

PRODUCTPROFILE

Catalogue number: 076A0112OM4

Partnumber: 755219

Cable I-F(ZN)H(ZN)H8G50/125μOM4

PreCONNECT® OCTO MTP-Harness
4 channels, 8 fibers, 50/125μOM4
MTP12female/4xLC-Compact
LC-Compact leg lengths = 0,5m
MTP leg length = total length - 0,5m
Polarity: Rx to Tx
Color: violet



Related documents:

DS_FASER OM4BI_OE	Fiber Data Sheet
DS_I-FZNHZNH_L_OE	Cable Data Sheet
DS_LC_COMPACT_STECKER_SHORT_C	Steckerdatenblatt
DS_MTPNX12_STECKER_OE	Steckerdatenblatt
PRECONNECT_OCTO_OE	Product Information



Standards

Graded index fiber 50/125µm according to
 -ISO/IEC 11801 und EN 50173-1 OM4
 -IEC 60793-2-10 type A1a.3
 -ITU G.651.1
 -TIA/EIA 492AAAD

Structure

Silica fiber with two layer acrylate primary coating

Geometrical properties

Core diameter	50 µm +/- 2.5 µm
Cladding diameter	125 µm +/- 1 µm
Core non-concentricity	< 5 %
Cladding non-circularity	< 1 %
Core-Cladding concentricity	< 1.5 µm
Primary coating diameter	242 µm +/- 5 µm
Coating-Cladding concentricity	< 12 µm

Mechanical properties

Break strength SCREEN-Test 1 % strain for 1 s @100 kpsi

Thermal properties

Operating temperature range -60 to +85°C

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Transmission characteristics

Attenuation:

@ 850 nm max. 2.3 dB/km
@ 1300 nm max. 0.6 dB/km

Macrobending, induced attenuation:

100 turns, 37.5 mm \leq 0.05 dB @ 850 nm
100 turns, 37.5 mm \leq 0.15 dB @ 1300 nm
2 turns, 15 mm \leq 0.1 dB @ 850 nm
2 turns, 15 mm \leq 0.3 dB @ 1300 nm
2 turns, 7.5 mm \leq 0.2 dB @ 850 nm
2 turns, 7.5 mm \leq 0.5 dB @ 1300 nm

Bandwidth (Overfilled launch):

@ 850 nm min. 3500 MHz x km
@ 1300 nm min. 500 MHz x km

Effective modal Bandwidth-length-product (EMB):

@ 850 nm min. 4700 MHz x km

Numerical aperture: 0.200 +/- 0.015

Effective group index of refraction:

@ 850 nm 1.480
@ 1300 nm 1.479

Backscatter attenuation @ 1ns pulse width:

@ 850 nm -68 dB
@ 1300 nm -76 dB

Maximum possible transmission channels lengths:

Ethernet:

1 GBE 100GBASE-SX: min. 1100 m @ max. 3.56 dB channel attenuation ¹⁾
10 GBE 10GBASE-SR: min. 550 m @ max. 2.60 dB channel attenuation ¹⁾
40 GBE 40GBASE-SR4: min. 170 m @ max. 1.50 dB channel attenuation ¹⁾
100 GBE 100GBASE-SR10: min. 170 m @ max. 1.50 dB channel attenuation ¹⁾

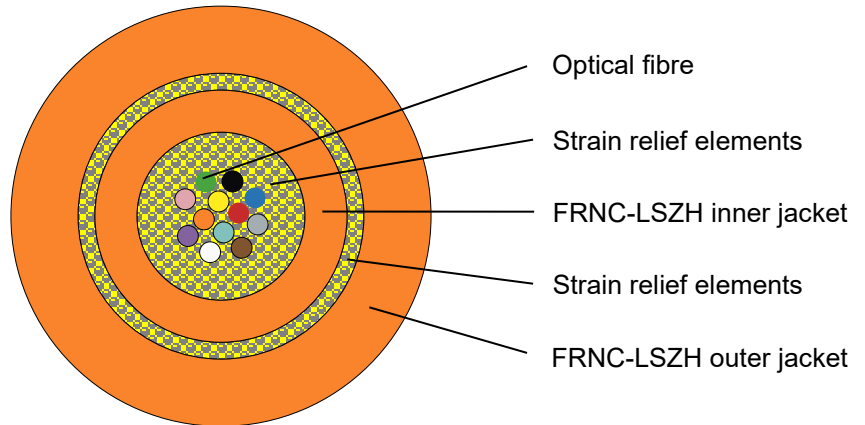
Fibre Channel:

8 GFC (800-SN): min. 245 m @ max. 1.76 dB channel attenuation ¹⁾
16 GFC (1600-SN): min. 165 m @ max. 1.51 dB channel attenuation ¹⁾

¹⁾ Inclusive max. 1.0 dB for connections (connectors and splices)

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Draft	Date	Approved	Date	Rev.	Engineering change number	Name	Date
H. Jungbäck	26-10-15	P. Maier	26-10-15	004	without	H. Jungbäck	26-10-15



Standards

- IEC 60794-2
- EN 50575:2014 +A1:2016: Number of Declaration of Performance:
 - 8 fibers B2ca CDEAL0000115-V1
 - 12 fibers B2ca CDERF0000079-V2
 - 16 fibers B2ca CDEAL0000110-V1
 - 24 fibers Dca CDERF0000020-V2

Structure

- Cable:**
- Double jacket cable
 - Up to 24 optical fibers within the inner cable jacket filled with Aramid strain relief elements
 - Aramid strain relief elements between inner and outer cable jacket
 - Fiber color code 1 to 12: red, green, blue, yellow, white, grey, brown, violet, turquoise, black, orange, pink
 - Fiber color code 13 to 24: red, green, blue, yellow, white, grey, brown, violet, turquoise, transparent, orange, pink, all with black ring-marking

- Inner and outer jacket:**
- FRNC-LSZH flame-retardant and halogen-free material
 - Standard jacket colors:
 - Singlemode: yellow
 - Multimode OM2: orange or green
 - Multimode OM3: aqua (turquoise)
 - Multimode OM4: violet
 - Multimode OM5: fibrous green
 - Wall thickness see geometrical properties
 - Inkjet marking black acc. to separate drawing

Geometrical properties

Number of fibers	Diameter [mm]		Jacket wall thickness [mm]		Weight [kg/km]	Fire load [MJ/m]
	Inner	Outer	Inner	Outer		
8	3.0	4.5	0.55	0.5	21	0.40
12	3.0	4.5	0.55	0.5	21	0.40
16	3.0	4.5	0.55	0.5	21	0.40
24	4.5	6.0	1.0	0.5	36	0.65

