

# WE DO IT. FOR YOU.

TURNKEY SOLUTIONS FROM A SINGLE SOURCE

Your successful digitalization starts with Datwyler's pioneering IT infrastructure:

- Fibre networks/FTTx
- · Intelligent buildings
- Data centres

With our innovative systems, products and services we enable you to scale your business with ease.

We pursue a modular approach.

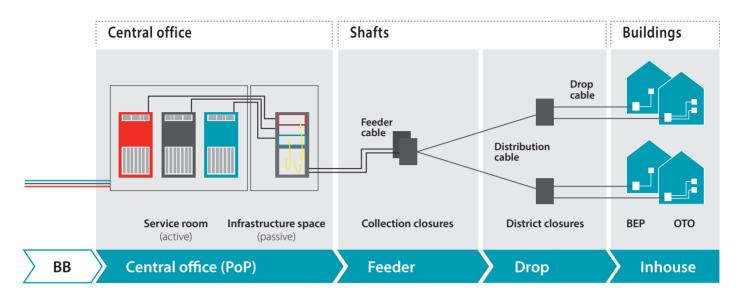
As an expert turnkey partner we can, if you wish, hand over your complete ready-to-use IT infrastructure: on time, with the services previously arranged, in the version you want and at the cost agreed.

In collaboration with experienced local partners we are also happy to support you in business and engineering planning at the preliminary stage of your project as well as turnkey execution in the passive network sector right through to acceptance, documentation and maintenance of the systems and installations implemented.

#### Fibre networks/FTTx Central office / PoP Outdoor Indoor **Tools** - Optical distribution frames (ODF) - Tube and fibre planning tool - FO outdoor cables - RFP terminals - FO trunk cables - Splice closures - FO distribution boxes - Labelling tool - Terminal boxes - Shafts and manholes - Multimedia boxes - Street cabinets - Micro tubes - Patch cables - Points of Presence (PoP) - Accessories - Racks and enclosures - Street cabinets - FO indoor cables **Project** Pre-study **PoP** specification **Implementation** Operation (L1+) Resources development Strategy and feasibility: Application for resi-- Acquisition support Material / logistics: - Contract models - Activation and - Business model dential and business - Building inspec-- Materialisation - Project mangement switch-over - Training - Network design customers: - Coordination of - New connections tions (P2P, PON, G-PON) - FTTx project - Development local partners and expansions - Strategic cell design - Full project - Operative cell - Business plan (succes-- Logistics - Maintenance - Master plan for Areas of application: sive levels of detail) - Subproject desian - Continuous conduits - Central office / PoP - Models of - Syneraies - Network construcdocumentation cooperation Use for in-house re-- Processes and - Outdoor - Partner models quirements: organisation - Indoor - Documentation - Assistance in raising - Administration - Resources (project - Tools - Commissionina state subsidies - Plants mangement, team) Partners: - Training - Establishing a - Cable network network

IF YOU ARE INTERESTED SIMPLY TALK TO US

### THE CENTRAL OFFICE - THE HEART OF THE FIBRE OPTIC INFRASTRUCTURE



### **Central office (PoP)**



### **Optical Distribution Frames (ODF)**

### 42U / 19" and 21" (ETSI), passive

The Datwyler ODF solution provides users with a flexible cable/tube access from bottom and top, needs-based expansion possibilities, integrated intelligent cable management with 35 mm bend radius control and optimised strain relief, and a future proof modular design. Suitable for backbone and distribution networks, particularly for PoPs in the carrier section.

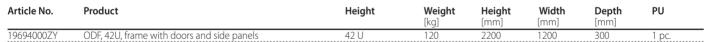
ODF with welded sheet steel frame, front and back doors, side panels, top and bottom plates. Vertical profiles.

Comes with integrated cable/tube distribution, cable management, bend radius control and strain relief. Set of adjustable feet as standard.

Earthing kit: optional.

Optionally delivered without doors and side panels (bayable).

Pre-assembled ODFs on request.



### **ODF subracks, Standard**

### 1U, 2U, 3U, 48-144 fibres

The Datwyler ODF subracks are particularly suitable for high-density applications in telco/carrier networks.

They provide advanced splice and patch systems and cable management.

Smooth and convenient swing-out system.

Cable glands to secure the incoming fibres.

Strain relief for all cables.

Bend radius control for fibres

Suitable for backbone and distribution networks, particularly for PoPs in the carrier section.

Also suitable for data centres and LAN projects (19").

Capacity: 1U up to 48, 2U up to 96, 3U up to 144 fibres (72 duplex adapters)

Colour: Light grey, RAL 7035 (powder-coated)

Article No.	Product	Height	Number of fibres	Number of adapters	Adapters
19694900ZY	ODF subrack, Standard	1 U	48	24	LCD/APC
19694800ZY	ODF subrack, Standard	2 U	96	48	LCD/APC
19694700ZY	ODF subrack, Standard	3 U	144	72	LCD/APC





### **Central office (PoP)**

### **ODF subracks, Easy Access**

#### 1U, 2U, 3U, 48-144 fibres

The Datwyler ODF subracks are particularly suitable for high-density applications in telco/carrier networks.

They provide advanced splice and patch systems and cable management.

Smooth and convenient telescopic sliding system.

Cable glands to secure the incoming fibres.

Strain relief for all cables.

Bend radius control for fibres.

Suitable for backbone and distribution networks, particularly for PoPs in the carrier section.

