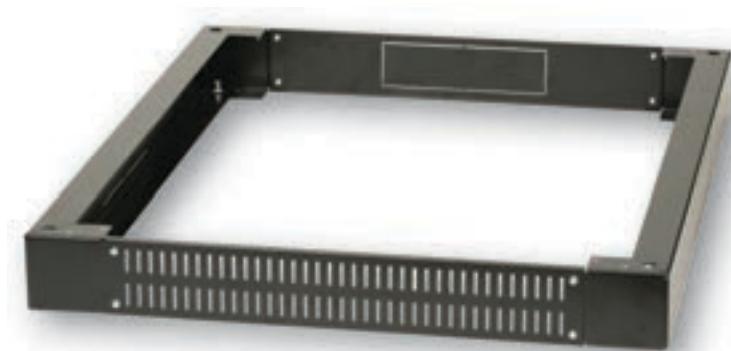
Included accessories: 1 x brush terminal, 1 x set of captive nuts (PU 20 pcs.), 4 x levelling feet M10, 2 x key

Delivery in transport packaging on disposable pallet

Art.-No.	U	Width	Depth	Height	Front Door	Back Door
693126.60P1P2	26	600 mm	1000 mm	1270 mm	Steel perforated, 1-part	Steel perforated, 2-part
693142.60P1	42	600 mm	1000 mm	1980 mm	Steel perforated, 1-part	Steel perforated, 1-part
693142.60P2	42	600 mm	1000 mm	1980 mm	Steel perforated, 2-part	Steel perforated, 2-part
693142.62P1	42	600 mm	1200 mm	1980 mm	Steel perforated, 1-part	Steel perforated, 1-part
693142.62P2	42	600 mm	1200 mm	1980 mm	Steel perforated, 2-part	Steel perforated, 2-part
693142.80P1	42	800 mm	1000 mm	1980 mm	Steel perforated, 1-part	Steel perforated, 1-part
693142.80P2	42	800 mm	1000 mm	1980 mm	Steel perforated, 2-part	Steel perforated, 2-part
693142.82P1	42	800 mm	1200 mm	1980 mm	Steel perforated, 1-part	Steel perforated, 1-part
693142.82P2	42	800 mm	1200 mm	1980 mm	Steel perforated, 2-part	Steel perforated, 2-part
693147.80P1	47	800 mm	1000 mm	2200 mm	Steel perforated 1-part	Steel perforated 1-part
693147.80P2	47	800 mm	1000 mm	2200 mm	Steel perforated 2-part	Steel perforated 2-part
693147.80P2P1	47	800 mm	1000 mm	2200 mm	Steel perforated 2-part	Steel perforated 1-part
693147.82P1	47	800 mm	1200 mm	2200 mm	Steel perforated 1-part	Steel perforated 1-part
693147.82P2	47	800 mm	1200 mm	2200 mm	Steel perforated 2-part	Steel perforated 2-part

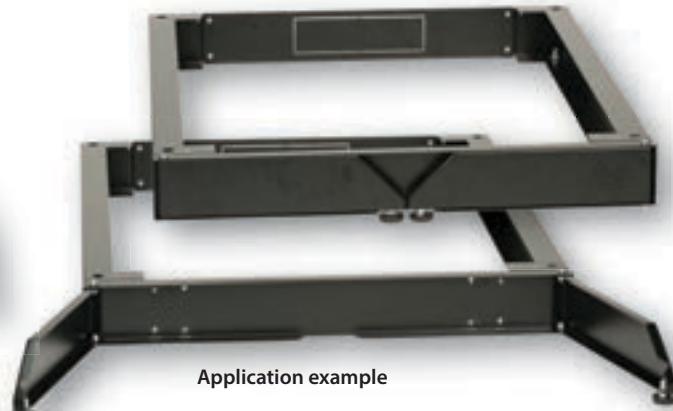
Plinth 100 mm for Cabinets Classic, RAL9005

Side and rear elements with pre-punched openings for cable entry
Front element perforated
Easy mounting on the cabinet with included screws M6 x 8
Material steel sheet
Plinth height 100 mm
Increase to 200 mm plinth height via screwing of two plinths (screw set M10 x 20 please order separately)
Suitable screw set (4 x screw + 4 x washer): Art.-No. 89310.4
Paint finish RAL9005, jet black
Included in delivery: plinth, 1 x brush, mounting material



Art.-No.	Description	For Cabinet Width	For Cabinet Depth	Colour
691752TS	Plinth H=100 for Standard Cabinets W=800 D=800	800 mm	800 mm	RAL9005, jet black
691749TS	Plinth H=100 for Standard Cabinets W=800 D=1000	800 mm	1000 mm	RAL9005, jet black
691755TS	Plinth H=100 for Standard Cabinets W=800 D=1200	800 mm	1200 mm	RAL9005, jet black
691757TS	Plinth H=100 for Standard Cabinets W=600 D=1000	600 mm	1000 mm	RAL9005, jet black

Tilt Protection for Retrofitting at Plinths Classic



Tilt protection for retrofitting at the plinths Classic
Fold-out support elements
Material steel

Application example

Art.-No.	Description
691764TS.6	Tilt Protection for Retrofitting at Plinth Classic, W=600 mm, RAL9005
691764TS.8	Tilt Protection for Retrofitting at Plinth Classic, W=800 mm, RAL9005

Plinth for Server Cabinets, Integrated Tilt Protection



Tilt protection integrated in plinth frame
Easy assembly
Usable in combination with levelling feet
Material steel sheet
Paint finish RAL9005, jet black

Art.-No.	Description	For Cabinet Width	For Cabinet Depth	Colour
691766TS	Plinth H=100 with Tilt Protection for Server Cabinets W=600 D=1000	600 mm	1000 mm	RAL9005, jet black
691766TS.1	Plinth H=100 with Tilt Protection for Server Cabinets W=600 D=1200	600 mm	1200 mm	RAL9005, jet black
691765TS	Plinth H=100 with Tilt Protection for Server Cabinets W=800 D=1000	800 mm	1000 mm	RAL9005, jet black
691765TS.1	Plinth H=100 with Tilt Protection for Server Cabinets W=800 D=1200	800 mm	1200 mm	RAL9005, jet black

In a modern IT infrastructure efficiency counts more than ever before - contemporary and sophisticated cooling solutions provide greater energy efficiency. The use of cold or hot aisle data center containments opens new energy saving potentials and ensures the high availability of the systems.

Each data center is unique. Therefore, already during the planning phase all system components are configured according to local circumstances. The implementation of individual requirements, such as special aisle widths or special roof mounting solutions allow flexible use.



Example: enclosure of 6 server cabinets with sliding doors

Cabinets and enclosure are designed and manufactured individually according to local requirements

Server cabinets for cold/warm aisle are based on the server cabinets Art.-No. 6931xx, but are equipped with mounting points (thread M6) for accommodation of cold/warm aisle components (roofs/sliding doors). Example:

Art.-No.	Description	U	Cabinet Width	Cabinet Depth	Colour
693242.80P1	Server Cabinet similar to 693142.80P1, Prepared for Mounting of Cold/Warm Aisle Components	42	800 mm	1000 mm	RAL9005, jet black
693247.80P1	Server Cabinet similar to 693147.80P1, Prepared for Mounting of Cold/Warm Aisle Components	47	800 mm	1000 mm	RAL9005, jet black

Variants available like server cabinets Classic, but with Art.-No. 6932xx instead of 6931xx

Features

- Efficiency - feeded cold air and waste heat are isolated safely, thermal short circuits are avoided
- Reliability - through integration of high quality server racks with 1.000 kg max. load and 80% perforated doors
- Scalability - individual planning and adaptation to the conditions in your data center (e.g. one-sided wall mounting of the roof elements, individual aisle widths, rear wall instead of sliding door at one end, ...)
- Modularity - subsequent extension possible, allowing your data center to increase as necessary

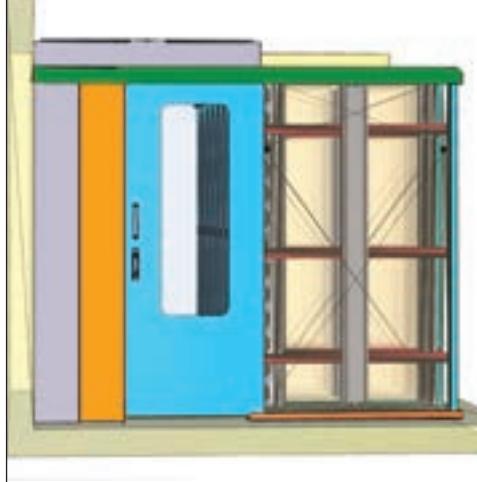
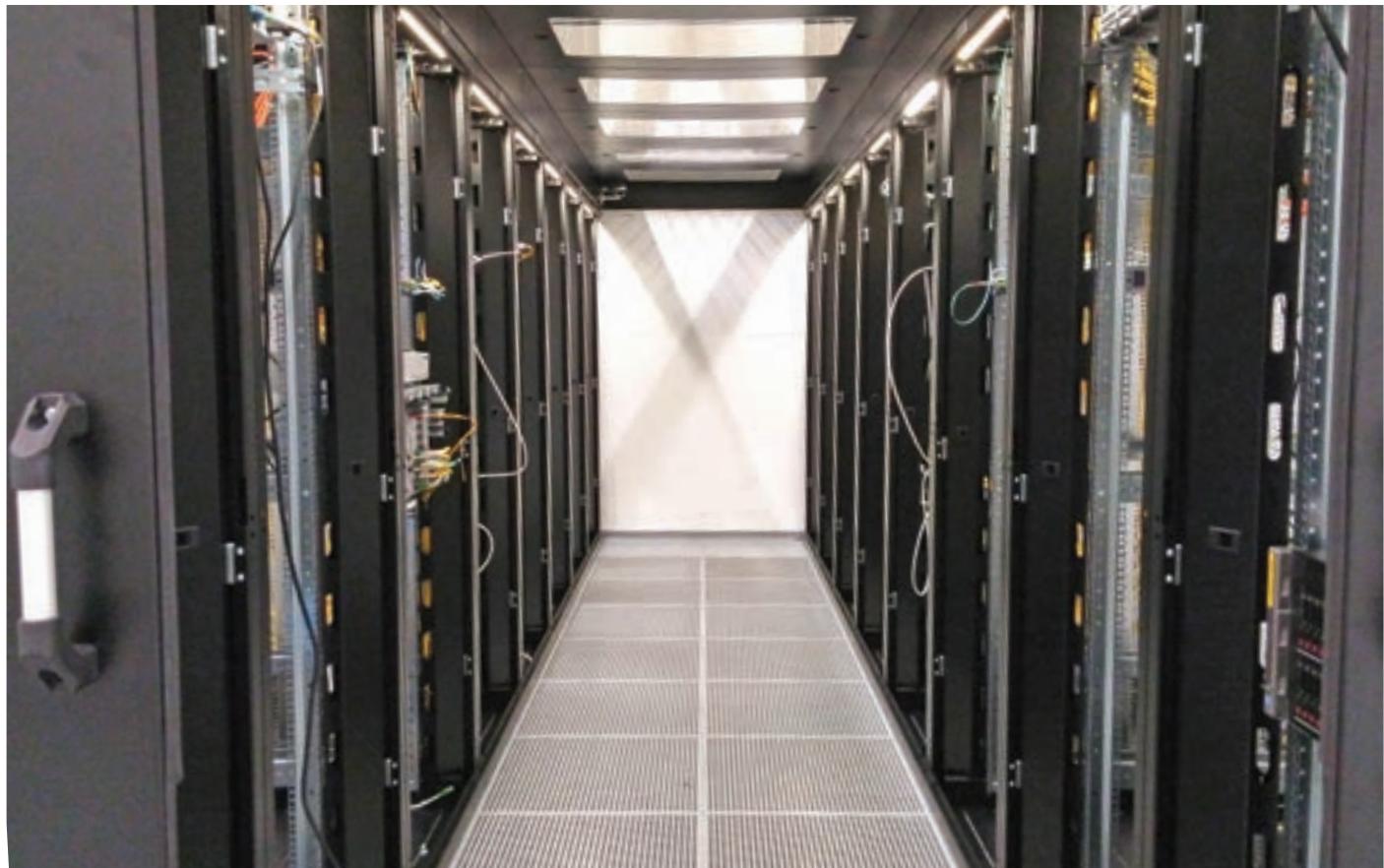


Roof elements with acryl glass windows



Sliding door opened

Art.-No.	Description	For Cabinet Width	For Cabinet Depth	Colour
1023-D62F.TS	Roof Element with Acryl Glass Window, Width 600 mm, Aisle Width 1200 mm, RAL9005	600 mm	1200 mm	RAL9005, jet black
1023-D82F.TS	Roof Element with Acryl Glass Window, Width 800 mm, Aisle Width 1200 mm, RAL9005	800 mm	1200 mm	RAL9005, jet black
1023-DE8150.TS	Roof Raising Elements for Aisle Classic, H=150 mm, Set left/right	800 mm		RAL9005, jet black
1023-DEF150.TS	Front Cover for Raised Roof Classic, H=150 mm		1200 mm	RAL9005, jet black
1023-ST422FM.TS	Sliding Door 42U, Complete Set, Aisle Width 1200 mm, RAL9005		1200 mm	RAL9005, jet black
1023-G422S2.TS	Wall for Cold-/Warm Aisle (Corridor End), Aisle Width 1200 mm, Steel 2-Part, RAL9005		1200 mm	RAL9005, jet black



Customer-specific solution of an cold aisle containment basing on EFB cabinet series Classic:

Left picture: before the implementation, the solution was individually planned and engineered according to customer specifications. The modular 19" server cabinets Classic are also configured and equipped individually.

Right picture: the roof elements of one of the cold aisles are mounted on one side to the wall. To increase the entrance width, an additional swing element was realized in the left frame of the sliding door.

Right picture: further cold aisle with containment, equipped with double-wing standard sliding door and raised roof elements.

This project was realised with EFB cabinet series Classic and realised by:

KURZSCHLUSS



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CABINET SYSTEMS

MULTIMEDIA

ACTIVE COMPONENTS

19" Network Cabinet 42U, Protection Degree IP40, RAL7035

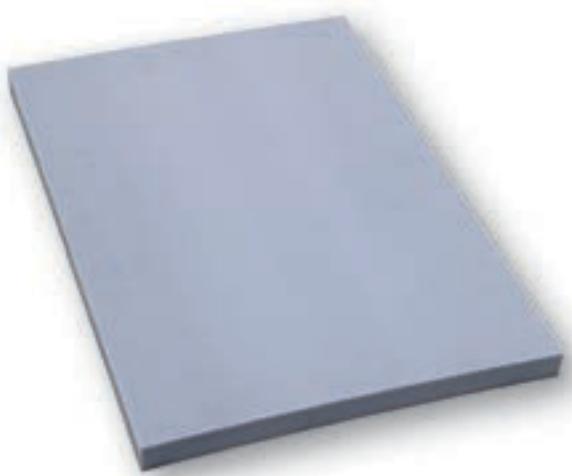
Bottom with 14 conical rubber grommets Ø 20 mm for cable entry
(also usable in roof)



Rear door with 2 x latch locking

19" Network cabinet according to DIN 41494
Steel sheet housing with welded frame, completely pre-assembled
Inside front and rear 4 x 19" profiles (2 front, 2 rear-sided), galvanised, depth-adjustable in 25 mm raster
Numbering of rack units at the 19" profiles
Front door with window of certified safety glass (thickness 5 mm)
Front door with 1-point turning handle and profile half-cylinder acc. to DIN 18252 / EN1303
Profile half-cylinder exchangeable by customer (30/10 mm)
Rear door steel, 1-part, full cabinet height with 2 x latch locking (locks equal to the door lock)
Door mounting possible swiveling to the left and right side (standard: right)
Door opening angle front and rear 180° due to exterior hinges
Detachable side walls with 2 x latch locking (keys equal to the door lock)
Roof and bottom with 2 screwed plates for cable entry (rear-sided) and for accommodation of fan/filter units (central, suitable for 4x/6x fan units)
Internal earthing of all cabinet sections
Max. load 600 kg, increase to 1000 kg possible with traverse-set Art.-No. 691679N.x
Paint finish RAL7035, light grey
Protection degree IP40
Included accessories: 1 x brush terminal, 1 x set of captive nuts (PU 20 pcs.), 4 x levelling feet M10, 2 x key
Delivery in transport packaging on disposable pallet

Art.-No.	U	Width	Depth	Height	Front Door	Back Door
691742NIP40	42	800 mm	800 mm	1980 mm	Glass door 1-part	Steel door 1-part
692442NIP40	42	800 mm	1000 mm	1980 mm	Glass door 1-part	Steel door 1-part

Sealing Mat, Self-Adhesive

Application example

One-side self-adhesive foam pad to seal the cable entries on top and bottom of all standard cabinets
The pre-punched, rear-sided cable entries and fan openings of all cabinets from depth 800 mm are covered
For cabinet depth 600 mm the mat can be shortened very easy
Mounting is flush with the rear side of the cabinet
Material Tect-foam, grey
Dimensions (W x H x D) 520 x 40 x 750 mm

Art.-No.	Description
698031	Tect-Foam 750x520x40 mm, One-Side Self-Adhesive, grey

19" Network/Industrial Cabinet, Protection Degree IP54, RAL7035



For industrial purposes and similar harsh environments

Max. load 800 kg

Solid frame made of patented aluminum profile for maximum tightness and robustness and low weight

Frame profiles connected via mounting blocks, allowing disassembly or replacement of individual parts in damage

Inside 4 x 19" profile rails (2 front-, 2 rear-sided), galvanised, depth adjustable in 25 mm spacing
Front door 1-part, with window of certified safety glass and turning lever IP54 with profile half-cylinder (exchangeable by customer)

Rear door steel sheet, one-part, with turning lever IP54 and profile half-cylinder (exchangeable by customer)

Front- and rear door with 4-point-locking and sealings of Polyurethane foam, door opening angle 120°

Side walls with sealings of Polyurethane foam, 16 x screwed, with blind covers

Internal earthing of all cabinet sections

Roof and bottom with screwed metal plates for cable entry (ca. 365 x 85 mm) and sealings of Polyurethane foam, e.g. for accommodating PG glands

Paint finish RAL7035, light grey

Scope of supply: 1 x set of captive nuts (PU 20 pcs), 4 x levelling feet M10, 2 x key

Art.-No.	U	Width	Depth	Height	Front Door	Back Door
692527TIP54	27	600 mm	600 mm	1315 mm	Glass door 1-part	Steel door 1-part
691842TIP54	42	600 mm	800 mm	2070 mm	Glass door 1-part	Steel door 1-part
691742TIP54	42	800 mm	800 mm	2070 mm	Glass door 1-part	Steel door 1-part
692442TIP54	42	800 mm	1000 mm	2070 mm	Glass door 1-part	Steel door 1-part

Plinth H=100 for IP54 Cabinets, Width 800 mm, RAL7035



Rear side with pre-punched opening for cable entry

Front-sided tilt protection, hinged

Suitable for use with cabinets 691742TIP54 / 692442TIP54

Easy installation to the network cabinet with supplied screws

Material steel sheet

Increase of height to 200 mm possible by stacking of two plinths (screws M10 x 20 not included in delivery)

Paint finish RAL7035, light grey

Scope of delivery: 1 x plinth, mounting accessories

Art.-No.	Description	For Cabinet Width	For Cabinet Depth	Colour
691752IP	Plinth H=100 mm for IP54 Cabinets, W=800 D=800	800 mm	800 mm	RAL7035
691749IP	Plinth H=100 mm for IP54 Cabinets, W=800 D=1000	800 mm	1000 mm	RAL7035

IP54 Fan Units for Side-Mounting, Blow-In

Filter fan IP54, blow-in type
For side-mounting on IP54 cabinets
Recommended for use with exhaust filter 698052GR.x
Power supply via screw terminals 3-pole (L-N-PE)
Operating voltage 230 V 50/60 Hz

Art.-No.	Description
698050GR.1	Fan Filter IP54, Blow-In, 230 m³/h, 250 x 250 x 125 mm
698050GR.2	Fan Filter IP54, Blow-In, 520 m³/h, 325 x 325 x 160 mm

IP54 Filters for Side-Mounting

Blow-in / blow-out filters with protection degree IP54 are used in combination with blow-out / blow-in filter fans with the same protection degree. While obtaining the protection degree IP54 whether cold air is cleaned and feed into the cabinet or warm air is lead out of the cabinet.
Screw-less mounting via snap-in into the mounting cut-out
Permanent sealing made of Polyurethane foam
Filter media class G3, ca. 10 x washable
Material plastic PC/ABS
Colour RAL7035 light grey

Art.-No.	Description
698052GR.1	Inlet/Outlet Filter IP54, 250 x 250 x 34 mm, ET=25 mm
698052GR.2	Inlet/Outlet Filter IP54, 325 x 325 x 34 mm, ET=24.5 mm

Exhaust Hose Ø 150 mm**IP54 Fan Filter for Roof Mounting, Blow-Out**

Standard air flow from inside of the cabinet blowing out, a combination with inlet filters IP54 minimizes ingress of dust
Wall thickness: any up to 10 mm
Material plastic, roof aluminium
Colour plastic parts RAL7035, light grey
Permanent sealing of Polyurethane foam
Filter medium class G2, ca. 10 x washable
Power supply 230 V 50/60 Hz via terminal block 3-pole (L-N-PE), cable not included in delivery
Protection degree IP54

Art.-No.	Description
698051GR.1	Roof Filter Fan IP54, Top-Mount, Blow-Out, RAL7035, 325 x 325 x 97 mm

Adapter for Reducing the Mounting Depth of 698050GR.x

Adapter for reducing the mounting depth of filter fan 698050GR.1 resp. 698050GR.2
The filter fan requires ca. 25 mm less depth in the cabinet

Art.-No.	Description
698053GR.1	Adapter for Reducing the Mounting Depth of 698050GR.1
698053GR.2	Adapter for Reducing the Mounting Depth of 698050GR.2

19" Network Cabinets, Protection Degree IP55, RAL7035



19" Network cabinet according to DIN 41494

Steel sheet housing with welded frame, completely pre-assembled

Pre-assembled plinth 100 mm

Inside front and rear 4 x 19" profiles (2 front, 2 rear-sided), galvanised, depth-adjustable in 25 mm raster

Numbering of rack units at the 19" profiles

Front and rear door steel, 1-part

Front and rear door with 3-point locking with turning handle, lockable

Door opening angle front and rear 120°

Side walls not detachable

Inner roof pre-punched openings for fan units

Bottom prepared with air inlet filters and rubber grommets Ø 80 mm for cable entry

Internal earthing of all cabinet sections

Max. load 1000 kg

Paint finish RAL7035, light grey / RAL9005, jet black

Protection degree IP55

Included accessories: 1 x set of captive nuts (PU 20 pcs.), pre-installed plinth, 2 x key

Delivery in transport packaging on disposable pallet

Art.-No.	U	Width	Depth	Height	Front Door	Back Door
691742IP55.GR	42	800 mm	800 mm	2160 mm	Steel door 1-part	Steel door 1-part
692442IP55.GR	42	800 mm	1000 mm	2160 mm	Steel door 1-part	Steel door 1-part
692724IP55.GR	24	800 mm	800 mm	1360 mm	Steel door 1-part	Steel door 1-part
692524IP55.GR	24	600 mm	600 mm	1360 mm	Steel door 1-part	Steel door 1-part

Art.-No.	U	Width	Depth	Height	Front Door	Back Door
691742IP55.TS	42	800 mm	800 mm	2160 mm	Steel door 1-part	Steel door 1-part
692442IP55.TS	42	800 mm	1000 mm	2160 mm	Steel door 1-part	Steel door 1-part
692724IP55.TS	24	800 mm	800 mm	1360 mm	Steel door 1-part	Steel door 1-part
692524IP55.TS	24	600 mm	600 mm	1360 mm	Steel door 1-part	Steel door 1-part



FIBER OPTIC

COPPER

CABINET SYSTEMS

MULTIMEDIA

ACTIVE COMPONENTS

19" Cabinet 42U IP54 with Side Cooling Solution



The side wall is provided with all openings, sealings and holes for mounting



The optional air funnel allows in combination with the exhaust hose the evacuation of hot air from the room.



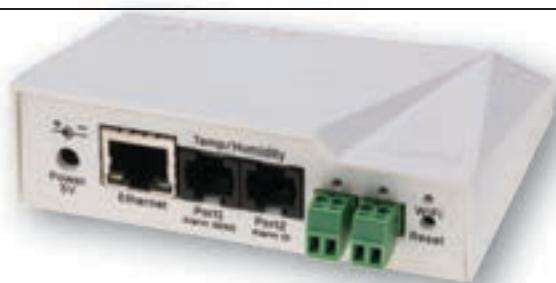
IP54 cabinet 691742TIP54 with side-mounted cooling solution
3 power levels 1.0, 1.5 and 1.9 kW cooling capacity
Cooling device for industrial purposes at high environmental temperatures up to +55°C
Industrial-qualified steel sheet housings
Compact, rugged design and simple function
Electromechanical thermostat and fault indicating contact
Integrated condensate evaporator
Temperature selection directly at the device
Optional exhaust air funnel allows the direct discharge of waste heat through an exhaust hose (Ø 150 mm) from the installation room
Total dimensions (W x H x D) 995 x 2070 x 800 mm
Noise level 67 dB(A)
Power supply 230 V / 50 Hz
Supplied completely ready-for-installation including prepared cabinet with all openings, sealings, cables etc.

Art.-No.	Description	Width	Depth	Height	With Air Funnel Ø 150 mm
KS54288.1,0	Cabinet IP54 with Side Cooler 1.0 kW, B=995 T=800 H=2070, RAL7035	995 mm	800 mm	2070 mm	No
KS54288.1,0A	Cabinet IP54 with Side Cooling 1.0 kW + Air Funnel, RAL7035	995 mm	800 mm	2070 mm	Yes
KS54288.1,5	Cabinet IP54 with Side Cooling 1.5 kW, B=995 T=800 H=2070, RAL7035	995 mm	800 mm	2070 mm	No
KS54288.1,5A	Cabinet IP54 with Side Cooling 1.5 kW + Air Funnel, RAL7035	995 mm	800 mm	2070 mm	Yes
KS54288.1,9	Cabinet IP54 with Side Cooling 1.9 kW, B=995 T=800 H=2070, RAL7035	995 mm	800 mm	2070 mm	No
KS54288.1,9A	Cabinet IP54 with Side Cooling 1.9 kW + Air Funnel, RAL7035	995 mm	800 mm	2070 mm	Yes

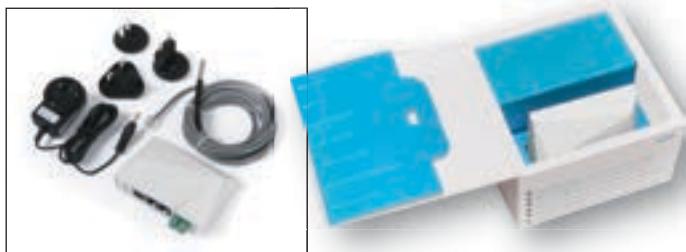
IP Thermometer with E-Mail, LAN, WiFi, PoE, SNMP

New generation of the IP Thermometers in modern Design
 Connection of up to **three temperature- or humidity sensors (also combi sensors)**
 Two dry contacts for control of alarms (door opening, smoke sensor, etc.)
 Network connection via **LAN or WiFi**
 E-Mail with TLS transport encryption
 SMS via HWg-SMS gateway directly via network
 Worldwide access via SensDesk portal of the manufacturer incl. web interface (Android, iOS)
 Applications for the IP thermometer:
 IT monitoring: control of relevant data in server room and alarm to the technicians
 Health: monitoring of refrigerators incl. reporting
 Food industry: monitoring of cold chain
 Heating systems: fast information at failure of critical systems
 Out of Band: integrated WiFi module enables connection at critical locations
 Included in delivery: IP thermometer, 1 x temperature sensor (3 m), software CD, power supply (adaptable Euro/UK/USA/China)

Art.-No.	Description
DCM1002.1	IP-Thermometer with E-Mail, LAN, WiFi, PoE, SNMP



delivery incl. 1 x temperatur sensor and power supply
 Via webinterface also usable without software



Temperature Sensor for DCM100x

Temperature sensor, cable length 3 m (other lengths on request)
 Temperature range -10°C .. +80°C
 Suitable for DCM1002.1 and DCM1001.x

Art.-No.	Description
DCM1000.T	Temperature Sensor for DCM100X.x, -10°C .. +80°C, Cable 3 m



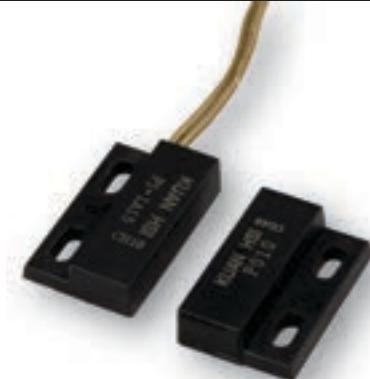
Humidity Sensor for DCM100x



Temperature sensor, cable length 3 m (other lengths on request)
 Suitable for DCM1002.1 and DCM1001.x

Art.-No.	Description
DCM1000.H	Humidity Sensor for DCM1002.1

Door Contact Switch for DCM100x



Door contact switch, cable length 3 m
 Suitable for DCM1002.1 and DCM1001.x (not for DCM1000.x)

Art.-No.	Description
DCM1001.D	Door Contact Sensor for DCM1002.1

Split Air Conditioning Solution as Bay Cooler 2.5 / 3.5 kW

Almost inaudible !



Nearly noiseless and without heat for the installation room
Ideal for all quite locations: office, conference / seminar room, libraries, hospital, ...

Cooling unit as side module, equipped with state of the art climatic technology

Perfectly matching network cabinets available in combination

Nearly noiseless due to integrated noise absorption mats – practically not noticeable in the installation location!

Integrated air routing system guides the cold air into the frontside of the cabinet

Evacuating of the waste heat in top of the cabinet

No waste heat for the installation room

Side module contains the cooling unit of the split-climatic system

Outdoor unit („Chiller“) is installed in next room or at a outside wall

Energy efficiency classe A due to cooling system in Inverter Technology, means that only the actually necessary energy is used

Common Specifiacions:

Power variants 2500 and 3500 W

Inside fully lined with special acoustic foam for especially quite operation

Insulated side and rear wall, detachable

Rear-sided outlet for cables and cooling pipes

Control via touch panel in the front or IR remote control (included)

Paint finish RAL7035, light grey (RAL9005 or special design on request)

Technical specifications indoor unit (integrated in side module):

Modern inverter technology

Cooling power 3500 W / power consumption 880 W / yearly consumption 440 kWh

Energie efficiency class „A“

Dimensions side module (W x D x H) 300 x 1000 x 1980 mm

Left side stackable to the 42U cabinets Art.-No. 692442NKL (W=800 D=1000) / 691842NKL (W=600 mm D=1000)

Operation voltage 230 V / 50 Hz

De-humidifiers 1,3 l/h

Air flow 720 m³/h

SPL max. 39 dB(A)

Technical specifications outdoor unit:

Modern inverter technology

Cooling power 3500 W

Operation temperature -15°C .. +48°C

Dimensions (H x W x D) 545 x 770 x 288 mm, weight 35 kg

- Refrigerant 1000 g R410A

Motor power 43 W

Air flow 33 m³/h
SPL max. 45 dB(A)

Note:

For connection of indoor and outdoor unit and for fill-in of cooling fluid, a climatic technician is necessary

Art.-No.	Description	Width	Depth	Height
693042SKL2,5	Bay Cooler 42U 2.5 kW, W=300 D=1000 mm, RAL7035	300 mm	1000 mm	1980 mm
693042SKL3,5	Bay Cooler 42U 3.5 kW, W=300 D=1000 mm, RAL7035	300 mm	1000 mm	1980 mm

Complete Split Climatic Solution,
consisting of Outdoor Unit,
Side Cooler and stacked
Network Cabinet



Network Cabinet for Use with Baying Cooler



**Bottom plate with 14 PVC
cable entry cones
Ø 20 mm
(also usable in the roof)**

Network cabinet prepared for use with bay coolers Art.-No. 693042SKL.x
Basing on network cabinet Classic in protection degree IP40
Front door glass, 1-part, with turning handle and profile half-cylinder acc. to
DIN18252 / EN1303
Profile half-cylinder exchangeable by customer
Rear wall with 2 x latch
Side wall right, left side open for line-up of cooling unit
Roof and bottom with screwed plates, bottom with 14 rubber grommets Ø
20 mm for cable entry (after changing cover plate, also usable in roof)
Protection degree IP40 (lined-up)
Paint finish RAL7035, light grey
Included in delivery: 1 x brush, 1 x set of captive nuts (PU 20 pcs.), 4 x leveling
feet M10, 2 x key
Delivery in transport packaging on disposable pallet

Bottom with 14 conical rubber grommets
Ø 20 mm for cable entry
(also usable in the roof)

Art.-No.	U	Width	Depth	Height	Front Door	Back Door
692442NKL	42	800 mm	1000 mm	1980 mm	Glass door 1-part	Rear wall
692642NKL	42	600 mm	1000 mm	1980 mm	Glass door 1-part	Rear wall



Rear side with fans and cable entry



Fresh air inlet via filter grid in the bottom



3 x Super-Silent fans

19" Roll Container 15U, Acoustical Insulated, Office Design

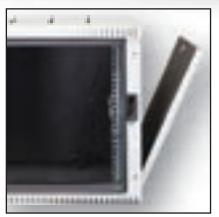
19" Network cabinet acc. to DIN41494 as roll container or undercounter housing for office environments
High-quality acoustical insulated variant for ergonomic work, suitable for installation directly at the working place
Attractive, stable MDF plate at the upper side enables parking of further devices (printer etc.) on the cabinet
Use of sound insulation mats in studio technology in thickness 20, 40 und 50 mm, equal to the acoustical problem zones in cabinets
Attenuation (typ.) 8 .. 25 dB (frequency-dependent, see data sheet)
Especially decoupled, smooth running „Silent“ fans at the rear wall guide the heat to outside, converted air volume 294 m³/h
Fresh air feeding from bottom-front via filter grid
Cable entry rear-sided below via sound bridge and brush
Inside 4 x 19" rails (2 front, 2 rear), depth-adjustable in 25 mm raster
Front door with window of certified safety glass (5 mm), 1-part, with turning handle and profile half-cylinder acc. to DIN18252, PHC exchangeable by customer
Rear door with 1 x latch, lock equal to door lock
Side walls detachable with 2 x latch, lock equal to door lock
Max. load 320 kg (castors) / 600 kg (leveling feet)
Dimensions (W x D x H) 600 x 800 x 900 mm
Paint finish and MDF plate RAL7035, light grey
Delivery incl. set of 4 castors (2 with brake), 2 x key, 1 x power supply for fans

All EFB housings are available as acoustical insulated type and in individual design - ask your sales contact!

19" Wall Housing, Acoustically Insulated



All cabinet parts are grounded



Side walls detachable



Fresh air inlets closeable

Acoustically high-quality insulated wall housing, basing on EFB standard wall housings
For realisation of network projects in SoHo environments and acoustical insulation of loud, active devices like e.g. switches, router etc.

For installation in immediate near of working places, in seminar- or conference rooms without noise pollution
Complete inner lining with especially noise absorbers

Attenuation (typ.) 8 .. 25 dB (frequency-dependent, see data sheet)

Special decoupled Super-Silent fans (evacuating) in roof area

Converted air volume 196 m³/h

Closeable fresh air inlets in bottom

Cable entry in bottom via noise bridge and brush

Front door with window of certified safety glass (4 mm), lockable

Side walls detachable, lockable, lock equal to door lock

Paint finish RAL7035, light grey

Delivery incl. 2 x key, 1 x power supply for the fans

All EFB housings are available as acoustical insulated type - ask your sales contact!

Art.-No.	U	Width	Height	Depth
691709.1-AK	9	600 mm	465 mm	500 mm
691712.1-AK	12	600 mm	600 mm	500 mm

19" Server Cabinet 26U, Acoustically Insulated, Wood Design



Other wood types available on request

Acoustically high-quality insulated server cabinet, basing on EFB server cabinets Classic

Especially attractive design with side elements and roof in wood type (Beech)
For realisation of network projects in SoHo environments and acoustical insulation of loud, active devices like e.g. switches, router etc.

For installation in immediate near of working places, in seminar- or conference rooms without noise pollution

Complete inner lining with especially noise absorbers

Attenuation (typ.) 8 .. 25 dB (frequency-dependent, see data sheet)

3 x Super-Silent fans (evacuating) in rear roof area

Converted air volume 294 m³/h

Closeable fresh air inlets in bottom

Cable entry in bottom via perforated air entry in bottom

Front door 1-part with perforation design, acoustically insulated, lockable

Rear door 2-part with perforation design, acoustically insulated, lockable

Front and rear door with turning handle and profile half-cylinder acc. to DIN18252 / EN1303, PHC exchangeable by customer

Side walls detachable, screwed

Paint finish (frame) RAL9005, jet black, wood elements beech

Delivery incl. 2 x key, 1 x power supply for the fans, 4 x leveling feet, set of captive nuts (PU 20 pcs.)

All EFB housings are available as acoustical insulated type - ask your sales contact!



The complete housing incl. front and rear door is acoustically insulated



Side walls detachable with 4 screws



3 x Super-Silent fans in roof area



Side wall opened

Art.-No.	U	Width	Depth	Height	Front Door	Back Door
693126.60-AK-BU	26	600 mm	1000 mm	1270 mm	Other	Other

19" Wall Housing 1-Part, RAL7035



Steel sheet housing with welded frame
 Completely pre-assembled, self-ventilated
 Side walls removable, lockable, locks equal to door lock
 Pre-punched openings for cable entry from roof or bottom
 Prepared for mounting of 2 x single fan units in roof and bottom
 Front-sided 2 x 19" profile rails, galvanised, depth-adjustable
 Front door with window made of certified safety glass (4 mm)
 Front door lockable with latch
 Internal earthing of all cabinet sections
 Paint finish RAL7035, light grey
 Protection degree IP20
 Included in delivery: 1 x brush terminal, 1 x set of captive nuts (PU 20 pcs.),
 2 x key
 Delivery in transport packaging, from 30 kg / 12U on disposable pallet

Max. Distances between the 19"-Levels (only if rear profiles are installed)

Housing Depth	Max. Distance of 19"-Levels	Max. Mounting Depth (to Rear Wall)
400 mm	315 mm	350 mm
500 mm	415 mm	450 mm
600 mm	515 mm	550 mm

In this assembly variant remain approx. 40 mm from 19"-level to the rear wall resp. door



19" Wall Housing 1-Part, RAL 7035, Depth 400 mm

Art.-No.	U	Width	Height	Max. Load
691704	4	600 mm	240 mm	50 kg
691706	6	600 mm	330 mm	50 kg
691709V2	9	600 mm	465 mm	50 kg
691712	12	600 mm	600 mm	50 kg
691715	15	600 mm	730 mm	50 kg
691718	18	600 mm	860 mm	50 kg
691721	21	600 mm	997 mm	50 kg

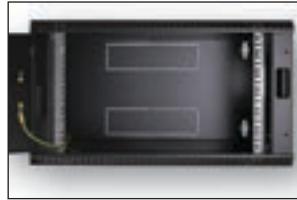
19" Wall Housing 1-Part, RAL 7035, Depth 500 mm

Art.-No.	U	Width	Height	Max. Load
691704.1	4	600 mm	240 mm	50 kg
691706.1	6	600 mm	330 mm	50 kg
691709.1V2	9	600 mm	465 mm	50 kg
691712.1	12	600 mm	600 mm	50 kg
691715.1	15	600 mm	730 mm	50 kg
691718.1	18	600 mm	860 mm	50 kg
691721.1	5 - 21	600 mm	997 mm	50 kg

19" Wall Housing 1-Part, RAL 7035, Depth 600 mm

Art.-No.	U	Width	Height	Max. Load
691712.2	12	600 mm	600 mm	50 kg
691715.2	15	600 mm	730 mm	50 kg
691718.2	18	600 mm	860 mm	50 kg
691721.2	21	600 mm	997 mm	50 kg

19" Wall Housing 1-Part, RAL9005



Steel sheet housing with welded frame

Completely pre-assembled, self-ventilated

Side walls removable, lockable, locks equal to door lock

Pre-punched openings for cable entry from roof or bottom

Prepared for mounting of 2 x single fan units in roof and bottom

Front-sided 2 x 19" profile rails, galvanised, depth-adjustable

Front door with window made of certified safety glass (4 mm)

Front door lockable with latch

Internal earthing of all cabinet sections

Paint finish RAL9005, jet black

Protection degree IP20

Included in delivery: 1 x brush terminal, 1 x set of captive nuts (PU 20 pcs.),

2 x key

Delivery in transport packaging, from 30 kg / 12U on disposable pallet

19" Wall Housing 1-Part, RAL9005, Depth 400 mm

Art.-No.	U	Width	Height	Max. Load
691704TS	4	600 mm	240 mm	50 kg
691706TS	6	600 mm	330 mm	50 kg
691709TS	9	600 mm	465 mm	50 kg
691712TS	12	600 mm	600 mm	50 kg
691715TS	15	600 mm	730 mm	50 kg
691718TS	18	600 mm	860 mm	50 kg
691721TS	21	600 mm	997 mm	50 kg

19" Wall Housing 1-Part, RAL9005, Depth 500 mm

Art.-No.	U	Width	Height	Max. Load
691704TS.1	4	600 mm	240 mm	50 kg
691706TS.1	6	600 mm	330 mm	50 kg
691709TS.1	9	600 mm	465 mm	50 kg
691712TS.1	12	600 mm	600 mm	50 kg
691715TS.1	15	600 mm	730 mm	50 kg
691718TS.1	18	600 mm	860 mm	50 kg
691721TS.1	21	600 mm	997 mm	50 kg

19" Wall Housing 1-Part, RAL9005, Depth 600 mm

Art.-No.	U	Width	Height	Max. Load
691712TS.2	12	600 mm	600 mm	50 kg
691715TS.2	15	600 mm	730 mm	50 kg
691718TS.2	18	600 mm	860 mm	50 kg
691721TS.2	21	600 mm	997 mm	50 kg

19" Wall Housing 2-Part, Swiveling, RAL7035**Max. Distances between the 19"-Levels (only if rear profiles are installed)**

Housing Depth	Max. Distance of 19"-Levels	Max. Mounting Depth (to Rear Wall)
500 mm	315 mm	450 mm
600 mm	415 mm	550 mm

In this assembly variant remain approx. 40 mm from 19" level to the rear wall resp. door

Steel sheet housing with welded frame
Completely pre-assembled, self-ventilated
Rear-sided swing-frame for swiveling the front part of the housing
Pre-punched openings for cable entry optionally from roof or bottom
Prepared for mounting of single fan units in roof and bottom
Inside front-sided 2 x 19" profile rails, galvanised, depth-adjustable
Front door with window made of certified safety glass (4 mm)
Front door lockable with latch
Internal earthing of all cabinet sections
Paint finish RAL7035, light grey
Protection degree IP20
Included in delivery: 1 x brush terminal, 1 x set of captive nuts (PU 20 pcs.),
2 x key
Delivery in transport packaging, from 30 kg / 12U on disposable pallet

**19" Wall Housing 2-Part, Swiveling, RAL7035, Depth 500 mm**

Art.-No.	U	Width	Height	Max. Load
691604	4	600 mm	240 mm	30 kg
691606	6	600 mm	330 mm	40 kg
691609V2	9	600 mm	465 mm	40 kg
691612	12	600 mm	600 mm	40 kg
691615	15	600 mm	730 mm	50 kg
691618	18	600 mm	860 mm	50 kg
691621	21	600 mm	997 mm	50 kg

19" Wall Housing 2-Part, Swiveling, RAL7035, Depth 600 mm

Art.-No.	U	Width	Height	Max. Load
691604.1	4	600 mm	240 mm	30 kg
691606.1	6	600 mm	330 mm	40 kg
691609.1V2	9	600 mm	465 mm	40 kg
691612.1	12	600 mm	600 mm	50 kg
691615.1	15	600 mm	730 mm	50 kg
691618.1	18	600 mm	860 mm	40 kg
691621.1	21	600 mm	997 mm	50 kg

19" Wall Mount Cabinets 2-Part, Swiveling, RAL9005



Steel sheet housing with welded frame

Completely pre-assembled, self-ventilated

Rear-sided swing-frame for swiveling the front part of the housing

Pre-punched openings for cable entry optionally from roof or bottom

Prepared for mounting of single fan units in roof and bottom

Inside front-sided 2 x 19" profile rails, galvanised, depth-adjustable

Front door with window made of certified safety glass (4 mm)

Front door lockable with latch

Internal earthing of all cabinet sections

Paint finish RAL9005, jet black

Protection degree IP20

Included in delivery: 1 x brush terminal, 1 x set of captive nuts (PU 20 pcs.),

2 x key

Delivery in transport packaging, from 30 kg / 12U on disposable pallet



19" Wall Mount Cabinets 2-Part, Swiveling, Depth 500 mm, RAL9005

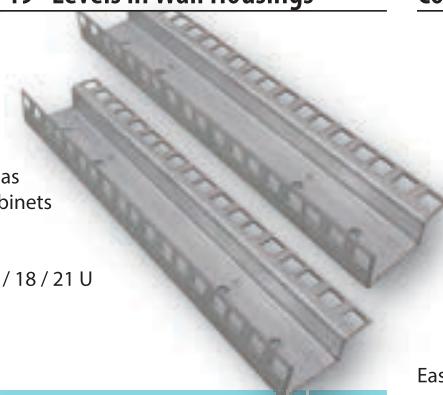
Art.-No.	U	Width	Height	Max. Load
691604TS	4	600 mm	240 mm	30 kg
691606TS	6	600 mm	330 mm	40 kg
691609TS	9	600 mm	465 mm	40 kg
691612TS	12	600 mm	600 mm	40 kg
691615TS	15	600 mm	730 mm	50 kg
691618TS	18	600 mm	860 mm	50 kg
691621TS	21	600 mm	997 mm	50 kg

19" Wall Mount Cabinets 2-Part, Swiveling, Depth 500 mm, RAL9005

Art.-No.	U	Width	Height	Max. Load
691604TS.1	4	600 mm	240 mm	30 kg
691606TS.1	6	600 mm	330 mm	40 kg
691609TS.1	9	600 mm	465 mm	40 kg
691612TS.1	12	600 mm	600 mm	40 kg
691615TS.1	15	600 mm	730 mm	50 kg
691618TS.1	18	600 mm	860 mm	50 kg
691621TS.1	21	600 mm	997 mm	50 kg

19" Profiles Set for Adding 19" Levels in Wall Housings

19" mounting rails for retrofitting as rear 19" level in wall mounting cabinets
With grid spacing for captive nuts
Suitable for all wall mounting cabinets 1-Part/2-Part in 6 / 9 / 15 / 18 / 21 U
Material steel sheet
2 pieces in set



Art.-No.	Description	U
691671	19" 6U Profile Rails, Set of 2 pcs.	6
691672	19" 9U Profile Rails, Set of 2 pcs.	9
691682	19" 12U Profile Rails, Set of 2 pcs.	12
691673	19" 15U Profile Rails, Set of 2 pcs.	15
691681	19" 18U Profile Rails, Set of 2 pcs.	18
691677	19" 21U Profile Rails, Set of 2 pcs.	21

Compact Turning Handle for Profile Half Cylinder

Installed compact turning handle

Easiest retrofitting for all 19" wall mounting cabinets 1-part and 2-part as well as wall and standing cabinets Flat Pack
Suitable for use with profile half-cylinder acc. to DIN 18252 / EN1303 (e.g. Art.-No. 46087.x)
Included latch limits the rotation angle to 90°
Delivery without profile half-cylinder

Art.-No.	Description
699989	Compact Turning Handle for PHC, incl. Latch

Single Fan Unit for Wall Housing

Prepared for mounting in bottom or roof of all 19" wall-mounting cabinets 1-part and 2-part
Mounting material for fixing, power supply and earthing included
Rated voltage: 230 V, 50 Hz

Art.-No.	Description
691664	Fan for 19" Wall Mounting Cabinets, 120 mm, 230 V / 50 Hz

Thermostat

Suitable for roof fan unit and all built-in fan units
Adjustable range -10°C .. +80°C
Mounting at the 19"-profiles
Thermostat and mounting material are included in delivery of the roof fan units

Art.-No.	Description
691642.1	Thermostat for Fan Units 691656V3 / 691654V3 / 691655V3

Filter Panel for 691664

Filter Panel 120 mm for single fan Art.-No. 691664

Art.-No.	Description
691664F	Filter Panel for 691664, Mounting on 120 mm Fan

Power Cable Schuko 90° - Open End WES, black

16 A / 250 V VDE tested
Open End assembled with wire end sleeves
Wire end sleeves for 1.8 m: L = 6 mm, Ø 1.7 mm, yellow insulator
Wire end sleeves for 3 + 5 m: L = 8 mm, Ø 1.7 mm, red insulator
Cable colour black
Suitable for Germany, Belgium, France and further

Art.-No.	Conductor Ø	Colour	Length
EK504AE.1,8	0.75 mm ²	Black	1.8 m
EK504AE.3	1.00 mm ²	Black	3.0 m
EK504AE.5	1.00 mm ²	Black	5.0 m

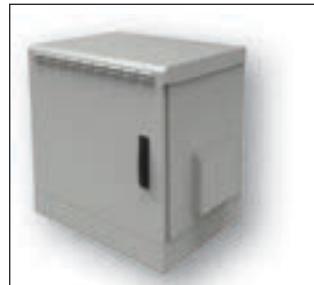
19" Wall Mount Cabinet IP55, Depth 450 mm, RAL7035



Steel sheet housing with welded frame, completely pre-assembled
 Right- and left-sided metal protected air inlets for passive climatisation
 Side walls not detachable
 Roof hinged, inner roof prepared for hanging mounting of 2 x single fan Art.-No. 691664
 Bottom with PG glands 1 x PG48, 2 x PG21 and 3 x Ø 20 mm PVC blind grommets
 Inside front 2 x 19" profile rails, galvanised
 Front door steel sheet with reinforcement and 3-point bar locking, lockable
 Cabinet parts inside completely earthed
 Max. load 100 kg
 Paint finish RAL7035, light grey
 Protection degree IP55
 Plinth for use as standing cabinet available as option
 Included accessories: 4 x Wall mount angle, 2 x key

Very solid - for industrial and outdoor use

Suitable as wall and standing cabinet!



Optional plinth available

Hinged roof for accessing fan unit screws

19" Wall Mount Cabinet IP55, Depth 450 mm, RAL7035

Art.-No.	U	Width	Height	Max. Load
691707IP55.1	7	600 mm	410 mm	100 kg
691709IP55.1	9	600 mm	500 mm	100 kg
691712IP55.1	12	600 mm	630 mm	100 kg
691716IP55.1	16	600 mm	810 mm	100 kg
691720IP55.1	20	600 mm	1000 mm	100 kg

19" Wall Mount Cabinet IP55, Depth 600 mm, RAL7035

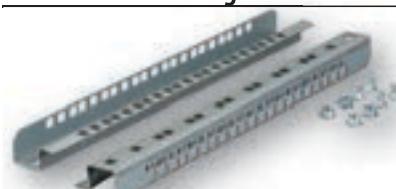
Art.-No.	U	Width	Height	Max. Load
691707IP55.2	7	600 mm	410 mm	100 kg
691709IP55.2	9	600 mm	500 mm	100 kg
691712IP55.2	12	600 mm	630 mm	100 kg
691716IP55.2	16	600 mm	810 mm	100 kg
691720IP55.2	20	600 mm	1000 mm	100 kg

Plinth for 19" Wall Housings IP55, RAL7035

For using the IP55 wall housings (Art.-No. 6917xxIP55.x) as standing cabinet
 Plinth height 100 mm, depth 450 mm / 600 mm
 Suitable for plane surfaces like e.g. concrete
 Screw mounting at the wall housing
 Openings for mounting at the floor
 Material steel sheet
 Paint finish RAL7035, light grey



19" Profile Rails for Wall Housings IP55



For retrofitting as rear-sided 19" level in the wall housings 6917xxIP55.x
 With numbering of rack units
 Material steel, galvanised

Art.-No.	Description	U
691675.07	19" Mounting Rails for 7U, Set of 2 Pieces	7
691675.09	19" Mounting Rails for 9U, Set of 2 Pieces	9
691675.12	19" Mounting Rails for 12U, Set of 2 Pieces	12
691675.16	19" Mounting Rails for 16U, Set of 2 Pieces	16
691675.20	19" Mounting Rails for 20U, Set of 2 Pieces	20

Art.-No.	Description	Colour
691750WIP.1	Plinth for 19" Wall Housing IP55, Depth 450 mm	RAL7035, lichtgrau
691750WIP.2	Plinth for 19" Wall Housing IP55, Depth 600 mm	RAL7035, lichtgrau

19" Wall Housing 3U+5U Vertically, RAL7035 / RAL9005 / RAL9010

3 Colour variants available:
RAL7035, light grey
RAL9005, jet black
RAL9010, pure white

Steel sheet housing for wall mounting, completely pre-assembled, self-ventilated

Wall raising (overall depth) only 150 mm

3U for vertical mounting of 19" components, max. depths each 1 x 360 / 340 / 300 mm

5U additionally for horizontally mounting of 19" components, max. depth 80 mm

3U level 180° swiveling

Cover with window, hinged and lockable

Pre-punched ventilation openings in housing

Pre-punched cable clamps in rear wall

Material steel sheet

Paint finish RAL7035, light grey / RAL9005, jet black / RAL9010, pure white

Protection degree IP20

Included in delivery: 1 key



Further configuration options you can find in the detailed datasheet

**Application example 1:**

19" level in upright position,

3U with mounting depth up to 360 mm are usable

**Application example 2:**

19" level is angled, 3U with mounting depth up to 140 mm

and 4U rear sided are usable

19" Wall Housing 3U + 5U Vertical, RAL7035 / RAL9005 / RAL9010

Art.-No.	U	Width	Height	Max. Load	Colour
691703V	8	537 mm	475 mm	30 kg	RAL7035, light grey
691703VTS	8	537 mm	475 mm	30 kg	RAL9005, jet black
691703VWS	8	537 mm	475 mm	30 kg	RAL9010, pure white

19"/10" Wall Mount Cabinet 5U Vertical / 10U Horizontal, RAL7035

Steel sheet housing 5U vertical, completely pre-assembled
Front-sided 19" level made of punched profile
Front door with window made of certified safety glass (thickness 4 mm)
Front door with latch
Left side wall hinged for easy access
Right side wall with holes for wall mounting
Rear wall screwed, prepared for mounting of 2 fan units
Internal earthing of all cabinet sections
Additional earthing bolt M6 inside the housing
Pre-punched openings (250 x 60 mm) for cable entry from roof or bottom
Paint finish RAL7035, light grey
Protection degree IP20
Included in delivery: 2 x brush terminal, 1 x set of captive nuts (20 pcs.), 2 x key
Delivery in transport packaging



Various mounting possibilities



Cable entry with brush



Central grounding bolt



Wall housing opened, with 2 x fan positions

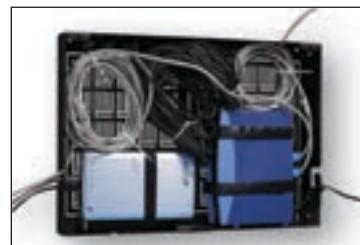
19"/10" Wall Mount Cabinet 5U Vertical / 10U Horizontal, RAL7035 T

Art.-No.	U	Width	Height	Depth
691706V	5	322 mm	543 mm	500 mm

Universal Periphery Box M-Box S / M / L



Clever, sophisticated box for storage of peripheral devices and cables
Ensures order e.g. on or under the desk or at a wall
Cable entry possible from 3 directions (left/right/below)
2 x 3 Openings for lead out of antennas at the upper side
Devices can be easily fixed at the special rear-sided raster with hook-and-loop tape
Suitable for standing or wall mounting
Closing via quick fasteners (not lockable)
Included in delivery: 1 x M-Box with cover, 4 x standing / wall mounting brackets, hook-and-loop tape, cable tie, mounting material incl. dowels and screws



Application example



Antenna openings + quick fastener

Art.-No.	Description
691830.1	Periphery Box M-Box, Small, (WxHxD) 280x195x60 mm, RAL9005, IP10
691830.2	Periphery Box M-Box, Medium, (WxHxD) 365x250x60 mm, RAL9005, IP10
691830.3	Periphery Box M-Box, Large, (WxHxD) 460x320x60 mm, RAL9005, IP10

Mini Rack 10"

Delivery unassembled

Self-ventilated steel sheet housing
Front door with window made of safety glass (4 mm)
Door opening angle 180°, lockable door lock with latch
The special construction of the door prevents possible kinking of the inserted patch cables
Cable infeed optionally from top or bottom, openings 120 mm x 35 mm
Slots for wall mounting, max. load 20 kg
Material steel sheet, paint finish RAL7035, light grey
Delivery in transport packaging

Art.-No.	U	Width	Height	Colour
691801	7	300 mm	355 mm	RAL7035, light grey

10" 1U Patch Panel 12 x RJ45 Cat.6A, RAL7035/RAL9005

Cat.6A | 10GbE

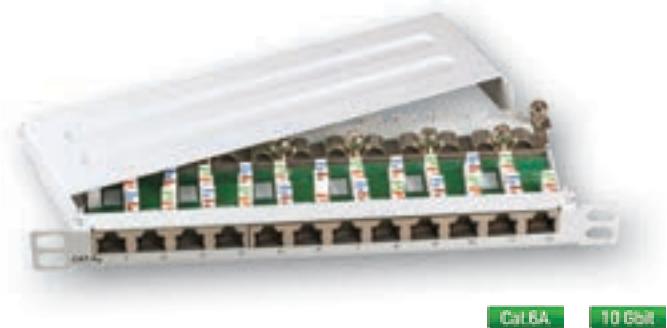
12 x fully shielded RJ45 jacks
8-pole IDC terminals
Colour code TIA 568 A/B
Metal housing

Art.-No.	Description	Colour
691813	10" 1U Patch Panel 12 x RJ45 Cat.6A	RAL7035, light grey
691813SW	10" 1U Patch Panel 12 x RJ45 Cat.6A	RAL9005, jet black

Mini Rack 10" light

Self-ventilated steel sheet housing
Lockable door with latch, door opening angle 180°
Front door with window made of safety glass (4 mm)
Front profiles permanently mounted
Cable entry optionally from top, bottom or rear-sided, openings 120 mm x 35 mm
Long holes for wall mounting, max. load 20 kg
Paint finish RAL7035, light grey / RAL9005, jet black
Delivery in transport packaging

Art.-No.	U	Width	Height	Colour
691804	4	300 mm	240 mm	RAL7035, light grey
691803	6	300 mm	330 mm	RAL7035, light grey
691805	9	300 mm	465 mm	RAL7035, light grey
691803TS	6	300 mm	330 mm	RAL9005, jet black
691805TS	9	300 mm	465 mm	RAL9005, jet black

10" 0.5U Patchpanel 12 x RJ45 Cat.6A, RAL7035/RAL9005

Cat.6A | 10GbE



12 x fully shielded RJ45 jacks
8-pole IDC terminals
Colour code TIA 568 A/B
Metal housing

Art.-No.	Description	Colour
691815	10" 0.5U Patch Panel 12 x RJ45 Cat.6A	RAL7035, light grey
691815SW	10" 0.5U Patch Panel 12 x RJ45 Cat.6A	RAL9005, jet black

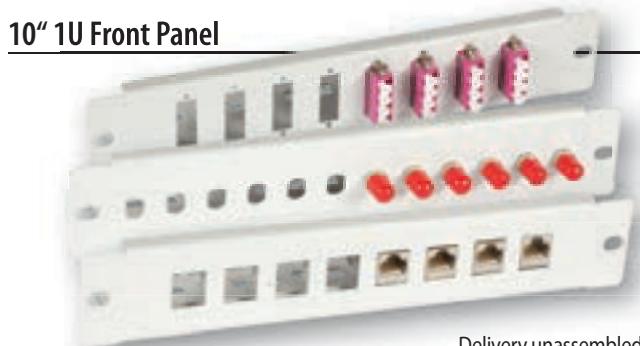
10" 1U Base Plate / Shelf

Material steel sheet

Inner dimensions 217 x 106 mm

Paint finish RAL7035, light grey / RAL9005, jet black

Art.-No.	Description	Colour
691820	10" 1U Base Plate / Shelf	RAL7035, light grey
691820TS	10" 1U Base Plate / Shelf	RAL9005, jet black

10" 1U Front Panel

Delivery unassembled

Material steel sheet

Paint finish RAL7035, light grey / RAL9005, jet black

Delivery unassembled

Art.-No.	Description	Colour
691822	10" 1U FO Front Panel 8 x SC simplex	RAL7035, light grey
691824	10" 1U FO Front Panel 8 x SC duplex	RAL7035, light grey
691823	10" 1U FO Front Panel 12 x ST	RAL7035, light grey
691825	10" 1U Distribution Panel für 8 x Keystone	RAL7035, light grey
691825TS	10" 1U Distribution Panel for 8 x Keystone	RAL9005, jet black

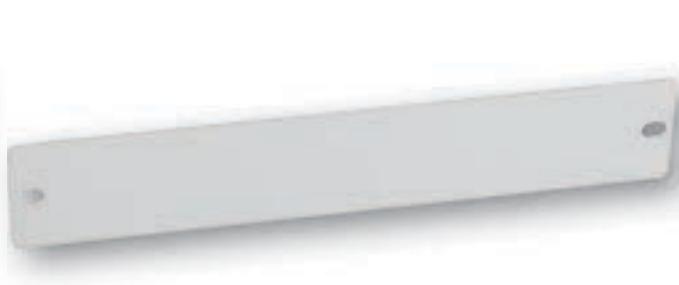
10" Socket Strip 3-Way / 4-Way

35° turned socket inserts

2.0 metres supply cable black, H05VV-F 3 x 1.50 mm², 250 V AC / 16 A with angled plug CEE7/7

Supplied mounting brackets allow any fastening position

Art.-No.	Description	Colour
ESP.70	10" 1U Socket Strip 3-Way, without Switch	RAL7035, light grey
ESP.72	10" 1U Socket Strip 4-Way, without Switch	RAL7035, light grey

10" 1U Blanking Panel

Material steel sheet

Paint finish RAL7035, light grey / RAL9005, jet black

Art.-No.	Description	Colour
691821	10" 1U Dummy Plate	RAL7035, light grey
691821TS	10" 1U Dummy Plate	RAL9005, jet black

10" 1U Distribution Panel for 12 x Keystone

With rear-sided cable bracket

Material steel sheet

Paint finish RAL7035, light grey / RAL9005, jet black

Delivery unassembled

Art.-No.	Description	Description
691826	10" 1U Distribution Panel for 12 x Keystone	RAL7035, light grey
691826TS	10" 1U Distribution Panel for 12 x Keystone	RAL9005, jet black

Switches for 10" mounting you will find on page 428



19" Wall Housing Flat Pack, RAL7035



Steel sheet housing with screwed frame
Not pre-assembled, self-ventilated
Side wall removable with quick fastener and lockable (key equal to door key)
Roof, bottom and rear wall with pre-punched openings for cable entry (230 x 41 mm)
Roof prepared for mounting of 2 x single fan (Art.-No. 691664)
Inside 2 x 19" rails front-sided, depth-adjustable
Front door with window of certified safety glass with lock (thickness 4 mm)
Cabinet parts completely earthed
Max. load 60 kg
Protection degree IP20
Paint finish RAL7035, lichtgrau
Included accessories: 2 x key
Delivery unassembled in transport packaging (1 carton)

**Delivery disassembled
in one carton**



19" Wall Housing Flat Pack, RAL7035, Depth 450 mm

Artikel.-Nr.	U	Width	Height	Max. Load	Number and Dimension of Cartons
691706FGR.1	6	570 mm	370 mm	60 kg	1 x (W x D x H = 400 x 600 x 230 mm)
691709FGR.1	9	570 mm	500 mm	60 kg	1 x (W x D x H = 540 x 600 x 180 mm)
691712FGR.1	12	570 mm	635 mm	60 kg	1 x (W x D x H = 670 x 600 x 180 mm)
691715FGR.1	15	570 mm	770 mm	60 kg	1 x (W x D x H = 800 x 600 x 180 mm)

19" Wall Housing Flat Pack, RAL7035, Depth 600 mm

Artikel.-Nr.	U	Width	Height	Max. Load	Number and Dimensions of Cartons
691709FGR.2	9	570 mm	500 mm	60 kg	1 x (W x D x H = 540 x 600 x 230 mm)
691712FGR.2	12	570 mm	635 mm	60 kg	1 x (W x D x H = 670 x 600 x 180 mm)
691715FGR.2	15	570 mm	770 mm	60 kg	1 x (W x D x H = 800 x 600 x 180 mm)

Compact Turning Handle for Profile Half Cylinder

Easiest retrofitting for all 19" wall mounting cabinets 1-part and 2-part as well as wall and standing cabinets Flat Pack
Suitable for use with profile half-cylinder acc. to DIN 18252 / EN1303 (e.g. Art.-No. 46087.x)
Included latch limits the rotation angle to 90°
Delivery without profile half-cylinder



Installed compact turning handle

Art.-Nr.	Bezeichnung
699989	Compact Turning Handle for PHC, incl. Latch

19" Wall Housing Flat Pack, RAL9005



Steel sheet housing with screwed frame
 Not pre-assembled, self-ventilated
 Side wall removable with quick fastener and lockable (key equal to door key)
 Roof, bottom and rear wall with pre-punched openings for cable entry (230 x 41 mm)
 Roof prepared for mounting of 2 x single fan (Art.-No. 691664)
 Inside 2 x 19" rails front-sided, depth-adjustable
 Front door with window of certified safety glass with lock (thickness 4 mm)
 Cabinet parts completely earthed
 Max. load 60 kg
 Protection degree IP20
 Paint finish RAL9005, jet black
 Included accessories: 2 x key
 Delivery unassembled in transport packaging (1 carton)



19" Wall Housing Flat Pack, RAL9005, Depth 450 mm

Art.-No.	U	Width	Height	Max. Load	Number and Dimension of Cartons
691706FTS.1	6	570 mm	370 mm	60 kg	1 x (W x D x H = 400 x 600 x 230 mm)
691709FTS.1	9	570 mm	500 mm	60 kg	1 x (W x D x H = 540 x 600 x 180 mm)
691712FTS.1	12	570 mm	635 mm	60 kg	1 x (W x D x H = 670 x 600 x 180 mm)
691715FTS.1	15	570 mm	770 mm	60 kg	1 x (W x D x H = 800 x 600 x 180 mm)

19" Wall Housing Flat Pack, RAL9005, Depth 600 mm

Art.-No.	U	Width	Height	Max. Load	Number and Dimensions of Cartons
691709FTS.2	9	570 mm	500 mm	60 kg	1 x (W x D x H = 540 x 600 x 230 mm)
691712FTS.2	12	570 mm	635 mm	60 kg	1 x (W x D x H = 670 x 600 x 180 mm)
691715FTS.2	15	570 mm	770 mm	60 kg	1 x (W x D x H = 800 x 600 x 180 mm)

FLAT PACKS: Disassembled Delivered Wall Housings

Housings in Flat Pack design require significantly less space during transport than pre-assembled variants. The installation takes only a few minutes and only requires one person.

