

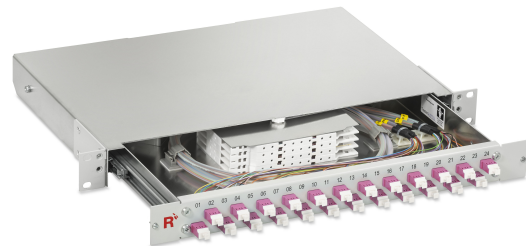
## PRODUCTPROFILE

**Catalogue number: 230A4000M4**

Partnumber: 773507

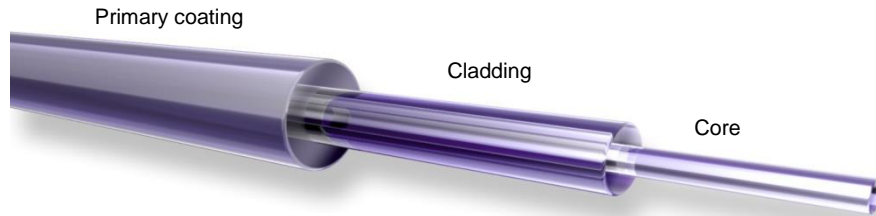
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19"-Spleißgehäuse ECO  
1 HE, RAL 7035, mit Teleskopvollauszug  
Aluminium Korpus  
Stecksystem: LC/LC, 50µ OM4  
Anzahl Fasern: 48  
4xSPK,1xPG16



### **Related documents:**

19Z-GEHÄUSEZUBEHÖR_OE	Produktinformation
DS_FASER OM4BI_OE	Fiber Data Sheet
DS_LC_SIMPLEXDUPLEX_STECKER_OI	Steckerdatenblatt
DS_LCD_KUPPLUNG_K02_OE	LCD Kupplung



**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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Optical fiber OM4  
bend insensitive

059A0381OM4BI

**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:**

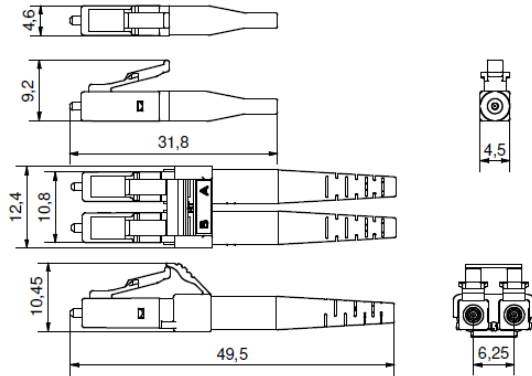
8 GFC (800-SN): min. 245 m @ max. 1.76 dB channel attenuation <sup>1)</sup>  
16 GFC (1600-SN): min. 165 m @ max. 1.51 dB channel attenuation <sup>1)</sup>

<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

LC-Simplex/Duplex connector



Properties and applications

- LC-Simplex/Duplex connectors for fiber optic cabling in broadband networks (telecom, MAN, WAN, CATV, GPON, FTTH, FTTx), building cabling (LAN, campus), data center, industry, laboratory and medical technology
- for cables with single core elements 600/900µm (e.g. buffered fiber for pigtails, breakout, mini breakout, figure "0" and figure "8" cables)
- A/B polarity of duplex connectors easily changeable without tools
- Translucence protection cap, fast and secure to handle and permeable for the light of laser pointers (visual fault locators)

Standards

LC-Simplex/Duplex connector according to IEC/DINEN 61754-20 and EIA/TIA 604-10

Material

- Ferrule: Zirconia ceramic, Ø 1.25 mm
- Body: PEI, flammability UL94-V0
- Boot: TPE, flammability UL94-V0
- Protection cap: POM, flammability UL94-HB

Optical properties

The quality feature of the connector at your product is identified by the part number:

- BASIC: Part numbers like XXXAXXXX
- PURE: Part numbers with "P" at their end, XXXAXXXXP

Details about PURE see Produktinfo\_Qualitätsmerkmal-PURE\_od

Insertion Loss IL acc. to IEC61300-3-4, Method B, against reference, maximum [dB]:

	Quality feature	BASIC	PURE
- Singlemode SM, 9/125µm		0,30	0,20
- Multimode low IL OM2, OM3, OM4, OM5, 50/125µm		0,15	0,15

Insertion Loss IL „random mated“ acc. to IEC61300-3-34, Method 2, [dB]:

Qualitätsmerkmal BASIC	Mittelwert	Maximum
- Singlemode SM, 9/125µm	0,13	0,50
- Multimode low IL OM2, OM3, OM4, OM5, 50/125µm	0,03	0,27

Insertion Loss IL quality feature PURE "random mated" application limit value, maximum [dB]:

- Singlemode SM, 9/125µm	97%	0,25
- Multimode low IL OM2, OM3, OM4, OM5, 50/125µm	100%	0,40

**GHMT PVP certificate**  
**No.: c5711X-XX**  
**No.: c5937X-XX**



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LC-Simplex/Duplex connector

Optical properties

Return Loss RL acc. to IEC61300-3-6, Method 1, against reference, minimum [dB]:

	Quality feature	BASIC	PURE
- Singlemode SM, 9/125µm, PC 0°		45	45
- Singlemode SM, 9/125µm, UPC 0°		55	55
- Singlemode SM, 9/125µm, APC 8°		65	70
- Multimode all 50µ OM classes		35	40

Mechanical properties

- Mating cycles min. 1000, IL increase < 0.2 dB
- Strain relief max. 100 N, dependent on cable type

Thermal properties

- Operation temperature range -40°C to +85°C, dependent on cable type
- Storage temperature range -40°C to +85°C

Cable diameters

- Round cable types Ø 0,9 bis 3.0 mm
- Hotmelt Duplex Ø 4,8 ~ 7.0mm

Colors

Connector body / boot:

- Singlemode SM, 9/125µm, PC and UPC 0° blue / blue
- Singlemode SM, 9/125µm, APC 8° green / green
- Multimode OM2, OM3, OM4, OM5, 50/125µm black / black

Polarity change

Step 1: Remove duplex clip

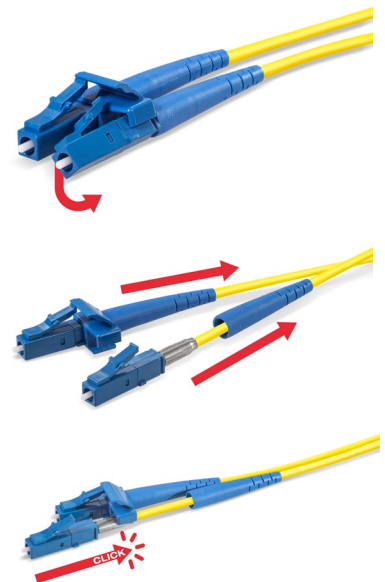
- When changing polarity, the release levers should be facing up as shown in the picture.
- Remove one of two simplex connectors from the duplex clip by pressing down and out, supported by a slight tilt movement.
- Then release the second simplex connector from the duplex clip in a similar manner.

Step 2: Reattach duplex clip

- Push back the boot of both simplex connectors
- Reattach the duplex clip over the simplex connectors that have been changed in position and insert the simplex connectors (a click is noticeable).

Step 3: Final assembly duplex connector

- Slide the boot of both simplex connectors to their original position.



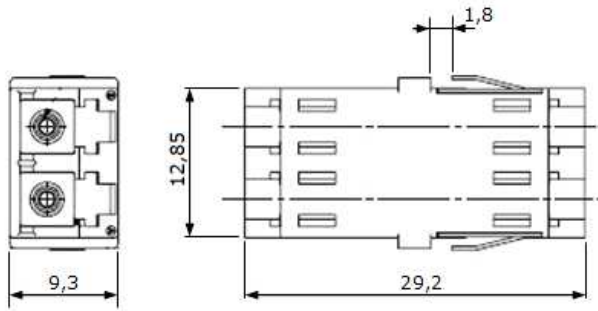
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Draft	Date	Approved	Date	Rev.	Engineering change number	Name	Date
S. Wiener	16.03.2021	H. Jungbäck	2021-03-16	003		H. Jungbäck	2022-10-07

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LC-Duplex Adapter  
(sen./sen.) without flange

98 LCK8 LC-K02-XX



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

**Properties**

The LC is a small-Form-Factor connectivity system for applications which require a high packaging density.

**Interface**

LC Adapter, acc. to DIN EN 61754-20

**Material for Adapter**

Housing : Plastic  
Sleeve : Ceramic

**Optical data**

Insertion Loss : S/M <0.20 dB  
M/M <0.20 dB

**Mechanical data**

Mating cycle > 500

**Environmental data**

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

**Part Number**

Type	Color	Part Number
Singlemode 9/125, PC	blue	98LCK8 LC-K02-bu
Singlemode 9/125, APC	green	98LCK8 LC-K02-gn
Multimode, 50/125, OM2	black	98LCK8 LC-K02-bk
Multimode, 50/125, OM3	turquoise	98LCK8 LC-K02-tk
Multimode, 50/125, OM4	violett	98LCK8 LC-K02-vt
Multimode, 62.5/125	beige	98LCK8 LC-K02-be

**Packaging**

Standard packaging

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Y.Zhang	08.02.2017	H.Jungbäck	08.02.2017	001	---	Y.Zhang	08.02.2017