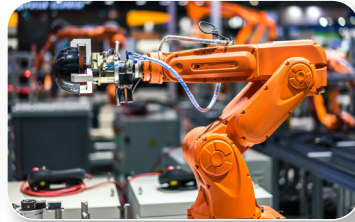


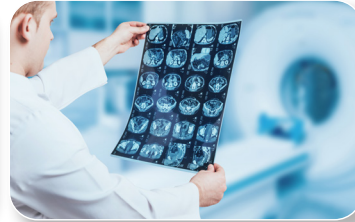
## Applications



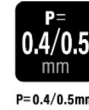
Automotive



Robotic/Automation



Medical



P=0.4/0.5mm



High Temp



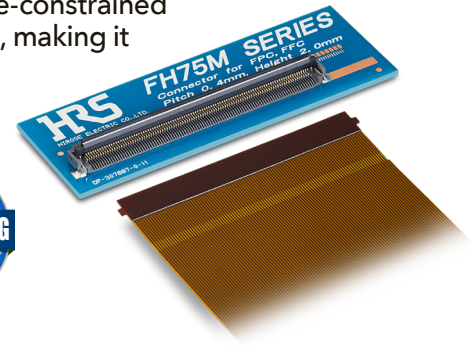
Automotive

**Experience the precision engineering of Hirose's FH75M Series. Designed for automotive & high-performance applications, this connector delivers reliability & efficiency in compact spaces.**

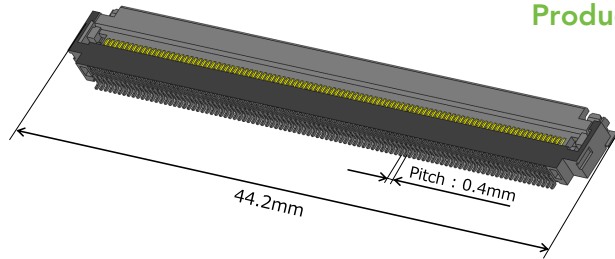
Discover Hirose Electric's FH75M Series: This automotive-grade FPC connector features an independent two-point spring contact design, high heat resistance up to 125°C, and high-speed data transmission capabilities. With a 0.4mm pitch, 2mm height, rated current of 0.5A, and 50V AC/DC rating, it excels in space-constrained environments. The simple flip-lock design ensures easy and secure FPC insertion, making it ideal for automotive and other industrial devices used in harsh environments.

### Key features of the FH75M Series include:

- Two-point contact design prevents dust intrusion.
- 125°C Heat Resistance
- High FPC/ FFC Retention Force
- Original FPC/ FFC Mis-Mating Detection Mechanism
- PCB Layout Compatible with FH52 Series
- Passes Strict Automotive Testing Requirements
- Environment Compatibility

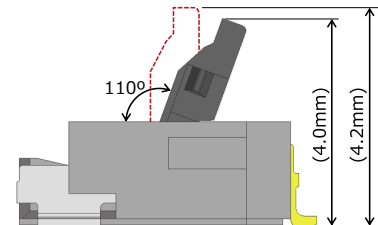


## Dimensions



**FH75M (0.4mm Pitch)**  
**Dimensions Example: 100pos.**  
**Product : FH75M-100S-0.4SH**

### Actuator Opened



-FPC/FFC Thickness = 0.3±0.05mm  
 -Bottom Contact

## 125°C Heat Resistance to Meet Severe Automotive Requirements




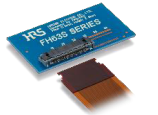

[CLICK HERE TO ORDER SAMPLE NUMBER: US-FH75MSAMPLE-24](#)

[CLICK HERE FOR MORE INFORMATION](#)