The sophisticated screw and click system ensures cost-efficiency. It allows a comfortable installation by a single installer.



Delivery disassembled in one carton



Side view

Rear view

19" Network Cabinets Flat Pack, RAL7035

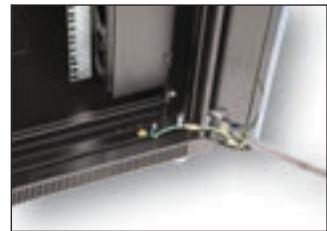
Art.-No.	U	Width	Depth	Height	Front Door	Back Door	Number of Cartons	Weight
691742FGR	42	800 mm	800 mm	2000 mm	Glass door 1-part	Steel door 1-part	4	135 kg
691942FGR	42	600 mm	600 mm	2000 mm	Glass door 1-part	Steel door 1-part	3	90 kg
692727FGR	27	800 mm	800 mm	1340 mm	Glass door 1-part	Steel door 1-part	4	97,5 kg
692527FGR	27	600 mm	600 mm	1340 mm	Glass door 1-part	Steel door 1-part	3	64 kg

19" Network Cabinets Flat Pack, RAL9005

Art.-No.	U	Width	Depth	Height	Front Door	Back Door	Number of Cartons	Weight
691742FTS	42	800 mm	800 mm	2000 mm	Glass door 1-part	Steel door 1-part	4	135 kg
691942FTS	42	600 mm	600 mm	2000 mm	Glass door 1-part	Steel door 1-part	3	90 kg
692727FTS	27	800 mm	800 mm	1340 mm	Glass door 1-part	Steel door 1-part	4	97,5 kg
692527FTS	27	600 mm	600 mm	1340 mm	Glass door 1-part	Steel door 1-part	3	64 kg



Vertical cable management included



Doors and side walls are earthed

Delivery in disassembled condition

19" network cabinet according to DIN 41494

Steel sheet housing with screwed frame, not pre-assembled, self-ventilated
Inside front and rear 4 x 19" profiles (2 front, 2 rear), galvanised, depth-adjustable in 25 mm raster

Numbering of rack units at the profiles

Front door with window of certified safety glass (thickness 5 mm)

Front and rear door with 1-point latch locking, lockable

Front and rear door retrofittable with compact turning handle for profile half-cylinder

Door stop for front and rear door left and right-sided possible

Detachable side walls with quick fasteners and 1 x latch locking (lock equal to door lock)

Cabinets stackable

Roof with openings for cable entry (front/rear) and for accommodation of fan/filter units

Suitable fans for cabinet depth 800 mm: 2/4/6-fan (Art.-No. 691654(TS)V3 / 691655(TS)V3 / 691659(TS)V3), for cabinet depth 600 mm: 2-fan (Art-No. 691654(TS)V3)

Bottom with openings for cable entry and air ventilation

Set of rolls (4 pieces) pre-assembled at the frame

Doors and side walls inside earthed

Max. load 800 kg

Paint finish RAL7035, light grey / RAL9005, jet-black

Protection degree IP20

Included accessories: 2 x vertical cable management with hinged cover, set of captive nuts (PU 40 pcs.), 4 x levelling feet M12, 2 x key, 1 x mounting tool

Delivery in transport packaging (4 cartons)

FLAT PACKS: Disassembled Delivered Network Cabinets for Self-Mounting

Network cabinets in the flat pack format are always delivered disassembled. Thus, the housings can also be moved through difficult locations, e.g. narrow staircases, introduced and installed in hard to reach places such as loft or boiler room.

Flat packs also offer logistical advantages, the transport of a 42U cabinet is often even possible in a van. For installation we recommend working with 2 persons.

Network Cabinets FLAT PACK - Disassembled Delivery in 3 resp. 4 Cartons:



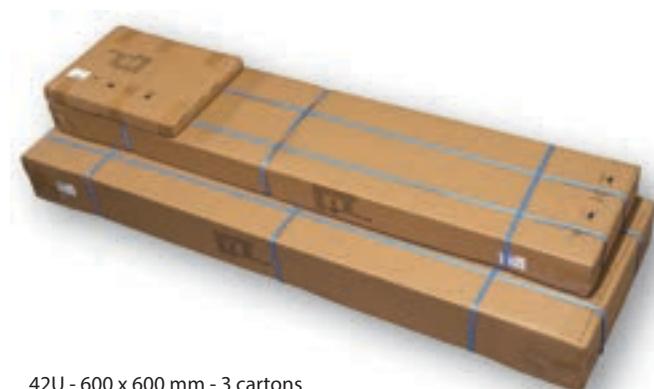
27U - 600 x 600 mm - 3 cartons



27U - 800 x 800 mm - 4 cartons

No.	Art.-No. 692527Fxx / 27U 600 x 600 mm	L x W x H in mm	Weight
-1	Front + rear frame incl. doors, accessories	1450 x 640 x 240	37,5 kg
-2	2 x Side frame, 4 x 19" profiles	1370 x 430 x 140	22 kg
-3	1 x Roof, 1 x bottom	570 x 410 x 100	4,5 kg

No.	Art.-No. 692727Fxx / 27U 800 x 800 mm	L x W x H in mm	Weight
-1	Front + rear frame incl. doors, accessories	1450 x 840 x 240	45,5 kg
-2	2 x Side Frame, 4 x 19" Profiles	1370 x 630 x 140	32 kg
-3	1 x Roof, 1 x bottom, mounting cubes	770 x 610 x 100	14 kg
-4	2 x Vertical cable management	1240 x 160 x 110	6 kg



42U - 600 x 600 mm - 3 cartons



42U - 800 x 800 mm - 4 cartons

No.	Art.-No. 691942Fxx / 42U 600 x 600 mm	L x W x H in mm	Weight
-1	Front + rear frame incl. doors, accessories	2110 x 640 x 240	53,5 kg
-2	2 x Side frame, 4 x 19" profiles	2030 x 430 x 140	32 kg
-3	1 x Roof, 1 x bottom	570 x 410 x 100	4,5 kg

No.	Art.-No. 691742Fxx / 42U 800 x 800 mm	L x W x H in mm	Weight
-1	Front + rear frame incl. doors, accessories	2110 x 840 x 240	64 kg
-2	2 x Side Frame, 4 x 19" Profiles	2030 x 630 x 140	48 kg
-3	1 x Roof, 1 x bottom, mounting cubes	770 x 610 x 100	14 kg
-4	2 x Vertical cable management	1900 x 160 x 110	9 kg

Plinths for Network Cabinets Flat Pack

Plinth only for network cabinets Flat Pack

Plinth height 100 mm

Max. load 1000 kg static

Material steel

Paint finish RAL7035, light grey / RAL9005, jet black



Art.-No.	Description	For Cabinet Width	For Cabinet Depth	Colour
691750FP.GR	Plinth for Network Cabinets Flat Pack 600 x 600 mm	600 mm	600 mm	RAL7035, light grey
691750FP.TS	Plinth for Network Cabinets Flat Pack 600 x 600 mm	600 mm	600 mm	RAL9005, jet black
691752FP.GR	Plinth for Network Cabinets Flat Pack 800 x 800 mm	800 mm	800 mm	RAL7035, light grey
691752FP.TS	Plinth for Network Cabinets Flat Pack 800 x 800 mm	800 mm	800 mm	RAL9005, jet black

19" Rack Frame Duplex

Intended for accomodation of 19" components
 Extremely sturdy, torsionally stiff frames
 Ideal for exhibition purposes and presentations in the IT sector
 Easy assembly, accessible from all sides
 Material steel sheet
 Paint finish: bottom RAL9005, jet black grey, frame profile RAL7035, light grey
 The frame profile and both the front and rear 19" level are depth adjustable
 Mounting depth I 370 mm
 Mounting depth II 470 mm
 Mounting depth III 580 mm
 Double castors not included in delivery, please order separately: Art.-No. 691647

Art.-No.	U	Width	Height
691629	32	550 mm	1540 mm
691631	42	550 mm	1985 mm

19" Rack Frame Double Castors

Polyamide housing and wheel (black), with plain bearing
 Polyurethane running surface
 With brake, castor diameter 80 mm, thread M10
 Max. load per castor approx. 80 kg

Art.-No.	Description
691647	Double Castor Set, 80 mm with Brake, 4 pcs.

19" Rack Frame Simplex

Intended for accomodation of 19" components
 Extremely sturdy, torsionally stiff frames
 Ideal for exhibition purposes and presentations in the IT sector
 Easy assembly, accessible from all sides
 Material steel sheet
 Paint finish: bottom RAL9005, jet black, frame profile RAL7035, light grey
 Double castors not included in delivery, please order separately: Art.-No. 691647

Art.-No.	U	Width	Height
691630	32	550 mm	1540 mm
691632	42	550 mm	1985 mm

19" 4U Mini Network Frame

The mini network frame is the ideal component for accommodating 19" components in smaller networking solutions
 Sturdy sheet steel frame, non-slip
 Dimensions: (W x H x D) 490 x 230 x 295 mm

Art.-No.	Description
699996	19" 4U Mini Network Frame, RAL7035



CLIMATISATION AND LIGHTING

Almost every network cabinet needs accessory components for air-conditioning, lighting and monitoring. In the complete range of accessories from EFB-Elektronik, you will find everything from a single source: energy-saving LED lighting with motion sensor, electronic temperature monitoring and control, fan units, as well as matching filter fans with various degrees of protection.

CABINET SYSTEMS

Roof Fan Unit, 2 x Fan, 1U

For installation in roof of all networking and server cabinets
 19" Mounting possible with optional mounting set (Art.-No. 691654MS / 691654MSTS)
 Control via connected thermostat (Art.-No. 691642)
 Thermostat and mounting material included
 Rear-sided power connection via IEC C14 socket (power cable not included, e.g. Art.-No. EK504.x)
 Rated voltage 230 V, 50 Hz
 Illuminated switch ON/OFF
 Rear sided earth connection via earth jack
 Material: steel sheet
 Paint finish: RAL7035 light grey / RAL9005 jet black

Art.-No.	Description	Capacity	Colour
691654V3	Roof Fan Unit, 2 x Fan, for Network and Server Cabinets	320 m ³ /h	RAL7035
691654TSV3	Roof Fan Unit, 2 x Fan, for Network and Server Cabinets	320 m ³ /h	RAL9005

Roof Fan Unit, 6 x Fan, 1U

For installation in roof of all networking and server cabinets
 19" Mounting possible with optional mounting set (Art.-No. 691654MS / 691654MSTS)
 Control via connected thermostat (Art.-No. 691642)
 Thermostat and mounting material included
 Rear-sided power connection via IEC C14 socket (power cable not included, e.g. Art.-No. EK504.x)
 Rated voltage 230 V, 50 Hz
 Illuminated switch ON/OFF
 Rear sided earth connection via earth jack
 Material: steel sheet
 Paint finish: RAL7035 light grey / RAL9005 jet black

Art.-No.	Description	Capacity	Colour
691659V3	Roof Fan Unit, 6 x Fan, for Network and Server Cabinets	960 m ³ /h	RAL7035
691659TSV3	Roof Fan Unit, 6 x Fan, for Network and Server Cabinets	960 m ³ /h	RAL9005

Roof Fan Unit, 4 x Fan, 1U

For installation in roof of all networking and server cabinets
 19" Mounting possible with optional mounting set (Art.-No. 691654MS / 691654MSTS)
 Control via connected thermostat (Art.-No. 691642)
 Thermostat and mounting material included
 Rear-sided power connection via IEC C14 socket (power cable not included, e.g. Art.-No. EK504.x)
 Rated voltage 230 V, 50 Hz
 Illuminated switch ON/OFF
 Rear sided earth connection via earth jack
 Material: steel sheet
 Paint finish: RAL7035 light grey / RAL9005 jet black

Art.-No.	Description	Capacity	Colour
691655V3	Roof Fan Unit, 4 x Fan, for Network and Server Cabinets	640 m ³ /h	RAL7035
691655TSV3	Roof Fan Unit, 4 x Fan, for Network and Server Cabinets	640 m ³ /h	RAL9005

19" Mounting Set for Fan Units

For mounting the fan units in the 19" level of network and server cabinets

Art.-No.	Description	Colour
691654MS	19" Mounting Set for 2 x Fan Unit	RAL7035
691654MSTS	19" Mounting Set for 2 x Fan Unit	RAL9005
691654.1MS	19" Mounting Set for 4/6 x Fan Unit	RAL7035
691654.1MSTS	19" Mounting Set for 4/6 x Fan Unit	RAL9005

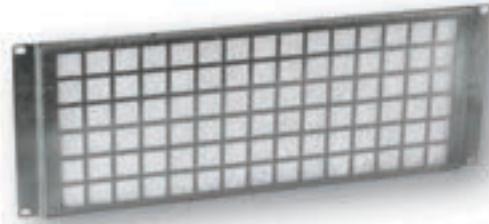
19" 1U Temperature Controller, Electronic, 2 Relais

Control of a fan at overtemperature (via relais 1)
 Control of a second fan at overtemperature (via relais 2)
 Control of an heater at undertemperature (via relais 1)
 Control of a fan at overtemperature (via relais 2)
 Digital temperature display (actual value)
 Measuring range -40°C up to +90°C
 Outputs: 2 relais, dry, programmable (250 V AC / 2 A)
 Free programmable switching temperatures
 Display of relay status
 Type of sensor: diode, cable length 3 m
 Power supply 230 V / 50 Hz
 Connection via rear-sided screw terminals
 Recommended Accessory (not included): power cable Euro-Open End with wire-end sleeves Art.-No. EK502AE.x



Art.-No.	Description	Colour
691642T.1	19" 1U Electronic Temperature Controller, 2 Relais	RAL7035, lichtgrau
691642TT.1	19" 1U Electronic Temperature Controller, 2 Relais	RAL9005, tiefschwarz

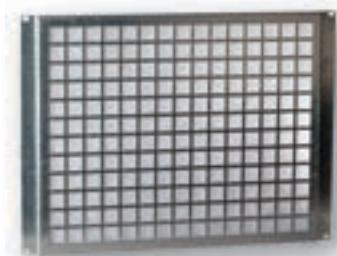
Filter Housing Type I, with Filter Mat



Suitable for all standing cabinets (not for IP40+IP54)
For use in the pre-punched openings for 2-fan units in bottom/roof
 For increasing the air circulation, reduces the ingress of dust
 Common mounting with fan unit possible (e.g. cleaning of blown air)
 For single use of filter mat in housing, the perforated dummy plate serves as housing cover and must be ordered separately (Art.-No. 691654P)
 Material steel sheet
 Delivery incl. filter mat

Art.-No.	Description
691654PF	Filter Housing Type I with Filter Mat, for Mounting Cutout 2-Fan Unit

Filter Housing Type II, with Filter Mat



Suitable for all standing cabinets (not for IP54)
For use in the pre-punched openings for 4/6-fan units in bottom/roof
 For increasing the air circulation, reduces the ingress of dust
 Common mounting with fan unit possible (e.g. cleaning of blown air)
 For single use of filter mat in housing, the perforated dummy plate serves as housing cover and must be ordered separately (Art.-No. 691655P)
 Material steel sheet
 Delivery incl. filter mat

Art.-No.	Description
691655PF	Filter Housing Type II with Filter Mat, for Mounting Cutout 4/6-Fan Unit

Cover for Filter Housing Type I



Also suitable as perforated dummy plate 19" / 4U

Housing cover for filter housing type I
For mounting in the pre-punched openings for 2-fan units in bottom or roof
 Also usable as perforated cover for 2-fan openings
 Material steel sheet
 Paint finish RAL7035, light grey

Art.-No.	Description
691654P	Cover for Filter Housing Type I, for Mounting Cutout 2-Fan Unit

Cover for Filter Housing Type II

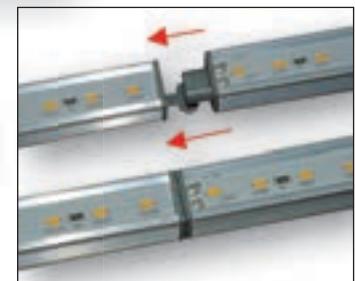


Also suitable as perforated dummy plate 19"/8U

Housing cover for filter housing type II
 For mounting in the pre-punched openings for 4/6-fan units in bottom or roof
 Also usable as single perforated cover for 4/6-fan openings
 Material steel sheet
 Paint finish RAL7035, light grey

Art.-No.	Description
691655P	Cover for Filter Housing Type II, for Mounting Cutout 4/6-Fan Unit

LED Magnetic Lighting Unit, 230 V AC with IR-Sensor and Switch



Up to 6 lighting unit are cascadable directly or via cable



180° swiveling magnetic holder

LED lighting unit in high-quality aluminium profile for magnetic mounting at any position in cabinet
Selective lighting due to turnable magnetic holder (turning angle ca. 180°)
IR sensor replaces door contact switch: lighting unit is turned on for 45 sec. at motion detection
Self-adhesive sensor and power supply for easy mounting in cabinet
At glass and non-perforated steel doors the sensor can be easily glued directly onto the 19" profile for turning light on when door is opened, for perforated doors mounting sidely in the cabinet, e.g. at a depth-rail, is recommended

Art.-No.	Description
698026.1	Set of LED Lighting Unit + Connection Kit 230 V, IR-Sensor, Switch

LED Magnetic Light, Single Units, 24 V / 48 V DC



Single lighting units for direct cascading unit-unit or via cable 698026.3

Up to 6 units can be connected after each other

Variant 698026.24 (24 V DC) for use with lighting/connection set 230 V, sensor and switch

Variant 698026.48 (48 V DC) for use with lighting/connection set with switch and open ends

Cascading Cable for LED Lighting 698026.x



For connecting up to 6 pieces of LED magnetic lighting units 698026.x

Cable length 1.25 m

Reverse polarity protected plug/jack

Colour cable white, plugs grey

Art.-No.	Description	For Cascading with
698026.24	LED Lighting Unit Single, 24 V DC Type	698026.1 (Type 230 V AC)
698026.48	LED Lighting Unit Single, 48 V DC Type	698026.2 (Type 48 V DC)

Art.-No.	Description
698026.3	Cascading Cable 1.25 m, White, for LED Lighting Unit 698026.x

LED Magnetic Lighting Unit, 48 V DC with Switch



48 V DC type
for industrial + outdoor



LED lighting unit in high-quality aluminium profile for magnetic mounting at any position in cabinet
Selective lighting due to turnable magnetic holder (turning angle ca. 180°)
48 V type especially suitable for use in industrial or FTTH applications
Dimensions lighting unit (L x W x H) 415 x 20 x 20 mm
Power supply 48 V DC with switch & open end, cable length 1.5 m
Power consumption 4.0 W, luminosity 280 Lm
Colour temperature 3500 K (warm white)

Art.-No.	Description
698026.2	Set of LED Lighting Unit + Connection Kit 48 V with Switch

LED Magnetic Light Mini, Battery Powered, Charging via USB

Mini LED magnetic light in rugged aluminium profile, ideal for mobile use or in 10" housings
 Strong swiveling magnetic holder for secure mounting and universal alignment
 On/off switch for 2 brightness levels (100 lm max.) and SOS feature
 Power supply via integrated battery (operation time ca. 4 h)
 Charging via USB cable (included)
 LED loading indicator (red/green)
 Loading voltage 5 V DC, 500 mA
 Dimensions (L x W x D) 230 x 20 x 37 mm
 Delivery incl. cable USB A - DC round plug, ca. 1 m, additional metal holder for screwing/adhesing incl. adhesive pad



Art.-No.	Description
698027.1	LED Magnetic Light Mini, Battery Powered, USB

19" 1U Lighting Unit "Basic"

Ready-to-connect lighting unit 19" 1U
 Operating voltage 230 V / 50 Hz
 Fluorescent tube T4 12 W
 Connecting cable 1.5 m Euro plug



Art.-No.	Description
698023.1	19" 1U Lighting Unit "Basic"

Cable Set for Lighting Unit "Basic", incl. Door Contact Switch

Plug & Play - no further wiring work necessary!
 Connection set Euro plug to Euro-8 jack incl. door contact switch and mounting bracket
 Suitable for connection and control of lighting unit "Basic" or other devices with Euro-8 plug
 Completely prewired as opener (NC) (door opening switches lighting unit on)
 Cable H03VVH2-F 2G 0,75 mm², black, 2 m
 Lighting unit not included in delivery



Art.-No.	Description
691643.S	Connection Set Euro incl. Door Contact Switch, 2 m

Magnetic Lighting Unit with Service Outlet

Energy saving lamp 11 W with switch ON/Off
 With service outlet CEE7/7
 Connection via screw terminals 3-pole, 2.5 mm² max.
 Connecting cable EK504AE.x available as accessory, please order separately



Art.-No.	Description
698022	Magnetic Lighting Unit

Door Contact Switch, incl. Bracket

19" door contact switch, rated voltage 230 V/50 Hz
 Suitable as opening or closing contact
 Cable length ca. 40 cm with 2 x 4.8 mm plugs
 Mounting bracket included in delivery

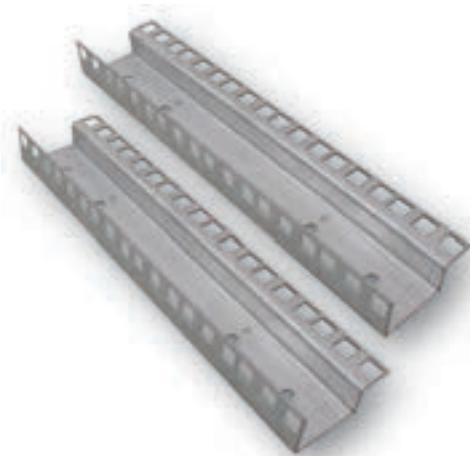


Art.-No.	Description
691643	Door Contact Switch incl. Mounting Bracket

DIN Rail for 19" Mounting

Dimensions 483 x 35 x 7.5 mm
With 2 x 19" mounting holes 6.5 x 16 mm
Material steel, galvanised

Art.-No.	Description
691274.1	DIN Rail 35 x 7.5 mm for 19" Mounting

19" Profiles Set for Adding 19" Levels in Wall Housings

19" mounting rails for retrofitting as rear 19" level in wall mounting cabinets
With grid spacing for captive nuts
Suitable for all wall mounting cabinets 1-part & 2-part 6 / 9 / 12 / 15 / 18 / 21 U (not for IP55 and Flat Pack)
Material steel sheet
2 pieces in set

Art.-No.	Description	U
691671	19" 6U Profile Rails, Set of 2 pcs.	6
691672	19" 9U Profile Rails, Set of 2 pcs.	9
691682	19" 12U Profile Rails, Set of 2 pcs.	12
691673	19" 15U Profile Rails, Set of 2 pcs.	15
691681	19" 18U Profile Rails, Set of 2 pcs.	18
691677	19" 21U Profile Rails, Set of 2 pcs.	21

19" Profiles for Standing Cabinets

For retrofitting in network and server cabinets Classic
With numbering of rack units
Material steel sheet, galvanised

Art.-No.	Description	U
691678.42	19" Mounting Profiles for 42U, Set of 2 Pieces	42
691678.47	19" Mounting Profiles for 47U, Set of 2 Pieces	47

Mounting Set for 19" Profiles

Suitable for all network / server cabinets Classic IP20/IP40 (not for IP54 + ISR)
For increase of max. load (1000 kg) and reinforcing of 19" profile rails
Standard mounting on both sides, half-height in the cabinet in the prepared holes
Max. placement: 6 rails in cabinets 42U (right and left, each upside/half-height/down-side)
Scope of delivery: set of 2 kits (1 left + 1 right)
Suitable for network cabinets 69xxxxN/U and server cabinets Classic

Art.-No.	Description	For Cabinet Depth
691679N	Mounting Set / Depth Rails	800 mm
691679N.1	Mounting Set / Depth Rails	600 mm
691679N.2	Mounting Set / Depth Rails	1000 mm
691679N.4	Mounting Set / Depth Rails	1200 mm

19" 4U Universal DIN-Rail Holder



For carrying of DIN rail (hat rail) components
Also suitable for wall- and ceiling mounting
 DIN rail according to DIN EN 60715 TH35 (35 x 7.5 mm)
 Width of DIN rail 435 mm
 DIN rail depth-adjustable from ca. 55 .. 165 mm (step-less)
 Rear-sided C-rail for cable fixing, height-adjustable
 DIN-rail is mountable also horizontally

Art.-No.	Description
53719.1	19" Universal DIN Rail Holder incl. 4U Bracket Set



Application example
 (Delivery without components)

19"/21" 3U Energy Distribution / Circuit Breaker Housing



For carrying DIN rail modules like circuit breakers, outlets etc.
 Capacity 18 modules to 17.5 mm
 Front opening 402.5 x 45.5 mm
 Rear-sided earthing bolt M5 incl cable
 Incl. mounting adapter for 19"/21" (ETSI)
 Material steel sheet
 Paint finish RAL7035, light grey
 Dimensions (W x H x D) 482.6 x 133 x 60 mm
 Mounting note: for easy opening and closing of the front cover, a captive nut M6 should be installed behind the left & right cover screw.

Art.-No.	Description
691277.1	19"/21" Energy Distribution Box with DIN Rail

Incl. adapter for 19" / 21" mounting

Socket Outlet 1-Way for DIN-Rail



Protective contact outlet for mounting at DIN-rail TS35 acc. to EN50022 / EN60715 („Hat Rail“) e.g. for network cabinets, installation small distributors and counter according to VDE 0603
 Rated voltage/ current 250 V / 16 A
 Wire max. 10 mm² solid/stranded
 Protection degree IP20
 Dimensions acc. to DIN43880 („Automat measuring“)
 Cap. dimension 45 mm, width 2.5 TE (< 45 mm)
 Materials: clamping body brass, screw terminals steel galvanised, insulation housing plastic
 Colour grey

Art.-No.	Description
EK633.1	Outlet 1-Way for DIN-Rail, grey
EK633.2	Outlet 1-Way for DIN-Rail, with Cover, grey
EK633.3	Outlet 1-Way for DIN-Rail, France (UTE), grey

19" 1U Pull-Out Shelves, Depth-Adjustable



For mounting in all network and server cabinets

Usable width 440 mm

Dimension depth = depth of tray

Mounting at the rear-sided profiles necessary

Material: steel sheet, paint finish RAL7035, light grey / RAL9005, jet black

Art.-No.	Depth	Max. Pull-Out	Cabinet Depth	Max. Load	Weight	Colour
691651.6	350 mm	200 mm	600 mm	35 kg	3.5 kg	RAL7035
691651.8	550 mm	320 mm	800 mm	40 kg	5.0 kg	RAL7035
691651.10	750 mm	680 mm	1000 mm	40 kg	6.8 kg	RAL7035
691651.12	950 mm	920 mm	1200 mm	40 kg	8.6 kg	RAL7035
691651TS.6	350 mm	200 mm	600 mm	35 kg	3.5 kg	RAL9005
691651TS.8	550 mm	320 mm	800 mm	40 kg	5.0 kg	RAL9005
691651TS.10	750 mm	680 mm	1000 mm	40 kg	6.8 kg	RAL9005
691651TS.12	950 mm	920 mm	1200 mm	40 kg	8.6 kg	RAL9005

19" 1U Shelf, Depth 250 mm, max. 10 kg



Depth 250 mm

Paint finish RAL7035, light grey / RAL9005, jet black

Art.-No.	Depth	Max. Load	Weight	Colour
691668	250 mm	10 kg	1.8 kg	RAL7035
691668TS	250 mm	10 kg	1.8 kg	RAL9005

19" 2U Shelves



For installation in all network and server cabinets, 19" rack frames and wall housings

691253: not depth adjustable

691667: depth adjustable in steps of 25 mm

Material steel sheet

Paint finish RAL7035, light grey / RAL9005, jet black

Art.-No.	Depth	Max. Load	Weight	Colour
691253	300 mm	15 kg	2.0 kg	RAL7035
691667	400 mm	25 kg	2.8 kg	RAL7035
691253TS	300 mm	15 kg	2.0 kg	RAL9005
691667TS	400 mm	25 kg	2.8 kg	RAL9005

19" 1U Shelves, Depth-Adjustable, max. 10 kg



For mounting in all network and server cabinets and 19" rack frames
Width 440 mm

250/350 mm depth for rack frames - mounting depth I

250/350 mm depth for front fixing

Material steel sheet

Paint finish RAL7035, light grey / RAL9005, jet black

Art.-No.	Depth	Cabinet Depth	Max. Load	Weight	Colour
691641.1V2	250 mm	400 mm	10 kg	1.8 kg	RAL7035
691641.2V2	350 mm	500 mm	10 kg	2.4 kg	RAL7035
691641TS.1V2	250 mm	400 mm	10 kg	1.8 kg	RAL9005
691641TS.2V2	350 mm	500 mm	10 kg	2.4 kg	RAL9005

19" 1U Heavy-Duty Shelves, Depth-Adjustable, max. 150 kg

For mounting in all network and server cabinets and 19" rack frames

Width 445 mm

691653 for rack frame depth I, II and III

691653.2 for rack frame depth III

Fixing to rear mounting profiles necessary

Material steel sheet

Paint finish RAL7035, light grey / RAL9005, jet black



Art.-No.	Cabinet Depth	Max. Load	Weight	Colour
691653	600 mm	150 kg	5.2 kg	RAL7035
691653.2	800-1000 mm	150 kg	7.0 kg	RAL7035
691653TS	600 mm	150 kg	5.2 kg	RAL9005
691653TS.2	800-1000 mm	150 kg	7.0 kg	RAL9005

19" Heavy Duty Shelves, Bolt-Mounting, max. 100 kg, RAL7035

For mounting in all network and server cabinets and 19" rack frames

Width 445 mm

Fixing of bolts to front and rear 19" profile rails

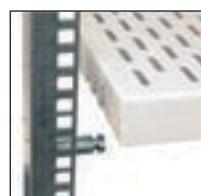
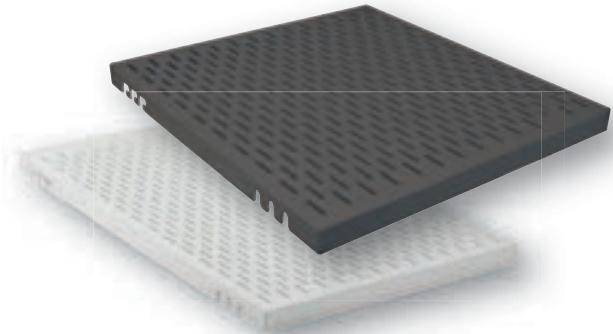
Fixing the shelf in the mounted bolts

4 bolts included

Shelf material: steel sheet

Bolt material: galvanised steel

Shelf finish RAL7035, light grey / RAL9005, jet black



19" 1U Heavy-Duty Shelves, Depth-Adjustable, max. 80 kg

For mounting in all networking and server cabinets and 19" rack frames

Width 440 mm

450 mm depth for rack frame - mounting depth II

550/650 mm depth for rack frame - mounting depth III

450/550/650/750/850 mm depth front fixing and rear fixing necessary

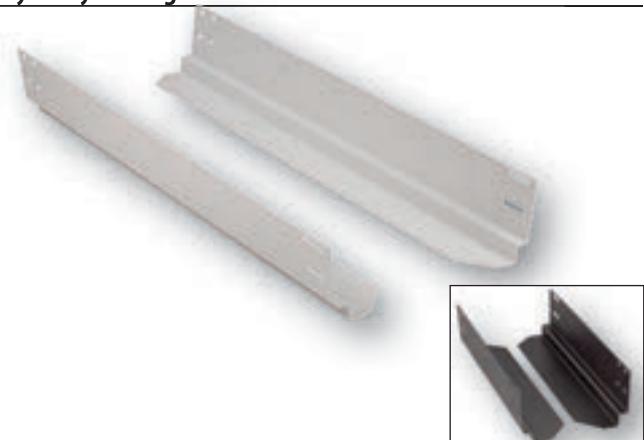
Material steel sheet

Paint finish RAL7035, light grey / RAL9005, jet black

Art.-No.	Depth	Cabinet Depth	Max. Load	Weight	Colour
691641.3V2	450 mm	600 mm	80 kg	2.4 kg	RAL7035
691641.4V2	550 mm	800 mm	80 kg	3.2 kg	RAL7035
691641.6V2	750 mm	1000 mm	80 kg	4.0 kg	RAL7035
691641.7V2	850 mm	1200 mm	80 kg	4.8 kg	RAL7035
691641TS.3V2	450 mm	600 mm	80 kg	2.4 kg	RAL9005
691641TS.4V2	550 mm	800 mm	80 kg	3.2 kg	RAL9005
691641TS.6V2	750 mm	1000 mm	80 kg	4.0 kg	RAL9005
691641TS.7V2	850 mm	1200 mm	80 kg	4.8 kg	RAL9005



Heavy-Duty Sliding Rails



For mounting of heavy devices in network or server cabinets

Mounting at the front and rear-sided 19" profiles

Material steel sheet

Max. load 100 kg

PU 2 pieces

Paint finish RAL7035, light grey / RAL9005, jet black

Art.-No.	Depth	Cabinet Depth	Max. Load	Colour
691652N.6	315 mm	600 mm	100 kg	RAL7035
691652N.8	515 mm	800 mm	100 kg	RAL7035
691652N.10	715 mm	1000 mm	100 kg	RAL7035
691652N.12	915 mm	1200 mm	100 kg	RAL7035
691652N.6	315 mm	600 mm	100 kg	RAL9005
691652N.8	515 mm	800 mm	100 kg	RAL9005
691652NTS.10	715 mm	1000 mm	100 kg	RAL9005
691652NTS.12	915 mm	1200 mm	100 kg	RAL9005

19" Document Drawers 1-3U, Lockable



Pull-out document drawer

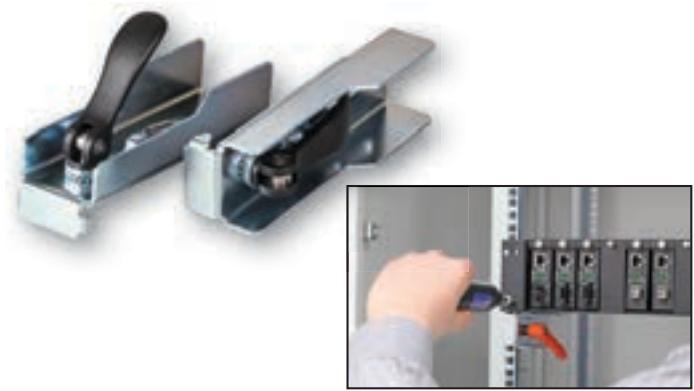
Lockable, 2 keys included in delivery

Inner dimensions (W x D): ca. 388 x 278 mm

Paint finish RAL7035, light grey / RAL9005, jet black

Art.-No.	U	Weight	Colour
691646	1	3.7 kg	RAL7035
691646.1	2	4.7 kg	RAL7035
691646.2	3	5.1 kg	RAL7035
691646TS	1	3.7 kg	RAL9005
691646TS.1	2	4.7 kg	RAL9005
691646TS.2	3	5.1 kg	RAL9005

Mounting Aid "3rd Hand"



Application example

Do you know the problem?

Two hands hold the switch, the server, patch panel or the UPS which is to be mounted straight into the 19" rack. How to install the screws? Now you would need a „third hand“ because releasing is impossible!

This mounting aid supports you while installing 19" components. It is fixed at one or two sides of the 19" profile, to reliably hold devices while mounting into the cabinet. So one or two hands remain free for working. No second person is necessary anymore.

Supports 19" components while installation

Suitable for all 19" profiles

Very solid design

Material steel sheet, galvanised

Delivery as set of 2 pieces

Art.-No.	Description
39850.1	Mounting Aid for 19" Components, 2 Pieces in Set

Circuit Diagram Bag DIN A4



Plastic circuit diagram bag

For format DIN A4

With adhesive tapes for fixing

Dimensions: (W) x (H) x (D) 232 x 220 x 30 mm

Colour similar RAL7035

Art.-No.	Description
699997	Diagram Bag DIN A4, Plastic

19" 1U Keyboard Drawer, Touchpad, Lockable, RAL7035 / RAL9005

with Touchpad



US-Layout available

Very solid keyboard drawer incl. keyboard and touchpad
 For installation in 19" cabinets, ball-beared keyboard drawer
 Connection via USB, cable length 2 m
 Industrial keyboard with normal sized keys and Windows function keys
 Integrated touchpad with 2 mouse keys
 Safety lock with two keys, solid metal handle
 Paint finish RAL7035, light grey / RAL9005, jet black
 Delivery incl. mounting accessories
 Optional: 2 x mounting rail incl. screws for additional fixing onto the rear-sided profiles

Also available with US Layout

Art.-No.	Layout	Depth	Weight	Colour
691649.1TP	DE	410 mm	5.3 kg	RAL7035
691649TS.1TP	DE	410 mm	5.3 kg	RAL9005
691649TS.1TP-US	US	410 mm	5.3 kg	RAL9005

with Trackball



Very solid keyboard drawer incl. keyboard and trackball
 For installation in 19" cabinets, ball-beared keyboard drawer
 Connection via USB and PS/2, cable length 2 m
 Industrial keyboard with normal sized keys and Windows function keys
 Integrated optical trackball 14 mm with 2 mouse keys
 Safety lock with two keys, solid metal handle
 Paint finish RAL7035, light grey / RAL9005, jet black
 Delivery incl. mounting accessories
 Optional: 2 x mounting rail incl. screws for additional fixing onto the rear-sided profiles

Rear-Sided Mounting Set for Keyboard Drawer

Rear-sided 19" mounting rails for 1U keyboard drawer Art.-No. 691649.1 and 691649.1TP

Paint finish RAL7035, light grey / RAL9005, jet black
 Scope of delivery 2 x mounting rails, 4 x screw + nut, 8 x nut

Art.-No.	Description	Colour
691649.1B	Mounting Rails for Keyboard Drawer 19" 1U	RAL7035, light grey
691649TS.1B	Mounting Rails for Keyboard Drawer 19" 1U	RAL9005, jet black

19" 2U Keyboard Drawer, Lockable

19" 2U Keyboard drawer, telescopic pull-out
 Lockable, 2 keys included
 Suitable for all 19" network and server cabinets
 Usable width 410 mm, depth 320 mm, pull-out 180 mm
 Material steel sheet
 Paint finish RAL7035, light grey / RAL 9005 jet black
 Weight 6.1 kg
 Suitable keyboard Art.-No. 691680.1, please order separately

Art.-No.	Depth	Weight	Colour
691649	330 mm	6.1 kg	RAL7035
691649TS	330 mm	6.1 kg	RAL9005

Mini-Keyboard with Smart-Touchpad

suitable for keyboard drawer 2U (Art.-No. 691649)



Mini keyboard with integrated Smart-Touchpad
 Suitable for keyboard drawer 19" 2U (Art.-No. 691649xx)
 Plug & Play with USB interface, cable length 1.9 m
 88/89 keys, fully compatible to fullsize keyboards
 Blue LEDs for Caps-, Num- and Scroll-Lock
 Dimensions (W x H x D) 291 x 29 x 197 mm, Colour black

Art.-No.	Description
691680.1	Mini Keyboard with Integrated Touchpad

Vertically Cable Management for Side-Mounting

Designed for maintaining, organizing and concealing copper and fiber optic cable bundles in 42U network and server cabinets Classic
 Mounting on left and right side possible
 Material steel sheet
 Paint finish RAL7035, light grey
 Delivery consists of 2 panels
 Necessary traverses for mounting optional (see accessories)

Art.-No.	Description
699994.1	Cable Management Vertical, with Cover, Set of 2, RAL7035
699994	Cable Management Vertical, w/o Cover, Set of 2, RAL7035
699994TS.1	Cable Management Vertical, with Cover, Set of 2, RAL9005
699994TS	Cable Management Vertical, w/o Cover, Set of 2, RAL9005



Delivery as Set of 2 pcs.

Cable management opened

Mounting Kit for Vert. Cable Management 699994.x

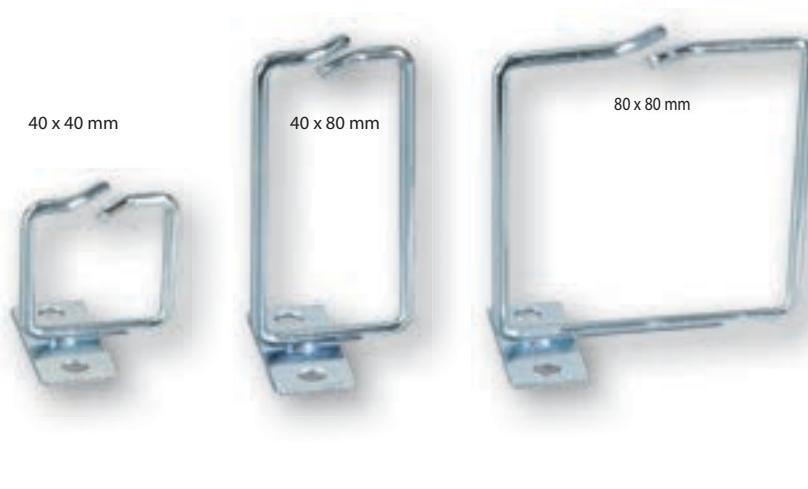


Set of 4 depth rails for mounting the vertically cable management (Art.-No. 699994xx) in standard cabinets with width 800 mm
 Mounting at the prepared openings in rack frame (left + right each top + bottom)
 Material steel
 Scope of delivery 4 rails incl. mounting material

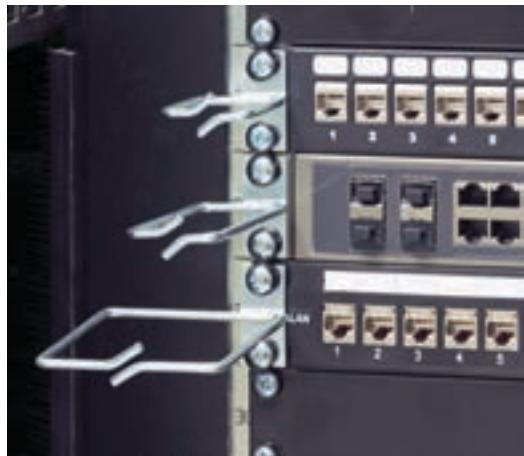


The vertical cable management is mounted via 2 depth rails per side (upside/below) at the cabinet frame

Cable Routing Brackets for Frontside Mounting



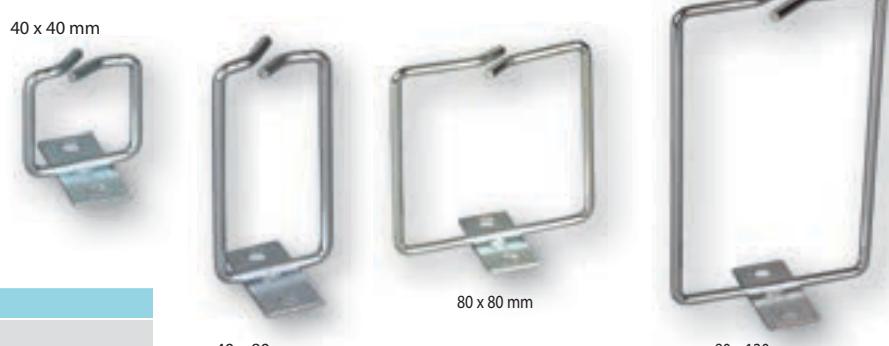
cable routing bracket for mounting at the front side or lateraly at the 19" level
 Lateral offset mounting plate enables access to all ports of 19" devices (e.g. patch panel, switch, etc.)
 Screw mounting in 1U or in lateral openings of the 19" profile rails
 Material steel, galvanised



Due to the offset mounting plate, the ports of the 19" devices stay accessible

Art.-No.	Description
699991.1S	Cable Routing Bracket 40 x 40 mm with Lateral Offset Mounting Plate
699991.2S	Cable Routing Bracket 40 x 80 mm with Lateral Offset Mounting Plate
699991.3S	Cable Routing Bracket 80 x 80 mm with Lateral Offset Mounting Plate

Cable Routing Brackets



For orderly and clear cable routing
 Mounting on the side of the 19" profile rails
 Material steel, galvanised

Art.-No.	Description
699991.1	Cable Routing Bracket 40 x 40 mm
699991.2	Cable Routing Bracket 40 x 80 mm
699991.3	Cable Routing Bracket 80 x 80 mm
699991.4	Cable Routing Bracket 80 x 120 mm

Cable Routing Brackets 80 x 250 mm



For orderly and clear cable routing
 Mounting on the side of the 19" profile rails
 Material steel
 Paint finish RAL7035 light grey / RAL9005 jet black

Art.-No.	Description
699991.5	Cable Routing Bracket Big 85 x 250 mm, RAL7035
699991TS.5	Cable Routing Bracket Big 85 x 250 mm, RAL9005

19" 1U Cable Routing Panel, 5 x Metal Bracket**Especially solid type !**

Brackets turnable



Picture shows bracket length 75 mm

For clear and orderly cable routing in the 19" level

Especially solid steel brackets, diameter 5 mm

Bracket turnable in steps of 90°

Bracket length 75 or 110 mm

Material bracket + panel steel, holder PA

Colour RAL7035, light grey / RAL9005, jet black

Art.-No.	Description
699980.1	19" 1U Cable Routing Panel, 5 x Steel Bracket 75 mm, Front Panel RAL7035
699980.2	19" 1U Cable Routing Panel, 5 x Steel Bracket 110 mm, Front Panel RAL7035
699980TS.1	19" 1U Cable Routing Panel, 5 x Steel Bracket 75 mm, Front Panel RAL9005
699980TS.2	19" 1U Cable Routing Panel, 5 x Steel Bracket 110 mm, Front Panel RAL9005

19" 1U Cable Routing Panel, 5 Brackets, Plastic RAL7035

For orderly and clear cable routing in the 19" level

Material plastic

Colour RAL7035, light grey

Art.-No.	Description	Colour
699992	19" 1U Cable Routing Panel, 5 Brackets, Plastic	RAL7035

19" 1U Cable Routing Panel, 5 Brackets, Steel

For orderly and clear cable routing in the 19" level

Material: steel sheet

Paint finish RAL9005, jet black

Art.-No.	Description	Colour
699995.1	19" 1U Cable Routing Panel, 5 Brackets, Steel	RAL7035
699995TS.1	19" 1U Cable Routing Panel, 5 Brackets, Steel	RAL9005

19" 1U Cable Routing Panel, 5 x Metal Double Brackets**Especially solid type !**

Brackets turnable



Picture shows bracket length 110 mm

For clear and orderly cable routing in the 19" level

Especially solid steel double brackets, diameter 5 mm

Bracket turnable in steps of 90°

Bracket length 75 or 110 mm

Material bracket + panel steel, holder PA

Colour RAL7035, light grey / RAL9005, jet black

Art.-No.	Description
699981.1	19" 1U Cable Routing Panel, 5 x Double Bracket 75 mm, Front Panel RAL7035
699981.2	19" 1U Cable Routing Panel, 5 x Double Bracket 110 mm, Front Panel RAL7035
699981TS.1	19" 1U Cable Routing Panel, 5 x Double Bracket 75 mm, Front Panel RAL9005
699981TS.2	19" 1U Cable Routing Panel, 5 x Double Bracket 110 mm, Front Panel RAL9005

19" 1U Cable Routing Panel, 4 Brackets, Steel

For orderly and clear cable routing in the 19" level

Material: steel sheet

Paint finish RAL9005, jet black

Art.-No.	Description	Colour
699995	19" 1U Cable Routing Panel, 4 Brackets, Steel	RAL7035
699995TS	19" 1U Cable Routing Panel, 4 Brackets, Steel	RAL9005

19" 2U Cable Routing Panel, 5 Brackets, Steel

For orderly and clear cable routing in the 19" level

Material steel sheet

Paint finish RAL7035, light grey

Art.-No.	Description	Colour
699998	19" 2U Cable Routing Panel, 5 Brackets, Steel	RAL7035
699998TS	19" 2U Cable Routing Panel, 5 Brackets, Steel	RAL9005

19" 1U Cable Routing Panel, 5 x Plastic Brackets

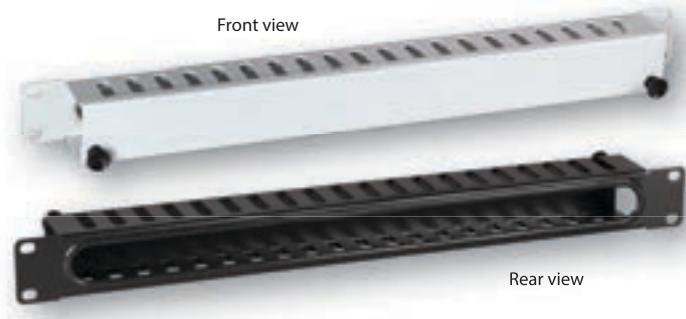


For clear and orderly cable routing in the 19" level
 Especially rounded brackets for securing the bending radius of FO cables
 Bracket turnable in steps of 90°
 Bracket length 56 mm
 Material panel steel, brackets plastic
 Colour RAL7035, light / RAL9005, jet black

For securing the bending radius of fiber optical cables

Art.-No.	Description
699982.1	19" 1U Cable Routing Panel, 5 x Plastic Brackets for FO, Front Panel RAL7035
699982TS.1	19" 1U Cable Routing Panel, 5 x Plastic Brackets for FO, Front Panel RAL9005

19" 1U Cable Routing Panel with Cover, Steel



With front-sided cover with quick-fastener
 For orderly and clearly cable routing in the 19" level
 Material steel sheet
 Paint finish RAL7035, light grey / RAL9005, jet black

Art.-No.	Description	Colour
699999.1	19" 1U Cable Routing Panel with Cover	RAL7035, light grey
699999TS.1	19" 1U Cable Routing Panel with Cover	RAL9005, jet black

19" 2U Cable Routing Panel with Cover, Steel



With front-sided cover with quick-fastener
 For orderly and clearly cable routing in the 19" level
 Material steel sheet
 Paint finish RAL7035, light grey / RAL9005, jet black

Art.-No.	Description	Colour
699999.2	19" 2U Cable Routing Panel with Cover	RAL7035, light grey
699999TS.2	19" 2U Cable Routing Panel with Cover	RAL9005, jet black

19" 1U Cable Feedtrough Panel with Brush



Opening 440 x 25 mm
 Material steel sheet
 Paint finish RAL7035, light grey / RAL9005, jet black

Art.-No.	Description	Description
699993V2	19" 1U Cable Feedtrough Panel with Brush	RAL7035, light grey
699993TSV2	19" 1U Cable Feedtrough Panel with Brush	RAL9005, jet black

19" 1U Cable Feedtrough Panel with Edge Protection, Steel



Opening 440 x 25 mm
 Material steel sheet
 Paint finish RAL7035, light grey / RAL9005, jet black

Art.-No.	Description	Description
699993	19" 1U Cable Feedtrough Panel, Edge Protection, Steel	RAL7035, light grey
699993TS	19" 1U Cable Feedtrough Panel, Edge Protection, Steel	RAL9005, jet black

19" 1U Cable Tidy Rail



Cable tidy rail for mounting on the 19" profile in network and server cabinets
For orderly installation and strain-relief of cables via cable ties
Width 482 mm, Depth 60 mm
Material steel, galvanised

Art.-No.	Description
691660	19" 1U Cable Tidy Rail

Cable Tidy Rail for Side Mounting



Cable tidy rails for side mounting on the 19" profile in network and server cabinets
Organised installation and strain relief of cables via cable ties
Material steel, galvanised

Art.-No.	Description	For Cabinet Depth
691670	Cable Tidy Rail, Length 500 mm	600 mm
691665	Cable Tidy Rail, Length 700 mm	800 mm
691661	Cable Tidy Rail, Length 900 mm	1000 mm
691661.1	Cable Tidy Rail, Length 1100 mm	1200 mm

C-Profiles for 19" Mounting



Dimensions 483 x 30 x 15 mm
With 2 x 19" mounting holes 6.5 x 16 mm
Slot wide 16 mm
Material steel, galvanised

Art.-No.	Description
691273.1	C Profile for 19" Mounting

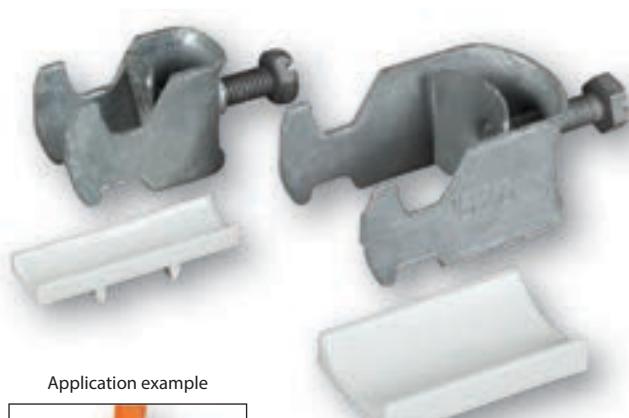
C-Profiles for Side-Mounting



C-profile rail 30 x 15 mm with slot width 16 mm
For side-mounting at the 19" profiles in all EFB standing cabinets
Continuous 25 mm grid holes 18 x 6.2 mm for universal mounting
Material steel, galvanised

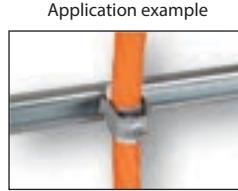
Art.-No.	Description	For Cabinet Depth
691273.8	C Profile Rail 30 x 15 mm	800 mm
691273.10	C Profile Rail 30 x 15 mm	1000 mm
691273.12	C Profile Rail 30 x 15 mm	1200 mm

U-Clamps for C-Profile Rails, incl. Bottom Saddle



U-clamps for C-profile rails with slot width 16..17 mm
Material steel sheet, galvanised
Delivery incl. bottom saddle
Other dimensions available on request

Art.-No.	Description
691275.3	U-Clamp incl. Bottom Saddle, for Cable Ø 16..22 mm
691275.5	U-Clamp incl. Bottom Saddle, for Cable Ø 28..34 mm
691275.7	U-Clamp incl. Bottom Saddle, for Cable Ø 38..42 mm



19" Dummy Plates



For covering open areas in the 19" level

High stability

Paint finish RAL7035, light grey / RAL9005, jet black

Art.-No.	Description	Colour
691265	19" 1U Dummy Plate	RAL7035, light grey
691266	19" 2U Dummy Plate	RAL7035, light grey
691267	19" 3U Dummy Plate	RAL7035, light grey
691268	19" 6U Dummy Plate	RAL7035, light grey
691269	19" 9U Dummy Plate	RAL7035, light grey
691265TS	19" 1U Dummy Plate	RAL9005, jet black
691266TS	19" 2U Dummy Plate	RAL9005, jet black
691267TS	19" 3U Dummy Plate	RAL9005, jet black
691268TS	19" 6U Dummy Plate	RAL9005, jet black
691269TS	19" 9U Dummy Plate	RAL9005, jet black

19" 1U Dummy Plate Snap-In, Tool-Less, RAL9005



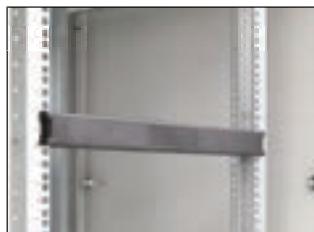
Very fast and easy snap-in mounting, screw-less

Easy to remove

Material plastic

Colour similar RAL9005, jet black

Art.-No.	Description
691271	Dummy Plate 19" 1U "Snap-In", Plastic, black



Application example

19" 10U Mounting Plate

For screw mounting of devices in area of the 19" level
 Material steel sheet, galvanised, thickness 3 mm
 Unperforated



Art.-No.	Description
693046.10	19" 10U Mounting Plate, Steel Sheet galvanised, Unperforated

Side-Cover with 3 x 19" 1U Opening



For vertically mounting of 3 components 19"/1U sidely on the 19" level (zero-U space)
 Suitable for network cabinets 42U / 800 mm width (for mounting in server cabinets see datasheet)
 Mounting possible on left and right side
 Screw-fixing sidely on the 19" profiles
 Paint finish: RAL7035, light grey / RAL9005, jet black
 Material steel sheet
 Scope of delivery: 2 x panel (identically), incl. mounting material

Art.-No.	Description	Colour
691250	Panel 3 x 1U, Side-Mounting for 42U, RAL9005, Set of 2 pcs.	RAL7035
691250TS	Panel 3 x 1U, Side-Mounting for 42U, RAL9005, Set of 2 pcs.	RAL9005

Blind Cover 42U for Side-Mounting, RAL7035



For covering the area on the side of the 19" profiles in 42U, 800 mm width network- and server cabinets
 Serves as blinding and control of the air flow
 Mounting left- and right-sided possible
 Screw mounting on the side of the 19" profiles in the round holes
 Material steel sheet
 Paint finish RAL7035, light grey / RAL9005, jet black
 Scope of delivery: 2 x panel incl. mounting accessories
 Mountable also in combination with vertical earthing bar K3930V42

Art.-No.	Description	Colour
691251	Cover, Side-Mounting for 42U, RAL7035, Set of 2 pcs.	RAL7035
691251TS	Cover, Side-Mounting for 42U, RAL9005, Set of 2 pcs.	RAL9005
691254	Cover, Side-Mounting for 47U, RAL7035, Set of 2 pcs.	RAL7035
691254TS	Cover, Side-Mounting for 47U, RAL9005, Set of 2 pcs.	RAL9005

Earthing Set for Cabinets 42U, Vertically



Mounting via supporting insulators at the 19" profiles

For vertically installation in 42U network cabinets

Mounting via supporting insulators on the sidely round holes of the 19" profiles

Mountable also in combination with vertically blind panekls

691251/691251TS

For mounting in server cabinets the installation of an additional 19" profile is recommended (Art.-No. 691678, Set of 2)

Scope of delivery: copper earthing bar 1800 x 15 x 5 mm, 12 x busbar terminal 1.5 .. 16 mm², 4 x supporting insulator, 8 x thread bolt M6 x 25, 8 x washer, 8 x nut M6, self-locking

Art.-No.	Description
K3930V42	Earthing Bar for Network Cabinets 42U, vertically, incl. 12 x Busbar Clamp

Earthing Set for Cabinets, small



For mounting in all networking and server cabinets and wall-mounting cabinets

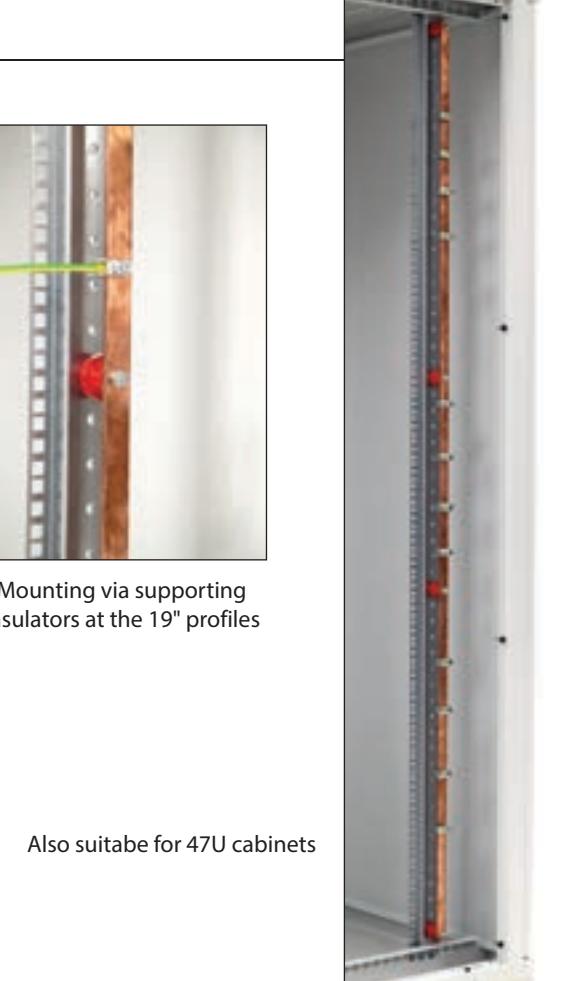
- Earthing kit consisting of:

Copper earthing bar 9 connection points, 9 x copper screws with washer for connection points, 2 x M5 nuts, 6 x earthing cable H07V-K, 1 x 6 mm², gn/ye, with M5 ring cable lug on both sides

Lengths: 2 x 390 mm, 2 x 580 mm, 1 x 670 mm, 1 x 800 mm

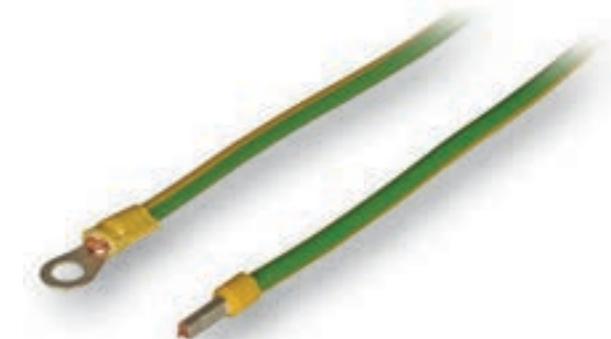
All parts packed in polybag

Art.-No.	Description
K3930V2	Earthing Set for Cabinets, small



Also suitable for 47U cabinets

Earthing Cable 6 mm² RCL M6/WES



For use with 42U earthing bar K3930V42

With ring cable lug Ø 6 mm and wire end sleeve

Cable H07 V-K 6.0 mm² green/yellow

Art.-No.	Description
K2303.0,5	Earthing Cable 6 mm ² RCL M6/WES
K2303.1	Earthing Cable 6 mm ² RCL M6/WES
K2303.1,5	Earthing Cable 6 mm ² RCL M6/WES
K2303.2	Earthing Cable 6 mm ² RCL M6/WES



ACCESS CONTROL AND RACK MONITORING

The increased requirements of modern IT infrastructure in data centres demand a maximum of physical safety and security. The Rack Management System guarantees clear recording and traceability due to its personified access control at the rack level. The system monitors all physical parameters in the data cabinet, thereby ensuring a high degree of availability of the entire system. Wireless transmission handles drastically reduce installation effort and investment costs. E-mail or SMS alert, integration into the building management via SNMP as well as expandability by simply adding additional modules complete the functionality.

