MTP® COMPONENTS
Maximum performance in the smallest space

EFB ELEKTRONIK

WE CARE FOR CONNECTION

WIR SORGEN FÜR VERBINDUNG
WE CARE FOR CONNECTION
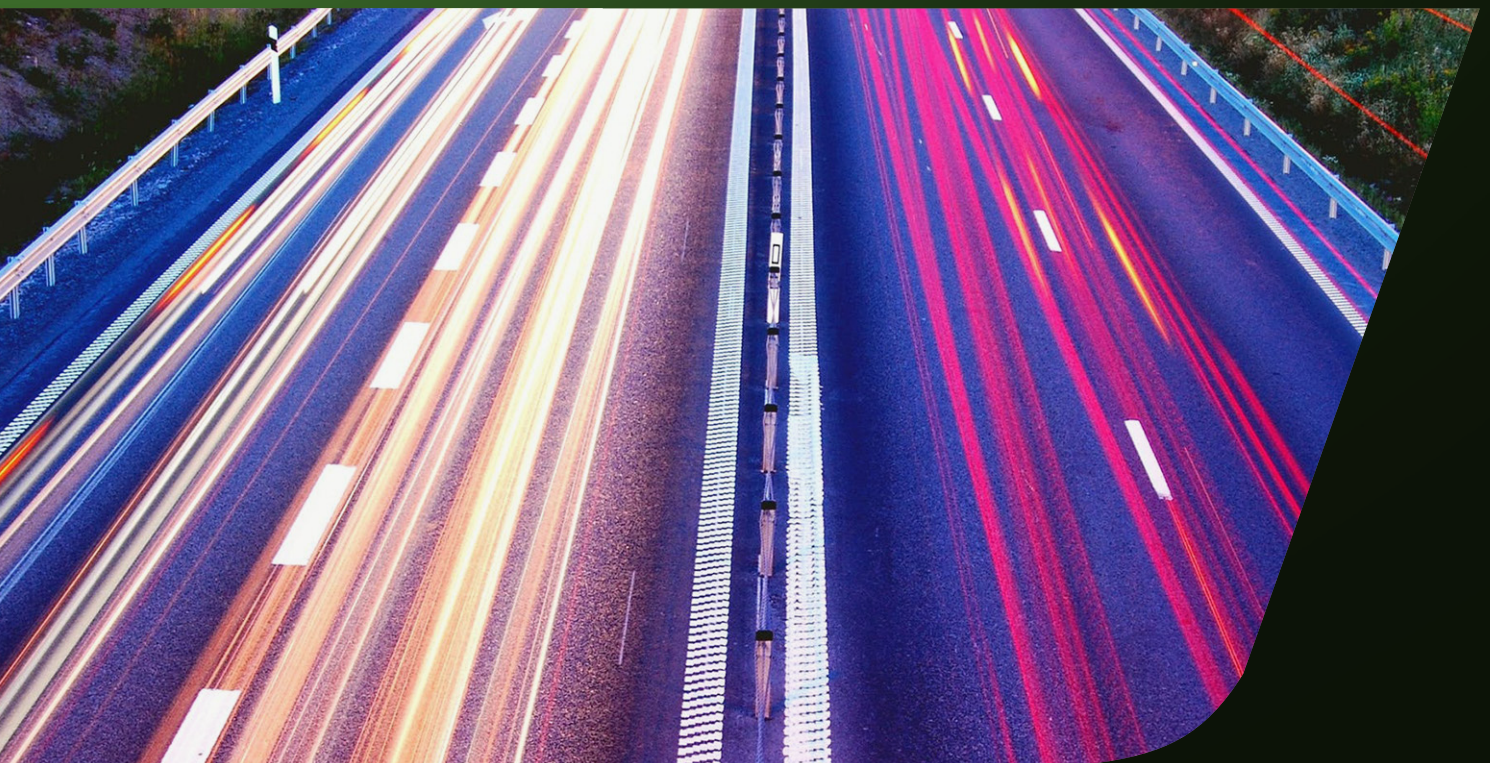
Profile of
EFB-Elektronik

EFB-Elektronik GmbH is a leading manufacturer and system provider of networking technology and 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 6,500 employees and production facilities around the globe, gives usadditional leverage for the benefit of our customers.

The EFB Group is represented throughout Europe with 400 employees at nine locations. In addition to numerous sales locations in Germany, we have subsidiaries in Istanbul, Copenhagen and Vienna as well as a production location in Slovakia.

Content

MTP® Components –
high performance in the smallest possible space

Achieve top performance on your fiber optic link: MTP®/MPO components (Mulitpath Push-On/ Multifiber Termination Push-On) offer outstanding transmission characteristics - and that in the smallest space. Thanks to the SFF (Small Form Factor) design, a packing density is achieved that is not comparable with any other connector on the market. EFB-Elektronik offers a comprehensive portfolio with which it is possible to build the entire MTP® route. Discover excellent quality and choices that fit your requirements.
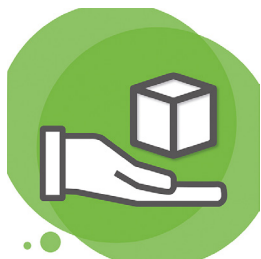
MTP® CONCEIVED AS A SYSTEM
EFB-Elektronik is your one-stop source for everything from standard patch cables to active technology.

MTP® THOUGHT MODULAR
The applications are almost limitless: you can build modular lines. For example, combinations of our copper cabling programme with MTP® components are possible.

MTP® FAIR THOUGHT
Benefit from fair prices and maximum application flexibility

MTP® THOUGHT FOR YOU
Thanks to high stocking, you will receive your orders in a short time

Perfectly suited for use in the data centre

The MTP®/MPO connectors have an MT ferrule that is designed for multi-fiber accommodation: 4 to 144 fibers can be accommodated in just one connector. This feature makes the connectors ideally suited for use in data centres - they are standardised for data centre applications according to ISO 11801 and EN 50173-5.

MTP® Harness-cable 8-fiber

Why 8-fiber?

Due to the design and the parallel optics, the MTP® tran-sceivers have only 8 transmit and receive units.
For example, for a 100G channel, these are divided into 4x25G channels in the transceiver.
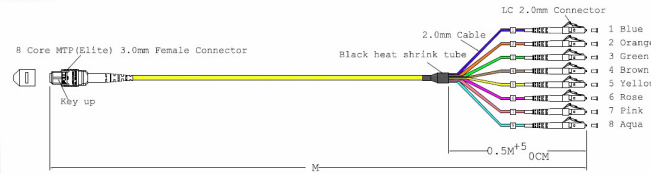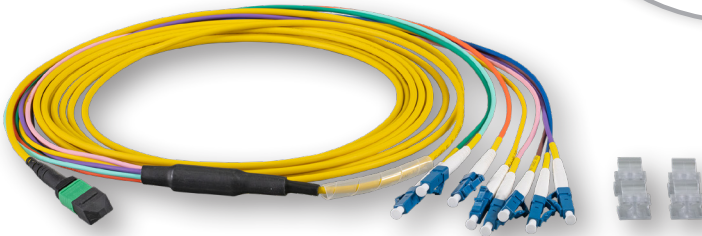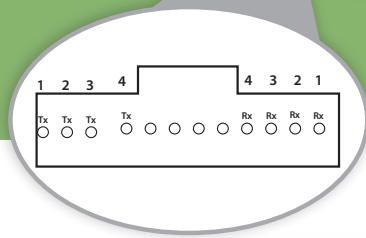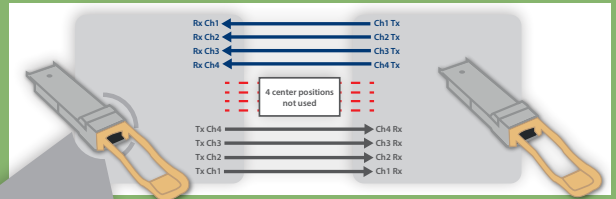
MTP®-F/LC 8-fiber patch cable OS2

Application: Suitable for transmission links up to **100 Gigabit**
Construction: 1 multi-connector MTP® on one side,
4 LC-Duplex connector on the other side
LowLoss version: attenuation per Fanout max. 0,35dB
Matrix: 8 fibers
Furcation length: 50cm
Cable diameter multi-connector: 3mm
Cable diameter single-connector: 2mm
Colour: OM4 and OS2 acc. to colour code DIN VDE 0888

| Article-No.	Description	Connector	Fiber type	Coding
MTPF08LCOS2-1	MTP®-F/LC 8-fiber patch cable OS2,LSZH yellow, 1m			
MTPF08LCOS2-2	MTP®-F/LC 8-fiber patch cable OS2,LSZH yellow, 2m			
MTPF08LCOS2-3	MTP®-F/LC 8-fiber patch cable OS2,LSZH yellow, 3m	MTP®-F/ LC-Duplex	G657A1 9/125	1:1
MTPF08LCOS2-5	MTP®-F/LC 8-fiber patch cable OS2,LSZH yellow, 5m			
MTPF08LCOS2-10	MTP®-F/LC 8-fiber patch cable OS2,LSZH yellow, 10m			
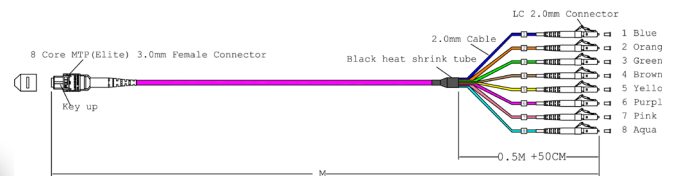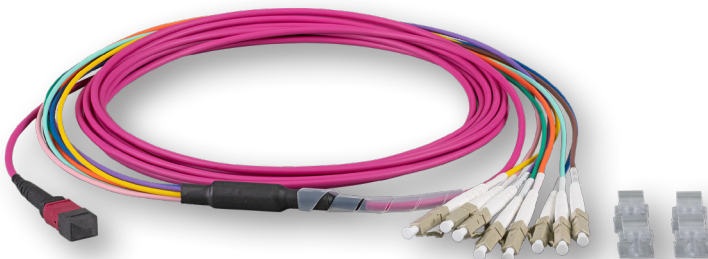
MTP®-F/LC 8-fiber patch cable OM4

Article-No.	Description	Connector	Fiber type	Coding
MTPF08LCOM4-1	MTP®-F/LC 8-fiber patch cable OM4,LSZH erica-violet, 1m			
MTPF08LCOM4-2	MTP®-F/LC 8-fiber patch cable OM4,LSZH erica-violet, 2m			
MTPF08LCOM4-3	MTP®-F/LC 8-fiber patch cable OM4,LSZH erica-violet, 3m	MTP®-F/ LC-Duplex	OM4 50/125	1:1
MTPF08LCOM4-5	MTP®-F/LC 8-fiber patch cable OM4,LSZH erica-violet, 5m			
MTPF08LCOM4-10	MTP®-F/LC 8-fiber patch cable OM4,LSZH erica-violet, 10m			

MTP® Harness-cable 12-fiber

Why 12-fiber?

12-fiber MTP® cables are used to save space in the distribution of fiber optic lines. This ranges from small server rooms to data centres.

