

## PRODUCTPROFILE

**Catalogue number: 087A6601OM4**

Date: 15.04.2019

Partnumber: 744333

Fiber optic duplex patchcord

Connector side A: LC-Compact MM

Connector side B: LC-Compact MM

50/125µmOM4, 2.8mm, violet

Polarity: crossed A to B

Cable I-V(ZN)H2G50/125µm,OM4

### **Related documents:**

DS\_087A6601OM4\_OE

DS\_FASER OM4BI\_OE

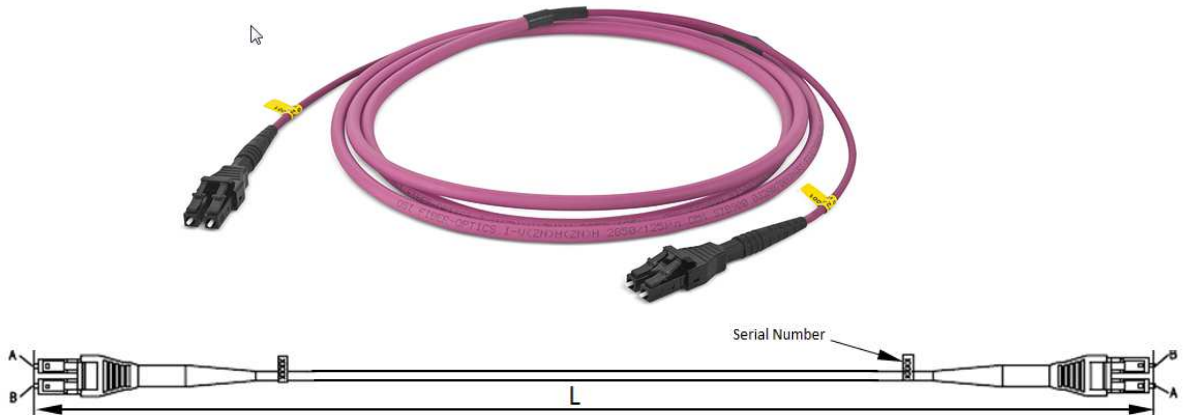
DS\_I-VZNH28\_2X900\_L\_OE

DS\_LC\_COMPACT\_STECKER\_OE

Fiber Data Sheet

Cable Data Sheet

Connector Data Sheet



Fiber Flipse : A to B  
All dimensions are in mm; tolerances acc. ISO 2768 m-H

**Description**

These cable assemblies have two Rosenberger LC compact connectors. They can be used for indoor.

**Parts**

Connectors 2 X LC Compact, black  
Cable 2x 900 μm, 2.8 mm

**Optical Data**

Cable I-V(ZN)H 2.8mm 2x900μm, violet  
Fiber Specifications see other datasheet.  
Connector LC Compact according to IEC 61754-20  
Insertion Loss < 0.20 dB(M/M)

**Mechanical Data**

Min. bending radius static: 10 X O.D.  
Min. bending Radius Dynamic: 15 X O.D.  
Max. crush resistance long term: 150 N/dm  
Max. pulling force: 300 N

**Cable Fire Performance**

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

**Environmental data**

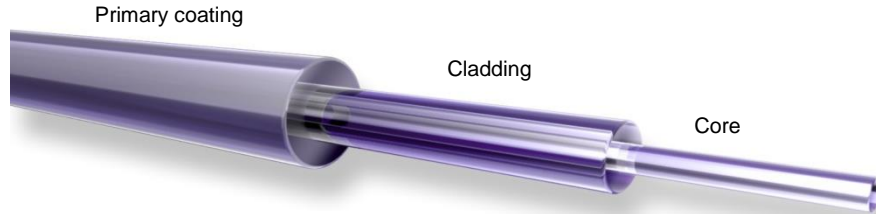
Transport and storage - 25°C to + 70°C  
Installation - 5°C to + 50°C  
In use - 5°C to + 70°C

**Delivery form**

Rosenberger Standard  
Length < 30 m 1 pcs in bag  
Length ≥ 30 m 1 pcs in box

While the information has been carefully compiled to the best of our knowledge, nothing is intended as representation or warranty on our part and no statement herein shall be construed as recommendation to infringe existing patents. In the effort to improve our products, we reserve the right to make changes judged to be necessary.

Draft	Date	Approved	Date	Rev.	Engineering change number	Name	Date
Y. Zhang	01.03.2016	H. Jungbäck	01.03.2016	001	---	Y.Zhang	27.06.3017



**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 <sup>1)</sup>  
10 GBE 10GBASE-SR: min. 550 m @ max. 2.60 dB channel attenuation <sup>1)</sup>  
40 GBE 40GBASE-SR4: min. 170 m @ max. 1.50 dB channel attenuation <sup>1)</sup>  
100 GBE 100GBASE-SR10: min. 170 m @ max. 1.50 dB channel attenuation <sup>1)</sup>

**Fibre Channel:**

8 GFC (800-SN): min. 245 m @ max. 1.76 dB channel attenuation <sup>1)</sup>  
16 GFC (1600-SN): min. 165 m @ max. 1.51 dB channel attenuation <sup>1)</sup>

