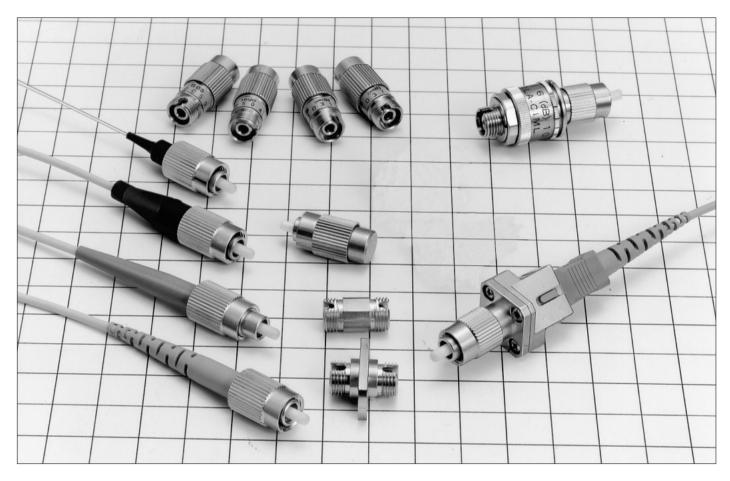


# **FC Type Fiber Optic Connectors**

## **HRFC Series**



#### **■**Features

1. JIS, IEC standards compliantand and fully intermateable with NTT's FC products.

JIC C 5970 (F01 type fiber optic connectors). IEC 61754-13

#### 2. Two types of plug frames

Conventional cutout key ring types and molded key ring types are available.

## **Important Notice**

Plug key width: 2.1mm Adapter key width: 2.2mm

## **■**Applications

Public communications lines, CATV, Test equipment, etc.