The fiber route is usually converted from LC transceivers to MTP® cables and then back to LC.
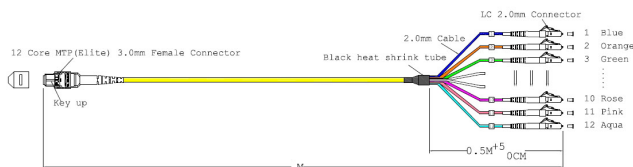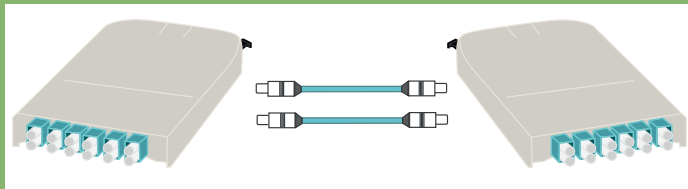
MTP®-F/LC 12-fiber patch cable OS2

Application: Suitable for transmission links up to **100 Gigabit**
Construction: 1 multi-connector MTP® on one side,
6 LC-Duplex connector on the other side
**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 and OS2 acc. to colour code DIN VDE 0888

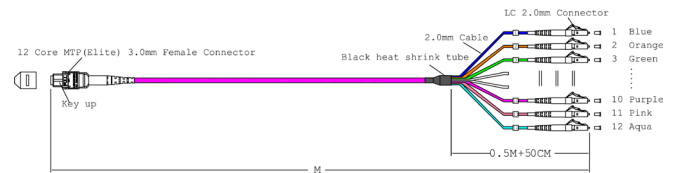| Article-No.	Description	Connector	Fiber type	Coding
MTPF12LCOS2-1	MTP®-F/LC 12-fiber patch cable OS2, LSZH yellow 1m			
MTPF12LCOS2-2	MTP®-F/LC 12-fiber patch cableOS2,LSZH yellow, 2m			
MTPF12LCOS2-3	MTP®-F/LC 12-fiber patch cable OS2,LSZH yellow, 3m	MTP®-F/ LC-Duplex	G657A1 9/125	1:1
MTPF12LCOS2-5	MTP®-F/LC 12-fiber patch cable OS2,LSZH yellow, 5m			
MTPF12LCOS2-10	MTP®-F/LC 12-fiber patch cable OS2,LSZH yellow, 10m			
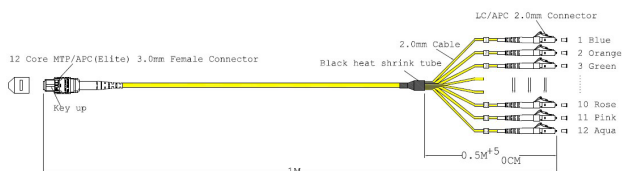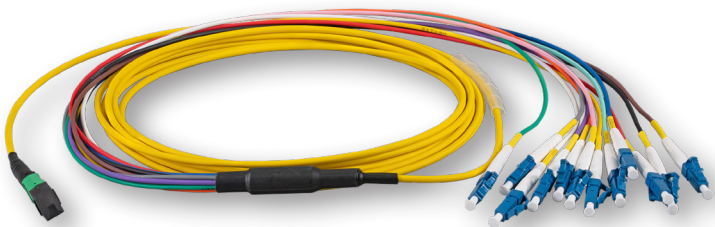
MTP®-F/LC/APC 12-fiber patch cable OS2

Article-No.	Description	Connector	Fiber type	Coding
MTPF12LCAPC-1	MTP®-F/LC/APC 12-fiber patch cable OS2, LSZH yellow, 1m			
MTPF12LCAPC-2	MTP®-F/LC/APC 12-fiber patch cable OS2, LSZH yellow, 2m			
MTPF12LCAPC-3	MTP®-F/LC/APC 12-fiber patch cable OS2, LSZH yellow, 3m			
MTPF12LCAPC-5	MTP®-F/LC/APC 12-fiber patch cable OS2, LSZH yellow, 5m	MTP®-F/ LC/APC	G657A1 9/125	1:1
MTPF12LCAPC-7,5	MTP®-F/LC/APC 12-fiber patch cable OS2, LSZH yellow, 7,5m			
MTPF12LCAPC-10	MTP®-F/LC/APC 12-fiber patch cable OS2, LSZH yellow, 10m			
MTPF12LCAPC-15	MTP®-F/LC/APC 12-fiber patch cable OS2, LSZH yellow, 15m			
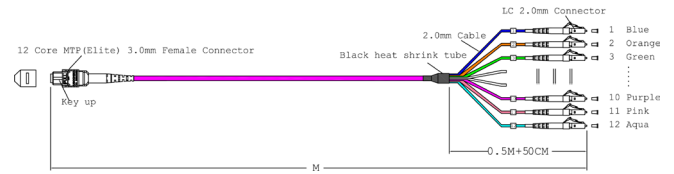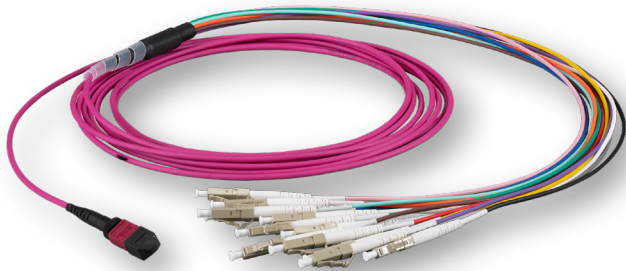
MTP®-F/LC 12-fiber patch cable OM4

Article-No.	Description	Connector	Fiber type	Coding
MTPF12LCOM4-1	MTP®-F/LC 12-fiber patch cable OM4,LSZH erica-violet, 1m			
MTPF12LCOM4-2	MTP®-F/LC 12-fiber patch cable OM4,LSZH erica-violet, 2m			
MTPF12LCOM4-3	MTP®-F/LC 12-fiber patch cable OM4,LSZH erica-violet, 3m	MTP®-F/ LC-Duplex	OM4 50/125	1:1
MTPF12LCOM4-5	MTP®-F/LC 12-fiber patch cable OM4,LSZH erica-violet, 5m			
MTPF12LCOM4-10	MTP®-F/LC 12-fiber patch cable OM4,LSZH erica-violet, 10m			
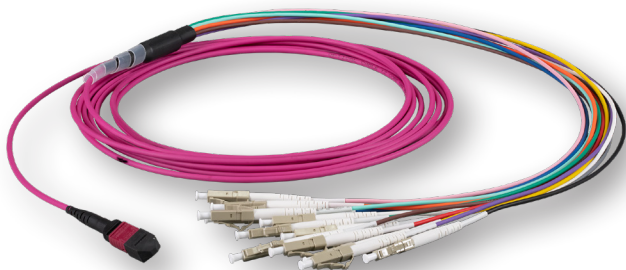
MTP®-F/LC 12-fiber patch cable OM3

Article-No.	Description	Connector	Fiber type	Coding
MTPF12LCOM3-1	MTP®-F/LC 12-fiber patch cable OM3,LSZH aqua, 1m			
MTPF12LCOM3-2	MTP®-F/LC 12-fiber patch cable OM3,LSZH aqua, 2m			
MTPF12LCOM3-3	MTP®-F/LC 12-fiber patch cable OM3,LSZH aqua, 3m			
MTPF12LCOM3-5	MTP®-F/LC 12-fiber patch cable OM3,LSZH aqua, 5m	MTP®-F/ LC-Duplex	OM3 50/125	1:1
MTPF12LCOM3-7,5	MTP®-F/LC 12-fiber patch cable OM3,LSZH aqua, 7,5m			
MTPF12LCOM3-10	MTP®-F/LC 12-fiber patch cable OM3,LSZH aqua, 10m			
MTPF12LCOM3-15	MTP®-F/LC 12-fiber patch cable OM3,LSZH aqua, 15m			

Why are LC connectors used?

This is due to the HD (High Density) factor, because of which many data centres are only equipped on an LC basis in order to save space. In addition, the design of the SFP transceivers is only available with LC mating face.

HD Patch panel

Hint:
With the 8-fiber matrix harness cables from EFB-Elektronik, the assignment of the individual channels from the MTP® cable to the LC connectors is already assigned accordingly.
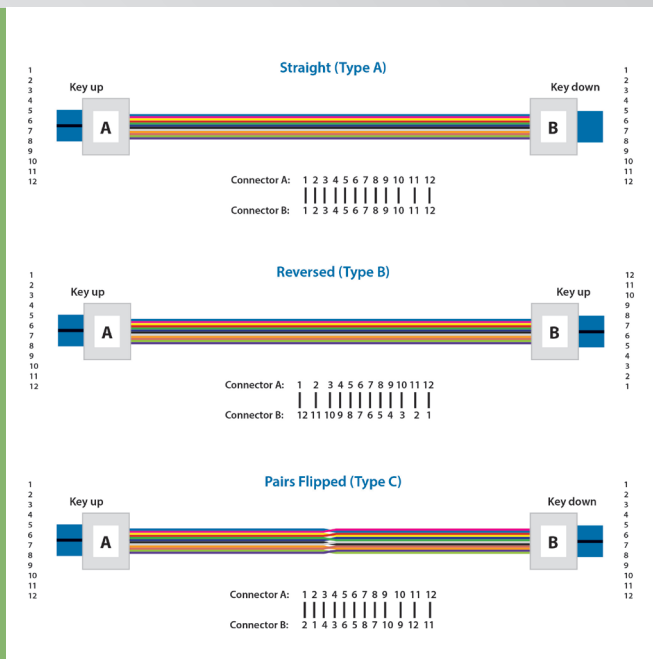
MTP® Patch cable 12-fiber

What is the difference between MTP® Type A and MTP® Type B cables?

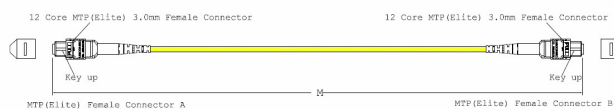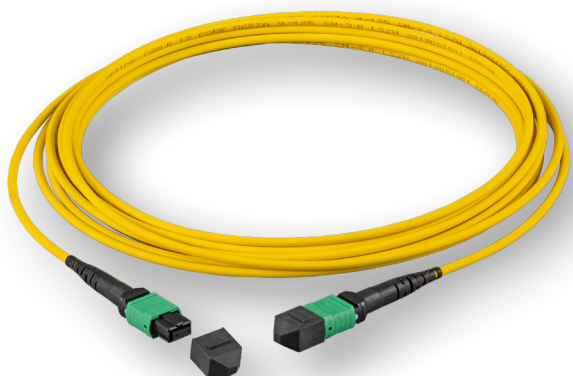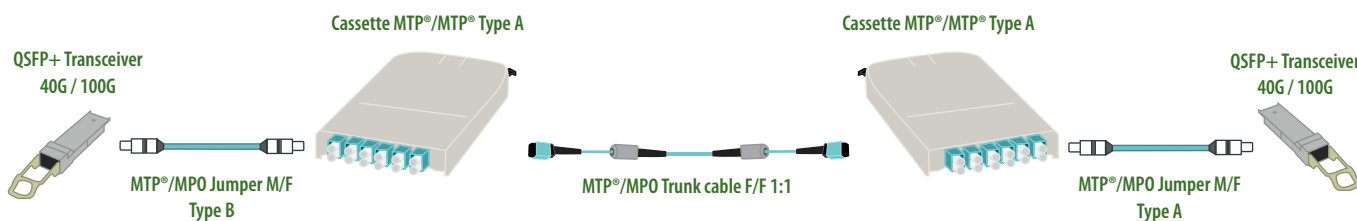An MTP® type A cable describes an MTP® 1:1 connection.

