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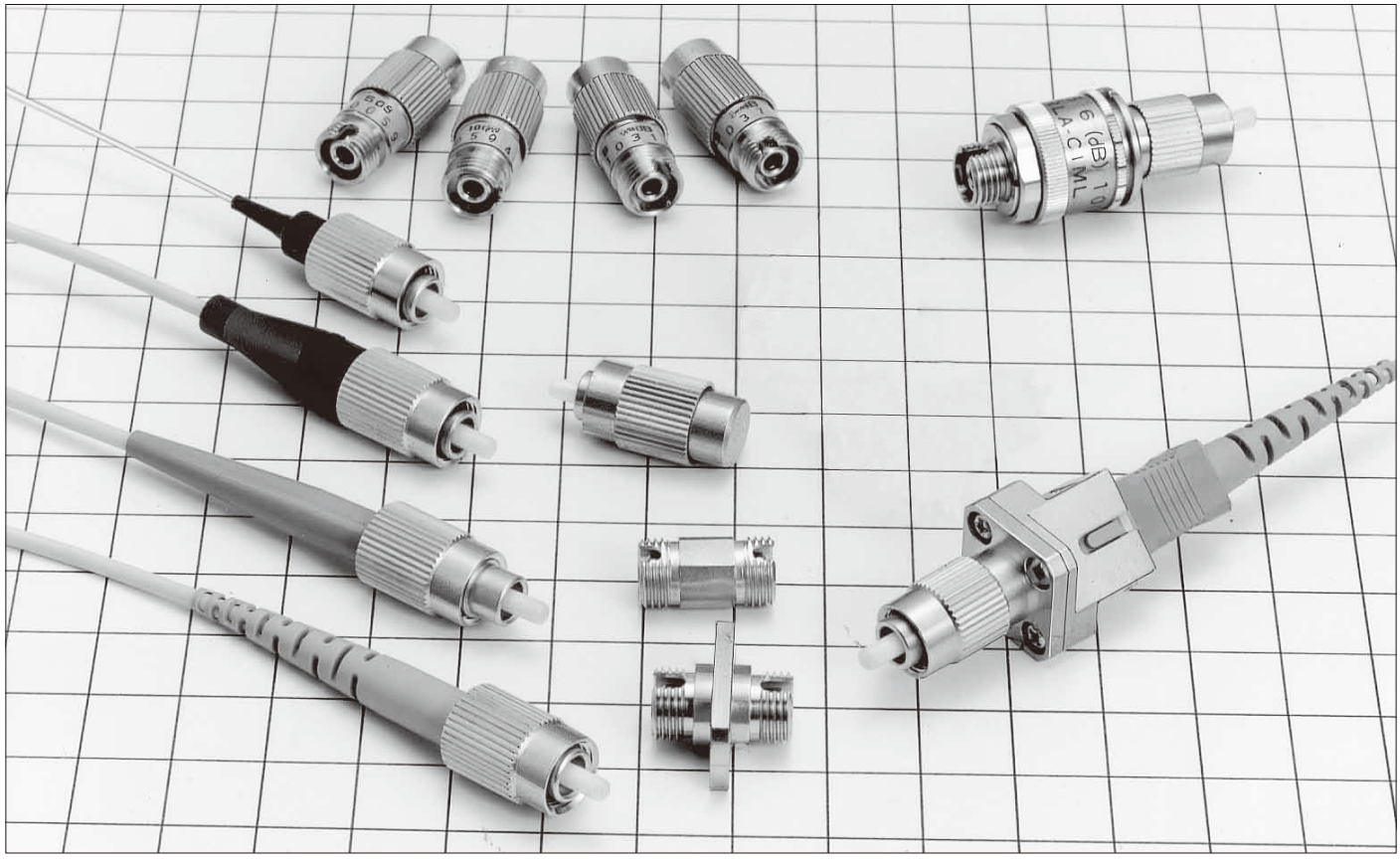
FC Type Fiber Optic Connectors

HRFC Series



■Features

1. JIS, IEC standard compliant and intermateability test certified.

Comply with IEC 61754-13 and JIS C 5970(type F01).
FC intermate test by NTT certified connector.

