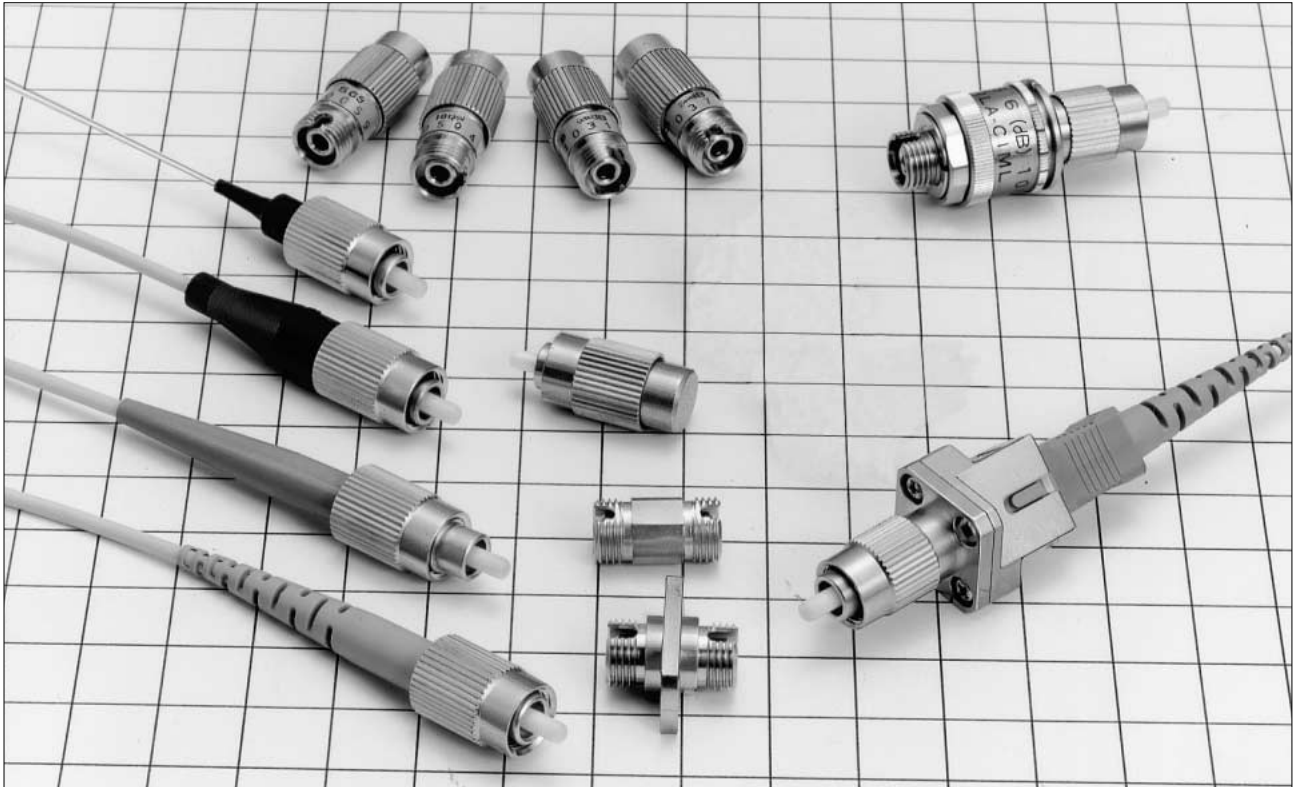


FC-type Optical Fiber Connectors

HRFC Series



■ Features

1. JIS C 5970 (CF01-type Simplex Optical Fiber Connector) Standard Compliance

These connectors correspond to the NTT FC-type optical fiber connectors.
JIS C 5970 (CF01-type simplex optical fiber connectors)
IEC 60874-7

2. Cost Effective Type

A single-body, cost-effective type is available in which the frame and key ring are made of zinc die cast.

3. Polishing

Available with PC polishing, Advanced PC (AdPC) polishing, and Angle PC (APC) polishing.

■ Applications

Public communications lines, CATV, measuring instruments, etc.