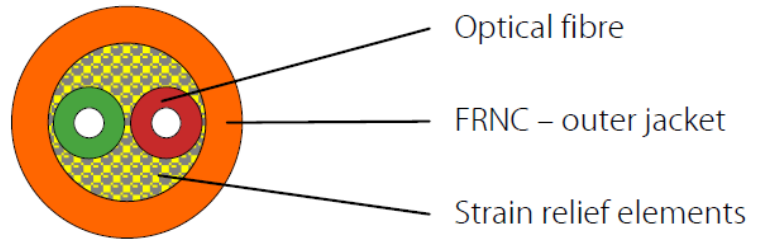
<sup>1)</sup> Inclusive max. 1.0 dB for connections (connectors and splices)

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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  
I-V(ZN)H 2.8mm 2x900

032AXXXX



**Standards**

IEC 60794-2

**Structure**

**Cable:**

- 2 buffered optical fibers 0.9mm within the cable jacket filled with Aramid strain relief elements
- Buffered fiber color code: One buffered fiber red, the other buffered fiber at singlemode yellow, at 50µm multimode green

**Outer jacket:**

- FRNC-LSZH flame-retardant and halogen-free material
- Standard jacket colors:
  - Singlemode: yellow
  - Multimode OM2: orange or green
  - Multimode OM3: aqua (turquoise)
  - Multimode OM4: violet
- Wall thickness 0.3 mm
- Inkjet marking black acc. to separate drawing

**Geometrical properties**

Number of fibers	Outer diameter [mm]	Weight [kg/km]	Fire load [MJ/m]
2	2.8	7	0.20

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Fiber Optic Cable  
I-V(ZN)H 2.8mm 2x900

032AXXXX

**Mechanical properties**

- Min. bending radius fixed (static) 10 x outer diameter
- Min. bending radius during installation (dynamic) 15 x outer diameter
- Max. tensile force long term = 300 N
- Max. crush resistance long term = 150 N/dm

**Thermal properties**

- |                       |                  |
|-----------------------|------------------|
| Transport and storage | - 25°C to + 70°C |
| Installation          | - 5°C to + 50°C  |
| In use                | - 5°C to + 70°C  |

**Chemical properties**

No resistance to oil, petrol, acid, leach and water

**Fire performance**

- 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

**Transmission characteristics**

See fiber data sheets

**Applications**

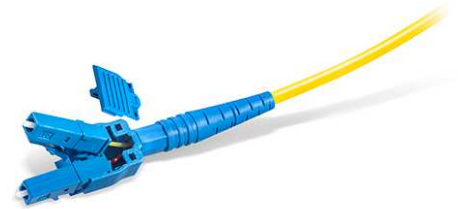
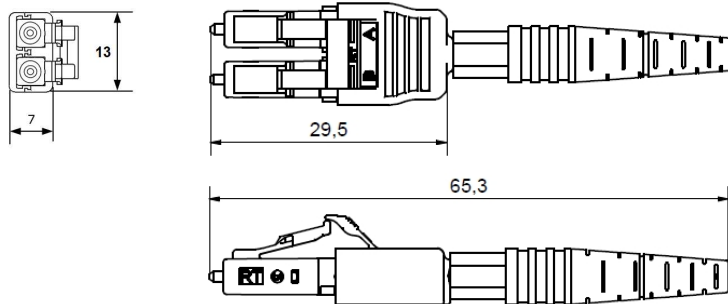
Indoor cable particularly appropriate for LC-Compact and MU-Compact Patchcords

**Deliveryform**

On one-way drums

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H. Jungbäck	16-02-02	P. Maier	16-02-02	002	without	H. Jungbäck	16-02-02



**Properties**

Small-Form-Factor Duplex Connector for high-end cabling systems in Telecommunication, data center, LAN as interface for active components. A compact backshell perfectly protects the buffers fibers and enables a solid strain relief with various cable types. Together with round cable types, handling is improved significantly. Equal flexing in all directions and a connector with less rough edges allows a comfortable installation. The polarity (A, B) can be changed subsequently.

**Interface**

LC Duplex, acc. To DIN EN 61754-20

**Material for connectors**

Ferrule : Zirconia ceramic, 2 x Ø1.25 mm  
 Body : Plastics  
 Boot : Plastics

**Optical data**

	Typical	max.
Insertion Loss : S/M 62.5/125µm 50µm	0.10 dB	0.30 dB
	0.10 dB	0.30 dB
	0.07 dB	0.15 dB
Return Loss : S/M M/M	≥45 dB(PC), ≥55 dB(UPC), ≥70 dB(APC)	
	≥35 dB	

**Mechanical data**

Mating cycle 500, increasing in IL< 0.2 dB  
 Strain relief 100 N(dependent on the cable type)

**Environmental data**

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

**Suitable cables**

Round Cable Types : Ø 2.0 ~ 3.0 mm  
 Hot Melt Ø 4.8 ~ 7.0 mm

**Part numbers (optional)**

Polarity change tool BM-12-0172-00

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**Packaging**

Standard Packaging.

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Y. Zhang	07.02.2017	H. Jungbäck	07.02.2017	011		Y. Zhang	18.08.2017