SC Type Fiber Optic Connectors

HSC Series



Features

1. IEC, JIS standard compliant and intermateability test certified. Comply with IEC 61754-4 and JIS C 5973(F04). SC intermate test by NTT certified connector.

2. Flame resistant

Satisfies flammability rating UL94V-0.

3. Three types of Duplex SC connector

Available in following types; Flexible F type – Floating mechanism and comply with ANSI standards. Rigid F type – 12.7mm spacing between the fibers, low profile and compatibility with the flexible F-type. Rigid H type – 8.5mm spacing between the fibers and for high density applications.

4. Simplified plugs and receptacles

Small size (23.8 mm plug length). SC simplified plug is designed for equipments inside connection. Comply with IEC 61754-4-1.

■Product Specifications

	Ratings	Or	erating temperature range	-25°C to +70°C	Sto	rage temperature range	-25°C to +70°C	
	radingo		crating temperature range	23 0 10 1 10 0	0.0	rage temperature range	23 0 10 170 0	
Item			Test Method (IEC 61300)			Specifications		
Ŋ	Insertion Loss	(SM)	Wavelength 1310nm (LD)			0.5dB max. (PC, AdPC, A	APC)	
al ristic	Insertion 2033	(GI)	Wavelength 1310nm (LED)			0.3dB max. (PC)		
Optical Characteristics	Return Loss	(SM)	Wavelength 1310nm (LD)			22dB min. (PC) 40dB 60dB min. (APC)	min. (AdPC)	
0		(GI)				22dB min. (PC)		
	Engagement and Separation force					Separ Duplex plug Engag	ement force: 19.6 N max. ration force: 19.6 N max. gement force: 39 N max. ation force: 39 N max.	
teristics	Ferrule withdrawal force		Extract zirconia gauge 2.499 sleeve.	9 ± 0.0005 mm dia from s	plit	Copper alloy split sleeve2N to 5.9NZirconia split sleeve2N to 3.9N		
Charac	Cable retention (Straight pull)		89N tensile load for one 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					
Me	Vibration		Frequency: 10 to 55 Hz, si 2 hours in each of the 3 axi	ngle amplitude of 0.75 n s.	nm,	 Insertion loss fluctuation after test: 0.2dB 		
	Shock		Acceleration of 981 m/s ² , 6 m half sine shock pulse, 10 cy					
al	Humidity (Temperature/ humidity- cycles)		-10°C to +65°C, humidity: 9 10 cycles	0% to 96%		2) No visible damage, cra	acks or part dislocation.	
Environmental Characteristics	Change of temperature		-40°C to +75°C 42 cycles (Complies with Telcordia standard GR-326-CORE)					
Envir	Dry heat		240 hours at 85°C					
	Cold		240 hours at -25°C					
	Salt mist		48 hours in a 5% concentrat	ion of salt mist		No significant corrosion.		

Materials

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Part	Material
Simplex plug housing	Synthetic resin
Spring	Stainless steel
Ferrule	Zirconia
Simplex adapter housing	Synthetic resin or Zinc alloy
4-position adapter housing	Synthetic resin
5-position adapter housing	Synthetic resin
Receptacle housing	Zinc alloy
Split sleeve	Zirconia or Phosphor Bronze
Dust cap	Synthetic resin

■Function diagram



SC

8 **HRS**

SC

Harsh Environment

Terminators



HS 9

1. Ferrules

- 1 It is not possible to connect it with a ferrule alone. Please use it with the plug housing.
- 2 The angle of the fiber entrance (cone) is 60 degrees or 90 degrees.