CABINET SYSTEMS

Turning Handle, Complete, w/o Cylinder

Suitable for all front and rear doors (full height) of network and server cabinets

For EFB cutout 25-50-50

- For use with profile half-cylinders DIN 18252 / EN1303 (30/10 mm)

Profile half-cylinder not included, please order separately

Material plastic / metal



Art.-No.	Description
102179	Turning Handle, Complete, without Cylinder

Compact Turning Handle for Profile Half Cylinder

Easiest retrofitting for all 19" wall mounting cabinets 1-part and 2-part as well as wall and standing cabinets Flat Pack

Suitable for use with profile half-cylinder acc. to DIN 18252 / EN1303 (e.g.

Art.-No. 46087.x)

Included latch limits the rotation angle to 90°

Delivery without profile half-cylinder



Profile Half-Cylinder (Standard Locking)

Profile half-cylinder acc. to DIN 18252 / EN1303

Suitable for EFB standard turning handles (Art.-No. 102179), compact turning handle (Art.-No. 699989) and telecom distrbutors TWL/TSL

Incl. 2 x key

Art.-No.	Description
46087.1	Profil Half-Cylinder Locking T3, incl. 2 Keys
46087.2	Profil Half-Cylinder Locking T4, incl. 2 Keys
46087.3	Profile Half-Cylinder for Locking 3524E
46087.4	Profile Half-Cylinder with Push-Button
46086.1	Profil Half-Cylinder Locking 15, with 1 Key Q15



Spare Keys for Standard Cabinet/Wall Housing

2 spare keys for Locking T3 / 1333

Suitable for all EFB standing and wall mount cabinets with standard locking

Suitable for profile half-cylinder Art.-No. 46087.1

Not for wall housing IP55 and wall housing 3+5U vertical

Art.-No.	Description
102115	Keys for Network, Server Cabinets, Wall Housings (T3)



Electronic Locking via Code - Plug & Play Complete Set

Complete set consisting of electronically unlocking turning handle for EFB breakout with separate keypad
 After input of access code the turning handle is unlocked for a definable time
 Locking status is shown via LED on the handle
 Mechanical override by means of profile half-cylinder possible after removing the cylinder cover, replaceable cylinder cover will be destroyed to show manipulation
 Fast and easy connection of the components via screw terminals
 699990.2 for all doors with 3-point-locking
 699990.3 for all doors with 1-point-locking
 A second turning handle per set is controllable (e.g. for rear door)
 Scope of delivery: 1 x electr. unlocking turning handle, 1 x keypad, 1 x control board, 1 x power supply, all cables, mounting instructions

Art.-No.	Description
699990.2	Complete Set Electronic Handle with Keypad, for 3-Point-Locking
699990.3	Complete Set Electronic Handle with Keypad, for 1-Point-Locking



3-Point Locking for Retrofitting

Increases the locking stability for cabinets Classic
 Suitable for the following 42U front and rear doors (full height):
 Glass door 1-part
 Steel door 1-part/2-part
 Steel door perforated 1-part/2-part
 With bar lock for EFB cutout 25-50-50-50 mm

Art.-No.	Description
102199	3-Point Bar Locking for Cabinet Doors 42U



Labelling System for 19"/1U

Installation in server, network and equipment cabinets with 19" frame
 For devices with 19" standard mounting like Patch-panel
 Transparent window in the cover
 Easy installation via included screws
 Left and right side mountable
 With insert binder expandable
 Without screws max. expandable to 4U
 Colour RAL7035, light grey / RAL9005, jet black
 Dimensions (W x H x D) 42 x 44 x 10 mm

Art.-No.	Description	Colour
37680.1	Labelling System for 19" 1U	RAL7035, light grey
37681.1	Labelling Sheet, 1 Sheet = 40 Labels	



Set of Captive Nuts



Consisting of
 20/50 x captive nuts M6
 20/50 x washer M6 plastic
 20/50 x screw M6 x 20 mm

Art.-No.	Description
691099	Set of Captive Nuts 20 x M6, complete
691100	Set of Captive Nuts 50 x M6, complete

Set of Captive Nuts for Front Mounting

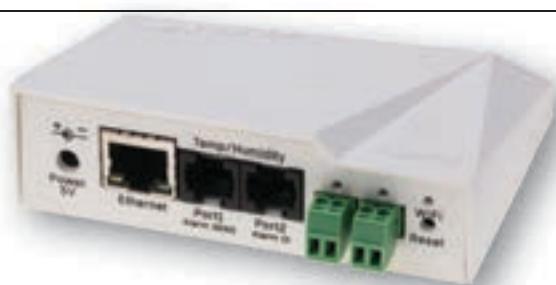


For front-sided mounting into the 19" profile
Easy and fast - no more wounded fingers!
 Set of 50 x screw, washer and cage nut
 Material steel, nylon

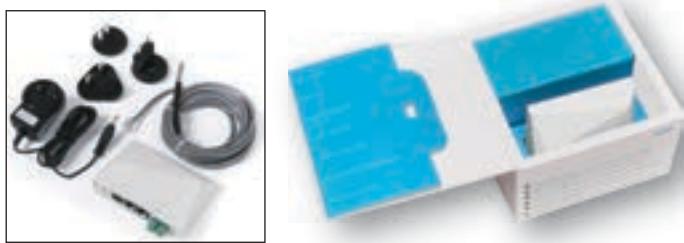


IP Thermometer with E-Mail, LAN, WiFi, PoE, SNMP

New generation of the IP Thermometers in modern Design
 Connection of up to **three temperature- or humidity sensors (also combi sensors)**
 Two dry contacts for control of alarms (door opening, smoke sensor, etc.)
 Network connection via **LAN or WiFi**
 E-Mail with TLS transport encryption
 SMS via HWg-SMS gateway directly via network
 Worldwide access via SensDesk portal of the manufacturer incl. web interface (Android, iOS)
 Applications for the IP thermometer:
 IT monitoring: control of relevant data in server room and alarm to the technicians
 Health: monitoring of refrigerators incl. reporting
 Food industry: monitoring of cold chain
 Heating systems: fast information at failure of critical systems
 Out of Band: integrated WiFi module enables connection at critical locations
 Included in delivery: IP thermometer, 1 x temperature sensor (3 m), software CD, power supply (adaptable Euro/UK/USA/China)



delivery incl. 1 x temperatur sensor and power supply
 Via webinterface also usable without software



Temperature Sensor for DCM100x

Temperature sensor, cable length 3 m (other lengths on request)
 Temperature range -10°C .. +80°C
 Suitable for DCM1002.1 and DCM1001.x



Art.-No.	Description
DCM1000.T	Temperature Sensor for DCM100X.x, -10°C .. +80°C, Cable 3 m

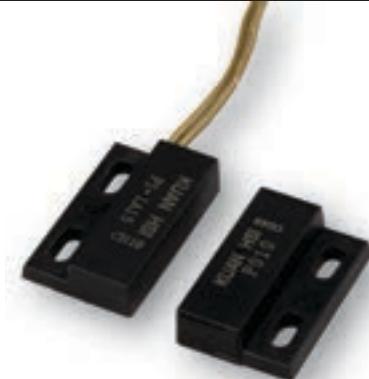
Humidity Sensor for DCM100x



Temperature sensor, cable length 3 m (other lengths on request)
 Suitable for DCM1002.1 and DCM1001.x

Art.-No.	Description
DCM1000.H	Humidity Sensor for DCM1002.1

Door Contact Switch for DCM100x



Door contact switch, cable length 3 m
 Suitable for DCM1002.1 and DCM1001.x (not for DCM1000.x)

Art.-No.	Description
DCM1001.D	Door Contact Sensor for DCM1002.1

Scalable for any Application

The ELM Rack Management System consists of a central Control Unit as well as up to 100 functional modules for handles, sensors, card readers and keypads connected to it. Due to its modular structure it can be adjusted to any requirement: from a single cabinet in stand-alone operation up to centrally administered server racks in data centres. The functional modules are the interfaces to the system administration and user authorisation (e.g. for opening doors). This includes e.g. the entering of code numbers on keypads, the reading out of contactless cards, the control of the system via mobile phone and many others.

ELM Control Unit USB



The Control Unit is the central control unit within the EMKA Rack Management System. The function modules for handles, locks, sensors and card readers are connected to the Control Unit. It administers both the data exchange between the modules (CAN bus) and the data exchange to external computers (Ethernet network among others).

Art.-No.	Description
DCE-U140-02	ELM Control Unit USB

ELM Keypad



The keypad is used in combination with handle modules to locally open selected locks by entering the designated PIN code. In combination with the Access Unit Wired only the lock number is entered on the keypad while the transponder card contains the authorisation. The Access Unit Wired also makes a double authentication possible (keypad with personal PIN code and card).

Art.-No.	Description
DCE-U08-01	ELM Keypad

ELM Handle Unit



This module can control up to 8 one-point latches, handles with locking set or turning handles and read in 8 status contacts. It is possible to activate several locks simultaneously. In this case it is recommendable to connect a power supply unit to each control unit. The opening pulse for the respective lock is triggered by keypad, card or the software Control Cockpit. The states (open / closed) of locking systems, doors and side walls can be analysed via the existing inputs. For supplying the locking systems with 24 V operating voltage a suitable power supply unit can additionally be connected using the input "ext. DC" on the front.

Art.-No.	Description
DCE-U32-02	ELM Handle Unit for 8 x Electronical Handle DCE-1150-U56/U58

ELM Card Reader



The card reader HID is connected to the Access Unit Wired as an external reading unit and can read various contactless cards on the basis of HID and other card technologies. The reader has terminals and is connected with the Access Unit Wired by means of a 4-wire cable. The maximum cable length between module and reader is 10 m.

Art.-No.	Description
DCE-U09-02	ELM Card Reader

Electronic Turning Handle



Electronically unlocking turning handle for use with doors with 1-point locking in EFB standing cabinets
With reed-contact for detection of locking status and 4 m connection cable
LED (green) shows unlocked status
DCE-1150-U58: delivery incl. mounting bracket and connection cable

Art.-No.	Description
DCE-1150-U56	Electr. Handle for 3-Point-Lock, Unlocking, EFB Cut-Out, Status LED
DCE-1150-U58	Electr. Handle for 1-Point-Lock, Unlocking, EFB Cut-Out, Status LED

Highest Process Stability During Operation

The monitoring of various parameters in the server racks is done by specific sensors. Measured data are centrally captured and analysed. They can trigger alarms, switch on fans or air-conditioning units or effect emergency openings of the cabinet / rack doors when user-defined limits are exceeded. In combination with the software Control Cockpit, the data provide the base for increasing the energy efficiency of data centres. The sensor program includes all relevant parameters for measuring and monitoring the operating statuses of server racks.

ELM Sensor Unit



The Sensor Unit is connected with specific sensors for measuring different operating states in the server racks. When limits are exceeded, it triggers alarms, switches fans or air-conditioning units on and effects the emergency opening of doors.

Product Details

- Capturing and analysing of different measurements such as temperature, humidity, smoke or electrical parameters
- Connection of max. 4 sensors to analogue inputs
- Switching of max. 4 alarm relay outputs (e. g. switching fans on or off) depending on the sensor measurements.
- Programming of the sensors with different limits for each

Art.-No.	Description
DCE-U13-02	ELM Sensor Module 4 x Input or 4 x Output

ELM Climatic Sensor



Vorbereitet zum Anschluss an das Sensormodul DCE-U13-02
Vormontierter Stecker zum problemlosen Anschluss
Inkl. ausführlicher Dokumentation zur Einbindung ins ELM System
Verlängerungs- und Splitterkabel sind als Zubehör erhältlich

Art.-No.	Description
DCE-U25-01	ELM Climatic Sensor (Temperature + Humidity)

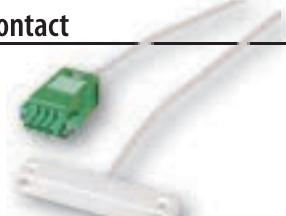
ELM Optical Smoke Detector



Optical smoke sensor with VdS certification G29219. The sensor is connected to the Sensor Unit. In non-operating state the sensor delivers an output signal of approx. 400 mV. When detecting smoke the signal jumps to over 1,800 mV.

Art.-No.	Description
DCE-U34-01	ELM Optical Smoke Detector

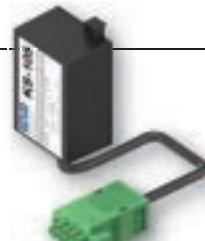
ELM Flat Reed / Door Contact



This digital sensor is used to monitor door states and side walls in combination with the Rack Management System. The sensor is connected to the Handle Units.

Art.-No.	Description
DCE-U35-01	ELM Flat Reed Contact as Door Contact

ELM Vandalism Sensor



This analogue sensor can be used in safety-related applications to protect against vandalism, destruction and theft. It measures accelerations in an axis. The sensor is connected to a Sensor Unit.

Plastic housing with two fixing holes

Art.-No.	Description
DCE-U38-01	Acceleration Sensor, analog

ELM Temperature Sensor



The analogue sensor is suitable for monitoring temperatures of both gaseous and liquid media. The sensor is connected to the Sensor Unit.

Art.-No.	Description
DCE-U39-01	Temperature Sensor, analog

Agent E Stand Alone 13.56 MHz

The swinghandle Agent E Stand Alone consists of a battery-driven handle with integrated card reader for 125 kHz or 13.56 MHz transponder cards. Via the integrated USB interface in combination with the software Control Cockpit you can programme cards, delete them, create time profiles or read out the integrated data storage. This handle does not require any external wiring for functioning. The stand-alone system is a low-cost locking system for applications where no data networking and no remote-controlled monitoring are required. Keypad and handles are available as individual components and as a constructive unit.

Product features

Configuration via USB port with AGENT E configuration software (programming, deleting cards or fingers, creating authorisation and time profiles, reading out event logs)

Authentication via 13.56 MHz transponder cards or via fingerprint (125 kHz variant available on request).

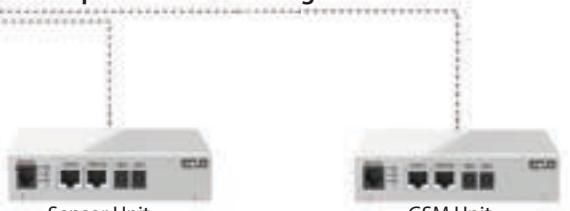
All handles excel at extremely energy-efficient battery operation (service life battery min. 3 years) and have one port for one door contact

Emergency power function or emergency opening via integrated USB port.

**Stand-Alone Type:**

No cabling &
No modules required !

Art.-No.	Description
DCE-U900-21	Agent E Stand Alone 13.56 MHz for bar lock
DCE-U900-22	Agent E Stand Alone 13.56 MHz for latch
Variant for 125 kHz transponder cards available on request	

**Control Cockpit****Access Control****Agent E Wireless****Control Unit****Agent E Wired****Operation Monitoring****Sensor****GSM Transmitter**

Got it on Lock

The swinghandle product family AGENT E has been specially developed for the use on server racks and enables central monitoring, remote-controlled opening and system configuration. The authentication is performed directly on the handle either by the RFID cards available in the company or via the individual fingerprint. In combination with a multi-level emergency concept the function is also always guaranteed in case of a malfunction or battery failure. A highly-efficient power management guarantees a long battery life. Due to its wireless and thus cost-saving mounting it is equally suitable for new installations as well as for retrofitting.

Agent E Wired 13,56 MHz



The Agent E Wired is the wired version of the electromechanical turning handle range. It enables a central and complete logging of events. The personified access is realised securely and conveniently via RFID card reader and fingerprint.

Product features

Wired communication via CAN bus by Access Units and Control Unit
 Authentication via 125 kHz or 13,56 MHz transponder cards or via fingerprint.
 Remote-controlled opening is also always possible
 Handle type Wired Slave does not have its own authentication and is unlocked in combination with master handle, central keyboard / central card reader or by remote-controlled opening. The opening is effected by touching the sensor field
 All handles have one port for one door contact
 In combination with the Access Unit, the middle LED in the sensor field can be activated to signal possible malfunctions in the rack such as increased temperature (does not apply to the type fingerprint)
 Emergency opening by integrated USB port
 One Control Unit can control up to 64 handles

Art.-No.	Description	Suitable for Module
DCE-U900-41	Agent E Wired 13.56 MHz for bar lock	DCE-U47-02 (Access Unit Wired)
DCE-U900-42	Agent E Wired 13.56 MHz for latch	DCE-U47-02 (Access Unit Wired)
Variant for 125 kHz transponder cards available on request		

Access Unit Wired HID

The Access Unit controls up to 2 turning handles of the Agent E wired. It is in turn directly connected to the central Control Unit.

Product features

Direct connection of 2 turning handles of the type series Agent E Wired
 Control of the central LED in the handle via terminal block on the back
 Alternatively, connection of 2 electromechanical locks and 2 external card readers or one reader antenna type Logic®
 Max. 32 Access Units Wireless per Control Unit: Administration of up to 64 handles under one IP address
 Double authentication (PIN code and card) in combination with keypad possible

Type Access Unit Wired HID
 Power supply: 12 ... 30 V DC, 200 mA + outputs
 Handle outputs: 2 (RJ45), max. 12 V / 1.000 mA, or max. 24 V / 500 mA per output
 Ports for card reader: 2 (RJ45), HID
 Relay outputs: 2 (max. 10 V DC, 1 mA)
 CAN bus ports: 2
 Operating temperature: +5 ... +45 °C
 Dimensions (L x B x H): 107 x 135 x 33 mm
 Scope of supply: bracket



Art.-No.	Description	Suitable for Handle
DCE-U47-02	Access Unit Wired HID for 2 Handles	DCE-900-xx (Agent E Wired)

Agent E Wireless with Card Reader or Fingerprint



The Agent E Wireless is the only turning handle based on wireless communication. Due to its wireless and thus cost-saving mounting it is most suitable for retrofitting in data centres. The authentication is performed by RFID or fingerprint. Highly-efficient power management guarantees a long battery life.

Product features

- Wireless communication via wireless network 868 MHz (industry standard)
- Control of up to 1,200 doors in a wireless network via access units and control unit
- Authentication via 13,56 MHz transponder cards or via fingerprint (125 kHz variant available on request)
- Remote-controlled opening always possible
- All handles excel at extremely energy-efficient battery operation (service life battery min. 3 years) and have one port for one door contact
- Emergency power function or emergency opening via integrated USB port

Art.-No.	Description	Suitable Control Module
DCE-U901-41	Agent E Wireless 13.56 MHz for 3-Point-Locking	DCE-U980-02 (Access Unit Wireless)
DCE-U901-42	Agent E Wireless 13.56 MHz for 1-Point-Locking	DCE-U980-02 (Access Unit Wireless)
DCE-U901-61	Agent E Wireless Fingerprint for 3-Point-Locking	DCE-U980-02 (Access Unit Wireless)
DCE-U901-62	Agent E Wireless Fingerprint for 1-Point-Locking	DCE-U980-02 (Access Unit Wireless)

Access Unit Wireless Europa



In combination with the Control Unit each individual Access Unit Wireless can administer up to 500 Agent E Wireless handles.

Product Features

- Wireless Unit to administer up to 500 handles Agent E Wireless in combination with Control Unit
- Max. 4 Access Units Wireless per Control Unit: Administration of up to 2000 handles under one IP address
- Frequency 868 MHz (type Europe)

Technical Data

Power supply 12 V DC
Housing metal
Dimensions (L x B x H): 117 X 135 X 33 mm

Art.-No.	Description	Suitable for Handle Type
DCE-U980-02	Access Unit Wireless (Europe)	DCE-U901-xx (Agent E Wireless)

EVERYTHING UNDER CONTROL

With the software Control Cockpit you can monitor all Control Units. It enables a convenient configuration and monitoring at the PC / laptop. The views of access control or operating states can be set according to customer requirements. All accesses to server racks are captured and completely documented.

All operating statuses are displayed and malfunctions directly transmitted to the operator. The open database structure with SQL interface enables a simple integration into higher level systems.

ELM DataBase

The database-driven software Control Cockpit administers the access authorisations. It logs and documents all accesses to the server racks. In the context of monitoring, the measurements of sensors are consistently captured and monitored with regard to limit violations. The integration into higher level systems is effected via SQL interface.

User administration

Simple addition of users and assignment of user groups
Individual allocation of authorisations and personal PIN codes

System administration

Administration of up to 50 rack management systems with the connected components such as handles, sensors or card readers

Basic functions:

Simple import of transponder cards
Assignment of rights for transponder cards with user-defined allocation
Assignment of access rights for locks
Allocation to rack groups
Setting of limits for sensors and activation of alarms

Real-time monitoring

Convenient opening of the handles after entering a PIN code
Comprehensive control and monitoring functions
Display of alarm statuses of handles or sensors by colour change
Comprehensive filter functions for displaying the most important information

Configurable screen views

Individual design of the screen views in various windows

Storing of measurements

Monitoring and registration of temperature values for determining the thermal stress
Graphic diagram display of the measurements of previous or current data in user-definable time slots
Simple storing or printing of diagrams via export function

Logging and analysis

Archiving of events of all connected systems in a joint database
Creation of customer-specific reports with comprehensive filter and export functions

Remote-controlled access

Installation of the software in any number of places
Access to central database as client
Encrypted data transfer within the network

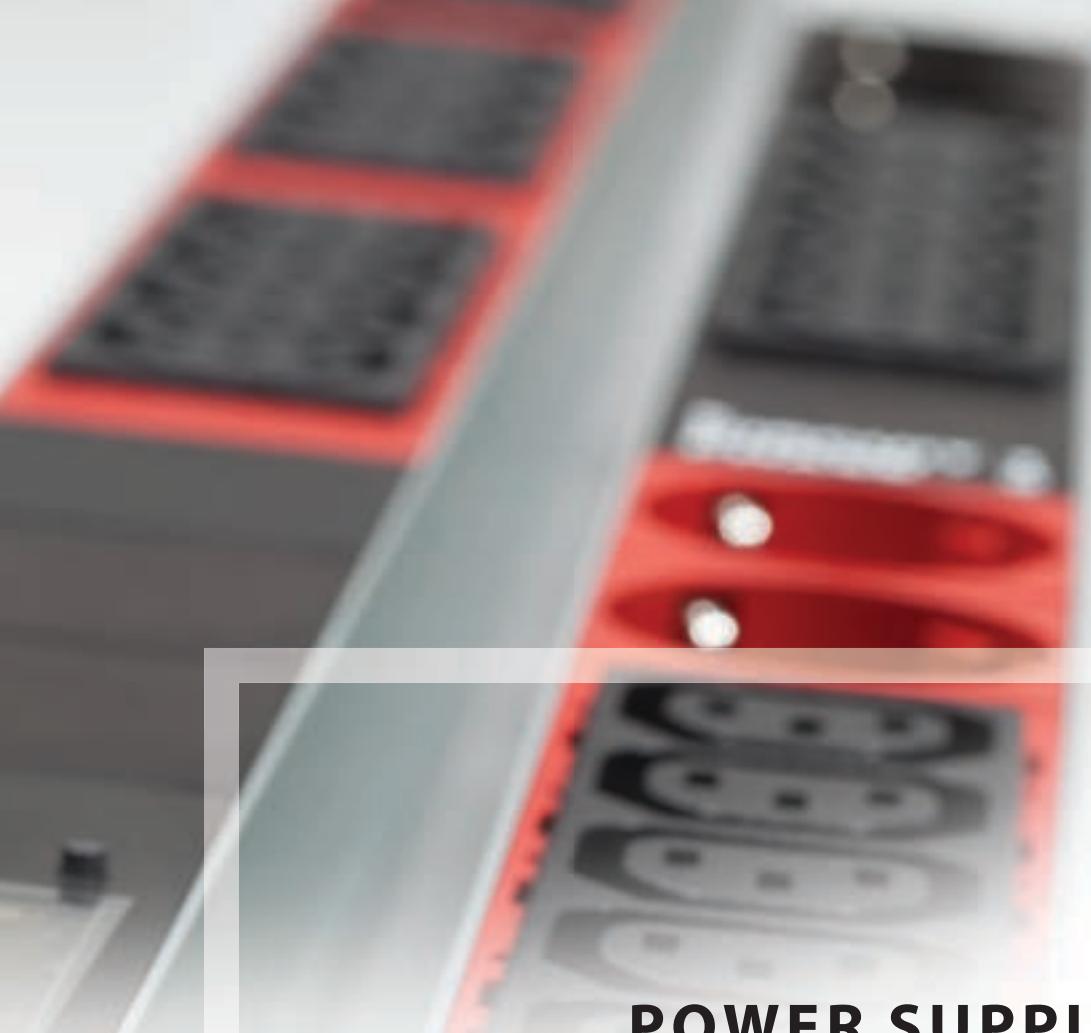
Integration into external systems
Open database structure enables the simple integration into higher level systems via SQL interface

ELMwatcher Software

ELMwatcher Software for receive of SNMP traps

Art.-No.	Description
DCE-U69	ELMwatcher Software for Receiving SNMP Traps





POWER SUPPLY

Each active device and the numerous accessory components in the network area require a power supply. EFB-Elektronik supplies the required accessories, from power cable to intelligent PDUs ("Power Distribution Units") in order to safely and reliably supply servers and active components with electrical energy. Country-specific cables are also available as is the securing of highly-available systems by means of locking, pull-out proof cables, electronic monitoring of the voltage supply as well as alarming in the event of any derivation with specified parameters.

CABINET SYSTEMS

DESK1 - 2 x CEE7/3, 1 x USB Charger 2-Way, 2 x RJ45 Adapter

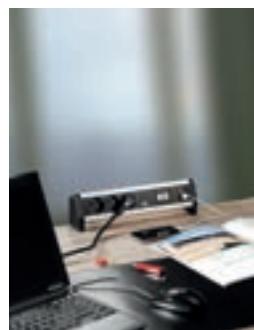


DESK 1 is a power strip that can be populated with various communication modules. It has been designed for flexible use in the office, meeting rooms, home offices or desk-sharing environments. But DESK 2 is great at living spaces, too.

Assembly DESK 1:

- 2 x CEE7/3 outlet
- 1 x USB Charger 2-way
- Frame for 2 x Keystone
- Cat.6 adapter / jack-jack
- Mounting bracket DESK for tabletop
- Cable CEE7/7 to GST18 2.0 m
- Frame material aluminium, anodised

Various equipment variants are available - please contact us !



DESK2 - 2 x CEE7/3, 1 x USB Charger 2-Way, 2 x RJ45 Adapter



DESK 2 is a power strip that can be populated with various communication modules. It has been designed for flexible use in the office, meeting rooms, home offices or desk-sharing environments. But DESK 2 is great at living spaces, too.

Assembly DESK 2:

- 2 x CEE7/3 outlet
- 1 x USB Charger 2-way
- Frame for 2 x Keystone
- Cat.6 adapter / jack-jack
- Cable CEE7/7 to GST18 2.0 m
- Frame material aluminium, anodised

Various equipment variants are available - please contact us !



Art.-No.	Description	Colour
EK640.2	DESK2 - 2 x CEE7/3, 1 x USB Charger 2-Way, 2 x RJ45 Adapter	White



Residual Current Monitoring (RCM)

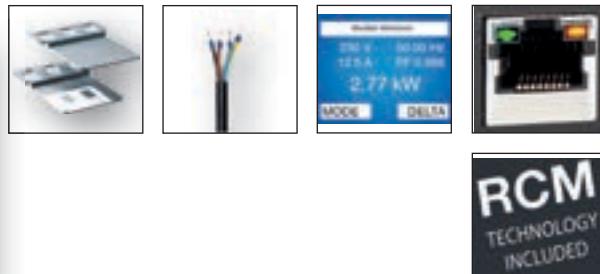
Using residual current monitoring allows changes in the level of insulation of a power supply to be detected at an early stage, before protective devices are tripped by a residual current that puts people at risk and involves the risk of fire. This time advantage allows countermeasures to be planned and contributes to the high availability of the power supply and therefore the system.

Thanks to the BACHMANN BlueNet PDU, this residual current monitoring isn't just undertaken at central measuring points, but at rack level per PDU, per phase or even per socket group. The residual current sensor conforms to the relevant standards and provides a high physical granularity, maximum safety and high availability. This AC/DC-sensitive technology monitors all kinds of residual current in modern power supplies with switching power supplies. The residual current monitoring (RCM) is therefore particularly suited to use in IT.

BENEFITS

- Greater safety for people, operations and systems thanks to permanent type B AC/DC-sensitive residual current monitoring
- Preventative safety to protect people from the hazards caused by electric current
- Higher profitability by reducing the expenditure of retests
- Minimisation of cost-intensive faults, service work and unscheduled interruptions to the operation of sensitive IT equipment
- Greater fire protection as combustible residual currents are detected when they emerge

PDU Vertical BlueNet3000 18 x C13 3 x C19, 1 x RCM



Vertical PDU BlueNet BN3000 RCM Monitored
Feeding 3-phase 400 V / 16 A

Outlets:
6 x IEC C13 + 1 x IEC C19 (phase 1, red)
6 x IEC C13 + 1 x IEC C19 (phase 2, black)
6 x IEC C13 + 1 x IEC C19 (phase 3, grey)

Residual Current Monitoring per infeed

Integrated function for measuring voltage, reactive-, apparent-, active power, frequency and power factor

Integrated temperature sensor + two interfaces for external sensors
With integrated display, integrated web server with 10/100 Mbit/s Ethernet port (RJ45)

Cable 3.0 m H05VV-F 5G 2.5 mm² with wire end sleeves

Housing aluminium profile

Delivery incl. mounting brackets and screws

Packed in carton

PDU Vertical BlueNet3000 12 x C13 6 x C19, 1 x RCM



Vertical PDU BlueNet BN3000 RCM Monitored
Feeding 3-phase 400 V / 16 A

Outlets:
4 x IEC C13 + 2 x IEC C19 (phase 1, red)
4 x IEC C13 + 2 x IEC C19 (phase 2, black)
4 x IEC C13 + 2 x IEC C19 (phase 3, grey)

Residual Current Monitoring per infeed

Integrated function for measuring voltage, reactive-, apparent-, active power, frequency and power factor

Integrated temperature sensor + two interfaces for external sensors
With integrated display, integrated web server with 10/100 Mbit/s Ethernet port (RJ45)

Cable 3.0 m H05VV-F 5G 2.5 mm² with wire end sleeves

Housing aluminium profile

Delivery incl. mounting brackets and screws

Packed in carton

similar picture

Art.-No.	Description
691795.1	PDU Vertical BN3000 Monitored 18 x C13 + 3 x C19 + 1 x RCM, 16 A

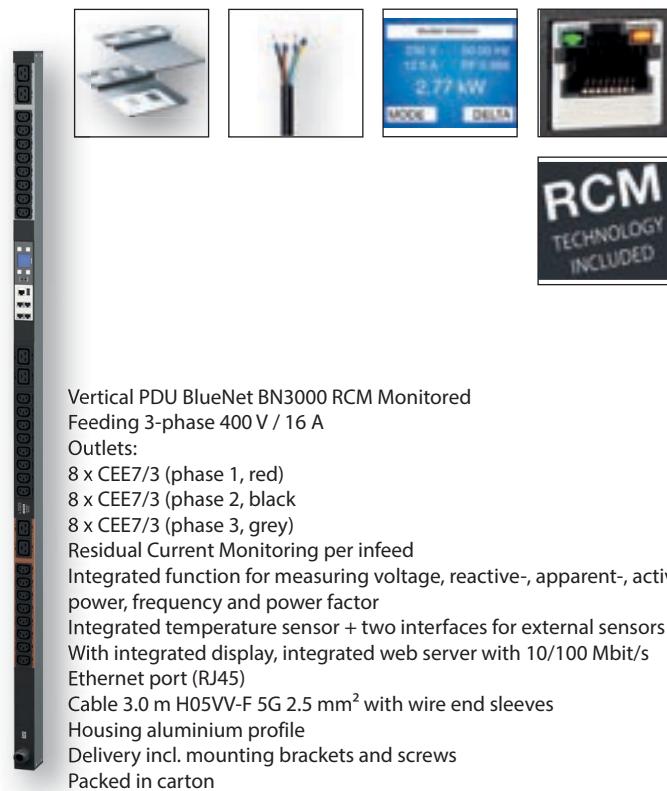
Art.-No.	Description
691795.2	PDU Vertical BN3000 Monitored 12 x C13 + 6 x C19 + 1 x RCM, 16 A

PDU Vertical BlueNET3000 12 x C13, 6 x C19, 3 x CEE7/3, RCM**PDU Vertical BlueNET3000 24 x CEE7/3, RCM**

similar picture



similar picture



Art.-No.	Description
691795.3	PDU Vertikal BN3000 Monitored 12 x C13 + 6 x C19 + 3 x CEE7+1 x RCM, 16 A

Art.-No.	Description
691795.4	PDU Vertikal BlueNet3000 24 x CEE7+1 x RCM, 16 A

BlueNet3000 Temperature Sensor

Temperature sensor

Can be connected to any BlueNet3000 Monitored PDU with included cable

Technical Data

Temperature range: 0 °C .. +60 °C

Accuracy: +/- 1 °C

Size of sensor head: 24 x 23 x 56 mm

Scope of delivery:

1 x BlueNet3000 Temperature sensor

1 x Connection cable 2.0 m Cat.5e

Packed in Polybag

Art.-No.	Description
691795.T	BN3000 Temperature Sensor incl. 2 m Cable 2 x RJ45



Combination sensor temperature + humidity

Can be connected to any BlueNet3000 Monitored PDU with included cable

Technical Data

Relative humidity at 25°C: 20 % .. 80 % RL

Temperature range (recommended): 5 °C .. 60 °C

Temperature range (max.): -15 °C .. 85 °C

Scope of delivery:

1 x Combination sensor temperature + humidity

1 x Connection cable 2.0 m Cat.5e

Packed in polybag

Art.-No.	Description
691795.TL	BN3000 Combination Sensor Temperature + Humidity incl. 2 m Cable 2 x RJ45

FIBER OPTIC

COPPER

CABINET SYSTEMS

MULTIMEDIA

ACTIVE COMPONENTS



BlueNet bietet die Komplettlösung zur Strukturierung, Steuerung und Überwachung von IT-Stromnetzen. BlueNet erfasst Verbrauchs- und Leistungsdaten und stellt dem Anwender relevante Daten und Steuerungsmöglichkeiten für modernes Energiemanagement zur Verfügung.

Energiemanagement

Mit BlueNet überwachen Sie Energiekosten. Alle Daten wie bspw. Strom, Spannung, Leistung werden per Software und Display dargestellt. Lasten können so verteilt werden, dass Ausfälle durch überlastete Stromkreise ausgeschlossen sind. Mittels einstellbarer Schwellwerte, können automatisch Meldungen ausgelöst werden. Neustarts per Webverbindung erhöhen zusätzlich Verfügbarkeit und Flexibilität. Die Einbindung der BlueNet Technologie in übergeordnete Infrastruktur Software Lösungen ist aufgrund der umfangreichen, integrierten Schnittstellen problemlos möglich.

Sicherheit

Jede Bachmann PDU wird in der Produktion über ein Testprogramm pro Port computergesteuert geprüft und dokumentiert. Elektronikbauteile werden immer wieder „Stresstests“ unterzogen um die gleichbleibende Qualität zu garantieren. BlueNet wird ausschließlich in kompakten, sehr stabilen und

trotzdem gewichtsoptimierten Alu Gehäusen integriert. Die relevanten Normen und Richtlinien werden großteils übertroffen. Die Abweichungen bei der Messgenauigkeit ist < 1%.

Energieeffizienz

Bachmann BlueNet PDUs sparen Energie. Die Technologie gehört im Bereich intelligente Messsysteme zu den Produkten mit dem weltweit geringsten Eigenverbrauch im Betrieb. Der modulare Aufbau innerhalb der BlueNet PDU garantiert maximale Packungsdichte. Der äußerst geringe Platzbedarf der PDUs bietet Raum für Verkabelung und Klimatisierung im Rack! Die BlueNet Basic Monitored Serie ist eine der kompaktesten Leistungsmessungen mit integrierter Netzwerk- und Sensorschnittstelle der Welt.

19" 1U PDU BlueNet2000 Monitored 6 x CEE 7/3



19" 1U PDU BlueNet BN2000 Monitored

Feeding 1-phase

Outlets: 6 x CEE 7/7

Integrated function for measuring of current, voltage, reactive-, apparent-, active power, frequency and power factor

Integrated temperature sensor + two interfaces for external sensors

With integrated display, integrated web server with 10/100 Mbit/s Ethernet port (RJ45)

Cable 2.0 m H05VV-F 3G 1.5 mm² with angled CEE 7/7 plug

Housing aluminium profile

Delivery incl. mounting brackets and screws

Packed in carton

Art.-No.	Description
691791.1	19" 1U PDU BN2000 Monitored 6 x CEE 7/5 Outlet

19" 1U PDU BlueNet2000 Monitored 8 x C13



19" 1U PDU BlueNet BN2000 Monitored

Feeding 1-phase

Outlets: 8 x IEC C13, lockable

Integrated function for measuring of current, voltage, reactive-, apparent-, active power, frequency and power factor

Integrated temperature sensor + two interfaces for external sensors

With integrated display, integrated web server with 10/100 Mbit Ethernet port

Cable 2.0 m H05VV-F 3G 1.5 mm² with angled CEE 7/7 plug

Housing aluminium profile

Delivery incl. mounting brackets and screws

Packed in carton

Art.-No.	Description
691791.2	19" 1U PDU BN2000 Monitored 8 x C13

PDU Vertikal BlueNet2000 Monitored 36 x C13 + 6 x CEE 7/3

Vertical PDU BlueNet BN2000 Monitored

Feeding 3-phase

Outlets:

- 12 x IEC C13 + 2 x CEE 7/7 (phase 1, red)
- 12 x IEC C13 + 2 x CEE 7/7 (phase 2, black)
- 12 x IEC C13 + 2 x CEE 7/7 (phase 3, grey)

Integrated function for measuring of current, voltage, reactive-, apparent-, active power, frequency and power factor

Integrated temperature sensor + two interfaces for external sensors

With integrated display, integrated web server with 10/100 Mbit/s Ethernet port (RJ45)

Cable 3.0 m H05VV-F 5G 2.5 mm², CEE plug 16 A red

Housing aluminium profile

Delivery incl. mounting brackets and screws

Packed in carton



Art.-No.	Description
691791.3	PDU Vertical BN2000 Monitored 36 x C13 + 6 x CEE 7/5, 3-Phase

PDU Vertical BlueNet2000 Monitored 36 x C13 + 6 x C19

Vertical PDU BlueNet BN2000 Monitored

Feeding 3-phase

Outlets:

- 12 x IEC C13 + 2 x IEC C19 (phase 1, red)
- 12 x IEC C13 + 2 x IEC C19 (phase 2, black)
- 12 x IEC C13 + 2 x IEC C19 (phase 3, grey)

Integrated function for measuring of current, voltage, reactive-, apparent-, active power, frequency and power factor

Integrated temperature sensor + two interfaces for external sensors

With integrated display, integrated web server with 10/100 Mbit/s Ethernet port (RJ45)

Cable 3.0 m H05VV-F 5G 2.5 mm², CEE plug 16 A red

Housing aluminium profile

Delivery incl. mounting brackets and screws

Packed in carton



Art.-No.	Description
691791.4	PDU Vertikal BN2000 Monitored 36 x C13 + 6 x C19, 3-Phase

PDU Vertical BlueNet2000 Monitored 24 x C13 + 4 x C19 + 2 x LS 16 A

Vertical PDU BlueNet BN2000 Monitored

Feeding 1-phase

Outlets divided up into 2 blocks, each with circuit breaker C16A:

- 12 x IEC C13 + 2 x IEC C19 (block1)
- 12 x IEC C13 + 2 x IEC C19 (block 2)

Integrated function for measuring of current, voltage, reactive-, apparent-, active power, frequency and power factor

Integrated temperature sensor + two interfaces for external sensors

With integrated display, integrated web server with 10/100 Mbit/s Ethernet port (RJ45)

Cable 3.0 m H05VV-F 3G 4 mm², CEE plug 32 A blue

Housing aluminium profile

Delivery incl. mounting brackets and screws

Packed in carton



Art.-No.	Description
691791.5	PDU Vertical BN2000 Monitored 24 x C13 + 4 x C19 + 2 x CB 16 A

PDU Vertical BlueNet2000 Monitored 24 x C13 + 3 x C19



Vertical PDU BlueNet BN2000 Monitored

Feeding 1-phase

Outlets 24 x IEC C13 + 3 x IEC C19

Integrated function for measuring of current, voltage, reactive-, apparent-, active power, frequency and power factor

Integrated temperature sensor + two interfaces for external sensors

With integrated display, integrated web server with 10/100 Mbit/s Ethernet port (RJ45)

Cable 3.0 m H05VV-F 3G 2.5 mm² with CEE plug 16 A blue

Housing aluminium profile

Delivery incl. mounting braackets and screws

Packed in carton



Art.-No.	Description
691791.6	PDU Vertical BN2000 Monitored 24 x C13 + 3 x C19

PDU Vertical BlueNet2000 Monitored 24 x C13 + 6 x C19 + 6 x CB



Vertical PDU BlueNet BN2000 Monitored

Feeding 3-phase

Outlets 3 phases each with circuit breaker C16A:

8 x C13 + 2 x C19 (phase 1, red) + 2 x CB

8 x C13 + 2 x C19 (phase 2, black) + 2 x CB

8 x C13 + 2 x C19 (phase 3, grey) + 2 x CB

Integrated function for measuring of current, voltage, reactive-, apparent-, active power, frequency and power factor

Integrated temperature sensor + two interfaces for external sensors

With integrated display, integrated web server with 10/100 Mbit/s Ethernet port (RJ45)

Cable 3.0 m H05VV-F 5G 2.5 mm² with CEE plug 16 A red

<Housing aluminium profile

Delivery incl. mounting brackets and screws

Packed in carton



Art.-No.	Description
691791.7	PDU Vertical BN2000 Monitored 24 x C13 + 6 x C19 + 6 x CB

PDU Vertical BlueNet2000 Monitored 24 x C13 + 6 x C19



Vertical PDU BlueNet BN2000 Monitored

Feeding 3-phase

Outlets 3 phases each with circuit breaker C16A:

8 x C13 + 2 x C19 (phase 1, red)

8 x C13 + 2 x C19 (phase 2, black)

8 x C13 + 2 x C19 (phase 3, grey)

Integrated function for measuring of current, voltage, reactive-, apparent-, active power, frequency and power factor

Integrated temperature sensor + two interfaces for external sensors

With integrated display, integrated web server with 10/100 Mbit/s Ethernet port (RJ45)

Cable 3.0 m H05VV-F 5G 2.5 mm² with CEE plug 16 A red

<Housing aluminium profile

Delivery incl. mounting brackets and screws

Packed in carton



Art.-No.	Description
691791.8	PDU Vertical BN2000 Monitored 24 x C13 + 6 x C19

BlueNet2000 Temperature Sensor



similar picture

BlueNet2000 Sensor Temperature + Humidity



Temperature Sensor for IT PDU Basic and IT PDU vertical multi-socket power distribution units and can be directly connected to any BlueNet Monitored PDU.

Technical Data:

Temperature range: 0 °C .. +60 °C

Accuracy: +/- 1 °C (over full range)

Size of Sensor Head: 6 x 25 x 4 mm

Cable Length: 2 m

Connector: RJ-12, 4p

Combination temperature and air humidity sensor for IT PDU Basic and IT PDU vertical multi-socket power distribution units and can be directly connected to any BlueNet Monitored PDU.