Item		Test Methods	Requirements
Mechanical Characteristics	Vibration	Frequency 10 to 55Hz, Half amplitude 0.75mm, 10 cycles in 3 axial directions.	1. No Electrical Discontinuity, 1µs min. 2. Contact Resistance 3. Appearance
	Shock	981m/s <sup>2</sup> , 6ms pulse duration 3 times in 3 axials and both directions.	
Environmental Characteristics	Temperature Cycle	Temperature -55→+15 to +35→+125→+15 to +35°C Time 30→2 to 3→30→2→3 min. <b>1,000 cycles.</b>	1. Contact Resistance 2. Insulation Resistance 3. Appearance
	Moisture Resistance	Exposed at 60±2°C, Relative humidity 90-95%, <b>1,000h.</b>	
	Temperature Humidity Test	Exposed at -10 to +65°C, Relative humidity 90-96%, 10 cycles for 240h.	
	Dry Heat	Exposed at 125±2°C for <b>1,000h.</b>	1. Contact Resistance 2. Appearance
	Cold	Exposed at -55±3°C for <b>1,000h.</b>	
	Corrosion Salt Mist	Exposed at 35±2°C, 5% Salt water spray for 96h.	
	Sulfur Dioxide (JIS C 60068-2-42)	Exposed at 40±2°C, Relative humidity 80±5%, 25±5ppm. for 96h.	
	Hydrogen Sulfide (JIS C 60068-2-43)	Exposed at 40±2°C, Relative humidity 80±5%, 10-15ppm. for 96h.	

1. The heat resistant temperature when using FFC is 105°C. When the heat resistant temperature is less than 125°C for FPC and 105°C for FFC, the heat resistant temperature of the FPC/FFC is applied.  
 2. Test content may differ from standard values.

## Similar FPC/FFC Connectors for Automotive

Product Name		FH75	FH75M	FH52K	FH63S	FH65
Product						
Pitch (mm)		0.5	0.4	0.5	0.5	0.5
Height (mm)		2.0		2.0	2.8	1.2
Heat Resistance		+125°C*				
Contact Point		Two-Point		One-Point	Two-Point	One-Point
Transmission Standard	MIPI D-PHY (1.5Gbps)	Supported		Supported	Supported	Supported
	eDP1.3 (5.4Gbps)	Supported		Supported	Supported	Supported
Lock		Flip Lock		Flip Lock	One Action Lock	Flip Lock
Land Pattern		Compatible with FH52K	FH75M Exclusive	Compatible with FH75	FH63S Exclusive	FH65 Exclusive
FPC/FFC Pattern		Compatible with FH52K	FH75M Exclusive	Compatible with FH75	FH63S Exclusive	FH65 Exclusive

\* The heat resistant temperature when using FFC is 105°C. When the heat resistant temperature is less than 125°C for FPC and 105°C for FFC, the heat resistant temperature of the FPC/FFC is applied.

## Specifications

### Material and Finish

Component	Material	Finish, Remarks
Housing	LCP	UL94V-0 / Gray
Actuator	LCP	UL94V-0 / Black
Contact	Copper Alloy	Contact Area / Mounting Area: Gold Plated Over Nickel Under Plating Other: Nickel Plating
Retention Tab	Brass	Pure Tin Plated Over Nickel Under Plating

### Performance Characteristics

Rated Current	0.5A (FH75) 0.4A (FH75M)
Rated Voltage	50V AC/DC (FH75) 40V AC/DC (FH75M)
Operating Temperature	-40 to +125°C*1
Contact Resistance	50mΩ Max. *2 Includes FPC/FFC conductor resistance (L=8.0mm)
Withstanding Voltage	150V AC for 1min.
Insulation Resistance	500MΩ Min. (100V DC)
Mating Durability	20 times

#### RoHS, Halogen-free\*3 product

**FH75** - No. of Pos. : 10, 40, 60, 68pos. (Mass Production) 8, 15, 30, 50, 80pos. (Under Planning)

**FH75M** - No. of Pos. : 100pos. (Mass Production) 80, 120pos. (Under Planning)

\*1 Includes the temperature rise due to current flow. The heat resistant temperature when using FFC is 105°C. When the heat resistant temperature is less than 125°C for FPC and 105°C for FFC, the heat resistant temperature of the FPC/FFC is applied.

\*3 This product satisfies halogen free requirements defined as 900ppm maximum chlorine, 900ppm maximum bromine, and 1,500ppm maximum total of chlorine and bromine.



For additional information please go to [www.hirose.com/product/series/FH75](http://www.hirose.com/product/series/FH75)

Specifications herein are subject to change without notice.  
Contact Hirose for latest specifications, drawings, or availabilities.

STAY CONNECTED

