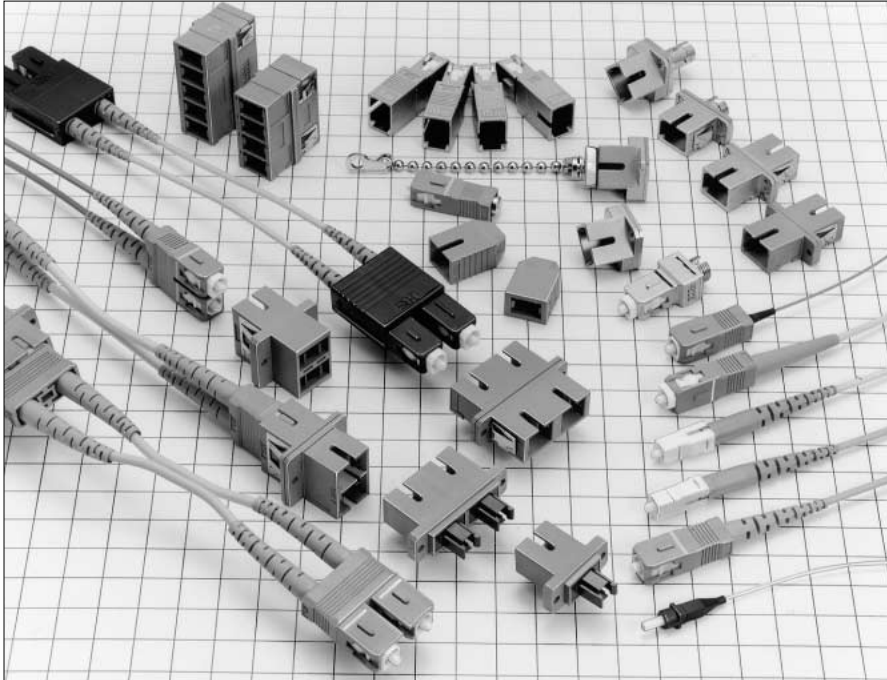


# SC-type Optical Fiber Connectors

## HSC Series



### ■ Features

#### 1. SC-Type Correspondence

These connectors can be used with the NTT.  
SC-Type optical fiber connectors.  
JIS C5973 (F04 optical fiber connectors)  
IEC 60874-14C  
IEC 60874-19C

#### 2. Plugs With Strengthened Cable Clamps

These plugs suppress the increase in cable loss that results from a pulling force in the vertical bend direction of the cable clamp portion.  
The color coding of the boot permits identification of polishing such as PC polishing, Advanced PC (AdPC) polishing and Angled PC polishing.  
(PC polishing: blue, Advanced PC (AdPC) polishing: light purple, Angled PC polishing (APC): green)

#### 3. Zirconia Split Sleeve Adapter

Reduces the powder caused by the insertion and withdrawal abrasion within the split sleeve and improves the repetitive optical reproducibility.

#### 4. Duplex SC-type: Flexible Type -- Compliant With ANSI Standards

Dimensions between the plug pitch are flexible and parallel mounting of receptacle is made easier.  
There is also compatibility with the HSCF rigid type.

#### 5. Duplex SC-type: Rigid Type

Available in the H-type which has an 8.5-mm pitch between terminals and is suited for high-density mounting, and in the F-type which features a low profile and a 12.7mm pitch between terminals and is suited to LAN applications. Please see Pages 40 to 43.

#### 6. Panel Mount Receptacle

By greatly reducing the number of components compared with the conventional receptacles, space savings and cost-reduction have been achieved. Please see Pages 35 to 38.

### ■ Applications

LAN, public communications lines, CATV, computer transmission systems, measuring instruments, etc.

## Product Standards

Rating	Operating temperature range	-25°C~70°C	Storage temperature range	-25°C~70°C
Item		Test Method (JIS C 5961)		Standard
Optical Performance	Insertion loss	(SM)	1300nm wavelength (LD)	0.5 dB or less (PC, AdPC, APC)
		(GI)	1300nm wavelength (LED)	0.3 dB or less (PC)
	Reflection attenuation	(SM)	1300-nm wavelength (LD)	22 dB or greater (PC) 40 dB (AdPC) 60 dB or greater (APC)
		(GI)		22 dB or greater (PC)
Mechanical Performance	Coupling force and decoupling force		Measure when connectors are coupled and separated in the direction of the axis.	Simplex plugs Coupling force 19.6 N or less Separation force 19.6 N or less Duplex plugs Coupling force 39 N or less Separation force 39 N or less
	Split sleeve holding force of the adapter		Ceramic gauge of $\phi 2.499 \pm 0.0005$ mm	Phosphor bronze 2 to 5.9 N Zirconia 2 to 3.9 N
	Split sleeve holding force of the adapter		98 N of pulling force between connector and cable for one minute (Bellcore TA-TSY-00326)	1) Insertion loss fluctuation after test: 0.2 dB or less 2) No irregularity in clamp section or cable
	Repetitive operation		1000 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, 0.75mm single amplitude 98.1 m/s <sup>2</sup> acceleration, in 3-axis directions, 2 hours each	
	Shock resistance		Acceleration of 981 m/s <sup>2</sup> , operation time of 6 ms, sine half wave in X, Y, and Z axes, 10 times each (Total of 30 times)	
Humidity resistance (Temperature and humidity cycle)		Temperature -10°C to 65°C, humidity 90 to 96% 20 cycles		
Environmental performance	Temperature cycle		Temperature -40°C to 75°C 42 cycles (Bellcore TA-NWT-00326)	No conspicuous corrosion
	Heat resistance		Left for 960 hours at a temperature of 85°C	
	Cold resistance		Left for 960 hours at a temperature of -25°C	
	Salt fog		Left in a 5% concentration of salt fog for 48 hours	