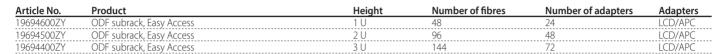
Also suitable for data centres and LAN projects (19").

Capacity: 24 ports per tray - 1U up to 48, 2U up to 96, 3U up to 144 fibres (72 duplex adapters)

Material: 1.5 mm sheet steel

Colour: Light grey, RAL 7035 (powder-coated)

Weight: 5 kg (empty)



### ODF subracks, Pull-Out

### 1U, 2U, 3U, 48-144 fibres

The Datwyler ODF subracks are particularly suitable for high-density applications in telco/carrier networks.

They provide advanced splice and patch systems and cable management.

Modules are rear mounted for improved side access.

Single fibre trays and connected patch cords can slide in and out independently as one pull-out unit.

Splice cassette design allows splicing on one side and cable storage on the other side.

Folding cassettes (up to 135 degree) for ease of installation and maintenance.

Cable glands to secure the incoming fibres.

Strain relief for all cables.

Bend radius control for fibres.

Suitable fpr backbone and distribution networks, particularly for PoPs in the carrier section.

Also suitable for data centres and LAN projects (19").

Capacity: 24 ports per tray - 1U up to 48, 2U up to 96, 3U up to 144 fibres (72 duplex adapters)

Material: Sheet steel

Colour: Light grey, RAL 7035 (powder-coated)

Weight: 4 kg (empty)

Dimensions: W x D x H: 486 x 258 x 133 mm

Article No.	Product	Height	Number of fibres	Number of adapters	Adapters
19694300ZY	ODF subracks, Pull-Out	1U	48	24	LCD/APC
19694200ZY	ODF subracks, Pull-Out	2U	96	48	LCD/APC
196941007Y	ODF subracks. Pull-Out	311	144	72	LCD/APC

### FO simplex patch cord

### E9/125 G.652.D BLO

Datwyler offers a broad range of terminated connectors for individual customer needs. Single cables with 1.8 mm are used for all patch cords.



### FO simplex patch cord LC/APC - LC/PC

Article No.	Product	Sheath	Sheath colour	Connector type side A	Length	Connector type side B	Type of fibre
42291500ZY	FO simplex patch cord LC/APC - LC/PC, E9/125 G.652.D BLO	LS0H	yellow	LC/APC	1 m	LC/PC	G.652.D BLO
42291600ZY	FO simplex patch cord LC/APC - LC/PC, E9/125 G.652.D BLO	LS0H	yellow	LC/APC	2 m	LC/PC	G.652.D BLO
42291700ZY	FO simplex patch cord LC/APC - LC/PC, E9/125 G.652.D BLO	LS0H	yellow	LC/APC	3 m	LC/PC	G.652.D BLO

### FO simplex patch cord LC/APC - SC/PC

Article No.	Product	Sheath	Sheath colour	Connector type side A	Length	Connector type side B	Type of fibre
42293000ZY	FO simplex patch cord LC/APC - SC/PC, E9/125 G.652.D BLO	LS0H	gelb	LC/APC	1 m	SC/PC	G.652.D BLO
42293100ZY	FO simplex patch cord LC/APC - SC/PC, E9/125 G.652.D BLO	LS0H	gelb	LC/APC	2 m	SC/PC	G.652.D BLO
42293200ZY	FO simplex patch cord LC/APC - SC/PC, E9/125 G.652.D BLO	LS0H	gelb	LC/APC	3 m	SC/PC	G.652.D BLO

Other lengths and connector types on request.



## Central office (PoP)

### **Outdoor cables**

### FO Outdoor wbKT Micro / A-DQ(ZN)2Y, up to 144 fibres

Very compact, metal-free fibre optic outdoor cable with up to 144 fibres in stranded loose tubes.
Easily cut-back, installation friendly cable construction with dry interstices. Sheath colour: black.





Article No. Product	Number of fibres	Fibre type	Loose tubes	Sheath Ø [mm]	<b>Weight</b> [kg/km]	Bending radius [mm]	<b>Tensile</b> <b>load</b> [N]	Crush resistance continuous [N]	short term [N]	Fire load [kWh/m]
19170600FZ FO Outdoor Micro 1 x 1	2 12	E9/125 G.652.D	5	6.6	27	150	1000	600	1600	0.247
19008000FZ FO Outdoor Micro 2 x 1	2 24	E9/125 G.652.D	5	6.6	27	150	1000	600	1600	0.247
19023000FZ FO Outdoor Micro 4 x 1	2 48	E9/125 G.652.D	5	6.6	27	150	1000	600	1600	0.247
19023100FZ FO Outdoor Micro 5 x 1	2 60	E9/125 G.652.D	5	6.6	27	150	1000	600	1600	0.247
19023200FZ FO Outdoor Micro 6 x 1	2 72	E9/125 G.652.D	6	6.5	27	150	1000	600	1600	0.234
19181300FZ FO Outdoor Micro 8 x 1	2 96	E9/125 G.652.D	8	6.6	30	250	2500	600	1400	0.303
19181400FZ FO Outdoor Micro 6 x 2	4 144	E9/125 G.652.D	6	8.2	30	250	2500	600	1400	0.344

### FO Outdoor ZT S-Micro / A-D2Y, up to 24 fibres

Very thin, metal-free fibre optic outdoor cable with up to 24 fibres in one central loose tube.
Easily cut back, installation friendly cable construction.
Optimised for injection into microducts.
Sheath colour: black.





