

PRODUCTPROFILE

Catalogue number: 031A0116OM4BI

Partnumber: 766631

Cable U-DQ(ZN)BH24G50/125µm,OM4

U-DQ(ZN)BH24G50/125µm,OM4
ClearCurve,violett, 1750N
CPR Dca

Related documents:

DS_FASER OM4BI_OE

Fiber Data Sheet

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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Optical fiber OM4
bend insensitive

059A0381OM4BI

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⁾

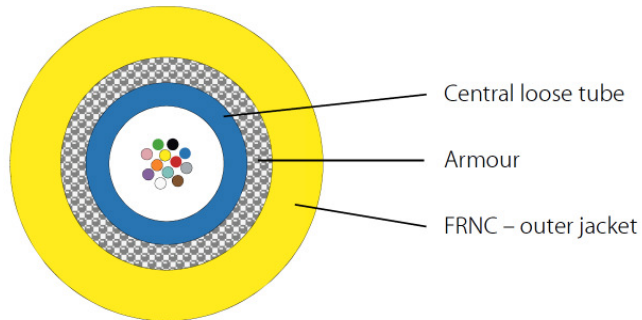
Fibre Channel:

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 60794-2-20
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_{ca}/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