Technical Data:

Supply cable 2.0m

Connector RJ-12, 4p

Measurement accuracy humidity +/- 2 %RH

Measurement accuracy temperature +/- 0.3 °C

Mounting depth 3mm

Interface digital

Dimensions (sensor head) 10 x 40 x 7 mm

Scope of delivery:

1x Dual combination sensor BN2000

Packed in polybag

Art.-No.	Description
691791.T	BN2000 Temperature Sensor incl. 2 m Cable

Art.-No.	Description
691791.TL	BN2000 Combination Sensor Temperature + Humidity incl. 2 m Cable

PDU 19" 1U BlueNet500 8 x CEE 7/7 with Power Measuring



BlueNET500 socket strip 19" 1U in Aluminium profile, anodized
With power measuring (display V/A/kW/Hz/PF)
Outlets 8 x CEE 7/7, black
Cable 2.0 m H05VV-F 3G 1.5 mm² black, with angled CEE 7/7 plug
Incl. mounting brackets

Art.-No.	Description
691790.1	PDU 19" 1U BlueNet500 8 x CEE 7/7 with Power Measuring (Display)

PDU 19" 1U BlueNet500 12 x C13 with Power Measuring



BlueNET500 socket strip 19" 1U in Aluminium profile, anodized
With power measuring (display V/A/kW/Hz/PF)
Outlets 12 x IEC C13, black
Cable 2.0 m H05VV-F 3G 1.5 mm² black, with angled CEE 7/7 plug
Incl. mounting brackets

Art.-No.	Description
691790.2	PDU 19" 1U BN500 12 x C13 with Power Measuring (Display)

PDU 19" 1U BlueNet500 8 x UTE (France) with Power Measuring



BlueNET500 socket strip 19" 1U in Aluminium profile, anodized
With power measuring (display V/A/kW/Hz/PF)
Outlets 8 x UTE (France), plastic parts black
Cable 2.0 m H05VV-F 3G 1.5 mm² black, with angled CEE 7/7 plug
Incl. mounting brackets

Art.-No.	Description
691790FR.1	PDU 19" 1U BN500 8 x UTE with Power Measuring (Display)

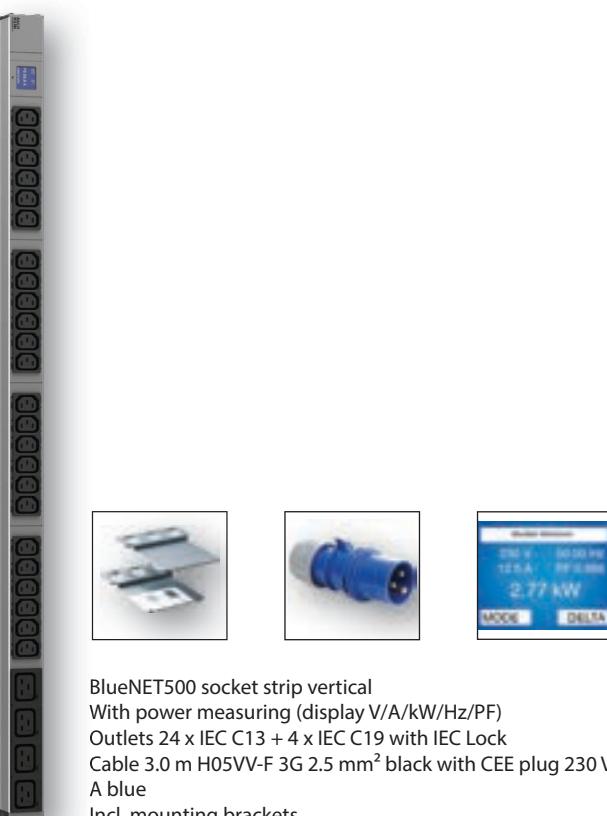
PDU Vertical BN500 24xC13 3xC19 400V 16A with Power Measuring



BlueNET500 socket strip vertical, 3-phase infeed
With power measuring (3 x display V/A/kW/Hz/PF)
Outlets 24 x IEC C13 + 3 x IEC C19 with IEC Lock (8 x C13 + 1 x C19 per phase)
Cable 3.0 m H05VV-F 5G 2.5 mm² black with CEE plug 400 V 16 A red
Incl. mounting brackets

Art.-No.	Description
691790.5	PDU Vertical BN500 24xC13 3xC19 400V 16A with Power Measuring (Display)

PDU Vertical BN500 24xC13 4xC19 230V 16A with Power Measuring



BlueNET500 socket strip vertical
With power measuring (display V/A/kW/Hz/PF)
Outlets 24 x IEC C13 + 4 x IEC C19 with IEC Lock
Cable 3.0 m H05VV-F 3G 2.5 mm² black with CEE plug 230 V 16 A blue
Incl. mounting brackets

Art.-No.	Description
691790.6	PDU Vertical BN500 24xC13 4xC19 230V 16A with Power Measuring (Display)

PDU Vertical BN500 24xC13 6xC19 400V 16A with Power Measuring



BlueNET500 socket strip vertical, 3-phase infeed
With power measuring (3 x display V/A/kW/Hz/PF)
Outlets 24 x IEC C13 + 6 x IEC C19 with IEC Lock (8 x C13 + 2 x C19 per phase)
Cable 3.0 m H05VV-F 5G 2.5 mm² black with CEE plug 400 V 16 A red
Incl. mounting brackets

Art.-No.	Description
691790.10	PDU Vertical BN500 24xC13 6xC19 400V 16A with Power Measuring (Display)

PDU Vertical BN500 24xC13 6xC19 6xCEE7/3 400V 16A with Power Measuring



BlueNET500 socket strip vertical, 3-phase infeed
With power measuring (3 x display V/A/kW/Hz/PF)
Outlets 24 x IEC C13 + 6 x C19 + 6 x CEE7/3
Cable 3.0 m H05VV-F 5G 2.5 mm² black with CEE plug 400 V 16 A red
Incl. mounting brackets

Art.-No.	Description
691790.12	PDU Vertical BN500 24xC13 6xC19 6xCEE7/3 400V 16A with Power Measuring (Display)

PDU Vertical BN500 24xC13 4xC19 230V 32A with Power Measuring



BlueNET500 socket strip vertical, 3-phase infeed
With power measuring (3 x display V/A/kW/Hz/PF)
Outlets 24 x IEC C13 + 4 x C19
Cable 3.0 m H05VV-F 5G 2.5 mm² black with CEE plug 400 V 32 A red
Incl. mounting brackets

Art.-No.	Description
691790.17	PDU Vertical BN500 24xC13 4xC19 230V 32A with Power Measuring (Display)

PDU Vertical BN500 24xC13 6xCEE7/3 400V 16A with Power Measuring



BlueNET500 socket strip vertical, 3-phase infeed
With power measuring (3 x display V/A/kW/Hz/PF)
Outlets 24 x IEC C13 + 6 x CEE7/3
Cable 3.0 m H05VV-F 5G 2.5 mm² black with CEE plug 400 V 16 A red
Incl. mounting brackets

Art.-No.	Description
691790.11	PDU Vertical BN500 24xC13 6xCEE7/3 400V 16A with Power Measuring (Display)

PDU Vertikal BN500 36xC13 6xC19 400V 16A with Power Measuring



BlueNET500 socket strip vertical, 3-phase infeed
With power measuring (3 x display V/A/kW/Hz/PF)
Outlets 36 x IEC C13 + 6 x C19
Cable 3.0 m H05VV-F 5G 2.5 mm² black with CEE plug 400 V 16 A red
Incl. mounting brackets

Art.-No.	Description
691790.13	PDU Vertikal BN500 36xC13 6xC19 400V 16A with Power Measuring (Display)

PDU Vertical BN500 24xC13 6xC19 400V 32A with Power Measuring



BlueNET500 socket strip vertical, 3-phase infeed
With power measuring (3 x display V/A/kW/Hz/PF)
Outlets 24 x IEC C13 + 6 x C19
Cable 3.0 m H05VV-F 5G 2.5 mm² black with CEE plug 400 V 32 A red
Incl. mounting brackets

Art.-No.	Description
691790.18	PDU Vertical BN500 24xC13 6xC19 230V 32A with Power Measuring (Display)

Socket Strip Vertical 24 x C13 + 3 x C19, 1-Phase



Aluminium profile
24 x IEC C13 + 3 x IEC C19 IEC Lock sockets
1-phase feeding
Cable 3.0 m black, H05VV-F 3G 2.5 mm² with CEE 16 A plug blue
Supplied mounting brackets allow any fastening position



Art.-No.	Description
691781	Socket Strip Vertically, 24 x C13 + 3 x C19, 1-Phase, Plug CEE 16 A

Socket Strip Vertical 20 x C13 with 2 x Circuit Breaker 16 A



Aluminium profile with 44 mm, depth 47 mm, length ca. 778 mm
Outlets 20 x IEC C13, divided in 2 blocks (10 x C13 per block)
Each block with colour marking (grey/red)
1-phase feeding
Each block fused with circuit breaker C 16 A 1-pole
Cable 3.0 m black, H05VV-F 3G 4 mm² with CEE 32 A plug blue
Supplied mounting brackets allow any fastening position



Art.-No.	Description
691782	Socket Strip Vertically 20 x C13, 2 x CB C 16 A, Plug CEE 32 A Blue

Socket Strip Vertical 12 x C13 + 6 x CEE 7/7, 3-Phase



Aluminium profile with 44, depth 47, length ca. 821 mm
Outlets 12 x IEC C13 and 6 x CEE 7/7 (4 x C13 and 2 x CEE 7/7 per phase)
3-phase feeding with phase labelling and colour marking (red/black/grey)
Cable 3.0 m black, H05VV-F 5G 2.5 mm² with CEE 16 A plug 5-pole red
Supplied mounting brackets allow any fastening position



Art.-No.	Description
691783	Socket Strip Vertically, 12 x C13 + 6 x CEE 7/7, 3-Phase, CEE 16 A red

Socket Strip Vertical 15 x CEE 7/7, 3-Phase



Aluminium profile with 44 mm, depth 47 mm, length ca. 821 mm
15 x CEE 7/7 (5 per phase)
3-phase feeding with phase labelling and colour marking (red/black/grey)
Cable 3.0 m black, H05VV-F 5G 2.5 mm² with CEE 16 A plug 5-pole red
Supplied mounting brackets allow any fastening position



Art.-No.	Description
691784	Socket Strip Vertically 15 x CEE 7/7, 3-Phase, Plug CEE 16 A red

Socket Strip Vertical 18 x C13, 3-Phase



Aluminium profile width 44 mm, depth 47 mm, length ca. 821 mm
 18 x C13 (6 per phase)
 3-phase feeding with phase labelling and colour marking (red/black/grey)
 Cable 3.0 m black, H05VV-F 5G 2.5 mm² with CEE 16 A plug 5-pole red
 Supplied mounting brackets allow any fastening position

Art.-No.	Description
691785	Socket Strip Vertically 18 x C13, 3-Phase, Plug CEE 16 A red

Socket Strip Vertical 24 x C13 + 3 x C19, 3-Phase



Aluminium profile width 44 mm, depth 47 mm, length ca. 821 mm
 24 x C13 and 3 x C19 lockable (IEC Lock)
 3-phase feeding with phase labelling and colour marking (red/black/grey)
 Cable 3.0 m black, H05VV-F 5G 2.5 mm² with CEE 16 A plug 5-pole red
 Supplied mounting brackets allow any fastening position

Art.-No.	Description
691786	Socket Strip OU Vertically, 24 x C13 + 3 x C19, 3-Phase, Plug CEE 16 A red

Socket Strip Vertical 36 x C13 + 12 x CEE 7/7, 2 x 3-Phase



Aluminium profile width 44 mm, depth 47 mm, length ca. 1840 mm
 36 x C13 and 12 x CEE 7/7
 2 x 3-phase feeding with phase labelling and colour marking (red/black/grey)
 Feeding 1:
 18 x C13 + 6 x CEE 7/7 (6 x C13 + 2 x CEE 7/7 per phase)
 Feeding 2:
 18 x C13 + 6 x CEE 7/7 (6 x C13 + 2 x CEE 7/7 per phase)
 2 x Cable 3.0 m black, H05VV-F 5G 2.5 mm² with wire end sleeves
 Supplied mounting brackets allow any fastening position

Art.-No.	Description
691787	Socket Strip Vertically, 36 x C13 + 12 x CEE 7/7, 6-Phase, Wire End Sleeves

Socket Outlet 1-Way for DIN-Rail

Protective contact outlet for mounting at DIN-rail TS35 acc. to EN50022 / EN60715 („Hat Rail“) e.g. for network cabinets, installation small distributors and counter according to VDE 0603
 Rated voltage/ current 250 V / 16 A
 Wire max. 10 mm² solid/stranded
 Protection degree IP20
 Dimensions acc. to DIN43880 („Automat measuring“)
 Cap. dimension 45 mm, width 2.5 TE (< 45 mm)
 Materials: clamping body brass, screw terminals steel galvanised, insulation housing plastic
 Colour grey



Art.-No.	Description
EK633.1	Outlet 1-Way for DIN-Rail, grey

Socket Outlet 1-Way for DIN-Rail, with Cover

Protective contact outlet for mounting at DIN-rail TS35 acc. to EN50022 / EN60715 („Hat Rail“) e.g. for network cabinets, installation small distributors and counter according to VDE 0603
 With cover for insulation
 Rated voltage/ current 250 V / 16 A
 Wire max. 10 mm² solid/stranded
 Protection degree IP20
 Dimensions acc. to DIN43880 („Automat measuring“)
 Cap. dimension 45 mm, width 2.5 TE (< 45 mm)
 Materials: clamping body brass, screw terminals steel g—alvanised, insulation housing plastic
 Colour grey



Art.-No.	Description
EK633.2	Outlet 1-Way for DIN-Rail, with Cover, grey

Socket Outlet 1-Way for DIN-Rail, France (UTE), grey

UTE/France outlet for mounting at DIN-rail TS35 acc. to EN50022 / EN60715 („Hat Rail“) e.g. for network cabinets, installation small distributors and counters according to VDE 0603
 Rated voltage/ current 250 V / 16 A
 Wire max. 10 mm² solid/stranded
 Protection degree IP20
 Dimensions acc. to DIN43880 („Automat measuring“)
 Cap. dimension 45 mm, width 2.5 TE (< 45 mm)
 Materials: clamping body brass, screw terminals steel galvanised, insulation housing plastic
 Colour grey



Art.-No.	Description
EK633.3	Outlet 1-Way for DIN-Rail, France (UTE), grey

19" 1U Socket Strip with Full Device Protection

Mains- and frequency filter
 Overvoltage protection leakage current 6.5 kA
 Visual function and failure display
 35° turned socket inserts in the aluminium profile
 Cable H05VV-F 3G 1.5 mm², black, 2.0 m, 250 V AC / 16 A with angled CEE 7/7
 plug CEE7/7
 Supplied mounting brackets allow any fastening position

Art.-No.	Description	Colour
691689	19" 1U Socket Strip 6 x CEE 7/7 with Surge Protection + Mains Filter	Grey
691689SW	19" 1U Socket Strip 6 x CEE 7/7 with Surge Protection + Mains Filter	Black

19" 1U Socket Strip 9 x CEE 7/7 without Switch

• 35° turned socket inserts in the aluminium profile
 • Cable H05VV-F 3G 1.5 mm², black, 2.0 m, 250 V AC / 16 A with angled CEE 7/7 plug CEE7/7
 • Supplied mounting brackets allow any fastening position

Art.-No.	Description	Colour
691685	19" 1U Socket Strip 9 x CEE 7/7 without Switch	Grey
691683	19" 1U Socket Strip 9 x CEE 7/7 without Switch	Black

19" 1U Socket Strip 12 x C13, 10A Fuse

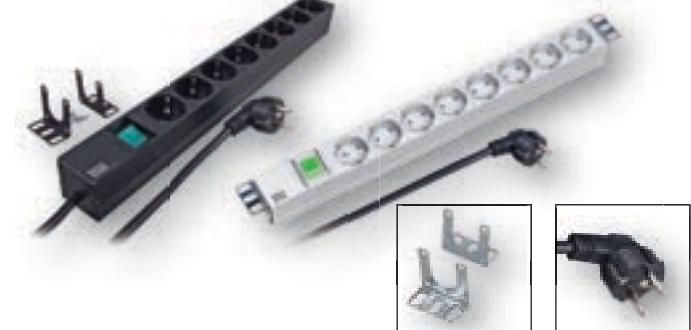
12 x IEC60320/C13 outlets black in aluminium profile
 Integrated 10 A fuse
 Cable 2.0 m black, H05VV-F 3G 1.5 mm² with angled CEE7/7 plug
 Supplied mounting brackets allow any fastening position

Art.-No.	Description	Colour
691697.1	19" Socket Strip 12 x C13, 10A Fuse	Outlets Black

19" 1U Socket Strip with Surge Protection

• Overvoltage protection leakage current 6.5 kA
 • Visual function and failure display
 • 35° turned socket inserts in the aluminium profile
 • Cable H05VV-F 3G 1.5 mm², black, 2.0 m, 250 V AC / 16 A with angled CEE 7/7
 plug CEE7/7
 • Supplied mounting brackets allow any fastening position

Art.-No.	Description	Colour
691687	19" 1U Socket Strip 8 x CEE 7/7 with Surge Protection	Grey
691688	19" 1U Socket Strip 7 x CEE 7/7 with Surge Protection and Switch	Grey

19" 1U Socket Strip 8 x CEE 7/7 with Switch

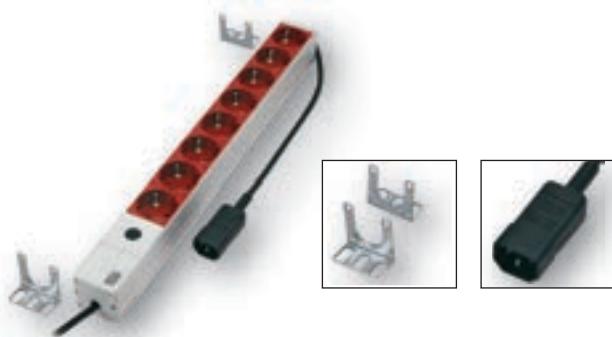
35° turned socket inserts in the aluminium profile
 Cable H05VV-F 3G 1.5 mm², black, 2.0 m, 250 V AC / 16 A with angled CEE 7/7
 plug CEE7/7
 Supplied mounting brackets allow any fastening position

Art.-No.	Description	Colour
691686	19" 1U Socket Strip 8 x CEE 7/7 with Switch	Grey
691684	19" 1U Socket Strip 8 x CEE 7/7 with Switch	Black

19" 1U Socket Strip 12 x C13

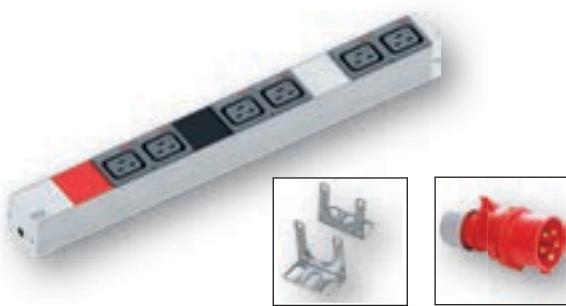
12 x IEC60320/C13 socket black, in aluminium profile
 Cable 2.0 m black, H05VV-F 3G 1.5 mm² with angled CEE7/7 plug
 Supplied mounting brackets allow any fastening position

Art.-No.	Description	Colour
691698.3	19" Socket Strip 12 x C13	Outlets Black

19" 1U Socket Strip 8 x CEE 7/7 (red) with Cable IEC C14

- 2.0 metre supply cable black, H05VV-F 3G 1.0 qmm with IEC60320/C14 plug
- Integrated 10 A microfuse
- 35° turned socket inserts in aluminium profile
- Supplied mounting brackets allow any fastening position

Art.-No.	Description	Colour
691698	19" Socket Strip 8 x CEE 7/7 (red) with Cable IEC C14	Red

19" 1U Socket Strip 6 x C19, 3-Phase

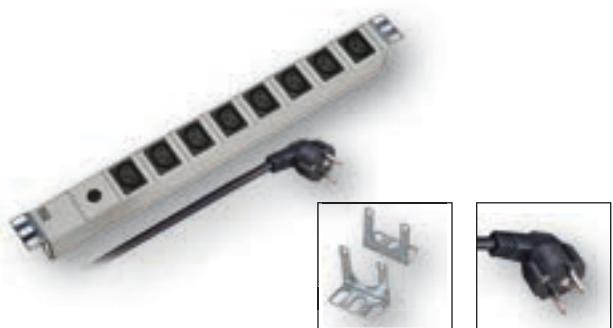
- Aluminium profile height 44 mm, depth 47 mm, width ca. 438 mm
Outlets 6 x IEC C19 (2 x C19 per phase)
3-phase feeding with colour marking (red/black/grey)
Cable H05VV-F 5G 2.5 mm² with CEE 16 A plug 5-pole red, length 3.0 m
Supplied 19" mounting brackets allow any fastening position

Art.-No.	Description	Colour
691780	19" 1U Socket Strip 6 x C19, 3-Phase, Plug CEE 16 A red	Grey

19" 1.2U Socket Strip 6/7 x CEE 7/7 with Surge Protection, PVC

- Surge protection leakage current 6.5 kA
Optical function indication
35° turned socket inserts in plastic profile
2.0 metre supply cable black, H05VV-F 3G 1.5 mm², 250 V AC / 16 A with angled CEE 7/7 plug CEE7/7
Height 54 mm (1.2U)
Supplied mounting brackets allow any fastening position

Art.-No.	Description	Colour
691693	19" 1.2U Socket Strip 7 x CEE 7/7 with Surge Protection, PVC	Grey
691694	19" 1.2U Socket Strip 6 x CEE 7/7 with Surge Protection and Switch, PVC	Grey

19" 1U Socket Strip 8 x IEC C13

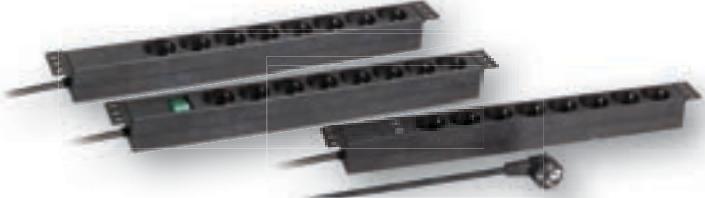
- 8 x IEC60320/C13 socket black, in aluminium profile
Integrated 10 A microfuse
2.0 metre supply cable black, H05VV-F 3G 1.5 mm² with angled CEE7/7 plug
Supplied mounting brackets allow any fastening position

Art.-No.	Description	Colour
691697	19" 1U Socket Strip 8 x IEC C13	Grey

19" 1.2U Socket Strip 7/8 x CEE 7/7, PVC

- 35° turned socket inserts in plastic profile
2.0 metre supply cable black, H05VV-F 3G 1.5 qmm, 250 V AC / 16 A with angled CEE 7/7 plug
Height 54 mm (1.2U)
Supplied mounting brackets allow any fastening position

Art.-No.	Description	Colour
691695	19" 1.2U Socket Strip 8 x CEE 7/7 without Switch	Grey
691696	19" 1.2U Socket Strip 7 x CEE 7/7 with Switch	Grey

19" 1U Socket Strip 8 x CEE 7/7 without Switch, Plastic Black

- 19" 1U socket strip with 8 x CEE 7/7 sockets acc. to IEC 60884, VDE 0620-1
Variant without switch
35° turned sockets with increased touch protection
Cable 2.0 m black, H05VV-F 3G 1.5 mm², with angled CEE 7/7 plug, not rewirable, screwed
Max. 250 V AC / 16 A / 3680 W
Material plastic Polypropylene (PP), glow wire resistant up to 850°C
Protection degree IP20
Scope of delivery: 1 x socket strip incl. 2 x 19" mounting bracket



Art.-No.	Description	Colour
EK626.1	19" 1U Socket Strip 8 x CEE 7/7 without Switch, Plastic Black	Black
EK626.2	19" 1U Socket Strip 8 x CEE 7/7 with Switch, Plastic Black	Black
EK626.3	19" 1U Socket Strip 8 x CEE 7/7 with Surge Protection, Plastic Black	Black

19" 1U Socket Strip France

19" 1U socket strip in aluminium profile
 Outlets 9/8/7 x France (UTE)
 With childrens protection
 Cable 1.8 m H03VV-F 3G 1.5 mm² with angled CEE 7/7 plug
 Colour black
 Certifications CE, RoHS

Art.-No.	Description
EK631FR.1	19" 1U Socket Strip 9 x UTE without Switch
EK631FR.2	19" 1U Socket Strip 8 x UTE with Switch
EK631FR.3	19" 1U Socket Strip 7 x UTE with Surge Protection

19" 1U Socket Strip UK

19" 1U socket strip in aluminium profile
 Outlets 8/7/6 x UK
 With childrens protection
 Cable 1.8 m H03VV-F 3G 1.5 mm² with UK plug (BS1363A)
 Colour black
 Certifications CE, RoHS

Art.-No.	Description
EK631UK.1	19" 1U Socket Strip 8 x UK without Switch
EK631UK.2	19" 1U Socket Strip 7 x UK with Switch
EK631UK.3	19" 1U Socket Strip 6 x UK with Surge Protection

19" 1U Socket Strip Italy

19" 1U socket strip in aluminium profile
 Outlets 9/8/7 x Italy-Universal
 With childrens protection
 Cable 1.8 m H03VV-F 3G 1.5 mm² with angled CEE 7/7 plug
 Colour black
 Certifications CE, RoHS

Art.-No.	Description
EK631IT.1	19" 1U Socket Strip 9 x IT without Switch
EK631IT.2	19" 1U Socket Strip 8 x IT with Switch
EK631IT.3	19" 1U Socket Strip 7 x IT with Surge Protection

19" 1U Socket Strip for UPS

19" 1U socket strip in aluminium profile
 Outlets 12 x IEC C13
 With overload protection 10 A
 With childrens protection
 Cable 1.8 m H03VV-F 3G 1.5 mm² with plug IEC C14
 Colour black
 Certifications CE, RoHS

Art.-No.	Description
EK631CC.1	19" 1HE Steckdosenleiste, 12 x C13 ohne Schalter, Zuleitung C14

Socket Strip 6 x CEE 7/7 with Surge Protection, 2 x USB, 2 x RJ45, 2 x RJ11 and Switch



Surge protection for power supply, network and phone/modem
2 x USB power supply e.g. for smartphone, MP3 player, camera, ...
Lighting ON/OFF switch
Wall mounting possible
45° turned outlets
Connections: 6 x CEE 7/7, 2 x RJ45 UTP (IN/OUT), 2 x RJ11 (IN/OUT), 2 x USB
USB power supply 5 V DC, 1000 mA max. totally
Cable ca. 1.5 m H05VV-F 3G 1.00 mm², 250 V AC / 16 A with angled CEE 7/7
plug
With child protection, GS tested
250 V / 16 A VDE tested

Art.-No.	Description	Colour
EK610	Socket Strip 6 x CEE 7/7 with Surge Prot., 2 x USB, 2 x RJ45, 2 x RJ11, Switch	Cream white/ electro white

Socket Strip 6 x CEE 7/7 with Surge Protection and Switch



Surge protection leakage current 6.5 kA
With child protection
35° turned socket inserts
Cable H05VV-F3 1.50 mm³, white, 1.5 m, 250 V AC / 16 A with angled CEE 7/7
plug CEE7/7

Art.-No.	Description	Colour
ESP.29	Socket Strip 6 x CEE 7/7 with Surge Protection and Switch	White

Socket Strip 6 x CEE 7/7 with Surge Protection, Mains Filter and Switch



Fully appliance protection, consisting of overvoltage protection (nominal leakage current 6.5kA), 2 x thermal fuse, frequency and mains filter
Optical function indication
Cable H05VV-F 3G 1.5 mm², black, 2.0 m, 250 V AC / 16 A with angled CEE 7/7
plug CEE7/7
35° turned socket inserts
Integrated cable winder, ON/OFF switch, illuminated

Art.-No.	Description	Colour
ESP.41	Socket Strip 6 x CEE 7/7 with Surge Protection, Mains Filter and Switch	Black

Socket Strip 3 x CEE 7/7



With child protection
35° turned socket inserts
1.5 metre supply cable white, H05VV-F3 1.50 mm³, 250 V AC / 16 A with angled CEE 7/7 plug CEE7/7

Art.-No.	Description	Colour
ESP.25.1	Socket Strip 3 x CEE 7/7 with Switch, white	White
ESP.30.1	Socket Strip 3 x CEE 7/7 without Switch, white	White

Socket Strip 6 x CEE 7/7



With child protection

35° turned socket inserts

1.5 metre supply cable white, H05VV-F3 1.50 mm², 250 V AC / 16 A with angled CEE 7/7 plug CEE7/7

Art.-No.	Description	Colour
ESP.2.1	Socket Strip 6 x CEE 7/7 with Switch, white	white
ESP.3.1	Socket Strip 6 x CEE 7/7 without Switch, white	white

Socket Strip 6 x CEE 7/7 with 2 x USB Charging



2 x USB charging feature e.g. for smartphone, MP3 player, camera, ...

USB power supply 5 V DC, 1000 mA max. totally

With child protection

With Child protection

45° turned outlets

Cable H05VV-F 3G 1.00 mm², white, 1.5 m, 250 V AC / 16 A with angled CEE 7/7 plug

Art.-No.	Description	Colour
EK615	Socket Strip 6 x CEE 7/7, 2 x USB Charging, with Switch	Cream white/electro white
EK624	Socket Strip 6 x CEE 7/7, 2 x USB Charging, without Switch	Cream white/electro white

Socket Strip 3 x CEE 7/7 with 2 x USB Charging



2 x USB charging feature e.g. for smartphone, MP3 player, camera, ...

USB power supply 5 V DC, 1000 mA max. totally

With child protection

With Child protection

45° turned outlets

Cable H05VV-F 3G 1.00 mm², white, 1.5 m, 250 V AC / 16 A with angled CEE 7/7 plug

Art.-No.	Description	Colour
EK613	Socket Strip 3 x CEE 7/7, 2 x USB Charging, with Switch	Cream white/electro white
EK612	Socket Strip 3 x CEE 7/7, 2 x USB Charging, without Switch	Cream white/electro white

Power Cable CEE 7/7 90° - C13 180°, Coloured



- Coloured power cords for clearly assignment of device - cable - outlet
 - No time-intensive search or tracing of cables
 - CEE 7/7 Plug CEE7/7 90° - C13 180° (IEC jack)
 - Cable H05VV-F 3G 0.75 qmm
 - 10 A / 250 V VDE tested
- The coloured power cords enable an instant visual assignment of devices and the corresponding power cord.

Art.-No.	Conductor Ø	Colour	Length
EK588BL.1.8	0.75 mm ²	Blue	1.8 m
EK588GE.1.8	0.75 mm ²	Yellow	1.8 m
EK588GN.1.8	0.75 mm ²	Green	1.8 m
EK588OR.1.8	0.75 mm ²	Orange	1.8 m
EK588RT.1.8	0.75 mm ²	Red	1.8 m
EK588WS.1.8	0.75 mm ²	White	1.8 m

The CEE 7/7 plug CEE7/7 is used in the following countries:

■ Afghanistan
■ Algeria
■ Andorra
■ Austria
■ Belgium
■ Bosnia-Herzegovina
■ Bulgaria
■ Czechia
■ Germany
■ Estonia

■ Finland
■ France
■ Greece
■ Hungary
■ Indonesia
■ Iceland
■ Kroatia
■ Latvia
■ Lithuania
■ Luxembourg

■ Morocco
■ Macedonia
■ Moldova
■ Monaco
■ Montenegro
■ Netherlands
■ Norway
■ Poland
■ Portugal
■ Romania

■ Russia
■ Sweden
■ Serbia
■ Slovakia
■ Slovenia
■ Spain
■ South Korea
■ Tunisia
■ Ukraine

Notice: In Syria and Turkey the plug is officially not standardised, but is often used because of its mechanical compatibility. The earthing contact hereby gets not connected.

Power Cable CEE 7/7 90° - C13 180°, greyPower Cable CEE 7/7 180° - C19 180°, blackPower Cable CEE 7/7 180° - C13 180°, grey

- 10 A / 250 V VDE tested
- Colour grey
- Suitable for Germany, Belgium, France and further (see overview)

16 A / 250 V VDE tested
 Colour black
 Use: High Class Server, UPS Systems
 Suitable for Germany, Belgium, France and further (see overview)

- 10 A / 250 V VDE tested
- Colour grey
- Suitable for Germany, Belgium, France and further (see overview)

Art.-No.	Conductor Ø	Colour	Length
EK501.2	0.75 mm ²	Grey	2.0 m
EK501.2,5	1.00 mm ²	Grey	2,5 m
EK501.3	1.00 mm ²	Grey	3.0 m
EK501.5	1.00 mm ²	Grey	5.0 m

Art.-No.	Conductor Ø	Colour	Length
EK511.1.8	1.50 mm ²	black	1.8 m
EK511.3	1.50 mm ²	black	3.0 m

Art.-No.	Conductor Ø	Colour	Length
EK508.2	0.75 mm ²	Grey	2.0 m
EK508.3	1.00 mm ²	Grey	3.0 m
EK508.5	1.00 mm ²	Grey	5.0 m

Power Cable CEE 7/7 180° - C13 180°, blackPower Cable CEE 7/7 90° - C13 180°, blackPower Cable CEE 7/7 90° - C13 90°, black

- 10 A / 250 V VDE tested
 Colour black
 Suitable for Germany, Belgium, France and further

Art.-No.	Conductor Ø	Colour	Length
EK508SW.2	0.75 mm ²	black	2.0 m
EK508SW.3	1.00 mm ²	black	3.0 m
EK508SW.5	1.00 mm ²	black	5.0 m

- 10 A / 250 V VDE tested
- Colour grey

Art.-No.	Conductor Ø	Colour	Length
EK504.0.75	0.75 mm ²	black	0.75 m
EK504.1	0.75 mm ²	black	1.0 m
EK504.2	0.75 mm ²	black	2.0 m
EK504.3	1.00 mm ²	black	3.0 m
EK504.5	1.00 mm ²	black	5.0 m

- 10 A / 250 V VDE tested
 Colour black
 Suitable for Germany, Belgium, France and further

Art.-No.	Conductor Ø	Colour	Length
EK535.2	0.75 mm ²	black	2.0 m
EK535.3	1.00 mm ²	black	3.0 m
EK535.5	1.00 mm ²	black	5.0 m

Power Cable CEE 7/7 180° - C13 90°, black

10 A / 250 V VDE tested
Colour black
Suitable for Germany, Belgium, France and further
(see overview)

Art.-No.	Conductor Ø	Colour	Length
EK534.2	0.75 mm ²	Black	2.0 m
EK534.3	1.00 mm ²	Black	3.0 m
EK534.5	1.00 mm ²	Black	5.0 m

Power Cable CEE 7/7 90° - C15 180°, black

Power cable CEE 7/7 90° to warm device plug IEC C15
10 A / 250 V VDE tested
Colour black
Suitable for Germany, Belgium, France and further
(see overview)

Art.-No.	Conductor Ø	Colour	Length
EK625.0.7	1.00 mm ²	Black	0,7 m
EK625.1.8	1.00 mm ²	Black	1.8 m

Power Cable CEE 7/7 90° - C5 180°, black

2.5 A / 250 V VDE tested
Colour black
Suitable for Germany, Belgium, France and further
(see overview)

Art.-No.	Conductor Ø	Colour	Length
EK550.1.8	0.75 mm ²	Black	1.8 m
EK550.3	1.00 mm ²	Black	3.0 m
EK550.5	1.00 mm ²	Black	5.0 m

Power Cable CEE 7/7 90° - C5 90°, blackPower Cable CEE 7/7 90° - Open End
WES, blackAbzugsichere Kaltgerätebuchse IEC-Lock+

2.5 A / 250 V VDE tested
Colour black
Suitable for Germany, Belgium, France and further
(see overview)

Art.-No.	Conductor Ø	Colour	Length
EK551.1.8	0.75 mm ²	Black	1.8 m
EK551.3	1.00 mm ²	Black	3.0 m
EK551.5	1.00 mm ²	Black	5.0 m

16 A / 250 V VDE tested
Open End assembled with wire end sleeves
Wire end sleeves for 1.8 m: L = 6 mm, Ø 1.7 mm,
yellow insulator
Wire end sleeves for 3 + 5 m: L = 8 mm, Ø 1.7 mm,
red insulator
Cable colour black
Suitable for Germany, Belgium, France and further
(see overview)

Art.-No.	Conductor Ø	Colour	Length
EK504AE.1.8	0.75 mm ²	Black	1.8 m
EK504AE.3	1.00 mm ²	Black	3.0 m
EK504AE.5	1.00 mm ²	Black	5.0 m

Connector cannot be accidentally pulled or vibrated out of 'ANY STANDARD' C14 IEC inlet
Requires no other equipment or special inlets to secure it
Rewireable
Offering total flexibility for cable assembly
Can be retrofitted
Halogen free (LSZH)

Art.-No.	Description
60319.1	Abzugsichere Kaltgerätebuchse IEC-Lock+ C13 zur Kabelmontage

„Unique“ Female IEC C13/C19 Connector „IEC-Lock“



Ensures high availability through protection against accidentally disconnection of power supply for computers, servers and other high reliable devices.

Compatible with all common IEC plugs C14/C20
Protects vibration-hazardous devices
Plug can not be removed unintentionally
Use in data systems, medicine, broadcasting, maritime and others
International cables, special colours and special lengths possible
Device plugs C14/C20 with IEC Lock available on request

How it Works:

Push the connector into the standard IEC inlet and it is locked in position



Connector can not accidentally be pulled or released by vibration



Slide back the red latch to release and remove the connector from inlet



Power Cable CEE 7/7 90° - C13 180° with IEC Lock, black



With „IEC Lock“: prevents accidentally removing of the C13 jack from devices

After connecting, the C13 jack only can be released after sliding back the red latch
10 A / 250 V VDE tested
Colour black (optional: orange, blue, grey, white)
Suitable for Germany, Belgium, France and further (see overview)
Other types on request: UK, USA/NEMA, Switzerland, open end

Art.-No.	Conductor Ø	Colour	Length
EK600SW.1	1.00 mm ²	Black	1.0 m
EK600SW.1,5	1.00 mm ²	Black	1,5 m
EK600SW.2	1.00 mm ²	Black	2.0 m
EK600SW.3	1.00 mm ²	Black	3.0 m

Netzleitung CEE 7/7 90° - C19 180° mit IEC Lock, black



With „IEC Lock“: prevents accidentally removing of the C13 jack from devices

After connecting, the C13 jack only can be released after sliding back the red latch
16 A / 250 V VDE tested
Colour black (optional: orange, blue, grey, white)
International standardised connectors

Art.-No.	Conductor Ø	Colour	Length
EK606SW.2	1.50 mm ²	Black	2.0 m

Extension Cable C14 180° - C13 180° with IEC Lock, black



With „IEC Lock“: prevents accidentally removing of the C13 jack from devices

After connecting, the C13 jack only can be released after sliding back the red latch
10 A / 250 V VDE tested
Colour black (optional: orange, blue, grey, white)
International standardised connectors

Art.-No.	Conductor Ø	Colour	Length
EK601SW.0,5	1.00 mm ²	Black	0,5 m
EK601SW.1	1.00 mm ²	Black	1.0 m
EK601SW.1,5	1.00 mm ²	Black	1,5 m
EK601SW.2	1.00 mm ²	Black	2.0 m
EK601SW.3	1.00 mm ²	Black	3.0 m

Power Cable CEE 7/7 90° - C13 180° with IEC Lock+, black



With „IEC Lock+“: prevents accidentally removing of the C13 jack from devices

After connecting, the C13 jack only can be released after sliding back the red latch
10 A / 250 V VDE tested
Colour black (optional: orange, blue, grey, white)
Suitable for Germany, Belgium, France and further (see overview)
Other types on request: UK, USA/NEMA, Switzerland, open end

Art.-No.	Conductor Ø	Colour	Length
EK603SW.2	1.00 mm ²	Black	2.0 m

Extension Cable C20 180° - C19 180° with IEC Lock, black



With „IEC Lock“: prevents accidentally removing of the C19 jack from devices

After connecting, the C19 jack only can be released after sliding back the red latch
16 A / 250 V VDE geprüft
Colour black
International standardised connectors

Art.-No.	Conductor Ø	Colour	Length
EK607SW.1	1.50 mm ²	Black	1.0 m
EK607SW.2	1.50 mm ²	Black	2.0 m
EK607SW.3	1.50 mm ²	Black	3.0 m

Extension Cable C20 180° - C19 180°, black

Plug IEC60320/C20 to jack IEC60320/C19
16 A / 250 V VDE tested
Colour black
Application: High Class Server, UPS devices
International standardised connectors

Art.-No.	Conductor Ø	Colour	Length
EK519.1	1.50 mm ²	Black	1.0 m
EK519.1.8	1.50 mm ²	Black	1.8 m
EK519.2,5	1.50 mm ²	Black	2,5 m
EK519.5	1.50 mm ²	Black	5.0 m

Extension Cable C20 180° - C13 180°, black

Plug IEC60320/C20 to jack IEC60320/C13
10 A / 250 V VDE tested
Colour black
International standardised connectors

Art.-No.	Conductor Ø	Colour	Length
EK531.1.8	1.00 mm ²	Black	1.8 m

Extension Cable C14 180° - C13 180°, black

Plug IEC60320/C14 to jack IEC60320/C13
10 A / 250 V VDE tested
Colour black
International standardised connectors

Art.-No.	Conductor Ø	Colour	Length
EK503.0,5	0.75 mm ²	Black	0,5 m
EK503.1	0.75 mm ²	Black	1.0 m
EK503.2	0.75 mm ²	Black	2.0 m
EK503.3	1.00 mm ²	Black	3.0 m
EK503.5	1.00 mm ²	Black	5.0 m

Extension Cable C14 180° - C13 180°, grey

Plug IEC60320/C14 to jack IEC60320/C13
10 A / 250 V VDE tested
Colour grey
International standardised connectors

Art.-No.	Conductor Ø	Colour	Length
EK507.1.8	0.75 mm ²	Grey	1.8 m
EK507.3	1.00 mm ²	Grey	3.0 m
EK507.5	1.00 mm ²	Grey	5.0 m

Extension Cable C14 180° - C15 180°, black

Plug IEC60320/C14 to jack IEC60320/C15
10 A / 250 V VDE tested
Colour black
International standardised connectors

Art.-No.	Conductor Ø	Colour	Length
EK585.1	0.75 mm ²	Black	1m
EK585.2	0.75 mm ²	Black	2m
EK585.3	0.75 mm ²	Black	3m

Power Cable Euro - C7 (Euro 8) 180°, black

2.5 A / 250 V VDE tested
Colour black
Suitable for Europe, except of UK, Ireland, Malta, Cyprus

Art.-No.	Conductor Ø	Colour	Length
EK502.2	0.75 mm ²	Black	2.0 m
EK502.3	0.75 mm ²	Black	3.0 m
EK502.5	0.75 mm ²	Black	5.0 m

Power Cable Euro - C7 (Euro 8) 90° U/D, black

2.5 A / 250 V VDE tested
Colour black
Suitable for Europe, except of UK, Ireland, Malta, Cyprus

Art.-No.	Conductor Ø	Colour	Length
EK546.2	0.75 mm ²	Black	2.0 m

Power Cable Euro - C7 (Euro 8) 90° L/R, black

2.5 A / 250 V VDE tested
Colour black
Suitable for Europe, except of UK, Ireland, Malta, Cyprus

Art.-No.	Conductor Ø	Colour	Length
EK547.2	0.75 mm ²	Black	2.0 m

Power Cable UK BS1363A - C13 90°, black


2.5 A / 250 V with fuse 3 A

Colour black

Suitable for UK, Ireland, Singapur, Malaysia

Art.-No.	Conductor Ø	Colour	Length
EK460.1.8	0.75 mm ²	Black	1.8 m

Power Cable UK BS1363A - C13 180°, 10 A, black


10 A / 250 V with fuse 5 A

Colour black

Suitable for UK, Ireland, Singapur, Malaysia

Art.-No.	Conductor Ø	Colour	Length
EK484.2	1.00 mm ²	Black	2.0 m

Power Cable UK BS1363A - C13 180°, 5 A, black


5 A / 250 V with fuse 5 A

Colour black

Suitable for UK, Ireland, Singapur, Malaysia

Art.-No.	Conductor Ø	Colour	Length
EK500.2	0.75 mm ²	Black	2.0 m
EK500.3	1.00 mm ²	Black	3.0 m
EK500.5	1.00 mm ²	Black	5.0 m

Power Cable UK BS1363A - C7 180°, black


2.5 A / 250 V with fuse 3 A

Colour black

Suitable for UK, Ireland, Singapur, Malaysia

Art.-No.	Conductor Ø	Colour	Length
EK498.1.8	0.75 mm ²	Black	1.8 m
EK498.3	0.75 mm ²	Black	3.0 m
EK498.5	0.75 mm ²	Black	5.0 m

Power Cable UK BS1363A - C5 180°, black


2.5 A / 250 V with fuse 3 A

Colour black

Suitable for UK, Ireland, Singapur, Malaysia

Art.-No.	Conductor Ø	Colour	Length
EK499.1.8	0.75 mm ²	Black	1.8 m
EK499.3	0.75 mm ²	Black	3.0 m
EK499.5	0.75 mm ²	Black	5.0 m

Power Cable USA/NEMA 5-15P - C13 180°, AWG14, black


10(15) A / 125 V (15 A only in USA)

Colour black

UL, CSA approved

Suitable for USA, Canada, Mexico, Taiwan, Brasilia

Art.-No.	Conductor Ø	Colour	Length
EK462.1.8	2.08 mm ²	Black	1.8 m

Power Cable USA/NEMA 5-15P - C13 180°, AWG18, black


10 A / 125 V

Colour black

UL, CSA approved

Suitable for USA, Canada, Mexico, Taiwan, Brasilia

Art.-No.	Conductor Ø	Colour	Length
EK518.1.8	0,83 mm ²	Black	1.8 m

Power Cable USA/NEMA 5-15P - C5 180°, AWG18, black


2.5 A / 125 V

Colour black

UL, CSA approved

Suitable for USA, Canada, Mexico, Taiwan, Brasilia

Art.-No.	Conductor Ø	Colour	Length
EK497.1.8	0,83 mm ²	Black	1.8 m

Netzleitung USA/NEMA 5-15P - C7 180°, black


3 A / 125 V

Colour black

UL, CSA approved

Suitable for USA, Canada, Mexico, Taiwan, Brasilia

Art.-No.	Conductor Ø	Colour	Length
EK496.1.8	0,83mm ²	Black	1.8 m

**Power Cable Denmark DPin 90° - C13
180°, black**



6 A / 250 V
Colour black
Suitable for Denmark

Art.-No.	Conductor Ø	Colour	Length
EK539.1.8	0.75 mm ²	Black	1.8 m
EK539.3	0.75 mm ²	Black	3.0 m

**Power Cable Denmark DPin 90° - C5
180°, black**



2.5 A / 250 V
Colour black
Suitable for Denmark

Art.-No.	Conductor Ø	Colour	Length
EK540.1.8	0.75 mm ²	black	1.8 m

**Power Cable Switzerland Type 12 - C13
180°, black, partially insulated**



10 A / 250 V
Colour black
Suitable for Switzerland, Liechtenstein, Ruanda

Art.-No.	Conductor Ø	Colour	Length
EK537.2V2	0.75 mm ²	Black	2.0 m

**Power Cable Switzerland Type 12 - C13
90°, black**



10 A / 250 V
Colour black
Suitable for Switzerland, Liechtenstein, Ruanda

Art.-No.	Conductor Ø	Colour	Length
EK483.1.8	0.75 mm ²	Black	1.8 m

**Power Cable Switzerland Type 12 - C5
180°, black**



2.5 A / 250 V
Colour black
Suitable for Switzerland, Liechtenstein, Ruanda

Art.-No.	Conductor Ø	Colour	Length
EK495.1.8	0.75 mm ²	Black	1.8 m

**Power Cable Italy Type L - C13 180°,
black**



10 A / 250 V
Colour black
Suitable for Italy

Art.-No.	Conductor Ø	Colour	Length
EK538.1.8	0.75 mm ²	black	1.8 m

Power Cable Italy Type L - C5 180°, black



2.5 A / 250 V
Colour black
Suitable for Italy

Art.-No.	Conductor Ø	Colour	Length
EK494.1.8	0.75 mm ²	Black	1.8 m

Power Cable Japan Type B - C13 180°, black



7 A / 125 V
Colour black
Suitable for Japan

Art.-No.	Conductor Ø	Colour	Length
EK490.1.8	0.75 mm ²	Black	1.8 m

Power Cable Japan Type B - C5 180°, black



2.5 A / 125 V
Colour black
Suitable for Japan

Art.-No.	Conductor Ø	Colour	Length
EK482.1.8	0.75 mm ²	Black	1.8 m

Power Cable China Type I - C13 180°, black

10 A / 250 V
Colour black
Suitable for China

Art.-No.	Conductor Ø	Colour	Length
EK492.1.8	0.75 mm ²	Black	1.8 m

Power Cable China Type I - C7 180°, black

10 A / 250 V
Colour black
Suitable for China

Art.-No.	Conductor Ø	Colour	Length
EK480.1.8	0.75 mm ²	Black	1.8 m

Power Cable China Type I - C5 180°, black

10 A / 250 V
Colour black
Suitable for China

Art.-No.	Conductor Ø	Colour	Length
EK481.1.8	0.75 mm ²	Black	1.8 m

Power Cable Australia AS3112 - C13 180°, black

10 A / 250 V
Colour black
Suitable for Australia, New Zealand, Papua New

Art.-No.	Conductor Ø	Colour	Length
EK493.1.8	0.75 mm ²	Black	1.8 m

Power Cable Australia AS3112 - C13 90°, black

10 A / 250 V
Colour black
Suitable for Australia, New Zealand, Papua New

Art.-No.	Conductor Ø	Colour	Length
EK469.1.8	0.75 mm ²	Black	1.8 m

Power Cable South Africa/India - C13 180°, black

10 A / 250 V
Colour black
Suitable for South Africa, India

Art.-No.	Conductor Ø	Colour	Length
EK488.1.8	0.75 mm ²	Black	1.8 m

Power Cable Australia AS3112 - C7 180°, black

2.5 A / 250 V
Colour black
Suitable for Australia, New Zealand, Papua New Guinea

Art.-No.	Conductor Ø	Colour	Length
EK487.1.8	0.75 mm ²	Black	1.8 m

Power Cable Australia AS3112 - C5 180°, black

2.5 A / 250 V
Colour black
Suitable for Australia, New Zealand, Papua New Guinea

Art.-No.	Conductor Ø	Colour	Length
EK468.1.8	0.75 mm ²	Black	1.8 m

Power Cable South Africa/India - C5 180°, black

2.5 A / 250 V
Colour black
Suitable for South Africa, India

Art.-No.	Conductor Ø	Colour	Length
EK467.1.8	0.75 mm ²	Black	1.8 m

Power Cable Israel 90° - C13

Mains plug angled to IEC60320/C13 socket
Cable assembly H05VV-F 3G 0.75 mm²
10 A / 250 V, colour black
Suitable for Israel, Gaza Strip, Palestine, West Bank

Art.-No.	Description
EK491.1.8	Netzleitung Israel - C13 180°, Black, 1.8 m, 3x 0.75 mm ²



HIGH-PERFORMANCE **MULTIMEDIA** PRODUCTS

In times of networked technologies, the subject 'Multimedia' in private and corporate sector gets more important in both the private and public sectors - whether digital or analogue. Home cinema, professional video conferences, digital signage or the control of machines in the industrial sector are just some of the application areas where the reliable interaction of multimedia components plays a crucial role. As a network specialist, EFB-Elektronik offers a multimedia range of more than 700 items which include adapters, converters and accessories in addition to hardware cables and connectors. Selected components ensure the realization of highest standards. An example in the industrial environment is the control of high-quality components (plotters, machines) in real-time operation. Of course, individual advice and special solutions on request are an important part of our service portfolio.



KVM



Active video components



Video cabling & adapters



USB & Apple cabling



D-Sub



BNC/Coax



WIR SORGEN FÜR VERBINDUNG
WE CARE FOR CONNECTION

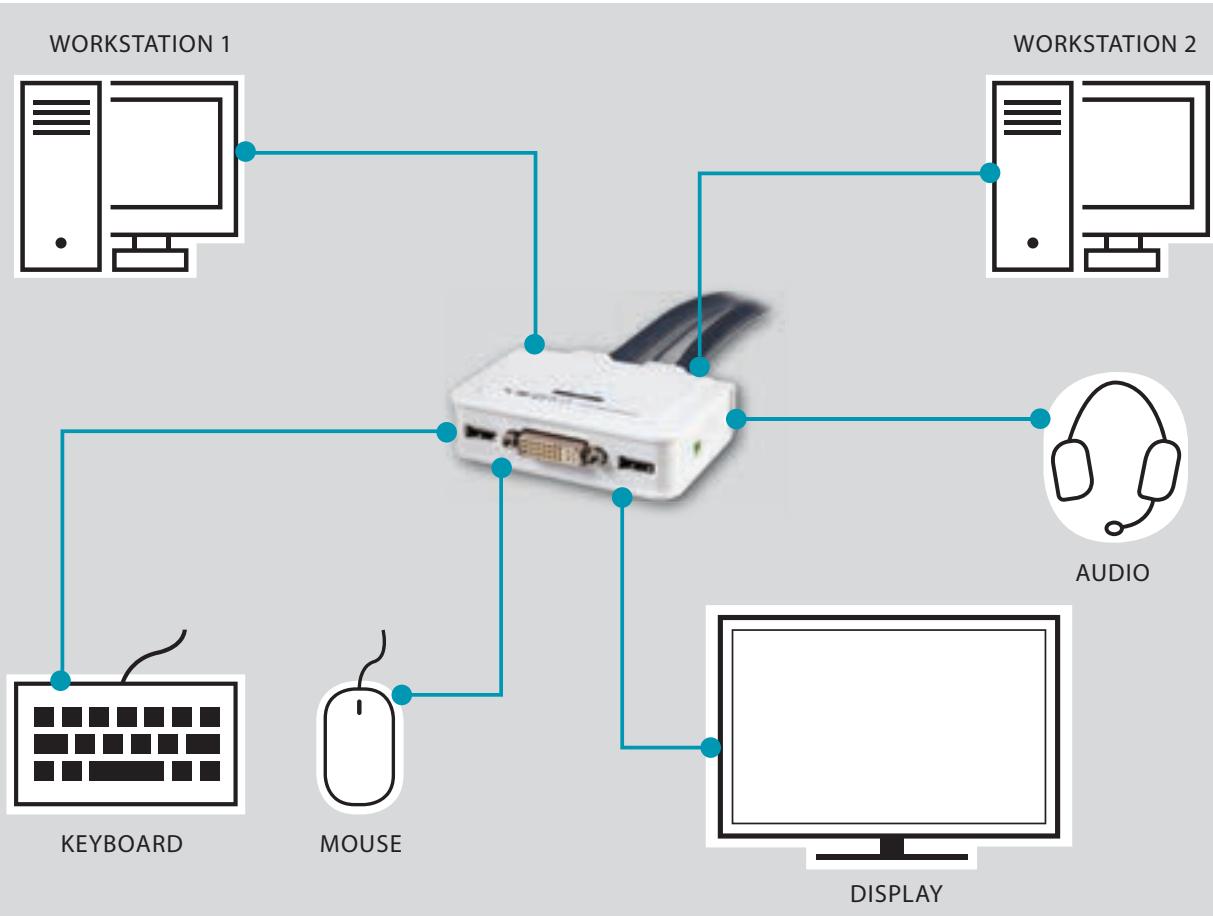


KVM

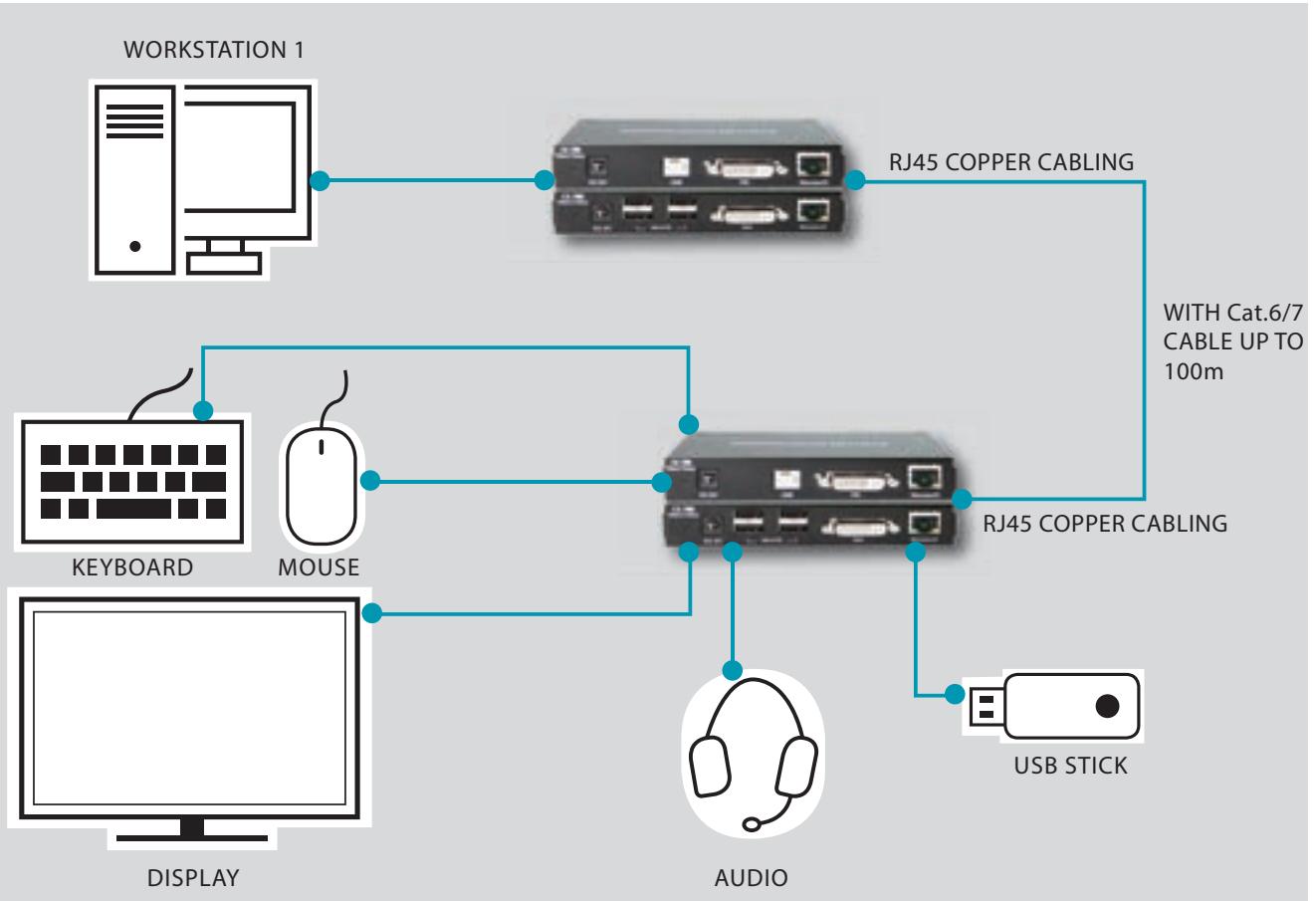
In addition to the passive technology for structured cabling, EFB-Elektronik also offers the active technology for operating and monitoring your IT environment. The demanding KVM systems range from compact mini-cable KVMs for remote control in the home or office to 19" consoles with LCD screens for the administration of professional server rooms. In addition, the EFB product range includes various KVMs with different connection options for peripheral devices as well as additional accessories and KVM extenders.

MULTIMEDIA

SOLUTION FOR KVM-CONTROL



SOLUTION FOR KVM-EXTENDER



FIBER OPTIC

COPPER

CABINET SYSTEMS

MULTIMEDIA

ACTIVE COMPONENTS

19" KVM Switches Cat.5 with 19" LCD Consoles „DUAL RAIL“

Controls up to 256 or 512 PC
 Separately cascade port (Daisy Chain), cascadable with KH-1508/1516
 Multiplatform support: PS/2, USB, Win, Mac, Sun and terminal-based systems
 Supports up to 40 m cable length between KVM and PC or serial devices
 RJ45 ports for Cat.5/6/7 based cables
 Firmware upgrade feature, Auto-scan mode
 19" KVM-Switch with integrated console plus 19" LCD display, compact and slidable
 Dual Console - one additional console port for external console
 Dual Rail - display is depth adjustable
 19"/1U rack mounting with adjustable mounting depth



Art.-No.	Description
KL-1508AN	8-Port KVM Switch Cat.5 + Console 19"/1U with 19" LCD
KL-1516AN	16-Port KVM Switch Cat.5 + Console 19"/1U with 19" LCD

Accessory

Art.-No.	Description
KA-9140	Serial/VT100 CPU Module for KH- and KL-types
KA-7570	VGA-USB KVM Connection module for KH- and KL-types
KA-7168	HDMI™-USB KVM-Connection cable for KH- and KL-types
KA-7169	DP-USB KVM-Connection cable for KH- and KL-types

Aten KVM Switch Cat.5 19"/1U

One PS/2 console controls up to 256 or 512 PC
 Separately cascade port (Daisy Chain)
 Multiplatform support: PS/2, USB, Win, Mac, Sun and terminal-based systems
 Supports up to 40 m cable length between KVM and PC or serial devices
 RJ45 ports for Cat.5/6/7 based cables
 Firmware upgrade feature, auto-scan mode
 19"/1U rack mounting



Art.-No.	Description
KH-1508A	8-Port KVM Switch Cat.5 19"/1U, Adapter ID
KH-1516A	16-Port KVM Switch Cat.5 19"/1U, Adapter ID

Accessory

Art.-No.	Description
KA-9140	Serial/VT100 CPU Module for KH- and KL-types
KA-7570	VGA-USB KVM Connection module for KH- and KL-types
KA-7168	HDMI™-USB KVM-Connection cable for KH- and KL-types
KA-7169	DP-USB KVM-Connection cable for KH- and KL-types

Aten KVM IP Switch Cat.5 „KVM over IP“



Controls up to 128 or 256 PC with one local and one remote console
 Separate cascade port (Daisy Chain), cascadable KH-1508/1516
 Multiplatform support: PS/2, USB, Win, Mac, Sun and terminal-based systems
 Supports up to 40 m cable length between KVM and PC
 RJ45 ports for Cat.5/6/7 based cables
 Firmware upgrade funktion, auto scan modus
 19" / 1U rack mounting

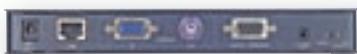


Art.-No.	Description
KH-1508AI	8-Port KVM IP Switch 19"/1U KVM over IP, Dual Bus
KH-1516AI	16-Port KVM IP Switch 19"/1U KVM over IP, Dual Bus

Accessory

Art.-No.	Description
KA-9140	Serial/VT100 CPU Module for KH- and KL-types
KA-7570	VGA-USB KVM Connection module for KH- and KL-types
KA-7168	HDMI™-USB KVM-Connection cable for KH- and KL-types
KA-7169	DP-USB KVM-Connection cable for KH- and KL-types

Connection modules for Aten KVM Cat.5 Switches



KA-9140



KA-7570



KA-7168



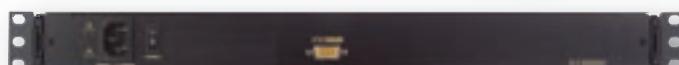
KA-7169

Aten 17" LCD PS/2 Console



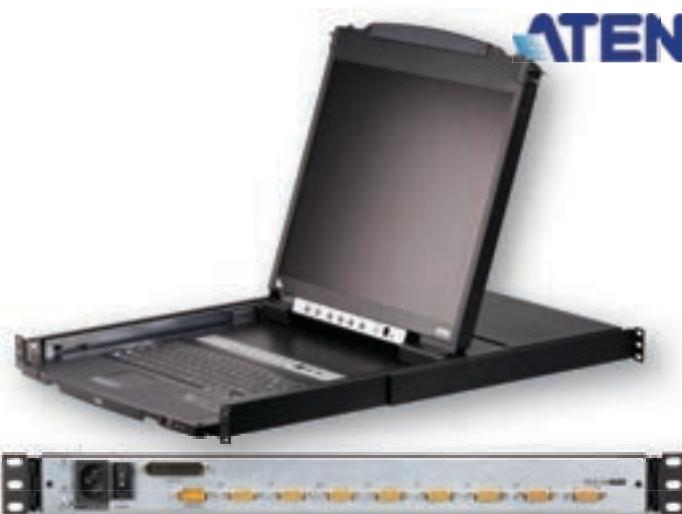
Compatible to KH-1508A, KH-1516A, KH-1508AI, KH-1516AI, and KL-types
 Auto signal compensation (ASC)
 Connection of a DisplayPort display possible
 Allows to connect KVM and PC or server or serial devices
 Hot pluggable - removal or insertion of PCs possible while operation

Art.-No.	Description
KA-9140	Serial/VT100 CPU Module for KH- and KL-types
KA-7570	VGA-USB KVM Connection module for KH- and KL-types
KA-7168	HDMI™-USB KVM-Connection cable for KH- and KL-types
KA-7169	DP-USB KVM-Connection cable for KH- and KL-types



KVM console plus 17" LCD display in compact, slideable 19"/1U design
 Included : 1 x 2L-5202P (KVM-PS2-Kabel), 1 x Standard-Mounting-kit
 19"/1U rack mounting with adjustable depth

Art.-No.	Description
CL-1000M-AT-GG	Slideaway Console 17", PS/2 with german keyboard

Aten 8-/16-Port KVM Switch + 19" LCD Console „Dual Rail“

Controls up to 256 or 512 PC
 Separate cascade port (Daisy Chain),
 cascadable up to ACS-1208A, ACS-1216A
 Firmware upgrade feature, auto-scan mode
 KVM-Switch with integrated console plus 19" LCD display in compact,
 slideable 19"- design, "Dual Rail" - display is depth adjustable
 Dual Console - additional port for one external console USB/PS/2
 1 external USB port for a externalal USB mouse and USB1.1 peripherals
 19"/1U rack mounting with adjustable depth
 Suitable cable : 2L-170x (Cascade-Cable), 2L-520xP (KVM-PS2-Cable),
 2L-520xUP (KVM-USB-Cable)

Art.-No.	Description
CL-5808N	8-Port KVM Switch Dual Rail + Dual Console 19"/1U with 19" LCD
CL-5816N	16-Port KVM Switch Dual Rail + Dual Console 19"/1U with 19" LCD

Accessory

Art.-No.	Description
2L-1701	Cascading-Cable for KVM 1.8m
2L-5202P	KVM PS/2 Cable 1.8m
2L-5202UP	KVM USB Cable 1.8m

Aten 8-/16-Port KVM Switch + 17" LCD Console

Controls up to 256 or 512 PC
 Separately cascade port (Daisy Chain),
 cascadable with ACS-1208A, ACS-1216A
 Firmware upgrade feature, Auto-scan mode
 19" KVM-Switch with integrated console plus 17" LCD display,
 compact and slidable
 Dual Console - Additional port for one externalal console USB/PS/2
 1 external USB port for a external USB mouse and USB1.1 peripherals
 19"/1U rack mounting with adjustable depth
 Suitable cable : 2L-170x (Cascade-Cable), 2L-520xP (KVM-PS2-Cable),
 2L-520xUP (KVM-USB-Cable)

Art.-No.	Description
CL-5708M	8-Port KVM Switch PS2 + Console 19"/1U with 17"LCD
CL-5716M	16-Port KVM Switch PS2 + Console 19"/1U with 17"LCD

Accessory

Art.-No.	Description
2L-1701	Cascading-Cable for KVM 1.8m
2L-5202P	KVM PS/2 Cable 1.8m
2L-5202UP	KVM USB Cable 1.8m

Connection Cable for Aten KVM CL-Series

Aten Cascadinf Cable for KVM
 Cascading and connection cables.