Article No.	Product	Number of fibres	Fibre type	Loose tubes	Sheath Ø	Weight	Bending radius	Tensile load	Crush resistance		Fire load
					[mm]	[kg/km]	[mm]	[N]	continuous [N]	short term [N]	[kWh/m]
19343400F	Z FO Outdoor S-Micro 1 x 4	4	E9/125 G.652.D BLO	1	2.4	5	40	100	400	1200	0.12
19604800F	Z FO Outdoor S-Micro 1 x 6	6	E9/125 G.652.D BLO	1	2.4	5	40	100	400	1200	0.12
19346000F	Z FO Outdoor S-Micro 1 x 12	12	E9/125 G.652.D BLO	1	2.4	5	40	100	400	1200	0.12
19343300F	Z FO Outdoor S-Micro 1 x 24	24	E9/125 G.652.D BLO	1	2.4	6	40	100	400	1200	0.12

### FO Outdoor wbKT S-Micro / A-DQ(ZN)2Y, up to 288 fibres

Highly compact, metal-free fibre optic outdoor cable with up to 288 fibres in stranded loose tubes and with dry interstices. Easily cut-back, installation-friendly cable construction. Optimised for injection into microducts. Sheath colour: black.





Article No.	Product	Number of fibres	Fibre type	Loose tubes	Sheath Ø [mm]	Weight [kg/km]	Bending radius [mm]	Tensile load [N]	Crush resistance continuous [N]	short term [N]	Fire load [kWh/m]
19269300FZ	' FO Outdoor S-Micro 2 x 12	24	E9/125 G.652.D BLO	2	4.2	17	250	750	400	1200	0.09
19215000FZ	FO Outdoor S-Micro 4 x 12	48	E9/125 G.652.D BLO	4	4.2	17	250	750	400	1200	0.09
19215900FZ	FO Outdoor S-Micro 8 x 12	96	E9/125 G.652.D	8	6.6	42	250	1900	400	1200	0.18
19214900FZ	FO Outdoor S-Micro 8 x 12	96	E9/125 G.652.D BLO	8	6.6	42	250	1900	400	1200	0.18
19709000FZ	FO Outdoor S-Micro 12 x 12	2 144	E9/125 G.652.D BLO	12	8.2	58	300	1900	400	1200	0.345
19450000FZ	FO Outdoor S-Micro 6 x 24	144	E9/125 G.652.D	6	6.5	33	250	1300	400	1200	0.18
19262500FZ	FO Outdoor S-Micro 9 x 24	216	E9/125 G.652.D	9	8.4	58	300	1900	400	1200	0.325
19600000FZ	′ FO Outdoor S-Micro 12 x 24	1 288	E9/125 G.652.D	12	10.4	88	300	2900	400	1200	0.562

### FO Outdoor wbKT C-Micro / A-DQ(ZN)2Y, 72 fibres

Highly compact, metal-free fibre optic outdoor cable with 72 fibres (200  $\mu$ m). Dry interstices and stranded loose tubes. Easily cut-back, installation-friendly cable construction. Optimised for injection into microducts. Sheath colour: black.





Article No.	Product	Number of fibres	Fibre type	Loose tubes	Sheath Ø [mm]	Weight [kg/km]	Bending radius [mm]	Tensile load [N]	Crush resistance continuous [N]	short term [N]	Fire load [kWh/m]
19618000FZ	FO Outdoor C-Micro 3 x 24	72	E9/125 G.652.D BLO200	3	4.1	18	100	700	400	1200	0.09

You will find detailed information on the types of fibre here:



## **Drop / Feeder Cabling**

### **Outdoor cables**

#### FO Outdoor ZGGT HP / A-DO(ZN)B2Y

Robust, metal-free fibre optic outdoor cable with one central loose tube and up to 24 fibres. High tensile strength and high radial load strength for the highest transmission security.

Lightweight and installation friendly cable construction. Non-metallic rodent protection. The two coloured ripcords are easy to identify and enable the safe opening of the cable sheath.

HDPE cable sheath, easy to lay.

Sheath colour: black.





Article No. Product	Number of fibres	Fibre type	Loose tubes	Sheath Ø [mm]	Weight [kg/km]	Bending radius [mm]	Tensile load [N]	Crush resistance continuous [N]	short term [N]	Fire load [kWh/m]
19016600FZ FO Outdoor HP 1 x 4	4	E9/125 G.652.D	1	8.2	75	130	2500	6000	10.000	0.558
19016700FZ FO Outdoor HP 1 x 6	6	E9/125 G.652.D	1	8.2	75	130	2500	6000	10.000	0.558
19016800FZ FO Outdoor HP 1 x 8	8	E9/125 G.652.D	1	8.2	75	130	2500	6000	10.000	0.558
19016900FZ FO Outdoor HP 1 x 12	12	E9/125 G.652.D	1	8.2	75	130	2500	6000	10.000	0.558
19014900FZ FO Outdoor HP 1 x 24	24	E9/125 G.652.D	1	8.6	80	135	2500	6000	10.000	0.589

### FO Outdoor wbGGT HP / A-DQ(ZN)B2Y

Robust, metal-free fibre optic outdoor cable with stranded loose tubes in one layer. High crush resistance for high transmission reliability.

Easy handling due to the use of dry strand interstices.