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Mechanical properties

- Min. bending radius fixed (static) acc. IEC 60794-1-2 E11A
15 x outside diameter
- Min. bending radius during installation (dynamic) with additional tensile strain acc. IEC 60794-1-2 E6
20 x outside diameter
- Max. tensile force acc. IEC 60794-1-2 E1 short term = 1000 N
- Max. crush resistance acc. IEC 60794-1-2 E3 long term = 300 N/dm

Thermal properties

- Transport and storage - 25°C to + 70°C
- Installation - 5°C to + 50°C
- In use acc. IEC 60794-1-2 F1 - 10°C to + 70°C

Chemical properties

No resistance to oil, petrol, acid, leach and water

Fire performance

- Flame-retardant acc. to IEC 60332-1-2 and IEC 60332-3-22 Cat.A
- Smoke density acc. to IEC 61034
- Halogen-free acc. to IEC 60754-1
- Acidity of the combustion gases acc. to IEC 60754-2
- Fire Class according EN 13501-6: 8, 12 and 16 fibers B_{2CA}/s1a/d1/a2, 24 fibers D_{CA}/s2/d2/a2

Transmission characteristics

See fiber data sheets

Applications

Indoor cable particularly appropriate for long MTP®/MPO Patchcords and Harnesses

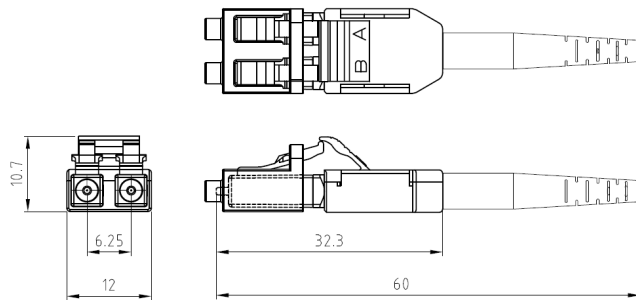
Deliveryform

On one-way drums

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Draft	Date	Approved	Date	Rev.	Engineering change number	Name	Date
H. Jungbäck	2015-11-05	P. Maier	2015-11-05	005	without	H. Jungbäck	2021-11-22

LC-COMPACT Shortboot connector



Properties and applications

- LC-Duplex connector with compact and rugged backshell with short central strain relief and boot for round cable (Uniboot)
- A/B polarity can be easily tool-less changed
- The short boot enables the use of the connector in applications with low depth, like ODF Optical Distribution Frames
- Translucence duplex protection cap, fast and secure to handle and permeable for the light of laser pointers (visual fault locators)

Standards

LC-Duplex acc. to IEC/DINEN 61754-20 and EIA/TIA 604-10

Material

- Ferrule: Zirconia ceramic, Ø 1.25 mm
- Body: PEI, flammability UL94-V0
- Boot: TPE, flammability UL94-V0
- Protection cap: POM, flammability UL94-HB

Optical properties

The quality feature of the connector at your product is identified by the part number:

- BASIC: Part numbers like XXXAXXXX
- PURE: Part numbers with "P" at their end, XXXAXXXXP

Details about PURE see Produktinfo_Qualitätsmerkmal-PURE_od

Insertion Loss IL acc. to IEC61300-3-4, Method B, against reference, maximum [dB]:

	Quality feature	BASIC	PURE
- Singlemode SM, 9/125µm		0.30	0.20
- Multimode OM1, 62.5/125µm		0.30	---
- Multimode low IL OM2, OM3, OM4, OM5, 50/125µm		0.15	0.15

Insertion Loss IL „random mated“ acc. to IEC61300-3-34, Method 2, [dB]:

Quality feature	BASIC	mean value	maximum
- Singlemode SM, 9/125µm		0.13	0.50
- Multimode low IL OM2, OM3, OM4, OM5, 50/125µm		0.03	0.27

Insertion Loss IL quality feature PURE "random mated" application limit value, maximum [dB]:

- Singlemode SM, 9/125µm	97%	0.25
- Multimode low IL OM2, OM3, OM4, OM5, 50/125µm	100%	0.40

GHMT PVP certificate
No.: c6997X-XX
No.: c6998X-XX



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LC-COMPACT Shortboot connector

Optical properties

Return Loss RL acc. to IEC61300-3-6, Method 1, against reference, minimum [dB]:

	Quality feature	BASIC	PURE
- Singlemode SM, 9/125µm, PC 0°		45	45
- Singlemode SM, 9/125µm, UPC 0°		55	55
- Singlemode SM, 9/125µm, APC 8°		65	70
- Multimode all classes		35	40

Mechanical properties

- Mating cycles min. 1000, IL increase < 0.2 dB
- Strain relief max. 100 N, dependent on cable type

Thermal properties

- Operation temperature range -40°C to +85°C, dependent on cable type
- Storage temperature range -40°C to +85°C

Cable diameters

- Round cable types Ø 2.0 to 3.0 mm

Colors

Connector body / boot:

- Singlemode SM, 9/125µm, PC and UPC 0° blue / blue
- Singlemode SM, 9/125µm, APC 8° green / green
- Multimode OM1, 62.5/125µm beige / white
- Multimode OM2, OM3, OM4, OM5, 50/125µm black / black

Polarity change

1) Remove the connector top cover by inserting a fingernail or a small lever into the crack that separates the two halves.

2) Carefully swap position of the connectors by lifting them up and out of the bottom housing.

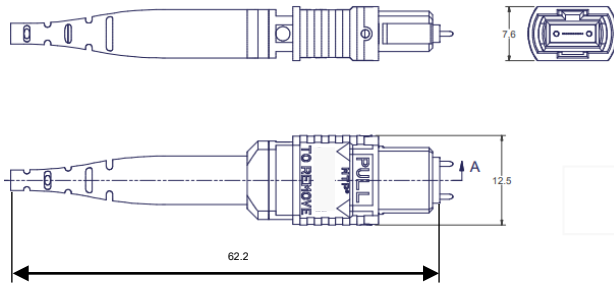
3) Reposition the top cover and snap into place.