■Product Standards

Rating	Operating temperature range	-25°C~70°C	Storage temperature range	-25°C~70°C
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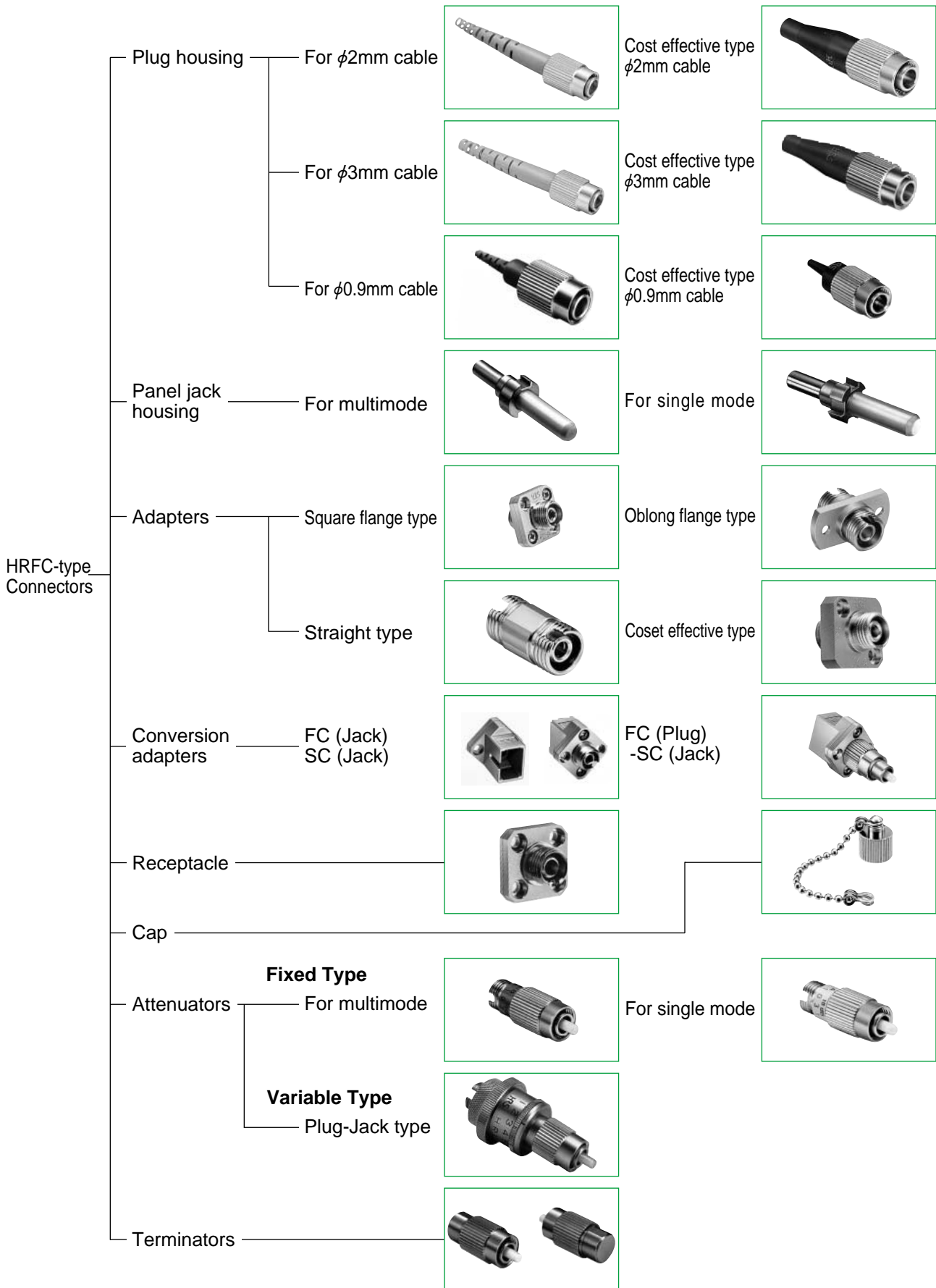
	Item		Test Method (JIS C 5961)	Standard
Optical Performance	Insertion loss	(SM)	1,300nm wavelength (LD)	0.5 dB or less (PC, AdPC)
		(GI)	1,300nm wavelength (LED)	0.3 dB or less (PC, AdPC)
	Reflection attenuation	(SM)	1,300nm wavelength (LD)	22 dB or greater (PC) 40 dB or greater (AdPC) 60 dB or greater (APC)
		(GI)		22 dB or greater (PC)
Mechanical Performance	Split sleeve holding force of the adapter		φ2.499 ±0.0005mm zirconia gauge	Phosphor bronze 2 to 5.9 N Zirconia 2 to 3.9 N
	Cable clamp strength (Pulling in direction of axis)		98 N of pulling force between connector and cable for one minute (Bellcore TA-TSY-00326)	1) Insertion loss fluctuation after test: 0.2dB or less 2) No irregularity in clamp section or cable
	Repetitive operation		1,000 times	1) Insertion loss fluctuation after test: 0.2 dB or less 2) No damage, cracks, or part looseness
	Vibration resistance		Vibration range of 10 to 55 Hz Test in 3 directions, 2 hours each	
	Shock resistance		Acceleration of 981 m/s ² , in 3 directions, 10 times each (Total of 30 times)	
Environmental performance	Humidity resistance (Temperature and humidity cycle)		Temperature -10°C to 65°C, humidity 90 to 96% 20 cycles	1) Insertion loss fluctuation after test: 0.2 dB or less 2) No damage, cracks, or part looseness
	Temperature cycle		Temperature -40 to 75°C 42 cycles (Bellcore TA-NWT-00326)	
	Heat resistance		Leave for 960 hours at a temperature of 85°C	
	Cold resistance		Leave for 960 hours at a temperature of -25°C	
	Salt fog		Left in a 5% concentration of salt fog for 48 hours	No conspicuous corrosion

