Ratioplast
Electronics | OptoElectronics

Data Sheet **Fiber Optic Connector**
V-Pin Connector

V-Pin Connector for POF 1/2.2mm

1 General

This Fiber Optic V-Pin Connector is optimized in particular for applications using standard 1 mm polymer optical fiber acc. IEC 60793-2-40 demanding a fast and easy cable assambly with high reliability, very good optical and mechanical characteristics. The rubber seal provides added link protection from ingress of dirt, dust and fluids. The connector is compatible with HFBR Versatile Link products.

94SS1050P0C02HF01-10

94SS1050P0C02HF11-10

Pic. 1 V-Pin Connector for POF 1/2.2mm

2 Application

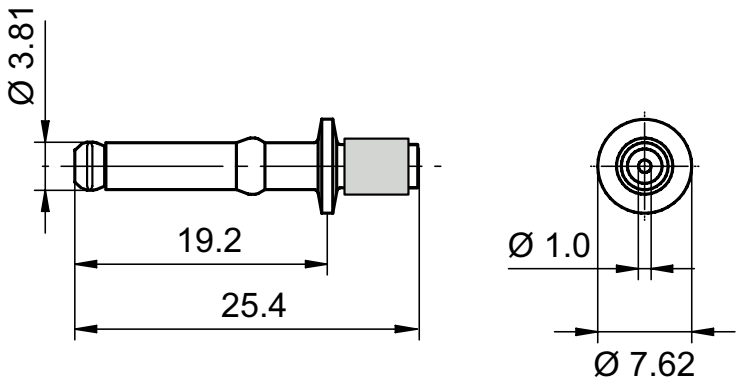
Due to the good optical features and the easy cable assembly, the V-Pin connector is useable in several applications:

- optical networking
- industrial electronics
- power electronics

3 Ordering information

Type	Order number
V-Pin POF Connector with rubber seal	
grey	94SS1050P0C02HF01-10
blue	94SS1050P0C02HF11-10
Crimp Sleeve for V-Pin POF Connector simplex	902SS001H4525

4 Drawing



Pic. 2 Drawing V-Pin Connector

V-Pin Connector for POF 1/2.2mm

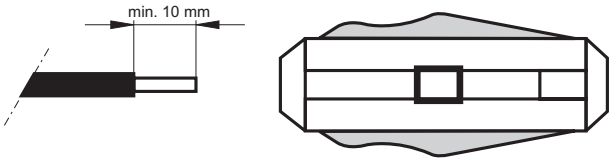
5. Cable assembly

Required tools for FO cable assembly of HFBR POF connector with 1/2.2mm POF cable:

Type	Order number
Crimping tool hexagonal	910CZ00100008
Fiber stripper	910AB00100001
Fiber stripper	910AZ00100PA1
Polishing disc	910PSH4501001
Polishing film, grain size 1000	910PB00100001
Polishing film, grain size 4000	910PB00140250

5.1 Fiber optic cable

- Remove app. 5mm of outer jacket 2.2 mm by using the fiber stripper (Pic. 3)



Pic. 3 Fiber stripper

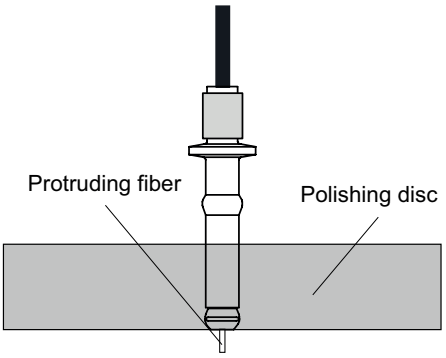
5.2 Crimping of 2.2mm jacket:

- Align the connector anchor (rear end of connector) with the hexagonal cavity, wrench size 4.95 mm of the crimping tool (910CZ00100008, Pic. 4) and squeeze the crimping tool handles until they release
- Alternative to jacket crimping, pasting of jacket is also possible simultaneously with fiber pasting.

Pic. 4 Crimping tool hexagonal for jacket crimping

5.3 Fiber end face processing:

- After crimping, insert connector into polishing disc (Pic. 5) and grind the protruding fiber by using the polish film, grain size 1000 placed on a hard and plain support plate (e.g. glass plate). Press the polishing disc on the polish film an grind the fiber until the connector is flush with the bottom of the disc. Rotate in a figure of 8 format which will erode the core material of the cable.
- 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. 5 Polishing disc

V-Pin Connector for POF 1/2.2mm

6 Technical data

Parameter	Condition		Min.	Typ.	Max.	Unit
Material	Ferrule Crimp Sleeve		Plastic Metal			
Thermal Conditions	Storage Temperature		-25		+85	°C
	Operating Temperature	Rubber Seal	-25		+85	
		Plug Retention	-40		+85	
	Installation Temperature		0		+70	
Retention Force	Plug to Transceiver	+25°C		8		N
		-40°C to +85°C	3			
Insertion Force	Plug to Transceiver	+25°C		8		
Durability	Mating Cycles		500			Cycles