

**F-SMA connector (flat anchor) for POF cable 1/2.2 mm, simplex**

**1 General** \_\_\_\_\_

The FO connector style F-SMA is optimized in particular for applications using standard 1 mm polymer optical fiber demanding a fast and easy cable assembly with high reliability, very good optical and mechanical characteristics.

**2 Application** \_\_\_\_\_

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

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



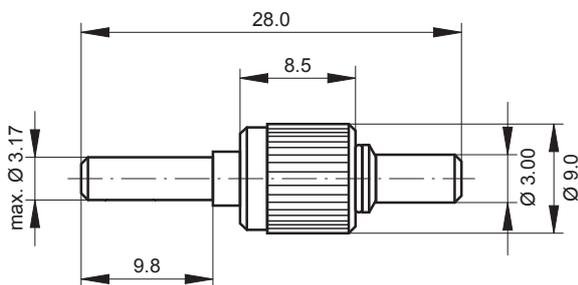
Pic. 1 F-SMA connector with knurled nut / hexagonal nut

**4 Ordering information** \_\_\_\_\_

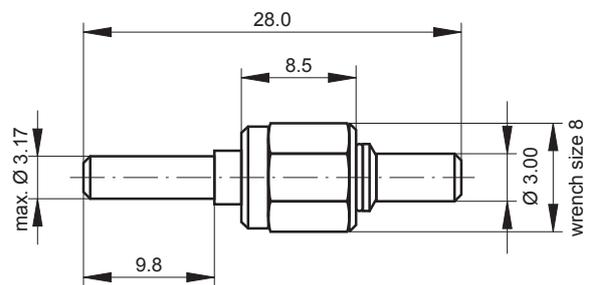
F-SMA connector for 1/2.2 mm POF with flat anchor

Specification	Part number
F-SMA knurled nut	902SS001SM017
F-SMA hexagonal nut	902SS001SM014

**3 Technical drawing** \_\_\_\_\_



Pic. 2 F-SMA connector with knurled nut



Pic. 3 F-SMA connector with hexagonal nut

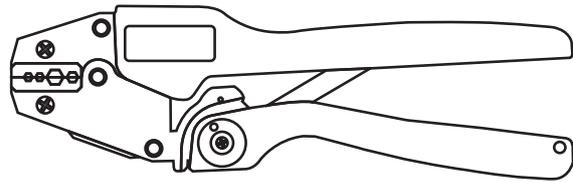


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**5. Cable assembly**

Required tools for FO cable assembling of F-SMA connector with 1/2.2mm POF cable

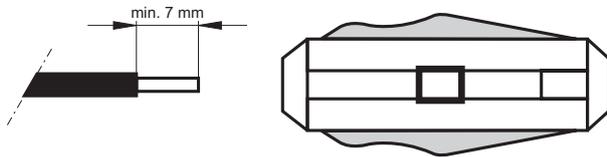
Specification	Part number
Crimping tool hexagonal	910CZ00100008
Fiber stripper	910AB00100001
Polishing disc	910PSSMA00001
Polishing film, grain size 1000	910PB00100001



Pic. 5 Crimping tool for hexagonal jacket crimping

**5.1 FO cable**

- Remove min. 7 mm of the cable jacket 2.2 mm with the fiber stripper (Pic. 4)



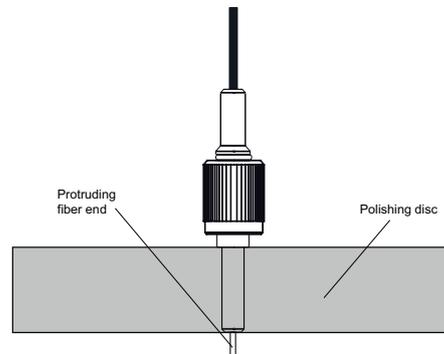
Pic.4 Fiber stripper

**5.2 Crimping of 2.2 mm jacket:**

- Align the connector anchor (rear end of connector) with the hexagonal cavity, wrench size 2.5 mm (Pic. 5), 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.

**5.3 End face processing:**

- After crimping insert connector into polishing disc (Pic. 6) and grind the protruding fiber by using the polish film, grain size 1000 placed on a smooth pad (e.g. glass plate). Press the polishing disc down on the polish film and grind the fiber until the connector is flush with the bottom of the disc
- Wipe the connector with a clean tissue. Best insertion loss results are achieved by wet grinding.
- If the connector is not to be used immediately, cover the end with the dust cap.



Pic. 6 Polishing disc with connector guidance

**6 Technical data**

Parameter	Condition	Value	Unit
Retention force, fiber crimping	Ambient room temperature	50	N
Retention force, jacket crimping		50	N
Retention force, fiber and jacket crimping		80	N
Thermal properties	---	-40 to +85	°C

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