## Materials






Component	Material	Notes
Simplex plug casing	Polybutylene terephthalate	Plastic items NTT, SC corresponding items
Coil spring	Stainless steel	
Ferrule	Zirconia	
Simplex adapter casing	Polybutylene terephthalate or zinc die cast	
4-ganged adapter housing	Polybutylene terephthalate	
5-ganged adapter housing	Polybutylene terephthalate	
Receptacle casing	Zinc die cast	
Attenuator casing	Zinc die cast	
Split sleeve	Copper alloy or zirconia	

# HSC-type Connectors Function Diagrams

## Simplex Type





### <Manual Coupling / Decoupling Connectors>

#### Plug Housing



<p>φ3mm short-type boot</p>  <p>HSC-PH3-A4</p>
<p>φ2mm short-type boot</p>  <p>HSC-PH2-A4</p>
<p>For φ0.9mm cable</p>  <p>HSC-PH0.9-A</p>
<p>Reinforced-type cable clamp</p>  <p>HSC-PH2,E1,E2 HSC-PH2-B1,B2 HSC-PH2-B5 HSC-PH3-B1,B2 HSC-PH3-B5</p>
<p>Conversion plug SC (plug) to FC (jack)</p>  <p>HSCP-HRFCJ-1,2</p>

### <Jig Coupling / Decoupling Connectors>




#### Plug Housing

<p>φ3mm short-type boot</p>  <p>HSC2-PH3-A</p>
<p>φ2mm short-type boot</p>  <p>HSC2-PH2-A</p>
<p>For φ0.9mm cable</p>  <p>HSC2-PH0.9-A</p>
<p>Reinforced-type cable clamp</p>  <p>HSC2-PH2 E1,E2 HSC2-PH2-B1,B2,B5 HSC2-PH3-B1,B2,B5</p>


#### Adapters(panel mounting type)

<p>Adapter panel mounting</p>  <p>HSC-A2,HSC-A2-D1</p>
<p>Adapter panel mounting</p>  <p>HSC-A2,HSC-A2-D1</p>



#### Conversion Adapters

<p>SC (jack) to FC (jack) screw mounting</p>  <p>HSCJ-HRFCJ-B HSCJ-HRFCJ-A</p>
<p>SC (jack) to FC (jack) panel mounting</p>  <p>HSCJ-HRFCJ-C</p>
<p>ST conversion type screw mounting</p>  <p>HSCJ-HSTJ-B</p>

#### Receptacle



<p>ST conversion type screw mounting</p>  <p>HSC-R1-B,R2-B HSC-R1-A,R2-A</p>
--

#### Panel Mount Receptacle

 <p>HSC-SR-2</p>
 <p>HSC2-8SR-1 HSC2-8SR-D1 HSC2-8SR-1(01)</p>

( see page 36 to 38 for variety of PanelMount Plug. )

#### Adapters

<p>(4-Ganged) Panel mounting type</p>  <p>HSC2-4A,HSC2-4A-D1</p>
<p>(5-Ganged) Panel mounting type</p>  <p>HSC2-5A,HSC2-5A-D1</p>

## Duplex Type

### <Flexible Type ANSI Standard>

#### <Flexible Type ANSI Standard>

φ2 mm and φ3 mm for single mode



HSCM-2PH2,3-B1  
HSCM-2PH2,3-B2

φ2 mm and φ3 mm for multimode



HSCM-2GPH2,3-B1

#### F-type

Plug housing  
(φ2 mm and φ3 mm)



HSCF-2PH2,3-※

#### Adapter

Panel mounting type



HSCF-2A※

#### H-type

Plug housing  
(φ2 mm and φ3 mm)



HSCH-2PH2,3-※

#### Adapter

Panel mounting type



HSCH-2A1(P)

Screw mounting type



HSCH-2A※

## Fixed Attenuators

For multimode  
(5 dB, 10 dB, 15 dB, and 20 dB)



HSC-AT※S-B※※A

For single mode  
(5 dB, 10 dB, 15 dB, and 20 dB)



HSC-AT※S-A ※※A

See page 91 in detail.

## Terminators

#### Plug Type

Manual coupling/  
decoupling type



HSC-TM-P1

Jig coupling/  
decoupling type



HSC2-TM-P1

#### Receptacle Type

Manual coupling/  
decoupling type



HSC-TM-R1

Jig coupling/  
decoupling type



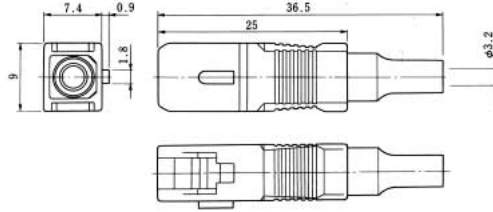
HSC2-TM-R1

See page 87 in detail.

## Simplex Type

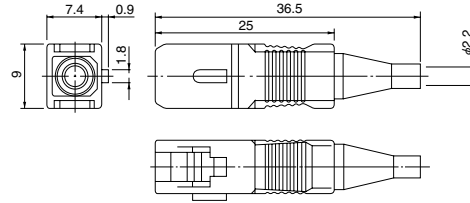
### Manual Coupling / Decoupling Type Plug Housing

#### Short Boot Type (Applicable cable diameter: 3 mm)



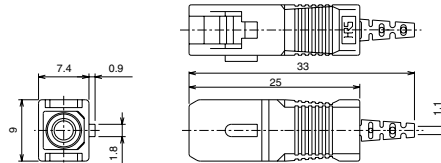
HRS NO.	Product Number	Applicable Cable Diameter	Color of Boot	Polishing
CL704-0245-0 (01)	HSC-PH3-A4 (01)	$\phi 3\text{mm}$	Blue	PC
CL704-0245-0 (02)	HSC-PH3-A4 (02)		Light purple	AdPC

#### Short Boot Type (Applicable cable diameter: 2 mm)



HRS NO.	Product Number	Applicable Cable Diameter	Color of Boot	Polishing
CL704-0244-8	HSC-PH2-A4	$\phi 2\text{mm}$	Blue	PC
CL704-0244-8 (01)	HSC-PH2-A4 (01)		Light purple	AdPC
CL704-3021-0	HSC-PH2-A41		Green	APC