Non-metallic rodent protection.

The two coloured ripcords are easy to identify and enable the safe opening of the cable sheath.

HDPE cable sheath, easy to lay. Sheath colour: black.





Article N	o. Product	Number of fibres	Fibre type	Loose tubes	Sheath Ø	Weight	Bending radius	Tensile load	Crush resistance		Fire load
					[mm]	[kg/km]	[mm]	[N]	continuous [N]	short term [N]	[kWh/m]
19005900	OFZ FO Outdoor HP 1 x 12	12	E9/125 G.652.D	5	12.0	136	180	9000	3000	8000	1.04
18674800	OFZ FO Outdoor HP 2 x 12	24	E9/125 G.652.D	5	12.0	136	180	9000	3000	8000	1.04
18738500	OFZ FO Outdoor HP 4 x 12	48	E9/125 G.652.D	5	12.0	136	180	9000	3000	8000	1.04
19017100	OFZ FO Outdoor HP 5 x 12	60	E9/125 G.652.D	5	12.0	136	180	9000	3000	8000	1.04
19017200	OFZ FO Outdoor HP 6 x 12	72	E9/125 G.652.D	6	12.8	151	195	9000	3000	8000	1.137
18676000	OFZ FO Outdoor HP 8 x 12	96	E9/125 G.652.D	8	14.0	179	210	9000	3000	8000	1.305
19017500	OFZ FO Outdoor HP 10 x 12	120	E9/125 G.652.D	10	15.4	209	230	9000	3000	8000	1.491
18739400	OFZ FO Outdoor HP 12 x 12	144	E9/125 G.652.D	12	16.9	246	255	9000	3000	8000	1.707
19076400	OFZ FO Outdoor HP 6 x 24	144	E9/125 G.652.D	6	13.8	173	205	9000	3000	8000	1.291
19069600	OFZ FO Outdoor HP 9 x 24	216	E9/125 G.652.D	10	17.0	279	255	9000	3000	8000	1.993
19032500	OFZ FO Outdoor HP 12 x 24	288	E9/125 G.652.D	12	18.8	296	285	9000	3000	8000	2.435
1901780	OFZ FO Outdoor HP 2L 18 x 24	432	E9/125 G.652.D	18	20.2	336	515	5000	2000	3500	3.115
19720400	OFZ FO Outdoor HP City 24 x 24	576	E9/125 G.652.D	24	19.6	310	300	9000	3000	5000	2.346

### FO Outdoor ZKT Micro / A-DQ(ZN)2Y, up to 24 fibres

Very thin, metal-free fiber optic outdoor cable with up to 24 fibres in one central loose tube. Easily cut-back, installation friendly cable construction. Sheath colour: black.







Article No.	Product	Number of fibres	Fibre type	Loose tubes	Sheath Ø [mm]	Weight [kg/km]	Bending radius [mm]	Tensile load [N]	Crush resistance continuous [N]	short term [N]	Fire load [kWh/m]
19170200FZ	FO Outdoor Micro 1x2	2	E9/125 G.652.D BLO	1	4.0	13	100	500	600	1600	0.165
19065800FZ	FO Outdoor Micro 1x4	4	E9/125 G.652.D BLO	1	4.0	13	100	500	600	1600	0.165
19170300FZ	FO Outdoor Micro 1x6	6	E9/125 G.652.D BLO	1	4.0	13	100	500	600	1600	0.165
19170400FZ	FO Outdoor Micro 1x8	8	E9/125 G.652.D BLO	1	4.0	13	100	500	600	1600	0.165
19170500FZ	FO Outdoor Micro 1x10	10	E9/125 G.652.D BLO	1	4.0	13	100	500	600	1600	0.165
19022700FZ	FO Outdoor Micro 1x12	12	E9/125 G.652.D BLO	1	4.0	14	100	500	600	1600	0.165
19135000FZ	FO Outdoor Micro 1x24	24	E9/125 G.652.D BLO	1	4.0	15	100	500	600	1600	0.165

### FO Outdoor wbKT Micro / A-DQ(ZN)2Y, up to 144 fibres

Very compact, metal-free fibre optic outdoor cable with up to 144 fibres in stranded loose tubes. Easily cut-back, installation friendly cable construction with dry interstices. Sheath colour: black.



Article No.	Product	Number of fibres	Fibre type	Loose tubes	Sheath Ø [mm]	Weight [kg/km]	Bending radius [mm]	Tensile load [N]	Crush resistance continuous [N]	short term [N]	Fire load [kWh/m]
19170600FZ	' FO Outdoor Micro 1x12	12	E9/125 G.652.D BLO	1	6.6	35	150	1000	600	1.600	0.247
19008000FZ	Y FO Outdoor Micro 2x12	24	E9/125 G.652.D BLO	2	6.6	35	150	1000	600	1.600	0.247
19022900FZ	FO Outdoor Micro 3x12	36	E9/125 G.652.D BLO	3	6.6	35	150	1000	600	1.600	0.247
19023000FZ	FO Outdoor Micro 4x12	48	E9/125 G.652.D BLO	4	6.6	35	150	1000	600	1.600	0.247
19023100FZ	FO Outdoor Micro 5x12	60	E9/125 G.652.D BLO	5	6.6	35	150	1000	600	1.600	0.247
19023200FZ	FO Outdoor Micro 6x12	72	E9/125 G.652.D BLO	6	6.5	40	150	1000	600	1.600	0.234
19181300FZ	FO Outdoor Micro 8x12	96	E9/125 G.652.D BLO	8	7.6	55	250	2500	600	1.400	0.303
19181400FZ	' FO Outdoor Micro 6x24	144	E9/125 G.652.D BLO	6	8.2	58	250	2500	600	1.400	0.344

## **Drop / Feeder Cabling**

### **Outdoor cables**

### FO Outdoor ZT S-Micro / A-D2Y, up to 24 fibres

Very thin, metal-free fibre optic outdoor cable with up to 24 fibres in one central loose tube. Easily cut back, installation friendly cable construction. Optimised for injection into microducts. Sheath colour: black.