An MTP® Type B cable describes an MTP® connection in which the pairs (e.g. 1 and 2) are swapped to swap the RX (receiver) and TX (transmitter) channels accordingly so that a connection can be made between 2 transceivers without additional patching.

Why is there an MTP® female connector on the confections?

MTP® transceivers or MTP® distribution box are equipped with an MTP® male connector. As a result, the cables are connected with MTP® Female plugs.

Straight (Type A)
Key up — A ... B — Key down
Connector A: 1 2 3 4 5 6 7 8 9 10 11 12
Connector B: 1 2 3 4 5 6 7 8 9 10 11 12

Reversed (Type B)
Key up — A ... B — Key up
Connector A: 1 2 3 4 5 6 7 8 9 10 11 12
Connector B: 12 11 10 9 8 7 6 5 4 3 2 1

Pairs Flipped (Type C)
Key up — A ... B — Key down
Connector A: 1 2 3 4 5 6 7 8 9 10 11 12
Connector B: 2 1 4 3 6 5 8 7 10 9 12 11

40 Gigabit und 100 Gigabit Ethernet transmission link

QSFP+ Transceiver 40G / 100G
MTP®/MPO Jumper M/F Type B
Cassette MTP®/MTP® Type A
MTP®/MPO Trunk cable F/F 1:1
Cassette MTP®/MTP® Type A
MTP®/MPO Jumper M/F Type A
QSFP+ Transceiver 40G / 100G

12 Core MTP(Elite) 3.0mm Female Connector   12 Core MTP(Elite) 3.0mm Female Connector
Key up   Key up
MTP(Elite) Female Connector A   M   MTP(Elite) Female Connector B

MTP®-F/MTP®-F 12-fiber matrix Patch cable OS2, Code B

Application: Server to Server- / Switch to Switch connection,
Suitable for transmission links up to **100 Gigabit**
Connector manufacturer: **US Conec**
Matrix: 12 Fibers
Singlemode variant always as APC version
Colour: OM4 erica-violet and OS2 yellow   Available lengths: 1m up to 100m

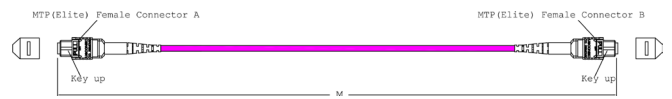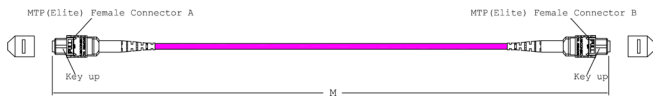Hint: In each MTP® transmission link, a type B (crossed) patch cable is required

Article-No.	Description	Connector	Fiber type	Coding
MTPF12MTPFOS2-1	MTP®-F/MTP®-F 12-fiber matrix patch cable OS2, LSZH yellow, Code B, 1m	MTP®-F/ MTP®-F	G657A1 9/125	Type B crossed
MTPF12MTPFOS2-2	MTP®-F/MTP®-F 12-fiber matrix patch cable OS2, LSZH yellow, Code B, 2m			
MTPF12MTPFOS2-3	MTP®-F/MTP®-F 12-fiber matrix patch cable OS2, LSZH yellow, Code B, 3m			
MTPF12MTPFOS2-5	MTP®-F/MTP®-F 12-fiber matrix patch cable OS2, LSZH yellow, Code B, 5m			
MTPF12MTPFOS2-7,5	MTP®-F/MTP®-F 12-fiber matrix patch cable OS2,LSZH yellow, Code B, 7,5m			
MTPF12MTPFOS2-10	MTP®-F/MTP®-F 12-fiber matrix patch cable OS2, LSZH yellow, Code B, 10m			
MTPF12MTPFOS2-15	MTP®-F/MTP®-F 12-fiber matrix patch cable OS2,LSZH yellow, Code B, 15m			
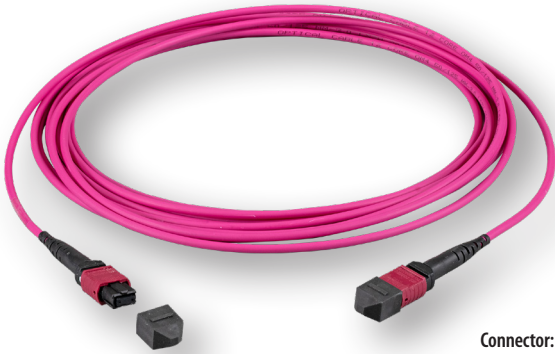
Connector: MTP®-F/MTP®-F
Fiber type: OM4 50/125
Coding: Type B crossed
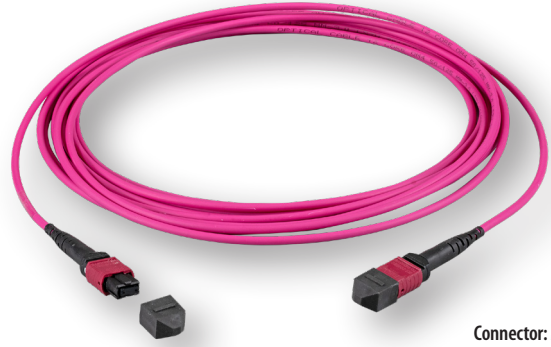
Connector: MTP®-F/ MTP®-F
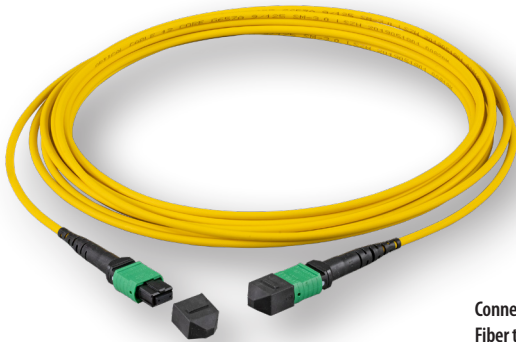**Fiber type:** OM3 50/125
Coding: Type B crossed

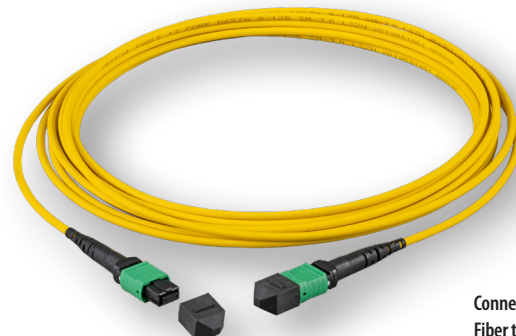## MTP®-F/MTP®-F 12-fiber matrix Patch cable OM4, Code B

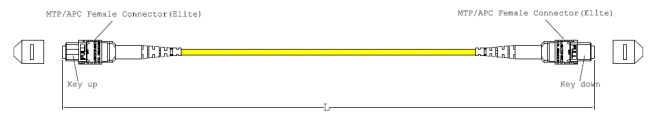| Article-No.	Description
MTPF12MTPFOM4-0,5	MTP®-F/MTP®-F 12-fiber matrix patch cable OM4, LSZH erica-violet, Code B, 0,5m
MTPF12MTPFOM4-1	MTP®-F/MTP®-F 12-fiber matrix patch cable OM4, LSZH erica-violet, Code B, 1m
MTPF12MTPFOM4-2	MTP®-F/MTP®-F 12-fiber matrix patch cable OM4, LSZH erica-violet, Code B, 2m
MTPF12MTPFOM4-3	MTP®-F/MTP®-F 12-fiber matrix patch cable OM4, LSZH erica-violet, Code B, 3m
MTPF12MTPFOM4-5	MTP®-F/MTP®-F 12-fiber matrix patch cable OM4, LSZH erica-violet, Code B, 5m
MTPF12MTPFOM4-7,5	MTP®-F/MTP®-F 12-fiber matrix patch cable OM4, LSZH erica-violet, Code B, 7,5m
MTPF12MTPFOM4-10	MTP®-F/MTP®-F 12-fiber matrix patch cable OM4, LSZH erica-violet, Code B, 10m
MTPF12MTPFOM4-15	MTP®-F/MTP®-F 12-fiber matrix patch cable OM4, LSZH erica-violet, Code B, 15m

MTP®-F/MTP®-F 12-fiber matrix Patch cable OM3, Code B

Article-No.	Description
MTPF12MTPFOM3-0,5	MTP®-F/MTP®-F 12-fiber matrix patch cable OM3, LSZH aqua, Code B, 0,5m
MTPF12MTPFOM3-1	MTP®-F/MTP®-F 12-fiber matrix patch cable OM3, LSZH aqua, Code B, 1m
MTPF12MTPFOM3-2	MTP®-F/MTP®-F 12-fiber matrix patch cable OM3, LSZH aqua, Code B, 2m
MTPF12MTPFOM3-3	MTP®-F/MTP®-F 12-fiber matrix patch cable OM3, LSZH aqua, Code B, 3m
MTPF12MTPFOM3-5	MTP®-F/MTP®-F 12-fiber matrix patch cable OM3, LSZH aqua, Code B, 5m
MTPF12MTPFOM3-7,5	MTP®-F/MTP®-F 12-fiber matrix patch cable OM3, LSZH aqua, Code B, 7,5m
MTPF12MTPFOM3-10	MTP®-F/MTP®-F 12-fiber matrix patch cable OM3, LSZH aqua, Code B, 10m
MTPF12MTPFOM3-15	MTP®-F/MTP®-F 12-fiber matrix patch cable OM3, LSZH aqua, Code B, 15m

Connector: MTP®-F/ MTP®-F
Fiber type: G657A1 9/125
Coding: Type A 1:1

Connector: MTP®-F/ MTP®-F
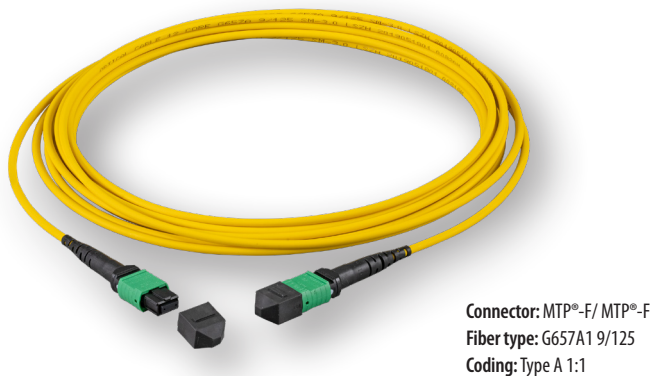**Fiber type:** OM3 50/125
Coding: Type A 1:1