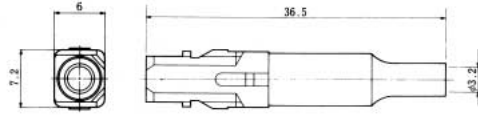
#### For $\phi 0.9\text{-mm}$ Optical Fiber Cable (diameter: 3 mm)



HRS NO.	Product Number	Applicable Cable Diameter	Color of Boot	Polishing
CL704-0339-2	HSC-PH0.9-E1	$\phi 0.9\text{mm}$ Optical fiber cable	Blue	PC
CL704	HSC-PH0.9-E5		Green	APC
CL704-0354-6	HSC-PH0.9-E2		Light purple	AdPC

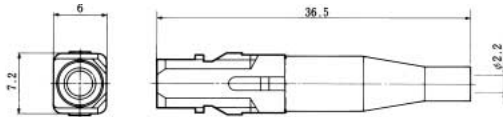
## Manual Coupling / Decoupling Type Plug Housing

### Short Boot Type (Applicable cable diameter: 3 mm)



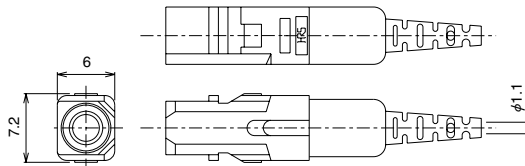
HRS NO.	Product Number	Applicable Cable Diameter	Color of Boot
CL704-0015-0	HSC2-PH3-A	φ3mm	Yellow

### Short Boot Type (Applicable cable diameter: 2 mm)



HRS NO.	Product Number	Applicable Cable Diameter	Color of Boot
CL704-0014-8	HSC2-PH2-A	φ2mm	Blue

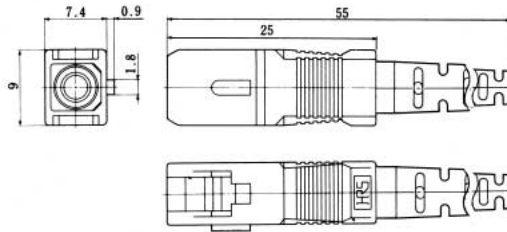
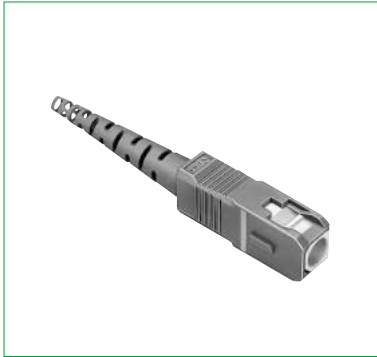
### For φ0.9-mm Optical Fiber Cable



HRS NO.	Product Number	Applicable Cable Diameter	Color of Boot
—	HSC2-PH0.9-E1	φ0.9mm Optical fiber cable	Blue
—	HSC2-PH0.9-E2		Light purple

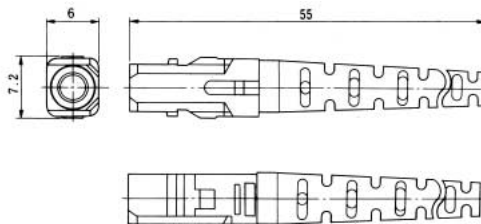
## ■ Reinforced-type Cable Clamp Plug Housing

### ● Manual Coupling / Decoupling Type



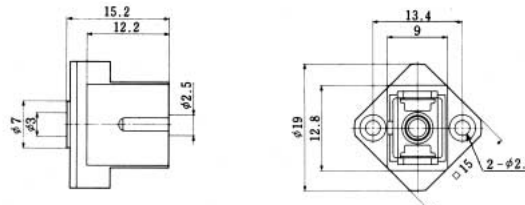
HRS NO.	Product Number	Applicable Cable Diameter	Color of Boot	Polishing	Notes
CL704-0327-3	HSC-PH2-E1	φ2mm	Blue	PC	NTT SC corresponding items
CL704-0328-6	HSC-PH2-E2		Light purple	AdPC	
CL704-0220-0	HSC-PH2-B1		Green	PC	NTT SC corresponding items
CL704-0221-2	HSC-PH2-B2		Light purple	AdPC	
CL704-3019-8	HSC-PH2-B5		Green	APC	—
CL704-0281-4	HSC-PH2-B6		White	AdPC	
CL704-0376-9	HSC-PH2-E5	φ2mm	Green	APC	NTT SC corresponding items
CL704-0222-5	HSC-PH3-B1	φ3mm	Blue	PC	
CL704-0223-8	HSC-PH3-B2		Light purple	AdPC	
CL704-3020-7	HSC-PH3-B5		Green	APC	
CL704-0282-7	HSC-PH3-B6		White	AdPC	

### ● For Jig Coupling / Decoupling



HRS NO.	Product Number	Applicable Cable Diameter	Color of Boot	Polishing	Notes
CL704-0329-9	HSC2-PH2-E1	φ2mm	Blue	PC	NTT SC corresponding items
CL704-0330-8	HSC2-PH2-E2		Light purple	AdPC	
CL704-0224-0	HSC2-PH2-B1		Green	PC	NTT SC corresponding items
CL704-0225-3	HSC2-PH2-B2		Light purple	AdPC	
—	HSC2-PH2-B5		Green	APC	—
CL704-0283-0	HSC2-PH2-B6		White	AdPC	
—	HSC2-PH2-E5	φ2mm	Green	APC	NTT SC corresponding items
CL704-0226-6	HSC2-PH3-B1	φ3mm	Blue	PC	
CL704-0227-9	HSC2-PH3-B2		Light purple	AdPC	
—	HSC2-PH3-B5		Green	APC	
CL704-0284-2	HSC2-PH3-B6		White	AdPC	

## ■ Receptacles



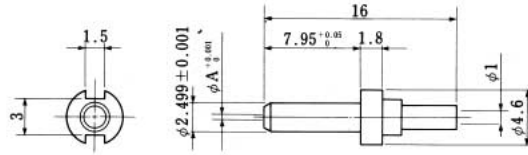
NOTE: This product is for power meter sensor application.

