

PRODUCTPROFILE

Catalogue number: 030A0142OM4BI

Partnumber: 770603

Cable U-DQ(ZN)BH12x12G50/124µmOM4

U-DQ(ZN)BH12x12G50/125µm,OM4
ClearCurve,violet, 6000N,
CPR Eca



Related documents:

DS_FASER OM4BI_OE

Fiber Data Sheet

DS_U-DQZNBHNX4000-PVP_L_OE

Kabeldatenblatt



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⁾

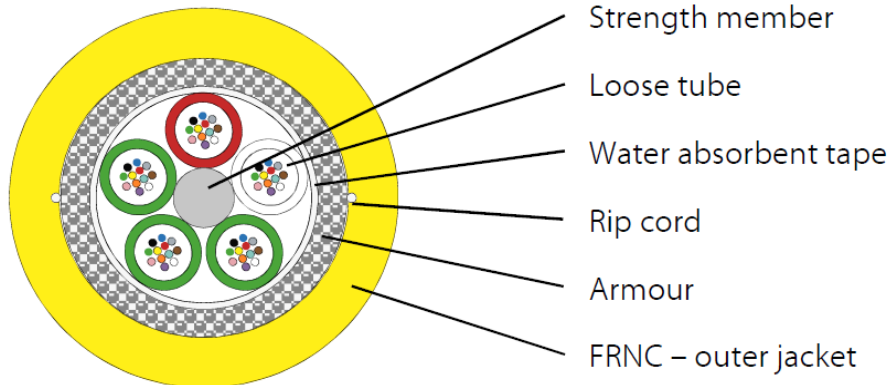
¹⁾ Inclusive max. 1.0 dB for connections (connectors and splices)

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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

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 uction	max. no. of fibers	Outer diameter [mm]	Weight [kg/km]	Fire load [MJ/m]	min. bending radius [mm]	
					during 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

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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_{ca}

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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Draft	Date	Approved	Date	Rev.	Engineering change number	Name	Date
S. Wiener	2020-02-14	H. Jungbäck	2020-02-14	001			