Article No. Pr	roduct	Number of fibres	Fibre type	Loose tubes	Sheath Ø [mm]	Weight [kg/km]	Bending radius [mm]	Tensile load [N]	Crush resistance continuous [N]	short term [N]	Fire load [kWh/m]
19343400FZ FC	O Outdoor S-Micro 1 x 4	4	E9/125 G.652.D BLO	1	2.4	5	40	100	400	1200	0.12
19604800FZ FC	O Outdoor S-Micro 1 x 6	6	E9/125 G.652.D BLO	1	2.4	5	40	100	400	1200	0.12
19346000FZ FC	O Outdoor S-Micro 1 x 12	12	E9/125 G.652.D BLO	1	2.4	5	40	100	400	1200	0.12
19343300FZ FC	O Outdoor S-Micro 1 x 24	24	E9/125 G.652.D BLO	1	2.4	6	40	100	400	1200	0.12



### FO Outdoor wbKT S-Micro / A-DQ(ZN)2Y, up to 288 fibres

Highly compact, metal-free fibre optic outdoor cable with up to 288 fibres in stranded loose tubes and with dry interstices. Easily cut-back, installation-friendly cable construction. Optimised for injection into microducts. Sheath colour: black.



Article No.	Product	Number of fibres	Fibre type	Loose tubes	Sheath Ø [mm]	Weight [kg/km]	Bending radius [mm]	Tensile load [N]	Crush resistance continuous [N]	short term [N]	Fire load [kWh/m]
19269300FZ	FO Outdoor S-Micro 2x12	24	E9/125 G.652.D BLO	2	4.2	17	250	750	400	1.200	0.09
19215000FZ	FO Outdoor S-Micro 4x12	48	E9/125 G.652.D BLO	4	4.2	17	250	750	400	1.200	0.09
19215900FZ	FO Outdoor S-Micro 8x12	96	E9/125 G.652.D BLO	8	6.6	42	250	1.900	400	1.200	0.18
19709000FZ	FO Outdoor S-Micro 12x12	144	E9/125 G.652.D BLO	12	8.2	58	300	1.900	400	1.200	0.345
19450000FZ	FO Outdoor S-Micro 6x24	144	E9/125 G.652.D BLO	6	6.5	33	250	1.300	400	1.200	0.188
19339600FZ	FO Outdoor S-Micro 8x24	192	E9/125 G.652.D BLO	8	8.4	56	300	1.900	400	1.200	0.325
19262500FZ	FO Outdoor S-Micro 9x24	216	E9/125 G.652.D BLO	9	8.4	58	300	1.900	400	1.200	0.325
19600000FZ	FO Outdoor S-Micro 12x24	288	E9/125 G.652.D BLO	12	10.4	88	300	2.900	400	1.200	0.562

#### FO Outdoor wbKT C-Micro / A-DQ(ZN)2Y, 72 Fasern

Highly compact, metal-free fibre optic outdoor cable with 72 fibres (200  $\mu$ m). Dry interstices and stranded loose tubes. Easily cut-back, installation-friendly cable construction. Optimised for injection into microducts. Sheath colour: black.





Article No.	Product	Number of fibres	Fibre type	Loose tubes	Sheath Ø	Weight	Bending radius	Tensile load	Crush resistance		Fire load
					[mm]	[kg/km]	[mm]	[N]	continuous [N]	short term [N]	[kWh/m]
19618000FZ	FO Outdoor C-Micro 3 x 24	72	F9/125 G.652.D BI O200	3	4.1	18	100	700	400	1200	0.09

### FO Universal ZGGFR Easy Blow / U-DQ(ZN)BH, up to 24 fibres

Metal-free fibre optic universal cable with up to 24 fibres Easily cut-back, installation-friendly cable construction. Optimised for injection into microducts. Sheath colour: black.





Article No.	Product	Number	Fibre type	Sheath Ø	Weight	Bending radius	Tensile load	Crush resista	nce	Fire load
		of fibres		[mm]	[kg/km]	[mm]	[N]	continuous [N]	short term [N]	[kWh/m]
19061700DZ	FO Universal Easy Blow 1x4	4	E9/125 G.652.D	8.5	85	140	2500	2000	3000	0.356
19036300DZ	FO Universal Easy Blow 1x6	6	E9/125 G.652.D	8.5	85	140	2500	2000	3000	0.356
19170000DZ	FO Universal Easy Blow 1x8	8	E9/125 G.652.D	8.5	85	140	2500	2000	3000	0.356
19021300DZ	FO Universal Easy Blow 1x12	12	E9/125 G.652.D	8.5	85	140	2500	2000	3000	0.356
19021400DZ	FO Universal Easy Blow 1x24	24	E9/125 G.652.D	9	92	145	2500	2000	3000	0.4

### FO Universal wbGGFR Easy Blow / U-DQ(ZN)BH, up to 288 fibres

Fire resistant, Metal-free fibre optic universal cable with up to 288 fibres. Easily cut-back, installation-friendly cable construction with dry interstices. Optimised for injection into microducts. Sheath colour: black.