•For PC, AdPC and UPC(Flat)





Part Number	CL No.	A dimension	Applicable Fiber cable
HSC-F321-A125(10)	704-0070-9-10	0.125	
HSC-F321-A1255(10)	704-0200-2-10	0.1255	SM-9.5/125 GI-50/125
HSC-F321-A126(10)	704-0071-1-10	0.126	

•For PC, AdPC and UPC(Pre-dome)







Part Number	CL No.	A dimension	Applicable Fiber cable
HSC-F3E2-A125	704-0590-9-00	0.125	
HSC-F3E2-A1255	704-0571-4-00	0.1255	SM-9.5/125 GI-50/125
HSC-F3E2-A126	704-0591-1-00	0.126	0.1 00, 120

•For APC







Part Number	CL No.	A dimension	Applicable Fiber cable
HSC-F391-A125(40)	704-3101-7-40	0.125	
HSC-F391-A1255(40)	704-3130-5-40	0.1255	SM-9.5/125
HSC-F391-A126(40)	704-3102-0-40	0.126	

2. Plug Housings

Please use them with the ferrule.

■Manual coupling / decoupling type

•Light weight type (For 0.9mm fiber)







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Slider color

Blue

Green

Boot color

Blue

Light purple

Green

25

<u>0</u>

0.9 7.4

CL No.

704-0339-2-26

704-0354-6-51

704-3104-5-51

σ

Part Number

HSC-PH0.9-E1(26)

HSC-PH0.9-E2(51)

HSC-PH0.9-E5(51)

Part Number	CL No.	Fiber cable type	Slider color	Boot color	Polishing type	Outer jacket fixing
HSC-PH2-E1(64)	704-0327-3-64			Blue	PC	
HSC-PH2-E2(75)	704-0328-6-75	/0	Blue	Light purple	AdPC	Crimo
HSC-PH2-E6(73)	704-0344-2-73	- <i>φ</i> 2mm		White		Crimp
HSC-PH2-E5(68)	704-3108-6-68		Green	Green	APC	
HSC-PH3-B1(68)	704-0222-5-68			Blue	PC	
HSC-PH3-B2(68)	704-0223-8-68	10mm	Blue	Light purple	AdPC	Crimo
HSC-PH3-B6(62)	704-0282-7-62	∲3mm		White		Crimp
HSC-PH3-B5(62)	704-3020-7-62		Green	Green	APC	

•Short length type (For 2mm Cable)



6 118	
7.4 0.9	



Part Number	CL No.	Slider color	Boot color	Polishing type	Outer jacket fixing
HSC-PH2-E1-A(62)	704-0464-4-62	Blue	Blue	PC	
HSC-PH2-E2-A(62)	704-0480-0-62		Light purple	AdPC	Glue
HSC-PH2-E5-A(60)	704-3124-2-60	Green	Green	APC	

Polishing type

PC

AdPC

APC

Harsh Environment

Attenuators

Duplex F-type



Part Number	CL No.	Applicable Fiber cable	Guide key	Slider color	Boot Color	Polishing type
HSCF-2PH2-E1(P)(62)	704-2109-3-62	10			Blue	PC
HSCF-2PH2-E2(P)(62)	704-2120-6-62	<i>¢</i> 2mm	D	Blue	Light purple	AdPC
HSCF-2PH3-B1(P)(63)	704-2032-0-63	10	Р	Diue	Blue	PC
HSCF-2PH3-B2(P)(65)	704-2036-1-65	<i>∲</i> 3mm			Light purple	AdPC

•Duplex Flexibility type (Comply with ANSI), for single Mode





Part Number	CL No.	Applicable Fiber cable	Slider color	Boot Color	Polishing type
HSCM-2SPH2-B1(60)	704-2100-9-60	Simplex-2mm dia. cable or dual fiber zip cable		Blue	PC
HSCM-2SPH3-B1(60)	704-2102-4-60	Simplex-3mm dia. cable or dual fiber zip cable	Black	Diue	FU
HSCM-2SPH2-B2(60)	704-2133-8-60	Simplex-2mm dia. cable or dual fiber zip cable		Light purple	AdPC

The pitch size between plugs is flexible.

It is possible to connect it with duplex F-type adapter.