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Draft	Date	Approved	Date	Rev.	Engineering change number	Name	Date
H. Jungbäck	2018-12-13	A. Burggraf	2018-12-13	009	----	H. Jungbäck	2022-10-07

MTP® (MPO) connector n x 12 fibers



Properties and applications

- MTP® (MPO) multi-fiber connector up to 72 fibers, based on n x 12 fiber MT ferrules, with strain relief and boot for round cable
- Centric coding-key
- Multimode MTP® (MPO) are acc. to world standard PC 0° polished, Singlemode APC 8°
- Polarity and gender can be changed acc. to USCONEC AEN-1405
- ¹⁾ With MTP® PRO protection cap, debris-repellent (better than anti-static), non-outgassing, halogen-free

Standards

IEC 61754-7 and EIA/TIA 604-5

Material

- Ferrule: PPS filled with glass particles
- Body: PBT, flammability UL94-V0
- Boot: TPO, flammability UL94-V0
- Protection cap: TPO, flammability UL94-V0

Optical properties

The quality feature of the connector at your product is identified by the part number:

- BASIC: Part numbers like XXXAXXXX
- PURE: Part numbers with "P" at their end, XXXAXXXXP

Details about PURE see Produktinfo_Qualitätsmerkmal-PURE_od

Applied USCONEC ferrule qualities:

	Quality features	BASIC	PURE
- Singlemode SM, 9/125µm all numbers of fibers		Standard	Elite
- Multimode OM2, OM3, OM4, OM5, 50/125µm up to 12 fibers		Elite	Elite
- Multimode OM2, OM3, OM4, OM5, 50/125µm larger 12 fibers		Standard	Elite

Insertion Loss IL acc. to IEC61300-3-4, Method B, against reference, maximum [dB]:

	Quality features	BASIC	PURE
- Singlemode SM, 9/125µm, Standard ferrule		0,40	---
- Singlemode SM, 9/125µm, Elite ferrule		0.35	0.25
- Multimode OM2, OM3, OM4, OM5, 50/125µm, Elite ferrule		0.35	0.25
- Multimode OM2, OM3, OM4, OM5, 50/125µm, Standard ferrule		0.60	---

Insertion Loss IL „random mated“ in application

Multimode OM2, OM3, OM4, OM5, 50/125µm, Elite ferrule [dB]:

- 12 fibers and OCTO 4+4	89% lower 0.25
- 24 fibers	80% lower 0.25

GHMT PVP certificates
 No.: c6955X-XX
 No.: c6956X-XX



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MTP® (MPO) connector n x 12 fibers

Optical properties

Insertion Loss IL quality feature PURE "random mated" application limit value, average value [dB]:

- Singlemode SM, 9/125µm 0.15
- Multimode OM2, OM3, OM4, OM5, 50/125µm 0.15

Return Loss RL acc. to IEC61300-3-6, Method 1, against reference, minimum [dB]:

	Quality feature	BASIC	PURE
- Singlemode SM, 9/125µm, APC 8°		55	70
- Multimode all OM classes, PC 0°		30	30

Mechanical properties

- Mating cycles min. 500, IL increase < 0.2 dB
- Strain relief max. 100 N, dependent on cable type

Thermal properties

- Operation temperature range -40°C to +85°C, dependent on cable type
- Storage temperature range -40°C to +85°C

Cable diameters

- Round cable types Ø 2.0 to 4.5 mm

Colors

Connector body / boot:

- Singlemode SM, 9/125µm, APC 8° green / black
- Multimode OM2, OM3, OM4, OM5, 50/125µm black / black

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Draft	Date	Approved	Date	Rev.	Engineering change number	Name	Date
Y. Zhang	2017-03-31	H. Jungbäck	2017-03-31	005	---	H. Jungbäck	2022-10-07

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PreCONNECT® OCTO MTP®

PRODUCT INFORMATION



PreCONNECT® OCTO MTP® solution is available in two end face quality features: BASIC and PURE**Define the end-face quality according to your application requirements:**

Quality feature BASIC is our well-proven, high-grade, standards compliant product in terms of end-face geometry, defect, and cleanliness, providing excellent IL and RL performance:

- The PreCONNECT® factory-assembled plug & play system enables quick and reliable, cost efficient, installation and performance
- Harmonized modular components of the quality feature BASIC solution ensure end to end performance of the entire channel



Quality feature PURE is the enhanced version of our quality feature BASIC, but with more stringent defect and cleanliness screening and factory sealed, tamper evident adapter-interfaces.

- Guaranteed protection of the polished connector end-face against contamination and damage through sealed adapter-interfaces, enabling time savings during initial installation and commissioning due to the elimination of the need for cleaning and testing*/**.
- Quality feature PURE provides an industry leading low random mate insertion and return loss (mean) which enables up to six (6) mated pairs in a 10G/OM4 application up to 300m.

Part numbers:

Quality feature BASIC: The part numbers XXXAXXXX listed in this document are valid for the BASIC quality feature.

Quality feature PURE: Add a "P" to the end of the quality feature BASIC part number (*Example: XXXAXXXXP*)

(Note: PURE trunk cables have factory attached sealed coupling adapters incorporated and thus utilize empty patch panels and enclosures)

** While Rosenberger does not require permanent link or channel testing for warranty registration of PURE installations due to guaranteed performance, certain customers will require testing documentation for their records.*

*** Only applicable when all components are of quality feature PURE and installed by trained PURE installers.*

Applications:

Infrastructure and IT room cabling within data centers

System consists of:

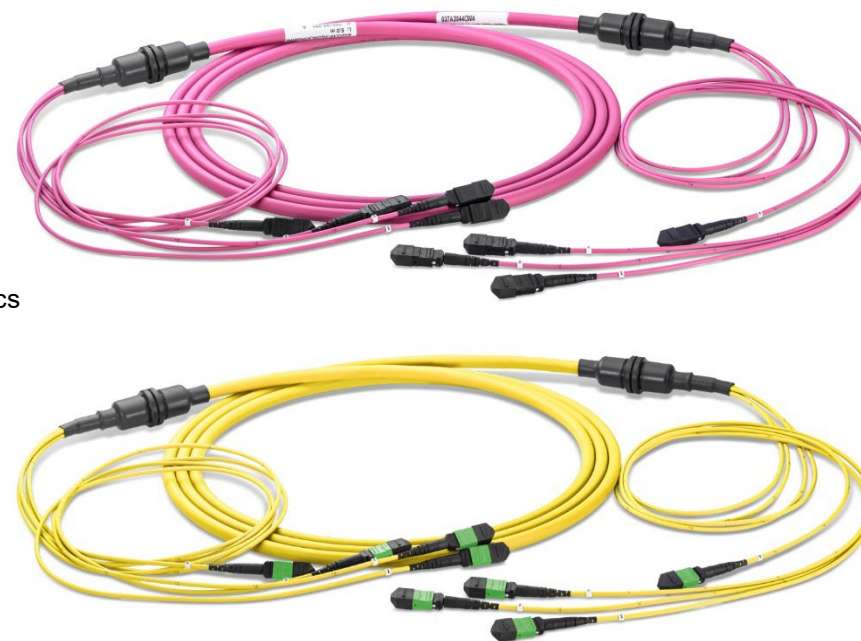
- Factory assembled fiber optic breakout cables, FRNC-LSZH indoor cables, up to 192 fibers with connector systems MTP® 4+4 fiber OCTO per MTP® channel
- MPO/MTP® Port-breakout with MTP® - LC and MTP® - MDC harnesses, MTP® module cassettes with LC and MDC front, and MTP® - LC Port-Breakout-Units