See Page 91 for fixed attenuators, and Page 97 for variable attenuators.

■Materials

Part name	Material
Plug housing	Brass
Coil spring	Stainless steel
Ferrule	Stainless steel + Alumina Zirconia
Adapter housing	Brass
Split sleeve	Copper alloy
Receptacle housing	Brass
Attenuator housing	Stainless steel

Types

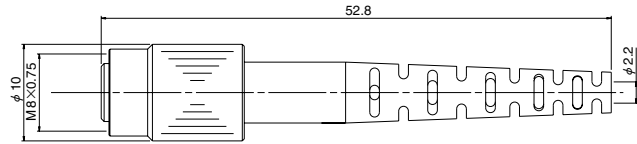


■ Plug Housing Cost effective Type

● For $\phi 2\text{mm}$ Cable

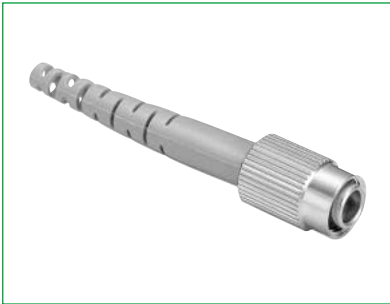


NOTE: For cable mounting tools, see page 57.

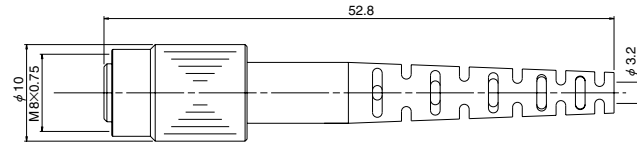


HRS No.	Product Number	Color of Boot	Polishing Specification
CL701-0075-3	HRFC-P8-H2	Blue	PC
CL701-0077-9	HRFC-P8-L2	Light purple	AdPC

● For $\phi 3\text{mm}$ Cable

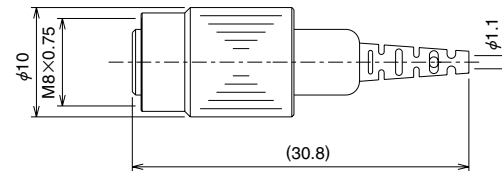


NOTE: For cable mounting tools, see page 57.



HRS No.	Product Number	Color of Boot	Polishing Specification
CL701-0074-0	HRFC-P8-H3	Blue	PC
CL701-0078-1	HRFC-P8-L3	Light purple	AdPC

● For $\phi 0.9\text{mm}$ Cable

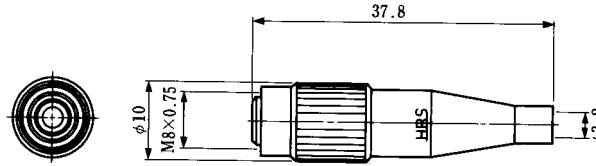


HRS No.	Product Number
CL701-0095-0	HRFC-P12-H

■ Plug Housing General Product (JIS Standard Correspondence)

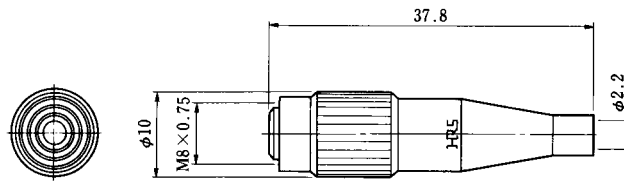
NOTE: These plug housings should be used in conjunction with ferrules.