•Duplex Flexibility type (Comply with ANSI), for Multi-mode





Part Number	CL No.	Applicable Fiber cable	Slider color	Boot Color	Polishing type
HSCM-2GPH2-B1(60)	704-2104-0-60	Simplex-2mm dia. cable or dual fiber zip cable	Plack	Dhua	PC
HSCM-2GPH3-B1(60)	704-2106-5-60	Simplex-3mm dia. cable or dual fiber zip cable	Black	Blue	PC

The pitch size between plugs is flexible.

It is possible to connect it with duplex F-type adapter.

Terminators

■Tool decoupling type

•Light weight type (For 0.9mm fiber)





Part Number	CL No.	Boot Color	Polishing type
HSC2-PH0.9-E1(51)	704-0421-1-51	Blue	PC
HSC2-PH0.9-E2(51)	704-0422-4-51	Light purple	AdPC

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•Strain relief type







Part Number	CL No.	Fiber cable type	Boot color	Polishing type	Outer jacket fixing
HSC2-PH2-E1(69)	704-0329-9-69	10000	Blue	PC	Glue
HSC2-PH2-E2(68)	704-0330-8-68	¢2mm	Light purple	AdPC	Giue
HSC2-PH3-B1(63)	704-0226-6-63	10 mm	Blue	PC	Crimp
HSC2-PH3-B2(63)	704-0227-9-63	¢3mm	Light purple	AdPC	Crimp

3.Adapters & Receptacles ■Manual coupling / decoupling type

SC/SC Plastic Housing







Panel cutout



Part NumberCL No.Split sleeveRemarksHSC-A3(51)704-0092-1-51Phosphor BronzePC,AdPC(Blue)HSC-A3-D1(02)704-0217-5-02ZirconiaAPC(Green)HSC-A3-D2(06)704-3007-9-06ZirconiaAPC(Green)

20 20

•SC/SC Die Cast Metal Housing









Part Number	CL No.	Split sleeve
HSC-A2(50)	704-0020-0-50	Phosphor Bronze
HSC-A2-D1(01)	704-0258-2-01	Zirconia

SC/SC Plastic Housing (Short flange)









Panel thickness: 1.6mm

Part Number	CL No.	Split sleeve	Snap in latch for panel mount	Remarks
HSC-AFR-D1(01)	704-0572-7-01	Zirconia	without latch	PC.AdPC(Blue)
HSC-AFR-D2(01)	704-0573-0-01	Zirconia	with latch	FC,AUFC(blue)

14.8

Note: When applying excessive force to the plug or inserting in an odd angle, the adapter housing might be damaged.

Terminators

14.8

Remarks PC, AdPC(Blue)

APC(Green)

SC

Harsh Environment

Terminators

POF / PCF

•SC/SC Plastic Housing (With shutter)



Features

With built-in automatic shutter.



●F type Snap-in and/or Screw Mounting





Panel cutout



Panel thickness: 1.6mm

Part Number	CL No.	Split sleeve	Remarks
HSCF-2A(P)(51)	704-2008-6-51	Phosphor Bronze	PC, AdPC(Blue)
HSCF-2A-D(P)(06)	704-2040-9-06		PC, AdPC(blue)
HSCF-2A-D2(P)(06)	704-2112-8-06	Zirconia	APC(Green)

●H type Snap-in





Panel cutout



Part Number	CL No.	Split sleeve	Remarks
HSCH-2A1(P)(51)	704-2066-2-51	Phosphor Bronze	PC, AdPC(Blue)
HSCH-2A1-D2(P)	704-2137-9-00	Zirconia	APC(Green)

3

●H type Snap-in and/or Screw Mounting





Panel cutout

2-M2×0.4 or 2-\u00f72.4 +0.2



Part Number	CL No.	Split sleeve	Remarks
HSCH-2A(P)(51)	704-2020-1-51	Phosphor Bronze	PC, AdPC(Blue)
HSCH-2A-D(P)(02)	704-2062-1-02	Ziroonio	FC, AUPC(DIUE)
HSCH-2A-D2(P)(03)	704-2108-0-03	Zirconia	APC(Green)

F

27.4

■Tool decoupling type ●SC2/SC2 4-way adapter





Panel cutout



Panel thickness: 1.6mm

35.3 +0.5

Part Number	CL No.	Split sleeve	Remarks	
HSC2-4A(51)	704-0024-1-51	Phosphor Bronze		
HSC2-4A-D1(01)	704-0290-5-01	Zirconia	PC,AdPC(Blue)	

28.2

Note: When applying excessive force to the plug or inserting in an odd angle, the zirconia sleeve within the adapter might be damaged.