MTP®-F/MTP®-F 12-fiber matrix Patch cable OS2, Code A

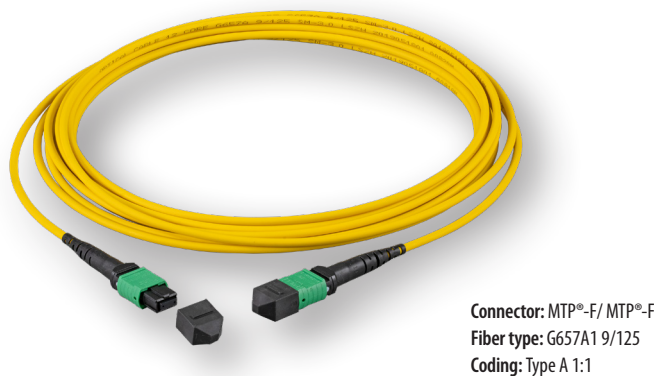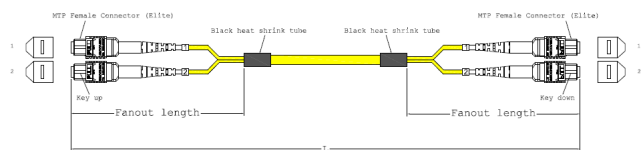| Article-No.	Description
MTPF12MTPFOS2-1-A	MTP®-F/MTP®-F 12-fiber matrix patch cable OS2, LSZH yellow, Code A, 1m
MTPF12MTPFOS2-2-A	MTP®-F/MTP®-F 12-fiber matrix patch cable OS2, LSZH yellow, Code A, 2m
MTPF12MTPFOS2-3-A	MTP®-F/MTP®-F 12-fiber matrix patch cable OS2, LSZH yellow, Code A, 3m
MTPF12MTPFOS2-5-A	MTP®-F/MTP®-F 12-fiber matrix patch cable OS2, LSZH yellow, Code A, 5m
MTPF12MTPFOS2-7,5-A	MTP®-F/MTP®-F 12-fiber matrix patch cable OS2, LSZH yellow, Code A, 7,5m
MTPF12MTPFOS2-10-A	MTP®-F/MTP®-F 12-fiber matrix patch cable OS2, LSZH yellow, Code A, 10m
MTPF12MTPFOS2-15-A	MTP®-F/MTP®-F 12-fiber matrix patch cable OS2, LSZH yellow, Code A, 15m

MTP®-F/MTP®-F 12-fiber matrix Patch cable OM3, Code A

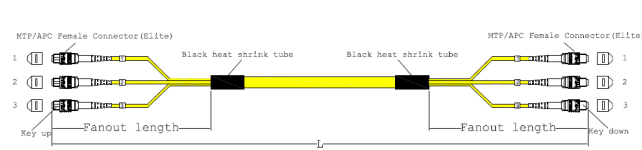| Article-No.	Description
MTPF12MTPFOM3-0,5-A	MTP®-F/MTP®-F 12-fiber matrix patch cable OM3, LSZH aqua, Code A, 0,5m
MTPF12MTPFOM3-1-A	MTP®-F/MTP®-F 12-fiber matrix patch cable OM3, LSZH aqua, Code A, 1m
MTPF12MTPFOM3-2-A	MTP®-F/MTP®-F 12-fiber matrix patch cable OM3, LSZH aqua, Code A, 2m
MTPF12MTPFOM3-3-A	MTP®-F/MTP®-F 12-fiber matrix patch cable OM3, LSZH aqua, Code A, 3m
MTPF12MTPFOM3-5-A	MTP®-F/MTP®-F 12-fiber matrix patch cable OM3, LSZH aqua, Code A, 5m
MTPF12MTPFOM3-7,5-A	MTP®-F/MTP®-F 12-fiber matrix patch cable OM3, LSZH aqua, Code A, 7,5m
MTPF12MTPFOM3-10-A	MTP®-F/MTP®-F 12-fiber matrix patch cable OM3, LSZH aqua, Code A, 10m
MTPF12MTPFOM3-15-A	MTP®-F/MTP®-F 12-fiber matrix patch cable OM3, LSZH aqua, Code A, 15m

Connector: MTP®-F/ MTP®-F
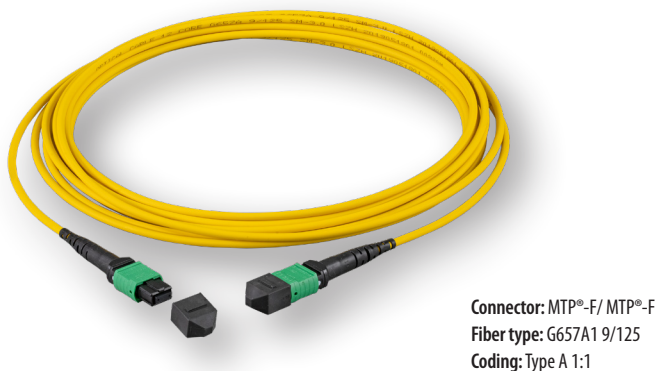**Fiber type:** G657A1 9/125
Coding: Type A 1:1

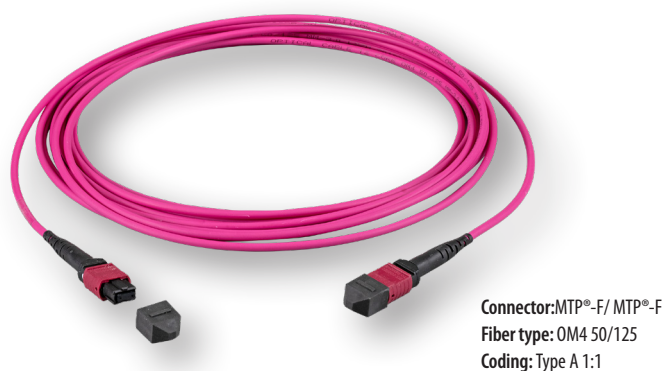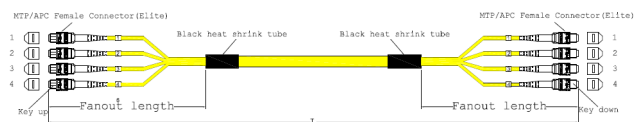## MTP®-F/MTP®-F 24-fiber matrix Patch cable OS2, Code A

Article-No.	Description
MTPF24MTPFOS2-5-A	MTP®-F/MTP®-F 24-fiber matrix patch cable OS2, LSZH yellow, Code A, 5m
MTPF24MTPFOS2-10-A	MTP®-F/MTP®-F 24-fiber matrix patch cable OS2, LSZH yellow, Code A, 10m
MTPF24MTPFOS2-15-A	MTP®-F/MTP®-F 24-fiber matrix patch cable OS2, LSZH yellow, Code A, 15m
MTPF24MTPFOS2-20-A	MTP®-F/MTP®-F 24-fiber matrix patch cable OS2, LSZH yellow, Code A, 20m
MTPF24MTPFOS2-25-A	MTP®-F/MTP®-F 24-fiber matrix patch cable OS2, LSZH yellow, Code A, 25m
MTPF24MTPFOS2-30-A	MTP®-F/MTP®-F 24-fiber matrix patch cable OS2, LSZH yellow, Code A, 30m

Connector: MTP®-F/ MTP®-F
Fiber type: G657A1 9/125
Coding: Type A 1:1

MTP®-F/MTP®-F 36-fiber matrix Patch cable OS2, Code A

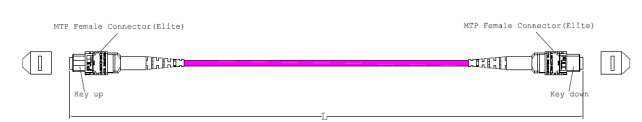| Article-No.	Description
MTPF36MTPFOS2-5-A	MTP®-F/MTP®-F 36-fiber matrix patch cable OS2, LSZH yellow, Code A, 5m
MTPF36MTPFOS2-10-A	MTP®-F/MTP®-F 36-fiber matrix patch cable OS2, LSZH yellow, Code A, 10m
MTPF36MTPFOS2-15-A	MTP®-F/MTP®-F 36-fiber matrix patch cable OS2, LSZH yellow, Code A, 15m
MTPF36MTPFOS2-20-A	MTP®-F/MTP®-F 36-fiber matrix patch cable OS2, LSZH yellow, Code A, 20m
MTPF36MTPFOS2-25-A	MTP®-F/MTP®-F 36-fiber matrix patch cable OS2, LSZH yellow, Code A, 25m
MTPF36MTPFOS2-30-A	MTP®-F/MTP®-F 36-fiber matrix patch cable OS2, LSZH yellow, Code A, 30m

Connector: MTP®-F/ MTP®-F
Fiber type: G657A1 9/125
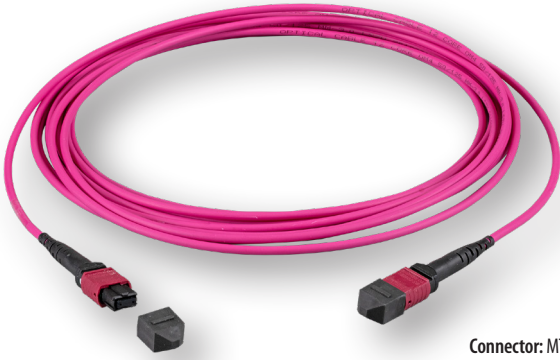**Coding:** Type A 1:1

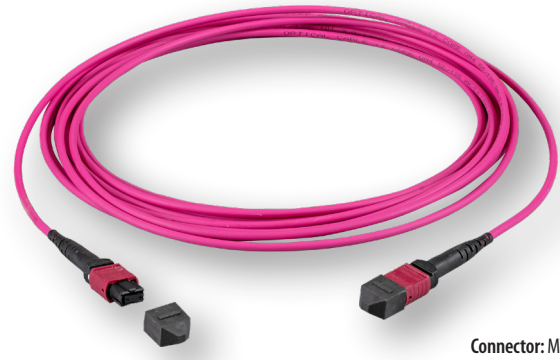## MTP®-F/MTP®-F 48-fiber matrix Patch cable OS2, Code A

Article-No.	Description
MTPF48MTPFOS2-5-A	MTP®-F/MTP®-F 48-fiber matrix patch cable OS2, LSZH yellow, Code A, 5m
MTPF48MTPFOS2-10-A	MTP®-F/MTP®-F 48-fiber matrix patch cable OS2, LSZH yellow, Code A, 10m
MTPF48MTPFOS2-15-A	MTP®-F/MTP®-F 48-fiber matrix patch cable OS2, LSZH yellow, Code A, 15m
MTPF48MTPFOS2-20-A	MTP®-F/MTP®-F 48-fiber matrix patch cable OS2, LSZH yellow, Code A, 20m
MTPF48MTPFOS2-25-A	MTP®-F/MTP®-F 48-fiber matrix patch cable OS2, LSZH yellow, Code A, 25m
MTPF48MTPFOS2-30-A	MTP®-F/MTP®-F 48-fiber matrix patch cable OS2, LSZH yellow, Code A, 30m