HRS NO.	Product Number	φ2.5mm Dimension Tolerance	Notes
CL704-0022-6	HSC-R1-B	+0.011 +0.001	MM
CL704-0023-9	HSC-R2-B	+0.006 +0.001	SM



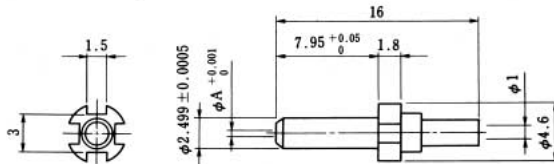
## Ferrules

### GI



HRS NO.	Product Number	Dimension A	Applicable Optical Fiber	Fiber Entrance Angle
CL704-0103-6	HSC-F321-B124	0.124	GI-50/125	60°
CL704-0104-9	HSC-F321-B125	0.125		
CL704-0105-1	HSC-F321-B126	0.126		
CL704-0106-4	HSC-F321-B127	0.127		
CL704-0107-7	HSC-F321-B128	0.128		

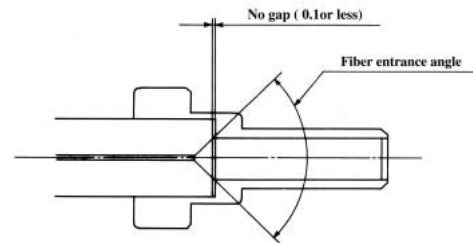
### SM



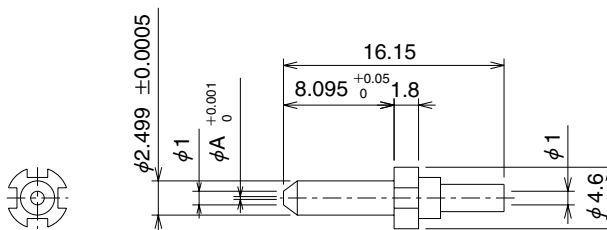
HRS NO.	Product Number	Dimension A	Applicable Optical Fiber	Fiber Entrance Angle
CL704-0068-7	HSC-F321-A123	0.123	SM-9.5/125	60°
CL704-0069-0	HSC-F321-A124	0.124		
CL704-0070-9	HSC-F321-A125	0.125		
CL704-0200-2	HSC-F321-A1255	0.125		
CL704-0071-1	HSC-F321-A126	0.126		
CL704-0072-4	HSC-F321-A127	0.127		
CL704-0073-7	HSC-F321-A128	0.128		

NOTE: Please select a ferrule that suits the fiber diameter.

- ①The ferrules are designed without a gap at the push-on portion to reduce disconnections at the time of wiring.
- ②The entrance angle of the fiber has been set at 60° to improve the entrance of the fiber. (A 90° product is also available.)
- ③A 4-groove type is available for single mode. This offers easier adjustment of the offset direction at time of wiring. (See diagram at right.)



### APC



HRS NO.	Product Number	Dimension A	Applicable Optical Fiber	Fiber Entrance Angle
CL704-0371-5	HSC-F391-A125	0.125	SM-9.5/125	60°
CL704-0373-0	HSC-F391-A126	0.126		
CL704-0374-3	HSC-F391-A127	0.127		

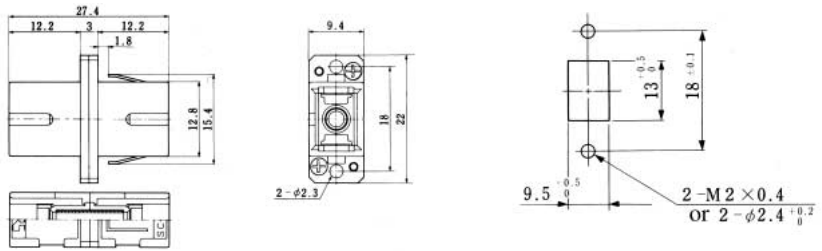
NOTE: Please select a ferrule that suits the fiber diameter.



## Adapters Panel Mounting Type

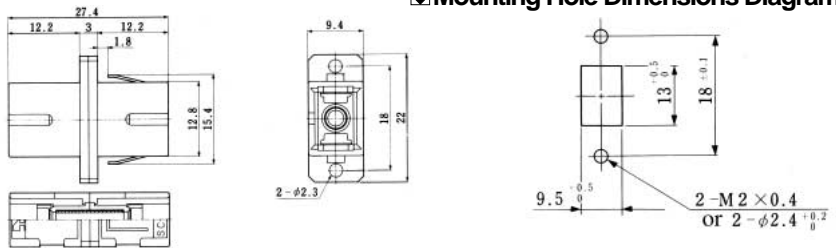
### Manual Coupling / Decoupling Type

Die Cast Products



HRS NO.	Product Number	Split Sleeve	Notes
CL704-0020-0-10	HSC-A2 (10)	Copper alloy	NTT SC corresponding items, and die cast products
CL704-0258-2	HSC-A2-D1	Zirconia	

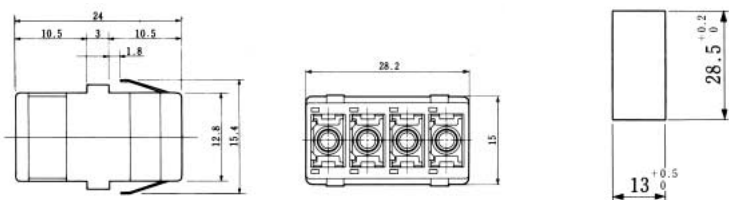
Plastic Products



HRS NO.	Product Number	Split Sleeve	Notes
CL704-0092-1	HSC-A3	Copper alloy	NTT SC corresponding items, and die cast products
CL704-0217-5	HSC-A3-D1	Zirconia	
CL704-3007-9	HSC-A3-D2	Zirconia	Green(APC)