Features:

- For all who already have on minimum one cabling side MPO4+4 based parallel optics SR4 and DR4/PSM4 transceivers
- Cost and attenuation optimized for SR4 and DR4/PSM4 applications

Your benefits at a glance:

- MTP® cabling system perfectly fitting for SR4 and DR4/PSM4 applications
- Cost reduction through the only for SR4 and DR4/PSM4 needed 8 fibers instead of the so far usual 12 are in one MTP® channel
- Fast and safe installation through factory assembled plug & play systematic
- Highest quality and cost-efficiency through factory assembling
- PreCONNECT® cabling systems consist of perfectly harmonized modular single components



Application:

MTP® (MPO) based data center cabling with 8 fibers per MTP® channel:

Optimized for parallel optics MPO 4+4 fiber applications:

- 40/100/200 GBASE-SR4
- 400GBASE-SR4.2 BiDi
- 4x16, 4x32 and 4x64 GFC
- 100GBASE DR4/PSM4
- 200GBASE-DR4
- 400GBASE-DR4
- 4x10 GBASE-LR



Easy migration to higher speed applications.

System description:

Our PreCONNECT® OCTO cabling system consists of:

- OCTO breakout trunk called factory assembled FO cables with up to 24 SR4 or DR4/PSM4 MTP® channels (24x8=192 fibers).
- 19" panel systems with part front plates with MTP®/MPO adapters, OCTO module cassettes and MTP® - LC Port-Breakout-Units
- OCTO patchcords and harnesses
- Useful accessories
- Patch location racks

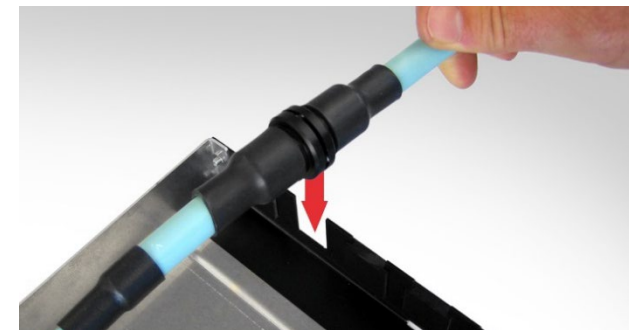
Rosenberger OSI brought already 1991 high fibercount factory assembled FO trunk cables to the market. PreCONNECT® STANDARD was the first in Europe developed and manufactured, high fibercount and modular „plug & play“ FO cabling system and already 1997 we have been the first manufacturer of MTP® cabling systems in Europe.

Properties:

PreCONNECT® square interface and installation protection:

PreCONNECT® OCTO breakout trunks have PreCONNECT® square interfaces on both sides which can be tool-less hooked into the 19" panel systems for tensile and torsion resistant fixing of the trunks.

The trunk connector legs are fitting for the 19" panel systems and are packaged in non-pull resistant dust-proof foil tubes. On request with tensile strength, crush resistant, kink and torsion resistant, installation tubes deliverable.



Installation Tube Indoor, IP50 dustproof



Properties:

Connector types:

- OCTO breakout trunks: MTP® and MTP® PRO male 4+4 fiber OCTO
- OCTO patchcords, multijumpers, harnesses and module cassettes: MTP® and MTP® PRO female 4+4 fiber OCTO

Adapter types:

- MTP® multimode: TIA type B “aligned key” „1 to 12“ grey
- MTP® singlemode TIA type A “opposed key” „1 to 1“ green
- Description of the adapter types A and B see last pages of in this document

Polarity:

- OCTO breakout trunks: TIA Method B „1 to 12“
- OCTO patchcords, harnesses and module cassettes: see pages of the products

Cable types:

- PreCONNECT® OCTO breakout trunks: I-F(ZN)H(ZN)H 8 fibers CPR class B2ca and I-F(ZN)HH n x 8 fibers CPR class Cca
- PreCONNECT® OCTO patchcords and harnesses I-F(ZN)H and I-F(ZN)H(ZN)H 8 fibers
- Cable data, see separate cable data sheets

Fiber types:

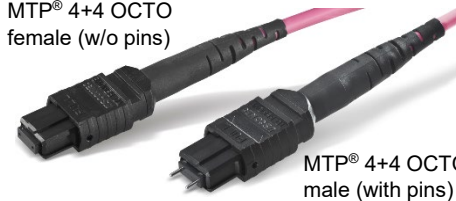
- Multimode OM4 and OM5 bend-insensitive
- Singlemode G.657.A1 bend-insensitive and backwards compatible to G.652.D
- Fiber data, see separate fiber data sheets

Operating temperature range: -10°C to +60°C

Delivery form:

- Dependent on the length as cable ring or on cardboard or wooden drum
- Insertion loss and return loss measured acc. to IEC 61300-3-4, method B, MM 850/1300nm and SM 1310/1550nm, with measurement protocol
- Product label with serial number at both sides

MTP® 4+4 OCTO female (w/o pins)



MTP® 4+4 OCTO male (with pins)



MTP® 4+4 OCTO female (w/o pins)



MTP® PRO 4+4 OCTO male (with pins)



Info about MTP® PRO
<https://www.usconec.com/featured-products/mtp-pro-connectors>

