

PRODUCTPROFILE

Catalogue number: 031A0010G657A1

Partnumber: 766639

Cable U-DQ(ZN)BH12E9/125µm

U-DQ(ZN)BH12E9/125µm
yellow, 1750N, G657A1
CPR Dca

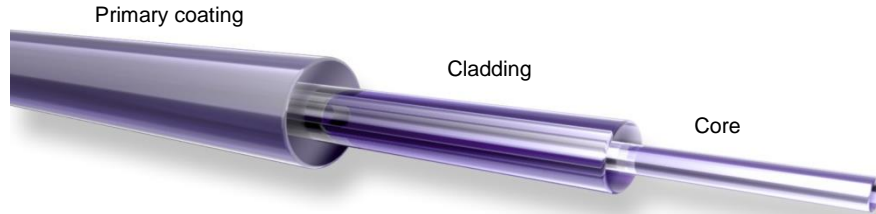
Related documents:

DS_FASER G657A1_OE

Fiber Data Sheet

DS_U-DQZNBHN1750_L_OE

Cable Data Sheet



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:

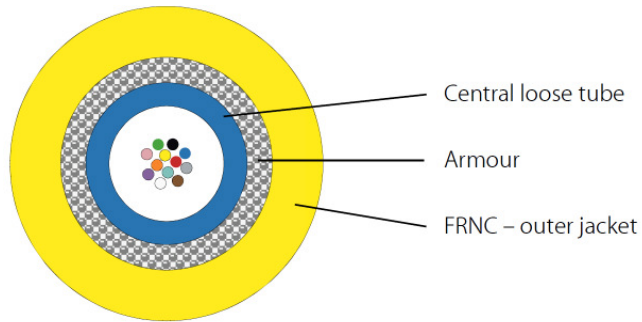
@ 1310 nm 1.4676
@ 1550 nm 1.4682

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



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