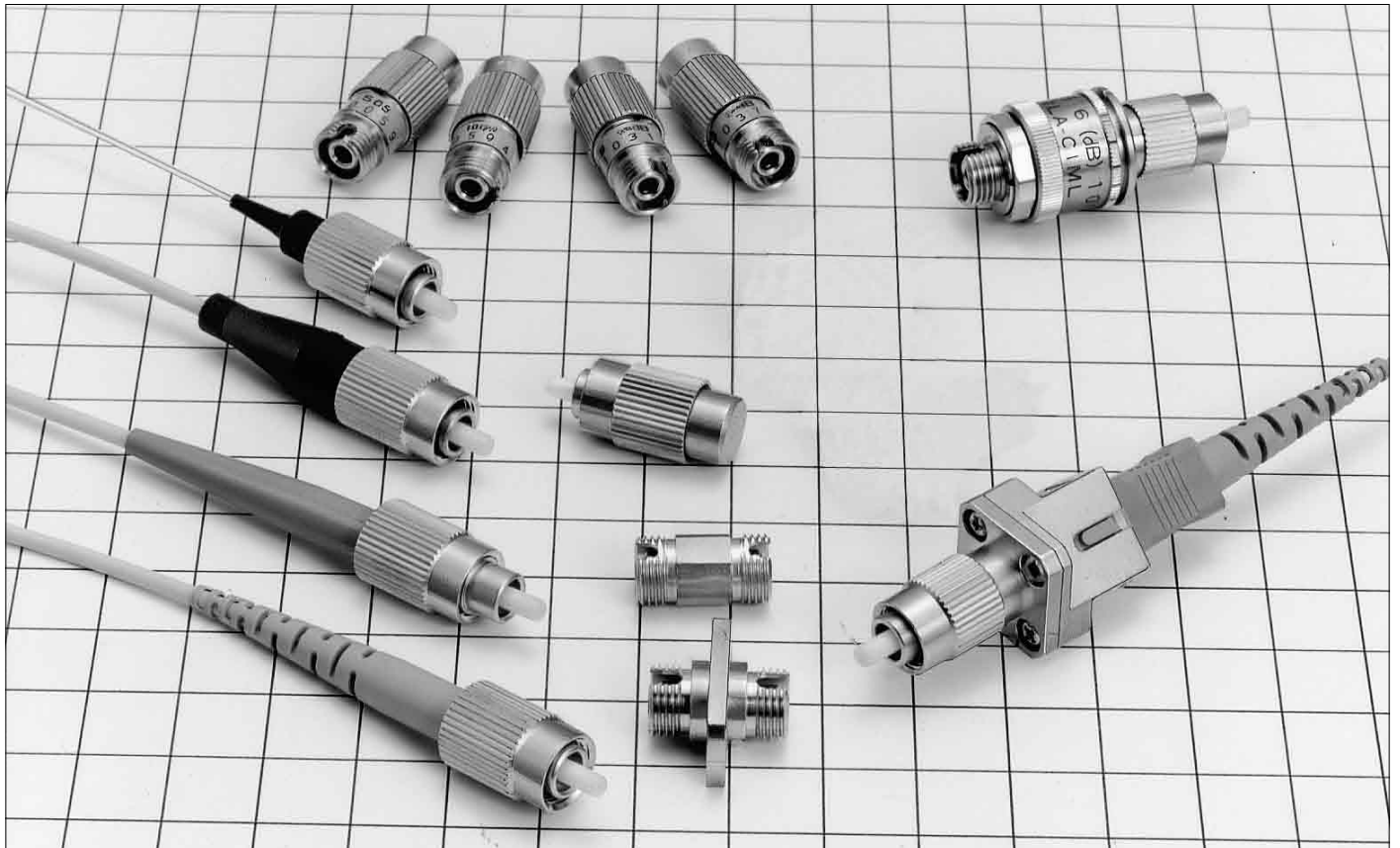


# FC Type Fiber Optic Connectors

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) polishing and Angled PC(APC) polishing.

### 3. Flame resistant

Satisfies flammability rating UL94V-0.

## ■ Applications

Public communications lines, CATV, Test equipment, etc.