2.Polishing

Available with PC polishing, advanced PC(AdPC) polishiing and Angled PC(APC) polishing.

3.Flame resistant

Satisfies flammability rating UL94V-0.

■Applications

Public communications lines, CATV, Test equipment, etc.

In cases where the application will demand a high level of reliability, such as automotive, please contact a company representative for further information.

■Product Specifications

Ratings	Operating temperature range	-25°C to +70°C	Storage temperature range	-25°C to +70°C

Item			Test Method (IEC 61300)	Specifications
Optical Characteristics	Insertion Loss	(SM)	Wavelength 1310nm (LD)	0.5dB max. (PC, AdPC, APC)
		(GI)	Wavelength 1310nm (LED)	0.3dB max. (PC)
	Return Loss	(SM)	Wavelength 1310nm (LD)	22dB min. (PC), 40dB min. (AdPC), 60dB min. (APC)
		(GI)		22dB min. (PC)
Mechanical Characteristics	Ferrule withdrawal		Extract zirconia gauge 2.499 ±0.0005mm dia from split sleeve.	Phosphor bronze split sleeve 2N to 5.9N Zirconia split sleeve 2N to 3.9N
	Cable retention (Straight pull)		98N tensile load for 1 minute.	1) Insertion loss fluctuation after test: 0.2dB max. 2) No visible damage, dislocation of clamp or cable.
	Durability (cycles, mating/un-mating)		1000 times	1) Insertion loss fluctuation after test: 0.2dB max. 2) No visible damage, cracks or part dislocation.
	Vibration		Frequency: 10 to 55 Hz, single amplitude of 0.75mm, 2 hours in each of the 3 axis.	
	Shock		Acceleration of 981 m/s², 6 ms duration, half sine shock pulse, 10 cycles in each of the 3 axis.	
Environmental Characteristics	Humidity (Temperature/ humidity- cycles)		-10°C to 65°C, humidity: 90% to 96% 10 cycles	
	Change of temperature		-40°C to +75°C 42 cycles (Complies with Telcordia standard GR-326-CORE)	
	Dry heat		240 hours at 85°C	
	Cold		240 hours at -25°C	
	Salt mist		48 hours in a 5% concentration of salt mist	No significant corrosion.

■Materials

Part	Material
Plug housing	Brass, Zinc alloy
Spring	Stainless steel
Ferrule	Zirconia
Adapter	Brass
Split sleeve	Zirconia or Phosphor bronze
Receptacle	Brass

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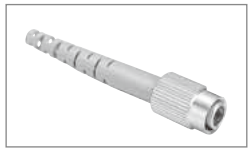
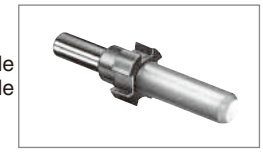
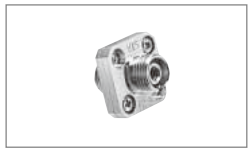
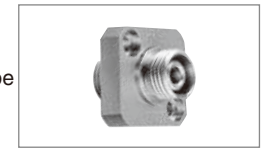
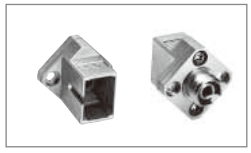
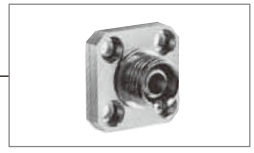
■FC products

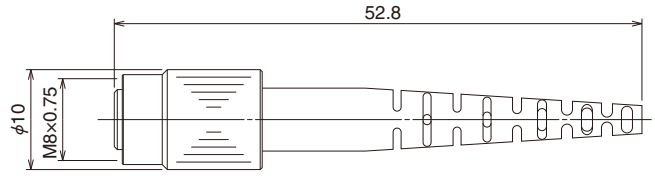
HRFC-type Connector

- Plug Housing
  - For 2mm cord, Molded keying ring type
  - For 3mm cord, Molded keying ring type 
  - For 0.9mm fiber, Molded keying ring type
- Ferrule — Single mode, Multi mode 
- Adapter
  - Standard type 
  - Round type
  - Solid Body type 
  - Flange type
- Conversion adapter — FC to SC 
  - FC to SC
- Receptacle 
- Dust cap

■Plug Housing

Please use it with the SC ferrules.