### Jig Coupling / Decoupling Type

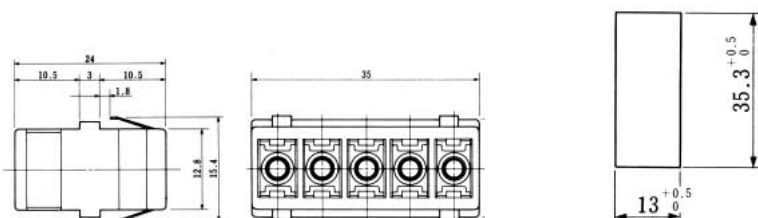
4-Ganged Type



HRS NO.	Product Number	Split Sleeve	Notes
CL704-0024-1	HSC2-4A	Copper alloy	NTT SC corresponding items, and die cast products
CL704-0290-5	HSC2-4A-D1	Zirconia	

### Jig Mounting Type

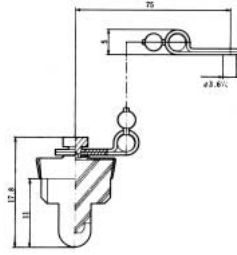
5-Ganged Type (GI)



HRS NO.	Product Number	Split Sleeve	Notes
CL704-0025-4	HSC2-5A	Copper alloy	NTT SC corresponding items, and die cast products
CL704-0219-0	HSC2-5A-D1	Zirconia	

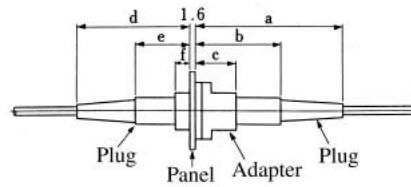


## ■ Cap



HRS NO.	Product Number	Applicable Products
CL704-0061-8	HSC-C2	HSC-A2, HSC-A3, HSCJ-HRFCJ-B, C HSCJ-HSTJ-B, HSC-R1-B, HSC-R2-B

## ◆ Mounting Dimensions Diagram



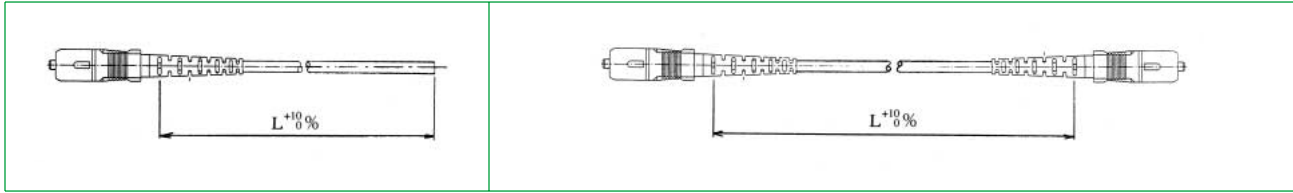
Unit : mm

Combination		Dimensions												
Adapter	Housing	a	b	c	d	e	f							
HSC-A2 HSC-A2-D1 HSC-A3 HSC-A3-D1	HSC-PH2-A2	58	28	15.2	53.4	23.4	10.6							
	HSC-PH2-B1													
	HSC-PH2-B2													
	HSC-PH2-A2													
	HSC-PH3-B1													
	HSC-PH3-B2													
HSC2-4A HSC2-4A-D1 HSC2-5A HSC2-5A-D1	HSC-PH2-A4	39.5	28	15.2	31.4	23.5	10.6							
	HSC-PH3-A4													
	HSC-PH1-A							36	26	15.2	31.4	21.4	8.9	
	HSC2-4A HSC2-4A-D1 HSC2-5A HSC2-5A-D1							HSC2-PH2-A2	58	-	13.5	53.4	-	8.9
								HSC2-PH2-B1						
								HSC2-PH2-B2						
HSC2-PH3-A2														
HSC2-5A HSC2-5A-D1	HSC2-PH3-B1	39.5	-	13.5	34.9	-	8.9							
	HSC2-PH3-B2													
HSC2-5A HSC2-5A-D1	HSC2-PH3-A	39.5	-	13.5	34.9	-	8.9							
	HSC2-PH1-A							36	-	13.5	31.4	-	8.9	
HSC-R1-B HSC-R2-B	HSC-PH2-A	57.5	27.5	14.7	-	-	-							
	HSC-PH3-A													