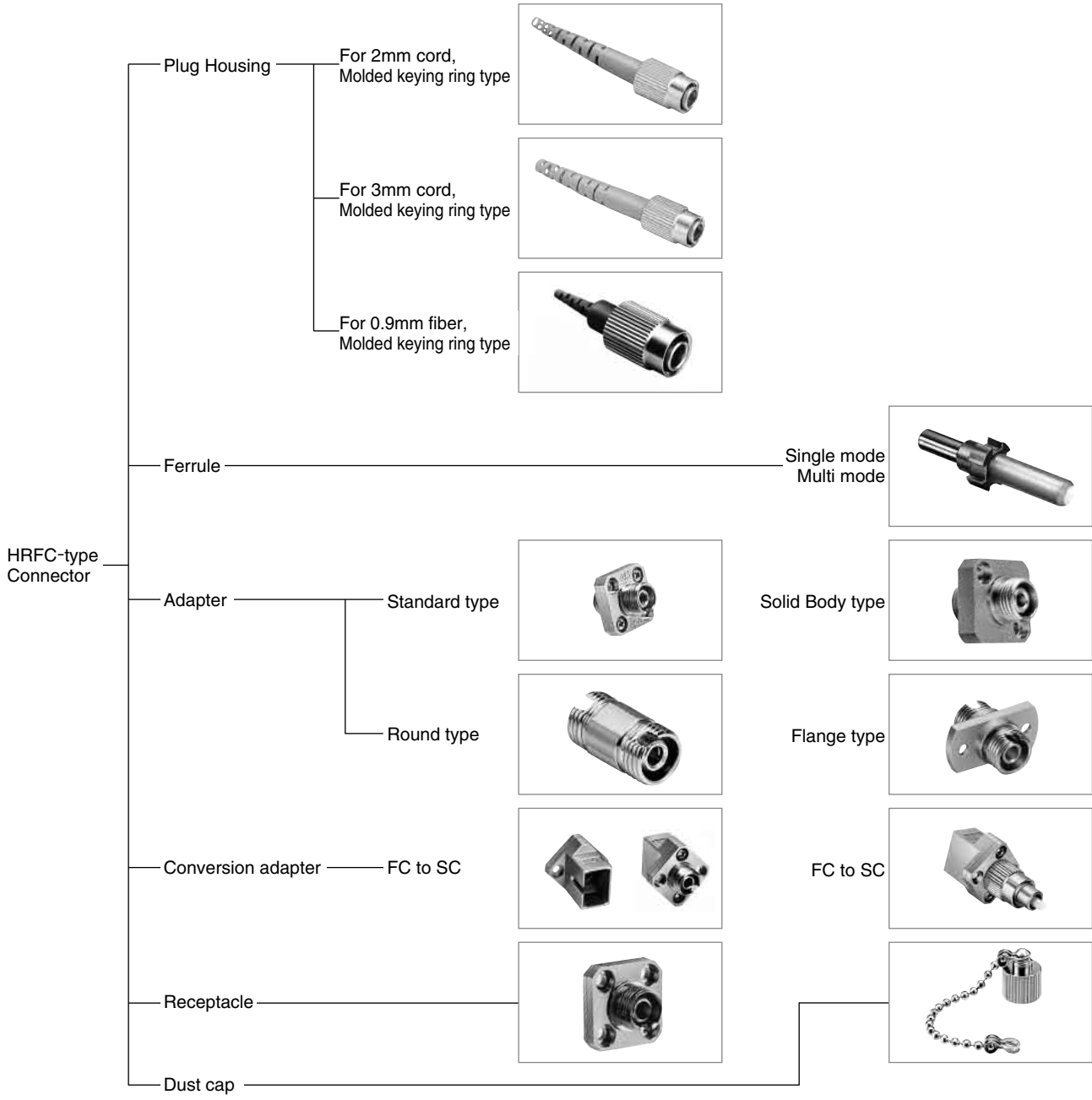
## ■ Product Specifications

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/s <sup>2</sup> , 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			1) Insertion loss fluctuation after test: 0.2dB max. 2) No visible damage, cracks or part dislocation.			
	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

# FC products



SC

FC

MU

Harsh Environment

Attenuators

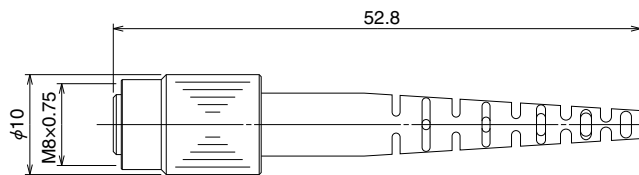
Terminators

POF / PCF

## ■ Plug Housing

Please use it with the SC ferrules.