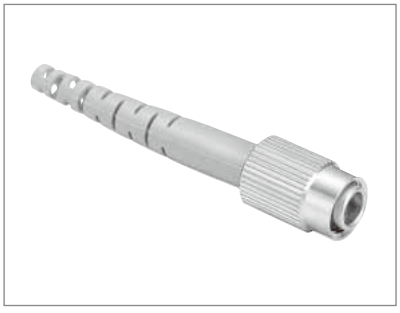
●For 2mm cable

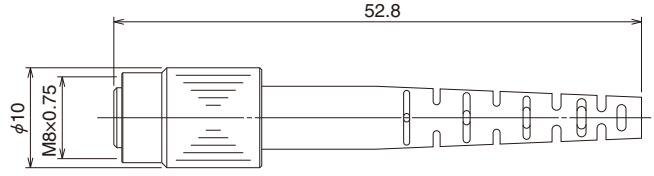


Part Number	CL No.	Boot color	Polishing type
HRFC-P8-H2(63)	701-0075-3-63	Blue	PC
HRFC-P8-L2(61)	701-0077-9-61	Light purple	AdPC
HRFC-P8-G2(62)	701-2001-8-62	Green	APC

Note: Guide key width is 2.1mm

●For 3mm cable

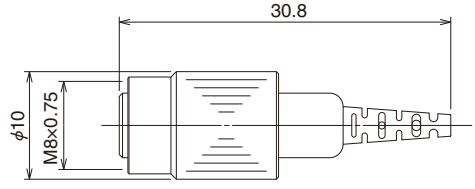




Part Number	CL No.	Boot color	Polishing type
HRFC-P8-H3(62)	701-0074-0-62	Blue	PC
HRFC-P8-L3(61)	701-0078-1-61	Light purple	AdPC
HRFC-P8-G3(61)	701-2002-0-61	Green	APC

Note: Guide key width is 2.1mm

●For 0.9mm fiber



Part Number	CL No.	Boot color	Polishing type
HRFC-P15-H(62)	701-0114-3-62	Blue	PC
HRFC-P15-L(62)	701-0115-6-62	Light purple	AdPC
HRFC-P15-G(61)	701-2004-6-61	Green	APC

Note: Guide key width is 2.1mm

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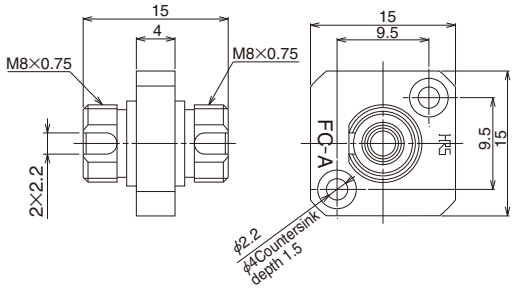
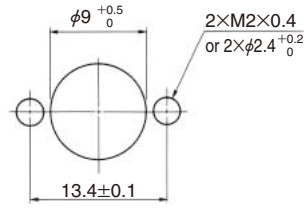
■Adapters

●Solid Body type



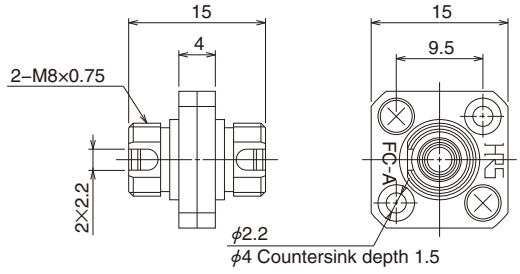
■Panel Cutout



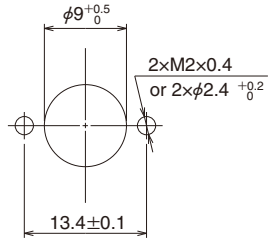
Part Number	CL No.	Split sleeve	Remarks
HRFC-PA11-G1(40)	701-0071-2-40	Phosphor bronze	———
HRFC-PA11-D1(40)	701-0106-5-40	Zirconia	(Note)