● Plug Housing



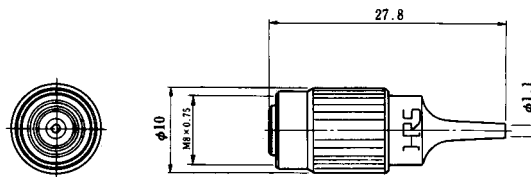
HRS No.	Product Number	Suitable Cable Diameter
CL701-0001-7	HRFC-P1-H	φ3mm

● Plug Housing



HRS No.	Product Number	Suitable Cable Diameter
CL701-0001-7-04	HRFC-P1-H(04)	φ2mm

● Plug Housing



HRS No.	Product Number	Suitable Cable Diameter
CL701-0041-1	HRFC-P6-H	φ0.9mm

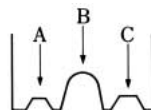
■ Tool

● Crimping Tool

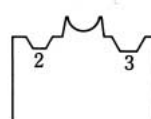


HRS No.	Product Number	Suitable Connector	Notes
CL704-0287-0	HSC-T3	HRFC-P8-H2,L2,G2 HRFC-P8-H3,L3,G3 HRFC-P1-H HRFC-P1-H (04)	same tool as SC

<Usage>

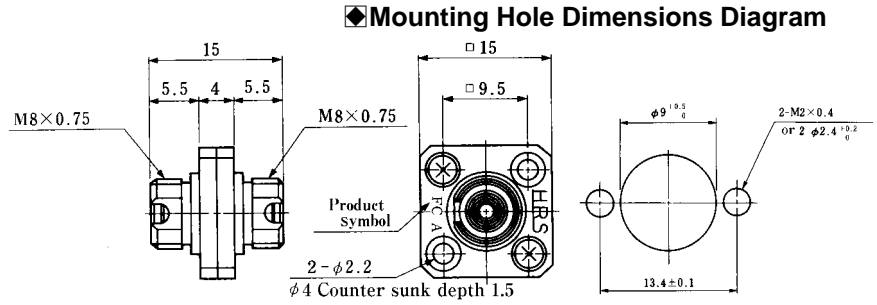


- (1)Area "A" for 2mm dia · cable jacket crimping
- Area "C" for 3mm dia · cable jacket crimping
- (2)Area "B" for kevlar crimping



■ Features

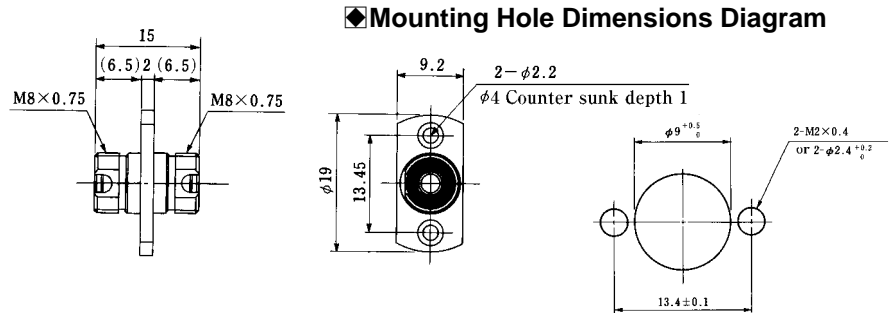
● Plug Housing



HRS No.	Product Number	Symbol	Spilt sleeve	Polishing Specification	Notes
CL701-0014-9-02	HRFC-PA1-G1(02)	FC-A	Copper alloy	Pc,Adpc	
CL701-2000-5	HRFC-PA15-D1	FC-AA	Zirconia	APC	Note

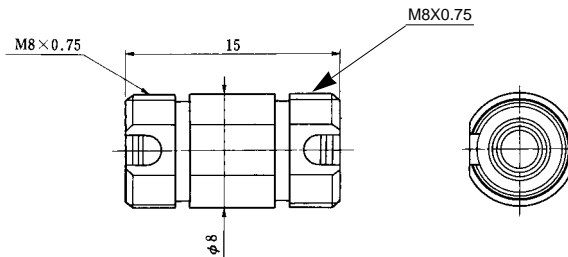
NOTE : To couple the plug, don't give an excessive force.