•SC2/SC2 5-way adapter(for Multi-mode fiber)



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Panel cutout

	Panel thickness: 1.6mm			
No.	Split sleeve	Remarks		

HSC2-5A(51)	704-0025-4-51	Phosphor Bronze	PC,AdPC(Blue)		
Part Number	CL NO.	Split sleeve	Remarks		

Note: When applying excessive force to the plug or inserting in an odd angle, the zirconia sleeve within the adapter might be damaged.

Conversion adapters

•FC / SC Screw Mounting



M8 × 0.75			¢9 °0.5 2-N or 3.4±0.1
Part Number	CL No.	Split sleeve	
HSCJ-HRFCJ-B(43)	704-0021-3-43	Phosphor Bronze	

Note: The type of SC plug that can be mated is manual coupling/decoupling type.

●FC / SC Snap-in and/or Screw Mounting





Panel cutout

Panel cutout



Receptacles







	Note: Designed for power meter sensors				
Part Number	CL No.	Remarks			
HSC-R1-B(41)	704-0022-6-41	For MM			
HSC-R2-B(41)	704-0023-9-41	For SM			

Note: The type of SC plug that can be mated is manual coupling/decoupling type.

4. Simplified plugs & receptacles

Features

1. This product greatly reduced the number of parts compared with the SC connector, and achieved cost-saving.



2.It achieved space-saving by using this product inside of the system.

3.Please use a special tool when you decouple the plug.

Simplified plug

Please use the special decoupling tool when you unmate the simplified plug.

Simplified plug(Flat)





Part Number	CL No.	A dimension	Remarks
HSC2-FK-A125(56)	704-0267-3-56	0.125	
HSC2-FK-A1255(56)	704-0269-9-56	0.1255	without boots
HSC2-FK-A126(56)	704-0268-6-56	0.126	
HSC2-FK-A125(51)	704-0267-3-51	0.125	
HSC2-FK-A1255(51)	704-0269-9-51	0.1255	with boots
HSC2-FK-A126(51)	704-0268-6-51	0.126	

•Simplified plug(Pre-dome)





Part Number	CL No.	A dimension	Remarks
HSC2-FK2-A125(56)	704-0407-0-56	0.125	
HSC2-FK2-A1255(56)	704-0408-3-56	0.1255	without boots
HSC2-FK2-A126(56)	704-0409-6-56	0.126	
HSC2-FK2-A125(51)	704-0407-0-51	0.125	
HSC2-FK2-A1255(51)	704-0408-3-51	0.1255	with boots
HSC2-FK2-A126(51)	704-0409-6-51	0.126	

Panel cutout

18 ±0.

2-M2×0.4 or 2-\u03c62.4^{+0.2}

12.7+0.5 18+0.1

-0

Simplified receptacle to SC

•Simplex / Shrouded





HSC-SR-1(03) 704-0320-4-03 None Note. The type of SC plug that can be mated is manual coupling/decoupling type.

704-0321-7-02

Zirconia

HSC-SR-D1(02)

Simplex / Unshrouded





Note. The type of SC plug that can be mated is manual coupling/decoupling type.

Duplex H type / Shrouded





Note. The type of SC plug that can be mated is manual coupling/decoupling type.

S

Duplex F type / Unshrouded



d			Panel (2-M2×0.4 or 2- 25.7 ⁺ 8 30.7±0	$\begin{array}{c} \phi 2.4 \stackrel{+0.2}{\overset{\circ}{_{0}}} \\ \hline \\ \hline \\ \\ \hline \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ $
	Part Number	CL No.	Split sleeve	
	HSCF-2SR-2(P)(51)	704-0295-9-51	Phosphor Bronze	
	HSCF-2SR-2(P)(03)	704-0295-9-03	None	

Note. The type of SC plug that can be mated is manual coupling/decoupling type.