Art.-No.	Description
2L-1701	Cascading-Cable for KVM 1.8m
2L-1705	Cascading-Cable for KVM 5.0m
2L-5202P	KVM PS/2 Cable 1.8m
2L-5203P	KVM PS/2 Cable 3.0m
2L-5206P	KVM PS/2 Cable 6.0m
2L-5202UP	KVM USB Cable 1.8m
2L-5203UP	KVM USB Cable 3.0m
2L-5206UP	KVM USB Cable 6.0m

Desktop KVM Switches DVI - USB - Audio



Controls 2 or 4 DVI/USB-PCs with full audio support
 Port selection via switching software client, definable hotkeys or select button
 USB ports for keyboard/mouse comparable to a USB2.0 hub
 Separately port switching for KVM, audio and USB
 Supports video signals DVI-I digital and DVI-I analog
 Multiplatform support HDCP compatible Auto-scan mode
 Included in delivery: 2(4) x cable set 1.2 m, 1 x software-CD, 1 x power supply

Art.-No.	Description
EB950	2-Port KVM Switch USB-DVI-I-Audio-USB2.0Hub incl. cableset
EB951	4-Port KVM Switch USB-DVI-I- Audio-USB2.0Hub incl. cableset

HDMI™ USB3.0-Audio KVM Switch



For controlling of 2 or 4 PCs with full audio support
 Smart-Touch or Hotkey function for easy KVM switching
 With integrated auto scan mode for auto KVM switching
 Integrated USB3.0 hub for USB accessories
 TTU function for support of nearly every standard USB keyboard/mouse incl wireless variants
 Always the right video resolution through a DDC Emulation (ASR)
 Multi-Platform support for Windows, Mac and Linux systems
 No software installation needed
 Included in delivery: 2(4) x cable set 1.2 m, power supply

Art.-No.	Description
EB932	2-Port HDMI™ USB KVM Switch, Audio & USB 3.0 Hub
EB933	4-Port HDMI™ USB KVM Switch, Audio & USB 3.0 Hub

Aten Desktop KVM USB-DVI-Audio-USB 2.0 Hub



Controls 2 or 4 DVI/USB-PCs with full audio support
 Port selection via definable hotkeys, select button, mouse
 USB ports for keyboard/mouse comparable to a USB2.0 hub
 Separately port switching for KVM, audio and USB
 Supports video signals DVI-I digital and DVI-I analog
 Multiplatform support HDCP compatible Auto-scan mode
 Included in delivery: 2(4) x cable set 1.2 m, 1 x power supply

Art.-No.	Description
CS-1762A	2-Port KVM USB-DVI-Audio-USB 2.0 Hub incl. cable set 2x 1.2m
CS-1764A	4-Port KVM USB-DVI-Audio-USB 2.0 Hub incl. cable set 4x 1.8m

DisplayPort USB3.0-Audio KVM Switch



For controlling of 2 or 4 PCs with full audio support
 Smart-Touch or Hotkey function for easy KVM switching
 With integrated auto scan mode for auto KVM switching
 Integrated USB3.0 hub for USB accessories
 TTU function for support of nearly every standard USB keyboard/mouse incl wireless variants
 Always the right video resolution through a DDC Emulation (ASR)
 Multi-Platform support for Windows, Mac and Linux systems
 No software installation needed
 Included in delivery: 2(4) x cable set 1.2 m, power supply

Art.-No.	Description
EB930	2-Port DisplayPort USB KVM Switch, Audio & USB 3.0 Hub
EB931	4-Port DisplayPort USB KVM Switch, Audio & USB 3.0 Hub

Aten KVMP Switch VGA - USB - Audio

Controls 2 or 4 USB-PCs with full audio support + 2 port USB1.1 hub
 Dual View - Dual Display function
 USB compatible mouse/keyboard support
 Buzzer ON/OFF via hotkey
 Firmware Upgrade feature
 Auto-scan mode
 Included in delivery:
 2(4) cable sets, 1 x DB9-RJ11 cable 1.8 m, 1 x PS/2-USB adapter

Art.-No.	Description
CS-1732B	2-Port KVM-Switch USB-Audio, 2xUSB2.0 HUB, OSD, cableset
CS-1734B	4-Port KVM-Switch USB-Audio, 2xUSB2.0 HUB, OSD, cableset

Desktop KVM Switch VGA - PS/2

Controls 2 or 4 PS/2-PCs - Auto-scan mode
 USB-PCs can be connected via USB-PS/2 adapter EBUSB451
 Port selection via select key or hotkeys - Multiplatform support
 Standard PS/2 and VGA ports - no special cable necessary
 An external power supply (E-NT3V2) is recommended for cable lengths > 5 m

Art.-No.	Description
EB860NEW	2-Port Desktop KVM Switch PS/2, incl 2x KVM connection cable 1.2m
EB861NEW	4-Port Desktop KVM Switch PS/2, incl 4x KVM connection cable 1.2m

Desktop KVM Switch VGA - PS/2 - USB - Audio

Controls 2 or 4 USB-PCs with full audio support
 PS/2 console or USB console - USB2.0 2 port hub
 Port selection via select key or hotkeys
 Separately port switching for KVM, Audio and USB
 Multiplatform support - Auto-scan mode
 Included in delivery: 2(4) x cable set 1.2 m

Art.-No.	Description
EB942	2-Port KVM Switch PS/2-USB-Audio-USB2.0 Hub incl. cableset
EB943	4-Port KVM Switch PS/2-USB-Audio-USB2.0 Hub incl. cableset

Mini KVM Switch VGA - USB - Audio

Controls 2 or 4 USB-PCs with full audio support
 Port selection via switching software client, definable hotkeys or button
 Separately port switching for KVM and Audio
 Multiplatform support Auto-scan mode
 Included in delivery: 2(4) x cable set 1.2 m, 1 x software CD

Art.-No.	Description
EB940	2-Port KVM Switch USB-Audio incl. cableset
EB941	4-Port KVM Switch USB-Audio incl. cableset

2-Port Mini-Cable-KVM Switch VGA-USB-Audio

Controls 2 VGA-USB-PCs with full audio support
 Video resolution: up to 2048 × 1536 @60Hz, DDC2B
 Connection of two additional USB2.0 devices possible
 Selection with quick switch button
 Remote button for port selection
 Auto-scan mode
 Support for Windows and Mac variants
 No power supply needed
 LEDs for status display

Art.-No.	Description
EB977	2-Port KVM VGA-USB-Audio with cable sets 2x 0.9m

2-Port Mini-Cable-KVM Switch HDMI™-USB-Audio

Controls 2 HDMI™-USB-PCs with full audio support
 Video resolution: up to 1920 × 1080 and HDCP compatible
 Connection of two additional USB2.0 devices possible
 Selection with quick switch button
 Remote button for port selection
 Auto-scan mode
 Support for Windows and Mac variants
 No power supply needed
 LEDs for status display

Art.-No.	Description
EB979	2-Port KVM HDMI™-USB-Audio with cable sets 2x 0.9m

2-Port Mini-Cable-KVM Switch DVI-USB-Audio

Controls 2 DVI-USB-PCs with full audio support
 Video resolution: up to 1920 × 1200 @60Hz, DDC2B
 Connection of two additional USB2.0 devices possible
 Selection with quick switch button
 Remote button for port selection
 Auto-scan mode
 Support for Windows and Mac variants
 No power supply needed
 LEDs for status display

Art.-No.	Description
EB978	2-Port KVM DVI-USB-Audio with cable sets 2x 0.9m

2-Port Mini-Cable-KVM Switch DisplayPort-USB-Audio

Controls 2 DisplayPort-USB-PCs with full audio support
 Video resolution: up to 2560 × 1600
 Connection of two additional USB2.0 devices possible
 Selection with quick switch button
 Remote button for port selection
 Auto-scan mode
 Support for Windows and Mac variants
 No power supply needed
 LEDs for status display

Art.-No.	Description
EB973	2-Port KVM DisplayPort-USB-Audio with cable sets 2x 0.9m

KVM Fiber Extender DVI-USB, up to 1000m, MM

Extends the DVI-USB console port of a PC or KVM switch
Multimode OM2 duplex cable up to 1000 m for remote console
Operation via remote console DVI-USB
Automatic signal compensation
Included in delivery:
1 x cable set, 1 x upgrade cable, 2 x power supply

Art.-No.	Description
EB968	KVM Fiber Extender DVI-USB, up to 1000m, SC-dupl.,MM

KVM Extender Set DVI-USB-Audio - USB2.0 Hub 50m

KVM Cat.5/6 RJ45 Extender up to 50 m
1-Port USB2.0 Hub to connect extern USB Devices
Controlling via remote console
Included in delivery: 1 x DVI-D Cable plug/plug 1m, 1 x USB2.0 Cable A-B 1m,
1 x USB A power supply cable 1m, 1 x power supply,
1 x EB963 Transmitter, 1 x EB963 receiver, 1 x User manual

Art.-No.	Description
EB963	KVM Extender Set DVI USB Transmitter + Receiver

KVM Fiber Extender DVI-PS/2, up to 1000m, MM

Extends the DVI-PS/2 console port of a PC or KVM switch
Multimode OM2 duplex cable up to 1000 m for remote console
Operation via remote console DVI-PS/2
Automatic signal compensation
Included in delivery:
1 x cable set, 1 x upgrade cable, 2 x power supply

Art.-No.	Description
EB969	KVM Fiber Extender DVI-PS/2 1000m, SC-Duplex MM, HDTV

KVM Extender Set DVI-USB-Audio - USB2.0 Hub 100m

KVM Cat.5/6 RJ45 extender up to zu 100 m
Direct connection over Cat.5/6/7 cable
or with in-between connection of a Gigabit Switch
Connection of an additional USB2.0 device possible
Operation via remote console
Included: 1 x cable set, 2 x power supply

Art.-No.	Description
EB964V2	KVM Extender Set DVI 4xUSB2.0 Transmitter + Receiver

Aten KVM Extender Set VGA - USB

Extends the VGA-USB console port of a PC or KVM switch
 Category 5/6/7 RJ45 cable up to 150 m for the remote console
 Operation via local or remote console
 Automatic signal compensation
 Included in delivery:
 1 x cable set USB 1.8 m, 1 x 19" mounting kit, 2 x power supply

Art.-No.	Description
CE-700A	KVM Extender Set VGA - USB , RJ45, Transmitter + Receiver

KVM Extender Set VGA - PS/2 - USB

Extends the VGA - PS/2/USB console port of a PC or KVM switch
 Category 5/6/7 RJ45 cable up to 100 m for remote console
 Operation via local or remote console
 Manually adjustment of signal strength and compensation
 Supports PS/2 and USB based PC with one PS/2 console
 Included in delivery: 1 x cable set PS/2 1.2 m, 1 x cable set USB A/B 1.2 m, 1 x power supply

Art.-No.	Description
EB970	KVM Extender-Set PS/2-USB via Cat.5/6/7 100m

Aten KVM Extender Set for VGA - PS/2

Extends the VGA - PS/2 console port of a PC or KVM switch
 Category 5/6/7 RJ45 cable up to 150 m for remote console
 Operation via local or remote console
 Automatic signal compensation
 Included in delivery:
 1 x cable set PS/2 1.8 m, 2 x earthing cable 1.2 m, 1 x 19" mounting kit,
 1 x power supply

Art.-No.	Description
CE-250A	KVM Console Extender Set

Aten KVM Extender Set VGA - USB - Audio - RS232

CE790 is a IP based KVM Extender with automatic cable detection (Auto-MDIX) and RS-232 serial functionality that allows access to a computer system from a remote USB console (USB keyboard, monitor, and USB mouse) anywhere on the intranet.
 Included in delivery: 1 x cable set USB 1.8 m, 1 x power supply

Art.-No.	Description
CE-790	Digital USB VGA KVM Over LAN Extender with Audio and RS-232



ACTIVE VIDEO COMPONENTS

Active video components offer a wide range of possibilities: Whether you want to transfer one video source to multiple output media via a video splitter or play multiple video sources with a video switch on one output device. Especially active video extenders gets more and more important in times of HDMI™ 2.0 and their more strict length restrictions. 4K resolutions are hardly practical for lengths of more than 10 m with conventional cables. If the link passes 15 m, active video extenders are particularly suitable. They can work over large distances with modern network cabling and are available in several variants for different interfaces.

MULTIMEDIA

HDBaseT™



Until recently, the cabling of the video network was mainly guaranteed by means of pure video cabling. For solutions to extend the length limits of the current video cables, proprietary systems were used.

Disadvantages of these systems, however, include possible losses in quality, due to a compression of the data or the incompatibility with 3rd party manufacturers. Added to this, the 4k resolution is gradually becoming more and more common in our everyday lives. With the result that higher demands are placed on bandwidth, which also brings this systems to its limits.

The HDBaseT™ Alliance has introduced HDBaseT™ technology to the market in order to provide a connectivity standard to solve those problems and provides many other advantages. HDBaseT™ builds on a so-called 5Play™ system which combines the function of transmitting video, audio, Ethernet, control signals and power over one single network cable. In this process, one network cable of Category 5e or higher is used as the transfer medium which can transmit the data and power to a distance of up to 100m.

5Play™

Audio & Video

Transmission of uncompressed audio and video data in Full HD (2K) or Ultra HD (4K) resolutions without any delay.

Support for all features of HDMI™ 1.4a.

Ethernet

The transmission of the data is ensured via a 100Mbit connection (100Base-T Ethernet), while the connection is bidirectional and allows the devices to communicate with each other.

USB Support

Native USB2.0 support, for input devices, touch screens, mass storage, etc. So it is possible that HDBaseT™ devices would also take over functions that had previously been reserved for KVMs.

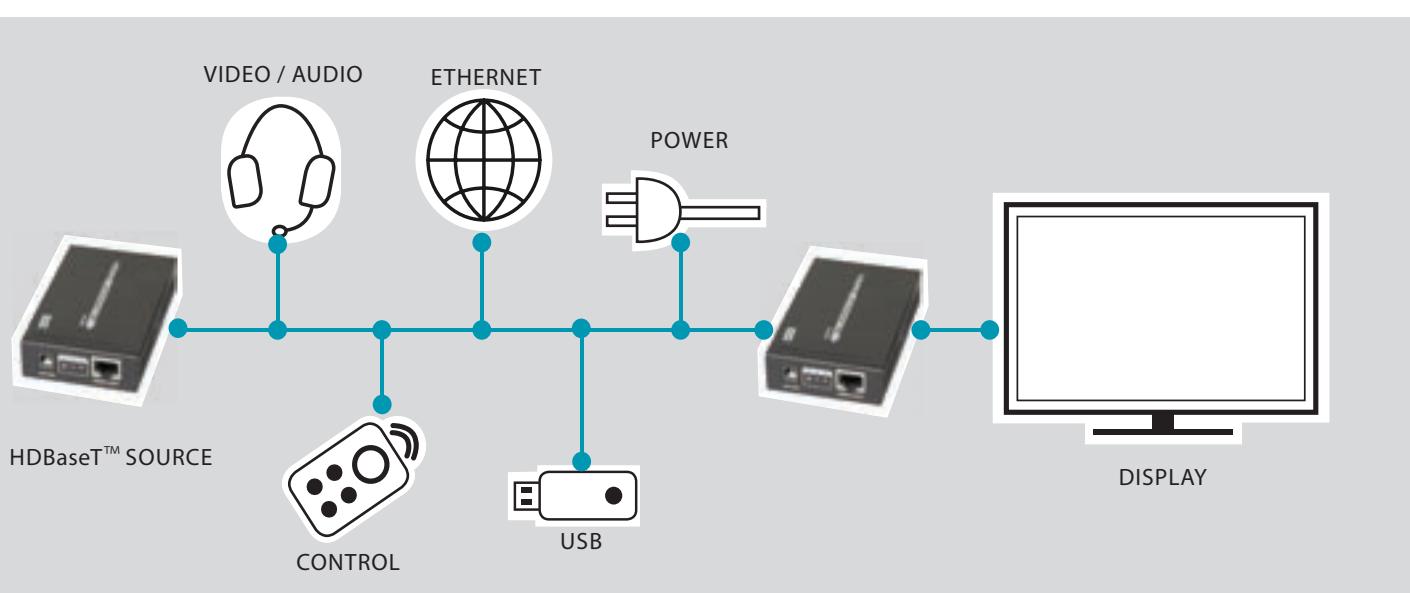
Control signals

Support of control signals such as CEC, bidirectional RS232, IR or IP.

For the control and simple installation of terminal devices.

Power over HDBaseT™

HDBaseT™ enables power from connected devices of up to 100W. This builds upon the 4PPoE (4 Pair PoE, IEEE802.3bt) standard, which allows to transmit power up to 25W over one twisted pair. In conjunction with HDBaseT™, the technique is called PoH. As a result, devices can be operated over long distances without a power supply.



HDBT-100, HDBaseT™ HDMI™ with PoH Extender up to 100m

HDMI™ Extender with HDBaseT extend technology
Uncompressed video and audio signal
Using 1 x Cat.5/6/6a cable
Support for resolutions up to UltraHD (4kx2k, Full HD 1080P@60Hz, 3D)
Extend the video signal over one ethernet cable - 100 m
PoH capable - 2 devices share 1 power supply! The power supply powers the second device over the Ethernet cable.
Support bi-directional IR pass back
Support HDCP, CEC, 24 deep color, uncompressed LPCM audio and compressed DTS-HD, Dolby True HD

Including: HDBaseT Extender Set (Transmitter/Receiver),
2 x IR cable, 1 x power supply, Quick manual

Art.-No.	Description
HDBT-100	HDBaseT Extender with PoH up to 100m, HDMI™ over RJ45, 4k

Cat.6A/ClassEA Installation line S/FTP PIMF

Stock lengths: 500 - 1000 m

Art.-No.	Description
K9201.x	Cat.6A/ClassEA Installation line S/FTP PIMF

RJ45 Keystone, Cat.6a/Class EA

Art.-No.	Description
E-20070	RJ45 Keystone STP, Cat.6A, 500MHz, component certified

INFRALAN® Cat.7 Installation Cable S/FTP 1000 MHz, CPR Eca

Stock lengths: 50 - 100 - 500 - 1000 m

Art.-No.	Description
99980.x-CPR	INFRALAN® Cat.7 1000 AWG23, S/FTP 4P CPR Eca orange

Cat.6A Premium Patch Cable AWG24 for Industrial use

Stock lengths: 20 up to 90 m

Art.-No.	Description
K5537GR.x	Cat.6A Premium Patch Cable AWG24 for Industrial use

Cat.6A field assembly RJ45 connector STP

Art.-No.	Description
88035AV.1	Cat.6A field assembly RJ45 connector STP

Cat.6A Patch Cable S/FTP 500Mhz, grey

Stock lengths: 0.15 - 0.50 - 1.0 - 2.0 - 3.0 - 5.0 - 7.5 - 10 - 15 - 20 m

Art.-No.	Description
K5525FGR.x	Cat.6A Patch Cable S/FTP 500Mhz, grey

HDMI™ Extender Cat.5e/6 (30m)



Extends the HDMI™ signal by using two Cat.5e/-6 patchcables up to a length of 30 m

HDTV Resolution: 480p, 576p, 720p, 1080i, 1080p (1920 x 1080)

PC Resolution: VGA, SVGA, XGA, SXGA, WUXGA (1920 x 1200)

Supports HDMI™ (3D, deep color), HDCP, Dolby True HD, DTS HD Master Audio

Plug-and-Play, no software installation needed

No power supply needed

Art.-No.	Description
ME1005	HDMI™ Extender Cat.5e/6 30m support 3D/1080p, HDCP

Aten HDMI™ Extender Set, 2 x Cat.5e/6, FullHD up to 40m

Extends the HDMI™ digital transmission of e.g. Blu-Ray, HD-DVD-Player, PS3

2 x Cat.5/6/7 RJ45 cable up to 40 m 1080P(Full HD), 60m 1080i (HDTV) between transmitter and receiver

Automatic adjustment of resolution and compensation

Supports HDMI™ or DVI-D In/Out

Included in delivery: 2 x power supply



Art.-No.	Description
VE-800A	HDMI™ Extender 2 x Cat.5e, bis 40m 1080p / 60m 1080i HDTV

HDMI™ Extender with IR over Cat.5E / 6 / 6A / 7 max. 60m

Allows you to easily extend the HDTV signal up to 60 m using a network cable Cat. 6 / 6A / 7 of copper

With automatic adjustment

based on the type of network cable used and IR

Maximum supported video resolution: 1080p

Bandwidth supported: 10.2 Gbps

Supports Deep Color 8 bit, PCM stereo audio, HDCP 1.3 compliant, 3D

Package Contents:

1x Transmitter HDMI™ to LAN, 1x Receiver LAN to HDMI™, 2x Power DC-5V1A, 1x extension IR, 1x extension IR receiver, 1x User Manual



Art.-No.	Description
IDATA-EXT-E701	Extender HDMI™ Full HD on cable Cat.5E / 6 / 6A / 7 max 60m autoregulated

HDMI™ Extender Fiber, LC-Simplex, MM (600m)

Extends the transmission range of HDMI™, IR and RS-232 signals using one fiber optic cable (Multimode LC-Simplex)
 Very long distance transmission – up to 600 m
 HDMI™ (3D, Deep Color), HDCP-compatible – signaling rates up to 3.125 Gbits
 Superior video quality – up to 1080p @ 60 Hz
 Supports full frequency IR signal from 30KHz to 60 KHz
 Uses one fiber optic cable to connect the local and remote units
 Built-in 8KV/15KV ESD protection
 Features RS-232 serial port for connecting peripherals such as touch screens, barcode scanners, etc.
 Supports bi-directional IR signal transmission (one way at a time)
 Rack-mountable
 Hot-pluggable

Art.-No.	Description
VE-882	HDMI™ Audio/Video Extender + IR,+ RS232 over one Fiber (600m)

HighSpeed HDMI™ AOC Fiber Optic Cable with Ethernet

Stock lengths: 30 - 40 - 50 - 60 - 80 m

Long distance transmission, up to 100 meters
 Thinner and lighter than conventional copper cable
 No radiation, and highly resistant with EMI
 No external power supply needed
 Supports resolution up to: 4Kx2K @ 60Hz

Art.-No.	Description
K5431AOC.x	HighSpeed HDMI™ AOC Cable with Ethernet, 2x HDMI™-A, M-M

DVI AOC Fiber Optic Cable

Stock lengths: 30 - 40 - 50 m

Long distance transmission, over 300 meters
 Thinner and lighter than conventional copper cable
 No radiation, and highly resistant with EMI
 No external power supply needed
 Program and store monitor's EDID information inside of source connector
 USB cable (0.5m) included in delivery
 Supports resolution up to: 1920 x 1080 (1080P)

Art.-No.	Description
K5434AOC.x	DVI-D AOC Fiber Optic Cable, 2x DVI-D 24+1, M-M

DVI-D Mini Extender-Set 1xRJ45 Cat.5/6/7 up to 15m/20m

Extends the distance between DVI source and DVI display
 Uses Cat 5e cable to connect the Transmitter and Receiver units
 Long distance transmission - up to 15m (1080p)
 Long distance transmission - up to 20m (1080i)
 Superior video quality - up to 1920 x 1200 and HDCP 1.1 compliant
 Supports hot-plugging
 Compatible with all ATEN DVI switches and DVI splitters
 Supports LCD Screen, Plasma TV, and projectors
 Perfect for Home entertainment system, Bank, Surveillance system, Outdoors multimedia display, Airport, Finance institution
 Smart Video Display - Image quality is optimized based on the available resolution of the output device
 Compact housing and no power supply needed

Art.-No.	Description
VE-066	DVI-D Mini Extender-Set 1xRJ45 Cat.5/6/7

Video/VGA Extender-Set up to 150m

Extends the VGA-Analog transmission e.g. of a PC or Notebook
 Category 5/6/7 RJ45 cable up to 150 m for remote monitor
 Simultaneous operation of local and remote monitor
 VGA tuning via 16 x coding switch
 Included in delivery: 1 x cable set VGA 1.8 m, 2 x power supply

Art.-No.	Description
VE-150L/R	Video/VGA Extender-Set, up to 150m

Aten DVI-D Audio Extender-Set 2xRJ45 up to 60m

Extends the distance between DVI source and DVI display device
 Long distance transmission - up to 1920x1200 (40 m); 1080p (40 m)
 Uses Cat 5e cable to connect the local and remote units
 Features ATEN EDID technology
 With audio and widescreen support
 Adjustable EQ compensation control
 Included in delivery: VE-600A extender set, 2 x OAD6-1605-09EG power supply, Rack mounting set, 1 x user manual

Art.-No.	Description
VE-600A	DVI-D+Audio Extender Set 2xRJ45, upto 40m-1080p, upto 60m-1080i HDTV

Video Converter, VGA & Audio to HDMI™

Supports HDCP HDMI™ compliant signals
 Input signals VGA and Audio are converted into one HDMI™ output signal
 Supports HDTV resolutions up to 1080p, 2K and 1920 x 1200
 Easy to use: Installed in seconds, no setup necessary
 Encodes digital audio onto the video signal for HDMI™ video and audio
 Allows to connect computers or other sources with DVI, YUV or VGA output and audio to an HDMI™ display
 Included in delivery: 1 x power supply

Art.-No.	Description
VC-170	VGA + Audio to HDMI™ Converter, Analog-Digital

HDMI™ Cable-Switch 3-Port

Distributes the switching of 3 HDMI™ signals to one device
HDTV Resolution: 480p, 576p, 720p, 1080i, 1080p (1920 x 1080)
PC Resolution: VGA, SVGA, XGA, SXGA, WUXGA (1920 x 1200)
Supports HDMI™ (3D, deep color), HDCP, DDC
Supports Dolby True HD, DTS HD Master Audio
Plug & Play, no software installation needed
No power supply needed

Art.-No.	Description
ME1008	HDMI™ Cable-Switch 3-Port support 3D/1080p, HDCP

HDMI™ Switch 5-Port incl. remote control

Distributes the switching of 5 HDMI™ signals to one device
HDTV Resolution: 480p, 576p, 720p, 1080i, 1080p (1920 x 1080)
PC Resolution: VGA, SVGA, XGA, SXGA, WUXGA (1920 x 1200)
Supports HDMI™ (3D, deep color), HDCP, DDC
Supports Dolby True HD, DTS HD Master Audio
Plug & Play, no software installation needed
Incl. power supply and remote control

Art.-No.	Description
ME1010	HDMI™ Switch 5-Port, 3D/1080p, HDCP, incl. Power Supply & Remote Control

HDMI™ Switch 3-Port 3D/1080P, HDCP

Distributes the switching up to three HDMI™ signals to one device
HDTV Resolution: 480p, 576p, 720p, 1080i, 1080p (1920 x 1080)
PC Resolution: VGA, SVGA, XGA, SXGA, WUXGA (1920 x 1200)
Supports HDMI™ (3D, deep color)
Supports HDCP, DDC
Supports Dolby True HD, DTS HD Master Audio
Plug & Play, no software installation needed
No power supply needed
ME1007 incl. IR remote control

Art.-No.	Description
ME1007	HDMI™ Switch 3-Port, support 3D/1080p, HDCP, incl. remote control
ME1009	HDMI™ Switch 3-Port, support 3D/1080p, HDCP

HDMI™ 2.0 Switch 4K, UHD, 3D

Switch HDMI™ 2.0 lets share HDMI™ sources with a single HD monitor
Allows to switch between multiple HDMI™ sources such as Blu-ray player, DVD player and various game consoles to a TV with HDMI™ input
It transmits both digital and audio signals through the HDMI™ connection
Supports resolutions up to Ultra HD 4Kx2K / 60Hz and 3D
Supports maximum bandwidth of up to 18Gbps
The selection is made by remote control or RS232 control
Package Content: HDMI™ Switch, Remote control (battery included), Power supply, User manual

Art.-No.	Description
IDATA-HDMI2-4K31	HDMI™ 2.0 Switch 3-Ports 4K UHD 3D, RS232, Remote Control
IDATA-HDMI2-4K51	HDMI™ 2.0 Switch 5-Ports 4K UHD 3D, RS232, Remote Control

2-Port HDMI™ Cable-Splitter

Distributes the input of one HDMI™ A/V signal up to two devices
 HDTV Resolution: 480p, 576p, 720p, 1080i, 1080p (1920 x 1080)
 Supports HDMI™ (3D, deep color)
 Supports Bandwidth: 225MHz /-2.25Gbps (per channel),
 6.75Gbps (all channel)
 Supports HDCP 1.3, DDC, Dolby True HD, DTS HD Master Audio
 Plug & Play, no software installation needed

Art.-No.	Description
ME1001	HDMI™ Splitter-Pigtail 2-Port support 4Kx2K, HDCP
ME1002	HDMI™ Splitter-Pigtail 2-Port support 3D/1080p, HDCP

DVI-Video Splitter

Distributes the input of one DVI-D A/V signal up to 4 or 8 devices
 Supports Bandwidth: 225MHz /-2.25Gbps (per channel),
 6.75Gbps (all channel)
 Supports HDCP 1.3, DDC, Dolby True HD, DTS HD Master
 Plug & Play, no installation nessasary
 Included in delivery: 1 x power supply

Art.-No.	Description
ME2001	DVI Monitor-Splitter 4-Port support HDCP
ME2002	DVI Monitor-Splitter 8-Port support HDCP

HDMI™ Splitter, 4Kx2K

Distributes the input of one HDMI™ A/V signal up to 4 or 8 devices
 HDTV Resolution: 480p, 576p, 720p, 1080i, 1080p, 4Kx2K (4096 x 2160)
 Supports HDMI™ (3D, deep color, 4K x 2K)
 Supports Bandwidth: 340MHz /-3.4Gbps (per channel), 10.2Gbps (all channel)
 Supports HDCP 1.3, DDC, Dolby True HD, DTS HD Master

Art.-No.	Description
ME1003	HDMI™ Splitter 4-Port support 4Kx2K, HDCP
ME1004	HDMI™ Splitter 8-Port support 4Kx2K, HDCP

4-Port VGA Video Splitter, Video Bandwidth 350MHz

Amplifies and multiplies a VGA signal up to 65 m,
 e.g. for presentations monitor walls or server control
 Cascadable
 Excellent video quality and support of DDC2B at Port1
 Metal housing
 Included in delivery: 1 x power supply

Art.-No.	Description
EB698	VGA Video Splitter 4-Port Video Bandwidth 350MHz

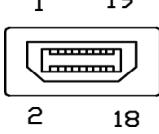
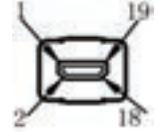
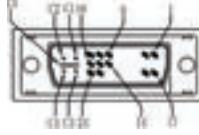
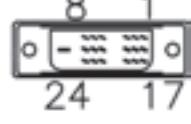
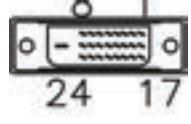
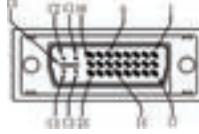


VIDEO CABLING & ADAPTER

In the field of video cabling, EFB-Elektronik offers several video cabling components for the living room, presentation room and PC offices. These include digital connections, such as HDMI, DVI or DisplayPort, but also analogue technologies, such as SVGA and VGA. Whether you are using standard video cables in your home or industrial cabling, EFB-Elektronik offers cable in different quality standards for various markets.

MULTIMEDIA

TYPE OF CONNECTORS

CONNECTOR		MAX. RESOLUTION	FEATURES	PLUG
HDMI™	HDMI™ Type A	4K (4096 × 2160)	<ul style="list-style-type: none"> ■ For digital video and audio data ■ EFB-Products to HDMI2.0 compatible ■ 19 Pins 	
	HDMI™ Typ C (Mini-HDMI™)	4K (4096 × 2160)	<ul style="list-style-type: none"> ■ For digital video and audio data ■ Compact Type for Smartphones, Tablets etc. ■ 19 Pins 	
	HDMI™ Typ D (Micro-HDMI™)	4K (4096 × 2160)	<ul style="list-style-type: none"> ■ For digital video and audio data ■ Compact Type for Smartphones, Tablets etc. ■ 19 Pins 	
DVI	DVI-A	1920 × 1080	<ul style="list-style-type: none"> ■ Only for analog video data ■ 12+5 Pins 	
	DVI-D (Single-Link)	1920 × 1200	<ul style="list-style-type: none"> ■ Only for digital video data ■ DVI-D Jack not compatible to DVI-A ■ 18+1 Pins 	
	DVI-D (Dual-Link)	2560 × 1600	<ul style="list-style-type: none"> ■ Only for digital video data ■ DVI-D Jack not compatible to DVI-A ■ 24+1 Pins 	
	DVI-I (Dual-Link)	2560 × 1600	<ul style="list-style-type: none"> ■ For analog and digital video data ■ Jack compatible to every other DVI-plugs ■ 24+5 Pins 	
DisplayPort	DisplayPort	DP1.2 4K (4096 × 2160) DP1.4 8K (7680 × 4320)	<ul style="list-style-type: none"> ■ For digital video and audio data ■ Lockable plug ■ 20 Pins 	
	Mini DisplayPort	4K (4096 × 2160)	<ul style="list-style-type: none"> ■ For digital video and audio data ■ 20 Pins 	
VGA	HD15	2048 x 1536	<ul style="list-style-type: none"> ■ For analog video data ■ Long length can be realized without using active devices ■ 15 Pins 	

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HighSpeed HDMI™ AOC Cable with Ethernet, Plug Type A - Plug Type A



enhanced EMC characteristics

Stock lengths: 30 - 40 - 50 - 60 - 80 m

Long distance transmission, up to 100 meters
Thinner and lighter than conventional copper cable
No radiation, and highly resistant **for good EMC characteristics**
No external power supply needed
Supports resolution up to: 4Kx2K @ 60Hz

Art.-No.	Description	Colour
K5431AOC.x	HighSpeed HDMI™ AOC Fiber Optic Cable with Ethernet, 2x HDMI™-A, M-M	black

HighSpeed HDMI™ Cable with Ethernet, Plug Type A - Plug Type A



HDMI cable up to 20m length !

Stock lengths: 0.5 - 1.0 - 2.0 - 3.0 - 5.0 - 10 - 15 - 20 m

Shielding: foil + braiding + PIMF
Conductor: bare copper, Jacket: PVC
HDMI™ plugs and contacts gold plated and moulded
Cable length up to 20m! (black version)
Full HD / 3D (up to 20m cable length) and 4K2K (up to 7.5m cable length)
HEC: HDMI™ Ethernet Channel, ARC: Audio Return Channel

Art.-No.	Description	Colour
K5431.x	HighSpeed HDMI™ Connection Cable with Eth. A-A, M-M	black
K5431WS.x	HighSpeed HDMI™ Connection Cable with Eth. A-A, M-M	white

HighSpeed HDMI™ Cable with Ethernet, Plug Type A - Plug Type A / 2 x Ferrite



assembled with 2 ferrite cores

Stock lengths: 1.0 - 2.0 - 3.0 - 5.0 m

Shielding: foil + braiding + PIMF
Conductor: bare copper, Jacket: PVC
HDMI™ plugs and contacts gold plated and moulded
Both sides assembled with ferrite core to dejam signals in the cable (better EMC characteristics)
Full HD - 3D up to 1080p and 4K2K
HEC: HDMI™ Ethernet Channel, ARC: Audio Return Channel

Art.-No.	Description	Colour
K7904.x	HighSpeed HDMI™ Connection Cable with Eth., Ferrite, A-A, M-M	black

HighSpeed HDMI™ Cable with Ethernet, Plug Type A - Plug Type A, Metal Hood



Stock lengths: 1.0 - 2.0 - 3.0 - 5.0 m

Shielding: foil + braiding + PIMF

Conductor: bare copper, **Jacket: PVC with nylon braid**

HDMI™ plug housing, plugs and contacts gold plated, plug housing mounted

Excellent shielding characteristics

Full HD - 3D up to 1080p and 4K2K

HEC: HDMI™ Ethernet Channel, ARC: Audio Return Channel

Art.-No.	Description	Colour
K5446.x	HighSpeed HDMI™ Connection Cable with Eth., Metalhood, A-A, M-M	black

HighSpeed HDMI™ Cable with Ethernet, Plug Type A - Jack Type A



Stock lengths: 1.0 - 2.0 - 3.0 - 5.0 m

Shielding: foil + braiding

Conductor: bare copper, **Jacket: PVC**

HDMI™ plugs and contacts gold plated and moulded

Full HD - 3D up to 1080p and 4K2K

HEC: HDMI™ Ethernet Channel, ARC: Audio Return Channel

Art.-No.	Description	Colour
K7903.1	HighSpeed HDMI™ Extension Cable with Eth. A-A, M-F	black

HighSpeed HDMI™ Cable with Ethernet, Plug Type A - Plug Type A 180 ° Rotation



Stock lengths: 1.0 - 2.0 - 3.0 m

Shielding: foil + braiding + PIMF

Conductor: bare copper, **Jacket: PVC**

HDMI™ plugs and contacts gold plated, plug housing mounted

Both sides 360° rotatable

Full HD - 3D up to 1080p and 4K2K

HEC: HDMI™ Ethernet Channel, ARC: Audio Return Channel

Art.-No.	Description	Colour
K7905SW.x	HighSpeed HDMI™ Connection Cable with Eth., 360°, A-A, M-M	black
K7905SW.x	HighSpeed HDMI™ Connection Cable with Eth., 360°, A-A, M-M	white

HighSpeed HDMI™ Cable with Ethernet, Plug Type A - Plug Type DVI-D 18+1



Stock lengths: 1.0 - 2.0 - 3.0 - 5.0 - 10 - 15 - 20 m

Shielding: foil + braiding

Conductor: bare copper, **Jacket: PVC**

HDMI™ plugs and contacts gold plated and moulded

Cable length up to 20m!

Full HD - 3D up to 1080p

Art.-No.	Description	Colour
K5432.x	HighSpeed HDMI™ C. with Eth. HDMI™ A - DVI-D 18+1, M-M	black

HighSpeed HDMI™ Cable with Ethernet Plug Type A - Plug Type A, Flat Cable



Stock lengths: 1.0 - 2.0 - 3.0 - 5.0 m

Shielding: foil + braiding
 Conductor: bare copper, Jacket: PVC
 HDMI™ plugs and contacts gold plated, plugs moulded
Flat cable with small diameter
 Full HD - 3D up to 1080p and 4K2K
 HEC: HDMI™ Ethernet Channel, ARC: Audio Return Channel

Art.-No.	Description	Colour
K7901.x	HighSpeed HDMI™ Connection Cable with Eth., flat c. A-A, M-M	black

HighSpeed HDMI™ Cable with Ethernet, Plug Type A - Plug Type Mini-C



Stock lengths: 1.0 - 2.0 - 3.0 - 5.0 m

Shielding: foil + braiding + PIMF
 Conductor: bare copper, Jacket: PVC
 HDMI™ plugs and contacts gold plated and moulded
E.g. suitable for smartphones
 Full HD - 3D up to 1080p and 4K2K
 HEC: HDMI™ Ethernet Channel, ARC: Audio Return Channel

Art.-No.	Description	Colour
K5428.x	HighSpeed HDMI™ Cable with Eth., A - Mini-C, M-M	black

HighSpeed HDMI™ Cable with Ethernet, Plug Type Mini-C - Plug Type Mini-C



Stock lengths: 1.0 - 2.0 - 3.0 - 5.0 m

Shielding: foil + braiding + PIMF
 Conductor: bare copper, Jacket: PVC
 HDMI™ plugs and contacts gold plated and moulded
E.g. suitable for smartphones
 Full HD - 3D up to 1080p and 4K2K
 HEC: HDMI™ Ethernet Channel, ARC: Audio Return Channel

Art.-No.	Description	Colour
K5429.x	HighSpeed HDMI™ Cable with Eth. C-C, M-M	black

Keystone Adapter HDMI™ A - A



Snap-In mounting (Keystone)
 Connecting adapter for HDMI™ cables
 2x HDMI™ connectors Type A
 Plastic housing
 Snap-in spring: plastic

Art.-No.	Description	Colour
EB479V2	HDMI™ Snap-In Adapter type A jack/type A jack	white
EB520V2	HDMI™ Snap-In Adapter type A jack/type A jack	black

Art.-No.	Accessory	Colour
37578.1	Distribution Panel 19" 1U, 24-Port, RAL7035	grey
37580.1	Distribution Panel 19" 1U, 24-Port, RAL9005	black

HDMI™ to VGA-Converter



Converts HDMI™ signals to VGA signals
 Superior video quality – up to 1920 x 1200, 1080p
 Supports wide screen formats
 Non-powered

Art.-No.	Connection 1	Connection 2	Colour
VC-810	HDMI™-A plug	VGA jack	white

HDMI™ Adapter

Adapter for High Definition Multimedia Interface (HDMI™)
 Moulded
 Gold plated plug and contacts

HDMI™ Test-Tool for HDMI™ A and Type C

HDMI™ cable tester
 master and remote unit
 Supports HDMI™ Type A and HDMI™ Type C
 local or remote connections can be tested
 separate LED for each pins and ground
 Remote test comes with two scan speeds Low/High
 Incl. black plastic case
 Battery 9 V E-block not included

Art.-No.	Description
EB581	HDMI™ Cable Tester for HDMI™ Type A and Type C

Art.-No.	Connection 1	Connection 2	Colour
EB470	HDMI™-A plug	DVI-D 24+1 jack	black
EB487	HDMI™-A jack	DVI-D 24+1 plug 180°	black
EB472	HDMI™-A jack	HDMI™-A jack	black
EB475	HDMI™-A plug	HDMI™-A jack	black
EB473	HDMI™-A plug	HDMI™-A jack 90°	black
EB474	HDMI™-A jack	HDMI™-C plug	black
EB480	HDMI™-A jack	HDMI™-D plug	black
EB476	HDMI™-A jack	HDMI™-A jack 90°	black
EB486	HDMI™-A jack	HDMI™-A plug right angled	black
MD1016	HDMI™-A jack	HDMI™-A plug left angled	black
EB477	HDMI™-A plug 360°	HDMI™-A jack 360°	black
EB478	HDMI™-A jack 360°	HDMI™-A jack 360°	black
EB482	HDMI™-A jack	HDMI™-A jack 180°	black
EB483	HDMI™-A plug	HDMI™-A jack 180°	black

TEST-i Pro Multifunctions Cable Test-Tool

Identify open wires, short wires, crosswires and misswires connectivity

Support 17 flat types of PC connectors

100 Test results can be saved and transferred to PC via USB

Alphanumeric LCD display with back light function

Low battery indicator

Incl. black plastic case, USB3.0

Battery 9 V E-block not included

Cable types:

IDC40, HDB15M/F, Audio, RJ11, RJ45, e-SATAp, SATA, Display Port, USB3.0 (A), USB3.0 Power B, USB Micro AB, USB Mini-B, HDMI™, Mini HDMI™, Micro HDMI™, Extension Port

Art.-No.	Description
39893.1	TEST-i Pro Multifunction Cable Tester, PC-, Video- and USB Cable Tester

DVI 24+5 Dual Link Connection Cable

Stock lengths: 2.0 - 3.0 - 5.0 m

Shielding: foil + braiding

Conductor: bare copper, Jacket: PVC black

Plugs and contacts gold plated and moulded

**Both sides assembled with ferrite core to dejam signals in the cable
(better EMC characteristics)**

Dual Link cable with support of digital and analog signals

Support resolutions up to 2560 x 1600

Art.-No.	Description	Colour
K5435.xV1	DVI-I Dual Link Cable + Analog, 2x DVI-I 24+5, M-M	black

DVI 24+1 Dual Link Connection Cable

Stock lengths: 2.0 - 3.0 - 5.0 - 10 - 15 - 20 m

Shielding: foil + braiding

Conductor: bare copper, Jacket: PVC

Plugs and contacts gold plated and moulded

**Both sides assembled with ferrite core to dejam signals in the cable
(better EMC characteristics)****Cable length up to 20m!**

Dual Link cable

Support resolutions up to 2560 x 1600

Art.-No.	Description	Colour
K5434.x	DVI-D Dual Link Cable, 2x DVI-D 24+1, M-M	black

DVI 24+1 Dual Link Extension Cable

Stock lengths: 2.0 - 3.0 - 5.0 - 10 m

Shielding: foil + braiding

Conductor: bare copper, Jacket: PVC

Plugs and contacts gold plated and moulded

**Both sides assembled with ferrite core to dejam signals in the cable
(better EMC characteristics)**

Dual Link cable

Support resolutions up to 2560 x 1600

Art.-No.	Description	Colour
K5423.x	DVI-D Dual Link Cable 24+1 to DVI-D 24+5, M-F	black

DVI 18+1 Single Link Connection Cable

Stock lengths: 2.0 - 3.0 - 5.0 - 10 - 15 - 20 m

Shielding: foil + braiding

Conductor: bare copper, Jacket: PVC

Plugs and contacts gold plated and moulded

**Both sides assembled with ferrite core to dejam signals in the cable
(better EMC characteristics)****Cable length up to 20m!**

Single Link cable

Support resolutions up to 1920 x 1200

Art.-No.	Description	Colour
K5433.x	DVI-D Single Link Cable, 2x DVI-D 18+1, M-M	black

DVI/VGA 12+5 Connection Cable (analog)

Stock lengths: 2.0 - 3.0 - 5.0 m

Shielding: foil + braiding

Conductor: bare copper, Jacket: PVC

Contacts gold plated, plugs moulded

**Both sides assembled with ferrite core to dejam signals in the cable
(better EMC characteristics)**

Adapter cable from DVI-A to VGA

Art.-No.	Description	Colour
K5436.x	DVI-A 12+5 to VGA HD-DSub 15, M-M	black

DVI AdapterAdapter for DVI and VGA
Contacts gold plated

Art.-No.	Connection 1	Connection 2	Colour
EB462V2	DVI-I 24+5 jack	HD-D-Sub 15-pole plug	black
EB460V2	DVI-I 24+5 plug	HD-D-Sub 15-pole jack	black
EB467	DVI-I 24+5 jack	DVI-I 24+5 jack	black
EB464	DVI-D 24+1 jack	DVI-D 24+1 jack	black
EB487	HDMI™-A jack	DVI-D 24+1 plug 180°	black
EB485	DisplayPort plug	DVI-I 24+5 jack	black

DVI Cable with very good electromagnetic shielding

DVI AOC Fiber Optic Cable



Long distance transmission, over 300 meters
 Thinner and lighter than conventional copper cable
 No radiation, and highly resistant with EMI
 No external power supply needed
 Program and store monitor's EDID information inside of source connector
 USB cable (0.5m) included in delivery
 Supports resolution up to: 1920 x 1080 (1080P)

enhanced EMC characteristics



Stock lengths: 30 - 40 - 50 m

Art.-No.	Description	Colour
K5434AOC.x	DVI-D AOC Fiber Optic Cable, 2x DVI-D 24+1, M-M	black

DVI 18+1 Single Link Industrial Connection Cable

Shielding: foil + braiding
 Conductor: bare copper, Jacket: PVC
 Plugs and contacts gold plated,
housing with full-metal shielding and moulded, for ideal shielding characteristics in rough industrial environment.
Both sides assembled with ferrite core to dejam signals in the cable (for better EMC characteristics)
 Single link cable
 Support for resolution up to 1920 x 1200

enhanced EMC characteristics



Stock lengths: 2.0 - 3.0 - 5.0 m

Art.-No.	Description	Colour
K5433IND.x	DVI Single Link Industrial Cable, 18+1, M-M	black

DVI 24+1 Dual Link Industrial Connection Cable

Shielding: foil + braiding
 Conductor: bare copper, Jacket: PVC
 Plugs and contacts gold plated,
housing with full-metal shielding and moulded, for ideal shielding characteristics in rough industrial environment.
Both sides assembled with ferrite core to dejam signals in the cable (for better EMC characteristics)
 Dual link cable
 Support for resolution up to 2560 x 1600

enhanced EMC characteristics



Stock lengths: 2.0 - 3.0 - 5.0 m

Art.-No.	Description	Colour
K5434IND.x	DVI Dual Link Industrial Cable, 24+1, M-M, AWG28	black

DisplayPort Connection Cable

Stock lengths: 0.5 - 1.8 - 2.0 - 3.0 - 5.0 m

Shielding: foil + braiding
 Conductor: bare copper, Jacket: PVC
 Plugs and contacts gold plated,
housing moulded with locking protection
 DisplayPort v1.2 compliant
 Supports resolutions up to 4096 x 2160 Pixel (4k2k)
 Supports HDCP 1.3 and DPCP

Art.-No.	Description	Colour
K5560V2.x	DisplayPort Connection Cable, M-M	black

Mini DisplayPort – DisplayPort Cable

Stock lengths: 1.0 - 2.0 - 3.0 m

Shielding: foil + braiding
 Conductor: bare copper, Jacket: PVC
 Plugs and contacts gold plated,
housing moulded with locking protection on DP side
 DisplayPort v1.2 compliant
 Supports resolutions up to 4096 x 2160 Pixel (4k2k)
 Supports HDCP 1.3 and DPCP

Art.-No.	Description	Colour
K5565SW.x	Mini DisplayPort to DisplayPort Cable, M-M	black

DisplayPort - HDMI™ Connection Cable

Stock lengths: 1.0 - 2.0 - 3.0 - 5.0 m

Shielding: foil + braiding
 Conductor: bare copper, Jacket: PVC
 Plugs and contacts gold plated, HDMI™ side moulded, DP mounted with locking protection
DisplayPort to HDMI™ Adapter cable with one sided signal way
DisplayPort => HDMI™ output device
 Supports Full HD - 3D up to 1080p

Art.-No.	Description	Colour
K5561SW.x	DisplayPort to HDMI™ A, M-M	black

DisplayPort - DVI-D Connection Cable

Stock lengths: 1.0 - 2.0 - 3.0 - 5.0 m

Shielding: foil + braiding
 Conductor: bare copper, Jacket: PVC
 Plugs and contacts gold plated, DVI side moulded, DP mounted with locking protection
DisplayPort to DVI-D 24+1 adapter cable with one sided signal way
DisplayPort => DVI-D 24+1 output device
 Supports resolutions up to 2560 x 1600

Art.-No.	Description	Colour
K5564SW.x	DisplayPort to DVI-D 24+1, M-M	black

DisplayPort Plug - HDMI™ Type A Jack

Adapter to connect DisplayPort graphic controller to HDMI™ displays
 DisplayPort v1.1 compliant
 Supports HDCP 1.3 and DPCP

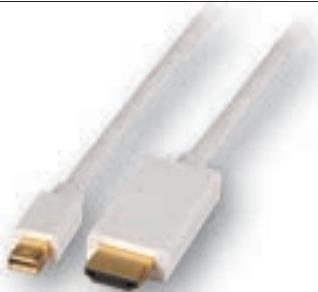
Art.-No.	Connection 1	Connection 2	Colour
EB484	DisplayPort plug	HDMI™-A jack	black

DisplayPort Plug - DVI-I 24+5 Jack

Adapter to connect DisplayPort graphic controller to DVI displays
 DisplayPort v1.2 compliant
 Supports HDCP 1.3 and DPCP

Art.-No.	Connection 1	Connection 2	Colour
EB485	DisplayPort plug	DVI-I 24+5 jack	black

Mini DisplayPort - HDMI™ Cable



Stock lengths: 1.0 m

Shielding: foil + braiding
Conductor: bare copper, Jacket: PVC

Plugs and contacts gold plated, Plugs moulded

Mini DisplayPort to HDMI™ Adapter cable with one sided signal way**Mini DisplayPort => HDMI™ output device**

Supports Full HD - 3D up to 1080p

For connection of apple device with TV or display

Art.-No.	Description	Colour
K5562.x	Mini DisplayPort to HDMI™ Cable , M-M	white

Converter Mini DisplayPort Plug - HDMI™ Type A Jack



Adapter for using HDMI™ devices on DisplayPort
Input: Mini DisplayPort male
Output: HDMI™ type A (19-pin) female
Supports Mini DisplayPort 1.1a In
Supports HDMI™ 1.3b Out, max. 1080p
225 MHz, 2.25 Gbps per channel (=max. 6.75 Gbps)
Audio: LPCM, DTS, Dolby Digital, DTS-HD, True HD
Power supply via Mini DisplayPort
No driver installation necessary

Art.-No.	Connection 1	Connection 2	Colour
EB982	Mini DisplayPort plug	HDMI™-A jack	beige

Converter Mini DisplayPort Plug - VGA Jack



Adapter for using VGA devices on DisplayPort
Input: Mini DisplayPort male
Output: HD DSUB 15-pin female
Supports Mini DisplayPort 1.1a In
1080p, resolution up to max. 1920 x 1200
Integrated triple 10-bit, 162 MHz Video DAC
EDID pass-trough, Spread Spectrum for EMI
Power supply via Mini DisplayPort
No driver installation necessary

Art.-No.	Connection 1	Connection 2	Colour
EB984	Mini DisplayPort plug	HD-D-Sub 15-pin jack	beige

Mini DisplayPort - DVI Cable



Stock lengths: 1.0 m

Shielding: foil + braiding
Conductor: bare copper, Jacket: PVC

Plugs and contacts gold plated, Plugs moulded

Mini DisplayPort to DVI-D 24+1 Adapter cable with one sided signal way**Mini DisplayPort => DVI-D 24+1 output device**

Supports resolution up to 1920 x 1200

For connection of apple device with external display

Art.-No.	Description	Colour
K5563.x	Mini DisplayPort to DVI Cable, M-M	white

Converter Mini DisplayPort Plug - DVI-I 24+5 Jack



Adapter for using DVI devices on DisplayPort
Input: Mini DisplayPort male
Output: DVI-I (24+5) female
Supports Mini DisplayPort 1.1a In
Supports DVI up to max. 1080p
225 MHz, 2.25 Gbps per channel (=max. 6.75 Gbps)
DVI 12 Bit per channel (=36bit all channels)
Power supply via Mini DisplayPort
No driver installation necessary

Art.-No.	Connection 1	Connection 2	Colour
EB983	Mini DisplayPort plug	DVI-I 24+5 jack	beige

Mini DisplayPort 3-way Converter



Mini DisplayPort Multi Converter,
1 converter for HDMI™, DVI, and DisplayPort devices
Mini DisplayPort to HDMI™, DVI-D 24+1 or DisplayPort converter with one sided signal way
Mini DisplayPort => HDMI™, DVI-D 24+1, DisplayPort output device
Supports resolution up to 1920 x 1200

Art.-No.	Connection 1	Connection 2	Colour
EB986	Mini DisplayPort plug	HDMI™-A/DVI-I/DisplayPort jack	white

SVGA/HDTV Connection Cable

Stock lengths: 1.8 - 3.0 - 5.0 - 7.0 - 10 - 15 - 20 - 25 - 30 - 40 - 50 m

Double shielded display cable specially capable against outer interference
75 Ohm, double-shielded, with 2 x ferrite cores
Plugs and contacts golded
With thumb screws, moulded, black
Construction: 3 x coax RGB and 5 x control lines

Art.-No.	Description	Colour
K5326SW.x	SVGA/HDTV Connection Cable, 2x HD-DSub 15, M-M	black

SVGA/HDTV Extension Cable

Stock lengths: 1.8 - 3.0 - 5.0 - 7.0 - 10 - 15 - 20 - 25 - 30 - 40 - 50 m

Double shielded display cable specially capable against outer interference
75 Ohm, double-shielded, with 2 x ferrite cores
With thumb screws, moulded, black
Construction: 3 x coax RGB and 5 x control lines

Art.-No.	Description	Colour
K5327SW.x	SVGA/HDTV Extension Cable, 2x HD-DSub 15, M-F	black

VGA Connection Cable

Stock lengths: 2.0 - 3.0 - 5.0 - 10 m

1:1 wired
Shielded
Moulded
With thumb screws
On request also in black available

Art.-No.	Description	Colour
EK324.x	VGA Connection Cable, 2x HD-DSub 15, M-M	beige

VGA Extension Cable

Stock lengths: 2.0 - 3.0 - 5.0 m

1:1 wired
Shielded
Moulded
With thumb screws
On request also in black available

Art.-No.	Description	Colour
EK322.x	VGA Extension Cable, 2x HD-DSub 15, M-F	beige

SVGA/HDTV Display Cable, 15p. HD-DSub15 to 5xBNC

Stock lengths: 2.0 - 3.0 - 5.0 m

Construction: 5 x coax 75 Ohm, 1 ferrite core
Shielded
Moulded

Art.-No.	Description
EK553SW.x	SVGA/HDTV Connection Cable, 1x HD-Dsub 15 to 5x BNC-S

DVI-A 24+5 - HD-15 Adapter

Adapter for DVI and VGA (HD15)
Moulded
Gold plated contacts
Screw 4-40

Art.-No.	Connection 1	Connection 2	Colour
EB460V2	DVI-I 24+5 Plug	HD-D-Sub 15-pole Jack	black
EB462V2	DVI-I 24+5 Jack	HD-D-Sub 15-pole Plug	black

Categorie	Art.-No.	Version	Material	Jacket	max. Resolution	EMC Characteristics
HDMI™	K5431AOC.x	HDMI™ 2.0	Fiber	PVC	UltraHD 4k@60Hz	very good
	K5431.x	HDMI™ 2.0	Copper	PVC	up to 7.5m UltraH 4k@60Hz, up to 20m FullHD	standard
	K5431WS.x	HDMI™ 2.0	Copper	PVC	up to 7.5m UltraH 4k@60Hz, up to 20m FullHD	standard
	K7904.x	HDMI™ 1.4	Copper	PVC	4K2K@30Hz	good
	K5446.x	HDMI™ 2.0	Copper	PVC/Nylon	4K2K@30Hz	good
	K7905SW.x	HDMI™ 1.4	Copper	PVC	4K2K@30Hz	standard
	K7905WS.x	HDMI™ 1.4	Copper	PVC	4K2K@30Hz	standard
	K7903.x	HDMI™ 1.4	Copper	PVC	4K2K@30Hz	standard
	K5432.x	HDMI™ 1.4	Copper	PVC	4K2K@30Hz	standard
	K7901.x	HDMI™ 1.4	Copper	PVC	4K2K@30Hz	standard
DVI	K5428.x	HDMI™ 1.4	Copper	PVC	4K2K@30Hz	standard
	K5429.x	HDMI™ 1.4	Copper	PVC	4K2K@30Hz	standard
	K5435.xV1	DVI 1.0	Copper	PVC	2560x1600	good
	K5434.x	DVI 1.0	Copper	PVC	2560x1600	good
	K5423.x	DVI 1.0	Copper	PVC	2560x1600	good
	K5433.x	DVI 1.0	Copper	PVC	1920x1200	good
	K5436.x	DVI 1.0	Copper	PVC	2560x1600	good
	K5434AOC.x	DVI 1.0	Fiber	PVC	1920x1080	very good
Displayport & Mini DisplayPort	K5433IND.x	DVI 1.0	Copper	PVC	1920x1200	very good
	K5434IND.x	DVI 1.0	Copper	PVC	1920x1200	very good
	K5560.x	DisplayPort v1.2	Copper	PVC	UltraHD 4k@60Hz	good
	K5565SW.x	DisplayPort v1.2	Copper	PVC	UltraHD 4k@60Hz	standard
	K5561SW.x	DisplayPort v1.1	Copper	PVC	1920x1080	standard
	K5564SW.x	DisplayPort v1.1	Copper	PVC	1920x1080	standard
VGA/SVGA	K5562.x	DisplayPort v1.2	Copper	PVC	UltraHD 4k@60Hz	standard
	K5563.x	DisplayPort v1.2	Copper	PVC	UltraHD 4k@60Hz	standard
	K5326SW.x	-	Copper	PVC	depend on VGA graphic card, up to 2560x1600	good
	K5327SW.x	-	Copper	PVC	depend on VGA graphic card, up to 2560x1600	good
	EK324.x	-	Copper	PVC	depend on VGA graphic card, up to 800x600	standard
ACTIVE COMPONENTS	EK322.x	-	Copper	PVC	depend on VGA graphic card, up to 800x600	standard
	EK553SW.x	-	Copper	PVC	depend on VGA graphic card, up to 1980x1200	standard

FIBER OPTIC

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CABINET SYSTEMS

MULTIMEDIA

ACTIVE COMPONENTS



USB & APPLE CABLING

The EFB product portfolio includes a wide range of cabling options for your smartphone, tablet or PC. The product range covers all types of standardised USB cables with corresponding accessories. In addition to the USB product range, the right accessory for your Apple iPhone, iPad and your Mac is offered.