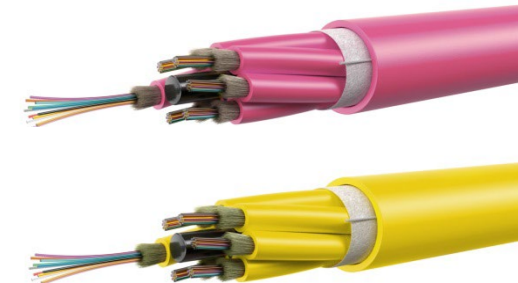
TIA type B “aligned key” „1 to 12“ grey



TIA type A “opposed key” „1 to 1“ green

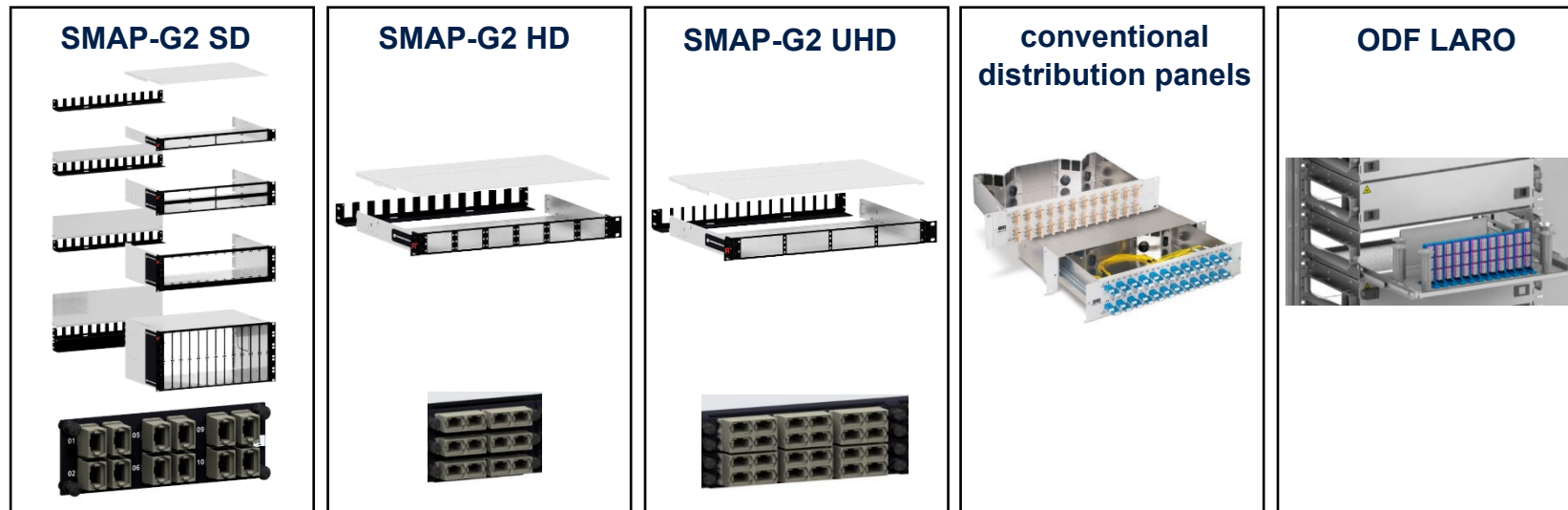


I-F(ZN)HH 6 x 8 fiber breakout cable



Application of PreCONNECT® OCTO Trunks and Patchcords with MTP® and MTP® PRO in our 19" panel systems and Trunk leg lengths:

19" panel systems	MTP® port density per HU	Trunks with MTP®	Trunks with MTP® PRO	Patchcords with MTP®	Patchcords with MTP® PRO	Trunk leg lengths
SMAP-G2 SD	48	✓	✗	✓	✗	standard stepped "A length legs"
SMAP-G2 HD	72	✓	recommended	✗	✓ required	
SMAP-G2 UHD	96	✗	✓ required	✗	✓ required	
Conventional	24	✓	✗	✓	✗	standard stepped "A length legs"
ODF LARO	144 in 5 ETSI HU	✓	recommended	✗	✓ required	extended stepped "E length legs"



MTP® female



MTP® PRO female



Info about MTP® PRO
<https://www.usconec.com/featured-products/mtp-pro-connectors>

PreCONNECT® OCTO OM4 and OM5 breakout trunk:

- Breakout cable n x 8 OM4 or OM5 fibers FRNC-LSZH
- **MTP® 4+4 OCTO**, MM, male, Elite quality
- Polarity TIA method B “1 to 12”
- MTP® leg-length = standard stepped

Length definition:

- Order length = length between the connectors of the longest legs at both sides, not between the PreCONNECT® square interfaces.
- Possible order-lengths: From 5 to 2000 meter

Part numbers, length variable:

Number of OCTO channels	Part numbers OM4	Part numbers OM5	Cable structure	Number of fibers	Cable CPR class
1	037A0110OM4	037A0110OM5	1 x 8	8	B2ca
2	037A2048OM4	037A2048OM5	2 x 8	16	Cca
4	037A2049OM4	037A2049OM5	4 x 8	32	Cca
6	037A2089OM4	037A2089OM5	6 x 8	48	Cca
8	037A2050OM4	037A2050OM5	8 x 8	64	Cca
12	037A2051OM4	037A2051OM5	12 x 8	96	Cca
18	037A2088OM4	037A2088OM5	18 x 8	144	tbt.
24	037A2067OM4	037A2067OM5	24 x 8	192	tbt.

Technical data of connectors, fibers and cables on request via the product profile of your selected trunks.

MULTIMODE



MTP® 4+4 OCTO male (with pins)

Length tolerance:

Trunk length	Tolerance
<= 10m	+/- 50cm
> 10m <= 30m	+/- 100cm
> 30m <= 100m	+/- 150cm
> 100m	+/- 2%

OM5 is only needed for 400GBASE-SR4.2 BiDi channel lengths 101 to 150 meter. OM5 OCTO trunks are fibrous green.



Connector leg lengths see table at page of SM Breakout-Trunk



PreCONNECT® OCTO OM4 and OM5 breakout trunk:

- Breakout cable n x 8 OM4 or OM5 fibers FRNC-LSZH
- **MTP® PRO 4+4 OCTO**, MM, male, Elite quality
- Polarity TIA method B “1 to 12”
- MTP® leg-length = standard stepped