Note: Please take utmost care when inserting FC plug into a FC adapter. When applying excessive force to the FC plug or inserting in an odd angle, the zirconia sleeve within the adapter might be dameged

●Standard Body type



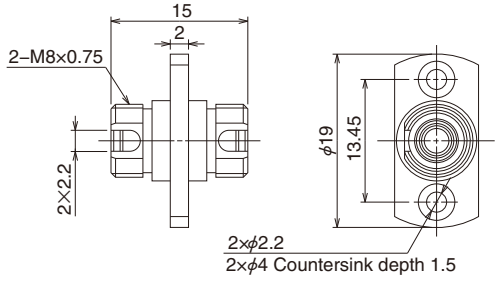
■Panel Cutout



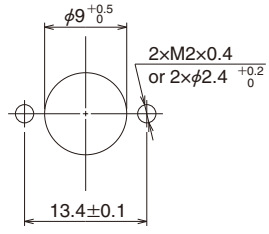
Part Number	CL No.	Mark	Split sleeve	Remarks
HRFC-PA1-G1(41)	701-0014-9-41	FC-AP	Phosphor bronze	———
HRFC-PA1-D1(40)	701-0089-8-40	FC-A	Zirconia	(Note)

Note: Please take utmost care when inserting FC plug into a FC adapter. When applying excessive force to the FC plug or inserting in an odd angle, the zirconia slleve within the adapter might be dameged

●Flange type



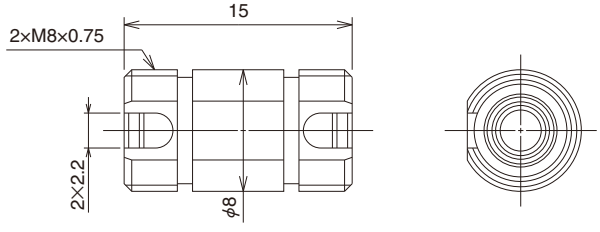
■Panel Cutout



Part Number	CL No.	Split sleeve	Remarks
HRFC-PA4-G1(40)	701-0068-8-40	Phosphor bronze	———
HRFC-PA4-D1(40)	701-0112-8-40	Zirconia	(Note)

Note: Please take utmost care when inserting FC plug into a FC adapter. When applying excessive force to the FC plug or inserting in an odd angle, the zirconia sleeve within the adapter might be dameged

●Round type

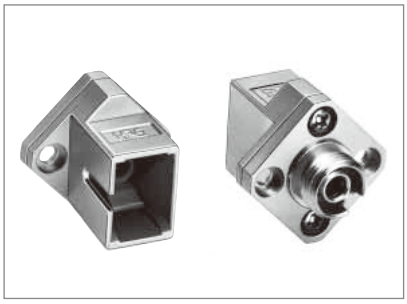


Part Number	CL No.	Split sleeve	Remarks
HRFC-A2-SF(41)	701-0039-0-41	Phosphor bronze	———
HRFC-A2-SF-D1(40)	701-0140-3-40	Zirconia	(Note)

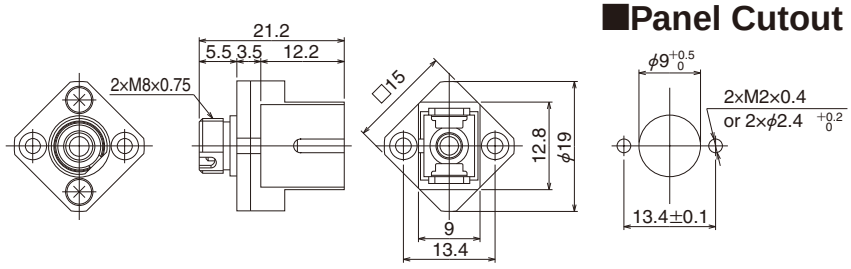
Note: Please take utmost care when inserting FC plug into a FC adapter. When applying excessive force to the FC plug or inserting in an odd angle, the zirconia sleeve within the adapter might be dameged