Connector: MTP®-F/ MTP®-F
Fiber type: OM4 50/125
Coding: Type A 1:1

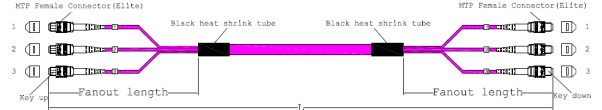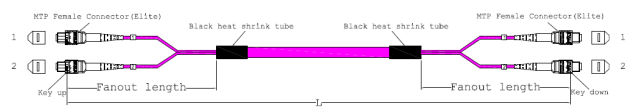## MTP®-F/MTP®-F 12-fiber matrix Patch cable OM4, Code A

Article-No.	Description
MTPF12MTPFOM4-1-A	MTP®-F/MTP®-F 12-fiber matrix patch cable OM4, LSZH erica-violet, Code A, 1m
MTPF12MTPFOM4-2-A	MTP®-F/MTP®-F 12-fiber matrix patch cable ,OM4, LSZH erica-violet, Code A, 2m
MTPF12MTPFOM4-3-A	MTP®-F/MTP®-F 12-fiber matrix patch cable OM4, LSZH erica-violet, Code A, 3m
MTPF12MTPFOM4-5-A	MTP®-F/MTP®-F 12-fiber matrix patch cable OM4, LSZH erica-violet, Code A, 5m
MTPF12MTPFOM4-7,5-A	MTP®-F/MTP®-F 12-fiber matrix patch cable OM4, LSZH erica-violet, Code A, 7,5m
MTPF12MTPFOM4-10-A	MTP®-F/MTP®-F 12-fiber matrix patch cable OM4, LSZH erica-violet, Code A, 10m
MTPF12MTPFOM4-15-A	MTP®-F/MTP®-F 12-fiber matrix patch cable OM4, LSZH erica-violet, Code A, 15m

Connector: MTP®-F/ MTP®-F
Fiber type: OM4 50/125
Coding: Type A 1:1

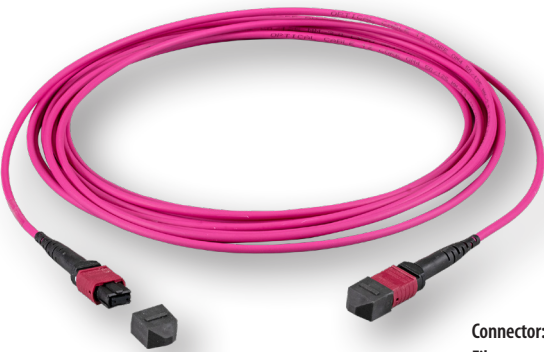

Connector: MTP®-F/ MTP®-F
Fiber type: OM4 50/125
Coding: Type A 1:1
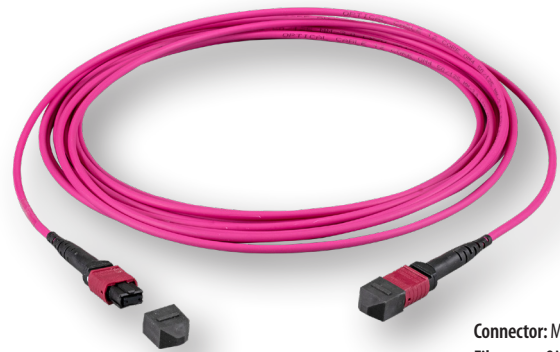
MTP®-F/MTP®-F 24-fiber matrix Patch cable OM4, Code A

Article-No.	Description
MTPF24MTPFOM4-5-A	MTP®-F/MTP®-F 24-fiber matrix patch cable OM4, LSZH erica-violet, Code A, 5m
MTPF24MTPFOM4-10-A	MTP®-F/MTP®-F 24-fiber matrix patch cable OM4, LSZH erica-violet, Code A, 10m
MTPF24MTPFOM4-15-A	MTP®-F/MTP®-F 24-fiber matrix patch cable OM4, LSZH erica-violet, Code A, 15m
MTPF24MTPFOM4-20-A	MTP®-F/MTP®-F 24-fiber matrix patch cable OM4, LSZH erica-violet, Code A, 20m
MTPF24MTPFOM4-25-A	MTP®-F/MTP®-F 24-fiber matrix patch cable OM4, LSZH erica-violet, Code A, 25m
MTPF24MTPFOM4-30-A	MTP®-F/MTP®-F 24-fiber matrix patch cable OM4, LSZH erica-violet, Code A, 30m

MTP®-F/MTP®-F 36-fiber matrix Patch cable OM4, Code A

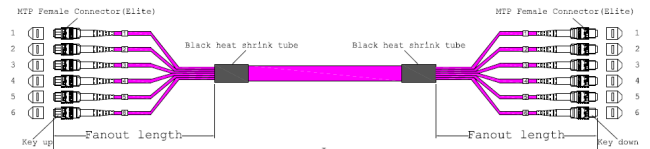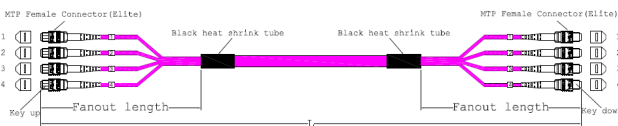| Article-No.	Description
MTPF36MTPFOM4-5-A	MTP®-F/MTP®-F 36-fiber matrix patch cable OM4, LSZH erica-violet, Code A, 5m
MTPF36MTPFOM4-10-A	MTP®-F/MTP®-F 36-fiber matrix patch cable OM4, LSZH erica-violet, Code A, 10m
MTPF36MTPFOM4-15-A	MTP®-F/MTP®-F 36-fiber matrix patch cable OM4, LSZH erica-violet, Code A, 15m
MTPF36MTPFOM4-20-A	MTP®-F/MTP®-F 36-fiber matrix patch cable OM4, LSZH erica-violet, Code A, 20m
MTPF36MTPFOM4-25-A	MTP®-F/MTP®-F 36-fiber matrix patch cable OM4, LSZH erica-violet, Code A, 25m
MTPF36MTPFOM4-30-A	MTP®-F/MTP®-F 36-fiber matrix patch cable OM4, LSZH erica-violet, Code A, 30m

Connector: MTP®-F/ MTP®-F
Fiber type: OM4 50/125
Coding: Type A 1:1

Connector: MTP®-F/ MTP®-F
Fiber type OM4 50/125
Coding: Type A 1:1

MTP®-F/MTP®-F 48-fiber matrix Patch cable OM4, Code A

| Article-No.	Description
MTPF48MTPFOM4-5-A	MTP®-F/MTP®-F 48-fiber matrix patch cable OM4, LSZH erica-violet, Code A, 5m
MTPF48MTPFOM4-10-A	MTP®-F/MTP®-F 48-fiber matrix patch cable OM4, LSZH erica-violet, Code A, 10m
MTPF48MTPFOM4-15-A	MTP®-F/MTP®-F 48-fiber matrix patch cable OM4, LSZH erica-violet, Code A, 15m
MTPF48MTPFOM4-20-A	MTP®-F/MTP®-F 48-fiber matrix patch cable OM4, LSZH erica-violet, Code A, 20m
MTPF48MTPFOM4-25-A	MTP®-F/MTP®-F 48-fiber matrix patch cable OM4, LSZH erica-violet, Code A, 25m
MTPF48MTPFOM4-30-A	MTP®-F/MTP®-F 48-fiber matrix patch cable OM4, LSZH erica-violet, Code A, 30m

MTP®-F/MTP®-F 72-fiber matrix Patch cable OM4, Code A

| Article-No.	Description
MTPF72MTPFOM4-5-A	MTP®-F/MTP®-F 72-fiber matrix patch cable OM4, LSZH erica-violet, Code A, 5m
MTPF72MTPFOM4-10-A	MTP®-F/MTP®-F 72-fiber matrix patch cable OM4, LSZH erica-violet, Code A, 10m
MTPF72MTPFOM4-15-A	MTP®-F/MTP®-F 72-fiber matrix patch cable OM4, LSZH erica-violet, Code A, 15m
MTPF72MTPFOM4-20-A	MTP®-F/MTP®-F 72-fiber matrix patch cable OM4, LSZH erica-violet, Code A, 20m
MTPF72MTPFOM4-25-A	MTP®-F/MTP®-F 72-fiber matrix patch cable OM4, LSZH erica-violet, Code A, 25m
MTPF72MTPFOM4-30-A	MTP®-F/MTP®-F 72-fiber matrix patch cable OM4, LSZH erica-violet, Code A, 30m

MTP® Fanout cable 8-fiber

Why are there MTP® female and male connectors?

An MTP® connector must consist of a male and a female plug in order to centre the fibers.

MTP® adapters therefore only have the function of a mechanical holder and pin assignment.

Female plug

Male plug
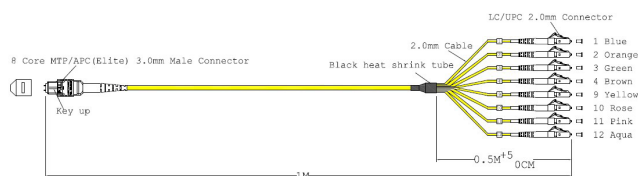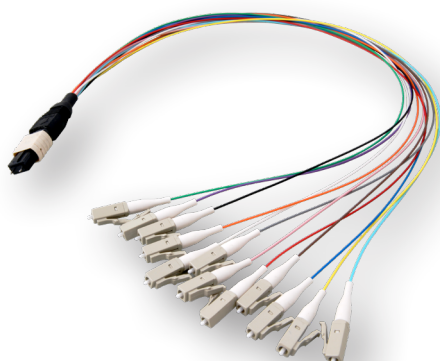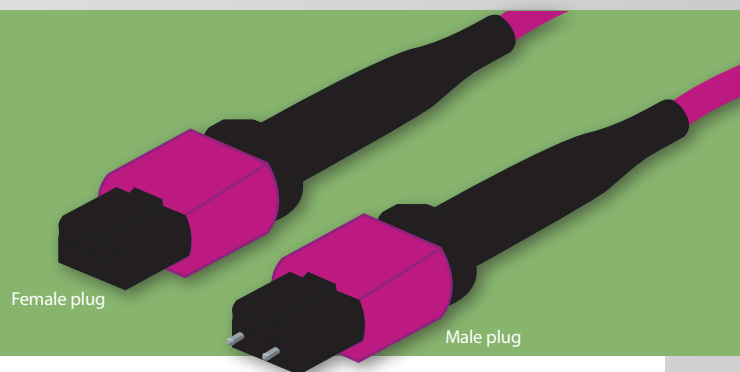
Fanout Cable MTP®-Male/LC 8-fiber OS2

Application: Suitable for transmission links up to **100 Gigabit**
Construction: 1 multi-connector MTP® Male on one side,
8 Single connector on the other side (e.g. LC)
LowLoss version: attenuation per Fanout max. 0,35dB
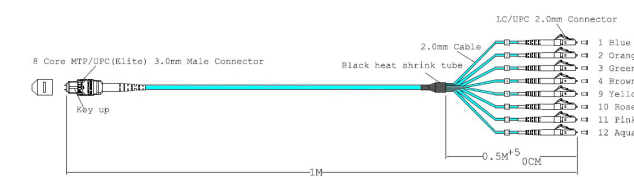Matrix: 8 fibers
Cable diameter single-connector: 900µm
Colour: OM4, OM3 and OS2 acc. to colour code DIN VDE 0888