Note : Recommended panel thickness to be 1.6mm

## ■ Connectors with Cable Attached

### ● Manual Coupling / Decoupling Type Screw Mounting Type



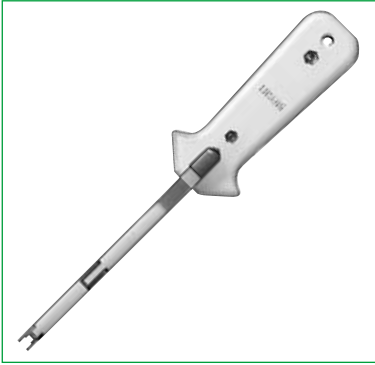
HRS NO.	Ends with Connectors	Optical Fiber	Type of Polishing	Reflection Attenuation	Cable Diameter	Housing Used	
HSC-SPC1-F3A-L	One end	SM-9.5/125	PC	$\geq 22\text{dB}$	$\phi 3$	HSC-PH3-B1	
HSC-SPC2-F3A-L	Both ends						
HSC-SPC1-F3B-L	One end	GI-50/125	PC	$\geq 22\text{dB}$	$\phi 2$	HSC-PH2-B1	
HSC-SPC2-F3B-L	Both ends						
HSC-SPC1-F3Q-L	One end	SM-9.5/125	PC	$\geq 22\text{dB}$	$\phi 3$	HSC-PH3-B2	
HSC-SPC2-F3Q-L	Both ends						
HSC-SPC1-F3P-L	One end	GI-50/125	PC	$\geq 22\text{dB}$	$\phi 2$	HSC-PH2-B1	
HSC-SPC2-F3P-L	Both ends						
HSC-ASPC1-F3A-L	One end	SM-9.5/125	AdPC	$\geq 40\text{dB}$ (Low reflection)	$\phi 3$	HSC-PH3-B2	
HSC-ASPC2-F3A-L	Both ends				$\phi 2$	HSC-PH2-B2	
HSC-ASPC1-F3Q-L	One end		APC	$\geq 60\text{dB}$ (Ultra-low reflection)	$\phi 3$	HSC-PH3-B5	
HSC-ASPC2-F3Q-L	Both ends				$\phi 2$	HSC-PH2-E5	
HSC-CSPR1-F3A-L	One end	SM-9.5/125	PC	$\geq 22\text{dB}$	$\phi 2$	HSC-PH2-E1	
HSC-CSPR2-F3A-L	Both ends						
HSC-CSPE1-F3Q-L	One end		GI-50/125	PC	$\geq 22\text{dB}$	$\phi 2$	HSC-PH2-E1
HSC-CSPE2-F3Q-L	Both ends						
HSC-SPE1-F3Q-L	One end	SM-9.5/125	AdPC	$\geq 40\text{dB}$ (Low reflection)	$\phi 2$	HSC-PH2-E2	
HSC-SPE2-F3Q-L	Both ends						
HSC-SPE1-F3P-L	One end	GI-50/125	APC	$\geq 60\text{dB}$ (Ultra-low reflection)	$\phi 2$	HSC-PH2-E5	
HSC-SPE2-F3P-L	Both ends						
HSC-ASPE1-F3Q-L	One end	SM-9.5/125	AdPC	$\geq 40\text{dB}$ (Low reflection)	$\phi 2$	HSC-PH2-E2	
HSC-ASPE2-F3Q-L	Both ends						
HSC-TSPE1-F3Q-L	One end		APC	$\geq 60\text{dB}$ (Ultra-low reflection)	$\phi 2$	HSC-PH2-E5	
HSC-TSPE2-F3Q-L	Both ends						

NOTE 1: The "L" within the Product Number indicates the length of the cable illustrated in the diagram. Please specify values in meter units.

NOTE 2: We will custom manufacture jig coupling/decoupling products other than the aforementioned items as well as a great variety of conversion cables to suit your needs.

## ■Tools

### ●Coupling / Decoupling Tool

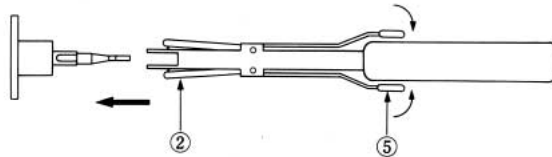


HRS NO.	Product Number	Applicable Products
CL704-0286-8	HSC-T1-L	HSC2-PH2-A2,HSC2-PH3-A2,HSC2-PH2-A, HSC2-PH3-A,HSC2-PH1-A,HSC2-PH2-B1, HSC2-PH2-B2,HSC2-PH3-B1,HSC2-PH3-B2,HSC2-PH2-E1, HSC2-PH2-E2 (PLUG),HSC2-4A,HSC2-4A-D1,HSC2-5A, HSC2-5A-D1,HSC2-8SR-1,HSC2-8SR-D1 (ADAPTER)

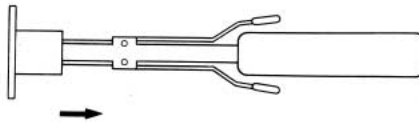
(ATTENTION) Handle carefully not to damage the top of the tool.

#### <Method of Operation>

1. Push lever portion of the reference diagram in the direction of the arrow. Portion will open when lever portion is lowered.



2. Insert the HSC coupling/decoupling jig into the adapter, release your hand from portion (5), and pull in the direction of the arrow. Removal is completed.



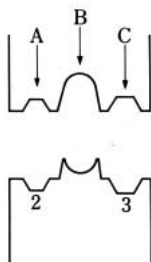
### ●Crimping Tool



HRS NO.	Product Number	Applicable Products
CL704-0287-0	HSC-T3	HSC-PH2-A2,HSC-PH3-A2,HSC-PH2-A4, HSC-PH3-A4,HSC2-PH2-A2,HSC2-PH3-A2, HSC2-PH2-A,HSC2-PH3-A2,HSC-PH2-A5, HSC-PH3-A5,HSC-PH2-B1,HSC-PH3-B1, HSC-PH2-B2,HSC-PH3-B2,HSC2-PH2-B1, HSC2-PH3-B1,HSC2-PH2-B2,HSC2-PH2-B2, HSC-PH2-E1,HSC-PH2-E2,HSC2-PH2-E1, HSC2-PH2-E2

(A crimping tool is required for cable attachment with the exception of cable housing HSC-PH1-A and HSC2-PH1-A.)

#### <Method of Operation>



(1) Cable jacket crimping

φ2mm cable : Use part A (The part marked "2")

φ3mm cable : Use part C (The part marked "3")