Article No.	Product	Number of fibres	Fibre type	Sheath Ø	Weight [kg/km]	Bending radius	Tensile load	Crush resista continuous [N]		Fire load
19060200EZ	FO Universal Easy Blow 1x12	12	E9/125 G.652.D	12	166	180	9000	3000	5000	0.627
19021500EZ	FO Universal Easy Blow 2x12	24	E9/125 G.652.D	12	166	180	9000	3000	5000	0.627
19021600EZ	FO Universal Easy Blow 4x12	48	E9/125 G.652.D	12	166	180	9000	3000	5000	0.627
19021800EZ	FO Universal Easy Blow 6x12	72	E9/125 G.652.D	12.8	180	195	9000	3000	5000	0.698
19022100EZ	FO Universal Easy Blow 12x12	144	E9/125 G.652.D	16.9	297	255	9000	3000	5000	1.367

For more versions please visit our homepage: ITinfra.datwyler.com

## Drop / Feeder Cabling



### **Tube systems**

### Micro ducts

The microducts serve as mechanical protection for fibre optic minicables.
They are suitable for direct burial (DB) or for installation in duct systems (DI).
Made from high density polyethylene (HDPE) or low smoke halogen free (LSHF) material.



Article No.*	Product	Installation type Mate	erial PU (drum and m)
3432xx	Micro duct DB 7/4 mm	direct burial HDP	E 6000 m
3433xx	Micro duct DB 8/5 mm	direct burial HDPI	E 4800 m
3434xx	Micro duct DB 10/6 mm	direct burial HDP	E 3000 m
3436xx	Micro duct DB 12/8 mm	direct burial HDPI	E 2000 m
3437xx	Micro duct DB 14/10 mm	direct burial HDPI	E 1350 m
3438xx	Micro duct DB 16/12 mm	direct burial HDP	E 1000 m
3439xx	Micro duct DB 18/14 mm	direct burial HDPI	E 2200 m
3435xx	Micro duct DI 5/3.5 mm	laying in pipes HDPI	E 5000 m
3446xx	Micro duct DI 7/5.5 mm	laying in pipes HDPI	E 6000 m
3440xx	Micro duct DI 8/6 mm	laying in pipes HDPI	E 4800 m
3441xx	Micro duct DI 10/8 mm	laying in pipes HDPI	E 3000 m
3442xx	Micro duct DI 12/10 mm	laying in pipes HDPI	E 2000 m
3443xx	Micro duct DI 14/12 mm	laying in pipes HDPI	E 1350 m
3444xx	Micro duct DI 16/14 mm	laying in pipes HDPI	E 1000 m
3445xx	Micro duct DI 18/16 mm	laying in pipes HDPI	E 1250 m
3447xx	Micro duct DI 5/3.5 mm	laying in pipes LSHF	5000 m
3448xx	Micro duct DB 10/5.5 mm	direct burial LSHF	3000 m
3449xx	Micro duct DB 14/10 mm	direct burial LSHF	1350 m

Order quantity complies with drum capacity (no cuts!)

Micro ducts are available in different colours: full colour or with stripes

Colour		Addition to article no.	Colour		Addition to article no.	Colour		Addition to article no.
transparent		60	brown	RAL 8011	67	yellow	RAL 1016	74
red	RAL 3020	61	purple	RAL 4005	68	blue	RAL 5021	75
dark green	RAL 6001	62	light green	RAL 6027	69	dark green	RAL 6001	76
light blue	RAL 5015	63	black	RAL 9017	70	green	RAL 6017	77
dark yellow	RAL 1021	64	orange	RAL 2009	71	dark brown	RAL 8017	78
white	RAL 9003	65	rose	RAL 3015	72	light brown	RAL 8023	79
grey	RAL 7045	66	ivory	RAL 1015	73	_		

### Micro duct bundles

Micro ducts are used for the mechanical protection of fibre optic micro cables. For direct burial (DB) or for the laying in pipe systems (DI). The micro ducts are made from high density polyethylene (HDPE) or low smoke halogen free (LSHF) material. Bundles are available in different variants. We'll be pleased to advise you.





Article No.	Product	Installation type	Material	PU (drum and m)
343208	Multi micro duct HPPE DB 12x7/4 mm, orange	direct burial	HDPE	3500 m
343209	Multi micro duct LSHF DI 12x5/3.5 mm, white	laying in pipes	LSHF	800 m

### Micro duct accessories

Straight connectors, reduction connectors, end caps, waterproof end caps, gas block connectors, divisible gas blocks, safety clips, rubber protection caps, plastic caps, cutting tools (duct shear, minicutter, stripper), deburring tools, etc. are available on request. We'll be pleased to advise you.

<sup>\*</sup> Please replace the "xx" by the two digits for the required colour (see below) when ordering

## **Building Entry Point terminal**

#### IP54

Building Entry Point box for access, in-house and floor distribution. Ideal as Building Entry Point (BEP) for transmission system operators (TSO).