Article-No.	Description	Connector	Fiber type
MTPM08LCOS2-0,4	MTP®-M/LC 8-fiber Fanout Cable OS2, LSZH yellow, 0,4m	MTP®-M/ LC	OS2 9/125
MTPM08LCOS2-1	MTP®-M/LC 8-fiber Fanout Cable OS2, LSZH yellow, 1m	MTP®-M/ LC	OS2 9/125
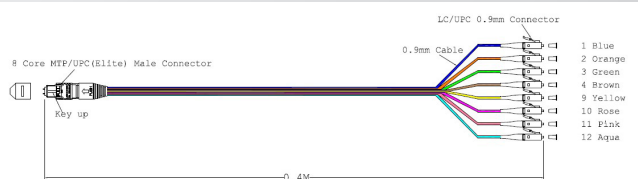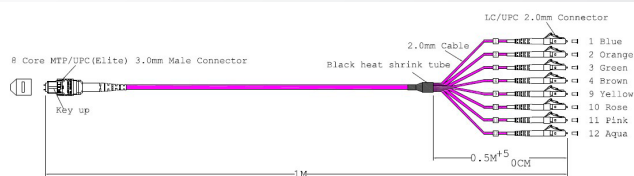
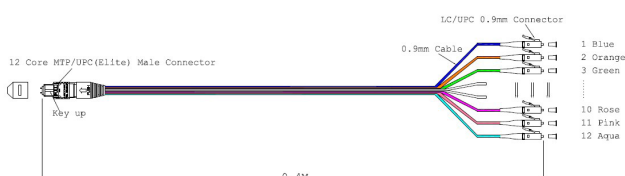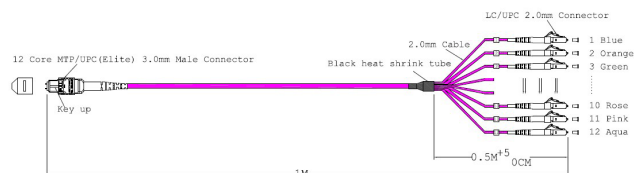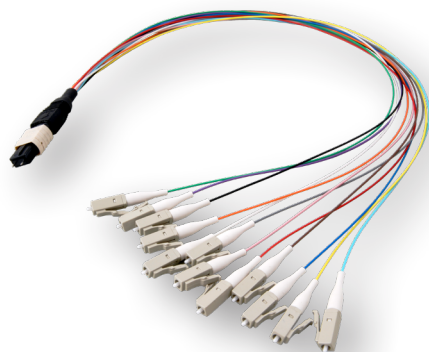## Fanout Cable MTP®-Male/LC 8-fiber OM4

Article-No.	Description	Connector	Fiber type
MTPM08LCOM4-0,4	MTP®-M/LC 8-fiber Fanout Cable OM4, LSZH erica-violet, 0,4m	MTP®-M/ LC	OM4 50/125
MTPM08LCOM4-1	MTP®-M/LC 8-fiber Fanout Cable OM4,LSZH erica-violet, 1m	MTP®-M/ LC	OM4 50/125

Fanout Cable MTP®-Male/LC 8-Fasermatrix OM3

Article-No.	Description	Connector	Fiber type
MTPM08LCOM3-0,4	MTP®-M/LC 8-fiber Fanout Cable OM3, LSZH aqua, 0,4m	MTP®-M/ LC	OM3 50/125
MTPM08LCOM3-1	MTP®-M/LC 8-fiber Fanout Cable OM3, LSZH aqua, 1m	MTP®-M/ LC	OM3 50/125

MTP® Fanout cable12-fiber

Fanout Cable MTP®-Male/LC 12-fiber OM4

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 single-connector: 900µm
Colour: OM4, OM3 and OS2 acc. to colour code DIN VDE 0888

| Article-No.	Description	Connector	Fiber type
MTPM12LCOM4-0,4	MTP®-M/LC 12-fiber Fanout Cable OM4, LSZH erica-violet, 0,4m	MTP®-M/ LC	OM4 50/125
MTPM12LCOM4-1	MTP®-M/LC 12-fiber Fanout Cable OM4, LSZH erica-violet, 1m	MTP®-M/ LC	OM4 50/125
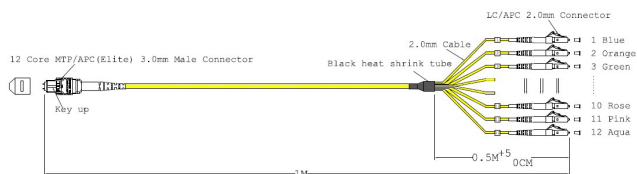
Fanout Cable MTP®-Male/LC/APC 12-fiber OS2

Article-No.	Description	Connector	Fiber type
MTPM12LCAPC-0,4	MTP®-M/LC/APC 12-fiber Fanout Cable OS2, LSZH yellow, 0,4m	MTP®-M/ LC/APC	OS2 9/125
MTPM12LCAPC-1	MTP®-M/LC/APC 12-fiber Fanout Cable OS2, LSZH yellow, 1m	MTP®-M/ LC/APC	OS2 9/125
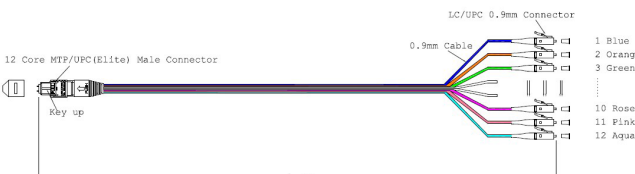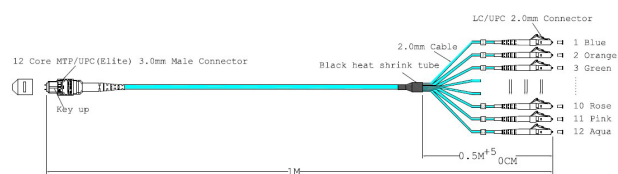
Fanout Cable MTP®-Male/LC 12-fiber OM3

Article-No.	Description	Connector	Fiber type
MTPM12LCOM3-0,4	MTP®-M/LC 12-fiber Fanout Cable OM3, LSZH aqua, 0,4m	MTP®-M/ LC	OM3 50/125
MTPM12LCOM3-1	MTP®-M/LC 12-fiber Fanout Cable OM3, LSZH aqua, 1m	MTP®-M/ LC	OM3 50/125

MTP® Adapters
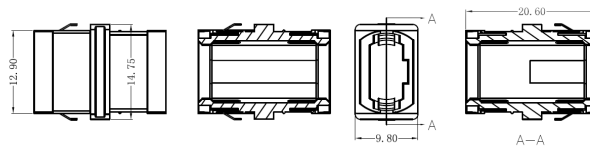
MTP® / MPO Adapter, black, flangeless SC Simplex

Type of connector connection 1:   MTP®/MPO
Type of connector connection 2:   MTP®/MPO
Design:............................. ....SC-Simplex
Type of housing:........................ ....flangeless
Type of fastening:....................... ....screw/lock
Sleeve material:........................ ....plastic

MTP®/MPO adapter, flangeless in SC Simplex dimension

Article-No.	Description	Suitable for type of fiber	Colour	Type
53458.1	MTP®/MPO adapter flangeless, codable up/up or up/down	Multimode/ Singlemode	black	PC/ APC

Hint:

The flangeless MTP® adapter 53458.1 can be used for front-side assembly of the FTTH-MODUL-xxxx for the distribution of 12-fiber direct connections. Furthermore, the adapter can be inserted into the Keystone adapter 37501xx.1 and adapted into any Keystone cut-outs (e.g. distribution panel, Keystone frame sets, etc.).
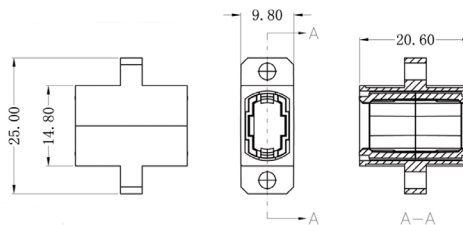

MTP® / MPO Adapter, black

Type of connector connection 1:   MTP®/MPO
Type of connector connection 2:   MTP®/MPO
Type of housing:........................ ....With flange
Type of fastening:....................... ....screw/lock
Sleeve material:........................ ....plastic

MTP®/MPO adapter

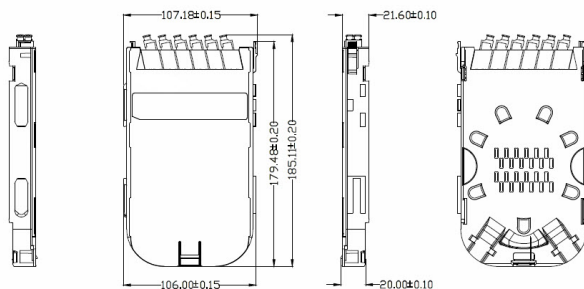| Article-No.	Description	Suitable for type of fiber	Colour	Type
53458.1V2	MTP®/MPO adapter with flange, codable up/up or up/down	Multimode/ Singlemode	black	PC/ APC

Hinweis:

The MTP® adapter 53458.1V2 can be used for rear mounting of the FTTH-MODUL-xxxx in order to use 12-fiber direct connections to the cassettes.
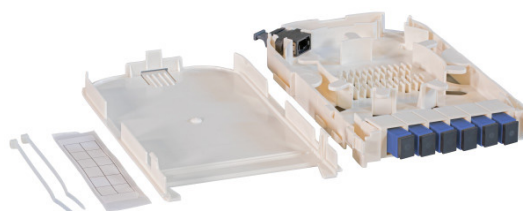
MTP® cassettes and racks

FTTH Cassette LC for FTTH-BGT

Suitable for 1HE and 3HE subrack FTTH-BGT-xHE
Pre-equipped with 6 LC-Duplex adapter in single mode, multimode OM4 or multimode OM3 with ceramic ferrule
Inclined outlet left/right for the 1HE version, top/bottom outlet for the 3HE version
Cable entry via MTP®/MPO coupling
Splice cassette (Shrink -and Crimpprotection) holder included in cassette for MTP®/ MPO free installation

Article-No.	Description	Quantity adapter	Adapter	APC
FTTH-MODUL-LCAPC	FTTH Module for FTTH-BGT, 12 Port LC/APC with OS2 ceramic adapter	6	LC duplex	Yes
FTTH-MODUL-LCOS2	FTTH Module for FTTH-BGT, 12 Port LC with OS2 ceramic adapter			No
FTTH-MODUL-LCOM4	FTTH Module for FTTH-BGT, 12 Port LC with OM4 ceramic adapter			No
FTTH-MODUL-LCOM3	FTTH Module for FTTH-BGT, 12 Port LC with OM3 ceramic adapter			No

FTTH Cassette SC for FTTH-BGT

| Article-No.	Description	Quantity adapter	Adapter	APC
FTTH-MODUL-SCOS2	FTTH Module for FTTH-BGT, 6 Port SC with OS2 ceramic adapter	6	SC	No
FTTH-MODUL-SCOM4	FTTH Module for FTTH-BGT, 6 Port SC with OM4 ceramic adapter			
FTTH-MODUL-SCOM3	FTTH Module for FTTH-BGT, 6 Port SC with OM3 ceramic adapter			

Hint:
The module inserts are equipped with SC or LC adapters, not with fanout cables and MTP® adapters.T
he reason: The splice variant can be used for shrink splice protection as well as for crimp splice protection via the integrated holder.When using it as an MTP® variant, the following must be taken into account when equipping it: Adapter 53458.1V2 must be integrated to create the connection. The associated fan-out cable must be selected according to the category.

