

## PRODUCTPROFILE

**Catalogue number: 010A0116OM3BI**

Partnumber: 767013

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Cable A-DQ(ZN)B2Y24G50/125µm,OM3

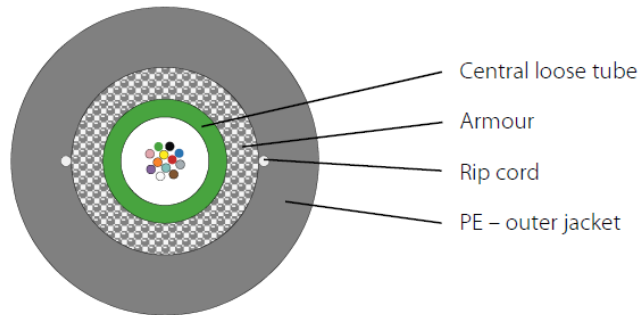
LWL Installationskabel für den Außenbereich  
Typ: A-DQ(ZN)B2Y 1x24 G50/125µOM3  
biegeunempfindlich  
Zentrale Bündelader mit PE-Mantel,  
Nagetierschutz  
Zugkraft: max. 2500 N  
Farbe: schwarz



**Related documents:**

DS\_A-DQZNB2YN2500\_L\_OE  
DS\_FASER OM3BI\_OE

Cable Data Sheet  
Fiber Data Sheet



**Standards**

-IEC 60794-3

**Structure**

Loose tube:

- Jelly filled 2 layers loose tube: 2 to 12 optical fibers diameter 3.5 mm, 14 to 24 optical fibers diameter 4.0 mm
- Fiber color code 1 to 12: red, green, blue, yellow, white, grey, brown, violet, turquoise, black, orange, pink
- Fiber color code 13 to 24: red, green, blue, yellow, white, grey, brown, violet, turquoise, transparent, orange, pink, all with black ring-marking

Armor:

- Multifunctional reinforced E-glass yarns as strain relief elements and non-metallic rodent protection

Outer jacket:

- Polyethylen PE
- Standard jacket color black
- Wall thickness 1.7 mm
- Inkjet marking white acc. to separate drawing

**Geometrical properties**

Number of fibers	Outer diameter [mm]	Weight [kg/km]	Fire load [MJ/m]
12	9.2	76	1.9
24	9.7	81	2.0

**Mechanical properties**

- Min. bending radius fixed (static) acc. IEC 60794-1-2 E11A  
15 x outside diameter
- Min. bending radius during installation (dynamic) with additional tensile strain acc. IEC 60794-1-2 E6  
20 x outside diameter
- Max. tensile force acc. IEC 60794-1-2 E1 = 2500 N
- Max. crush resistance acc. IEC 60794-1-2 E3 long term = 3000 N/dm
- Longitudinally watertight acc. IEC 60794-1-2 F5A: l=3m, t=24h

**Thermal properties**

- 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

**Chemical properties**

- UV resistance
- Good resistance to oil, petrol, acid, leach and water

**Fire performance**

- Halogen-free acc. to IEC 60754-1
- Acidity of the combustion gases acc. to IEC 60754-2

**Transmission characteristics**

See fiber data sheets

**Applications**

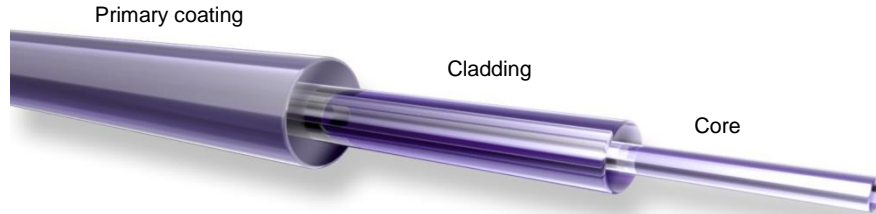
- Longitudinally and transversely waterproof fibre optic outdoor cable with non-metallic rodent protection and higher tensile force
- For fixed installation outdoors, in cable ducts, tubes and also suitable for interconnections
- Suitable for underground laying (direct buried)
- Mechanical installation is only permitted when using force measuring devices with recording function

**Deliveryform**

On one-way drums

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Draft	Date	Approved	Date	Rev.	Engineering change number	Name	Date
H. Jungbäck	2003-02-19	P. Maier	2003-02-19	005	without	H. Jungbäck	2017-11-24



**Standards**

Graded index fiber 50/125µm according to  
 -ISO/IEC 11801 and EN 50173-1 OM3  
 -IEC 60793-2-10 type A1a.2  
 -ITU G.651.1  
 -TIA/EIA 492AAAC-B

**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

**Macrobanding, 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. 1500 MHz x km  
@ 1300 nm min. 500 MHz x km

**Effective modal Bandwidth-length-product (EMB):**

@ 850 nm min. 2000 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 1000BASE-SX: min. 1000 m @ max. 3.56 dB channel attenuation <sup>1)</sup>  
10 GBE 10GBASE-SR: min. 300 m @ max. 2.60 dB channel attenuation <sup>2)</sup>  
40 GBE 40GBASE-SR4: min. 140 m @ max. 1.90 dB channel attenuation <sup>1)</sup>  
100 GBE 100GBASE-SR10: min. 140 m @ max. 1.90 dB channel attenuation <sup>1)</sup>

**Fibre Channel:**

8 GFC (800-SN): min. 200 m @ max. 1.62 dB channel attenuation <sup>1)</sup>  
16 GFC (1600-SN): min. 125 m @ max. 1.39 dB channel attenuation <sup>1)</sup>

<sup>1)</sup> Inclusive max. 1.0 dB for connections (connectors and splices)

<sup>2)</sup> Inclusive max. 1.5 dB for connections (connectors and splices)

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H. Jungbäck	10-26-15	P. Maier	10-27-15	004	without	H. Jungbäck	10-26-15