HRS H.FL SERIES

The world's smallest low-profile coaxial connectors H.FL Coaxial Connectors

OUTLINE

The H.FL series of coaxial connectors consists of the world's smallest surface-mount low profile coaxial connectors.

The H.FL connectors have a lower profile, with a mounted height of approximately 30% that of our S.FL2 connectors. They occupy 20% less board space, allowing higher density internal wiring.



FEATURES

- (1) Height off printed circuit board of 3mm when connected (lowest in the world).
- (2) High frequency response of V.S.W.R 1.3 or less from D.C., A.C.1 to 3000 MHz.
- (3) Compressed wire system used on the cable side connector for both the center and exterior, providing stable connection quality. For the external conductor compression part, the shielded wire is compressed between metal, providing stability with respect to fluctuations in heat.
- (4) Wiring is possible with ultra-thin fluoropolymer cables with an external diameter of φ 1.48, making high density internal wiring possible. Compatible with the Junkosha DFS111-UL1979, the Hitachi CO-6F and FH-SB cables, as well as other cables in
- (5) The connector can be easily removed with an extraction jig.
- (6) Emboss taping makes automatic mounting possible. In addition, connectors with caps are available for use with all types of mounters.
- (7) Connection can be easily verified. Despite the ultra small size, a locking feeling is provided making it possible to check that the connector is securely connected.
- (8) The connectors are equipped with an scoop-proof mechanism protecting against mis-insertion.
- (9) A cut is provided on the circuit board side connector, making it simple to check the direction after mounting.

APPLICATIONS

the future.

Portable telephones, cellular-telephones, wireless communications devices, electronic measuring equipment, GPS, etc.

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MATERIALS and TREATMENT

Part name	Part name Material	
Shell	Phosphor bronze	Silver plating
Insulator	PBT plastic (plug side) Liquid crystal polymer (receptacle side)	Black Black
Male center contact	Bronze	Gold plating
Female center contact	Phosphor bronze	Gold plating

PERFORMANCE

Item	Rated value
Characteristic impedance	50 Ω
Insulation resistance	500M Ω or greater at DC 250V
Contact resistance	20m Ω (center), 10m Ω (exterior) at DC 10mA
Dielectric strength	AC 300V (r.m.s), 1 minute
Contact service life	50 times
Voltage standing wave ratio	1.3 or less, DC to 3000MHz (target value)

PRODUCT INFORMATION

▲ L-shaped plugs





A Receptacles (with caps)



▲ Converter Adapters



HARNESSED MODELS

For harnessed H.FL series, follow the dimensions specified below.



Specify the dimensions from the center of connectors for both single- and double-connector harnesses. Standard dimensional tolerances are as follows:

Overall length	Tolerance
$35 \sim 200$	±4
201 ~ 500	±8
501 ~ 1000	±12
1001 ~	±1.5%

C Dimensions

H.FL-LP-DFS111:6.95 H.FL-LP-A32:7.35

Note: Minimum length: 35 mm

PRECAUTIONS FOR HANDLING

🔺 Plug

- Connector insertion and extraction
 - a. Hook the tip of the S.FL-LP-N or H.FL-LP-N on the lid, and insert/extract the connector vertically along the connector mating axis. Be sure to hold the connector body when inserting/extracting the connector. Never hold the cable when extracting the cable because it damages the connector.
 - b. Insert the connector as perpendicularly to the

mating surface as possible by aligning the mating axes of both connectors. Do not excessively slant the connectors when inserting.

 Allowable loads on the cable after the connectors are mated.

The figures below show the maximum allowable loads on the cable. Do not apply loads exceeding these values to the cable.





• View of mounted connector