•Duplex F type / Shrouded, built-in shutter type



•				
	Part Number	CL No.	Split sleeve	
	HSCF-2SR-S2	704-0516-6-00	None	

% The type of SC plug that can be mated is manual coupling/decoupling type. Note. The shutter is built into only one of ports.

●4-Position / Shrouded





Panel cutout

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Part Number	CL No.	Split sleeve
HSC2-4SR-1(51)	704-0311-3-51	Phosphor Bronze
HSC2-4SR-D1(01)	704-0312-6-01	Zirconia
HSC2-4SR-1(03)	704-0311-3-03	None

Note: When applying excessive force to the plug or inserting in an odd angle, the zirconia sleeve within the adapter might be damaged.

* The type of SC plug that can be mated is tool decoupling type.

8-Position / Shrouded





Part Number	CL No.	Split sleeve
HSC2-8SR-D1(01)	704-0270-8-01	Zirconia
HSC2-8SR-1(03)	704-0266-0-03	None

Note: When applying excessive force to the plug or inserting in an odd angle, the zirconia sleeve within the adapter might be damaged.

* The type of SC plug that can be mated is tool decoupling type.

•8-Position / Unshrouded

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Part Number	CL No.	Split sleeve
HSC2-8SR-2(51)	704-0318-2-51	Phosphor Bronze
HSC2-8SR-D2(01)	704-0403-0-01	Zirconia
HSC2-8SR-2(03)	704-0318-2-03	None

Note: When applying excessive force to the plug or inserting in an odd angle, the zirconia sleeve within the adapter might be damaged.

% The type of SC plug that can be mated is tool decoupling type.

■Split sleeve



		-
I	<	

Part Number	CL No.	Split sleeve
HSC-SLIT-SLEEVE(51)	704-0275-1-51	Phosphor Bronze
HSC-D	704-0264-5-00	Zirconia

Panel cutout



5. Caps

■For plug

•Ferrule cap	



Part Number	CL No.
HSC-C7(20)	704-0420-9-20

10

* HRS standard cap for plugs.

¢6.5

Part Number

HSC-C1

* Press fit to ferrule outer.

•Press fit to plug frame inner type cap



•Cap for SC plug housing



■For adapter

•Simplex plastic cap





Part Number CL No. 704-0363-7-00 HSC-C5

* HRS standard cap for SC adapters.

* The cap is inserted in the lock part of the adapter.

Part Number	CL No.	
HSC-C9	704-0588-7-00	
* Press fit to adapter innner.		

















POF / PCF

Terminators





4-0.15

CL No.

		+
Part Number	CL No.	
-C8	704-0542-6-00	

HSC-C8

* Press fit to outside of SC slider.

SC

Harsh Environment

Terminators

•Simplex plastic cap



2	-	
		-
Part Number	CL No.	
HSC2-C2	704-0487-0-00	

% The cap is inserted in the lock part of the adapter.

•Duplex F-type plastic cap





Part Number	CL No.	Remarks
HSCF-C2(40)	704-2126-2-40	without cahin
HSCF-C3(40)	704-2135-3-40	with cahin

•Duplex H-type plastic cap





Part Number	CL No.	Remarks
HSCH-C1(40)	704-2122-1-40	with cahin

6. Tools

•HSC2 Insertion/Extraction Tool



Part Number	CL No.	Applicable Products
HSC-T1-L	704-0286-8-00	HSC2 Series

Note. Handle with care because slim tips breaks easily.

<How to operate>

1. Open the tip of tool by compressing levers as shown below.



2.Insert the tool (with opening the tips) into adapter.



3.Release the levers (then the tool catch HSC2 plug) and you can release the connector.