■Conversion adapters

●FC / SC

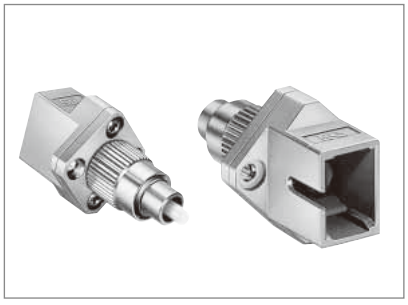


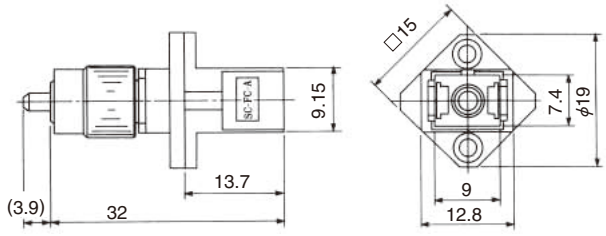
■Panel Cutout



Part Number	CL No.	Split sleeve
HSCJ-HRFCJ-B(43)	704-0021-3-43	Phosphor bronze

●FC / SC

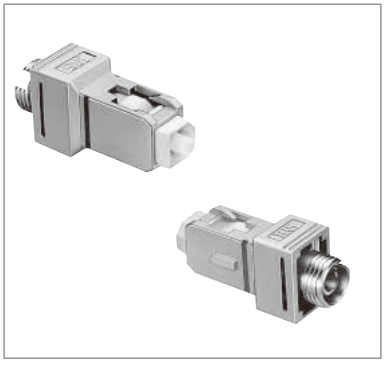


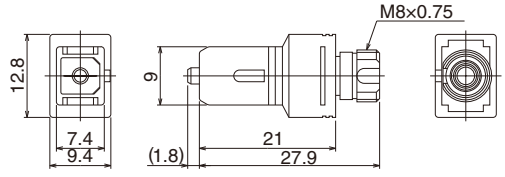


Part Number	CL No.	Split sleeve	Polishing type	Fiber type
HRFCP-HSCJ-1(61)	701-0065-0-61	Phosphor bronze	PC	GI-50/125
HRFCP-HSCJ-1AS(61)	701-0108-0-61		AdPC	
HRFCP-HSCJ-2(61)	701-0085-7-61		PC	SM-9.5/125
HRFCP-HSCJ-2AS(61)	701-0109-3-61		AdPC	

The positions of SC guide slot and FC guide key will not be always aligned.

●FC / SC



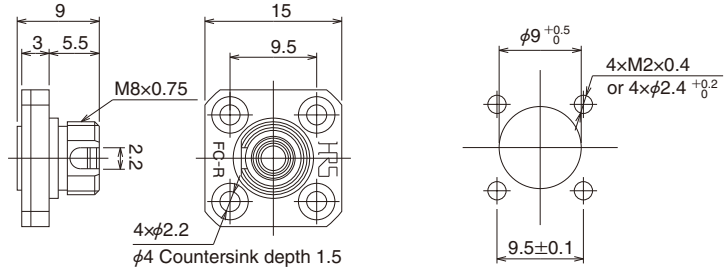


Part Number	CL No.	Split sleeve	Polishing type	Fiber type
HSCP-HRFCJ-1(61)	704-0203-0-61	Phosphor bronze	PC	GI-50/125
HSCP-HRFCJ-1AS(61)	704-0288-3-61		AdPC	
HSCP-HRFCJ-2(61)	704-0204-3-61		PC	SM-9.5/125
HSCP-HRFCJ-2AS(61)	704-0289-6-61		AdPC	

The positions of SC guide key and FC guide slot will not be always aligned.

■Receptacle

■Panel Cutout



Part Number	CL No.	Remarks
HRFC-R1(41)	701-0016-4-41	GI
HRFC-R2(41)	701-0023-0-41	SM

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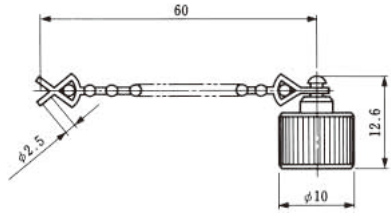
■Ferrule

Please use the SC connector's ferrule.

■Dust Cap



Part Number	CL No.
HRFC-C1(40)	701-0019-2-40

■Tool

●Crimp tool

Please use the SC connector's crimp tool .