MULTIMEDIA

TYPES OF CONNECTORS

USB STANDARD	MAX. SPEED	MAX. CURRENT	TYPES OF CONNECTORS
USB3.1 Gen2	SuperSpeed+ with 10Gbit/s	Profile dependent 1500mA – 5000mA	Type C
USB3.1 Gen1	SuperSpeed+ with 5Gbit/s	900mA	Type A; Type Micro B; Type C
USB3.0	SuperSpeed with 5Gbit/s	900mA	Type A; Type B; Type Micro-B
USB2.0	HighSpeed with 480Mbit/s	500mA	Type A; Type B; Type Mini-B; Type Micro-B; Lightning
USB1.1	Low Speed with 12Mbit/s	500mA	Type A; Typ B

VARIATIONS

USUAL TYPES	FEATURES	MAX. CABLE LENGTH (STANDARD)	PLUG
Type A (USB2.0)	<ul style="list-style-type: none"> ■ 4 Pins ■ white Inlet ■ 1500 mating cycles 	with USB2.0 cable: 5000 mm	
Type A (USB3.0, USB3.1)	<ul style="list-style-type: none"> ■ 9 Pins ■ blue Inlet ■ 1500 mating cycles (Standard) ■ 5000 mating cycles (HDC) 	with USB3.0 cable: 3000 mm with USB3.1 cable: 1000 mm	
Type B (USB2.0)	<ul style="list-style-type: none"> ■ 4 Pins ■ white Inlet ■ 1500 mating cycles 	with USB2.0 cable: 5000 mm	
Type B (USB3.0)	<ul style="list-style-type: none"> ■ 9 Pins ■ blue Inlet ■ 1500 mating cycles 	with USB3.0 cable: 3000 mm	
Type Micro-B (USB2.0)	<ul style="list-style-type: none"> ■ 5 Pins ■ 10000 mating cycles 	with USB2.0 cable: 2000 mm	
Type Micro-B (USB3.0, USB3.1)	<ul style="list-style-type: none"> ■ 10 Pins ■ 10000 mating cycles 	with USB3.0 cable: 3000 mm with USB3.1 cable: 1000 mm	
Type Mini-B (USB2.0)	<ul style="list-style-type: none"> ■ 5 Pins ■ 5000 mating cycles 	with USB2.0 cable: 5000 mm	
Type C (USB3.1)	<ul style="list-style-type: none"> ■ 24 Pins ■ 10000 mating cycles ■ reversible plug 	with USB3.1 cable: 1000 mm other combinations possible	

FIBER OPTIC

COPPER

CABINET SYSTEMS

MULTIMEDIA

ACTIVE COMPONENTS

UNIVERSAL SERIAL BUS STANDARDS

■ USB 1.1

max. possible transmission rate 12Mbit/s
max. possible electrical current 500mA
Hostcontroller Type A, Inlet white

■ USB 2.0

max. possible transmission rate 480Mbit/s
max. possible electrical current 500mA
max. cable length: 5000mm
max. cable length Type Micro B: 2000mm
Hostcontroller Type A, Inlet white,
downward compatible to USB 1.1

■ USB 3.0

max. possible transmission rate 5Gbit/s
max. possible electrical current 900mA
max. cable length: 3000mm
Hostcontroller Type A, Inlet blue,
downward compatible to USB 2.0

■ USB 3.1 Gen.1

max. possible transmission rate 5Gbit/s
max. possible electrical current 900mA
max. cable length: 3000mm
Hostcontroller Type A, Inlet blue,
downward compatible to USB 2.0

■ USB 3.1 Gen.2

max. possible transmission rate 10Gbit/s
max. possible electrical current
dependent on profile from 1500mA – 5000mA
max. cable length: 1000mm
Hostcontroller Type C, not downward compatible

USB3.1 Premium

- USB 3.1 – max. possible transmission rate 10Gbit/s
- max. possible electrical current dependent on profile from 1500mA – 5000mA
- max. possible electrical power 100W
- max. possible cable length 1000mm
- Type C reversible plug
- Hostcontroller Type C, not downward compatible

USB3.1 Gen.1 Connection Cable Plug Type A to Plug Type C, Premium



USB31 PREMIUM

Stock lengths: 0.5 - 1.0 m

Type of connector connection 1: USB-A plug moulded
Type of connector connection 2: USB-C plug moulded



USB31 PREMIUM

Stock lengths: 0.5 - 1.0 m

Type of connector connection 1: USB-C plug moulded
Type of connector connection 2: USB-C plug moulded

Art.-No.	Description	Colour
K5282SW.x	USB3.1 Gen.1 Connection Cable Plug Type A to Plug Type C, Premium	black

Art.-No.	Description	Colour
K5283SW.x	USB3.1 Gen.2 Connection Cable Plug Type C to Plug Type C, Premium	black

USB3.0 Premium

PREMIUM CABLE SERIES USB 3.0 CHARACTERISTICS:

- Data wire SuperSpeed: AWG30/7 bare copper, tinned, paired in metal foil
- Electrical Conductor: AWG20/7 bare copper, tinned, Micro B: AWG24/7 bare copper, tinned
- Shielding: Braiding 65% coverage
- Reliability: up to 3000mm with max. load of 900mA assured !

USB3.0 Connection Cable Type A Plug to Type B Plug, Premium

USB3.0 Connection Cable Type A Plug to Type Micro B Plug, Premium



USB3.0 PREMIUM

Stock lengths: 1.0 - 1.8 - 3.0 m

Type of connector connection 1: USB-A plug moulded
Type of connector connection 2: USB-B plug moulded

Art.-No.	Description	Colour
K5236.x	USB3.0 Connection Cable Type A Plug to Type B Plug, Premium	black

USB3.0 PREMIUM

Stock lengths: 1.8 - 3.0 m

Type of connector connection 1: USB-A plug moulded
Type of connector connection 2: USB-Micro B plug moulded

Art.-No.	Description	Colour
K5227SW.x	USB3.0 Connection Cable Type A Plug to Type Micro B Plug, Premium	black

USB3.0 Connection Cable Type A Plug to Type A Plug, Premium

USB3.0 Extension Cable Type A Plug to Type A Jack, Premium



USB3.0 PREMIUM

Stock lengths: 1.0 - 1.8 - 3.0 m

Type of connector connection 1: USB-A plug moulded
Type of connector connection 2: USB-A plug moulded

Art.-No.	Description	Colour
K5210SW.x	USB3.0 Connection Cable Type A Plug to Type A Plug, Premium	black

USB3.0 PREMIUM

Stock lengths: 1.0 - 1.8 - 3.0 m

Type of connector connection 1: USB-A plug moulded
Type of connector connection 2: USB-A jack moulded

Art.-No.	Description	Colour
K5237.x	USB3.0 Extension Cable Type A Plug to Type A Jack, Premium	black

USB3.0 Classic

CLASSIC CABLE SERIES USB 3.0 CHARACTERISTICS:

- The USB3.0 CLASSIC Series stands for an excellent price/quality relation
- Proven cable technology for all standard application in SuperSpeed or HighSpeed Modus

USB3.0 Connection Cable Type A Plug to Type B Plug, Classic



USB3.0 CLASSIC

Type of connector connection 1: USB-A plug moulded
Type of connector connection 2: USB-B plug moulded

Art.-No.	Description	Colour
K5247SW.x	USB3.0 Connection Cable Type A Plug to Type B Plug, Classic	black

Stock lengths: 1.0 - 1.8 - 3.0 m

USB3.0 Connection Cable Type A Plug to Type Micro B Plug, Classic



USB3.0 CLASSIC

Type of connector connection 1: USB-A plug moulded
Type of connector connection 2: USB-Micro B plug moulded

Art.-No.	Description	Colour
K5295SW.x	USB3.0 Connection Cable Type A Plug to Type Micro B Plug, Classic	black

Stock lengths: 1.0 - 1.8 - 3.0 m

USB3.0 Connection Cable Type A Plug to Type A Plug, Classic



USB3.0 CLASSIC

Type of connector connection 1: USB-A plug moulded
Type of connector connection 2: USB-A plug moulded

Art.-No.	Description	Colour
K5280SW.x	USB3.0 Connection Cable Type A Plug to Type A Plug, Classic	black

Stock lengths: 1.0 - 1.8 - 3.0 m

USB3.0 Extension Cable Type A Plug to Type A Jack, Classic



USB3.0 CLASSIC

Type of connector connection 1: USB-A plug moulded
Type of connector connection 2: USB-A jack moulded

Art.-No.	Description	Colour
K5268SW.x	USB3.0 Extension Cable Type A Plug to Type A Jack, Classic	black

Stock lengths: 1.0 - 1.8 - 3.0 m

USB3.0 Connection Cable Type A Plug to Type A Panel Jack, Classic



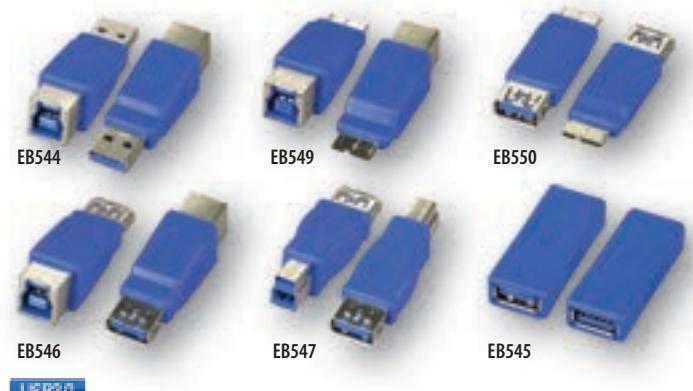
Stock lengths: 0.5 - 1.0 - 1.8 m

USB3.0 CLASSIC

Type of connector connection 1: USB-A plug moulded
 Type of connector connection 2: USB-A jack moulded

Art.-No.	Description	Colour
K5265SW.x	USB3.0 Connection Cable Type A Plug to Type A Panel Jack, Classic	black

USB 3.0 Adapter

**USB3.0**

With this adapter you are able to adapt standard USB cable respectively ports to different USB connector.

Art.-No.	Connection 1	Connection 2
EB544	USB-A plug	USB-B jack
EB546	USB-A jack	USB-B jack
EB547	USB-B jack	USB-Micro-B plug
EB549	USB-A jack	USB-A jack
EB550	USB-A jack	USB-Micro-B plug
EB545	USB-A jack	USB-A jack

USB3.0 Connection Cable Type B Plug to Type B Panel Jack, Classic



Stock lengths: 0.5 - 1.0 - 1.8 m

USB3.0 CLASSIC

Type of connector connection 1: USB-B plug moulded
 Type of connector connection 2: USB-B jack moulded

Art.-No.	Description	Colour
K5264SW.x	USB3.0 Connection Cable Type B Plug to Type B Panel Jack, Classic	black

Keystone Adapter USB3.0 A - A

**USB3.0**

Snap-In mounting (Keystone)
 Connecting adapter for USB cables
 2x USB connectors Type A
 For data transmission rates up to 5Gbit/s
 Plastic housing
 Snap-in spring: plastic

Art.-No.	Description	Colour
EB537	Keystone Adapter USB3.0, Type A Jack - Type A Jack	black

USB3.0 Repeater Cable active

Extend cable up to max 13 m.

Compatible with USB 3.0/2.0/1.1.

Support the following speed data rate as follows: Low-speed (1.5Mbps) / Full-speed (12Mbps)/High-speed (480Mbps) /Super-speed (5Gbps)

Hot plug capability

Support Win10/8/7/XP/MAC OS

Art.-No.	Description	Length
K5271SW.5	USB3.0 Repeater Cable active 5m	5.0 m

USB3.0 to Gigabit Ethernet Adapter

USB Gigabit Ethernet Adapter

Compatibel to USB 2.0/3.0

IEEE 802.3 (10Mbps), 802.3u (100Mbps) and 802.3ab (1000Mbps)

Plug & Play

Status LED's

Low consumption

No additional power supply required

Art.-No.	Description
USB-0401V2	USB3.0 to Gigabit Ethernet, LAN Adapter

USB3.0 to Gigabit EthernetUSB3.0 Desktop Extension Cable

USB jack type A moulded in plastic housing

Additional USB jack type A for power supply

Art.-No.	Description	Length
EB458	USB 3.0 Desktop Extension Cable	1.5 m

USB3.0 Hub 4-Port, Desktop

Supports the connecting up to four devices to one computer

Supported data transfer rates : 1,5-/12-/480 Mbps, 5 Gbit/s

Overload protection (per Port)

Plug-and-Play, no software installation needed

Compact design and incl. power supply

Art.-No.	Description
EB3101	USB3.0 Hub 4-Port incl. 5V4A PS+Connection Cable

USB2.0 Premium

PREMIUM CABLE SERIES USB 2.0 CHARACTERISTICS:

- Twisted Pair data wire: AWG28/7 bare copper tinned
- Shielding 1: Tinned copper braiding 80% coverage
- Shielding 2: Aluminium foil 100% coverage
- Reliability: up to 5000mm with max. load of 500mA assured !

USB2.0 Connection Cable Plug Type C to Plug Type A, Premium

Stock lengths: 0.5 - 1.0 - 2.0 m

Type of connector connection 1: USB-A plug moulded
 Type of connector connection 2: USB-C plug moulded

Art.-No.	Description	Colour
K5258SW.x	USB2.0 Connection Cable Plug Type C to Plug Type A, Premium	black



USB2.0 Connection Cable Type A Plug to Type B Plug, Premium

Stock lengths: 0.5 - 1.0 - 1.8 - 3.0 - 5.0 m

Type of connector connection 1: USB-A plug moulded
 Type of connector connection 2: USB-B plug moulded

Art.-No.	Description	Colour
K5256SW.x	USB2.0 Connection Cable Type A Plug to Type B Plug, Premium	black



USB2.0 Connection Cable Type A Plug to Type Mini-B Plug, Premium

Stock lengths: 0.5 - 1.0 - 1.8 - 3.0 - 5.0 m

Type of connector connection 1: USB-A plug moulded
 Type of connector connection 2: USB-Mini B plug moulded

Art.-No.	Description	Colour
K5251SW.x	USB2.0 Connection Cable Type A Plug to Type Mini-B Plug, Premium	black



USB2.0 Connection Cable Type A Plug to Type Micro-B Plug, Premium

Stock lengths: 0.5 - 1.0 - 1.8 m

Type of connector connection 1: USB-A plug moulded
 Type of connector connection 2: USB-Micro B plug moulded

Art.-No.	Description	Colour
K5232SW.x	USB2.0 Connection Cable Type A Plug to Type Micro-B Plug, Premium	black



USB2.0 Extension Cable Plug Type A to Type A Jack, Premium

Stock lengths: 0.5 - 1.0 - 1.8 - 3.0 - 5.0 m

Type of connector connection 1: USB-A plug moulded
 Type of connector connection 2: USB-A jack moulded

Art.-No.	Description	Colour
K5220SW.x	USB2.0 Extension Cable Plug Type A to Type A Jack, Premium	black



USB2.0 LSZH

THIS USB 2.0 SERIES SHOWS THE PROVEN EFB QUALITY IN COMBINATION WITH AN HALOGEN-FREE LSZH (LOW SMOKE ZERO HALOGEN) JACKET

- Low smoke and zero halogen in case of fire
- Proven EFB cable technology for all standard application in HighSpeed Modus

USB2.0 Connection Cable Type A Plug to Type B Plug, LSZH



USB2.0

Stock lengths: 0.5 - 1.0 - 1.8 - 3.0 - 5.0 m

Type of connector connection 1: USB-A plug moulded
 Type of connector connection 2: USB-B plug moulded

Art.-No.	Description	Colour
K5203.x	USB2.0 Connection Cable Type A Plug to Type B Plug, LSZH	black

USB2.0 Connection Cable Type A Plug to Type A Plug, LSZH



USB2.0

Stock lengths: 0.5 - 1.0 - 1.8 - 3.0 - 5.0 m

Type of connector connection 1: USB-A plug moulded
 Type of connector connection 2: USB-A plug moulded

Art.-No.	Description	Colour
K5204.x	USB2.0 Connection Cable Type A Plug to Type A Plug, black, LSZH	black

USB2.0 Extension Cable Plug Type A to Type A Jack, LSZH



USB2.0

Stock lengths: 0.5 - 1.0 - 1.8 - 3.0 - 5.0 m

Type of connector connection 1: USB-A plug moulded
 Type of connector connection 2: USB-A jack moulded

Art.-No.	Description	Colour
K5205.x	USB2.0 Extension Cable Plug Type A to Type A Jack, LSZH	black

USB2.0 Classic

CLASSIC CABLE SERIES USB 2.0 CHARACTERISTICS:

- The USB2.0 CLASSIC Series stands for an excellent price/quality relation
- Proven cable technology for all standard application in High Speed Modus

USB2.0 Connection Cable Type A Plug to Type B Plug, Classic



USB2.0 CLASSIC

Stock lengths: 0.5 - 1.0 - 1.8 - 3.0 - 5.0 m

Type of connector connection 1: USB-A plug moulded
 Type of connector connection 2: USB-B plug moulded

Art.-No.	Description	Colour
K5255.x	USB2.0 Connection Cable Type A Plug to Type B Plug, Classic	grey
K5255SW.x	USB2.0 Connection Cable Type A Plug to Type B Plug, Classic	black

USB2.0 Connection Cable Type A Plug to Type Micro-B Plug, Classic



USB2.0 CLASSIC

Stock lengths: 0.5 - 1.0 - 1.8 m

Type of connector connection 1: USB-A plug moulded
 Type of connector connection 2: USB-Micro B plug moulded

Art.-No.	Description	Colour
K5228SW.x	USB2.0 Connection Cable Type A Plug to Type Micro-B Plug, Classic	black

USB2.0 Extension Cable Plug Type A to Type A Jack, Classic



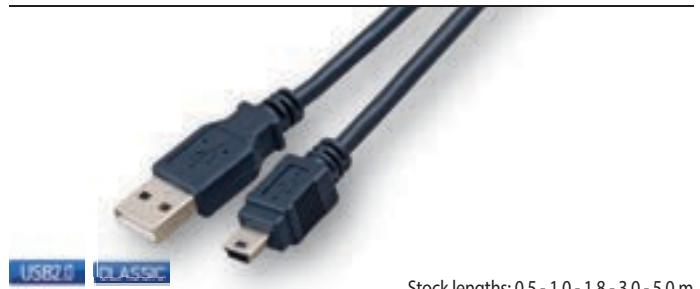
USB2.0 CLASSIC

Stock lengths: 0.5 - 1.0 - 1.8 - 3.0 - 5.0 m

Type of connector connection 1: USB-A plug moulded
 Type of connector connection 2: USB-A jack moulded

Art.-No.	Description	Colour
K5248.x	USB2.0 Extension Cable Plug Type A to Type A Jack, Classic	grey
K5248SW.x	USB2.0 Extension Cable Plug Type A to Type A Jack, Classic	black

USB2.0 Connection Cable Type A Plug to Type Mini-B Plug, Classic



USB2.0 CLASSIC

Stock lengths: 0.5 - 1.0 - 1.8 - 3.0 - 5.0 m

Type of connector connection 1: USB-A plug moulded
 Type of connector connection 2: USB-Mini B plug moulded

Art.-No.	Description	Colour
K5250.x	USB2.0 Connection Cable Type A Plug to Type Mini-B Plug, Classic	grey
K5250SW.x	USB2.0 Connection Cable Type A Plug to Type Mini-B Plug, Classic	black

USB2.0 Connection Cable Type A Plug to Type A Plug, Classic



USB2.0 CLASSIC

Stock lengths: 0.5 - 1.0 - 1.8 - 3.0 - 5.0 m

Type of connector connection 1: USB-A plug moulded
 Type of connector connection 2: USB-A plug moulded

Art.-No.	Description	Colour
K5253SW.x	USB2.0 Connection Cable Type A Plug to Type A Plug, Classic	black

USB2.0 Connection Cable A to Mini-B 4-pol., Classic



USB2.0 CLASSIC

Stock lengths: 1.0 - 1.8 m

Type of connector connection 1: USB-A plug moulded
 Type of connector connection 2: USB-Mini B plug moulded

Art.-No.	Description	Colour
K5281SW.x	USB2.0 Connection Cable A to Mini-B 4-pol., Classic	black

USB2.0 Connection Cable Type B Plug to Type B Panel Jack, Classic



Type of connector connection 1: USB-B plug moulded
Type of connector connection 2: USB-B jack moulded

Stock lengths: 0.5 - 1.0 - 1.8 - 3.0 m

Art.-No.	Description	Colour
K5293SW.x	USB2.0 Connection Cable Type B Plug to Type B Panel Jack, Classic	black

USB2.0 Connection Cable Type A(90°) Plug to Type B Plug, Classic



USB2.0 Connection Cable Type A Plug to Panel Jack A, Classic



Type of connector connection 1: USB-A plug moulded
Type of connector connection 2: USB-A plug moulded

Stock lengths: 0.5 - 1.0 - 1.8 - 3.0 m

Art.-No.	Description	Colour
K5291SW.x	USB2.0 Connection Cable Type A Plug to Panel Jack A, Classic	black

USB2.0 Extension Cable Plug Type A(90°) to Type A Jack, Classic



Stock lengths: 0.5 - 1.0 - 1.8 - 3.0 - 5.0 m

Type of connector connection 1: USB-A 90° plug moulded
Type of connector connection 2: USB-B plug moulded

Art.-No.	Description	Colour
K5245SW.x	USB2.0 Extension Cable Plug Type A(90°) to Type A Jack, Classic	black

USB2.0 Connection Cable Plug Type A Plug to Plug Type B(90°), Classic



Stock lengths: 0.5 - 1.0 - 1.8 - 3.0 - 5.0 m

Type of connector connection 1: USB-A plug moulded
Type of connector connection 2: USB-B 90° plug moulded

Art.-No.	Description	Colour
K5260SW.x	USB2.0 Connection Cable Plug Type A Plug to Plug Type B(90°), Classic	black

Flexible charging and synchronizing for your iPhone

With this Lightning cable, you can charge and sync your iPhone, iPad or iPod.
 Because of the reversible, MFI certified lightning plug, an incorrect connection is impossible.
 Additionally with our 2 in 1 version you can connect all common smartphones

USB2.0 Connection Cable Plug Type A to Lightning

- MFI certified
- Reversible
- Very flexible jacket with small bending radius
- Double shielding

USB 2.0 to Lightning Cable

Loading- and Sync-Cable for iPhone, iPad and iPod
 very flexible PVC jacket with small diameter
 with foil and braid shielding

Stock lengths: 1.0 - 2.0 - 3.0 m

Type of connector connection 1: USB-A plug moulded
 Type of connector connection 2: Lightning plug moulded

Art.-No.	Description	Colour
K5350WS.x	USB2.0 Connection Cable Plug Type A to Lightning	white



USB2.0 Connection Cable Plug Typ-A to 2 in 1 Plug - Micro B / Lightning

- MFI certified
- For all common Smartphones
- Captive Lightning adapter
- Very flexible jacket with small bending radius
- Double shielding

Stock lengths: 1.0 - 2.0 m

Type of connector connection 1: USB-A plug moulded
 Type of connector connection 2: Lightning plug moulded

Art.-No.	Description	Colour
K5351WS.x	USB2.0 Connection Cable Plug Typ A to 2 in 1 Plug - Micro B / Lightning	white



USB2.0 Connection Cable Type A Plug to Type A Plug, lockable



Stock lengths: 1.0 - 1.8 m

USB2.0



Plug & Play cable
Lockable plugs

Conform to standard USB2.0 jack
Supports data transmission rates up to 480 Mbit/s
Wire: bare copper. Wire construction: AWG28 / AWG24
Shielded: Foil + braiding
PVC jacked

Type of connector connection 1: USB-A plug moulded
Type of connector connection 2: USB-A plug moulded

Art.-No.	Description	Colour
K5211SW.x	USB2.0 Connection Cable Type A Plug to Type A Plug, lockable	black

USB2.0 Adapter



With this adapter you are able to adapt standard USB cable respectively ports to different USB connector

Art.-No.	Connection 1	Connection 2
EB441	USB-A plug	USB-A plug
EB442	USB-A jack	USB-A jack
EB443	USB-A jack	USB-B plug
EB542	USB-A jack	USB-B jack
EB541	USB-A plug	USB-B jack
EB543	USB-A jack	USB-Micro B plug

USB2.0 Reversible connection cable Typ A Plug to Micro-B 5pol. Plug, white



Stock lengths: 1.0 m

USB2.0



Reversible USB2.0 Cable: Both USB-Plugs could be turned 180° fits perfectly for Smartphones or Tablets extreme flexible TPE jacket with small diameter With foil and braid shielding

Type of connector connection 1: USB-A plug moulded
Type of connector connection 2: USB-Micro B plug moulded

Art.-No.	Description	Colour
K5215WS.x	USB2.0 Reversible connection cable Typ A Plug to Micro-B 5pol. Plug,	white

USB2.0 Keystone Adapter



Mounting depth: 32 mm, USB2.0 type A jack / type B jack
Housing material: plastic
Suitable ET-25085

Art.-No.	Description
EB498V2	USB2.0 Snap-In Adapter white Type A Jack / Type A Jack
EB527V2	USB2.0 Snap-In Adapter black Type A Jack / Type A Jack
EB534	USB2.0 Snap-In Adapter black Type A Jack / Type B Jack

USB 2.0 Hub 4-Port, Mini, magnetic



USB2.0

Compliant with Universal Serial Bus Specification Revision 2.0 & USB1.1
 All downstream facing ports can handle high-speed (480Mbps), full-speed (12Mbps), and low-speed (1.5Mbps) transaction
 Easy Plug & Play and Hot Swappable capability
 Equipped with magnetic fixing element
 Supports Win10/8/7/XP/MAC OS

Art.-No.	Description
EBUSB102	USB2.0 Hub 4-Port, Mini, magnetic fixing

USB 2.0 Cardreader



USB2.0

Support for up to 55 memory card types as SDXC/SD/SDHC/MMC/microSD/micro eg.
 According to USB1.1 and USB2.0 standard
 With LED light

Art.-No.	Description
EBUSBCARD100	Card Reader, USB2.0, Desktop, Multicard incl. SDHC

USB 1.1 Extender via Twisted Pair 40 Meter



Supports the connection to one device up to a length of 40 meters by using one Cat.5e/6 patchcable supports data transfer rates: 1,5/-12/-480 Mbps
 Compact design
 Plug & Play, no software installation needed
 Power over USB2.0 port

Art.-No.	Description
EB2105	USB2.0 Extender Cat.5e/6 40m

USB 2.0 Hub 7-Port, Desktop, with Power Supply



USB2.0

USB 2.0 Hub for connecting of max. 7 devices to 1 Computer
 Compatible to USB 2.0 and 1.1 devices.
 Runs on Win10/8/7/XP/MAC OS und certain Linux kernels.
 With Auto-Speed adjusting for all ports with Super/High/Full/Low Speed (5Gbit/s/480/12/1,5 Mbps).

Incl. USB2.0 cable and power supply 5V/3A DC

Art.-No.	Description
EB2103	USB2.0 Hub 7-Port incl.5V3A PS+Connection Cable

USB 1.1 Extender via Twisted Pair



USB 1.1 extender via Twisted Pair
 Extends the range distance of your USB1.1 device
 Standards for low power USB
 With Cat.5/6/7 RJ45 cable length of max. 60 m possible
 With transmitter and receiver
 Auto-Speed adjusting and compensation optional: E-NT2

Art.-No.	Description
UCE60	USB 1.1 Extender via Twisted Pair

USB 2.0 Extender via Twisted Pair 100 Meter



Supports the connection up to four devices up to a length of 100 meters by using one Cat.5e/6 patchcable
 Supports data transfer rates : 1,5/-12/-480 Mbps
 Compact design
 Plug & Play, no software installation needed
 Incl. power supply

Art.-No.	Description
EB2104	USB2.0 Extender Cat.5e/6 100m 4-Port, incl. Power Supply

USB2.0 Repeater cable Type A Jack to Typ A Plug (cascadable)



USB2.0

USB2.0 Extension cable 5m, active 1-port hub with 5 m cable
USB-A receptacle to USB-A plug
Max. 4 x cascadable (= 25 m)
Integrated ASIC Chip as signal repeater/buffer
Power supply via USB-interface
Type of connector connection 1: USB-A plug mounted
Type of connector connection 2: USB-A jack mounted

Art.-No.	Description	Length
K5263.5V2	USB2.0 Repeater Cable Type A Jack to Typ A Plug (cascadable)	5.0 m

USB2.0 Desktop Extension



USB2.0

USB1.1 2 Port-PS/2 converter
2 x PS/2-jack to 1 x USB A-plug
Connects PS/2-mouse and -keyboard via USB-bus
Supports UHCI/OHCI Controller interface
Low-Level USB-device (Bus-powered)
WIN98SE/ME/2000/XP/HPUNIX/Linux/MAC OS
No additional software required!
Type of connector connection 1: USB-A plug mounted
Type of connector connection 2: USB-A jack mounted

Art.-No.	Description	Length
EB438	USB2.0 Desktop Extension	1.5 m

USB - Parallel Converter



USB2.0 Repeater cable Type A Jack to Type A Plug (cascadable)



USB2.0

Active USB2.0 extension cable to bypass length which are to long for standard passive USB cable

Type of connector connection 1: USB-A plug mounted
Type of connector connection 2: USB-A jack mounted

Art.-No.	Description	Length
K5272SW.5	USB2.0 Repeater Cable Typ A Jack to Typ A Plug (cascadable)	5.0 m
K5272SW.10	USB2.0 Repeater Cable Typ A Jack to Typ A Plug (cascadable)	10.0 m

USB - RS232 Converter



USB A plug to DSub 9-pole plug, 1.8 metres
Supports RS-232, DB9, DB25
Connection of serial devices to USB
Power supply via USB interface
Chipset: Profilic Chip
With driver CD for Windows / Linux and Mac Systems
Included in delivery: gender changer DB9 jack/DB25 plug

Art.-No.	Description	Length
EB853A	USB1.1 RS232 Converter, aktiv, USB A - DB9, M-M	1.8 m
EB853B	USB2.0 RS232 Converter, aktiv, USB A - DB9, M-M	1.8 m

Internal USB-A Adapter Cable



Internal USB cable, length 0.2m
 USB slot bracket with 2 x USB jacks Type A to 2 x 5 pole USB board connector(pitch 2.54)
 Interface adapter from USB controller to the housing
 Type of connector connection 1: USB-A plug mounted
 Type of connector connection 2: other plug mounted

Art.-No.	Description	Length
K5305.020V2	Internal USB-A Adapter Cable	0.2 m

USB Adapter Cable USB A Plug - Mini DIN 6pole Jack



USB plug type-A to MiniDIN 6 pole jack
 This adapter is only suitable for combination devices that have an integrated USB interface.
 Type of connector connection 1: USB-A plug mounted
 Type of connector connection 2: PS/2 jack mounted

Art.-No.	Description	Length
K5307.020	USB Adapter Cable USB A Plug - Mini DIN 6pole Jack	0.2 m

USB2.0 Y-cable, 1x USB B Plug / 2x USB A Plug



1 x USB-B plug to 2 x USB-A plug
 For additional power supply of USB devices that require up to 1A
 Type of connector connection 1: USB-B plug mounted
 Type of connector connection 2: USB-A jack mounted

Art.-No.	Description	Length
K5304.1	USB2.0 Y-cable, 1xUSB B plug - 2x USB A plug	1.0 m

USB Adapter Cable for Game Port USB-A Plug to D-SUB15 Jack

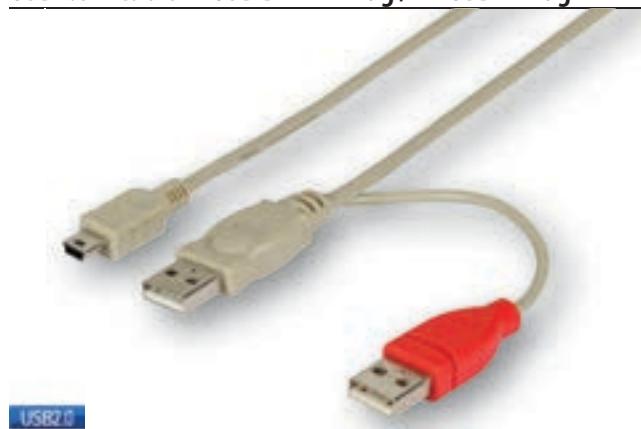


USB2.0 adapter cable for PC Game Port
 This adapter is only suitable for combination devices that have an integrated USB interface

Type of connector connection 1: USB-A plug mounted
 Type of connector connection 2: D-Sub jack mounted

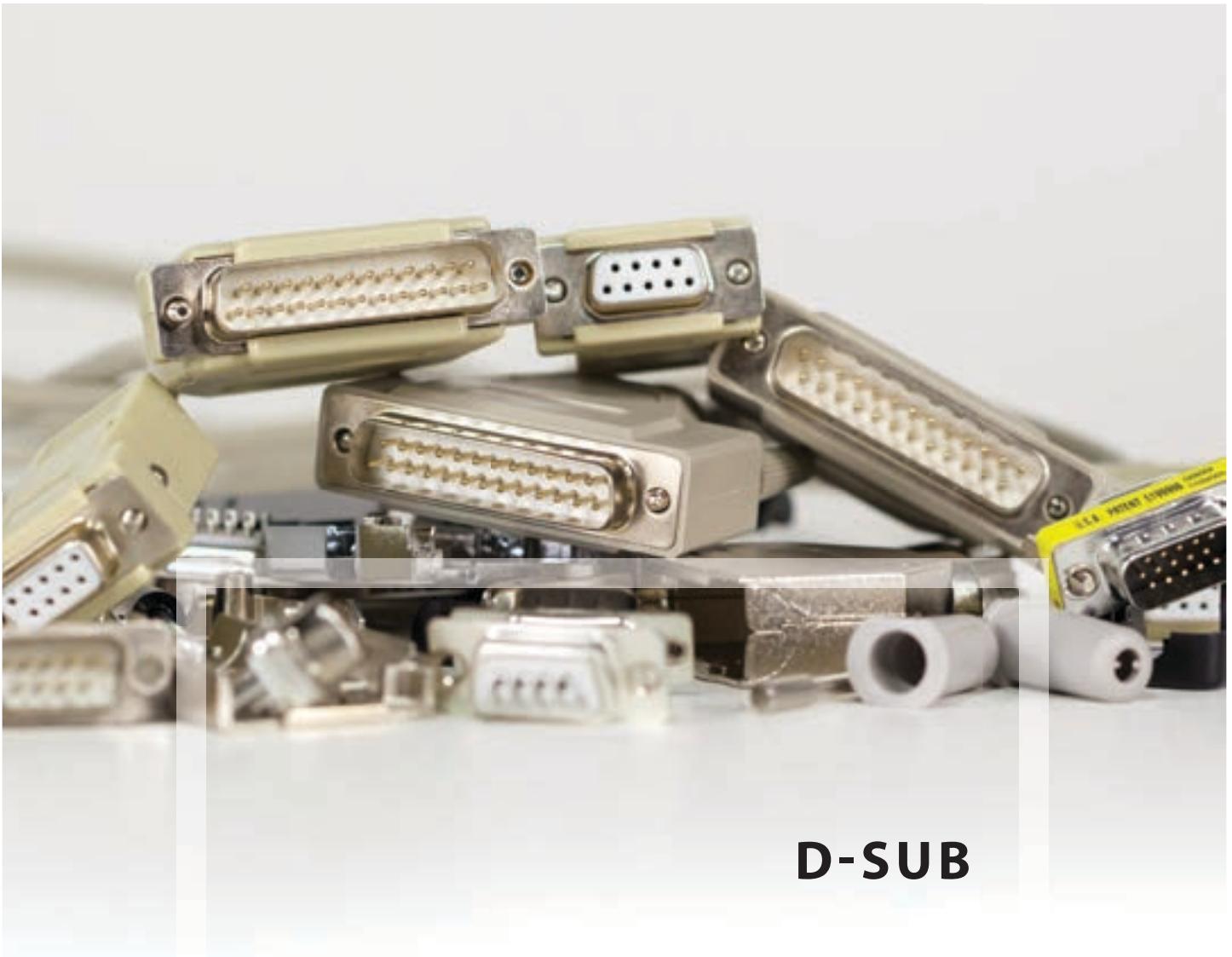
Art.-No.	Description	Length
K5306.020V2	USB Adapter Cable for Game Port USB-A Plug to D-SUB15 Jack	0.2 m

USB2.0 Y-cable 1xUSB B MINI Plug / 2x USB A Plug



1 x USB Mini-B plug to 2 x USB-A plug
 For additional power supply of USB devices that require up to 1A
 Type of connector connection 1: USB-A Mini-plug mounted
 Type of connector connection 2: USB-A plug mounted

Art.-No.	Description	Length
K5303.1	USB2.0 Y-cable 1xUSB Mini-B Plug / 2x USB A Plug	1.0 m



D-SUB

The serial data interface RS232 is still extremely popular, even in the age of gigabit. The D-Sub miniature plug connector which is older but very robust, still satisfies all the electrical and mechanical requirements for a stable signal transmission. It is particularly appreciated in the industrial environment for its excellent mechanical characteristics, such as vibration stability and high contact resistance up to 5A. EFB-Elektronik offers a wide range of variants with different amount of contacts from 9-pin to 62-pin.

MULTIMEDIA

Data Cable DSub 9pol., Plug - Plug

Stock lengths: 2.0 - 3.0 - 5.0 - 10 m

Pinning: 1:1.
With long thumb screws. Shielded. Moulded.

Type of connector connection 1: D-Sub 9 plug
Type of connector connection 2: D-Sub 9 plug

Art.-No.	Description
EK129.x	Data Cable DSub 9pol., Plug - Plug

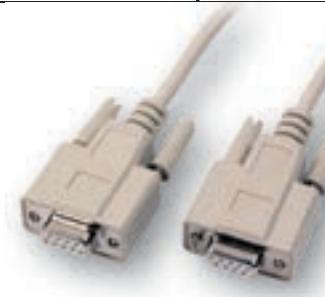
Data Cable DSub 9pol., Plug - Jack

Stock lengths: 1.0 - 2.0 - 3.0 - 5.0 - 10 m

Pinning: 1:1.
With long thumb screws. Shielded. Moulded.

Type of connector connection 1: D-Sub 9 plug
Type of connector connection 2: D-Sub 9 jack

Art.-No.	Description
EK131.x	Data Cable DSub 9pol., Plug - Jack

Data Cable DSub 9pol., RS232, Jack - Jack

Stock lengths: 2.0 - 3.0 - 5.0 m

Pinning: 1:1.
With long thumb screws. Shielded. Moulded.

Type of connector connection 1: D-Sub 9 jack
Type of connector connection 2: D-Sub 9 jack

Art.-No.	Description
EK152.x	Data Cable DSub 9pol., RS232, Jack - Jack

Laplink Cable Serial 3.0m

Stock lengths: 3.0 m

Pinning: 1-4, 2-3, 3-2, 4-1, 5-5, 7-8, 8-7, 9-9, S-S.
Shielded. Mounted.

Type of connector connection 1: D-Sub 9 jack
Type of connector connection 2: D-Sub 9 jack

Art.-No.	Description
EK143.x	Laplink Cable Serial

Zero Modem Cable

Stock lengths: 2.0 m

Pinning 1-7, 1-8, 2-3, 3-2, 4-6, 5-5, 6-4, 7-1, 8-1, S-S.
Shielded type. Mounted.

Type of connector connection 1: D-Sub 9 jack
Type of connector connection 2: D-Sub 9 jack

Art.-No.	Description
K5166.x	Zero Modem Cable

Data Cable DSub 15 pol., X.21, Plug - Jack

Stock lengths: 1.0 - 2.0 - 3.0 - 5.0 - 10 m

Pinning: 1:1.
With long thumb screws. Shielded. Moulded.

Type of connector connection 1: D-Sub 15 plug
Type of connector connection 2: D-Sub 15 jack

Art.-No.	Description
K5129.x	Data Cable DSub 15 pol., X.21, Plug - Jack

Data Cable DSub 15 pol., X.21, Plug - Plug

Stock lengths: 2.0 - 3.0 - 5.0 - 10 m

Pinning: 1:1.
With long thumb screws. Shielded. Moulded.

Type of connector connection 1: D-Sub 15 plug
Type of connector connection 2: D-Sub 15 plug

Art.-No.	Description
K5139.x	Data Cable DSub 15 pol., X.21, Plug - Plug

Data Cable DSub 25 pol., RS232 V.24, Plug - Plug

Stock lengths: 1.0 - 2.0 - 3.0 - 5.0 - 10 m

Pinning: 1:1.
With long thumb screws. Shielded. Moulded.

Type of connector connection 1: D-Sub 25 plug
Type of connector connection 2: D-Sub 25 plug

Art.-No.	Description
EK137.x	Data Cable DSub 25 pol., RS232 V.24, Plug - Plug

Data Cable DSub 25pol., Plug-Jack RS232 V.24

Stock lengths: 1.0 - 2.0 - 3.0 - 5.0 - 10 m

Pinning: 1:1.
With long thumb screws. Shielded. Moulded.

Type of connector connection 1: D-Sub 25 plug
Type of connector connection 2: D-Sub 25 jack

Art.-No.	Description
EK165.x	Data Cable DSub 25pol., Plug-Jack RS232 V.24

Bi-Directional Parallel Printer Cable

Stock lengths: 1.8 - 3.0 - 5.0 - 10 m

Pinning: 1-1, 2-2, 3-3, 4-4, 5-5, 6-6, 7-7, 8-8, 9-9, 10-10, 11-11, 12-12, 13-13, 14-14, 15-32, 16-31, 17-36, 18-15-19~30, S-S. Shielded. Molded.

Type of connector connection 1: D-Sub 25 plug
Type of connector connection 2: Centronics 36 plug

Art.-No.	Description
K5174.x	Bi-Directional Parallel Printer Cable

Serial Cable for Laser Printer

Stock lengths: 3.0 - 5.0 m

Pinning: 1-4, 2-2, 3-3, 4-5, 4-6, 5-7, 6-20, 8-20
Shielded type. Mounted

Type of connector connection 1:D-Sub 25 plug
Type of connector connection 2:D-Sub 9 jack

Art.-No.	Description
EK150.x	Serial Cable for Laser Printer

Data Cable DSub 37pol., Plug - Jack

Stock lengths: 2.0 - 3.0 - 5.0 m

Pinning: 1:1.
With long thumb screws. Shielded. Molded.

Type of connector connection 1:D-Sub 37 plug
Type of connector connection 2:D-Sub 37 jack

Art.-No.	Description
K5186.x	Data Cable DSub 37pol., Plug - Jack

Data Cable DSub 37pol., Plug - Plug

Stock lengths: 1.0 - 2.0 m

Pinning: 1:1. Shielded. Color beige. Molded.

Type of connector connection 1:D-Sub 37 plug
Type of connector connection 2:D-Sub 37 plug

Art.-No.	Description
K5190.x	Data Cable DSub 37pol., Plug - Plug

RS232 Adapter Cable, 9pol. jack - 25pol. plug

Stock lengths: 0.25 - 2.0 - 3.0 m

Pinning 1-8, 2-3, 3-2, 4-20, 5-7, 6-6, 7-4, 8-5, 9-22, S-S.
Shielded. Mounted.

Type of connector connection 1:D-Sub 9 jack
Type of connector connection 2:D-Sub 25 plug

Art.-No.	Description
EK125.x	RS232 Adapter Cable, 9pol. jack - 25pol. plug

Mouse-/Keyboard Cable, PS/2

Stock lengths: 2.0 - 3.0 - 5.0 - 10 m

Pinning: 1:1. Shielded. Color beige. Molded.

Art.-No.	Description
EK318.x	PS2 Connection Cable, 2x PS/2, M-M, beige
EK323.x	PS2 Extension Cable, 2x PS/2, M-F, beige

IBM-PS/2 Mouse/Keyboard AdapterKeyboard Cable, MiniDin6-Plug / DIN5-Jack

Shielded. Molded.

Art.-No.	Description
EK560.030	Mouse-/Keyboard Adapter, Mini DIN 6 to 2x Mini DIN 6, M-2x F, 0.30m, beige

Art.-No.	Description
EK530.015	Mini Din 6 to DIN 5, M-F, 0.15m
EK536.015	Mini Din 6 to DIN 5, F-M, 0.15m

USB-A-Jack/Mini-DIN6 Plug

Art.-No.	Description
EB439	Adapter, USB-A to Mini Din 6, F-M

Adapter DSub 9pol. Jack - DSub 25pol. Plug

Interface adapter 9pole to 25pole.
Furthermore the adapter can also be used to connect two cable.

Art.-No.	Description
EB914	Adapter, DSub 9 to DSub 25, F-M, beige
EB914F	Adapter, DSub 9 to DSub 25, M-F, beige

Mini Gender Changer DSub 9.pol Plug-Plug

Art.-No.	Description
EB410	Mini Gender Changer, DSub 9, M-M
EB410MF	Mini Gender Changer, DSub 9, M-F
EB411	Mini Gender Changer, DSub 9, F-F

Mini Gender Changer DSub 25.pol Plug-Plug

Art.-No.	Description
EB414	Mini Gender Changer, DSub 25, M-M
EB414MF	Mini Gender Changer, DSub 25, M-F
EB415	Mini Gender Changer, DSub 25, F-F

Interface Converter RS232 to RS422/RS485

Ports: RS232. Input: DSub 25-pole jack, RS-422/485. Output: RJ11 jack (6P4C) or 4-pole terminal block. TP cable up to 1200 m between two converters.
Data rate: up to 100 kbit/s under 1200 m. **Incl. external power supply unit.**

Art.-No.	Description
IC-485S	Interface Converter RS232 to RS422/R485

Mini Gender Changer DSub 15.pol Plug-Plug

Art.-No.	Description
EB412	Mini Gender Changer, DSub 15, M-M
EB413	Mini Gender Changer, DSub 15, F-F

Mini Gender Changer HD15.pol Plug-Plug

Art.-No.	Description
EB418	Mini Gender Changer, HD-DSub 15, M-M
EB419	Mini Gender Changer, HD-DSub 15, M-F
EB420	Mini Gender Changer, HD-DSub 15, F-F

DSub Solder Plugs

Tin-plated housing
Quality level III >= 50 mating cycles

Art.-No.	Type	PU
28653.1	EDS 09 LL /Z	50
28656.1	EDS 15 LL /Z	50
28661.1	EDS 25 LL /Z	50
28664.1	EDS 37 LL /Z	40
28667.1	EDS 50 LL /Z	40

DSub Solder Jacks

Tin-plated housing
Quality level III >= 50 mating cycles

Art.-No.	Type	PU
28603.1	EDF 09 LL /Z	50
28606.1	EDF 15 LL /Z	50
28611.1	EDF 25 LL /Z	50
28614.1	EDF 37 LL /Z	40
28617.1	EDF 50 LL /Z	40

HD-DSub Solder Plugs

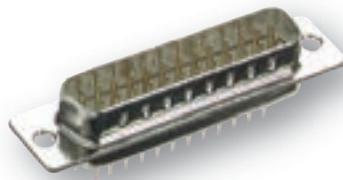
Tin-plated housing
Quality level III >= 50 mating cycles

Art.-No.	Type	PU
34504.1	E-HDS 15 LL/Z	50
34509.1	E-HDS 26 LL/Z	50
34505.1	E-HDS 44 LL/Z	50
34506.1	E-HDS 62 LL/Z	40

HD-DSub Solder Jacks

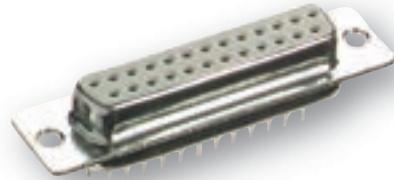
Tin-plated housing
Quality level III >= 50 mating cycles

Art.-No.	Type	PU
34501.1	E-HDF 15 LL/Z	50
34510.1	E-HDF 26 LL/Z	50
34503.1	E-HDF 62 LL/Z	40

DSub plugs for print mounting

Punched contacts
Quality level III >= 50 mating cycles

Art.-No.	Type	PU
28753.1	EDS 09 PP	50
28756.1	EDS 15 PP	50
28759.1	EDS 25 PP	50
28762.1	EDS 37 PP	40

DSub jacks for print mounting

Punched contacts
Quality level III >= 50 mating cycles

Art.-No.	Type	PU
28703.1	EDF 09 PP	50
28706.1	EDF 15 PP	50
28709.1	EDF 25 PP	50
28712.1	EDF 37 PP	40

DSub Crimp Housing for plugs

Art.-No.	Type	PU
34606.1	E-DSCR/09	50
34607.1	E-DSCR/15	50
34608.1	E-DSCR/25	50
34609.1	E-DSCR/37	40
34610.1	E-DSCR/50	40
34614.1	Crimpcontacts E-CRIS/28/100/B 100er-bag	1
34615.2	Crimpcontacts E-CRIS/28/0 10.000er coil	1

DSub Crimp Housing for jacks

Art.-No.	Type	PU
34601.1	E-DFCR/09	50
34602.1	E-DFCR/15	50
34603.1	E-DFCR/25	50
34604.1	E-DFCR/37	40
34605.1	E-DFCR/50	40
34612.1	Crimpcontacts E-CRIF/28/100/B 100er-bag	1
34616.2	Crimpcontacts E-CRIF/28/0 10.000er coil	1

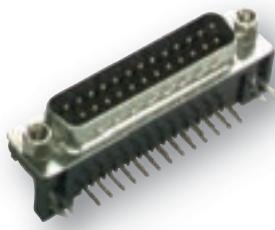
DSub Tools

Art.-No.	Description
39913.1	D-SUB Crimping tool, for AWG18-22 and AWG24-30
39914.1	D-SUB Releasing tool

**DSub jacks 7.2 mm, 90° angled,
USA-Standard**


Quality level III
UNC 4-40 bolts
PushFit snap-in fastening element

Art.-No.	Type	PU
29226.2	EDF 09A-KGT2	100
34710.2	EDF 15A-KGT2	70

**DSub plugs 9.4 mm, 90° angled,
EURO-Standard**


Quality level III
UNC 4-40 bolts
PushFit snap-in fastening element

Art.-No.	Type	PU
29259.1	E-DS 09A KG-T1	100
34706.1	E-DS 15A/KG-T1	70
34707.1	E-DS 25A/KG-T1	50

**DSub jacks 9.4 mm, 90° angled,
EURO-Standard**


Quality level III
UNC 4-40 bolts
PushFit snap-in fastening element

Art.-No.	Type	PU
34701.1	EDF 09 A/KG-T1	100
34702.1	EDF 15 A/KG-T1	70
34703.1	EDF 25 A/KG-T1	50

HD-DSub jacks 9.4 mm


Quality level III
UNC 4-40 bolts

Art.-No.	Type	PU
34507.1	E-HDF 15 A-KG/T1	50

**DSub plugs, IDC contacts, flat,
UNC thread, for Flat Cable**


Quality level III, 50 mating cycles
UNC thread

Art.-No.	Type	PU
29065.1	EDSF 09 LPIII/Z UNC	90
29066.1	EDSF 15 LPIII/Z UNC	50
29067.1	EDSF 25 LPIII/Z UNC	50
29068.1	EDSF 37 LPIII/Z UNC	40

**DSub jacks, IDC contacts, flat,
UNC thread, for Flat Cable**


Quality level III, 50 mating cycles
UNC thread

Art.-No.	Type	PU
29015.1	EDFF 09 LPIII/Z UNC	90
29016.1	EDFF 15 LPIII/Z UNC	70
29017.1	EDFF 25 LPIII/Z UNC	40
29018.1	EDFF 37 LPIII/Z UNC	30

**DSub plugs, IDC contacts, flat version,
for Flat Cable**


Quality level III
50 mating cycles

Art.-No.	Type	PU
29060.1	EDSF 09 LPIII/Z	50
29061.1	EDSF 15 LPIII/Z	50
29062.1	EDSF 25 LPIII/Z	50
29063.1	EDSF 37 LPIII/Z	40

**DSub jacks, IDC contacts, flat version,
for Flat Cable**


Quality level III
50 mating cycles

Art.-No.	Type	PU
29010.1	EDFF 09 LPIII/Z	90
29011.1	EDFF 15 LPIII/Z	50
29012.1	EDFF 25 LPIII/Z	50
29013.1	EDFF 37 LPIII/Z	40

UNC 4-40 Bolt and Nut-Sets


UNC 4-40 with nut,
galvanised

Art.-No.	Description	PU
29311.1	UNC4-40 Bolt Set with nut, nickel plated	100
29313.1	UNC4-40 Nut-Set ESV-U/K (set=2)	100

Plastic Cover E-DH, metallized, 180° Cable Outlet

Plastic housing, incl. thumb screws. With snap fastener

Art.-No.	Type	Material	Colour	PU
29417.1	E-DH 09	plastic	metallized/silver	50
29522.1	E-DH 15	plastic	metallized/silver	50
29414.1	E-DH 25	plastic	metallized/silver	50

Art.-No.	Accessory
29517.1V2	Thumb screw 43mm f. EDH/UNC, with slit

Plastic Cover E-DH, grey, 180° Cable Outlet

Plastic housing, incl. thumb screws. With snap fastener

Art.-No.	Type	Material	Colour	PU
29416.1	E-DH 09	plastic	grey	50
29521.1	E-DH 15	plastic	grey	50

Art.-No.	Accessory
29517.1V2	Thumb screw 43mm f. EDH/UNC, with slit

Plastic Cover E-DH, black, 180° Cable Outlet

Plastic housing, incl. thumb screws. With snap fastener

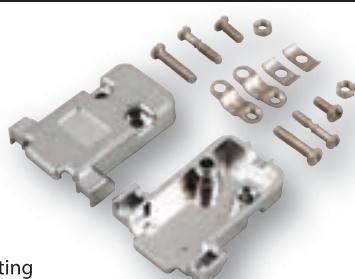
Art.-No.	Type	Material	Colour	PU
29415.1	E-DH 09	plastic	black	50
29520.1	E-DH 15	plastic	black	50
29412.1	E-DH 25	plastic	black	50

Art.-No.	Accessory
29517.1V2	Thumb screw 43mm f. EDH/UNC, with slit

Plastic Cover Flip-Top, black, 180° Cable Outlet

Package with complete accessories. With long thumb screws

Art.-No.	Type	Material	Colour	PU
29475.1	E-FT 09/SCH	plastic	black	50
29477.1	E-FT 15/SCH	plastic	black	50
29484.1	E-FT 25/SCH	plastic	black	50

Plastic Cover E-GP, metallized, 180° Cable Outlet

Housing with double screw fitting

Art.-No.	Type	Material	Colour	PU
29426.1	E-GP 09/ME	plastic	metallized/silver	50
29427.1	E-GP 15/ME	plastic	metallized/silver	50
29428.1	E-GP 25/ME	plastic	metallized/silver	50
29429.1	E-GP 37/ME	plastic	metallized/silver	50
29445.1	E-GP 50/ME	plastic	metallized/silver	50

Art.-No.	Accessory
29501.1	Thumb screw UNC4/40/5.3, 44 mm for E-GP with slit
29502.1	Thumb screw UNC4/40/4.0, 44 mm for E-GP without slit

Plastic Cover E-GP, grey, 180° Cable Outlet

Housing with double screw fitting

Art.-No.	Type	Material	Colour	PU
29419.1	E-GP 09/G	plastic	grey	50
29420.1	E-GP 15/G	plastic	grey	50
29423.1	E-GP 25/G	plastic	grey	50

Art.-No.	Accessory
29501.1	Thumb screw UNC4/40/5.3, 44 mm for E-GP with slit
29502.1	Thumb screw UNC4/40/4.0, 44 mm for E-GP without slit

Full Metal Cover E-DTZK, 180° Cable Outlet

With long thumb screws

Incl. boots for cable diameters 4 - 6 mm, 6 - 8 mm, 8 - 10 mm

Art.-No.	Type	Material	Colour	PU
29446.1	E-DTZK 9-K	zinc die-cast	silver	25
29447.1	E-DTZK 15-K	zinc die-cast	silver	25
29448.1	E-DTZK 25-K	zinc die-cast	silver	100
29449.1	E-DTZK 37-K	zinc die-cast	silver	25

Full Metal Cover E-MHDM, 180° Cable Outlet

Full metal housing 180° cable outlet

Thumb screws UNC 4-40

For cable diameter up to 13.0 mm

Attenuation: > 40 dB between 30 MHz and 1 GHz

Incl. HF shielded boots for cable diameters 4 - 6 mm, 6 - 8 mm, 8 - 10 mm, 6 - 8 mm, 8 - 10 mm

Art.-No.	Type	Material	Colour	PU
29470.1	E-MHDM 09-K	zinc die-cast	silver	100
29471.1	E-MHDM 15-K	zinc die-cast	silver	100
29472.1	E-MHDM 25-K	zinc die-cast	silver	100
29473.1	E-MHDM 37-K	zinc die-cast	silver	100

Interface Cover, Empty

Art.-No.	Type	Material	Colour	PU
EB0909	DSub 9pol./DSub 9pol.	plastic	grey	50
EB0909M	DSub 9pol./DSub 9pol.	metalized plastic	metalized/silver	50
EB0925	DSub 9pol./DSub 25pol.	plastic	grey	50
EB1515M	DSub 9pol./DSub 25pol.	metalized plastic	metalized/silver	50
EB2525	DSub 25pol./DSub 25pol.	plastic	grey	50
EB2525M	Dsub 25pol./Dsub 25pol.	metalized plastic	metalized/silver	50

Full Metal Cover E-MHDM35, 35° Cable Outlet

Full metal housing, 35° cable outlet

Thumb screws UNC 4-40

For cable diameter up to 13.0 mm

Attenuation: > 40 dB between 30 MHz and 1 GHz

Incl. HF shielded boots for cable diameters 4 - 6 mm, 6 - 8 mm, 8 - 10 mm

Art.-No.	Type	Material	Colour	PU
29560.1	E-MHDM35 09-K	zinc die-cast	silver	100
29561.1	E-MHDM35 15-K	zinc die-cast	silver	100
29562.1	E-MHDM35 25-K	zinc die-cast	silver	100
29563.1	E-MHDM35 37-K	zinc die-cast	silver	100

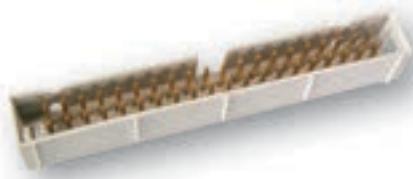
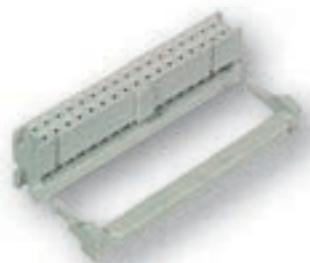
Full Metal Cover E-GP, 180° Cable Outlet

Screwable half-shells, incl. thumb screws

Art.-No.	Type	Material	Colour	PU
29430.2	E-GP 09G	zinc die-cast	silver	50
29431.1	E-GP 15G	zinc die-cast	silver	25
29432.1	E-GP 25G	zinc die-cast	silver	25

Boots, up to 8.5 mm

Art.-No.	Cable diameter	Colour	PU
29509.1	6.0 mm	black	100
29511.1	6.0 mm	grey	100
29508.1	8.5 mm	black	100
29510.1	8.5 mm	grey	100

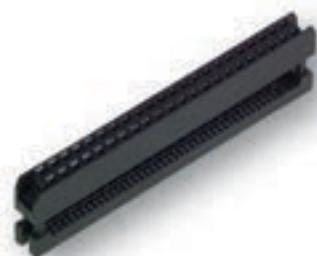
IDC Plug Connectors, pitch 2.54IDC Circuit Board Connectors, pitch 2.54IDC connector RM2.54

Art.-No.	Type	PU
20410.1	E-WH 10pol.	270
20414.1	E-WH 14pol.	250
20416.1	E-WH 16pol.	230
20420.1	E-WH 20pol.	180
20426.1	E-WH 26pol.	140
20434.1	E-WH 34pol.	130
20440.1	E-WH 40pol.	120

Art.-No.	Type	PU
22010.1	E-WLP 10pol.	900
22014.1	E-WLP 14pol.	600
22016.1	E-WLP 16pol.	600
22020.1	E-WLP 20pol.	420
22026.1	E-WLP 26pol.	360
22034.1	E-WLP 34pol.	300
22040.1	E-WLP 40pol.	300

With strain relief

Art.-No.	Type	PU
20006.3	E-WP 06pol.	264
20008.3	E-WP 08pol.	216
20010.3	E-WP 10pol.	192
20014.3	E-WP 14pol.	144
20016.3	E-WP 16pol.	132
20020.3	E-WP 20pol.	108
20026.3	E-WP 26pol.	84
20034.3	E-WP 34pol.	60
20040.3	E-WP 40pol.	60
20050.3	E-WP 50pol.	48
20064.3	E-WP 64pol.	36

IDC Connectors, pitch 2.00

IDC Connector, pitch 2.00.
For flat cable 92944.30R

Art.-No.	Description	PU
30044.1	IDC Connector, pitch 2.00 E-WP 44-pole	60

Flat Cables, pitch 1.00

AWG28/7
Grey with identifier core (red)
30.5 m roll
Individual wires, tin plated

Art.-No.	Number of conductor
92944.30R	44

Flat Cables, pitch 1.27

AWG28/7
Grey with identifier core (red)
30.5 m rolls
Individual wires, tin plated

Art.-No.	Number of conductor
22310B.30R	10
22314B.30R	14
22316B.30R	16
22320B.30R	20
22326B.30R	26
22334B.30R	34
22340B.30R	40
22350B.30R	50

Ring Core Ferrite, square

For round cable
For retrofitting
With plastic housing for fold-up

Art.-No.	max. Cable diameter
71503.1	6.3 mm
71506.1	10.0 mm
71508.1	13.0 mm

Ring Core Ferrite, round

For round cable
For retrofitting
With plastic housing for fold-up

Art.-No.	max. Cable diameter
71501.1	3.5 mm
71502.1	5.0 mm
71503.2	7.0 mm
71504.1	7.5 mm
71505.1	9.5 mm
71506.2	10.0 mm
71508.2	13.0 mm

Flat Core Ferrite

For ribbon cable

Art.-No.	Width	Depth	Height
71512.1	18.9 mm	12 mm	6.3 mm
71516.1	33.5 mm	12 mm	6.3 mm
71510.1	40 mm	12 mm	6.3 mm

Centronics Plugs 90°

Centronics connector and hood, full metal.
Manual solder type. Matching cable 99500.1.