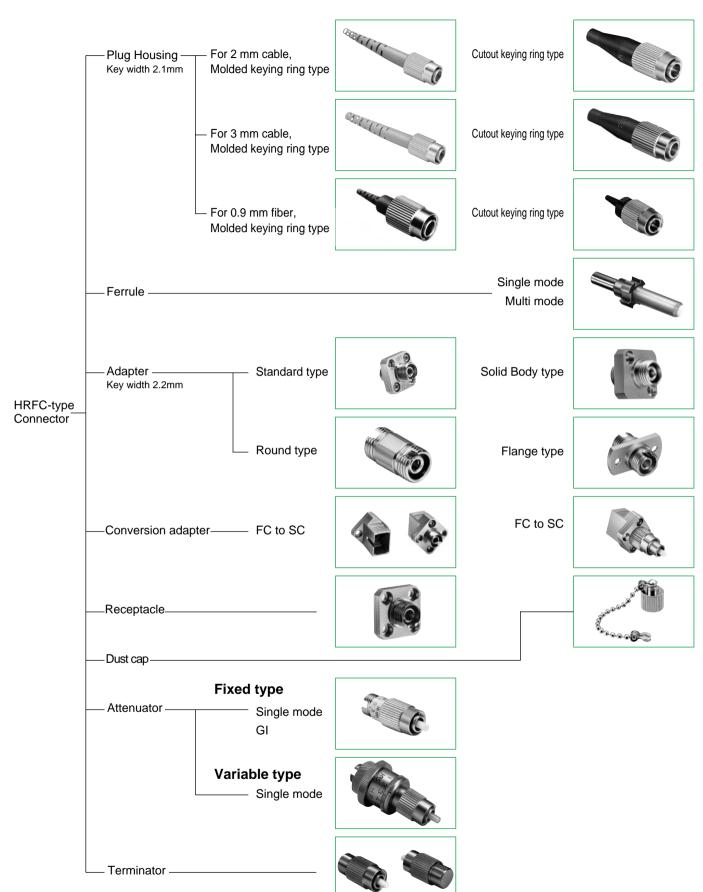
## **■**Product Specifications

Ratings	Operating temperature range	-25°C to +70°C	Storage temperature range	-25°C to +70°C
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Item			Test Method (IEC 61300)	Specifications	
tics	Insertion Loss	(SM)	Wavelength 1310nm (LD)	0.5dB max. (PC, AdPC, APC)	
Optical Characteristics	Insertion Loss	(GI)	Wavelength 1310nm (LED)	0.3dB max. (PC)	
Opt	Return Loss	(SM)	Wavelength 1310nm (LD)	22dB min.(PC) 40dB min.(AdPC) 60dB min. (APC)	
Cha	Return Loss	(GI)	wavelength 1310mm (LD)	22dB min. (PC)	
S	Ferrule withdraw	al	Extract Zirconia gauge 2.499 ±0.0005 mm dia from split sleeve.	Copper alloy split sleeve 2N to 5.9N Zirconia split sleeve 2N to 3.9N	
acterist	Cable retention (Straight pull)		98N tensile load for minute.	Insertion loss fluctuation after test: 0.2dB max.     No visible damage, dislocation of clamp or cable.	
Mechanical Characteristics	Durability (cycles, mating/un-mating)		1000 times		
Vibration			Frequency: 10 to 55 Hz, single amplitude of 0.75 mm, 2 hours in each of the 3 axis.		
Shock			Acceleration of 981 m/s², 6 ms duration, sin half-wave waveform, 10 cycles in each of the 3 axis.	Insertion loss fluctuation after test: 0.2dB max.	
la:	Humidity (Temperature/ humidity- cycles)		-10°C to 65°C, humidity: 90% to 96% 20 cycles	2) No visible damage, cracks or part dislocation.	
Environmental Characteristics	Change of temperature		-40°C to +70°C 42 cycles (Complies with Telcordia standard GR-326-CORE)		
nvir nara	Dry heat		960 hours at 85°C		
ш 5	ш р Cold		960 hours at -25°C		
	Salt mist		48 hours in a 5% concentration of salt mist	No significant corrosion.	

## **■**Materials

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



## ■Molded keying ring type (Key width 2.1mm)

#### •For 2mm cable



<b> </b>	52.8	>
φ10 M8×0.75		

Part Number	CL No.	Boot color	Polishing type
HRFC-P8-H2(21)	701-0075-3-21	Blue	PC
HRFC-P8-L2(21)	701-0077-9-21	Light purple	AdPC
HRFC-P8-G2(21)	701-2001-8-21	Green	APC

52.8

#### •For 3mm cable

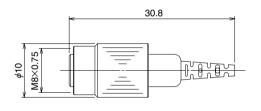


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Part Number	CL No.	Boot color	Polishing type
HRFC-P8-H3(21)	701-0074-0-21	Blue	PC
HRFC-P8-L3(21)	701-0078-1-21	Light purple	AdPC
HRFC-P8-G3(21)	701-2002-0-21	Green	APC

#### ●For 0.9mm fiber

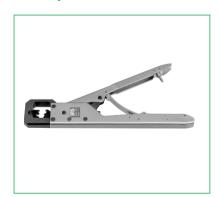




Part Number	CL No.	Boot color	Polishing type
HRFC-P15-H(21)	701-0114-3-21	Blue	PC
HRFC-P15-L(21)	701-0115-6-21	Light purple	AdPC
HRFC-P15-G(21)	701-2004-6-21	Green	APC

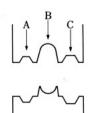
#### **■**Tool

#### Crimp tool



Part Number	CL No.	Applicable connector
HSC-T3	704-0287-0	HRFC-P8-H2,L2,G2, HRFC-P8-H3,L3,G3,

#### <Locations>

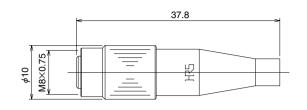


(1)2mm Jacket crimping: section A 3mm Jacket crimping: section C (2)Kevlar™ crimping: section B

## **■**Cutout keying ring type (Key width 2.1mm)

#### •For 2mm cable

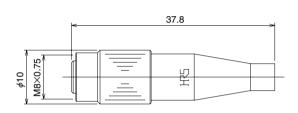




Part Number	CL No.
HRFC-P1-H(04)	701-0001-7-04

#### •For 3mm cable

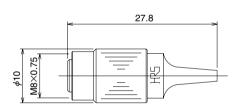




Part Number	CLNo.
HRFC-P1-H	701-0001-7

#### ●For 0.9mm fiber



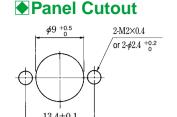


Part Number	CL No.
HRFC-P6-H	701-0041-1

#### Solid Body type



# M8×0.75 M8×0.75



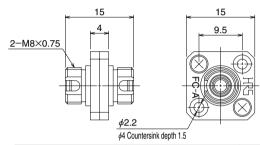
Board thiekness : 16mm

Part Number	CL No.	Split sleeve	Remarks
HRFC-PA11-G1	701-0071-2	Copper alloy	
HRFC-PA11-D1	701-0106-5	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