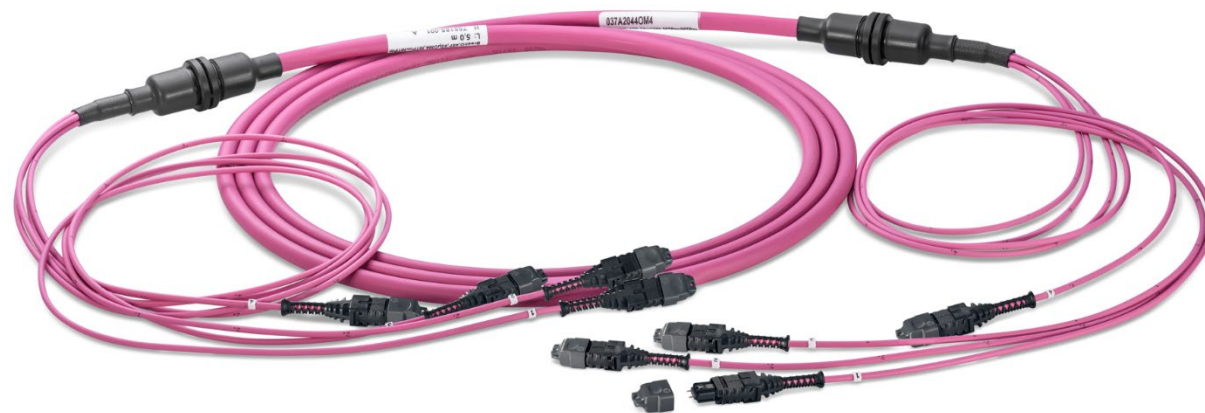
Length definition:

- Order length = length between the connectors of the longest legs at both sides, not between the PreCONNECT® square interfaces.
- Possible order-lengths: From 5 to 2000 meter

Part numbers, length variable:

Number of OCTO channels	Part numbers OM4	Part numbers OM5	Cable structure	Number of fibers	Cable CPR class
1	on request	on request	1 x 8	8	B2ca
2	on request	on request	2 x 8	16	Cca
4	on request	on request	4 x 8	32	Cca
6	on request	on request	6 x 8	48	Cca
8	on request	on request	8 x 8	64	Cca
12	on request	on request	12 x 8	96	Cca
18	on request	on request	18 x 8	144	tbt.
24	on request	on request	24 x 8	192	tbt.

Technical data of connectors, fibers and cables on request via the product profile of your selected trunks.



Connector leg lengths see table at page of SM Breakout-Trunk

MULTIMODE



MTP® PRO 4+4 OCTO male (with pins)

Length tolerance:

Trunk length	Tolerance
<= 10m	+/- 50cm
> 10m <= 30m	+/- 100cm
> 30m <= 100m	+/- 150cm
> 100m	+/- 2%

OM5 is only needed for 400GBASE-SR4.2 BiDi channel lengths 101 to 150 meter. OM5 OCTO trunks are fibrous green.



PreCONNECT® OCTO SM breakout trunk:

- Breakout cable n x 8 SM fibers FRNC-LSZH
- **MTP® 4+4 OCTO**, SM, male, Standard quality
- Polarity TIA method B “1 to 12”
- MTP® leg-length = standard stepped

Length definition:

- Order length = length between the connectors of the longest legs at both sides, not between the PreCONNECT® square interfaces.
- Possible order-lengths: From 5 to 2000 meter

Part numbers, length variable:

Number of OCTO channels	Part numbers	Cable structure	Number of fibers	Cable CPR class
1	037A2096G657A1	1 x 8	8	B2ca
3	037A2091G657A1	3 x 8	24	Cca
4	037A2076G657A1	4 x 8	32	Cca
6	037A2090G657A1	6 x 8	48	Cca
8	037A2077G657A1	8 x 8	64	Cca
12	037A2078G657A1	12 x 8	96	Cca
18	037A2087G657A1	18 x 8	144	Cca

Technical data of connectors, fibers and cables on request via the product profile of your selected trunks.



SINGLEMODE



MTP® 4+4 OCTO male (with pins)

Length tolerance:

Trunk length	Tolerance
<= 10m	+/- 50cm
> 10m <= 30m	+/- 100cm
> 30m <= 100m	+/- 150cm
> 100m	+/- 2%

Connector leg lengths:

Number of OCTO channels	Leg lengths [cm]
1	79
2	79 to 87 stepped
4	79 to 95 stepped
8	79
12	79
18	79
24	79
Production tolerance – 7 cm	

PreCONNECT® OCTO SM breakout trunk:

- Breakout cable n x 8 SM fibers FRNC-LSZH
- **MTP® PRO 4+4 OCTO**, SM, male, Elite quality
- Polarity TIA method B “1 to 12”
- MTP® leg-length = standard stepped

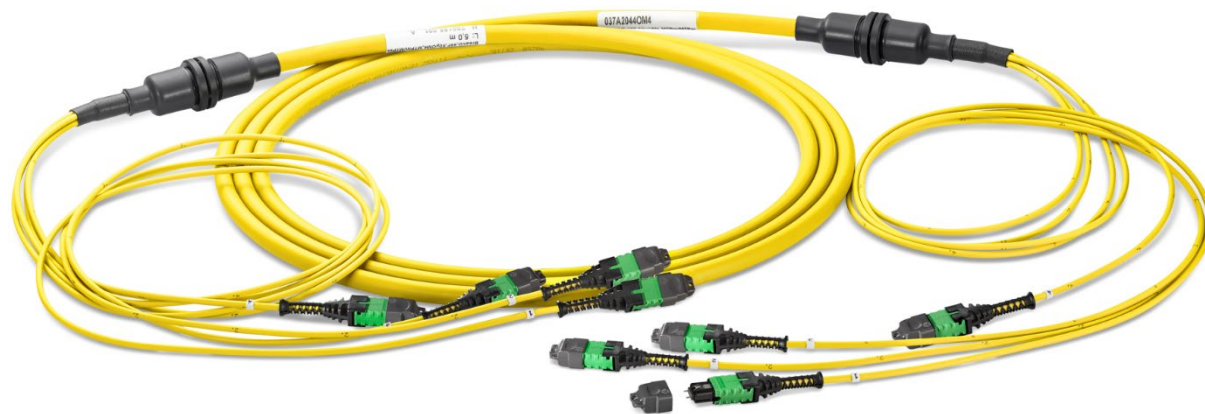
Length definition:

- Order length = length between the connectors of the longest legs at both sides, not between the PreCONNECT® square interfaces.
- Possible order-lengths: From 5 to 2000 meter

Part numbers, length variable:

Number of OCTO channels	Part numbers	Cable structure	Number of fibers	Cable CPR class
1	on request	1 x 8	8	B2ca
3	on request	3 x 8	24	Cca
4	on request	4 x 8	32	Cca
6	on request	6 x 8	48	Cca
8	on request	8 x 8	64	Cca
12	on request	12 x 8	96	Cca
18	on request	18 x 8	144	Cca

Technical data of connectors, fibers and cables on request via the product profile of your selected trunks.



