

## PRODUCTPROFILE

**Catalogue number: 041A1902G657A1**

Partnumber: 740335

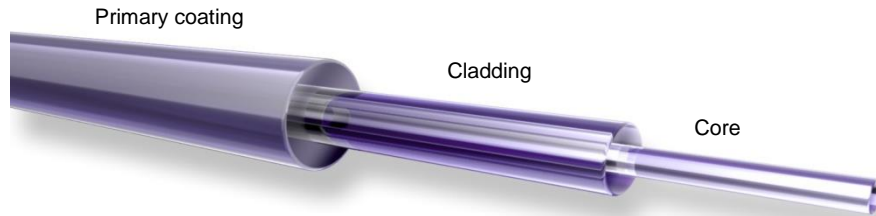
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PreCONNECT® TRUNK MULTIJUMPER  
24 channels, 48 fibers, 9/125µm, yellow  
Connector side A: LC-Compact SM  
Connector side B: LC-Compact SM  
Cable U-DQ(ZN)BH4x12E9/125µm



**Related documents:**

|                               |                   |
|-------------------------------|-------------------|
| DS_FASER G657A1_OE            | Fiber Data Sheet  |
| DS_LC_COMPACT_STECKER_SHORT_C | Steckerdatenblatt |
| DS_U-DQZNBH4x12E9-PVP_L_OE    | Kabeldatenblatt   |



**Standards**

Stepped index fiber 9/125µm according to  
 -ISO/IEC 11801 und EN 50173-1 OS2  
 -IEC 60793-2-50 type B1.3  
 -ITU G.657.A1 und G.652.D

**Structure**

Silica fiber with two layer acrylate primary coating

**Geometrical properties**

|                                |                    |
|--------------------------------|--------------------|
| Modefield diameter @1310 nm    | 9.2 µm +/- 0.4 µm  |
| Modefield diameter @1550 nm    | 10.4 µm +/- 0.5 µm |
| Cladding diameter              | 125 µm +/- 0.07 µm |
| Cladding non-circularity       | ≤ 0.7 %            |
| Core-Cladding concentricity    | ≤ 0.5 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:

**Cabled fiber tight buffered:** @ 1310 nm max. 0.38 dB/km  
 @ 1550 nm max. 0.28 dB/km

**Cabled fiber loose tube:** @ 1310 nm max. 0.36 dB/km  
 @ 1550 nm max. 0.22 dB/km

**Uncabled fiber:** @ 1310 nm max. 0.32 dB/km  
 @ 1383 nm max. 0.32 dB/km  
 @ 1490 nm max. 0.21 dB/km  
 @ 1550 nm max. 0.18 dB/km  
 @ 1625 nm max. 0.20 dB/km

Macrobending, induced attenuation, uncabled fiber:

Radius 10 mm, 1 turn, @ 1550 nm ≤ 0.50 dB  
 Radius 10 mm, 1 turn, @ 1625 nm ≤ 1.50 dB  
 Radius 15 mm, 10 turns, @ 1550 nm . 0.05 dB  
 Radius 15 mm, 10 turns, @ 1625 nm ≤ 0.30 dB  
 Radius 25 mm, 100 turns, @ 1310, 1550 und 1625 nm ≤ 0.01 dB

Dispersion:

@ 1285 - 1330 nm ≤ 3.0 ps/(nm\*km)  
 @ 1550 nm ≤ 18.0 ps/(nm\*km)  
 @ 1625 nm ≤ 22.0 ps/(nm\*km)

Polarization Mode Dispersion (PMD):

PMD Link Design Value ≤ 0.04 ps/√km  
 Maximum individual fiber PMD ≤ 0.1 ps/√km

Cut-off-Wavelength: ≤ 1260 nm

Effective group index of refraction:

@ 1310 nm 1.4676  
 @ 1550 nm 1.4682

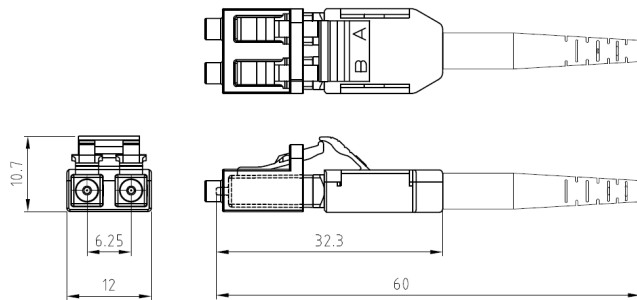
Backscatter attenuation @ 1ns pulse width:

@ 1310 nm -77 dB  
 @ 1550 nm -82 dB  
 @ 1625 nm -83 dB

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| Draft       | Date     | Approved | Date     | Rev. | Engineering change number | Name        | Date     |
|-------------|----------|----------|----------|------|---------------------------|-------------|----------|
| H. Jungbäck | 12-04-15 | P. Maier | 12-04-15 | 001  | without                   | H. Jungbäck | 12-04-15 |

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.