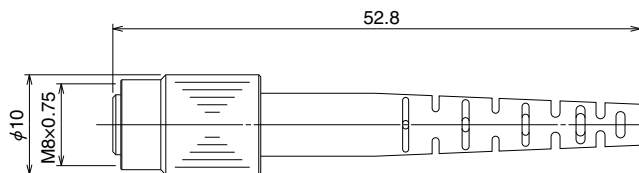
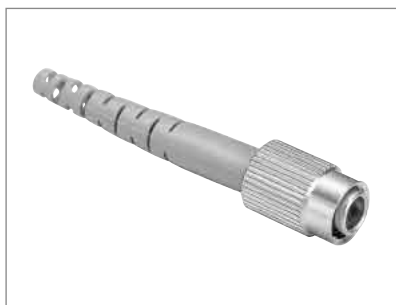
### ● For 2mm cable



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

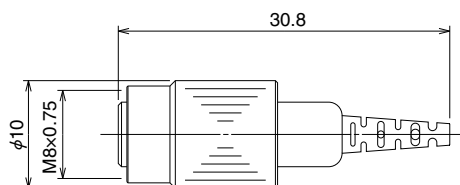
### ● For 3mm cable



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

SC

FC

MU

Harsh  
Environment

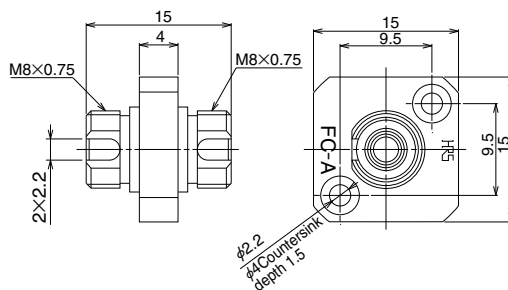
Attenuators

Terminators

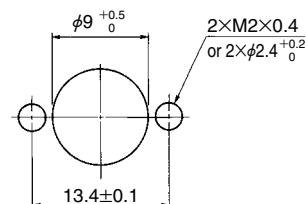
POF / PCF

## Adapters

### ● Solid Body type



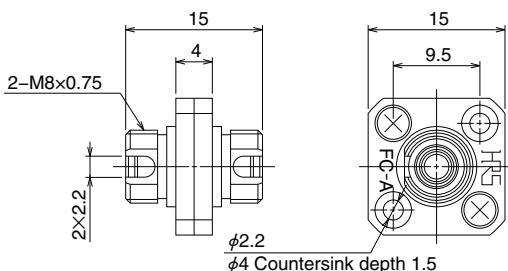
### Panel Cutout



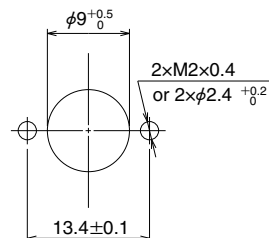
Part Number	CL No.	Split sleeve	Remarks
HRFC-PA11-G1(40)	701-0071-2-40	Phosphor bronze	—
HRFC-PA11-D1(40)	701-0106-5-40	Zirconia	(Note)

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 damaged

### ● Standard Body type



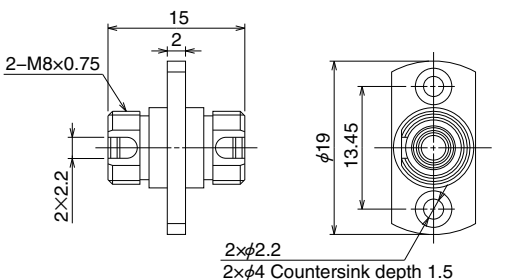
### Panel Cutout



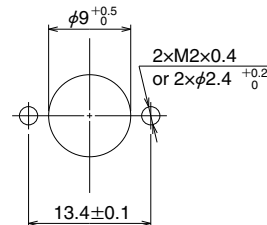
Part Number	CL No.	Mark	Split sleeve	Remarks
HRFC-PA1-G1(41)	701-0014-9-41	FC-AP	Phosphor bronze	—
HRFC-PA1-D1(40)	701-0089-8-40	FC-A	Zirconia	(Note)

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 sleeve within the adapter might be damaged