SINGLEMODE



MTP® PRO 4+4 OCTO male (with pins)

Length tolerance:

Trunk length	Tolerance
<= 10m	+/- 50cm
> 10m <= 30m	+/- 100cm
> 30m <= 100m	+/- 150cm
> 100m	+/- 2%

Connector leg lengths:

Number of OCTO channels	Leg lengths [cm]
1	79
2	79 to 87 stepped
4	79 to 95 stepped
8	79
12	79
18	79
24	79
Production tolerance – 7 cm	

PreCONNECT® OCTO OM4 and OM5 patchcords:

Single jacket:

Single jacket cable 8 OM4 or OM5 fibers FRNC-LSZH
 MTP® and MTP® PRO 4+4 OCTO, MM, female, Elite quality
 Polarity TIA method B "1 to 12"

Part numbers, length variable:		
Cable diameter	MTP®	MTP® PRO
2.0 mm	080A2063OM4/080A2063OM5	on request
3.0 mm	080A2030OM4/080A2030OM5	on request

Double jacket:

Double jacket cable 8 OM4 or OM5 fibers FRNC-LSZH
 Diameter 3.0 / 4.5 mm
 MTP® and MTP® PRO 4+4 OCTO, MM, female, Elite quality
 Polarity TIA method B "1 to 12"

Standard lengths of the 3.0 mm single jacket MTP®-legs = 0.5 m,
 others on request

Part numbers, length variable:	
MTP®	MTP® PRO
080A2031OM4 / 080A2031OM5	on request



MTP® 4+4 OCTO female (w/o pins)



MTP® PRO 4+4 OCTO female (w/o pins)



MULTIMODE



OM5 is only needed for 400GBASE-SR4.2 BiDi channel lengths 101 to 150 meter.
 OM5 OCTO patchcords are fibrous green.



PreCONNECT® OCTO OM4 patchcords are suitable for SR4 MPO4+4 transceiver-transceiver direct-attach.



PreCONNECT® OCTO SM patchcords:

Single jacket:

Single jacket cable 8 SM fibers FRNC-LSZH
 MTP® and MTP® PRO 4+4 OCTO, SM, female
 MTP® Standard quality, MTP® PRO Elite quality
 Polarity TIA method B “1 to 12”

Part numbers, length variable:		
Cable diameter	MTP®	MTP® PRO
2.0 mm	080A2065G657A1	on request
3.0 mm	080A2036G657A1	on request



MTP® 4+4 OCTO female (w/o pins)

MTP® PRO 4+4 OCTO female (w/o pins)



SINGLEMODE



Double jacket:

Double jacket cable 8 SM fibers FRNC-LSZH, diameter 3.0 / 4.5 mm
 MTP® and MTP® PRO 4+4 OCTO, SM, female
 MTP® Standard quality, MTP® PRO Elite quality
 Polarity TIA method B “1 to 12”

Standard lengths of the 3.0 mm single jacket MTP®-legs = 0.5 m,
 others on request

Part numbers, length variable:	
MTP®	MTP® PRO
080A2045G657A1	on request



PreCONNECT® OCTO SM patchcords are suitable for DR4/PSM4 MPO4+4 transceiver-transceiver direct-attach.



PreCONNECT® OCTO OM4 MTP®-LCC harness:

For connecting a MPO4+4 transceiver with four LC-Duplex transceivers and for port-breakout of OCTO trunks:

- 40GBASE-SR4 MPO4+4 to 4x 10GBASE-SR/SW LC-Duplex
- 100GBASE-SR4 MPO4+4 to 4x 25GBASE-SR/SW LC-Duplex
- 200GBASE-SR4 MPO4+4 to 4x 50GBASE-SR/SW LC-Duplex
- 4x16GFC MPO4+4 to 4x 16GFC LC-Duplex
- 4x32GFC MPO4+4 to 4x 32GFC LC-Duplex
- 4x64GFC MPO4+4 to 4x 64GFC LC-Duplex

MULTIMODE



OCTO OM4 harness MTP® 4+4 OCTO, MM, female to 4 LC-COMPACT

Double jacket cable 8 OM4 fibers 3.0 / 4.5 mm FRNC-LSZH
 LC-Compact leg-lengths 0.5 m, legs numbered 1 to 4
 other leg lengths on request
 Order length = total length
 MTP® 4+4 OCTO, MM, female, Elite quality
 Polarity Rx to Tx

Part numbers, length variable:	
MTP®	MTP® PRO
076A0112OM4	on request



PreCONNECT® OCTO OM4 MTP®-MDC harness:

For connecting a MPO4+4 transceiver with four MDC transceivers and for port-breakout of OCTO trunks:

- 100GBASE-SR4 MPO4+4 to 4x 25GBASE-SR/SW MDC
- 200GBASE-SR4 MPO4+4 to 4x 50GBASE-SR/SW MDC

OCTO OM4 harness MTP® 4+4 OCTO, MM, female to 4 MDC

Double jacket cable 8 OM4 fibers 3.0 / 4.5 mm FRNC-LSZH
 MDC leg-lengths 0.5 m, legs numbered 1 to 4
 other leg lengths on request
 Order length = total length
 MTP® 4+4 OCTO, MM, female, Elite quality
 Polarity Rx to Tx

MULTIMODE



Part numbers, length variable:	
MTP®	MTP® PRO
076A0187OM4	on request

MPO4+4 Transceiver



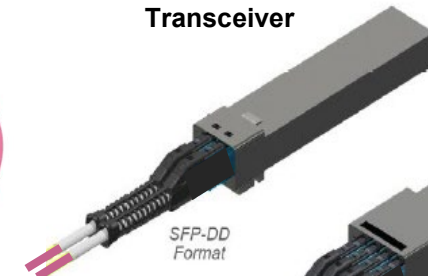
MTP® 4+4 OCTO female (w/o pins)



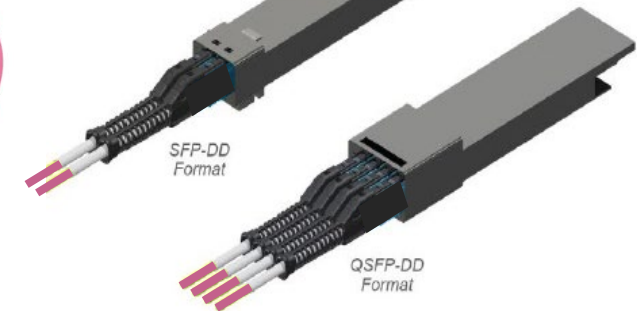
MTP® PRO 4+4 OCTO female (w/o pins)