Article No.	Product	Number of adapters	Adapters	Colour (adapter)	Pigtails
41866300ZY	FO Building Entry Point terminal	6	LSH/APC	green	6x LSH/APC
41865700ZY	FO Building Entry Point terminal	3	LCD/APC	green	6x LC/APC
41865800ZY	FO Building Entry Point terminal	5	LCD/APC	green	10x LC/APC
41866200ZY	FO Building Entry Point terminal	6	LCD/APC	green	12x LC/APC
41866100ZY	FO Building Entry Point terminal	6	SC/APC	green	6x SC/APC

Article No.	Product	Number of adapters	Adapters	Colour (adapter)	Pigtails
41866400ZY	FO Building Entry Point terminal	6	SCD/APC	green	12x SC/APC
41866500ZY	FO Building Entry Point terminal	3	LCQ/APC	green	12x LC/APC
41866600ZY	FO Building Entry Point terminal	12	LSH/APC	green	12x LSH/APC

Article No.	Product	Number of adapters	Adapters	Colour (adapter)	Pigtails
41865900ZY	FO Building Entry Point terminal	6	LCQ/APC	green	22x LC/APC
41866700ZY	FO Building Entry Point terminal	12	SCD/APC	green	24x SC/APC
41866800ZY	FO Building Entry Point terminal	6	LCQ/APC	green	24x LC/APC
41866900ZY	FO Building Entry Point terminal	24	LSH/APC	green	24x LSH/APC

### Data outlets, surface mounted

### AP 80 x 80, SC/APC or LCD/APC design

surface mounted, also on top of installation cups











Article No.	Product	Adapters	Pigtails	Colour	PU	
41860500ZY	FTTH data outlet AP	1x SC	1x SC	pure white (RAL 9010)	1 pc.	
41860600ZY	FTTH data outlet AP	1x LCD/APC		pure white (RAL 9010)	1 pc.	
41860700ZY	FTTH data outlet AP	2x LCD/APC		pure white (RAL 9010)	1 pc.	
41860800ZY	FTTH data outlet AP	1x LCD/APC	2x LC/APC	pure white (RAL 9010)	1 pc.	
41860900ZY	FTTH data outlet AP	2x LCD/APC	4x LC/APC	pure white (RAL 9010)	1 pc.	
41861000ZY	FTTH data outlet AP	1x SC/APC		pure white (RAL 9010)	1 pc.	
41861100ZY	FTTH data outlet AP	2x SC APC		pure white (RAL 9010)	1 pc.	
41861200ZY	FTTH data outlet AP	1x SC/APC	1x SC/APC	pure white (RAL 9010)	1 pc.	
41861300ZY	FTTH data outlet AP	2x SC/APC	2x SC/APC	pure white (RAL 9010)	1 pc.	

Other versions on request. Pre-assembled FTTH data outlet also available with fiber optic indoor cable.

All APC adapters with integrated laser protection.

### AP 88 x 88, SC/APC or LCD/APC design

surface mounted





Article No.	Product	Description	Colour	PU
309278	FTTH data outlet AP 88 x 88, 1x LCD coupler, 2x LC/APC pigtail G.657.A	incl. cover frame	pure white (RAL 9010)	1 pc.
309317	FTTH data outlet AP 88 x 88, 2x LCD coupler, 4x LC/APC pigtail G.657.A	incl. cover frame	pure white (RAL 9010)	1 pc.
309351	FTTH data outlet AP 88 x 88, 1x LCD coupler, without pigtails	incl. cover frame	pure white (RAL 9010)	1 pc.
309369	FTTH data outlet AP 88 x 88, 2x LCD coupler, without pigtails	incl. cover frame	pure white (RAL 9010)	1 pc.

### OTO Cover AP data outlet / retrofitting kit



The OTO Cover AP data outlet is available as a complete outlet with one ot two couplings or as a Cover kit for retrofitting existing outlets.

FTTH inhouse data outlet with inner cover and protective outer cover for 2 or 4 fibres.

Both covers with labeling window, outer cover with imprint "Optical Fibre" and port numbering.

Integrated fibre access tray for cable and pigtails.

Splice protection support for heat and shrink splices.

Available with one or two LC/APC couplings or with LC/APC pigtails.

Couplers with integrated laser protection and captive dust protection caps.



Article No.	Product	Description	Adapters	Pigtails	PU
309697	OTO Cover AP retrofitting kit	for existing OTO data outle	ts		1 pc.
309676	OTO Cover AP data outlet	with mounting plate	1x LC/APC duplex	2x LC/APC	1 pc.
309677	OTO Cover AP data outlet	with mounting plate	2x LC/APC duplex	4x LC/APC	1 pc.
30962700ZY	OTO Cover AP data outlet	with mounting plate	1x LC/APC duplex		1 pc.
30962800ZY	OTO Cover AP data outlet	with mounting plate	2x LC/APC duplex		1 pc.



