

PRODUCTPROFILE

Catalogue number: 041A1009G657A1

Partnumber: 771859

PreCONNECT® TRUNK MULTIJUMPER
48 channels, 96 fibers, 9/125µm, yellow
Connector side A: E2000HRL Simplex ceramic
Connector side B: E2000HRL Simplex ceramic
Cable U-DQ(ZN)BH8x12E9/125µm



Related documents:

DS_E2000HRL_STECKER_R_SM_OE	Steckerdatenblatt
DS_FASER G657A1_OE	Fiber Data Sheet
DS_U-DQZNBHNX4000-PVP_L_OE	Kabeldatenblatt

E-2000® HRL Connectors



All dimensions are in mm; tolerances acc. ISO 2768 m-H

Properties

E-2000® connector is designed with Push-Pull locking, automatically closing dust flap.
Angled polish 8°

Interface

E-2000™, acc. to IEC 61754-15 and CECC 86275-802

Material for connectors

Ferrule : Zirconia ceramic, Ø 2.5 mm
Body : Plastics, green
Boot : Plastics, green

Fiber Type

Singlemode : 9/125µm

Optical data

Insertion Loss :	S/M	Typical	max.
	S/M 0.1dB	0.15 dB	0.25 dB
Return Loss :	S/M	0.10 dB	0.15 dB
		≥70 dB(HRL 8°)	

Mechanical data

Mating cycle ≥ 500

Environmental data

Operation temperature range -40°C to +85°C
Storage temperature range -40°C to +85°C

Suitable cables

Cable Types : Ø 0.9 ~ 3.3 mm

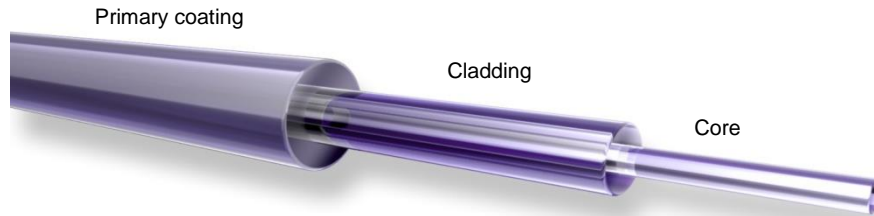
Packaging

Standard Packaging.

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Draft	Date	Approved	Date	Rev.	Engineering change number	Name	Date
Y.Zhang	31.03.2017	H.Jungbäck	31.03.2017	008	---	A.Burggraf	26.11.2019



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:

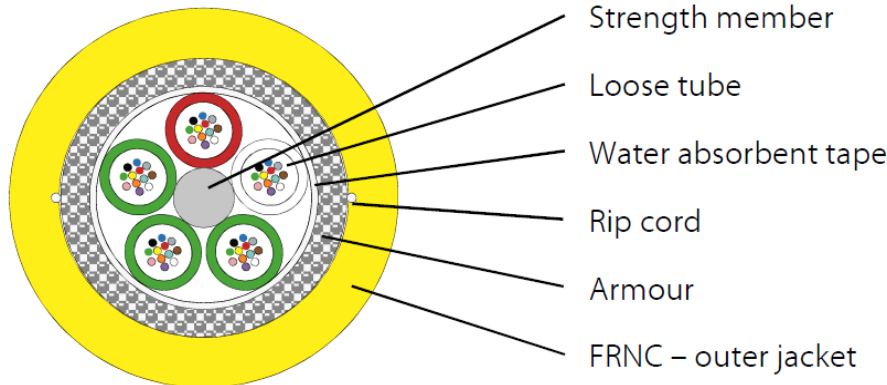
@ 1310 nm -77 dB
 @ 1550 nm -82 dB
 @ 1625 nm -83 dB

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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

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

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_{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			