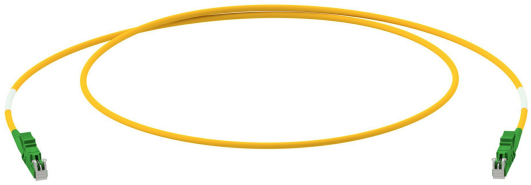
Rosenberger

PRODUCTPROFILE

Catalogue number: 069A2135G657A1

Partnumber: 703954

Fiber optic simplex patchcord
Connector side A: E2000HRL Simplex ceramic
Connector side B: E2000HRL Simplex ceramic
9/125µm, 2.8mm, yellow
Cable I-V(ZN)H1x2,8E9/125µm,G657A1



Related documents:

DS_E2000HRL_STECKER_R_SM_OE	Steckerdatenblatt
DS_FASER G657A1_OE	Fiber Data Sheet
DS_I-VZNH1X28STB900_L_OE	Cable Data Sheet

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Technical Data Sheet

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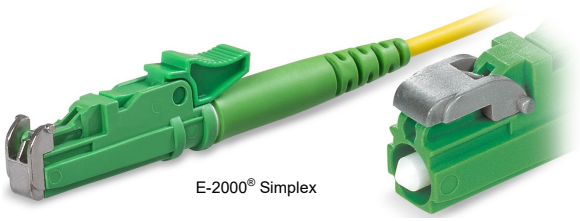
E-2000® HRL (APC 8°) connector



E-2000® Simplex

E-2000® Compact

E-2000® is a registered trademark of DIAMOND SA

Properties and applications

- Our E-2000® HRL is a singlemode APC 8° fiber optic connector with solid-ceramic ferrule for all singlemode applications with high requirements on optical transmission quality and protection of the connector ferrule, e.g. LAN backbone, metropolitan (MAN) fiber optic networks, FTTx and industrial applications.
- Through its precision ferrule and its tuning with excentricity limit according to DINEN 61755-3-2 grade B specification, our E-2000® HRL reaches low insertion loss IL and high return loss RL values at „each-to-each“ (random-mated) connections.
- With automatically closing metal shutter for protection against laser light and contamination of the connector ferrule, protection class IP40

Standards

IEC 61754-15 (LSH), tuning with excentricity limit according to DINEN 61755-3-2 grade B specification

Material

- Ferrule:	Zirconia ceramic, Ø 2.50 mm
- Connector body:	PBT, flammability UL94-V0
- Boot:	TPR, flammability UL94-V0
- Protection shutter:	Metal, not flammable

Optical properties

- Insertion Loss IL acc. to IEC61300-3-4, Method B, against reference, maximum [dB]:	0.25
- Insertion Loss IL „random mated“ acc. to IEC61300-3-34, Method 2, [dB]:	Mean 0.12 / Maximum 0.28
- Return Loss RL acc. to IEC61300-3-6, Method 1, against reference, minimum [dB]:	70

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 to 3.0 mm

GHMT PVP certificate
No.: c5803X-XX

Colors

- Connector body:	Green
- Boot:	Green
- Protection shutter:	Silver

Draft	Date	Approved	Date
H. Jungbäck	2022-11-21	M. Komarow	2022-11-21

Rev.	Engineering change number	Name	Date
009		---	---

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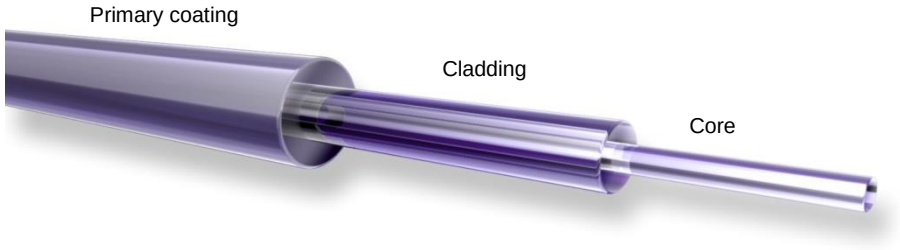
Technical Data Sheet	Rosenberger
Optical fiber G.657.A1/G.652.D	059A0478



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

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

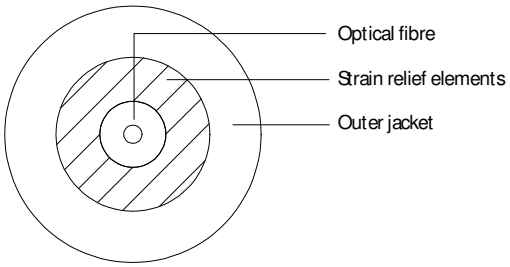
Draft	Date	Approved	Date
H. Jungbäck	12-04-15	P. Maier	12-04-15

Rev.	Engineering change number	Name	Date
001	without	H. Jungbäck	12-04-15

Technical Data Sheet

Rosenberger

Fiber Optic Cable
I-V(ZN)H 1x 2.8mm… STB900



Standards

IEC 60794-2

Structure

Cable core	**STB900 = Semi tight buffered optical fibre, gel-filled, outer diameter 900 µm colour: yellow (E9/125), green (G50/125), blue (G62.5/125) Strain relief elements (aramid)**
Outer jacket:	**Halogen-free and flame-retardant material, approx. 0.5 mm wall, Standard colours: Singlemode: yellow Multimode 50 µm: orange or green Multimode OM3: aqua (turquoise) Multimode 62,5 µm: orange Multimode OM4: violet Other colours on request Outer diameter 2.8 mm Marking see separate drawing**

Mechanical properties

Min. bending radius		
	static	**30mm**
	dynamic	**60mm**
Min. bending radius with G657A		
	static	**15mm**
	dynamic	**30mm**
Max. pull force		**400 N**
Max. crush resistance long term		**150 N/dm**
Weight		**7.9 kg/km approx.**

Thermal properties

Transport and storage	**- 25°C to + 70°C**
Installation	**- 5°C to + 50°C**
In use	**- 10°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
- Fire Load 0.18 MJ/m

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

Deliveryform

Disposable drums

Draft	Date	Approved	Date	Rev.	Engineering change number	Name	Date
H. Jungbäck	02.09.2005	DE	13.07.2015	004	without	Y. Zhang	22.06.2017