### FTTH data outlet Squeeze AP

surface mounted









Article No.	Product	Description	Colour	PU
3800476	FTTH data outlet Squeeze AP	with 1 LC/APC duplex coupling, without cover	white	1 pc.
3800473	FTTH data outlet Squeeze AP	with 2 LC/APC duplex couplings, without cover	white	1 pc.
3800474	Squeeze mounting bracket for OTO	for installation in distribution box / perforated plate	white	1 pc.
3800484	Squeeze retrofitting kit for 4 fibres	1 LC/APC coupling with dust protection covers	white	1 pc.
3800480	TV/FM MAS60 cover set	2x IEC, Feller standard compatible	white	1 pc.
3800482	TV/FM MAS60 cover set	2x IEC/MD, Feller standard compatible	white	1 pc.
3800483	TV/FM MAS60 cover set	1x F + 2x IEC, Feller standard compatible	white	1 pc.
3800475	Squeeze blind cover		white	1 pc.
3800477	Squeeze cover	for Feller standard, D = 43 mm	white	1 pc.
3800478	Squeeze cover	for Feller standard due, $D = 50 \text{ mm}$	white	1 pc.
3800479	Squeeze cover	for Feller standard due, D = 58 mm	white	1 pc.

### Preassembled inhouse installation kits

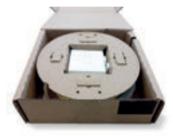
### FTTH inhouse installation kit

with cable I-V(ZN)H + data outlet  $80 \times 80$  mm AP (surface mounted), preassembled









Article No.	Product	Number of adapters	Adapters	Pigtails	Length (cable)
41861500ZY	FTTH inhouse installation kit, 1x LCD/APC	1	LCD/APC	2x LC/APC	10 m
41863400ZY	FTTH inhouse installation kit, 2x LCD/APC	2	LCD/APC	4x LC/APC	10 m

Other configurations and lengths on request or at lTinfra.datwyler.com.







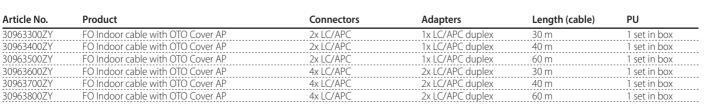
### FTTH inhouse cabling solution with data outlet 88 x 88 mm AP (surface mounted) preassembled

+

Article No.	Product	Connectors	Adapters	Length (cable)	PU
309616	FO Indoor FTTH cable, 2.2 mm, with 88 x 88 mm AP	2x LC/APC	1x LC/APC duplex	20 m	1 set in box
309616	FO Indoor FTTH cable, 2.2 mm, with 88 x 88 mm AP	4x LC/APC	2x LC/APC duplex	20 m	1 set in box
Other configurati	ons and lengths on request.				

FTTH inhouse cabling solution with data outlet OTO Cover AP (surface mounted) preassembled







FTTH inhouse cabling solution with data outlet Squeeze AP (or without)





	LC/APC connector, 1x LC/APC duplex		LC/APC connector, 2x LC/APC duplex		LC/APC connector a outlet Squeeze)		LC/APC connector outlet Squeeze)
Article No.	Length (cable)	Article No.	Length (cable)	Article No.	Length (cable)	Article No.	Length (cable)
3800485	5 m	3800497	5 m	3800463	5 m	3800421	5 m
3800486	10 m	3800498	10 m	3800409	10 m	3800260	10 m
3800487	15 m	3800499	15 m	3800410	15 m	3855454	15 m
3800488	20 m	3800472	20 m	3800411	20 m	3855455	20 m
3800489	25 m	3800471	25 m	3800412	25 m	3855456	25 m
3800490	30 m	3800470	30 m	3800413	30 m	3855457	30 m
3800491	40 m	3800469	40 m	3800414	40 m	3855458	40 m
3800492	50 m	3800468	50 m	3800415	50 m	3855459	50 m
3800493	60 m	3800467	60 m	3800416	60 m	3855460	60 m
3800494	70 m	3800466	70 m	3800417	70 m	3855461	70 m
3800495	80 m	3800465	80 m	3800419	80 m	3855462	80 m
3800496	90 m	3800464	90 m	3800420	90 m	3855463	90 m

### **Indoor cables**

### FO Indoor FTTH / I-M(ZN)H, 2.2 mm, LS0H

Easy to handle fibre optic cable with 4 optical fibres. Very small outer diameter (2.2 mm) due to innovative coating buffer. Flame retardant halogen-free FR/LSOH sheath. Very low fire load. Robust sheath for easy installation into tube systems occupied by other cables.



Article No.	Product	Number of fibres	Sheath colour	Fibre type	Sheath Ø	Weight	Bending radius	Tensile load	Crush resistance	Fire load
					[mm]	[kg/km]	[mm]	[N]	continuous [N]	[kWh/m]
19455000DZ	FO Indoor FTTH 2.2, LS0H 1 x 4	4	yellow	E9/125 G.652.D BLO	2.2	4.0	25	400	500	0.023

 $\label{eq:Variants} \textit{Variants also in the Euroclass $C_{ca}$ and $B2_{ca}$, further information can be found at $IT$ infra. datwyler.com$ 

### FO Indoor FTTH STB / I-V(ZN)H, 2.8 mm, LS0H

Easy to handle fibre optic cable with 4 optical fibres.

Very small outer diameter (2.8 mm) due to innovative construction with 0.6 mm semi-tight buffers.

Flame retardant halogen-free LSOH sheath. Very low fire load.

Robust sheath for easy installation into tube systems occupied by other cables.



Article No.	Product	Number of fibres	Sheath colour	Fibre type	Sheath Ø	Weight	Bending radius	Tensile load	Crush resistance	Fire load
					[mm]	[kg/km]	[mm]	[N]	continuous [N]	[kWh/m]
19341000DZ	FO Indoor FTTH 2.8, LS0H 4 x 1		yellow	E9/125 G.652.D BLO	2.8	8.0	25	400		0.043