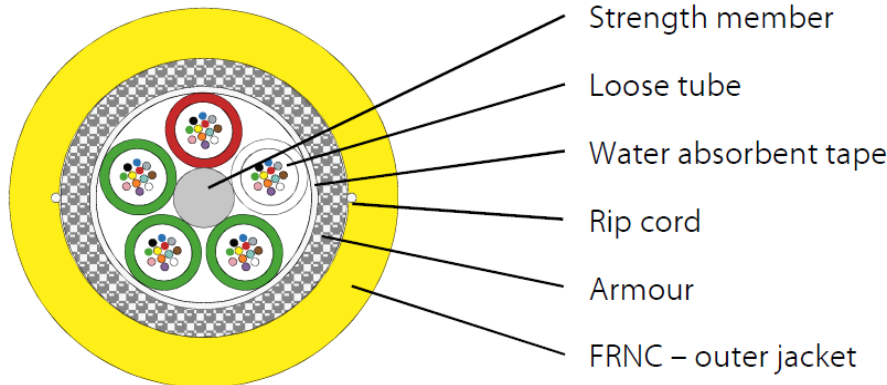
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| H. Jungbäck | 2018-12-13 | A. Burggraf | 2018-12-13 | 009  | ----                      | H. Jungbäck | 2022-10-07 |

Fiber Optic Cable

U-DQ(ZN)BH nxm 4000N GHMT PVP certified

030AXXX



PVP only with singlemode and OM4 fibers

**Standards**

IEC 60794-2  
EN 50575: 2014 + A1: 2016: No. of Declaration of Performance CDERF0000090

**Structure**

- Loose tube** Jelly filled loose tube, outer diameter 2.3 mm with 2–12 colour-coded optical fibres  
**Fibre colours:** red, green, blue, yellow, white, grey, brown, violet, turquoise, black, orange, pink  
**Tube colours:** counting tube red, counting direction tube white, other tubes yellow (E9/125), green (G50/125), or blue (G62.5/125)
- Stranding** Loose tubes and if necessary fillers stranded around a central strength member (FRP). Strength member can be upcoated.  
With water absorbent tape.
- Armour** Multifunctional E-glass yarns, wrapped in two layers (left and right spin), as strain relief elements and non-metallic rodent protection
- Outer jacket** Halogen-free and flame-retardant material (FRNC), with approx. 1.5mm  
**Standard colours:** Singlemode yellow  
 Multimode 50 µm: orange or green  
 Multimode OM3: aqua (turquoise)  
 Multimode OM4: violett  
 Multimode OM5: limegreen  
 Multimode 62,5 µm: orange  
**Marking** see separate drawing  
 Two diametrically opposed ripcords under the jacket  
**Outer diameter** see table below

| Constr<br>uction | max. no.<br>of fibers | Outer<br>diameter<br>[mm] | Weight<br>[kg/km] | Fire load<br>[MJ/m] | min. bending radius<br>[mm] |           |
|------------------|-----------------------|---------------------------|-------------------|---------------------|-----------------------------|-----------|
|                  |                       |                           |                   |                     | during<br>installation      | installed |
| 1 x m            | 12                    | 11,5                      | 136               | 1,90                | 230                         | 170       |
| 2 x m            | 24                    | 11,5                      | 136               | 1,90                | 230                         | 170       |
| 3 x m            | 36                    | 11,5                      | 136               | 1,90                | 230                         | 170       |
| 4 x m            | 48                    | 11,5                      | 136               | 1,90                | 230                         | 170       |
| 5 x m            | 60                    | 11,5                      | 136               | 1,90                | 230                         | 170       |
| 6 x m            | 72                    | 11,5                      | 136               | 1,90                | 230                         | 170       |
| 8 x m            | 96                    | 11,9                      | 156               | 2,10                | 235                         | 175       |
| 10 x m           | 120                   | 13,2                      | 182               | 2,80                | 265                         | 200       |
| 12 x m           | 144                   | 15,7                      | 245               | 4,60                | 320                         | 240       |

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Fiber Optic Cable

U-DQ(ZN)BH nxm 4000N GHMT PVP certified

030AXXXX

**Mechanical characteristics**

- Max. tensile force acc. IEC 60794-1-2 E1 **4000 N**
- Max. crush resistance acc. IEC 60794-1-2 E3 **3000 N/dm, 10 min. (long term)**
- Impact resistance acc. IEC 60794-1-2 E4 **5 impacts, 3.0 Nm, R = 12.5 mm**
- Cable bend acc. IEC 60794-1-2 E11A **1 cycle, R = 10 x outer diameter, n = 5 (windings)**
- Longitudinally watertight acc. IEC 60794-1-2 F5A **l = 3 m, t = 24 h**

**Thermal characteristics**

- Transport and storage **- 40 °C to + 70 °C**
- Installation **- 5 °C to + 50 °C**
- In use acc. IEC 60794-1-2 F1 **- 40 °C to + 60 °C**

**Chemical Characteristics**

UV-resistance of outer-jacket

**Fire performance**

- Cable is 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 E<sub>ca</sub>

**Transmission characteristics**

See fiber data sheets

**Application**

- Dry, longitudinally and transversely waterproof fibre optic cable with non-metallic rodent protection and for higher tensile force
- Good installation through ripcords to open the jacket
- For fixed installation indoor and outdoor, in cable ducts, tubes and also suitable for interconnections
- Mechanical installation is only permitted when using force measuring devices with recording function
- Not suitable for underground laying (direct buried)

**Packaging**

Disposable drums

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| S. Wiener | 2020-02-14 | H. Jungbäck | 2020-02-14 | 001  |                           |      |      |