(2) Cables crimping : Use part B

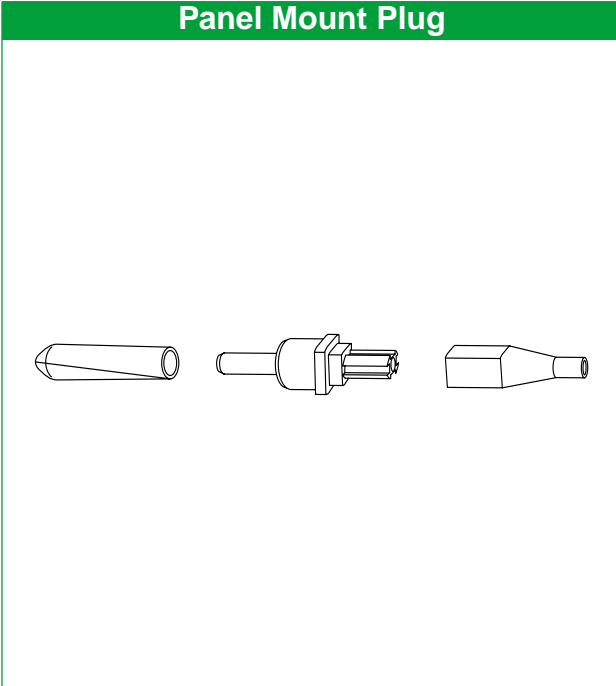
# Panel Mount Receptacles

## ■ Features

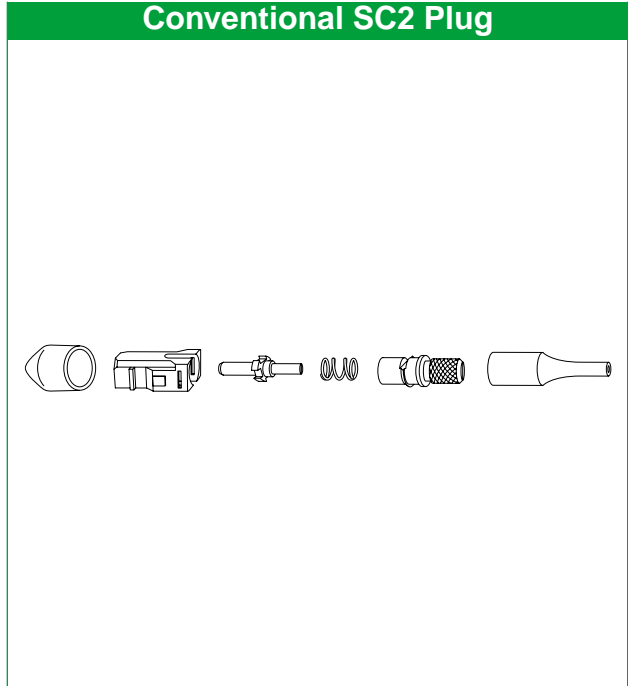
### 1. Low Cost

Compared with the SC(SC2) conventional adapter, this product has a greatly reduced number of components which is reflected in the new low cost.

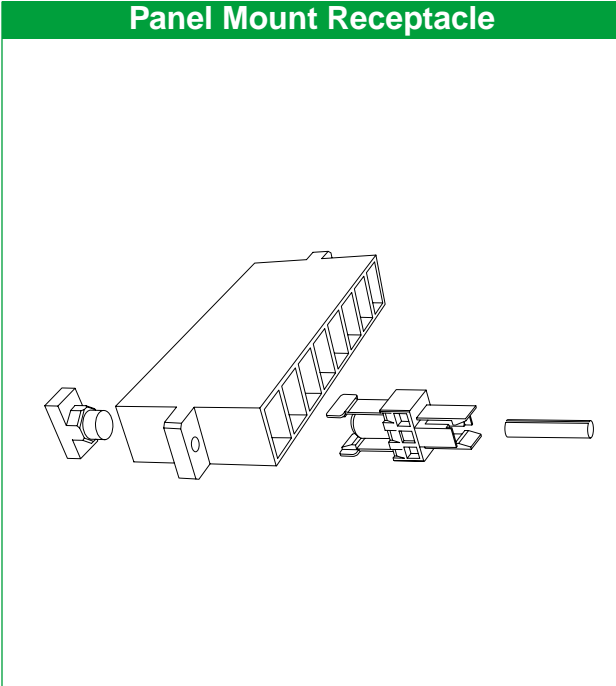
**Panel Mount Plug**



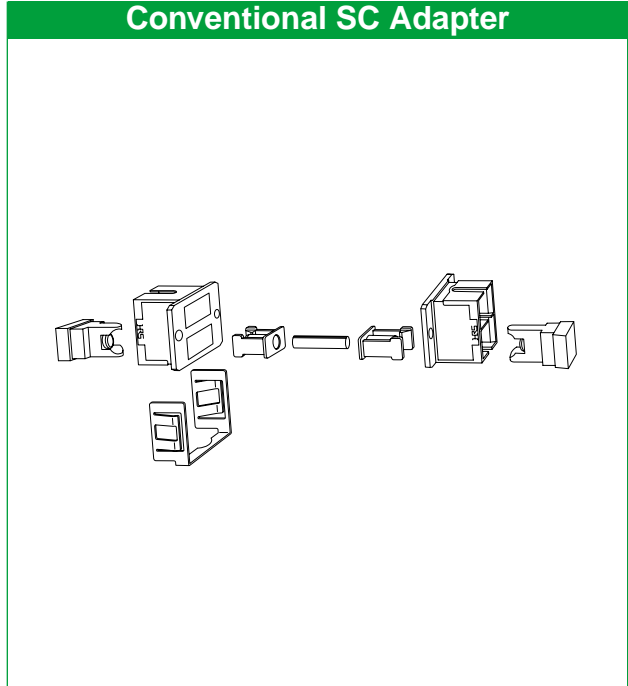
**Conventional SC2 Plug**



**Panel Mount Receptacle**



**Conventional SC Adapter**



### 2.

The wiring method for the front side of the device uses SC connectors and SC2 connectors, whereas the back side uses panel mount plugs which are of a semi-fixed coupling structure. Note that an extraction jig is required when removing panel mount plugs.

