

## PRODUCTPROFILE

### Catalogue number: 062A0159OM4

Partnumber: 746335

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Fiber optic duplex patchcord  
Connector side A: SC-Duplex  
Connector side B: SC-Duplex  
50/125µmOM4, double jacket 2x2,8/4,0x6,8mm,  
violet  
Polarity: crossed A to B  
Cable I-V(ZN)HH2x2,8G50/125µm,OM4



#### **Related documents:**

DS\_FASER OM4BI\_OE

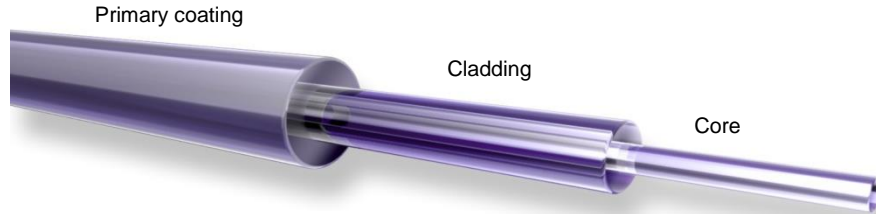
Fiber Data Sheet

DS\_I-VZNHH2X28\_900\_L\_OE

Cable Data Sheet

DS\_SC\_STECKER\_OE

Steckerdatenblatt



**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>

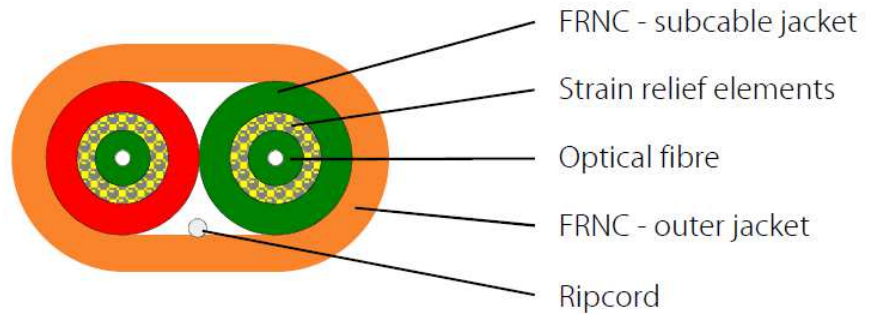
**Fibre Channel:**

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 |



**Standards**

IEC 60794-2

**Structure**

**Cable core:**  
buffered optical fiber, outer diameter 0.9 mm  
colour: yellow (E9/125), green (G50/125), blue (G62.5/125)  
Strain relief elements (aramid) Subcable-jacket halogen-free and flame-retardant material,  
wall thickness approx. 0.5 mm,  
colour: orange at multi-mode and yellow at single-mode  
Outer diameter: 2.8 mm

**Outer jacket:**  
Two break-out subcables parallel  
Halogen-free and flame-retardant material (FRNC), wall thickness approx. 0.44 mm  
Outer diameter approx. 4.0 mm x 6.8 mm

**Standard colours:**  
Singlemode: yellow  
Multimode 50 µm: orange or green  
Multimode OM3: aqua (turquoise)  
Multimode 62.5 µm: orange  
Multimode OM4: violet

Ripcord under the jacket  
Inkjet marking black acc. to separate drawing

**Geometrical properties**

| Number of fibers | Outer diameter [mm] | Weight [kg/km] | Fire load [MJ/m] |
|------------------|---------------------|----------------|------------------|
| 2                | 4.0 x 6.8           | 32             | 0.83             |

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Fiber Optic Cable  
I-V(ZN)HH 2x 2.8mm... 900µm

033AXXXX

**Mechanical properties**

**Min. bending radius fixed (static) acc. IEC 60794-1-2 E11A** 10 x outside diameter  
**Min. bending radius during assembly (dynamic), with additional tensile strain acc. IEC 60794-1-2 E6** 15 x outside diameter  
**Max. tensile force acc. IEC 60794-1-2 E1** 600 N  
**Max. crush resistance acc. IEC 60794-1-2 E3, long term** 600 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**