Extraction tool for Simplified plug (without boots)











Part Number	CL No.	Shape
HSC-T13	704-0449-0-00	Straight
HSC-T8	704-0447-5-00	L type

Extraction tool for Simplified plug (with boots)











Part Number	CL No.	Shape
HSC-T10	704-0350-5-00	Straight
HSC-T12	704-0448-8-00	L type

Crimp Tool

This is used in crimping of Kevlar or jacket at time of the plug (for cable diameter 2mm & 3mm) termination.

groove.



HT501/HSC-T20 CL902-6064-2 (Part Number	CL No.	(1
``	HT501/HSC-T20	CL902-6064-2	(2

228 <u>∩</u> Ð 0 O C (1) 2mm Jacket crimping: Please select section"2mm". 3mm Jacket crimping: Please select section"3mm". 2) Kevlar™ crimping: Please select section center round

•Plug assemble tool



Part Number	CL No.
HSC2-PH2/CVMD	902-6029-1

SC

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HS 27

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

Hirose Electric:

HSC-PH3-A2(41) HSC-PH3-A2(52) HSC2-PH2-A2(16) HSC-A2(44) HSC-A2(49) HSCJ-HRFCJ-B(40) HSCJ-HRFCJ-B(43) HSC-R2-B(40) HSC2-4A(51) HSC2-5A(51) HSC-P-T HSC-C2(40) HSC-F321-A127 HSC-F321-A128 HSC-A3(27) HSC-A3(41) HSC-A3(52) HSC-A3(60) HSC-A3(63) HSC-C3(40) HSCJ-HSTJ-B(40) HSCJ-HSTJ-B(42) HSC-PH1-A(40) HSC-C4(01) HSCJ-HRFCJ-C(40) HSCJ-HRFCJ-C(41) HSCJ-HRFCJ-C(43) HSC-A3-D1 HSC-A3-D1(06) HSC-PH3-A4(40) HSC-A2-D1(03) HSC-D(01) HSC2-8SR-1(03) HSC2-8SR-1(08) HSC2-8SR-1(40) HSC2-FK-A125(33) HSC2-FK-A1255(33) HSC2-FK-A1255(36) HSC2-8SR-D1(01) HSC-PH2-C1(40) HSC-PH2-C2(40) HSCJ-HRFCJ-BD1(40) HSC-T1-L HSCP-HRFCJ-1AS(40) HSC2-4A-D1 HSC2-4A-D1(01) HSC-SR-2(03) HSC-SR-2(40) HSC-SR-2(51) HSC-SR-2(52) HSC-SR-D2(06) HSCH-2SR-1(R)(51) HSCH-2SR-D1(R)(01) HSCF-2SR-2(P)(03) HSCF-2SR-2(P)(41) HSCF-2SR-2(P)(42) HSCF-2SR-2(P)(51) HSCF-2SR-D2(P)(02) HSCH-2SR-3(R)(03) HSCH-2SR-3(R)(51) HSC2-4SR-1(03) HSC2-4SR-1(41) HSC2-4SR-1(51) HSC2-4SR-D1 HSC2-4SR-D1(01) HSC-PH1-A2(40) HSC2-8SR-2(40) HSC2-8SR-2(51) HSC-SR-1(03) HSC-SR-1(06) HSC-SR-1(51) HSC-SR-D1(02) HSC-PH2-E1(44) HSC-PH2-E1(57) HSC-PH2-E2(54) HSC-PH2-B1-HOOD HSC-PH3-B1-HOOD HSC-PH0.9-E1(06) HSC-PH2-E6(41) HSC-PH2-E6(53) HSC-T10 HSC-PH0.9-E2(31) HSCJ-HRFCJ-CD1(41) HSC-PH2-E8(40) HSC2-FK2-A125(31) HSC2-FK2-A126(36) HSC-PH1.5-B6(40) HSC-T8 HSC-T12 HSC-T13 HSC-A3-3 HSC-A3-D1-3(03) HSC-PH2-E6-A(40) HSC-PH2-E2-A(42) HSC2-C4 HSCF-2SR-S2 HSC-PH2-B-FRAME HSC-PH2-J6 HSC-PH1.7-J1 HSC-PH1.7-J2