## ■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)	1300nm wavelength (LD)	0.5 dB or less (PC, AdPC)
		(GI)	1300nm wavelength (LED)	0.3 dB or less(PC, AdPC)
	Reflection attenuation	(SM)	1300/-nm wavelength (LD)	22 dB or greater (PC)
		(GI)		40 dB or greater (AdPC)
Mechanical Performance	Gauge holding force	φ2.499 ±0.0005mm zirconia gauge		Phosphor bronze 2 to 5.9 N Zirconia 2 to 3.9 N
	Repetitive operation	1,000 times		1) Insertion loss fluctuation after test: 0.2 dB or less 2) No damage, cracks, or component looseness
	Vibration resistance	Vibration range of 10 to 55 Hz, in 3-axis directions, 2 hours each		
	Shock resistance	Acceleration of 981 m/s <sup>2</sup> , 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		
	Temperature cycle	Temperature -40°C to 75°C 42 cycles (Bellcore TR-NWT-00326)		
	Heat resistance	Left for 960 hours at a temperature of 85°C		
	Cold resistance	Left for 960 hours at a temperature of -25°C		

## ■Materials

### ●Panel Mount Receptacles

Component	Material
Housing	Synthetic resin
Sleeve	Synthetic resin
Split sleeve	Phosphor bronze or zirconia
Plate	Stainless steel
Cap	Synthetic rubber or Synthetic resin

### ●Panel Mount Plugs

Component	Material
Ferrule	Zirconia and synthetic resin
Boot	Synthetic rubber
Ferrule cap	Polyethylene

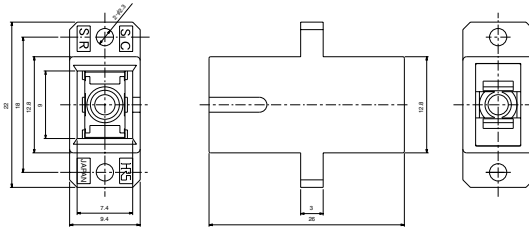
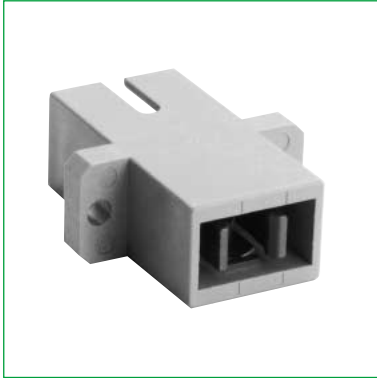
### ●Panel Mount Plug Extraction Tool

Product Name	Material
Extraction jig	Synthetic resin



## ■Panel Mount Receptacles(Manual Coupling/Decoupling Type)

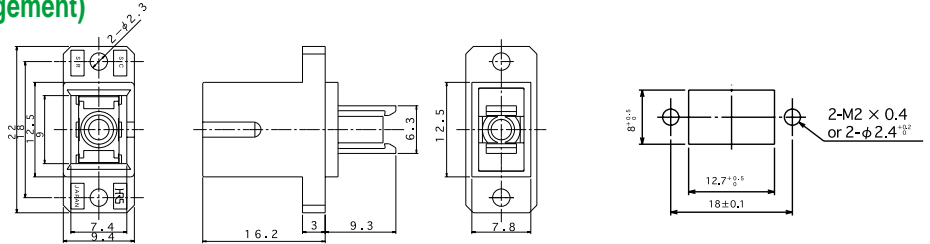
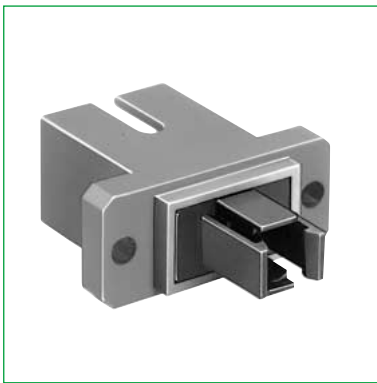
### ●SC Simplex



HRS NO.	Product Number	Split Sleeve
CL704-0320-4	HSC-SR-1	Copper alloy
CL704-0321-7	HSC-SR-D1	Zirconia
CL704-0320-4-01	HSC-SR-1(01)	—

### ◆Mounting Hole Dimensions Diagram

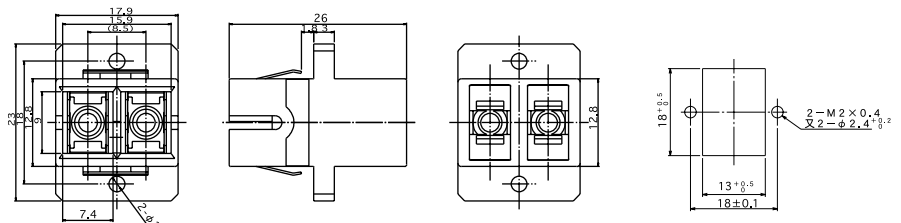
### ●SC Duplex H-type (R-type Key Arrangement)



HRS NO.	Product Number	Split Sleeve
CL704-0291-8	HSC-SR-2	Copper alloy
CL704-0292-0	HSC-SR-D2	Zirconia
CL704-0291-8-01	HSC-SR-2(01)	—

### ◆Mounting Hole Dimensions Diagram

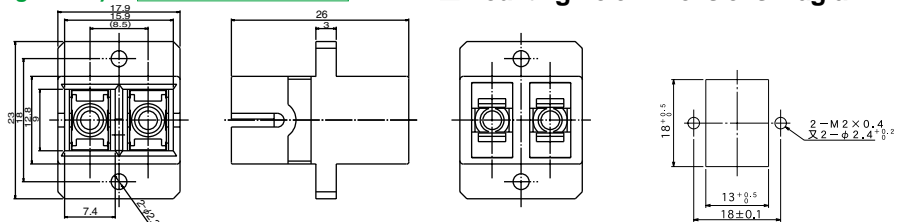
### ●SC Duplex H-type(R-type Key Arrangement)



HRS NO.	Product Number	Split Sleeve
CL704-0293-3	HSCH-2SR-1(R)	Copper alloy
CL704-0294-6	HSCH-2SR-D1(R)	Zirconia
CL704-0293-3-01	HSCH-2SR-1(R) (01)	—

### ◆Mounting Hole Dimensions Diagram

### ●SC Duplex F-type(P-type Key Arrangement) Without Plate



HRS NO.	Product Number	Split Sleeve
CL704-0300-7	HSCH-2SR-3(R)	Copper alloy
CL704-0301-0	HSCH-2SR-D3(R)	Zirconia
CL704-0300-7-01	HSCH-2SR-3(R) (01)	—