

F-SMA Clamp Connector for 200/230µm PCF

1 General

This connector, designed for 200/230µm PCF-fiber uses an assembly without crimping and glueing. A patented clamp system integrated into the connector body holds the fiber, the strain relief and the cable jacket in place after assembly.

It is possible to disassemble the connector and reuse it several times. This big advantage makes it easy to repeat an assembly if the demanded optical parameters are failed after finishing.

Additionally, there is no need for expensive tools like heat oven or crimp pincers and an enormous time saving while no crimping, glueing and heat curing is needed.

Fiber endface preparation is done by hand thru scribing and breaking or, to get repeatable results, using the special designed fiber cleaving tool from Ratioplast-Optoelectronics.

The F-SMA Clamp Connector is suitable for applications with 200/230µm PCF cables acc. IEC 60793-2-30 and is based on IEC 61754-22 standard.



Pic. 1 F-SMA clamp connector

3 Application

Due to the very good optical characteristics and easy termination technique, the F-SMA Clamp Connector is suitable for different applications:

- optical networks
- industry electronics
- power electronics
- consumer electronics

4 Features

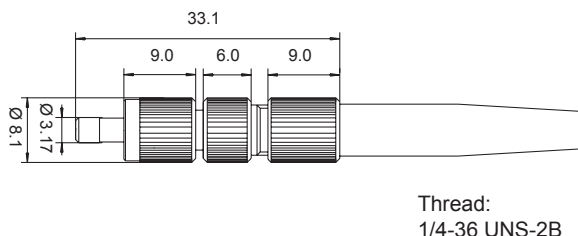
- F-SMA clamp connector
- suitable for 200/230µm fiber
- epoxy free assembly
- no crimp tool needed
- patented clamp system
- reusable for several times
- fast assembly

5 Ordering information

The 200/230µm fiber F-SMA connector is available for 3 different cable jacket outer diameter:

Specification	Part number
Cable diameter: 2.2 mm	902SS201SMK01
Cable diameter: 2.5 mm	902SS202SMK01
Cable diameter: 3.0 mm	902SS203SMK01

2 Drawing



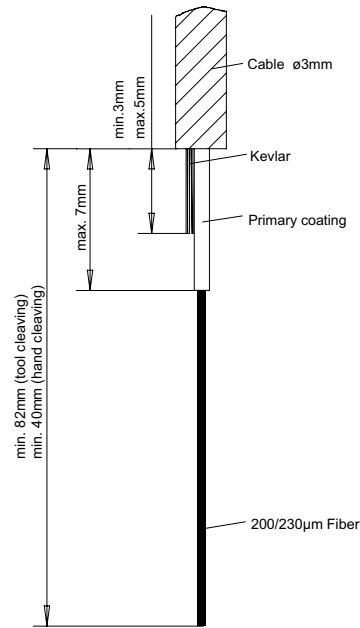
Pic. 2 Drawing



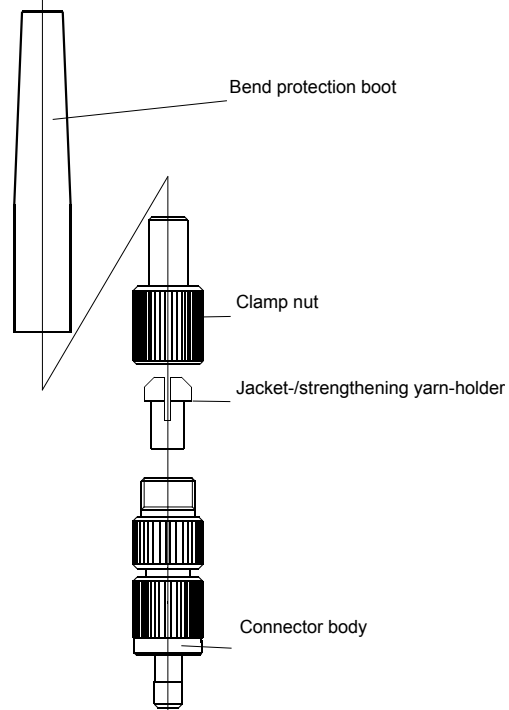
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6 Cable assembly

- Cut the fiber optic cable to length and dismantle the fiber according to dimensions in Pic. 3.
- Unscrew clamp nut and remove cable jacket-/strengthening yarn-holder insert from connector body (Pic. 4).
- Slip bent protection boot and clamp nut onto the cable.
- Slip cable jacket-/strengthening yarn-holder onto cable until it butts against the outer jacket. Make sure that the strengthening yarn is fully passed through the holder.
- Insert the fiber into the connector and rotate the connector carefully feeling for the opening in the tip. When the fiber is seated, pull it back slightly and watch for movement at the tip to make sure the fiber has not been broken.
- Reseat the fiber into the connector so the jacket-/strengthening yarn-holder butts against the connector body. The fiber should now protrude the tip by 20mm (for manual cleaving) or by 50mm (using Ratioplast-Optoelectronics cleaving tool).
- Manually tighten the clamp nut onto the connector body using gentle force. Doing this the glass fiber, the strengthening yarn and the cable jacket will be locked in place.
- Fiber end face preparation can be done by manual cleaving or using the special designed cleaving tool from Ratioplast (Ord. Nr.: 910FW230SM001).
- Refer to cleaving tool data sheet E10FW230SM001 for operating instructions.



Pic. 3 Stripping dimensions



Pic. 4 Components F-SMA clamp connector



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7 Technical data _____

Parameter	Condition	Value	Unit
Material	Ferrule, Clamp nut Spring Anti-kink sleeve Dust cap	German silver Steel TPE HD-PE	
Insertion loss		≤ 1.25	dB
Retention force cable to connector	Cable clamping	≥ 80	N
Temperature range	Storage and operation	-40 to +85	°C
Mating cycles		≥ 500	Cycles
Protection class	IP20		

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