● Plug Housing



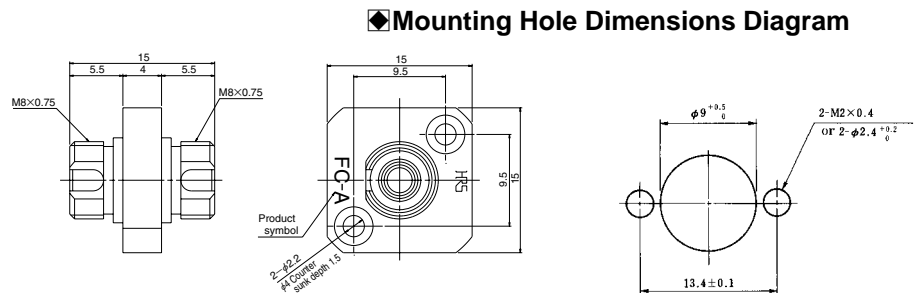
HRS No.	Product Number	Spilt sleeve
CL701-0068-8	HRFC-PA4-G1	Copper alloy

● Plug Housing



HRS No.	Product Number	Spilt sleeve
CL701-0039-0	HRFC-A2-SF	Copper alloy

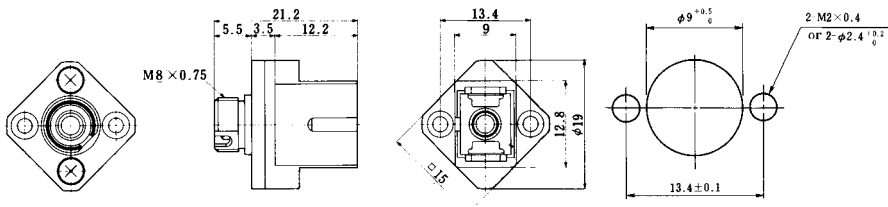
● Plug Housing



HRS No.	Product Number	Spilt sleeve
701-0071-2	HRFC-PA11-G1	Copper alloy

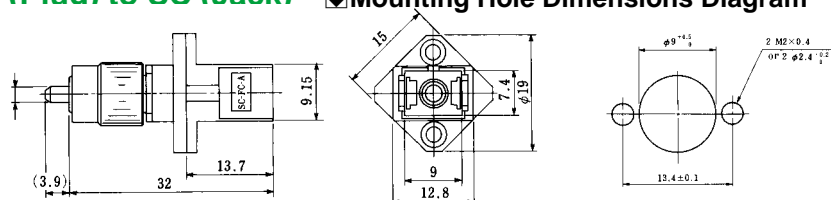
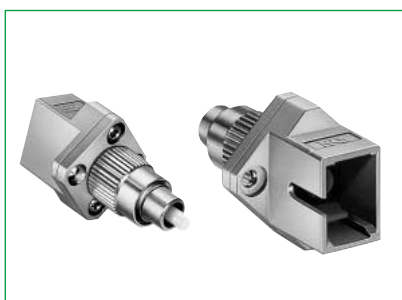
■ Conversion Adapters

● Form of Coupling Portion: FC (Jack) to SC (Jack) ◆ Mounting Hole Dimensions Diagram



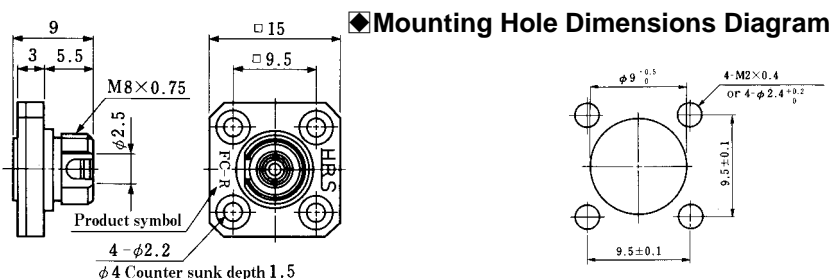
HRS No.	Product Number	Spilt sleeve	Notes
CL704-0021-3	HSCJ-HRFCJ-B	Copper alloy	SC to FC conversion adapter