Art.-No.	Description	PU
34231.1	Centronics Plug 90° E-57/50MO, solder type	50

Full Metal Cover 50pol. 45° cable outlet

Full metal cover for Centronics 50-pole
With strain relief bracket and bend protection.
Matching cable 99500.1.

Art.-No.	Description
29535.1	Full Metal Cover

Mini-DIN plug, black

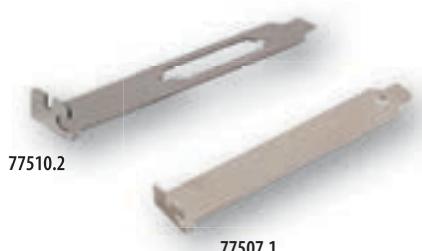
Mini-DIN-plug with strain relief for direct assembling. Matching LYCY cable. (90004.1, 90006.1, 90008.1)

Art.-No.	Description	PU
34812.1	ED-DIO-M/04	100
34814.1	ED-DIO-M/06	100
34816.1	ED-DIO-M/08	100

Jumper, pitch 2.54

33904.1

33907.1

Bracket

77510.2

77507.1

Art.-No.	Type
33904.1	EKSP/G black closed
33905.1	EKSP/G blue open
33907.1	EKS/G black, open

Art.-No.	Description
77507.1	Bracket without mounting hole
77510.2	Bracket 1xDSub9

Cable Ties

100 pcs. per bag.

Art.-No.	Length	Width	Colour
81022.100	100 mm	2.5 mm	transparent
81041.100	160 mm	2.6 mm	transparent
81043.100	140 mm	3.5 mm	transparent
81044.100	200 mm	3.6 mm	transparent

Cutting tool for cable ties, for cable tie from 2.5mm**Assembly Tool**

Art.-No.	Description
39916.1	Cutting Tool for cable ties for 2.5mm and thicker

Hook & Loop Tube, 25m roll, 20mm, black

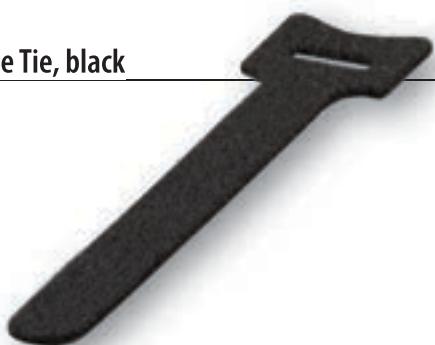
Robust construction and extra strong adhesion
Reusable
Hook and strip material: Polyamide
25 m on rolls

Art.-No.	Length	Width	Colour
81150.25	25000 mm	20 mm	black

Cable Tie with Marking Surface

Marking surface 25 x 8 mm tensile force: 8 kg,
Material: PA 6.6 natural Content: 100 pcs. per bag.

Art.-No.	Length	Width	Colour
81132.100	100 mm	2.5 mm	transparent

Hook & Loop Cable Tie, black

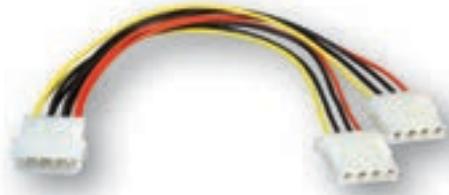
Perfect bundling for all kind of cables
Toolfree and stressfree for any cable type
Recommended especially for fiber optic cables
Resolvable without problems at any time
With slot
Hook and loop cable ties in 10 pieces bag

Art.-No.	Length	Width	Colour
KB12-130B	130 mm	12 mm	black
KB12-160B	160 mm	12 mm	black
KB12-230B	230 mm	12 mm	black

Hook & Loop Tube, 25m roll, 20mm, ultra-slim

Ultra slim construction
Reusable
Hook and strip material: Polyamide
25 m on rolls

Art.-No.	Length	Width	Colour
KB20-2500B	25000 mm	20 mm	black

HDD Y-Power Cable

Internal power adapter cable for ATA drives.
1 x 5.25" plug to 2 x 5.25" socket.

Art.-No.	Description
EK319	HDD Power Cable, 5.25" to 2x 5.25", M-2x F, 0.2m

**SATA Power Adapter, 15pol.
PCB plug - 5.25" (4-pole) socket**

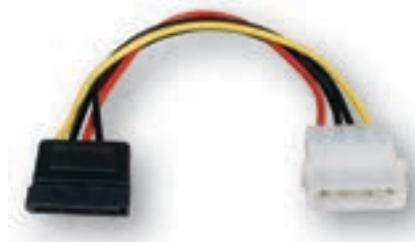
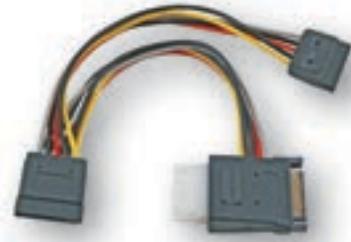
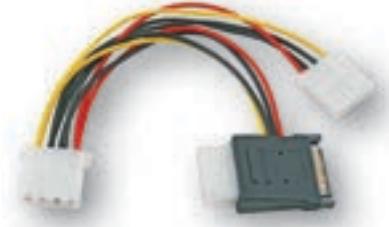

Internal power adapter for IDE drives.

Art.-No.	Description
EB491	SATA Power Adapter, SATA 15 PCB to 5.25" 4pol, M-F,

SATA Y-Power Cables with Latch

Internal Y-power adapter cable for SATA drives.
1 x 5.25" (4-pole) plug to 2 x 15-pole SATA plug.

Art.-No.	Description
K5345.015	SATA Y-Power Cable, 1x5.25" to 2xSATA150 (w.clip), M-2x M, 0.15m

SATA Y-Power Cable, 15pole SATA PCB plug conn.+ 5.25" socket to 2 x 5.25" socket**15pole SATA PCB plug conn. + 5.25"
(4pole) socket to 2 x 15pole SATA plug**

Internal power adapter cable for up to three IDE drives.

Art.-No.	Description
K5346.015	SATA Power Cable, SATA+5.25" to 2x 5.25", M+F-2x F, 0.15m

Internal power adapter cable for up to two Serial ATA drives and one IDE-drive.

Art.-No.	Description
K5347.015	SATA Power Cable, SATA+5.25" to 2x SATA, M+F-2x M, 0.15m

Internal power adapter cable for SATA drives.
1 x 5.25" (4-pole) plug to 1 x 15-pole SATA plug.

Art.-No.	Description
K5380.015V1	SATA Power Cable, 5.25" to SATA 15, M-M, 0.15m

SATA Power Cables with Latch**SATA Power Cables, 90° angled**

Internal power adapter cable for SATA drives.
1 x 5.25" (4-pole) plug to 1 x 15-pole SATA plug.

Art.-No.	Description
K5385.015	SATA Power Cable, 5.25" to SATA 15 (w. clip), M-M, 0.15m

Internal power adapter cable for SATA drives 1 x 5.25" (4-pin) plug to 1 x 15-pole SATA plug, angled.

Art.-No.	Description
K5388.015	SATA Power Cable, 5.25" to SATA 15 (angled), M-M, 0.15m

Internal combination cable for SATA hard drives (data+ power). 22-pole SATA plug to 1 x 7-pole SATA plug (0.50 m) + 1 x 5.25" 4-pole plug (0.15 m).

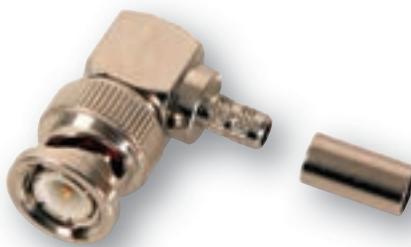
Art.-No.	Description
K5349.050	SATA Power Cable, SATA 22 to SATA 7 + 5.25", M-M+F, 0.5m



BNC/COAX

Coaxial cables are still predestined for high-frequency data transmission. BNC connectors, old-fashioned and reliable, are still used in video, medical and measurement technology today. The BNC/Coax category includes a wide selection of the most common components for different wave resistances and applications.

MULTIMEDIA

BNC Crimp Plugs, straight**BNC Crimp Plugs, angled, crimp-solder type**

The Core will be soldered.
The braiding together with a sleeve crimped.

Art.-No.	Description	PU
52500.1	RG 58, 50 Ohm	50
52500.2	RG 58, 50 Ohm	50
52502.1	RG 59/62, 75 Ohm	50
52576.1	RG 174, 50 Ohm	50
52583.1	RG 179B/U, 75 Ohm	100
52497.1	BNC plug for video cable 0.6/2.8, 75 Ohm	100

BNC Crimp Jacks, straight**BNC Receptacle**

Art.-No.	Description	PU
52509.1	RG 58, 50 Ohm	50
52511.1	RG 59/62, 75 Ohm	50
52501.1	RG 174, 50 Ohm	50
52533.1	RG 179, 75 Ohm	50

BNC Receptacle Type**BNC Single-Hole Adapter Jack/Jack**

With ground insulation
For panel mounting

Art.-No.	Description	PU
52574.1	BNC Receptacle solder type 50 Ohm	100
52594.1	BNC Receptacle Printtype 50 Ohm, full metal, 90°	50

Art.-No.	Description	PU
52553.1	RG 58, 50 Ohm	50
52580.1	RG 59/62, 75/93 Ohm	50

BNC Adapter

Art.-No.	Description	PU
52522.1	Adapter 50 Ohm jack/jack	100
52523.1	Adapter 75 Ohm jack/jack	100
52518.1	T-Adapter 1 Plug / 2 Jack RG58 50 Ohm	100
52519.1	T-Adapter 2 Jack / 1 Plug RG59/62 75/93 Ohm	100
52524.1	Terminator 50 Ohm plug	100

BNC Boots

Strain relief boots for BNC crimp plugs
Colours: .1=black .2=red .3=blue .4=green

Art.-No.	Type	Min. inner diameter	PU
52527.x	RG58	5.0 mm	50
52529.x	RG59/62	6.5 mm	50
52537.x	RG174	2.8 mm	50

BNC Crimping Tool for RG58/59/62

Crimping tool for RG58/59/62 coaxial connector

Art.-No.	Description
52535.2	BNC Crimping Tool for RG58/59/62

BNC Patch Cable

Stock length: 0,5 - 1,0 - 2,0 - 3,0 - 5,0 - 10 m

Pre-assembled RG58 coaxial cable for high frequent measured data and signals

Art.-No.	Description
K8300.x	Coax Cable RG58 C/U 50 Ohm 2x Plugs straight
K8360.x	Coax Cable RG59 75 Ohm 2x Plugs straight

Stripping Tool RG58/59/62

Stripping tool for stripping of RG58/59/62 coaxial cable

Art.-No.	Description
52536.2	Stripping Tool for BNC RG58/59/62

Coaxial Cable Thin Wire RG58 C/U, 50 Ohm, double shielded

Drum sizes: 100 - 1000 m

Coaxial Thin Wire RG58 cable for high frequent measured data and signals defined characteristic impedance and tight production tolerances in 75 Ohm. Shieldin: Tinned copper braiding & aluminum foil

Inner conductor material: CU, tinned cellular PE
Dielectric:
Outer conductor material: braiding CU, tinned
Material outer sheath: PVC grey, Ø 4.65 mm

Art.-No.	Description
91258.x	Coaxial Cable Thin Wire RG58 C/U, 50 Ohm, double shielded

Coaxial Cable RG58 C/U, 50 Ohm

Drum sizes: 100 - 1000 m

Coaxial cable for high frequent measured data and signals defined characteristic impedance and tight production tolerances in 50 Ohm.
Also available as UL type. (91058.xUL)

Inner conductor material: CU, tinned
Dielectric: Fully-PE
Outer conductor material: braiding CU, tinned
Material outer sheath: PVC black, Ø 5.1

Art.-No.	Description
91058.x	Coaxial Cable RG58 C/U, 50 Ohm

Coaxial Cable RG174, 50 Ohm

Drum sizes: 100 - 1000 m

Flexible Coaxial cable with small diameter for high frequent measured data and signals defined characteristic impedance and tight production tolerances in 50 Ohm.

Inner conductor material: CCS
Dielectric: Fully-PE
Outer conductor material: braiding CU, tinned
Material outer sheath: PVC black, Ø 2.6

Art.-No.	Description
91074.x	Coaxial Cable RG174, 50 Ohm

Coaxial Cable RG179, PTFE, 75 Ohm

Drum sizes: 100 - 1000 m

Application in commercial electronics and high-frequency technology.
Cable according to MIL-C-17F and MIL-C-17G. 75 Ohm type

Inner conductor material: CCS, silver-coated
Dielectric: Fully-PE
Outer conductor material: braiding CU, tinned
Material outer sheath: PTFE brown, Ø 2.54 mm

Art.-No.	Description
91079.x	Coaxial Cable RG179, PTFE, 75 Ohm

Video Cable RG59, 75 Ohm

Drum sizes: 100 - 500 - 1000 m

Coax Cable RG59, 75 Ohm, PVC Green

Inner conductor material: CU, tinned
Dielectric: Fully-PE
Outer conductor material: braiding CU, tinned
Material outer sheath: PVC yellow, Ø 6.2 mm

Art.-No.	Description
91259.x	Video Cable RG59, 75 Ohm

Coaxial Cable RG59 B/U, 75 Ohm

Drum sizes: 100 - 500 - 1000 m

Coaxial cable for high frequent measured data and signals defined characteristic impedance and tight production tolerances in 75 Ohm.

Inner conductor material: CCS
Dielectric: Fully-PE
Outer conductor material: braiding CU, tinned
Material outer sheath: PVC black, Ø 6.2

Art.-No.	Description
91059.x	Coaxial Cable RG59 B/U, 75 Ohm

Coaxial Cable 75 Ohm, double shielded

Drum sizes: 100 - 1000 m

Coaxial cable for high frequent measured data and signals defined characteristic impedance and tight production tolerances in 75 Ohm.
Shielding : Tinned copper braiding & aluminium foil
Comply with the UL AWM style 1354.

Inner conductor material: CU, tinned
Dielectric: cellular PE
Outer conductor material: foil + braid CU, tinned
Material outer sheath: PVC beige, Ø 3.5 mm

Art.-No.	Description
91175.x	Coaxial Cable 75 Ohm, double shielded



ACTIVE COMPONENTS FOR A STRONG NETWORK

The larger the network, the higher the demands imposed on it. To ensure permanent availability, active network components are essential for a network exceeding a certain size. No matter whether for the office, the installation in a 19" server rack or the industrial sector: As a competent partner, EFB-Elektronik offers a comprehensive portfolio of active components - from switches over transceiver modules and media converters to components for DIN-Rail mounting. The EFB-Elektronik product range includes over 180 products in its active segment. Among them are the longterm partners LevelOne, Lantech and Finisar. Because only the optimal coordination of all components ensures reliable operation, EFB-Elektronik is of course also available in an advisory capacity to provide clarification on technical issues relating to installation, performance and options for expansion.

PG. 416 - 451



Media Converter



Network Switches



Industrial Ethernet



Transceiver &
Transceiver Cable

WIR SORGEN FÜR VERBINDUNG
WE CARE FOR CONNECTION



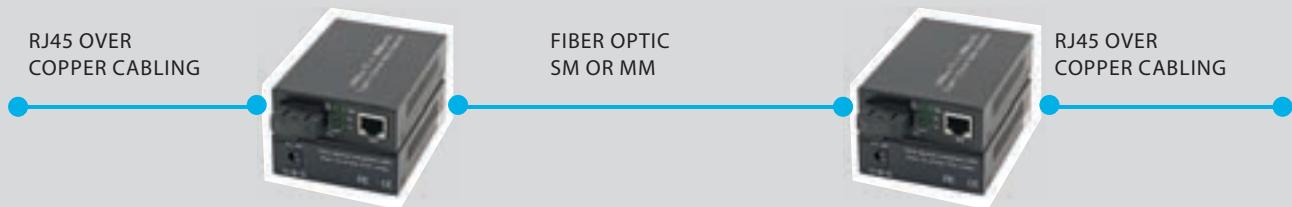


MEDIA CONVERTER

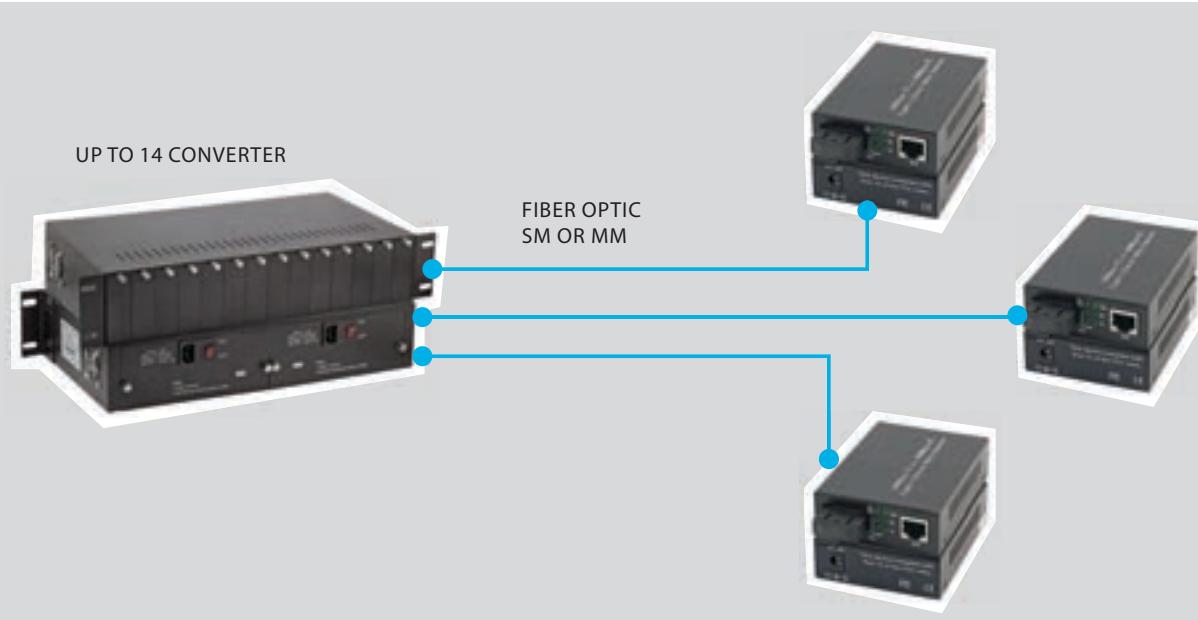
Media converters connect networks with different transmission media, such as twisted pair, coax or fiber optic cable. EFB-Elektronik is particularly specialised in fiber optic media converters. These offer the possibility of bridging large ranges by means of electrical or optical conversion. As well these converters reliably connect multimode and singlemode fiber optic cables. The media converters are available as a desktop solution or in a 19" chassis with several media converters.

ACTIVE COMPONENTS

DISTANCE EXTENSION OVER FIBER OPTIC



DISTANCE EXTENSION OVER FIBER OPTIC WITH 19" CHASSIS SOLUTION



MODE CONVERSION FROM SINGLEMODE TO MULTIMODE



FIBER OPTIC

COPPER

CABINET SYSTEMS

MULTIMEDIA

ACTIVE COMPONENTS



CTS Compact Media Converter

The MCT-family are compact media converter which support the media conversion of copper into fiber for Fast Ethernet and Gigabit Ethernet. This series is around 40% smaller than standard products on the market. Also the converters of this series are less in weight and have a lower energy consumption than standard variants. The MCT-family includes various models on the user adapted variants with features as speed, extension distance, media conversion, management ect. The MCT-family can bring reduction of costs concerning the initial introduction, maintenance and management.

- Up to 40% smaller dimensions and less weight
- Lower energy consumption
- Wide portfolio for Fast Ethernet and Gigabit Ethernet Media Converter
- Cost reduction in installation and maintenance.



CTS Fast Ethernet Compakt Media Converter



Very compact design, space- and cost-saving solution
For single device use or in MCT-RACK-Chassis series to mix installation with MCT series converter

Autonegotiation, Auto MDI/MDIX, Link Alarm for port monitoring
With diagnose LEDs

Target Application: Point-to-point fiber connection for long distance
DIN-Rail mounting with: MCT-DR-ADAPTER (not included)
External power supply included
Metal housing (D x W x H): 74 x 51 x 20 mm

Art.-No.	RJ45-Port	LWL-Port	Mode	Distance
MCT-100BTFT	10/100TX	ST 100FX	MM	2000 m
MCT-100BTFC	10/100TX	SC 100FX	MM	2000 m
MCT-100BTFC-SM30	10/100TX	SC 100FX	SM	30000 m

CTS Gigabit Ethernet Compact Media Converter



Very compact design, space- and cost-saving solution
For single device use or in MCT-RACK-Chassis series to mix installation with MCT series converter

Autonegotiation, Auto MDI/MDIX and Link Alarm for port monitoring
With integrated dip-switches for more adjustments
With diagnose LEDs

Target Application: Point-to-point fiber connection for long distance
DIN-Rail mounting with: MCT-DR-ADAPTER (not included)
External power supply included
Metal housing (D x W x H): 74 x 51 x 20 mm

Art.-No.	RJ45-Port	LWL-Port	Mode	Distance
MCT-3002BTFC	10/100/1000T	SC 1000SX	MM	550 m
MCT-3002BTFC-SM10	10/100/1000T	SC 1000LX	SM	10000 m

CTS Gigabit Ethernet Compact Media Converter, RJ45 - SFP



Very compact design, space- and cost-saving solution
For single device use or in MCT-RACK-Chassis series to mix installation with MCT series converter

SFP Fiber Port für 100-FX (Fast Ethernet) und 1000-BaseX (Gigabit Ethernet)
Autonegotiation, Auto MDI/MDIX and Link Alarm for port monitoring
With integrated dip-switches for more adjustments
With diagnose LEDs

Target Application: Point-to-point fiber connection for long distance
DIN-Rail mounting with: MCT-DR-ADAPTER (not included)
External power supply included
Metal housing (D x W x H): 74 x 51 x 20 mm

Art.-No.	RJ45-Port	LWL-Port	Mode	Distance
MCT-3002SFP-DR	10/100/1000T	1 x MGBIC 100/1000Mbit/s	MM or SM	-
Art.-No.	Accessory			
FTLF1217P2BTL	MiniGBIC MM 100FX 2km SFP, 1310nm 155Mbps -40..85°C, LC			
FTLF1323P1BTL	MiniGBIC SM 100FX 40km SFP, 1310nm 155Mbps -40..85°C, LC			
FTLF8519P3BNL	MiniGBIC MM 1000SX 550m SFP, 850nm 1.25G -20..85°C, LC			
FTLF1318P3BTL	MiniGBIC SM 1000LX 10km SFP, 1310nm 1.25G -40..85°C, LC			

CTS Gigabit Ethernet WDM Compact Converter

W2A

TX: 1310nm
RX: 1550nm

W2B

TX: 1550nm
RX: 1310nm

Should be used in combination W2A and W2B as transmitter and receiver, or with other WDM MGbics!

Single device use or with Chassis MCT-RACK-18-2A / MCT-RACK-18-MGM-2A
Gigabit Ethernet over RJ45 - SC Singlemode

Link Alarm

Diagnostic LEDs

frame checking and error filtering

DIN-Rail mounting with: MCT-DR-ADAPTER (not included)

External power supply included

Metal housing (D x W x H): 74 x 51 x 20 mm



Art.-No.	RJ45-Port	LWL-Port	Mode	Distance
MCT-3002W2A-SM10	10/100/1000TX	SC 1000LX	SM	10000 m
MCT-3002W2B-SM10	10/100/1000TX	SC 1000LX	SM	10000 m

CTS 19" Rack Chassis for Compact Media Converter, 18-Slots



1.5U 19" 18-Slot Chassis for MCT Media Converter

With Two Hot Swappable Power Modules, Power

Redundant power supply

Supports Ethernet, Fast Ethernet, Gigabit, Singlemode and Multimode converter

MCT-RACK-18-MGM-2A: With Web-Management, SNMP, SSHv2 eg.

Incl. 2 x power supply for redundancy, power cable

Art.-No.	Description
MCT-RACK-18-2A	1.5U 19" Rack Chassis for MCT Converter, 18 Slots, Unmanaged, incl. 2 powers.
MCT-RACK-18-MGM-2A	1.5U 19" Rack Chassis for MCT Converter, 18 Slots, Managed, incl. 2x power s.

CTS 10G Media Converter Fiber, 2 x SFP+ Slots

Supports 10 Gigabit SFP+ to SFP+ fiber optic connection full duplex

Comply with IEEE 802.3ae 10GBASE-R

LED Indicators for link and power status

Support 3R Signal regeneration (Re-amplifying, Re-shaping, Re-timing)

Metal housing (D x W x H): 91 x 74 x 26 mm

External power supply included

***3R**

Re-Amplifying: Signal amplifying

Re-Shaping: Signal polishing/reshaping

Re-Timing: adjusting the Signal-time

Field of Application:

10G point-to-point fiber optic connection, mode-conversion (MM<->SM), fiber optic distance extending

Art.-No.	LWL-Port	Mode	Distance
CVT-5002SFP+	2 x SFP+ 10GBase-R	MM or SM	-

Art.-No.	Accessory
FTLX1471D3BCL	MiniGBIC SM 10GBase SFP+, LC/10km
FTLX8574D3BCL	MiniGBIC MM 10GBase SFP+, LC, OM2/82m - OM3/300m - OM4/400m



Fast Ethernet Media Converter



Autonegotiation and Auto MDI/MDI-X
 Diagnostic LEDs
 External power supply included
 Single use or in Chassis (EL0CH1)
 Metal housing (L x W x H): 94 x 71 x 26 mm

Art.-No.	RJ45-Port	LWL-Port	Mode	Distance
EL022V2	10/100TX	ST 100FX	MM	2000 m
EL023V2	10/100TX	SC 100FX	MM	2000 m
EL025V2	10/100TX	SC 100FX	SM	10000 m



Gigabit Ethernet Media Converter



Autonegotiation and Auto MDI/MDI-X
 Diagnostic LEDs
 External power supply included
 Single use or in Chassis (EL0CH1)
 Metal housing (L x W x H): 94 x 71 x 26 mm

Art.-No.	RJ45-Port	LWL-Port	Mode	Distance
EL024V2	1000T	SC 1000SX	MM	550 m
EL027V2	10/100/1000T	SC 1000SX	MM	550 m
EL026V2	1000T	SC 1000LX	SM	10000 m
EL028V2	10/100/1000T	SC 1000LX	SM	10000 m

Gigabit Ethernet with SFP Media Converter

Single use or in Chassis (EL0CH1)
 Media converter for RJ45 to FO via MGBIC (EL029)
 or mode change from SM to MM, MM to SM via 2 x MGBICs (EL031)
 Autonegotiation and Auto MDI/MDI-X
 Diagnostic LEDs
 External power supply included
 Metal housing (L x B x H): 94 x 71 x 26 mm

Art.-No.	RJ45-Port	LWL-Port	Mode	Distance
EL031	-	2 x MGBIC 1000Mbit/s	MM or SM	-
EL029	10/100/1000T	1 x MGBIC 1000Mbit/s	MM or SM	-

Art.-No.	Accessory
FTLF8519P3BNL	MiniGBIC MM 1000SX 550m SFP, 850nm 1.25G -20..85°C, LC
FTLF1318P3BTL	MiniGBIC SM 1000LX 10km SFP, 1310nm 1.25G -40..85°C, LC



19" Rack Chassis for Media Converter (Basic)

Up to 14 converter can be inserted or replaced in running operation (hot-swappable)
 Supports Ethernet, Fast Ethernet, Gigabit, Singlemode and Multimode converter
 Dual power supply for power redundancy
 19"/2U housing (L x W x H): 485 x 231 x 90 mm



Art.-No.	Description
ELOCH1	19" Rack-mount Chassis 2U - 14 slots

Fast Ethernet Managed Media Converter, with internal power supply



Built-in LFP (Link Fault Pass-through) (LLCF/LLR) Technology
Web-based and SNMP Management
IEEE 802.3x Flow Control protects against lost packets
for reliable data transmission
Supports VLAN (tag-based, Q-in-Q)
Internal power supply with 5 years warranty

Art.-No.	RJ45-Port	LWL-Port	Mode	Distance
FVM-1000	10/100TX	1 x SFP 100Base-FX	MM or SM	-
FVM-1101	10/100TX	SC 100FX	MM	2000 m
FVM-1220	10/100TX	SC 100FX	SM	20000 m

Art.-No.	Accessory
FTLF1217P2BTL	MiniGBIC MM 100FX 2km SFP, 1310nm 155Mbps -40..85°C, LC
FTLF1323P1BTL	MiniGBIC SM 100FX 40km SFP, 1310nm 155Mbps -40..85°C, LC

Fast Ethernet PoE Media Converter , RJ45-SC-Duplex, 100FX



1x 10/100TX PoE Port and 1x SC duplex 100FX fiber optic port
IEEE-802.3af / at PoE compatible with automatic PoE detection
PoE injector integrated with PoE up to 15.4 W
Diagnostic LEDs
Metal housing fanless (L x W x H): 158 x 133 x 40 mm

Art.-No.	Description
FVT-0203TXFC	Media Converter + PoE Injector 10/100TX+PoE / 100FX SC MM 2km
FVT-0204TXFC	Media Converter + PoE Injector 10/100TX+PoE / 100FX SC SM 20km

Gigabit Ethernet Managed Media Converter, with internal power supply



Built-in LFP (Link Fault Pass-through) (LLCF/LLR) Technology
Web-based and SNMP Management
IEEE 802.3x Flow Control protects against lost packets
for reliable data transmission
Supports VLAN (tag-based, Q-in-Q)
Internal power supply with 5 years warranty

Art.-No.	RJ45-Port	LWL-Port	Mode	Distance
GVM-1000	10/100/1000T	1 x SFP 1000Base-X	MM or SM	-
GVM-1101	10/100/1000T	SC 1000SX	MM	500 m
GVM-1220	10/100/1000T	SC 1000LX	SM	20000 m

Art.-No.	Accessory
FTLF8519P3BNL	MiniGBIC MM 1000SX 550m SFP, 850nm 1.25G -20..85°C, LC
FTLF1318P3BTL	MiniGBIC SM 1000LX 10km SFP, 1310nm 1.25G -40..85°C, LC

Fast Ethernet PoE-PD Media Converter, RJ45-SC-Duplex



1x Fast Ethernet PoE-PD Port and 1 SC duplex fiber optic port
No power supply needed, can be powered with PoE
IEEE-802.3af PoE compatible with PoE up to 15.4 W
Diagnostic LEDs
Metal housing fanless (L x W x H): 158 x 133 x 40 mm

Art.-No.	Description
FVT-0103TXFC	Fast Ethernet PoE-PD Media Converter, RJ45-SC-Duplex, 100FX, MM
FVT-0104TXFC	Fast Ethernet PoE-PD Media Converter, RJ45-SC-Duplex, 100FX, SM

Gigabit Ethernet PoE Media Converter



Powered Device Gigabit Media Converter with SFP slot
No Power supply needed, can be powered with PoE
IEEE-802.3af / at PoE compatible (PD device = powered device)
SFP slot with support for MiniGBICs 1000SX or 1000LX
With dip switch for advanced configuration
Diagnostic LEDs
Metal housing fanless (L x W x H): 94 x 71 x 26 mm

Art.-No.	Description
GVT-2010	Gigabit Ethernet PoE Media Converter, 10/100/1000T, Powered Device (PD)
Art.-No.	Accessory
CVH-2000	19" Rack Chassis, for 14 x GVT-2010
FTLF8519P3BNL	MiniGBIC MM 1000SX 550m SFP, 850nm 1.25G -20..85°C, LC
FTLF1318P3BTL	MiniGBIC SM 1000LX 10km SFP, 1310nm 1.25G -40..85°C, LC

Ethernet-VDSL2 Media Converter



Necessary for transmitting Ethernet data are 2 devices and only 1 twisted pair AWG 22/1
100Mbit/s downstream und 60Mbit/s upstream up to 300 m
Maximum 2000 m at approx. 10Mbit/s data rate possible with 1 twisted pair
2 x RJ45 LAN ports, 1 x RJ11 phone, 1 x RJ11 VDSL
Extended configuration via dip switch
Metal housing (L x B x H): 120 x 90 x 28 mm

Art.-No.	Description
VDS-0200	Ethernet over VDSL2, Converter (Annex A)
VDS-0201	Ethernet over VDSL2, Converter (Annex B)
Art.-No.	Accessory
POC-4001	19" 8-Slot PSE Housing for VDS-0200/0201/0202

Ethernet-VDSL2 PoE-PSE Media Converter



Power Sending Equipment: In addition to sending data over an RJ-11 cable up to 300 meters, it can also send both power and data using the local RJ-45 port.
Compliance with IEEE802.3, IEEE802.3u and VDSL/VDSL2
Provides One Piano Switch for Mode Configuration
Low-Latency for Video/Voice/Data Applications
802.3af PoE PSE compatible(VDS-0120)
Including power supply
Metal housing (L x B x H): 120 x 90 x 28 mm

Art.-No.	Description
VDS-0120	Ethernet over VDSL2, PSE Converter, PoE

Ethernet-VDSL2 PoE-PD Media Converter



Powered Device: Powered over a Power over Ethernet Source.
Data transvers up to 300m@100Mbit over an RJ-11, ADSL up to 2000m.
Compliance with IEEE802.3, IEEE802.3u and VDSL/VDSL2
Provides One Piano Switch for Mode Configuration
Low-Latency for Video/Voice/Data Applications
IEEE-802.3af / at PoE compatible (PD device = powered device)
Metal housing (L x B x H): 120 x 90 x 26 mm

Art.-No.	Description
VDS-0130	Ethernet over VDSL2 Converter (PD)



NETWORK SWITCHES

The EFB product portfolio for active network technology includes a wide range of switches for data centres, offices and the home area. The switches are available as Gigabit or Fast Ethernet versions with a 19" size or as a desktop model. They offer professional features, such as Power-over-Ethernet (PoE), SFP slots for fiber optic connections, web management and SNMP support.

ACTIVE COMPONENTS

**GTL-5260, 52-Port L2 Managed Gigabit Ethernet Switch,
4x 10G SFP+**


48x Gigabit-Ethernet-Ports with 4x 10Gigabit SFP+ slots
 SFP+ slot supports MGBIC for 10Gigabit 10GBaseX
 Management: SNMP, WEB, RMON, Telnet und TFTP administration
 IPv6, Multicast, VLAN, Virtual Stacking, Autonegotiation, Auto MDI/MDIX and much more
 IP Administration supports up to 32 Switches
 Easy Port-configuration (ECP) for easy assignment of network devices as IP-telephon or network cameras
 Diagnostic LEDs
 19" Mounting brackets included
 Metal housing (L x W x H): 442 x 300 x 44 mm

Art.-No.	Description
GTL-5260	52-Port L2 Managed Gigabit Ethernet Switch, 4x 10G SFP+

Art.-No.	Accessory
FTLX1471D3BCL	MiniGBIC SM 10GBase SFP+, LC/10km
FTLX8574D3BCL	MiniGBIC MM 10GBase SFP+, LC, OM2/82m - OM3/300m - OM4/400m

**GTL-2881, 28-Port L3 Lite Managed Gigabit Ethernet Switch,
2x 10G SFP+, 1x 10G Module Slot, Stackable**


28 Gigabit-Ethernet-Ports with 2x 10Gigabit SFP+ slots, additionally there is an extension slot for an 10G module (2 x SFP+)
 SFP+ slot supports MGBIC for 10Gigabit 10GBaseX, Management: SNMP, WEB, RMON, Telnet und TFTP administration
 IPv6, Multicast, VLAN, Virtual Stacking, Autonegotiation and Auto MDI/MDIX and much more
 L3 Features: Multi-netting (CIDR), IPv4 Static Routes, RIP v1/v2, ARP/Proxy ARP
 Hardware stacking up to 8 devices
 19" Mounting brackets included
 Metal housing with fan (L x W x H): 440 x 315 x 44 mm

Art.-No.	Description
GTL-2881	28-Port Stackable L3 Lite Managed GE Switch, 2x 10G SFP+, 1x 10G module slot

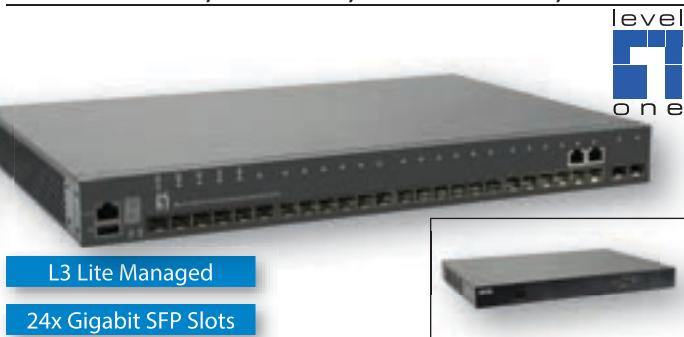
Art.-No.	Accessory
FTLX1471D3BCL	MiniGBIC SM 10GBase SFP+, LC/10km
FTLX8574D3BCL	MiniGBIC MM 10GBase SFP+, LC, OM2/82m - OM3/300m - OM4/400m

**GTL-2891, 28-Port L3 Managed Gigabit Ethernet Switch,
2x 10G SFP+, 1x 10G Module Slot, Stackable**


28x Gigabit-Ethernet-Ports with 2x 10Gigabit SFP+ slots, additionally there is an extension slot for an 10G module
 SFP+ slot supports MGBIC for 10Gigabit 10GBaseX, Management: SNMP, WEB, RMON, Telnet
 IPv6, Multicast, VLAN, Virtual Stacking, OAM, ERPS and much more.
 L3 Features: Multi-netting (CIDR), IPv4 Static Routes, RIP v1/v2, ARP/Proxy ARP
 Hardware stacking up to 8 devices
 19" Mounting brackets included
 Metal housing (L x W x H): 440 x 315 x 44 mm

Art.-No.	Description
GTL-2891	28-Port Stackable L3 Managed Gigabit Switch, 2x 10G SFP+, 1x 10G Modulslot

Art.-No.	Accessory
FTLX1471D3BCL	MiniGBIC SM 10GBase SFP+, LC/10km
FTLX8574D3BCL	MiniGBIC MM 10GBase SFP+, LC, OM2/82m - OM3/300m - OM4/400m

GTL-2882, 28-Port L3 Lite Managed Gigabit Switch, 22x 1G SFP, 2x 1G SFP/RJ45 Combo, 2x 10G SFP+, 1x 10G Module Slot, Stackable


28 Gigabit-Ethernet-Ports with 2x SFP 1G and 2x 10Gigabit SFP+ slots, additionally there is an extension slot for an 10G module (2 x SFP+) The SFP slot supports 1G MGBICs, the SFP+ slot supports MGBIC for 10Gigabit 10GBaseX, Management: SNMP, WEB, RMON, Telnet und TFTP administration
 IPv6, Multicast, VLAN, Virtual Stacking, Autonegotiation and Auto MDI/MDIX and much more
 L3 Features: Multi-netting (CIDR), IPv4 Static Routes, RIP v1/v2, ARP/Proxy ARP
 Hardware stacking up to 8 devices
 19" Mounting brackets included
 Metal housing with fan (L x W x H): 440 x 315 x 44 mm

Art.-No.	Description
GTL-2882	28-Port L3 Lite Managed Gigabit Switch, 22x1G SFP, 2x1G SFP/RJ45, 2x 10G SFP+

Art.-No.	Accessory
FTLF8519P3BNL	MiniGBIC MM 1000SX 550m SFP, 850nm 1.25G -20..85°C, LC
FTLF1318P3BTL	MiniGBIC SM 1000LX 10km SFP, 1310nm 1.25G -40..85°C, LC
FTLX1471D3BCL	MiniGBIC SM 10GBase SFP+, LC/10km
FTLX8574D3BCL	MiniGBIC MM 10GBase SFP+, LC, OM2/82m - OM3/300m - OM4/400m

GTL-2872, 28-Port L3 Lite Managed Gigabit Ethernet Switch, 20x 1G SFP Slots, 4x 1G RJ45/SFP Ports, 4 x 10G SFP+ Slots



20x Gigabit SFP slots, 4x 1G RJ45/SFP Ports, 4x 10G SFP+ Slots
The SFP slot supports 1G MGBICs, the SFP+ slot supports MGBICs for 10Gigabit 10GBaseX
Management: MLD-, Telnet, SNMP-, WEB-, RMON-Access
Features: IPv6, Multicast, VLAN, Virtual Stacking, QoS, OAM
L3 Features: IPv4 / IPv6 static route
Support for redundant power supply over connection terminal and AC-socket
19" mounting bracket included
Metal housing with fan (L x W x H): 440 x 220 x 44 mm

Art.-No.	Description
GTL-2660	28 Port L3 Lite Managed Gigabit Ethernet Switch, 20x 1G SFP, 4x 1G RJ45/SFP, 4x 10G SFP+

Art.-No.	Accessory
FTLF8519P3BNL	MiniGBIC MM 1000SX 550m SFP, 850nm 1.25G -20..85°C, LC
FTLF1318P3BTL	MiniGBIC SM 1000LX 10km SFP, 1310nm 1.25G -40..85°C, LC
FTLX1471D3BCL	MiniGBIC SM 10GBase SFP+, LC/10km
FTLX8574D3BCL	MiniGBIC MM 10GBase SFP+, LC, OM2/82m - OM3/300m - OM4/400m

FOS-3110, 10 Port Gigabit L2 Management Switch, 8 x 100/1000 SFP, 2 x Combo RJ45/SFP



8x 100/1000Mbps SFP Slots
2x 100/1000Mbps RJ45/SFP
SFP Slots support for MiniGBICs 100FX, 1000BaseX
Management: SNMP, WEB, RMON, Telnet and TFTP management
Features: IPv6, IGMPv3, Multicast, VLAN, QoS, Autonegotiation, Auto MDI/MDIX and more
1x RS232 RJ45 Port, 1 x Digital input (Terminal block), Diagnostic led
19" Bracket included
Metal housing Fanless (L x B x H): 210 x 235 x 44 mm

Art.-No.	Description
FOS-3110	10 Port Gigabit L2 Management Switch, 8 x 100/1000 SFP, 2 x Combo RJ45/SFP

Art.-No.	Accessory
FTLF1217P2BTL	MiniGBIC MM 100FX 2km SFP, 1310nm 155Mbps -40..85°C, LC
FTLF1323P1BTL	MiniGBIC SM 100FX 40km SFP, 1310nm 155Mbps -40..85°C, LC
FTLF8519P3BNL	MiniGBIC MM 1000SX 550m SFP, 850nm 1.25G -20..85°C, LC
FTLF1318P3BTL	MiniGBIC SM 1000LX 10km SFP, 1310nm 1.25G -40..85°C, LC

IGS-5816, 16-Port SFP Dual Speed L2 Managed + 8-Port Gigabit Ethernet Switch



8x Gigabit Ethernet Port + 16x Dual Speed SFP-Port
Enhanced G.8032 ring protection < 20ms with easy configuration
Dynamic coupling ring; Aggregation ring
Supports PTP IEEE1588 v2 (under 1µs)
Miss-wiring avoidance & Repowered auto ring restore
User friendly UI, including auto topology drawing and DDM threshold monitoring with dB values; Complete CLI
Support LACP link aggregation, IGMP v3/router port, DHCP server & DHCP Option for Port & VLAN based DHCP distribution, Mac based DHCP server, QoS by VLAN, SSH/SSL, TACAS+, HTTPS, ACL, IPv6, SMS
Environmental Monitoring for temp., voltage & current USB slot for edited restoration and auto backup

Art.-No.	Description
IGS-5816-2P-AC	16-Port SFP Dual Speed L2 Managed + 8-Port Gigabit Ethernet Switch

Art.-No.	Accessory
FTLF8519P3BNL	MiniGBIC MM 1000SX 550m SFP, 850nm 1.25G -20..85°C, LC
FTLF1318P3BTL	MiniGBIC SM 1000LX 10km SFP, 1310nm 1.25G -40..85°C, LC

XGS-5008, 10G Ethernet 8-Port Web Smart Switch



8-Port 10 Gigabit Ethernet Switch
10G over Twisted Pair
Management: Web Smart
Features: Autonegotiation, Auto MDI/MDIX
IEEE 802.1p QoS with 4 priority queues,
Port-based VLAN, IEEE 802.1Q-VLAN-Tagging,
Multicast Filtering through IGMP Snooping V1/ V2, 9K-Jumbo-Frames for better data rates, Supports Auto-Learning and Auto-Aging up to 16K MAC-Addresses
19" mounting brackets included
Metal housing (L x W x H): 210 x 160 x 44 mm

Art.-No.	Description
XGS-5008	10GbE Gigabit Ethernet 8-Port Web Smart Switch

GEL-2861, 28-Port L2 Managed Gigabit Switch, 4x GE Combo RJ45/SFP


L2 Managed



24x Gigabit-Ethernet-Ports + 4x shared GE RJ45/SFP slots
 SFP slot supports MGBIC for Gigabit 1000BaseX
 Management: SNMP, WEB, RMON, Telnet, CLI and TFTP administration
 Features: IPv6, Multicast, IGMP, VLAN, Port Mirroring,
 Autonegotiation, Auto MDI/MDIX and much more.
 Diagnostic LEDs
 19" Mounting brackets included
 Metal housing fanless (L x W x H): 440 x 220 x 44 mm

Art.-No.	Description
GEL-2861	28-Port L2 Managed Gigabit Switch, 4x GE Combo RJ45/SFP

Art.-No.	Accessory
FTLF8519P3BNL	MiniGBIC MM 1000SX 550m SFP, 850nm 1.25G -20..85°C, LC
FTLF1318P3BTL	MiniGBIC SM 1000LX 10km SFP, 1310nm 1.25G -40..85°C, LC

**GES-2451, 26-Port Web Managed Gigabit Ethernet Switch
24x GE RJ45 + 2x GE SFP**


Web Managed



24x Gigabit-Ethernet-Ports + 2x GE SFP slots
 SFP slots support MGBIC for Gigabit 1000BaseX
 Management: WEB, SNMP
 Features: QOS, Storm Control, VLAN, Port Mirroring,
 Autonegotiation, Auto MDI/MDIX and much more
 Diagnostic LEDs
 19" Mounting brackets included
 Metal housing with fan (L x W x H): 440 x 220 x 44 mm

Art.-No.	Description
GES-2451	26-Port Web Managed Gigabit Ethernet Switch 24x GE RJ45 + 2x GE SFP

Art.-No.	Accessory
FTLF8519P3BNL	MiniGBIC MM 1000SX 550m SFP, 850nm 1.25G -20..85°C, LC
FTLF1318P3BTL	MiniGBIC SM 1000LX 10km SFP, 1310nm 1.25G -40..85°C, LC

**LGS-2624C, 26-Port L2 Managed Gigabit Ethernet Switch,
4x GE Combo RJ45/SFP, 2x GE SFP**


L2 Managed



20x Gigabit-Ethernet-Ports + 4x shared GE RJ45/SFP slots + 2x GE SFP slots
 SFP slot supports MGBIC for Gigabit 1000BaseX
 Management: SNMP, WEB, RMON, Telnet, CLI and TFTP administration
 IPv6, Multicast, IGMP, VLAN, Port Mirroring,
 Autonegotiation, Auto MDI/MDIX and much more.
 Diagnostic LEDs
 19" Mounting brackets included
 Metal housing with fan (L x W x H): 442 x 170.3 x 44 mm

Art.-No.	Description
LGS-2624C	26-Port L2 Managed Gigabit Ethernet Switch, 4x GE Combo RJ45/SFP, 2x GE SFP

Art.-No.	Accessory
FTLF8519P3BNL	MiniGBIC MM 1000SX 550m SFP, 850nm 1.25G -20..85°C, LC
FTLF1318P3BTL	MiniGBIC SM 1000LX 10km SFP, 1310nm 1.25G -40..85°C, LC

**GEL-1061, 10-Port L2 Managed Gigabit Ethernet Switch,
2x GE SFP**


L2 Managed



8x Gigabit Ethernet Ports + 2x Gigabit SFP Slots
 SFP slots support MGBIC for Gigabit 1000BaseX
 Management: WEB, SNMP
 Features: QOS, Storm Control, VLAN, Port Mirroring,
 Autonegotiation, Auto MDI/MDIX and much more
 Diagnostic LEDs
 19" Mounting brackets included
 Metal housing with fan (L x W x H): 196 x 117 x 36 mm

Art.-No.	Description
GEL-1061	10-Port L2 Managed Gigabit Ethernet Switch, 2x GE SFP

Art.-No.	Accessory
FTLF8519P3BNL	MiniGBIC MM 1000SX 550m SFP, 850nm 1.25G -20..85°C, LC
FTLF1318P3BTL	MiniGBIC SM 1000LX 10km SFP, 1310nm 1.25G -40..85°C, LC

GSW-2457, 24-Port Gigabit Ethernet Switch

24-Port Gigabit Ethernet Switch
Autonegotiation and Auto MDI/MDIX
Diagnostic LEDs
19" Mounting brackets included
Metal housing 1 fan (LxWxH): 440 x 180 x 44 mm

Art.-No.	Description
GSW-2457	24-Port Gigabit Ethernet Switch

5/8-Port Gigabit Ethernet Desktop Switch „Black Edition“

5/8-Port Gigabit Ethernet Desktop Switch
compact wall-mountable housing
Autonegotiation and Auto MDI/MDIX
Diagnostic LEDs
Power supply included
Plastic housing fanless (L x W x H): 160 x 90 x 29 mm

Art.-No.	Description
GSW-0507	5-Port Gigabit Ethernet Desktop Switch „Black Edition“
GSW-0807	8-Port Gigabit Ethernet Desktop Switch „Black Edition“

GSW-1657, 16-Port Gigabit Ethernet Switch

16-Port Gigabit Ethernet Switch
Autonegotiation and Auto MDI/MDIX
Diagnostic LEDs
19" Mounting brackets included
Metal housing 1 fan (LxWxH): 440 x 180 x 44 mm

Art.-No.	Description
GSW-1657	16-Port Gigabit Ethernet Switch

GEU-0521, 5-Port Gigabit Ethernet Switch, + 1 GE SFP

4x Gigabit Ethernet Ports + 1x Gigabit SFP Slot
SFP Slot supports MiniGBIC for Gigabit 1000BaseX
Autonegotiation and Auto MDI/MDIX
Diagnostic LEDs
Plastic housing fanless (L x W x H): 177 x 77 x 24 mm

Art.-No.	Description
GEU-0521	5-Port Gigabit Ethernet Switch, 4x RJ45, 1x GE SFP
Art.-No.	Accessory
FTLF8519P3BNL	MiniGBIC MM 1000SX 550m SFP, 850nm 1.25G -20..85°C, LC
FTLF1318P3BTL	MiniGBIC SM 1000LX 10km SFP, 1310nm 1.25G -40..85°C, LC

FGU-5021, 50-Port Fast Ethernet Switch, 2x GE SFP/RJ45

50 Fast Ethernet Ports + 2x Gigabit SFP/RJ45 Combo Slots
 Full/Half-Duplex
 Autonegotiation, Auto-MDI/MDIX
 19" Mounting brackets included
 Metal housing 1 fan (L x W x D): 440 x 230 x 44 mm



Art.-No.	Description
FGU-5021	50-Port Fast Ethernet Switch + 2 GE SFP/RJ45 Combo Ports

Art.-No.	Accessory
FTLF8519P3BNL	MiniGBIC MM 1000SX 550m SFP, 850nm 1.25G -20..85°C, LC
FTLF1318P3BTL	MiniGBIC SM 1000LX 10km SFP, 1310nm 1.25G -40..85°C, LC

FSW-1650, 16-Port Fast Ethernet Switch

16 Fast Ethernet Ports
 Plug & Play
 Autonegotiation und Auto MDI/MDIX
 Diagnostic LEDs
 19" brackets included
 Metal housing fanless (L x W x H): 440 x 180 x 44 mm

Art.-No.	Description
FSW-1650	16-Port Fast Ethernet Switch

FEU-0511, 4-Port Fast Ethernet Switch, + 1x LWL Multimode SCdp

4 Fast Ethernet Port
 1 SC-Port 100BaseFX fiber Multimode up to 2 km via 50µ or 62.5µ fiber
 Autonegotiation and Auto MDI/MDIX
 Diagnostic LEDs
 Plastic housing fanless (LxBxH): 164 x 100 x 26 mm

Art.-No.	Description
FEU-0511	4-Port Fast Ethernet Switch + 1 LWL Multimode SC Port

FSW-2450, 24-Port Fast Ethernet Switch

24 Fast Ethernet Ports
 Plug & Play
 Autonegotiation und Auto MDI/MDIX
 Diagnostic LEDs
 19" brackets included
 Metal housing fanless (L x W x H): 440 x 180 x 44 mm

Art.-No.	Description
FSW-2450	24-Port Fast Ethernet Switch

5/8 Port Fast Ethernet Switch, ultracompact and magnetic

5/8 Fast Ethernet Ports
 Autonegotiation and Auto MDI/MDIX
 Diagnostic LEDs
 Compact design with magnetic base
 Plastic housing fanless (L x B x H): 127 x 70 x 28 mm
 Incl. power supply

Art.-No.	Description
FSW-0508TX	5-Port Fast Ethernet Switch, ultracompact
FSW-0808TX	8-Port Fast Ethernet Switch, ultracompact

FIBER OPTIC

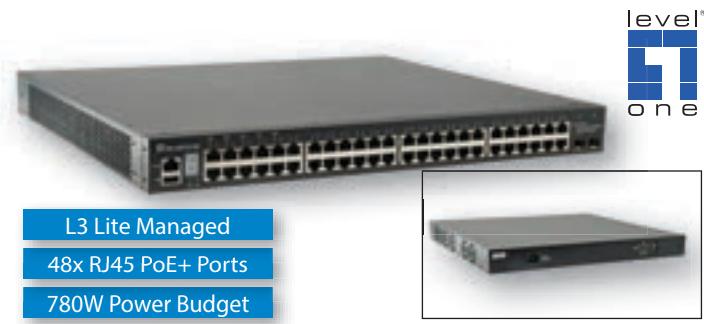
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CABINET SYSTEMS

MULTIMEDIA

ACTIVE COMPONENTS

GTP-5281, 48-Port L3 Lite Managed Gigabit Ethernet PoE+ Switch, 2x 10G SFP+, 1x 10G Modulslot, Stackable



48 Gigabit-Ethernet-Ports with 2x 10Gigabit SFP+ slots, additionally there is an extension slot for an 10G module (2 x SFP+)
SFP+ slot supports MGBIC for 10Gigabit 10GBaseX,
Management: SNMP, WEB, RMON, Telnet und TFTP administration
Features: IPv6, Multicast, VLAN, Virtual Stacking, Autonegotiation and Auto MDI/MDIX and much more.
L3 Features: Multi-netting (CIDR), IPv4 Static Routes, RIP v1/v2., ARP/Proxy ARP
Hardware stacking up to 4 devices
Metal housing with fan(L x W x H): 440 x 391 x 44 mm

Art.-No.	Description
GTP-5281	48-Port L3 Lite Managed Gigabit Ethernet PoE Plus Switch, 2x 10G SFP+ Slots

Art.-No.	Accessory
FTLX1471D3BCL	MiniGBIC SM 10GBase SFP+, LC/10km
FTLX8574D3BCL	MiniGBIC MM 10GBase SFP+, LC, OM2/82m - OM3/300m - OM4/400m

GEP-2651, 24-Port L2 Managed Gigabit Ethernet PoE+ Switch, 2x SFP/RJ45 Combo



24x PoE-Plus Gigabit Ethernet ports + 2x Gigabit SFP Slots
SFP slot supports MGBICs for Gigabit 1000BaseX
IEEE-802.3af/at PoE compliance with auto PoE detection
PoE-Plus up to 30W per Port
Max. power for PoE : 185W
Management: SNMP, WEB, RMON
Features: Multicast, VLAN, Port Mirroring, Autonegotiation, Auto MDI/MDIX and more
19" Mounting brackets included
Metal housing with fan (L x W x D): 442 x 211 x 44 mm

Art.-No.	Description
GEP-2651	26-Port Web Managed GE PoE+ Switch, 2x SFP/RJ45 Combo, (185W)

Art.-No.	Accessory
FTLF8519P3BNL	MiniGBIC MM 1000SX 550m SFP, 850nm 1.25G -20..85°C, LC
FTLF1318P3BTL	MiniGBIC SM 1000LX 10km SFP, 1310nm 1.25G -40..85°C, LC

26-Port L3 Lite Managed Gigabit Ethernet PoE+ Switch, 2x SFP/RJ45 Combo



24 PoE+ Gigabit Ethernet Ports + 2 Gigabit Ethernet SFP/RJ45 Combo Slots
SFP Slots supports MiniGBICs for Gigabit 1000Base-X
IEEE-802.3af / at PoE compliance with PoE detection
PoE+ up to 30W pro Port
Max. PoE Power: 185W (GEP-2681); 370W (GEP-2682)
Management: SNMP, WEB, RMON
Features: QoS, VLAN, LACP, Port mirroring, Autonegotiation and Auto MDI/MDIX
L3 Features: Static route, DHCP Server
19" Mounting brackets included
Metal housing (L x W x D): 442 x 211 x 44 mm

Art.-No.	Description
GEP-2681	26-Port L3 Lite Managed Gigabit PoE Switch, 24x PoE+, 185W, 2 x1G SFP/RJ45
GEP-2682	26-Port L3 Lite Managed Gigabit PoE Switch, 24x PoE+, 370W, 2 x1G SFP/RJ45

Art.-No.	Accessory
FTLF8519P3BNL	MiniGBIC MM 1000SX 550m SFP, 850nm 1.25G -20..85°C, LC
FTLF1318P3BTL	MiniGBIC SM 1000LX 10km SFP, 1310nm 1.25G -40..85°C, LC

GEP-1061, 10-Port L2 Managed Gigabit Ethernet PoE+ Switch, 2x GE SFP



8x Gigabit Ethernet Ports with PoE+, 2 Gigabit Ethernet SFP Slots
SFP Slots supports MiniGBICs for Gigabit 1000Base-X
PoE+ up to 30W pro Port
IEEE-802.3af / at PoE compliance with PoE detection
Management: SNMP, WEB, RMON
Features: QoS, VLAN, Port mirroring, Autonegotiation and Auto MDI/MDIX
Max. PoE Power: 125W
19" Mounting brackets included
Metal housing (L x W x D): 330 x 204 x 43 mm

Art.-No.	Description
GEP-1061	10-Port L2 Managed Gigabit PoE+ Switch, 2x SFP, PoE+ (125W)

Art.-No.	Accessory
FTLF8519P3BNL	MiniGBIC MM 1000SX 550m SFP, 850nm 1.25G -20..85°C, LC
FTLF1318P3BTL	MiniGBIC SM 1000LX 10km SFP, 1310nm 1.25G -40..85°C, LC

16-Port Gigabit PoE+ Switch

16-Port Gigabit Ethernet PoE+ Switch
PoE: IEEE-802.3af / at PoE compliance
PoE up to 30W per port with Auto-PoE detection
Features: Autonegotiation, Auto MDI/MDIX and much more
19" Metal housing (L x W x H): 480 x 200 x 44 mm

Art.-No.	Description
GEP-1621	16-Port Gigabit Ethernet PoE+ Switch (240W)
GEP-1621W120	16-Port Gigabit Ethernet PoE+ Switch (120W)
GEP-1621W150	16-Port Gigabit Ethernet PoE+ Switch (150W)
GEP-1621W380	16-Port Gigabit Ethernet PoE+ Switch (380W)
GEP-1622	16-Port Gigabit Ethernet PoE+ Switch (480W)

