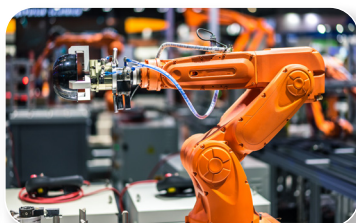


## Applications



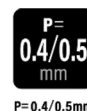
Automotive



Robotic/Automation



Medical



P=0.4/0.5mm



High Temp



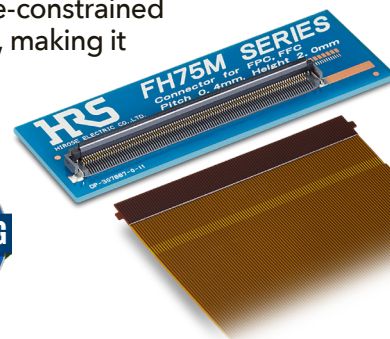
Automotive

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

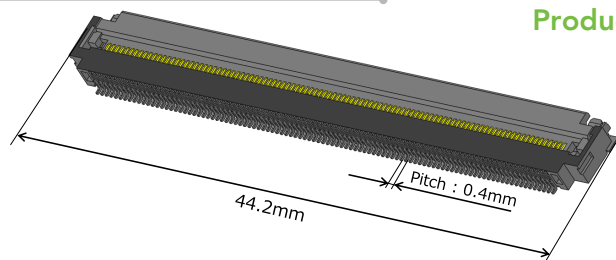
Discover Hirose Electric's FH75M Series: This automotive-grade FPC connector features an independent two-point spring contact design, high heat resistance up to 125°C, and high-speed data transmission capabilities. With a 0.4mm pitch, 2mm height, rated current of 0.5A, and 50V AC/DC rating, it excels 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

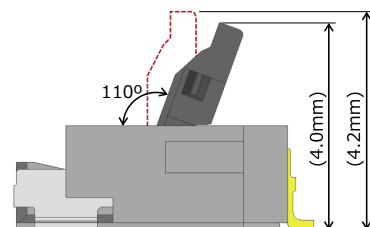


## Dimensions



**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.                |
|                               | 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> |
|                               | 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>                                                        |
|                               | 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:<br>Gold Plated Over Nickel Under Plating<br>Other: Nickel Plating |
| Retention Tab | Brass        | Pure Tin Plated Over Nickel Under Plating                                                       |

### Performance Characteristics

|                       |                                                              |
|-----------------------|--------------------------------------------------------------|
| Rated Current         | 0.5A (FH75)<br>0.4A (FH75M)                                  |
| Rated Voltage         | 50V AC/DC (FH75)<br>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