● Form of Coupling Portion: FC (Plua) to SC (Jack) ◆ Mounting Hole Dimensions Diagram



HRS No.	Product Number	Polishing Type	Optical Fiber	Spilt sleeve	Notes
CL701-0065-0	HRFCP-HSCJ-1	PC	GI-50/125	Copper alloy	The guide key of the FC plug end and the guide of the SC adapter end do not necessarily match.
CL701-0108-0	HRFCP-HSCJ-1AS	AdPC			
CL701-0085-7	HRFCP-HSCJ-2	PC	SM-9.5/125		
CL701-0109-3	HRFCP-HSCJ-2AS	AdPC			

■ Receptacles

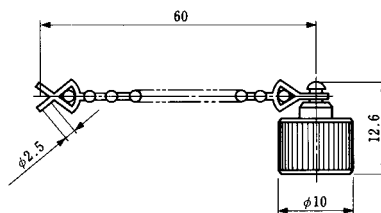


HRS No.	Product Number	φ2.5 Dimension Tolerance	NOTE
CL701-0016-4	HRFC-R1	+0.011 +0.001	GI
CL701-0023-0	HRFC-R2	+0.003 0	SM

■ Ferrules

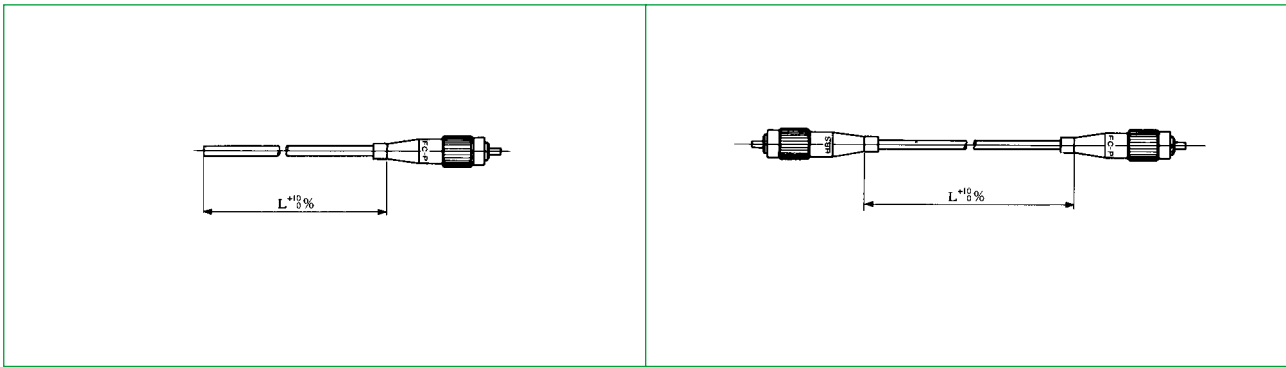
Please use zirconia ferrules for use with SC-type optical fiber connectors. We also have stainless capillary ferrules available. Please contact us about these.

■ Caps



HRS No.	Product Number
CL701-0019-2	HRFC-C1

■ Connectors with Cable Attached



HRS No.	Product Number	Connector Mounting End	Optical Fiber	Type of Polishing	Cable Diameter	Ferrule Used
CL701-1027-6	HRFC-SP2-F3B-L	Both ends	GI-50/125	PC	$\phi 3$	Zirconia
CL701-1026-3	HRFC-SP2-F3A-L	Both ends	SM-9.5/125			
CL701-1028-9	HRFC-SP2-F3P-L	Both ends	GI-50/125		$\phi 2$	
CL701-1029-1	HRFC-SP2-F3Q-L	Both ends	SM-9.5/125			
-	HRFC-ASP1-F3A-L	One end	SM-9.5/125	AdPC	$\phi 3$	Zirconia
-	HRFC-ASP2-F3A-L	Both ends				
-	HRFC-ASP1-F3Q-L	One end				
-	HRFC-ASP2-F3Q-L	Both ends			$\phi 2$	

NOTE1: The "L" within the Product Number indicates the length of the cable illustrated in the diagram. Please specify values in meter units.

NOTE2: We will custom manufacture a great variety of conversion cables and products other than the aforementioned items to suit your needs.