8-Port Gigabit Ethernet PoE+ Switch

8-Port Gigabit Ethernet Switch, 8-Port with PoE-Plus up to 30W per port
IEEE-802.3af / at PoE compliance
Automatic PoE detection
Autonegotiation and Auto MDI/MDIX
Max. power for PoE: 123 W (GEP-0821), 240 W (GEP-0822), 30 W per port
19" Mounting brackets included
Metal housing with fan (L x W x D): 280 x 185 x 44 mm

Art.-No.	Description
GEP-0821	8-Port Gigabit Ethernet PoE+ Switch (123.2W)
GEP-0822	8-Port Gigabit Ethernet PoE+ Switch (240W)

GEP-1021, 10-Port Gigabit Ethernet PoE+ Switch, 2x GE SFP

8x PoE+ Gigabit Ethernet Ports + 2x Gigabit SFP Slots
SFP Slot supports MiniGBIC for Gigabit 1000BaseX
IEEE-802.3 af/at PoE compliance with Auto PoE detection
Max. Power for PoE: 250W, up to 30W per Port
19" Mounting brackets included
Metal housing (L x W x H): 280 x 215 x 44 mm

Art.-No.	Description
GEP-1021	10-Port-Gigabit Ethernet-PoE+ Switch, 2x GE SFP, (250W)

Art.-No.	Accessory
FTLF8519P3BNL	MiniGBIC MM 1000SX 550m SFP, 850nm 1.25G -20..85°C, LC
FTLF1318P3BTL	MiniGBIC SM 1000LX 10km SFP, 1310nm 1.25G -40..85°C, LC

GEP-0522, 5-Port-Gigabit Ethernet-PoE+ Switch

5x Gigabit Ethernet ports, 4 with PoE+ support
PoE ports according to IEEE-802.3 af/at and PoE Auto-detect
Max. power for PoE: 65W, up to 30W per Port
Incl. internal power supply and cable
Metal housing (L x W x H): 160 x 122 x 44 mm

Art.-No.	Description
GEP-0522	5-Port-Gigabit Ethernet-PoE-Switch, (65W)

Long Range PoE Switches



Standard PoE Mode

100 Meter

100BASE-TX UTP with PoE



PoE Network Camera

PoEWLAN Acces Point

Advanced PoE Mode

200 Meter



PoE Network Camera



PoE WLAN Acces Point

Standard PoE Mode

If all dip switches are switch to „off“ the switch will run at standard PoE mode

Advanced PoE Mode

If all dip switches are switch to „on“ the switch will run at advanced PoE mode and supports 30Watt PoE 10 Mbit/s data transmission up to 200 m

8-Port Fast Ethernet PoE+ Switch

PoE: IEEE-802.3af / at PoE compliance

PoE distance extendable up to 200m (via DIP-Switch)

PoE+ up to 30W per port with Auto-PoE detection

Features: Autonegotiation, Auto MDI/MDIX and much more

DIP-Switch functions: PoE distance, VLAN, QoS

Metal housing fanless (L x W x H): 215.5 x 133 x 42 mm

Art.-No.	Description
ES-5104PHV2	Fast Ethernet 5-Port Switch 4 PoE+ Ports, DIP Switch 60W fanless
ES-1008PHV2	Fast Ethernet 8-Port Switch 4x PoE+ Ports, DIP Switch 70W, fanless
ES-1008PV2	Fast Ethernet 8-Port Switch 8x PoE+ Ports, DIP Switch 130W fanless
GS-1008PHV2	Gigabit Ethernet 8-Port Switch 4x PoE+ Ports, DIP Switch 70W fanless
GS-1008PV2	Gigabit Ethernet 8-Port Switch 8x PoE+ Ports, DIP Switch 130W fanless

16-Port Fast Ethernet PoE+ Switch

16-Port Fast Ethernet PoE+ Switch
PoE: IEEE-802.3af / at PoE compliance
PoE+ up to 30W per port with Auto-PoE detection
Features: Autonegotiation, Auto MDI/MDIX and much more
19" Metal housing (L x W x H): 480 x 200 x 44 mm

Art.-No.	Description
FEP-1611	16-Port Fast Ethernet PoE+ Switch (240W)
FEP-1612W120	16-Port Fast Ethernet PoE+ Switch (120W)
FEP-1612W150	16-Port Fast Ethernet PoE+ Switch (150W)
FEP-1612W380	16-Port Fast Ethernet PoE+ Switch (380W)
FEP-1612	16-Port Fast Ethernet PoE+ Switch (480W)

FEP-0812, 8-Port Fast Ethernet PoE+ Switch, 4x PoE+

8-Port Fast Ethernet PoE+ Switch:
4x PoE+ Fast Ethernet Ports + 4x Fast Ethernet Ports
PoE: IEEE-802.3af / at PoE compliance
PoE+ up to 30W per port with Auto-PoE detection
Features: Autonegotiation, Auto MDI/MDIX and much more
Internal power supply
19" Mounting brackets included
Metal housing (L x W x H): 160 x 122 x 44 mm

Art.-No.	Description
FEP-0812	8-Port Fast Ethernet PoE+ Switch, 4x FE PoE+, + 4x FE (65W)
FEP-0812W90	8-Port Fast Ethernet PoE+ Switch, 4x FE PoE+, + 4x FE (90W)
FEP-0812W120	8-Port Fast Ethernet PoE+ Switch, 4x FE PoE+, + 4x FE (120W)

FEP-0811, 8-Port Fast Ethernet PoE+ Switch

8-Port Fast Ethernet PoE+ Switch
PoE: IEEE-802.3af / at PoE compliance
PoE+ up to 30W per port with Auto-PoE detection
Features: Autonegotiation, Auto MDI/MDIX and much more
Internal power supply
19" Mounting brackets included
Metal housing (L x W x H): 280 x 185 x 44 mm

Art.-No.	Description
FEP-0811	8-Port Fast Ethernet PoE+ Switch (120W)
FEP-0811W250	8-Port Fast Ethernet PoE+ Switch (250W)

FEP-0511, 5-Port Fast Ethernet PoE Switch (65W)

5-Port Gigabit Ethernet PoE+ Switch:
4x PoE+ Fast Ethernet Ports + 1x Fast Ethernet Port
PoE: IEEE-802.3af / at PoE compliance
PoE up to 30W per port with Auto-PoE detection
Features: Autonegotiation, Auto MDI/MDIX and much more
Internal power supply
Compact design for desktop use
Metal housing (L x W x H): 280 x 185 x 44 mm

Art.-No.	Description
FEP-0511	5-Port Fast Ethernet PoE+ Switch, 4x FE PoE+, + 1x FE (65W)
FEP-0511W90	5-Port Fast Ethernet PoE+ Switch, 4x FE PoE+, + 1x FE (90W)
FEP-0511W120	5-Port Fast Ethernet PoE+ Switch, 4x FE PoE+, + 1x FE (120W)

FSW-0513, 5-Port Fast Ethernet High Power PoE Switch, 4x PoE (120W)

5 Fast Ethernet Ports
4 PoE ports with High-Power up to 52 W per port
DIP-Switch to control all PoE-ports
IEEE-802.3af / at PoE compatible with automatic PoE detection and protection of non standard PoE-devices
Autonegotiation and Auto MDI/MDIX
Max. PoE-Power: 120 W
Metal housing fanless (L x W x H): 120 x 90 x 28 mm



Art.-No.	Description
FSW-0513	5-Port Fast Ethernet High Power PoE Switch, (120W)

Fast Ethernet PoE Media Converter , RJ45-SC-Duplex, 100FX

1x 10/100TX PoE Port and 1x SC duplex 100FX fiber optic port
IEEE-802.3af / at PoE compatible with automatic PoE detection
PoE injector integrated with PoE up to 15.4 W
Diagnostic LEDs
Metal housing fanless (L x W x H): 158 x 133 x 40 mm



Art.-No.	Description
FVT-0203TXFC	Media Converter + PoE Injector 10/100TX+PoE / 100FX, SC, MM, 2km
FVT-0204TXFC	Media Converter + PoE Injector 10/100TX+PoE / 100FX, SC, SM, 20km

Gigabit Ethernet PoE-PD Media Converter with SFP

Powered Device Gigabit Media Converter with SFP slot
No Power supply needed, can be powered with PoE
IEEE-802.3af / at PoE compatible (PD device = powered device)
SFP slot with support for MiniGBICs 1000SX or 1000LX
With dip switch for advanced configuration
Diagnostic LEDs
Power supply not included, because of Power over PoE
Metal housing fanless (L x W x H): 94 x 71 x 26 mm

Art.-No.	Description
GVT-2010	Gigabit Ethernet PoE Media Converter, 10/100/1000T, Powered Device (PD)
Art.-No.	Accessory
CVH-2000	19" Rack Chassis, for 14 x GVT-2010
FTLF8519P3BNL	MiniGBIC MM 1000SX 550m SFP, 850nm 1.25G -20..85°C, LC
FTLF1318P3BTL	MiniGBIC SM 1000LX 10km SFP, 1310nm 1.25G -40..85°C, LC

Fast Ethernet PoE-PD Media Converter, RJ45-SC-Duplex, 100FX

1x Fast Ethernet PoE-PD Port and 1 SC duplex fiber optic port
No power supply needed, can be powered with PoE
IEEE-802.3af PoE compatible with PoE up to 15.4 W
Diagnostic LEDs
Power supply not included, because of Power over PoE
Metal housing fanless (L x W x H): 158 x 133 x 40 mm



Art.-No.	Description
FVT-0103TXFC	Fast Ethernet PoE-PD Media Converter, RJ45-SC-Duplex, 100FX, MM
FVT-0104TXFC	Fast Ethernet PoE-PD Media Converter, RJ45-SC-Duplex, 100FX, SM

Fast Ethernet PoE Injector up to 15.4W



1 Fast Ethernet Port DATA IN and
 1 Fast Ethernet Port DATA + PoE OUT up to 15.4 W
 IEEE-802.3af PoE compatible
 MidSpan devices can be integrated in every network, independent from the used switch types
 Diagnostic LEDs
 Plastic housing fanless (L x W x H): 143 x 51 x 38 mm

Art.-No.	Description
POI-2002	Fast Ethernet PoE Injector 15.4W

Gigabit PoE+ Injector up to 30W



1 Gigabit Ethernet Port DATA IN and
 1 Gigabit Ethernet Port DATA + PoE+ OUT up to 30 W
 IEEE-802.3af / at PoE compatible
 MidSpan devices can be integrated in every network, independent from the used switch types,
 Diagnostic LEDs
 Plastic housing fanless (L x W x H): 166 x 51.3 x 87.9 mm

Art.-No.	Description
POA-1000A	Gigabit PoE+ Injector up to 30W

Gigabit PoE+ Extender IEEE 802.3at



Gigabit PoE+ Repeater
 Extends your PoE-Signal for another 100m
 Cascadable up to 300m
 Plug and Play
 For desktop or wall-mounted installation
 No external power supply needed

Art.-No.	Description
GP-101ET	Gigabit PoE+ Extender IEEE 802.3at

Gigabit PoE Injector up to 15.4W



1 Gigabit Ethernet Port DATA IN und
 1 Gigabit Ethernet Port DATA + PoE OUT up to 15.4 W
 Supports PoE standard IEEE802.3af for powering of network devices via structured cabling
 MidSpan devices can be integrated in every network, independent from the used switch types, Diagnostic LEDs
 Plastic housing fanless (L x W x H): 143 x 51 x 38 mm

Art.-No.	Description
POI-2001	Gigabit PoE Injector 15.4W

Gigabit and Fast Ethernet PoE+ Splitter up to 30W



Compact splitter supports 10/100/1000Mbit/s speed
 Automatically detects PoE terminals and supplies inline power
 Easily install non-PoE devices where a power outlet is not available
 Reduce installation and network equipment costs
 Safeguards network device with short circuit protection
 Adjustable DIP switch for 5V, 9V, or 12V output
 Integrates Non-PoE devices with Power Over Ethernet support
 Auto-sensing power drawn from 802.3af/at power source equipment(PSE) devices
 Supplies power up to 25 watts
 Provides Interchangeable tips
 Metal housing (L x B x H): 60 x 92 x 27 mm

Art.-No.	Description
POS-3000	Gigabit PoE+ Splitter 30W

PoE Checker, Power over Ethernet Test Tool



Scan pins and detects PoE type if either Midspan or Endspan
 Display the PoE DC voltage and pinouts in an instance
 Able to determined the PoE standard if either IEEE 802.3af, IEEE 802.3at or a nonstandard PoE accurately
 Phone service detection and displays the DC voltage of phone service power
 Measurement of power drawn from Powered Device

Art.-No.	Description
37678.1	PoE Checker, Power over Ethernet Test Tool

Managed PoE WLAN-Ceiling/Wall-Access-Point, 1200Mbps, Dual-Band



1200Mbps



750Mbps



Share your wireless network up to 1200 MBit/s
 Compatible to the IEEE-802.11ac/a/b/g/n standards
 Supports a high level of security using WEP, WPA and WPA2 with IEEE-802.1X
 supports up to 8 SSIDs in connection with WAC-2000
 for a better security in your network
 IEEE-802.3af PoE compatible for a easy installation
 Ceiling- or wall-mounted models

Art.-No.	Description
WAP-8122	Managed AC WLAN-Ceiling/Wall-Access-Point, 1200Mbps, PoE, Dual-Band

Art.-No.	Accessory
WAC-2000	Wireless LAN-Controller for Managed WLAN-Access-Points
WAC-2003	Gigabit Wireless LAN-Controller, 4x 1G R45 WAN, 1x RJ45 LAN

Managed PoE WLAN-Ceiling/Wall-Access-Point, 300Mbps



300Mbps



150Mbps



Share your wireless network up to 300 MBit/s
 Compatible to the IEEE-802.11b/g/n standards
 Supports a high level of security using WEP, WPA and WPA2 with IEEE-802.1X
 supports up to 4 SSIDs in connection with WAC-2000
 for a better security in your network
 IEEE-802.3af PoE compatible for a easy installation
 Ceiling- or wall-mounted models

Art.-No.	Description
WAP-6121	Managed WLAN-Ceiling/Wall-Access-Point, 300Mbps, PoE

Art.-No.	Accessory
WAC-2000	Wireless LAN-Controller for Managed WLAN-Access-Points
WAC-2003	Gigabit Wireless LAN-Controller, 4x 1G R45 WAN, 1x RJ45 LAN

Managed PoE WLAN-Ceiling/Wall-Access-Point, 750Mbps, Dual-Band



750Mbps

Share your wireless network up to 750 MBit/s
 Compatible to the IEEE-802.11ac/a/b/g/n standards
 Supports a high level of security using WEP, WPA and WPA2 with IEEE-802.1X
 supports up to 8 SSIDs in connection with WAC-2000
 for a better security in your network
 IEEE-802.3af PoE compatible for a easy installation
 Ceiling- or wall-mounted models

Art.-No.	Description
WAP-8121	Managed AC WLAN-Ceiling/Wall-Access-Point, 750Mbps, PoE, Dual-Band

Art.-No.	Accessory
WAC-2000	Wireless LAN-Controller for Managed WLAN-Access-Points
WAC-2003	Gigabit Wireless LAN-Controller, 4x 1G R45 WAN, 1x RJ45 LAN

Managed PoE WLAN-Ceiling/Wall-Access-Point, flush-mounting, 150Mbps



150Mbps

Share your wireless network up to 150 MBit/s
 Compatible to the IEEE-802.11b/g/n standards
 Supports a high level of security using WEP, WPA and WPA2 with IEEE-802.1X
 supports up to 4 SSIDs in connection with WAC-2000
 for a better security in your network
 USB-Port to charge your Tablet or Smartphone
 IEEE-802.3af PoE compatible for a easy installation
 For recessed mounting

Art.-No.	Description
WAP-6221	Managed WLAN-Access-Point, PoE, 150Mbps, flush-mounting

Art.-No.	Accessory
WAC-2000	Wireless LAN-Controller for Managed WLAN-Access-Points
WAC-2003	Gigabit Wireless LAN-Controller, 4x 1G R45 WAN, 1x RJ45 LAN

Wireless LAN-Controller for Managed WLAN-Access-Points



up to 50 APs manageable

The Client-Isolation allowed a strict control of access to the wireless-device
5-Fast Ethernet ports
Different bandwidth for each Access-Point
Gateway functions for hotspots
Central management up to 50 APs
Radio frequency (RF) and user monitoring
For Managed WLAN-Access-Points

Art.-No.	Description
WAC-2000	Wireless LAN-Controller for Managed WLAN-Access-Points

N300 Wireless Access Point, 300Mbit/s



300Mbps



Share your wireless network up to 300Mbps
Compatible with IEEE 802.11b/g/n wireless standards
Multi-operation modes to suit different wireless applications
Provides up to 4 SSIDs to separate network traffic and enhance security
Supports WEP, WPA and WPA2 encryption with
IEEE 802.1X for high level security
Supports up to 8 SSIDs in connection with WAC-2000/2003
for a better security in your network

Art.-No.	Description
WAP-6017	N300 Wireless Access Point, Controller Managed

Art.-No.	Accessory
WAC-2000	Wireless LAN-Controller for Managed WLAN-Access-Points
WAC-2003	Gigabit Wireless LAN-Controller, 4x 1G R45 WAN, 1x RJ45 LAN

Wireless Range Extender, 300Mbps, 802.11b/g/n



300Mbps

Provides stable signals and extends coverage
Share your wireless network up to 300Mbps
Compatible with IEEE 802.11b/g/n wireless standards
Simple wireless connectivity and security with WPS push button
Wireless security with WPA/WPA2-PSK and 64/128-bit WEP encryption

Art.-No.	Description
WRE-6001C	Wireless Range Extender, 300Mbit/s, 802.11b/g/n

Gigabit Wireless LAN-Controller for Managed Access-Point, Quad WAN



up to 300 APs manageable

The Client-Isolation allowed a strict control of access to the wireless-device
4x RJ45 Gigabit WAN, 1x RJ45 Gigabit LAN Ports
Different bandwidth for each Access-Point
Supports Router and Gateway mode
Central management up to 300 Access-Points
Integrated and robust firewall
Radio frequency (RF) and user monitoring

Art.-No.	Description
WAC-2003	Gigabit Wireless LAN-Controller, 4x 1G R45 WAN, 1x RJ45 LAN

AC1200 Wireless Access Point, 1200Mbit/s, 802.11 b/g/n/ac



1200Mbps



Share your wireless network up to 1200 MBit/s
Compatible to the IEEE-802.11ac/a/b/g/n standards
1x Gigabit RJ45 WAN, 4x Gigabit RJ45 LAN, 2x USB2.0
Supports a high level of security using WEP, WPA and WPA2 with IEEE-802.1X
Supports up to 8 SSIDs in connection with WAC-2000/2003
for a better security in your network

Art.-No.	Description
WAP-8021	AC1200 Wireless Access Point, 1200Mbit/s, 802.11 b/g/n/ac

Art.-No.	Accessory
WAC-2000	Wireless LAN-Controller for Managed WLAN-Access-Points
WAC-2003	Gigabit Wireless LAN-Controller, 4x 1G R45 WAN, 1x RJ45 LAN

Wireless Range Extender, 1200Mbit/s, 802.11 b/g/n/ac



1200Mbps

Share your wireless network up to 1200Mbps
Provides stable signals and extends coverage
Compatible with IEEE 802.11b/g/ac wireless standards
Simple wireless connectivity and security with WPS push button
Wireless security with WPA/WPA2-PSK and 64/128-bit WEP encryption

Art.-No.	Description
WRE-8011E	Wireless Range Extender, 1200Mbit/s, 802.11 b/g/n/ac



INDUSTRIAL ETHERNET

Since a few years, the successful concept of application-neutral structured cabling has also been used in the fieldbus level of production systems. Requirements for industrial network technology especially are reliability and highly resistant to electrical interference. In addition, the equipment has to withstand environmental influences such as dust, temperature fluctuations and vibrations. EFB-Elektronik offers a wide range of switches, media converters and redundant power supplies for industrial applications. The systems are available with a DC power supply and DIN-Rail mounting option.

ACTIVE COMPONENTS

MECHANICAL PROPERTIES OF ACTIVE INDUSTRIAL COMPONENTS:

- Robustness and extended stability compliant with IEC 60068-2-32 (drop test),
IEC 60068-2-27 (shock), IEC 60068-2-26 (vibration)
- Degrees of protection: Min. IP30
- EMC-proof metal housing according to FCC CLASS A, EN 61000-4-X/-6-X
- Safety standards according to UL, cUL, EN 60950-1
- Mounting on a DIN rail
- Temperature range standard type: -20 °C to 60 °C, E-type: -40 °C to 75 °C

All active industrial components require an external power supply, with standard input voltages of 12VDC, 24VDC and 48VDC. The main and redundant power connector are carried out via pluggable terminal block.

FIBER OPTIC

COPPER

CABINET SYSTEMS

MULTIMEDIA

ACTIVE COMPONENTS

ELECTRICAL PROPERTIES OF ACTIVE INDUSTRIAL COMPONENTS:

- Wide input voltage range
- Redundant power supply
- Fanless operation
- Alarm contact for emergency events, such as power failure
- Fail-safe protection according to ITU G.8032 (Ethernet ring)

The permanent network availability has the highest priority for many applications, especially in the field of „Automotives”. The redundant ring structure of the active components enables a very short transitory time (milliseconds) using a standardised ITU G.8032 protocol. In the event of a failure of active network components, the data signal path can still be maintained or restored.

DIN-Rail-Media Converter 10/100TX-100FX, SCD**Lantech™**

Wide range of operation voltage: 9 .. 56 V DC
 Auto-MDI/MDI-X function
 Redundant power supply input
 Temperature range: -20°C .. +60°C *
 Rugged metal housing, EMV-secure, protection class IP30
 DIN-Rail or wall mounting possible
 Suitable DIN-Rail power supply: DR-15-24
 * extended temperature range types (-40°C .. +75°C) available on request

Art.-No.	Description
IEC-0101FT-SC	DIN-Rail Media Converter 10/100TX-100FX, SCD MM 2km
IEC-0101FT-SC30	DIN-Rail Media Converter 10/100TX-100FX, SCD SM 30km

Art.-No.	Accessory
DR-15-24	DIN-Rail Power Supply 24 V DC, 0.63 A, 15 W, Mean Well

Industrial Converter 1x 10/100/1000T PoE+ to 1x SFP Dual Speed**Lantech™**

Wide range of operation voltage: 9 .. 56 V DC (12 variant)
 44 .. 56 V DC (48 variant)
 Auto-MDI/MDI-X function PoE+ Injector IEEE802.3at
 Dual Speed via DIP Switch
 Redundant power supply input
 Temperature range: -20°C .. +60°C *
 Rugged metal housing, EMV-secure, protection class IP30
 DIN-Rail or wall mounting possible
 Suitable DIN-Rail power supply:
 DR-45-24 (12V variant) und DR-75-48 (48V variant)
 * extended temperature range types (-40°C .. +75°C) available on request

Art.-No.	Description
IPGC-0101DSFP-12V	Industrial Converter 1x 10/100/1000T PoE+ to 1x SFP Dual Speed, 12V
IPGC-0101DSFP-48V	Industrial Converter 1x 10/100/1000T PoE+ to 1x SFP Dual Speed, 48V

Art.-No.	Accessory
FTLF1217P2BTL	MiniGBIC MM 100FX 2km SFP, 1310nm 155Mbps -40..85°C, LC
FTLF1323P1BTL	MiniGBIC SM 100FX 40km SFP, 1310nm 155Mbps -40..85°C, LC
FTLF8519P3BNL	MiniGBIC MM 1000SX 550m SFP, 850nm 1.25G -20..85°C, LC
FTLF1318P3BTL	MiniGBIC SM 1000LX 10km SFP, 1310nm 1.25G -40..85°C, LC
DR-45-24	DIN-Rail Power Supply 24 V DC, 2.0 A, 45 W, Mean Well
DR-75-48	DIN-Rail Power Supply 48 V DC, 1.6 A, 75 W, Mean Well

IGC-0101DSFP-12V, Industrial Converter 1x 10/100/1000T - 1x SFP Dual Speed**Lantech™**

Wide range of operation voltage: 9 .. 56 V DC
 Auto-MDI/MDI-X function
 Redundant power supply input
 Temperature range: -20°C .. +60°C *
 Rugged metal housing, EMV-secure, protection class IP30
 DIN-Rail or wall mounting possible
 Suitable DIN-Rail power supply: DR-15-24
 * extended temperature range types (-40°C .. +75°C) available on request

Art.-No.	Description
IGC-0101DSFP-12V	Industrial Converter 1x 10/100/1000T - 1x SFP Gigabit Ethernet 12V

Art.-No.	Accessory
FTLF8519P3BNL	MiniGBIC MM 1000SX 550m SFP, 850nm 1.25G -20..85°C, LC
FTLF1318P3BTL	MiniGBIC SM 1000LX 10km SFP, 1310nm 1.25G -40..85°C, LC
DR-15-24	DIN-Rail Power Supply 24 V DC, 0.63 A, 15 W, Mean Well

IAC-3014, Industrial Media Converter, 2x 100/1000 SFP, 2x 100/1000T RJ45**ECTS**

Wide range of operation voltage: 12 .. 48 V DC
 Auto-MDI/MDI-X function
 Dual Rate SFP Slot supports 100FX and 1000BaseX
 Support for 3 different modes: Switch, Fiber Backup and Dual Media Converter mode
 Redundant power supply input
 Temperature range: -40°C .. +75°C *
 Rugged metal housing, EMV-secure, protection class IP30
 DIN-Rail or wall mounting possible
 Suitable DIN-Rail power supply: DR-15-24

Art.-No.	Description
IAC-3014	Industrial Media Converter, 2x 100/1000 SFP, 2x 100/1000T RJ45

Art.-No.	Accessory
FTLF1217P2BTL	MiniGBIC MM 100FX 2km SFP, 1310nm 155Mbps -40..85°C, LC
FTLF1323P1BTL	MiniGBIC SM 100FX 40km SFP, 1310nm 155Mbps -40..85°C, LC
FTLF8519P3BNL	MiniGBIC MM 1000SX 550m SFP, 850nm 1.25G -20..85°C, LC
FTLF1318P3BTL	MiniGBIC SM 1000LX 10km SFP, 1310nm 1.25G -40..85°C, LC
DR-15-24	DIN-Rail Power Supply 24 V DC, 0.63 A, 15 W, Mean Well

DIN-Rail Switch 5/8 x10/100TX

Auto MDI/MDI-X at each RJ45-port
 Wide range of operation voltage: 9 .. 56 V DC
 Redundant power supply input
 Alarm contact for emergency events (e.g. like voltage drop)
 Temperature range: -20°C .. 60°C *
 Rugged metal housing, EMV-secure, protection class IP30
 DIN-Rail or wall mounting possible
 Suitable DIN-Rail power supply: DR-15-24

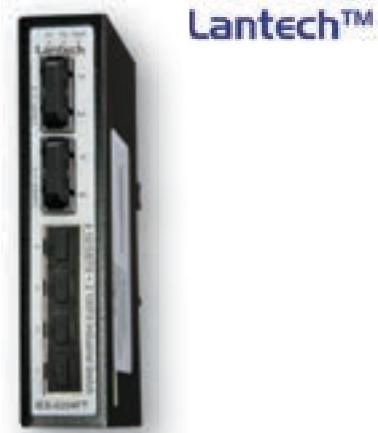
Art.-No.	Description
IES-0005T	DIN-Rail Switch 5x10/100TX 5x10/100TX
IES-0008T	DIN-Rail Switch 8x10/100TX 8x10/100TX

Art.-No.	Accessory
DR-15-24	DIN-Rail Power Supply 24 V DC, 0.63 A, 15 W, Mean Well

IES-0204DFT, DIN-Rail-Switch 4x10/100TX, 1x 1000T, 1x Dual Speed SFP

Auto MDI/MDI-X at each RJ45 port
 Dual Speed SFP slot supports MGBICs for 100FX and 1000BaseX
 Wide range of operation voltage: 9 .. 56 V DC
 Redundant power supply input
 Alarm contact for emergency events (e.g. like voltage drop)
 Temperature range: -20°C .. +60°C *
 Rugged metal housing, EMV-secure, protection class IP30
 DIN-Rail or wall mounting possible
 Suitable DIN-Rail power supply: DR-15-24
 * extended temperature range types (-40°C .. +75°C) available on request

Art.-No.	Description
IES-0204DFT	DIN-Rail Switch 4x 10/100TX, 1x 1000T, 1x Dual Speed SFP
Art.-No.	Accessory
FTLF8519P3BNL	MiniGBIC MM 1000SX 550m SFP, 850nm 1.25G -20..85°C, LC
FTLF1318P3BTL	MiniGBIC SM 1000LX 10km SFP, 1310nm 1.25G -40..85°C, LC
DR-15-24	DIN-Rail Power Supply 24 V DC, 0.63 A, 15 W, Mean Well

IES-0204FT-SC/MM, DIN-Rail-Switch, unmanaged, 4x 10/100TX, 2x 100FX SC MM 2km

Auto MDI/MDI-X at each RJ45 port
 Wide range of operation voltage: 9 .. 56 V DC
 Redundant power supply input
 Alarm contact for emergency events (e.g. like voltage drop)
 Temperature range: -20°C .. +60°C *
 Rugged metal housing, EMV-secure, protection class IP30
 DIN-Rail or wall mounting possible
 Suitable DIN-Rail power supply: DR-15-24
 * extended temperature range types (-40°C .. +75°C) available on request

Art.-No.	Description
IES-0204FT-SC/MM	DIN-Rail Switch, unmanaged Fast Ethernet Switch 4x 10/100TX, 2x 100FX SC MM 2km

Art.-No.	Accessory
DR-15-24	DIN-Rail Power Supply 24 V DC, 0.63 A, 15 W, Mean Well

IES-3005-F1, Industrial Switch 4x 100/1000T RJ45, 1x 100/1000 SFP

Wide range of operation voltage: 12 .. 48 V DC
 Auto-MDI/MDI-X function
 Dual Rate SFP Slot for 100FX and 1000BaseX
 Redundant power supply input
 Temperature range: -40°C .. +75°C
 Rugged metal housing, EMV-secure, protection class IP30
 DIN-Rail or wall mounting possible
 Suitable DIN-Rail power supply: DR-15-24

Art.-No.	Description
IES-3005-F1	Industrial Switch 4x 100/1000T, 1x 100/1000 SFP
Art.-No.	Accessory
FTLF1217P2BTL	MiniGBIC MM 100FX 2km SFP, 1310nm 155Mbps -40..85°C, LC
FTLF1323P1BTL	MiniGBIC SM 100FX 40km SFP, 1310nm 155Mbps -40..85°C, LC
FTLF8519P3BNL	MiniGBIC MM 1000SX 550m SFP, 850nm 1.25G -20..85°C, LC
FTLF1318P3BTL	MiniGBIC SM 1000LX 10km SFP, 1310nm 1.25G -40..85°C, LC
DR-15-24	DIN-Rail Power Supply 24 V DC, 0.63 A, 15 W, Mean Well

IES-2008B, DIN-Rail-Switch, 8x 10/100TX, SNMP Pro-Ring

Management: SNMP, WEB, RMON
 Auto MDI/MDI-X at each RJ45 port
 Support of Ethernet Ring protocol Pro-Ring II
 Wide range of operation voltage: 12 .. 48 V DC
 Redundant power supply input
 Alarm contact for emergency events (e.g. like voltage drop)
 Temperature range: -20°C .. +60°C *
 Rugged metal housing, EMV-secure, protection class IP30
 DIN-Rail or wall mounting possible
 Suitable DIN-Rail power supply: DR-15-24
 * extended temperature range types (-40°C .. +75°C) available on request

Art.-No.	Description
IES-2008B	DIN-Rail Switch 8x 10/100TX, SNMP Pro-Ring

Art.-No.	Accessory
DR-15-24	DIN-Rail Power Supply 24 V DC, 0.63 A, 15 W, Mean Well

IES-3408GSFP, DIN-Rail-Switch, 8x 10/100TX, 4x Gigabit SFP

Management: SNMP, WEB, RMON
 Auto MDI/MDI-X at each RJ45 port
 Support of Ethernet Ring protocol Pro-Ring II and ITU G.8032
 Standard Ring Protection
 Compliant to IEC-61850-3 und IEC-1613
 Wide range of operation voltage: 12 .. 48 V DC
 Redundant power supply input
 Alarm contact for emergency events (e.g. like voltage drop)
 2x DIDO (Digital Input – Digital Output)
 Temperature range: -20°C .. +60°C *
 Rugged metal housing, EMV-secure, protection class IP30
 DIN-Rail or wall mounting possible
 Suitable DIN-Rail power supply: DR-30-24
 * extended temperature range types (-40°C .. +75°C) available on request

Art.-No.	Description
IES-3408GSFP	DIN-Rail Switch 8x 10/100TX, 4x Gigabit SFP

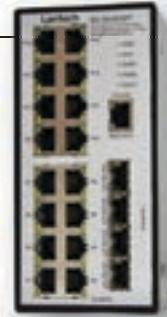
Art.-No.	Accessory
FTLF8519P3BNL	MiniGBIC MM 1000SX 550m SFP, 850nm 1.25G -20..85°C, LC
FTLF1318P3BTL	MiniGBIC SM 1000LX 10km SFP, 1310nm 1.25G -40..85°C, LC
DR-30-24	DIN-Rail Power Supply 24 V DC, 1.5 A, 30 W, Mean Well

IES-2208CA, DIN-Rail-Switch, 8x 10/100TX, 2x1000T, 2x Dual Speed SFP, SNMP

Management: SNMP, WEB, RMON
 Auto MDI/MDI-X at each RJ45 port
 Dual Speed SFP supports MiniGBICs for 100FX or 1000BaseX
 Support of Ethernet Ring protocol Pro-Ring II
 Wide range of operation voltage: 12 .. 48 V DC
 Redundant power supply input
 Alarm contact for emergency events (e.g. like voltage drop)
 Temperature range: -20°C .. +60°C *
 Rugged metal housing, EMV-secure, protection class IP30
 DIN-Rail or wall mounting possible
 Suitable DIN-Rail power supply: DR-15-24
 * extended temperature range types (-40°C .. +75°C) available on request

Art.-No.	Description
IES-2208CA	Industrial Switch for DIN Rail 8x 10/100TX, 2x Dual Speed 10/100/1000T/SFP

Art.-No.	Accessory
FTLF1217P2BTL	MiniGBIC MM 100FX 2km SFP, 1310nm 155Mbps -40..85°C, LC
FTLF1323P1BTL	MiniGBIC SM 100FX 40km SFP, 1310nm 155Mbps -40..85°C, LC
FTLF8519P3BNL	MiniGBIC MM 1000SX 550m SFP, 850nm 1.25G -20..85°C, LC
FTLF1318P3BTL	MiniGBIC SM 1000LX 10km SFP, 1310nm 1.25G -40..85°C, LC
DR-15-24	DIN-Rail Power Supply 24 V DC, 0.63 A, 15 W, Mean Well

IES-3416DSFP, DIN-Rail-Switch, 16x 10/100TX, 4x Dual Speed SFP, SNMP

Management: SNMP, WEB, RMON
 Auto MDI/MDI-X at each RJ45 port
 Dual Speed SFP supports MiniGBICs for 100FX or 1000BaseX
 Support of Ethernet Ring protocol Pro-Ring II
 Wide range of operation voltage: 12 .. 48 V DC
 Redundant power supply input
 Alarm contact for emergency events (e.g. like voltage drop)
 Temperature range: -20°C .. +60°C *
 Rugged metal housing, EMV-secure, protection class IP30
 DIN-Rail or wall mounting possible
 Suitable DIN-Rail power supply: DR-15-24
 * extended temperature range types (-40°C .. +75°C) available on request

Art.-No.	Description
IES-3416DSFP	DIN-Rail Switch, 16x 10/100TX, 4x Dual Speed SFP, SNMP

Art.-No.	Accessory
FTLF1217P2BTL	MiniGBIC MM 100FX 2km SFP, 1310nm 155Mbps -40..85°C, LC
FTLF1323P1BTL	MiniGBIC SM 100FX 40km SFP, 1310nm 155Mbps -40..85°C, LC
FTLF8519P3BNL	MiniGBIC MM 1000SX 550m SFP, 850nm 1.25G -20..85°C, LC
FTLF1318P3BTL	MiniGBIC SM 1000LX 10km SFP, 1310nm 1.25G -40..85°C, LC
DR-15-24	DIN-Rail Power Supply 24 V DC, 0.63 A, 15 W, Mean Well

IPES-0104GT-4-48V, DIN-Rail-Switch, 4x 10/100TX PoE+, 1x 10/100/1000T


4x PoE injector IEEE802.3at/af with up to 30 W per Port
 Operation voltage of 48 V DC required
 Auto MDI/MDI-X at each RJ45-port
 Redundant power supply input
 Alarm contact for emergency events (e.g. like voltage drop)
 Temperature range: -20°C .. +60°C *
 Rugged metal housing, EMV-secure, protection class IP30
 DIN-Rail or wall mounting possible
 Suitable DIN-Rail power supply: DR-120-48, DRP-240-48
 * extended temperature range types (-40°C .. +75°C) available on request

Art.-No.	Description
IPES-0104GT-4-48V	DIN-Rail Switch 4x 10/100TX with PoE+, 1x 10/100/1000T

Art.-No.	Accessory
DR-120-48	DIN-Rail Power Supply 48 V DC, 2.5 A, 120 W, Mean Well
DRP-240-48	DIN-Rail Power Supply 48 V DC, 5.0 A, 240 W, Mean Well

IPC-3014, Industrial Media Converter, 2x 100/1000 SFP, 2x 100/1000T RJ45 with PoE+


Wide range of operation voltage: 12 .. 48 V DC
 Auto-MDI/MDI-X function
 Dual Rate SFP Slot for 100FX and 1000BaseX
 Support for 3 different modes: Switch, Fiber Backup and Dual Media Converter mode
 Redundant power supply input
 Temperature range: -40°C .. +75°C *
 Rugged metal housing, EMV-secure, protection class IP30
 DIN-Rail or wall mounting possible
 Suitable DIN-Rail power supply: DR-120-48

Art.-No.	Description
IPC-3014	Industrial Media Converter, 2x 100/1000 SFP, 2x 100/1000T RJ45

Art.-No.	Accessory
FTLF1217P2BTL	MiniGBIC MM 100FX 2km SFP, 1310nm 155Mbps -40..85°C, LC
FTLF1323P1BTL	MiniGBIC SM 100FX 40km SFP, 1310nm 155Mbps -40..85°C, LC
FTLF8519P3BNL	MiniGBIC MM 1000SX 550m SFP, 850nm 1.25G -20..85°C, LC
FTLF1318P3BTL	MiniGBIC SM 1000LX 10km SFP, 1310nm 1.25G -40..85°C, LC
DR-120-48	DIN-Rail Power Supply 48 V DC, 2.5 A, 120 W, Mean Well
DRP-240-48	DIN-Rail Power Supply 48 V DC, 5.0 A, 240 W, Mean Well

IPES-0204DFT-4-12V, DIN-Rail-Switch, 4x 10/100TX PoE+, 1x 10/100/1000T, 1x GE SFP


4x PoE injector IEEE802.3 at/af with up to 30 W per Port
 Operation voltage of 48 V DC required
 Dual Speed SFP slot supports MGBICs for 100FX and 1000BaseX
 Auto MDI/MDI-X at each RJ45-port
 Redundant power supply input
 Alarm contact for emergency events (e.g. like voltage drop)
 Temperature range: -20°C .. +60°C *
 Rugged metal housing, EMV-secure, protection class IP30
 DIN-Rail or wall mounting possible
 Suitable DIN-Rail power supply: DR-120-48, DRP-240-48
 * extended temperature range types (-40°C .. +75°C) available on request

Art.-No.	Description
IPES-0204DFT-4-12V	DIN-Rail Switch, 4x 10/100TX PoE+, 1x 10/100/1000T, 1x GE SFP, 12V

Art.-No.	Accessory
FTLF1217P2BTL	MiniGBIC MM 100FX 2km SFP, 1310nm 155Mbps -40..85°C, LC
FTLF1323P1BTL	MiniGBIC SM 100FX 40km SFP, 1310nm 155Mbps -40..85°C, LC
FTLF8519P3BNL	MiniGBIC MM 1000SX 550m SFP, 850nm 1.25G -20..85°C, LC
FTLF1318P3BTL	MiniGBIC SM 1000LX 10km SFP, 1310nm 1.25G -40..85°C, LC
DR-120-48	DIN-Rail Power Supply 48 V DC, 2.5 A, 120 W, Mean Well
DRP-240-48	DIN-Rail Power Supply 48 V DC, 5.0 A, 240 W, Mean Well

IPGS-0204DSFP, DIN-Rail-Switch, 4x 10/100/1000T PoE+, 2x Dual Speed SFP


4x PoE Injector IEEE802.3 at/af with up to 30 W per Port
 Auto MDI/MDI-X at each RJ45 port
 Dual Speed SFP supports MiniGBICs for 100FX or 1000BaseX
 Wide range of operation voltage: 12 .. 56 V DC
 Redundant power supply input
 Alarm contact for emergency events (e.g. like voltage drop)
 2 x DIDO (Digital Input – Digital Output)
 Temperature range: -40°C .. +75°C
 Rugged metal housing, EMV-secure, protection class IP30
 DIN-Rail or wall mounting possible
 Suitable DIN-Rail power supply: DR-120-48; DRP-240-48

Art.-No.	Description
IPGS-0204DSFP	Switch 4x RJ45 10/100/1000Mbit/s PoE+, 2x SFP Dual Speed Port

Art.-No.	Accessory
FTLF1217P2BTL	MiniGBIC MM 100FX 2km SFP, 1310nm 155Mbps -40..85°C, LC
FTLF1323P1BTL	MiniGBIC SM 100FX 40km SFP, 1310nm 155Mbps -40..85°C, LC
FTLF8519P3BNL	MiniGBIC MM 1000SX 550m SFP, 850nm 1.25G -20..85°C, LC
FTLF1318P3BTL	MiniGBIC SM 1000LX 10km SFP, 1310nm 1.25G -40..85°C, LC
DR-120-48	DIN-Rail Power Supply 48 V DC, 2.5 A, 120 W, Mean Well
DRP-240-48	DIN-Rail Power Supply 48 V DC, 5.0 A, 240 W, Mean Well

**IPES-2208CB, DIN-Rail-Switch 8x10/100TX PoE+,
2x Dual Speed SFP**

Lantech™



8x PoE+ Injector IEEE802.3af/at with up to 30 W per port
 Management: SNMP, WEB, RMON
 Auto MDI/MDI-X at each RJ45 port
 Dual Speed SFP supports MiniGBICs for 100FX or 1000BaseX
 Support of Ethernet Ring protocol Pro-Ring
 Power supply 48 V DC / 120 W required
 Redundant power supply input
 Alarm contact for emergency events (e.g. like voltage drop)
 Temperature range: -20°C .. +60°C *
 Rugged metal housing, EMV-secure, protection class IP30
 DIN-Rail or wall mounting possible
 Suitable DIN-Rail power supply: DRP-240-48; DRP-480-48
 * extended temperature range types (-40°C .. +75°C) available on request

Art.-No.	Description
IPES-2208CB	DIN-Rail Switch 8x 10/100TX PoE+, 2x Dual Speed SFP
Art.-No.	Accessory
FTLF1217P2BTL	MiniGBIC MM 100FX 2km SFP, 1310nm 155Mbps -40..85°C, LC
FTLF1323P1BTL	MiniGBIC SM 100FX 40km SFP, 1310nm 155Mbps -40..85°C, LC
FTLF8519P3BNL	MiniGBIC MM 1000SX 550m SFP, 850nm 1.25G -20..85°C, LC
FTLF1318P3BTL	MiniGBIC SM 1000LX 10km SFP, 1310nm 1.25G -40..85°C, LC
DRP-240-48	DIN-Rail Power Supply 48 V DC, 5.0 A, 240 W, Mean Well
DRP-480-48	DIN-Rail Power Supply 48 V DC, 10.0 A, 480 W, Mean Well

**IPS-3106SFP-DR-BT, Industrial Switch 4x 100/1000T RJ45
with PoE+, 2x 100/1000 SFP, Bluetooth**

E-CTS



Bluetooth Management
Fast Ring
Auto Config. over USB

4x PoE Injector IEEE802.3at/af with up to 30 W per port
 Management: SNMP, WEB, CLI, Bluetooth Management
 Features: IGMP, QOS, VLAN, Bluetooth incl. mobile app, auto config. over USB and much more
 Dual Rate SFP Slot for 100FX and 1000BaseX
 Wide range of operation voltage: 12 .. 48 V DC
 Auto-MDI/MDI-X function
 Dual Rate SFP Slot
 Redundant power supply input
 Temperature range: -40°C .. +75°C
 Rugged metal housing, EMV-secure, protection class IP30
 DIN-Rail or wall mounting possible
 Suitable DIN-Rail power supply: DR-240-48

Art.-No.	Description
IPS-3106SFP-DR-BT	Industrial Switch 4x 100/1000T RJ45 with PoE+, 2x 100/1000 SFP, Bluetooth
Art.-No.	Accessory
FTLF8519P3BNL	MiniGBIC MM 1000SX 550m SFP, 850nm 1.25G -20..85°C, LC
FTLF1318P3BTL	MiniGBIC SM 1000LX 10km SFP, 1310nm 1.25G -40..85°C, LC
FTLF1217P2BTL	MiniGBIC MM 100FX 2km SFP, 1310nm 155Mbps -40..85°C, LC
FTLF1323P1BTL	MiniGBIC SM 100FX 40km SFP, 1310nm 155Mbps -40..85°C, LC
DRP-240-48	DIN-Rail Power Supply 48 V DC, 5.0 A, 240 W, Mean Well

**IPES-3408GSFP, DIN-Rail-Switch 8x10/100TX PoE+,
4x Gigabit SFP**

Lantech™



8x PoE Injector IEEE802.3at/af with up to 30 W per Port
 Management: SNMP, WEB, RMON
 Auto MDI/MDI-X at each RJ45 port
 Support of Ethernet Ring protocol Pro-Ring II and ITU G.8032 Standard Ring Protection
 Compliant to IEC-61850-3 und IEC-1613
 Wide range of operation voltage: 12 .. 48 V DC
 Redundant power supply input
 Alarm contact for emergency events (e.g. like voltage drop)
 2x DIDO (Digital Input – Digital Output)
 Temperature range: -20°C .. +60°C *
 Rugged metal housing, EMV-secure, protection class IP30
 DIN-Rail or wall mounting possible
 Suitable DIN-Rail power supply: DRP-240-48; DRP-480-48
 * extended temperature range types (-40°C .. +75°C) available on request

Art.-No.	Description
IPES-3408GSFP	Switch 8x RJ45 10/100Mbit/s PoE+, 4x SFP Gigabit Port
Art.-No.	Accessory
FTLF1217P2BTL	MiniGBIC MM 100FX 2km SFP, 1310nm 155Mbps -40..85°C, LC
FTLF1323P1BTL	MiniGBIC SM 100FX 40km SFP, 1310nm 155Mbps -40..85°C, LC
FTLF8519P3BNL	MiniGBIC MM 1000SX 550m SFP, 850nm 1.25G -20..85°C, LC
FTLF1318P3BTL	MiniGBIC SM 1000LX 10km SFP, 1310nm 1.25G -40..85°C, LC
DRP-240-48	DIN-Rail Power Supply 48 V DC, 5.0 A, 240 W, Mean Well
DRP-480-48	DIN-Rail Power Supply 48 V DC, 10.0 A, 480 W, Mean Well

**IPS-3110SFP, Industrial Switch 8x 100/1000T RJ45,
2x 100/1000 SFP**

E-CTS



Fast Ring
Auto Config. over USB

4x PoE Injector IEEE802.3at/af with up to 30 W per port
 Management: SNMP, WEB, CLI
 Features: IGMP, QOS, VLAN and much more
 Dual Rate SFP Slot for 100-FX and 1000-BaseX
 Wide range of operation voltage: 12 .. 48 V DC
 Auto-MDI/MDI-X function
 Dual Rate SFP Slot
 Redundant power supply input
 Temperature range: -40°C .. +75°C
 Rugged metal housing, EMV-secure, protection class IP30
 DIN-Rail or wall mounting possible
 Suitable DIN-Rail power supply: DR-240-48

Art.-No.	Description
IPS-3110SFP	Industrial Switch 8x 100/1000T RJ45, 2x 100/1000 SFP
Art.-No.	Accessory
FTLF8519P3BNL	MiniGBIC MM 1000SX 550m SFP, 850nm 1.25G -20..85°C, LC
FTLF1318P3BTL	MiniGBIC SM 1000LX 10km SFP, 1310nm 1.25G -40..85°C, LC
FTLF1217P2BTL	MiniGBIC MM 100FX 2km SFP, 1310nm 155Mbps -40..85°C, LC
FTLF1323P1BTL	MiniGBIC SM 100FX 40km SFP, 1310nm 155Mbps -40..85°C, LC
DRP-240-48	DIN-Rail Power Supply 48 V DC, 5.0 A, 240 W, Mean Well

IPS-3112-PoE++, Industrial Switch 8x RJ45 10/100/1000TX PoE++, 4x 100/1000TX SFP



8x 60W PoE Injector compatible to IEEE802.3at/af

Management: SNMP, WEB, CLI

Features: IGMP, QOS, VLAN, FastRing and much more

Dual Rate SFP Slot for 100-FX and 1000-BaseX

Wide range of operation voltage: 12 .. 48 V DC

Auto-MDI/MDI-X function

Dual Rate SFP Slot

Redundant power supply input

Temperature range: -40°C .. +75°C

Rugged metal housing, EMV-secure, protection class IP30

DIN-Rail or wall mounting possible

Suitable DIN-Rail power supply: DRP-480-48



60W PoE++ per Port

Fast Ring

Art.-No.	Description
IPS-3112-PoE++	Industrial Switch 8x RJ45 10/100/1000TX PoE++, 4x 100/1000TX SFP

Art.-No.	Description
FTLF1217P2BTL	MiniGBIC MM 100FX 2km SFP, 1310nm 155Mbps -40..85°C, LC
FTLF1323P1BTL	MiniGBIC SM 100FX 40km SFP, 1310nm 155Mbps -40..85°C, LC
FTLF8519P3BNL	MiniGBIC MM 1000SX 550m SFP, 850nm 1.25G -20..85°C, LC
FTLF1318P3BTL	MiniGBIC SM 1000LX 10km SFP, 1310nm 1.25G -40..85°C, LC
DRP-480-48	DIN-Rail Power Supply 48 V DC, 10.0 A, 480 W, Mean Well

Mean Well DIN-Rail Power Supply



DIN-Rail power supplies for industrial components

Art.-No.	Voltage	Power	Current
DR-15-24	24V	15 W	0.63 A
DR-30-24	24V	30 W	1.5 A
DR-45-24	24V	45.0 W	2.0 A
DR-75-24	24V	75 W	3.2 A
DR-120-24	24V	120 W	5.0 A
DR-75-48	48V	75 W	1.6 A
DR-120-48	48V	120 W	2.5 A
DRP-240-48	48V	240.0 W	5.0 A
DRP-480-48	48V	480.0 W	10.0 A

19" 4U Universal DIN-Rail Holder



For mounting of DIN-Rail components

DIN-Rail width : 435 mm

DIN-Rail stageless depth-adjustable, from ca. 55 .. 165 mm

Rear-sided C-Rail for cable fixing, height-adjustable

DIN-Rail also horizontally mountable

Through rear-sided mounting of the brackets also wall-mounting possible

Art.-No.	Description
53719.1	19" Universal DIN Rail Holder incl. 4U Bracket Set





TRANSCEIVER & TRANSCEIVER CABLES

The standardised high-speed module slots of the active components, such as SFP, SFP+, QSFP+ and QSFP28, allow either the use of transceiver modules or AOC cable sets. An AOC cable consists of two transceiver modules with a preassembled fiber optic cable. In contrast to conventional transceiver solutions or copper-based connections, the AOC cable is characterised by high energy efficiency and convinces with an attractive price/performance ratio. Additionally the electrically insensitive medium fiber optic allows extremely high packing densities, is free of bit-errors and is insensitive to electromagnetic interactions even over long distances. Application areas of active optical cables are mainly 10G/40G/100G Ethernet, InfiniBand, Fiber Channel, Storage Area Networks (SAN) as well as data centres.

ACTIVE COMPONENTS

DAC SFP+ 10Gigabit Ethernet - Direct Attach Copper Cable

Up to 11 Gbit/s bi-directional data links
 Compliant with 10GFC
 Compliant with SFF8431
 Compliant with IEEE 802.3ae standard
 Hot-pluggable SFP+ footprint
 Enhanced EMI design
 Single power supply 3.3V
 Operating temperature range: 0° to 70°

Art.-No.	Speed	Type	Temperatur
K5300V2.x	10 Gbit/s	2x SFP+ assembled	0 – 70°C



Stock lengths: 1,0 - 2,0 - 3,0 - 5,0 - 7,0 m

AOC SFP+ 10Gigabit Ethernet Fiber Optic Cable

For 10G Ethernet Data Center Intra-Rack and Inter-Rack links
 Hot-pluggable SFP+ cable ends
 Rigid pull-tab for improved high-density installations

Art.-No.	Speed	Protocol	Type	Temperature
FBCG110SD1Cxx	10 Gbit/s	10GBaseSR	2x SFP+ assembled	0 – 70°C



Stock lengths: 1.0 - 3.0 - 5.0 - 10 - 20 m

FINISAR

AOC QSFP+ 40Gigabit Ethernet Fiber Optic Cable

40G Ethernet (40Gbit/s), InfiniBand QDR, 8x Fiber Channel, SAS/SATA, PCIe3,
 Proprietary High Speed Interconnections
 Small bend radius for easy installation and fiber management
 Rigid pull-tab for improved high-density installations

Art.-No.	Speed	Protocol	Type	Temperature
FBCG410QB1Cxx	40 Gbit/s	40GbaseSR	2x QSFP+ assembled	0 – 70°C



Stock lengths: 1.0 - 3.0 - 5.0 - 10 - 15 - 20 - 30 - 40 - 50 m

FINISAR

AOC QSFP28 100Gigabit Ethernet Fiber Optic Cable

Finisar's Quadwire® 100 Gbit/s parallel Active Optical Cable for
 100G Ethernet, InfiniBand 4xE DR, 4x32G Fiber Channel applications
 Small bend radius for easy installation and fiber management
 Rigid pull-tab for improved high-density installations

Art.-No.	Speed	Protocol	Type	Temperatur
FCBN425QB1Cxx	100 Gbit/s	100GbaseSR	2x QSFP28 assembled	0 – 70°C



Stock lengths: 1.0 - 3.0 - 5.0 - 10 - 15 - 20 - 25 - 30 - 50 m

FINISAR

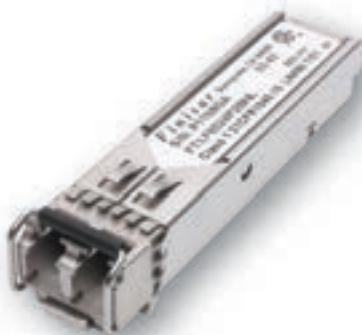
Transceiver Modules for SFP, SFP+, QSFP+, QSFP28

Transceiver modules (uncoded) for Ethernet Network Applications from 100Mbit/s to 100Gbit/s.

Active components of the category SWITCH, MEDIA CONVERTER or ROUTER can be assembled with the appropriate transceiver modules, as long as the data rates are supported.

Area of application: Ethernet - Infiniband - Fiberchannel - Storage Area Networks - Local Area Networks - Data center

SFP Fast Ethernet 100Mbit/s



FINISAR

Transceiver for Fast Ethernet, FDDI, ESCON and SDH/SONET applications
Hot-pluggable SFP
Integrated digital diagnostic

Art.-No.	Speed	Medium	Wavelength	Link distance	Connector	Fiber quality	Temperature
FTLF1217P2BTL	100 Mbit / s	Multimode	1310 nm	2 km	LC duplex	OM1/OM2	0 – 70 °
FTLF1323P1BTL	100 Mbit / s	Singlemode	1310 nm	40 km	LC duplex	OS2	-40 – 75 °

SFP Gigabit Ethernet 1000Mbit/s



FINISAR

Transceiver for Gigabit Ethernet applications
Hot-pluggable SFP
Integrated digital diagnostic

Art.-No.	Speed	Medium	Wavelength	Link distance	Connector	Fiber quality	Temperature
FCLF-8521-3	1000 Mbit/s	Kupfer Cat.5/6/6a	-	100 m	RJ45	-	-10 – 70 °C
FTLF8519P3BNL	1000 Mbit/s	Multimode	850 nm	550 m	LC duplex	OM2/OM3	-40 – 75 °
FTLF1318P1BTL	1000 Mbit / s	Singlemode	1310 nm	10 km	LC duplex	OS2	-40 – 75 °

SFP Dual Rate 100/1000Mbit/s



ECTS

Dual Rate Transceiver for 100/1000Mbit applications
Hot-pluggable SFP
Speed: 100Mbit (100-FX) / 1G (1000-BaseX)
Compatible with all standard SFP slots

Art.-No.	Speed	Medium	Wavelength	Link distance	Connector	Fiber quality	Temperature
SFP-31FC-DR	100/1000 Mbit/s	Multimode	1310 nm	2 / 0.550 km	LC duplex	OM2/OM3	0 – 70 °C
SFP-31FC-SM10-DR	100/1000 Mbit/s	Singlemode	1310 nm	10 km	LC duplex	OS2	0 – 70 °C

SFP Dual Rate 100/1000Mbit/s WDM



ECTS

Dual Rate WDM Transceiver for Wavelength 1310 nm/ 1550 nm
Hot-pluggable SFP
Speed: 100Mbit (100-FX) / 1G (1000-BaseX)
Compatible with all standard SFP slots

Art.-No.	Speed	Medium	Wavelength	Link distance	Connector	Fiber quality	Temperature
SFP-31-31W2A-SM10-DR	100/1000 Mbit/s	Singlemode	TX1310/RX1550 nm	10 km	LC	OS2	0 – 70 °C
SFP-31-31W2B-SM10-DR	100/1000 Mbit/s	Singlemode	TX1550/RX1310 nm	10 km	LC	OS2	0 – 70 °C

SFP+ 10Gigabit Ethernet 10Gbit/s

Transceiver for 10GBASE Ethernet and 10G Fiber Channel applications.

Hot-pluggable SFP

Digital Diagnostics Monitoring

Art.-No.	Speed	Medium	Wavelength	Link distance	Connector	Fiber quality	Temperature
FTLX8571D3BCL	10 Gbit/s	Multimode	850 nm	82/300 m	LC duplex	OM2/OM3	0 – 70 °C
FTLX1471D3BCL	10 Gbit/s	Singlemode	1310 nm	10 km	LC duplex	OS2	-5 – 75 °



SFP+ 25Gigabit Ethernet 25Gbit/s

For 25.78 Gbit/s bi-directional data links

Hot-pluggable SFP+

Digital Diagnostics Monitoring

Up to 100m on 50/125µm fiber (OM4), 70m on 50/125µm fiber (OM3), 20m on 50/125µm fiber (OM2)

Art.-No.	Speed	Medium	Wavelength	Link distance	Connector	Fiber quality	Temperature
FTLF8536P4BCL	25 Gbit/s	Multimode	850 nm	100 m	LC duplex	OM3/OM4	0 – 70 °C



QSFP+ 40Gigabit Ethernet 40Gbit/s

For QSFP+ MSA, IEEE 802.3ba 40GBASE and 4x 10GBASE applications

Hot-pluggable QSFP+

Digital Diagnostics Monitoring

Art.-No.	Speed	Medium	Wavelength	Link distance	Connector	Fiber quality	Temperature
FTL410QE3C	40 Gbit/s	Multimode	850 nm	100/150 m	MPO	OM3/OM4	-10 – 70 °
FTL4C1QE1C	40 Gbit/s	Singlemode	850 nm	10 km	LC duplex	OS2	0 – 70 °



QSFP28 100Gigabit Ethernet 100Gbit/s

For QSFP28 MSA and IEEE 802.3bm 100GBASE-SR4 and CAUI-4 applications

Hot-pluggable QSFP28

Digital Diagnostics Monitoring

Art.-No.	Speed	Medium	Wavelength	Link distance	Connector	Temperature
FTLC9551REPM	100 Gbit/s	Multimode	850 nm	100 m	MPO	0 – 70 °





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