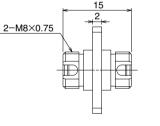
◆Panel Cutout		
<del> </del>		
2-M2×0.4 or 2-φ2.4 + 0 2		
Board thickness : 16mm		

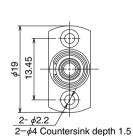
Part Number	CL No	Mark	Split sleeve	Remarks
HRFC-PA1-G1(02)	701-0014-9-02	FC-AP	Copper alloy	
HRFC-PA1-D1	701-0089-8	FC-A	Zirconia	(Note)

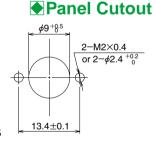
Note:Please take utmost care when inserting FC plug into a FC adapter. When applying excessive force to the FC plug or inserting in an odd angle, the zirconia sleeve within the adapter might be dameged.

## Flange type







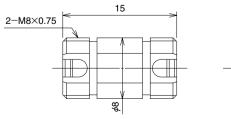


Part Number	CL No.	Split sleeve	Remarks
HRFC-PA4-G1	701-0068-8	Copper alloy	
HRFC-PA4-D1	701-0112-8	Zirconia	(Note)

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





|--|

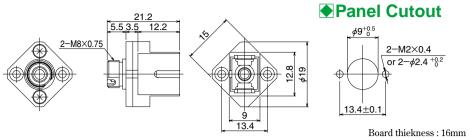
Part Number	CL No.	Split sleeve	Remarks
HRFC-A2-SF(01)	701-0039-0-01	Copper alloy	
HRFC-A2-SF-D1	_	Zirconia	(Note)

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

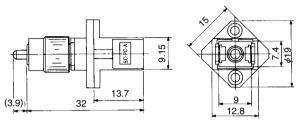




Part Number	CL No.	Split sleeve
HSCJ-HRFCJ-B(51)	704-0021-3-51	Copper alloy

#### •FC/SC

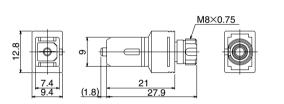




Part Number	CL No.	Split sleeve	Polishing type	Fiber type
HRFCP-HSCJ-1(51)	701-0065-0-51	Copper alloy	PC	GI-50/125
HRFCP-HSCJ-1AS(51)	701-0108-0-51		AdPC	
HRFCP-HSCJ-2(51)	701-0085-7-51		PC	SM-9.5/125
HRFCP-HSCJ-2AS(51)	701-0109-3-51		AdPC	3101-9.3/123

#### •FC / SC

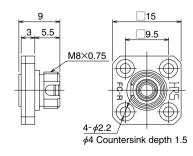




Part Number	CL No.	Split sleeve	Polishing type	Fiber type
HSCP-HRFCJ-1(51)	704-0203-0-51	Copper alloy	PC	GI-50/125
HSCP-HRFCJ-1AS(51)	704-0288-3-51		AdPC	GI-30/123
HSCP-HRFCJ-2(51)	704-0204-3-51		PC	SM-9.5/125
HSCP-HRFCJ-2AS(51)	704-0289-6-51		AdPC	SIVI-9.5/125

## **■**Receptacle





Panel Cutout
$\phi$ 9 $^{+0.5}_{0}$
4-M2×0.4
or 4-\phi_2.4 \(^{+0.2}_0\)
$\phi \uparrow \phi$
9.5±0.1

Part Number	HRS No.	Remarks
HRFC-R1	701-0016-4	MM
HRFC-R2	701-0023-0	SM

FC

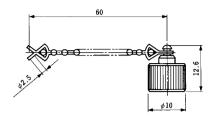
### **■**Ferrule

Same as SC ferrules Refer to page 33 for details.

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## **■**Dust Cap





Part Number	CL No.
HRFC-C1	701-0019-2