### ● Flange type



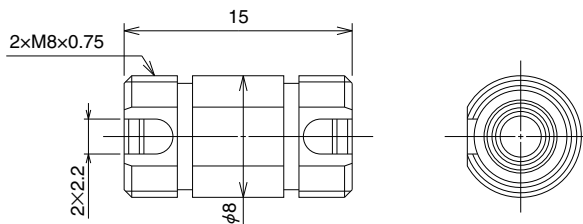
### Panel Cutout



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 damaged

### ● Round type

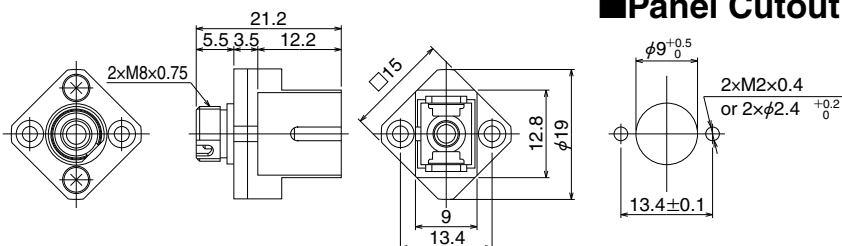


Part Number	CL No.	Split sleeve	Remarks
HRFC-A2-SF(41)	701-0039-0-41	Phosphor bronze	—
HRFC-A2-SF-D1(40)	701-0140-3-40	Zirconia	(Note)

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 damaged

### Conversion adapters

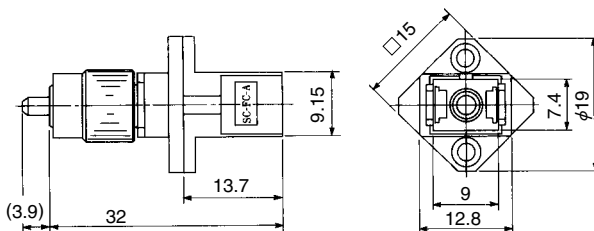
#### FC / SC



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

#### Panel Cutout

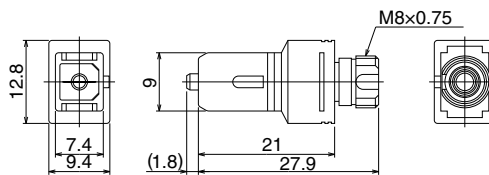
#### FC / SC



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.

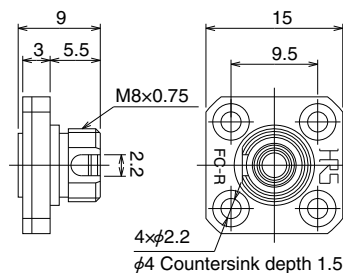
#### FC / SC



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	

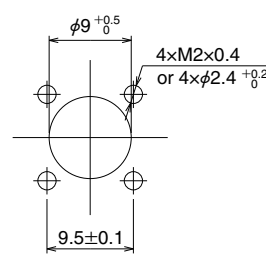
The positions of SC guide key and FC guide slot will not be always aligned.

### Receptacle



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

#### Panel Cutout



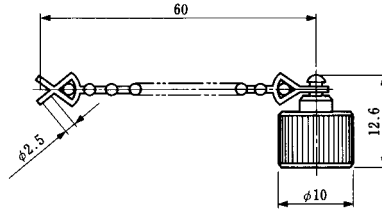
SC

## ■ Ferrule

Please use the SC connector's ferrule.

FC

## ■ Dust Cap



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

MU

## ■ Tool

### ● Crimp tool

Please use the SC connector's crimp tool .