MDC Transceiver



SFP-DD Format



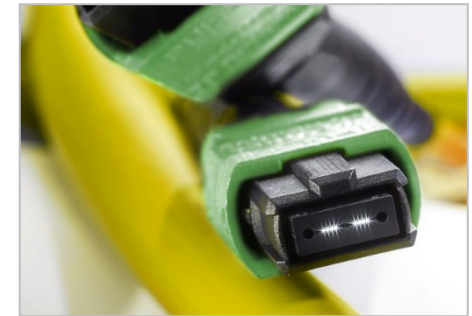
QSFP-DD Format

PreCONNECT® OCTO SM MTP®-LCC harness:

For connecting a MPO4+4 transceiver with four LC-Duplex transceivers and for port-breakout of OCTO trunks:

- 100G-PSM4 MPO4+4 to 4x 25GBASE-LR LC-Duplex
- 4x10GBASE-LR MPO4+4 to 4x 10GBASE-LR LC-Duplex
- 200GBASE-DR4 MPO4+4 to 4x 50GBASE-LR LC Duplex
- 400GBASE-DR4 MPO4+4 to 4x 100GBASE-LR LC Duplex

SINGLEMODE



OCTO SM harness MTP® 4+4 OCTO, SM, female to 4 LC-COMPACT

Double jacket cable 8 SM fibers 3.0 / 4.5 mm FRNC-LSZH
 LC-Compact leg-lengths 0.5 m, legs numbered 1 to 4
 other leg lengths on request
 Order length = total length
 MTP® 4+4 OCTO, SM, female, MTP® Standard quality, MTP® PRO Elite quality
 Polarity Rx to Tx

Part numbers, length variable:	
MTP®	MTP® PRO
076A0116G657A1	on request



PreCONNECT® OCTO SM MTP®-MDC harness:

For connecting a MPO4+4 transceiver with four MDC transceivers and for port-breakout of OCTO trunks:

- 100G-PSM4 MPO4+4 to 4x 25GBASE-LR MDC
- 200GBASE-DR4 MPO4+4 to 4x 50GBASE-LR MDC
- 400GBASE-DR4 MPO4+4 to 4x 100GBASE-LR MDC

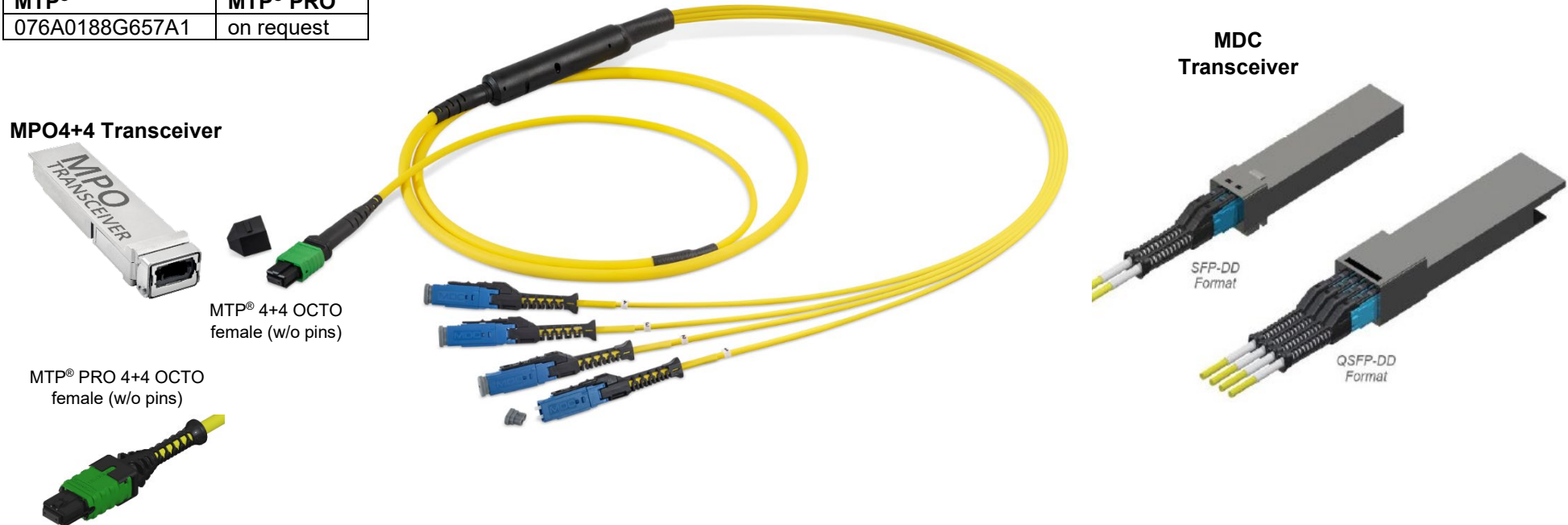
SINGLEMODE



OCTO SM harness MTP® 4+4 OCTO, SM, female to 4 MDC

Double jacket cable 8 SM fibers 3.0 / 4.5 mm FRNC-LSZH
 MDC leg-lengths 0.5 m, legs numbered 1 to 4
 other leg lengths on request
 Order length = total length
 MTP® 4+4 OCTO, SM, female, MTP® Standard quality, MTP® PRO Elite quality
 Polarity Rx to Tx

Part numbers, length variable:	
MTP®	MTP® PRO
076A0188G657A1	on request



MPO4+4 Transceiver

MTP® 4+4 OCTO female (w/o pins)

MTP® PRO 4+4 OCTO female (w/o pins)

MDC Transceiver

SFP-DD Format

QSFP-DD Format

About Rosenberger OSI:

Since 1991, Rosenberger Optical Solutions & Infrastructure (Rosenberger OSI) has been a recognized expert for fiber-based connectivity, cabling solutions and infrastructure services in the areas of data centers, local area networks, mobile networks and industrial applications. As an integrated solution provider, we have high expertise in the development and operational excellence in the production of system solutions for communication networks. Our comprehensive services enable the secure and efficient operation of digital infrastructures. This combination, combined with our strong customer focus, makes us unique and a strong partner in the global market.

Rosenberger OSI has been part of the globally operating Rosenberger Group since 1998. The Rosenberger Group is a leading global provider of high-frequency, high-voltage and fiber optic connectivity solutions with headquarters in Germany. For further information, please visit:

www.rosenberger.com/osi

Rosenberger

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Creation date: 2021-08-23

Valid since: 2022-10-06

Revision: 004