**Example:** FTTH-MODUL-LCOS2   53458.1V2   MTPM12LCOS2-0,4
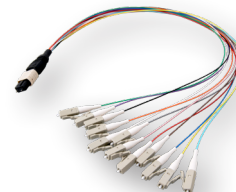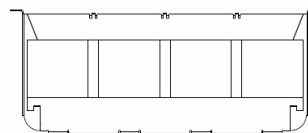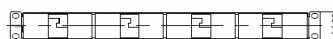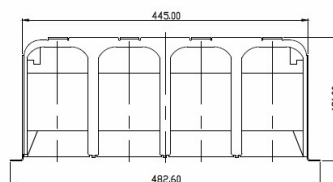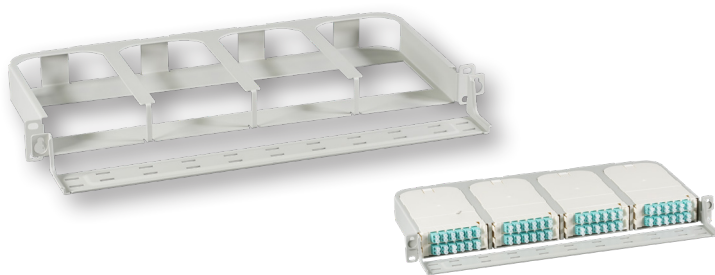
FTTH 19" 1U Subrack for 8x Module FTTH-MODUL-X

19" subrack for FTTH-MODUL-XX (delivery without modules)
Up to 96 LC ports to 1 unit
with front-sided cable tray
delivery without modules

Article-No.	Description	Max. Modules	Max. Ports	Colour	Width x Height x Depth
FTTH-BGT-1HE	FTTH 19" 1U Subrack for 8x Module FTTH-MODUL-X incl. cable management	8	96 LC / 48 SC	grau	483mm x 44,5mm x 190mm
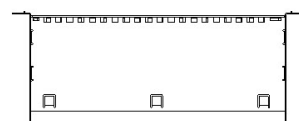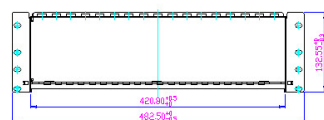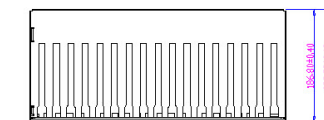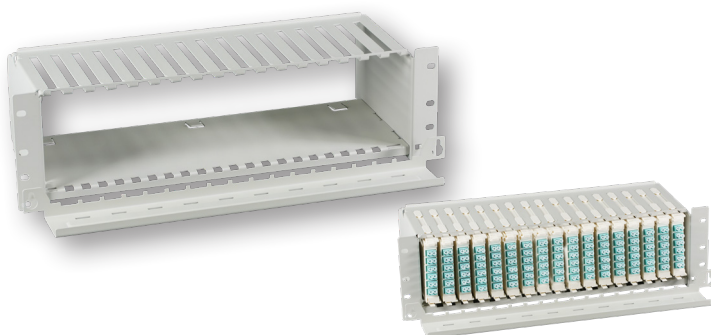
FTTH 19" 3U Subrack for 17x Modul FTTH-MODUL-X

19" subrack for FTTH-MODUL-XX (delivery without modules)
Up to 204 LC ports to 3 units
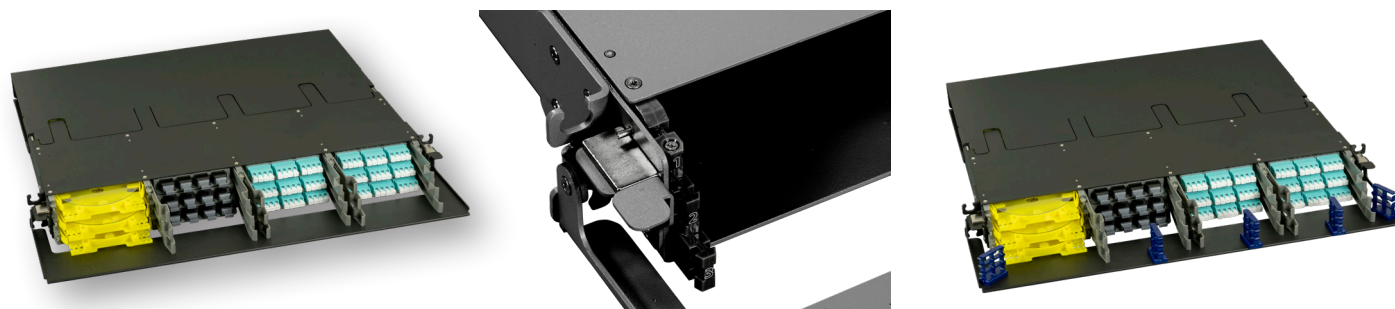with front-sided cable tray
delivery without modules

Article-No.	Description	Max. Modules	Max. Ports	Colour	Width x Height x Depth
FTTH-BGT-3HE	FTTH 19" 3U Subrack for 17x Moduk FTTH-MODUL-X incl. cable management	17	204 LC / 102 SC	grey	483mm x 135mm x 190mm

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
Front-side cable management
Note for cabinet installation: Construction height to the front is 120mm
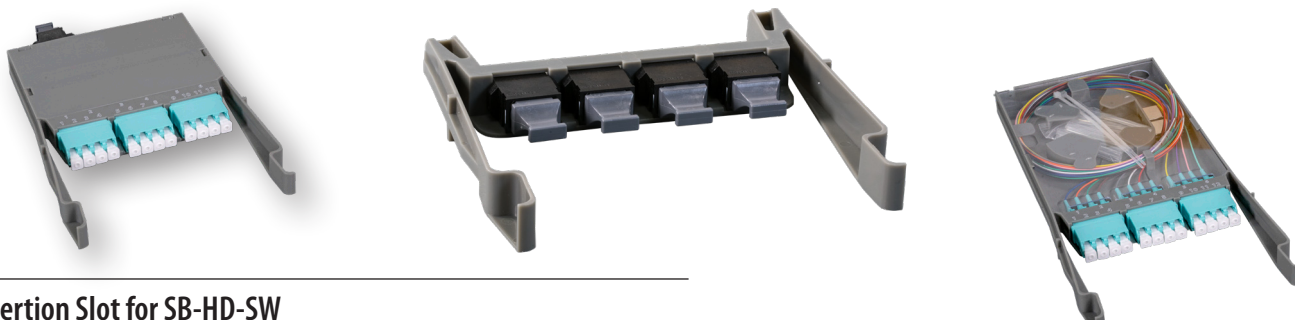Covers lock magnetically
Magnetic cable guides included in delivery
Delivery unequipped
Insertion cassettes for example in the variants feedthrough, spliceable,
MTP®/MPO

Article-No.	Description
SB-HD-SW	HD Splice Box, modular equipable up to 144 port on 1U

Insertion Slot for SB-HD-SW

Insertion cassette for SB-HD-SW
equipped with OM3 pigtails an adapters

Article-No.	Description	Type
SB-HD-ME-3SCD	Insertion slot for SB-HD-SW, 3x LC Quad / 1 x MTP®/MPO	Cassette front side with LC adapters and rear side with MTP® adapters. Pigtails in OM3 are connected
SB-HD-ME-3SCD-SVB	Insertion slot for SB-HD-SW, 3x LC Quad, splice modul	Cassette front side with LC adapters and rear side with cable entry. Pigtails in OM3 are connected
SB-HD-ME-4MTP	Insertion slot for SB-HD-SW, 4x MTP®/MPO, feed through	Cassette equipped with 4 MTP® adapters equipped
SB-HD-ME-SVB	Insertion slot for SB-HD-SW, for 24x thermo splices	Cassette for connecting incoming and outgoing cables with integrated splice holder

MTP® Transceiver

QSFP+ 40GBASE-SR4, 4x10.5GBPS MPO

The QSFP+ transceiver are for 40 Gigabit Ethernet connections over 850nm
multimode fibers designed. They are according to QSFP+ MSA, IEEE 802:3ba
40GBASE-SR4 and 4 x 10GBASE-SR. Additionally the transceiver features
digital diagnostic functions and has optical power monitoring.

Up to max. of 40Gb/s, 10,5Gb/s per channel
4-channel full duplex transceiver module
maximum range: 150 m (OM4), 100 m (OM3), 30 m (Om2)
Hot-pluggable QSFP+ design
Mating face: 1 x 12 MPO female
Max. power consumption 1.2 W
Reliable VCSEL technology
RoHS compliant

Article-No.	Description	Connector	Medium	Wave length	Link distance	Temperature	Speed
FTL410QE3C	QSFP+ 40GBASE-SR4, 4x10.5GBPS MPO,OM3 100m/OM4 150m	MPO	Multimode	850nm	100m/150m	-10°C – 70°C	40G

QSFP28 100Gigabit Ethernet 100Gbit/s

Transceivermodule (uncodiert) für Ethernet Netzwerk Applikationen von
100Mbit/s bis 100Gbit/s.
Aktive Komponenten der Kategorie SWITCH oder ROUTER können mit ent-
sprechenden Transceivermodulen bestückt werden, sofern die
Übertragungsgeschwindigkeiten auch unterstützt werden.
Anwendungsgebiete: Ethernet - Infiniband - Fiberchannel - Storage Area
Networks - Local Area Networks - Datacenter

**Transceiver QSFP28 100Gigabit MM 100Gbit/s 100GBaseSR4 25Gx4
MPO/MTP12 0 .. +70°C Multimode OM4 100m**

| Article-No.	Description	Connector	Medium	Wave length	Link distance	Temperature	Speed
FTLC9551REPM	100m Parallel MMF 100G QSFP28 Optical Transceiver	MPO	Multimode	850nm	100m	0°C – 70°C	100G

MTP® applications

MTP® channel setup:

■ To build up a transmission link from an MTP® QSFP switch to a floor distribution with LC SFP modules, a migration from e.g. 100G MTP® to 4 x 25G on LC basis is realised.

■ For cabling, an MTP® harness cable in 8-fiber is used to keep the cabling effort as low as possible.

■ In addition, there is a collection point for MTP® to which an MTP® cable is connected in 12-fiber.

■ Another collection point is located at the other end in order to be able to convert from MTP® to LC again.