Harsh Environment

Attenuators

Terminators

POF / PCF

## ■ Patch cords

### ● Single mode, Polishing type: AdPC (Advanced PC)

Connector	Cable Dia.	Polishing type	Length	Part Number	CL No.
SC	φ0.9	AdPC	1m	HSC-ASPK2-F3L-1M(61)	704-1095-5-61
			2m	HSC-ASPK2-F3L-2M(62)	704-1095-5-62
			3m	HSC-ASPK2-F3L-3M(63)	704-1095-5-63
	φ2.0		1m	HSC-ASPAD2-F3Q-1M(21)	704-1170-9-21
			2m	HSC-ASPAD2-F3Q-2M(22)	704-1170-9-22
			3m	HSC-ASPAD2-F3Q-3M(23)	704-1170-9-23
FC	φ0.9		1m	HRFC-ASPA2-F3L-1M(01)	701-1073-3-01
			2m	HRFC-ASPA2-F3L-2M(02)	701-1073-3-02
			3m	HRFC-ASPA2-F3L-3M(03)	701-1073-3-03
	φ2.0		1m	HRFC-ASP72-F3Q-1M(41)	701-1059-2-41
			2m	HRFC-ASP72-F3Q-2M(42)	701-1059-2-42
			3m	HRFC-ASP72-F3Q-3M(43)	701-1059-2-43
MU	φ0.9		1m	HMUA-ASPH2-F3L-1M(61)	710-1052-4-61
			2m	HMUA-ASPH2-F3L-2M(62)	710-1052-4-62
			3m	HMUA-ASPH2-F3L-3M(63)	710-1052-4-63
	φ2.0		1m	HMUA-ASP2-F3Q-1M(70)	710-0029-7-70
			2m	HMUA-ASP2-F3Q-2M(71)	710-0029-7-71
			3m	HMUA-ASP2-F3Q-3M(72)	710-0029-7-72

### ● Single mode, Polishing type: APC (Angled PC)

Connector	Cable Dia.	Polishing type	Length	Part Number	CL No.
SC	φ2.0	APC	1m	HSC-CSPE2-F3Q-1M(21)	704-3139-0-21
			2m	HSC-CSPE2-F3Q-2M(22)	704-3139-0-22
			3m	HSC-CSPE2-F3Q-3M(23)	704-3139-0-23

### ● Multi mode, Polishing type: PC

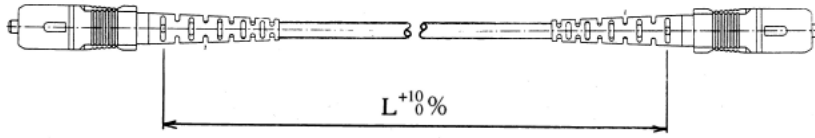
Connector	Cable Dia.	Polishing type	Length	Part Number	CL No.
SC	φ0.9	PC	1m	HSC-SPK2-F3M7-1M(01)	704-1172-4-01
			2m	HSC-SPK2-F3M7-2M(02)	704-1172-4-02
			3m	HSC-SPK2-F3M7-3M(03)	704-1172-4-03
	φ2.0		1m	HSC-SPAD2-F3P-1M(01)	704-1173-7-01
			2m	HSC-SPAD2-F3P-2M(02)	704-1173-7-02
			3m	HSC-SPAD2-F3P-3M(03)	704-1173-7-03
FC	φ2.0		1m	HRFC-SP72-F3P-1M(51)	701-1062-7-51
			2m	HRFC-SP72-F3P-2M(52)	701-1062-7-52
			3m	HRFC-SP72-F3P-3M(53)	701-1062-7-53

Please contact HIROSE for other specifications.

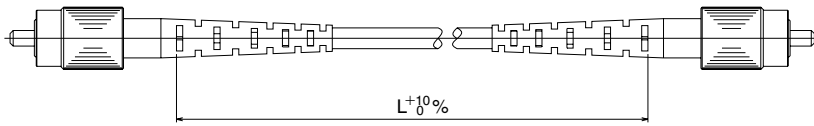


## ● Patch cord structure

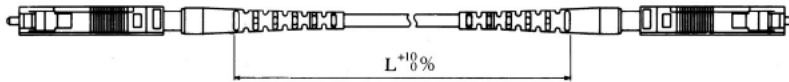
SC-SC



FC-FC



MU-MU



Please refer to each connector's page for SC, FC or MU type Connector's detail.

## ● Other type patch cords

Please select connector and cord specification from Table, and contact HIROSE.

Parts	Item	Specified example
Side A connector	Connector type	SC, FC, MU, LC, Simplified SC, Simplified MU
	Polishing type	AdPC, APC, PC
Side B connector	Connector type	SC, FC, MU, LC, Simplified SC, Simplified MU, None(pigtail)
	Polishing type	AdPC, APC, PC
Optical Fiber Cord	Cord style	Simplex, Duplex zipcord
	Fiber mode	SM-9.5/125, MM-50/125
	Cord diameter	φ0.9(Tight buffered), φ2, φ3
	Length	Unit: m

Please contact HIROSE for other specifications.