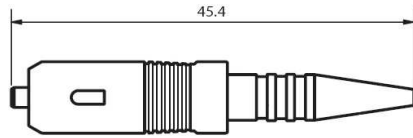
Indoor cable for the installation in cable ducts and in tubes and also suitable for interconnections  
 For direct connector assembly  
 Ideal for fiber to the desk

**Deliveryform**

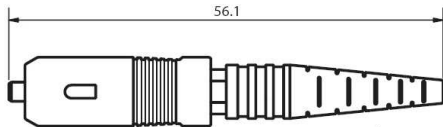
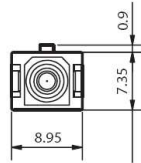
Disposable drums

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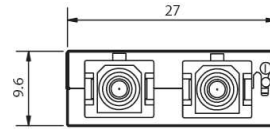
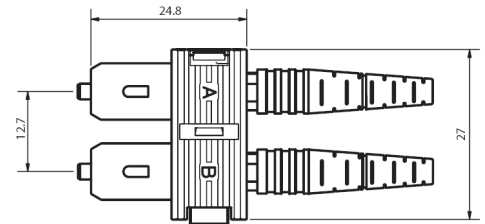
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|----------|------------|-------------|------------|------|---------------------------|----------|------------|
| P. Maier | 03.08.2016 | H. Jungbäck | 03.08.2016 | 001  | without                   | Y. Zhang | 22.06.2017 |



SC-simplex, buffered fiber



SC-simplex, cable



SC-duplex

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

**Properties**

Standard SC connectors for applications in telecommunications, data center, cabling and LAN, connections to active components.

**Interface**

SC, acc. to IEC 61754-4

**Material for connectors**

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

**Optical data**

|                      | Typical                              | max.    |
|----------------------|--------------------------------------|---------|
| Insertion Loss : S/M | 0.20 dB                              | 0.40 dB |
| M/M                  | 0.20 dB                              | 0.40 dB |
| Return Loss : S/M    | ≥45 dB(PC), ≥55 dB(UPC), ≥65 dB(APC) |         |
| M/M                  | ≥30 dB                               |         |

**Mechanical data**

Mating cycle ≥ 1000  
 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**

Cable Types : Ø 0.9 ~ 3.5 mm

**Packaging**

Standard Packaging.

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| Connector Part                       | Part No        |
|--------------------------------------|----------------|
| <b>Connector Body</b>                |                |
| Singlemode, PC, blue                 | 98 SCS 120-101 |
| Singlemode, APC, green               | 98 SCS 110-101 |
| Multimode, 50 µm, black              | 98 SCS 130-101 |
| Multimode, 62.5 µm, beige            | 98 SCS 130-102 |
| <b>Duplex clip, black</b>            | 98 ZD 02-0BK   |
| <b>Crimp sleeve</b>                  |                |
| for Ø 2.1                            | 98 ZC 05-000   |
| for Ø 2.8-3.5                        | 98 ZC 04-000   |
| <b>Boot, Ø 0.9 mm buffered fiber</b> |                |
| blue                                 | 98 ZB 06-0BU   |
| green                                | 98 ZB 06-0GN   |
| black                                | 98 ZB 06-0BK   |
| yellow                               | 98 ZB 06-0YE   |
| red                                  | 98 ZB 06-0RD   |
| <b>Boot, Ø 2.1 mm cable</b>          |                |
| blue                                 | 98 ZB 05-0BU   |
| green                                | 98 ZB 05-0GN   |
| black                                | 98 ZB 05-0BK   |
| yellow                               | 98 ZB 05-0YE   |
| red                                  | 98 ZB 05-0RD   |
| <b>Boot, Ø 2.8-3.5 mm cable</b>      |                |
| blue                                 | 98 ZB 04-0BU   |
| green                                | 98 ZB 04-0GN   |
| black                                | 98 ZB 04-0BK   |
| yellow                               | 98 ZB 04-0YE   |
| red                                  | 98 ZB 04-0RD   |



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| Y.Zhang | 29.03.2017 | H.Jungbäck | 29.03.2017 | 002  | ---                       | Y.Zhang | 29.03.2017 |