Component selection:
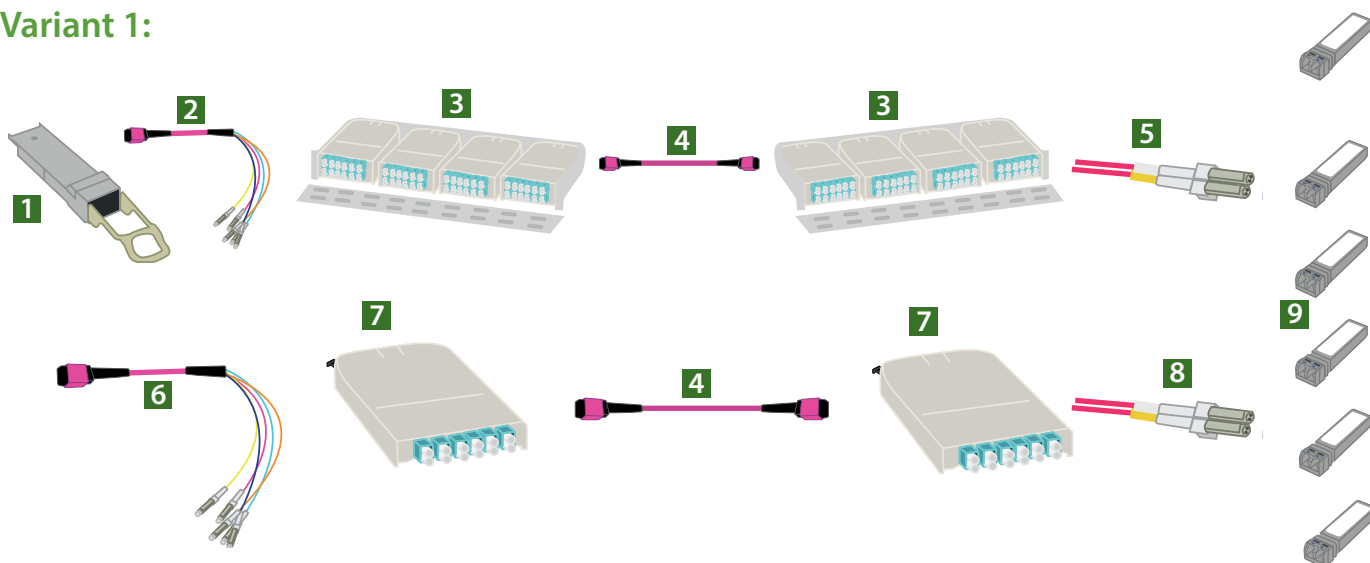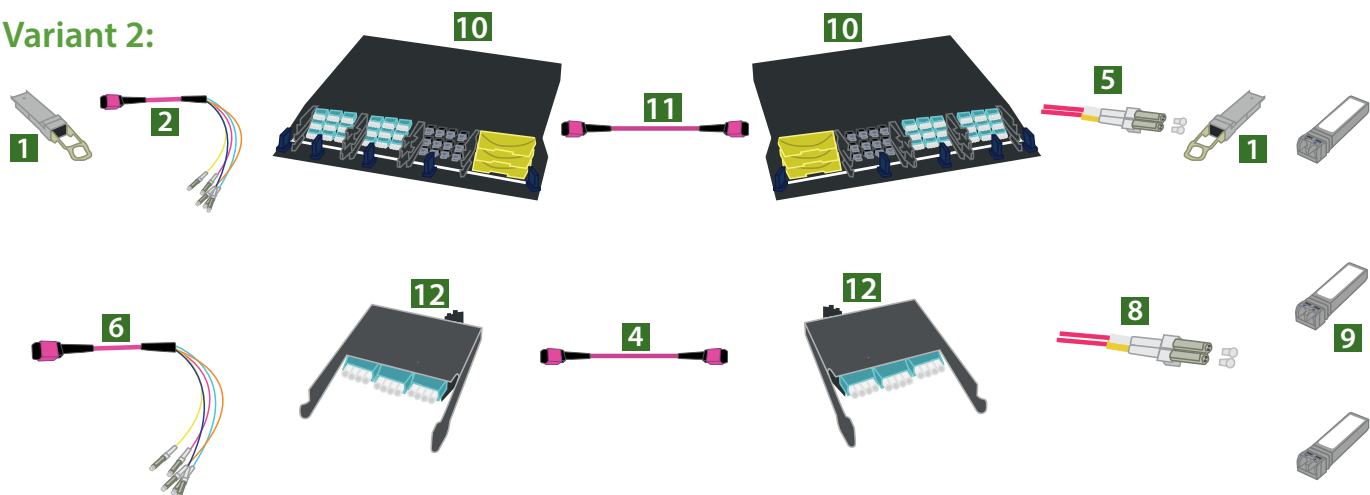
Variant 1:

Variant 2:

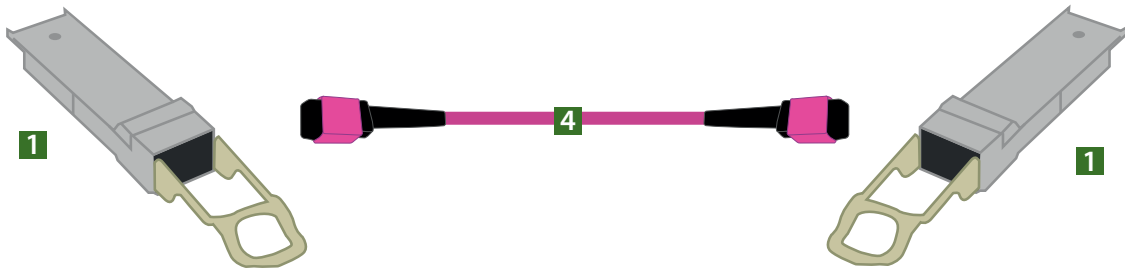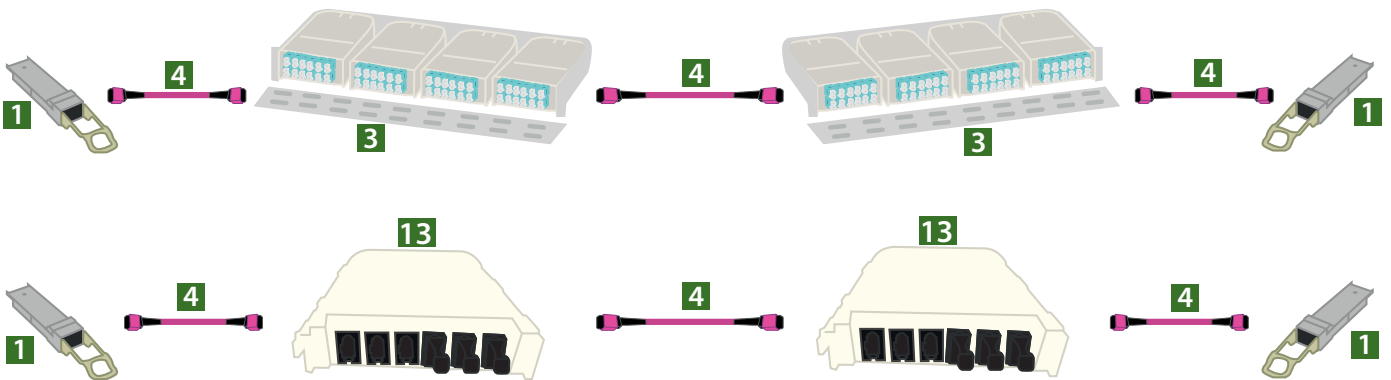|			
1 Product on page 16	**4** Product on page 7 - 10	**7** Product on page 14	**10** Product on page 15
2 Product on page 4 - 6	**5** Product on page 19	**8** Product on page 19	**11** Product on page 7 - 10
3 Product on page 15	**6** Product on page 4 - 6	**9** Product on page 16	**12** Product on page 16

Direct Connect

A „Direct Connect" is used, for example, when a backup connection is to be established. In this case, it must be ensured that one type B coded MTP® cable is used per route.
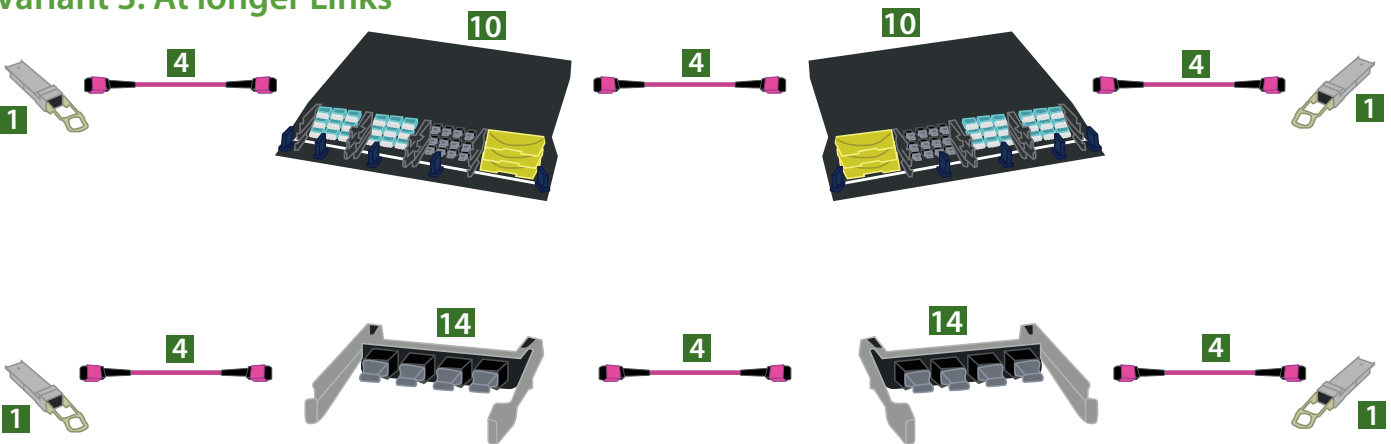
Component selection:

Variant 1:

Variant 2: At longer Links

Variant 3: At longer Links

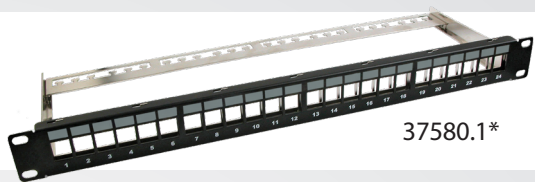|			
1 Product on page 16	**10** Product on page 15
3 Product on page 15	**13** Product on page 13
4 Product on page 7 - 10	**14** Product on page 16

Additional accessories

	Distribution Panel 19" 1HE 24 Port
37580.1*	

	Plastic frame for Keystone black, for flangeless adapters
37501SW.1*	

	Frame set 1-port for keystones, DIN49075
ET-25087V2*	

	Keystone module holder for DIN rail, stainless steel, 1-port
ET-25184.V2*	

	Keystone mounting frame 1-port
ET-25188.1*	

	Keystone distribution box
ET-25174.1*	

	Keystone distribution box surface-mounted, dust protection self-closing
ET-25166*	

	Duplex Jumper HD Uniboot LC-LC
DJP-LCLCxx-UNI-x	
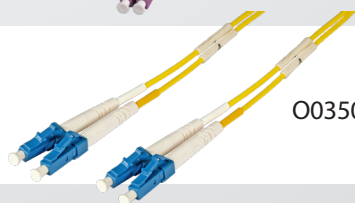
	Duplex Jumper LC-LC
O0350.x	

*Articles must be used in combination with the adapter 37501SW.1

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