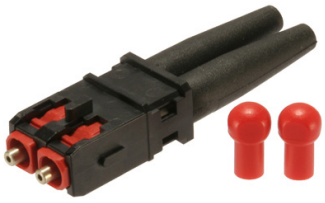
Ratioplast
Electronics | OptoElectronics

Data sheet **FO connector**
SC-RJ connector POF

SC-RJ connector for POF cable 1/2.2 mm

1 General

The FO connector style SC-RJ is optimized in particular for applications using standard 1 mm polymer optical fiber acc. IEC 60793-2-40, demanding a fast and easy cable assembly with high reliability, very good optical and mechanical characteristics.
The connector complies to IEC 61754-24



Pic. 1 SC-RJ *connector*

2 Application

Due to the good optical features and the easy cable assembly, the SC-RJ connector is useable in several applications:

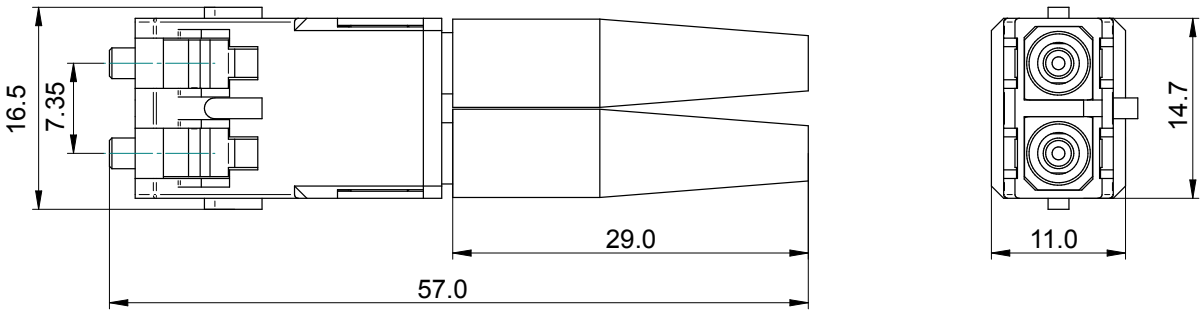
- optical networking
- industrial electronics
- power electronics
- consumer electronics

4 Ordering information

SC-RJ connector with bend protection and dust protection for 1 mm POF with 2.2 mm jacket

Specification	Part number
with bend protection (black)	902SS001SR002

3 Technical drawing



Pic. 2 Drawing SC-RJ connector

SC-RJ connector for POF cable 1/2.2 mm

5 Cable assembly

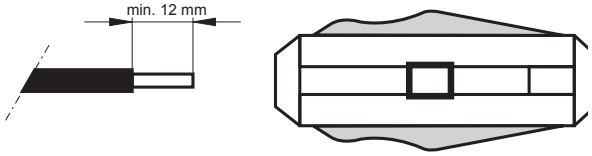
The following tools and materials are recommended for easy and reliable 1mm POF cable termination with SC contact:

Specification	Part number
Crimping tool hexagonal	910CZ00100008
Fiber stripper	910AB00100001
Polishing disc	910PS0SC00001
Polishing film, grain size 1000	910PB00100001
Polishing film, grain size 4000	910PB00140250

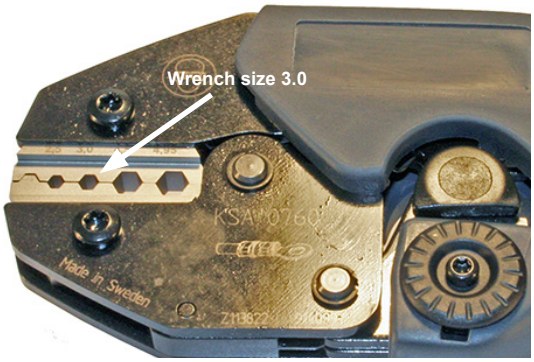
Pic. 4 Crimping tool hexagonal for jacket crimping

5.1 FO cable:

- Remove app. 12 mm of outer jacket 2.2 mm by using the fiber stripper (Pic. 3)



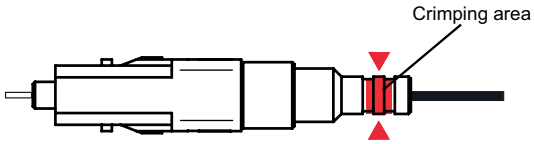
Pic. 3 Stripping dimensions



Pic. 5 Crimping cavities

5.2 Crimping of 2.2 mm jacket:

- Align the connector anchor (rear end of connector) with the hexagonal cavity, wrench size 3.0 mm (Pic. 4 to 6), of the crimping tool (910CZ00100008) and squeeze the crimping tool handles until they release.
- Alternative to jacket crimping, pasting of jacket is also possible simultaneously with fiber pasting.

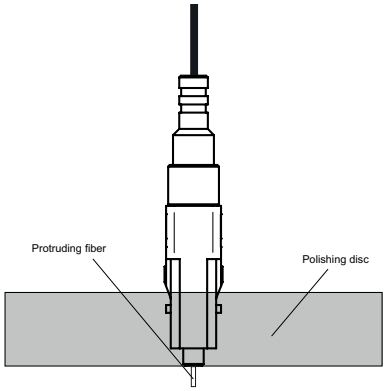


Pic. 6 Crimping area for jacket crimping with crimping tool hexagonal

SC-RJ connector for POF cable 1/2.2 mm

5.3 Fiber grinding and polishing:

- Insert the connector fully into the appropriate polish disc.
- Press the tool on the polish paper (grid P1000) and polish the fiber until the fiber is flush with the connector. Use a hard and plain support plate (e.g. glass plate).
- Wipe the connector with a clean tissue.
- Best attenuation values are achieved applying wet polishing.
- Repolishing on polish paper with grid P4000 may improve attenuation about 1dB.
- Best attenuation values are achieved applying wet polishing, too.



Pic. 7 Polishing disc

5.4 Conncetor assembly:

- Insert the SC contacts into the SC-RJ retainer until they snap in. Please note the keying of the housing (Pic. 8).

Pic. 8 SC-RJ connector (SC contacs with grip plate)

6 Technical data

Parameter	Condition	Value	Unit
Material	Ferrule body Retainer and SC body Anti-kink sleeve Dust cap	German silver Plastic TPE HD-PE	
Insertion loss		≤ 2.0	dB
Retention force cable to connector (at ambient temperature)	Fiber pasting Jacket crimping Fiber pasting and jacket crimping	40 50 80	N
Temperature range	Storage and operation	-40 to +85	°C
Mating cycles		≥ 500	Cycles
Protection class	IP20		

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