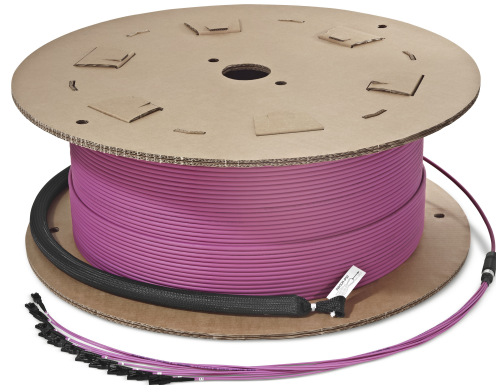


## PRODUCTPROFILE

### Catalogue number: 041A19100M4

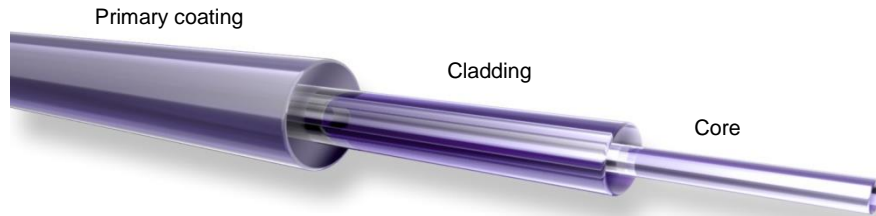
Partnumber: 747143

PreCONNECT® TRUNK MULTIJUMPER  
12 channels, 24 fibers, 50/125µmOM4, violett  
Connector side A: LC-Compact MM  
Connector side B: LC-Compact MM  
Cable U-DQ(ZN)BH24G50/125µm,OM4



#### **Related documents:**

DS_FASER OM4BI_OE	Fiber Data Sheet
DS_LC_COMPACT_STECKER_SHORT_C	Steckerdatenblatt
DS_U-DQZNBHN1750_L_OE	Cable Data Sheet



**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 1000BASE-SX: min. 1100 m @ max. 3.56 dB channel attenuation <sup>1)</sup>  
10 GBE 10GBASE-SR: min. 550 m @ max. 2.60 dB channel attenuation <sup>1)</sup>  
40 GBE 40GBASE-SR4: min. 170 m @ max. 1.50 dB channel attenuation <sup>1)</sup>  
100 GBE 100GBASE-SR10: min. 170 m @ max. 1.50 dB channel attenuation <sup>1)</sup>

**Fibre Channel:**

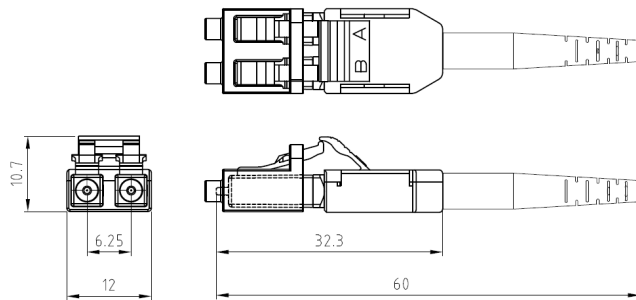
8 GFC (800-SN): min. 245 m @ max. 1.76 dB channel attenuation <sup>1)</sup>  
16 GFC (1600-SN): min. 165 m @ max. 1.51 dB channel attenuation <sup>1)</sup>

<sup>1)</sup> 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

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.

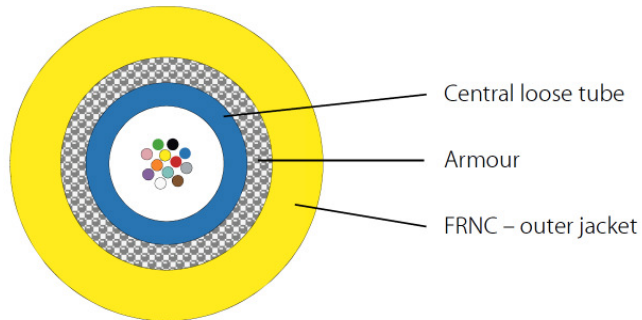
2) Carefully swap position of the connectors by lifting them up and out of the bottom housing.

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



**Standards**

IEC 60794-2-20  
EN 50575 : 2014 + A1 : 2016: No. of Declaration of Performance CDERF0000023 – V2

**Structure**

**Cable core:**

Jelly filled loose tube, outer diameter 3.5 mm with 2-12 optical fibres and outer diameter 4.0 mm with 14-24 optical fibres  
 Tube colour: yellow (E9/125), green (G50/125), blue (G62.5/125)  
 Fibre colours (1-12): red, green, blue, yellow, white, grey, brown, violet, turquoise, black, orange, pink  
 (13-24): red, green, blue, yellow, white, grey, brown, violet, turquoise, transparent, orange, pink (with black ring-marking)

**Armour**

Multifunctional E-glass yarns as strain relief elements and non- metallic rodent protection

**Outer jacket**

Halogen-free and flame-retardant material with approx. 1.1 mm wall,  
 Standard colours: Singlemode: yellow  
 Multimode 50 µm: orange or green  
 Multimode OM3: aqua (turquoise)  
 Multimode OM4: violet  
 Multimode 62,5 µm: orange

Marking see separate drawing

Fibres max.	Outer diam. mm	Weight kg/km	Fire load MJ/m
12	7.0	55	0.71
24	7.5	60	0.79

**Mechanical characteristics**

- Min. bending radius fixed (static) acc. IEC 60794-1-2 E11A  
15 x outside diameter
- Min. bending radius during assembly (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 1750 N
- Max. crush resistance acc. IEC 60794-1-2 E3, long term 1500 N/dm

**Thermal characteristics**

- Transport and storage - 25 °C to + 70 °C
- Installation - 5 °C to + 50 °C
- In use acc. IEC 60794-1-2 F1 - 20 °C to + 60 °C

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**Fire performance**

- Cable is flame-retardant acc. to IEC 60332-1-2 and IEC 60332-3-24 Cat.C
- 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 D<sub>ca</sub>/s2/d2/a1

**Chemical characteristics**

No resistance to oil, petrol, acid and leach

**Application**

Longitudinally waterproof fibre optic cable with non-metallic rodent protection  
For fixed installation indoor and outdoor, in cable ducts, tubes and also suitable for interconnections  
Mechanical installation by winch is permitted only when using force meters with recording function.  
Not suitable for underground laying (direct buried)

**Packaging**

Disposable drums

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H. Jungbäck	01.09.2005	H. Jungbäck	30.04.2013	004	---	P. Maier	31.08.2017