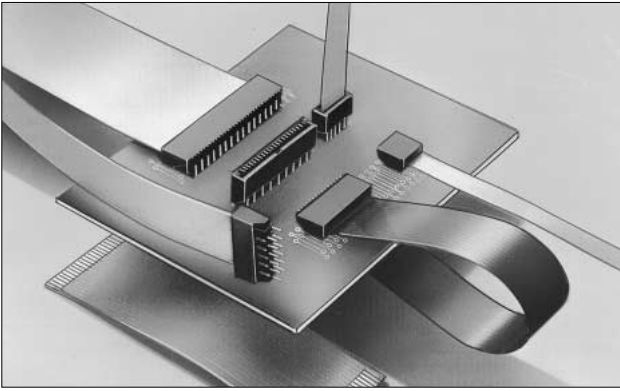


# 1.25mm Pitch FPC/FFC Connector

## FH3 Series



### ■Features

#### 1. 1.25mm FPC and FFC DIP Connector

The contact pitch is 1.25mm.

#### 2. Contact Reliability

This connector has high contact reliability for high voltage contact.

#### 3. Sixteen Types of Contact Numbers

This connector consists of 16 kinds of 6, 8, 9, 10, 12, 13, 14, 15, 15, 17, 18, 19, 20, 21, 22, 24, and 30 contacts.

### ■Applications

HDD, facsimiles, printers, VTR, etc.

### ■Product Specifications

|        |                        |   |   |
|--------|------------------------|---|---|
| Rating | Rated Current: 1A      | Operating Temperature Range:-40~+85°C (Note 1)                      | Storage Temperature Range:-10~+60°C (Note 2)                      |
|        | Rated Voltage: 200V AC | Operating Humidity Range:Relative humidity, 90% max.<br>(Not dewed) | Storage Humidity Range:Relative humidity, 90% max.<br>(Not dewed) |

|                |                        |
|----------------|------------------------|
| Applicable FPC | t=0.2~0.35 Tin plating |
|----------------|------------------------|

| Item                                   | Specification  | Condition  |
|--|--|--|
| 1. Insulation Resistance               | 500MΩ min.   | Measured at 500V DC  |
| 2. Withstand voltage                   | Neither short or breakdown should occur  | 500V AC for 1 minute   |
| 3. Contact Resistance                  | 20mΩ max.<br>※ FPC conductor resistance included                               | Measured at 0.1A   |
| 4. Mechanical operation                | Contact resistance: 40mΩ max.<br>No part should be broken, cracked or loosened | 30 cycles  |
| 5. Vibration                           | No part should be broken, cracked or loosened                                  | Frequency: 10~55Hz and full amplitude 1.50mm in 3 directions for 2 hours, respectively                                       |
| 6. Shock                               | No part should be broken, cracked or loosened                                  | Acceleration: 490m/S <sup>2</sup> , duration: 11ms, sine half-wave: in 3 directions for 3 times, respectively                |
| 7. Moisture Resistance in Steady State | Insulation resistance: 50MΩ min.   | Exposed to temperature 40°C and humidity 90~95% for 96 hours   |
| 8. Temperature Cycle                   | No part should be broken, cracked or loosened                                  | 5 cycles under conditions as follows;<br>Temperature: -55°C→+15~+35→+85→+5~+35°C<br>Time: 30→5 max.→ 30→5 max. for 5 minutes |

Note 1. Temperature rise included when energized

Note 2. This storage indicates a long-term storage state for the unused product before board mounted.

The operating temperature and humidity ranges are applied to the non-energized state after the connector has been installed in the board.

Note 3. The above standards represent this series. The individual formal agreement should be based on the "Specification".

## Material

| Part      | Material        | Finish      | Remarks |
|-----------|-----------------|-------------|---------|
| Insulator | PBT             | Black       | UL94V-0 |
| Contact   | Phosphor bronze | Tin plating | —       |

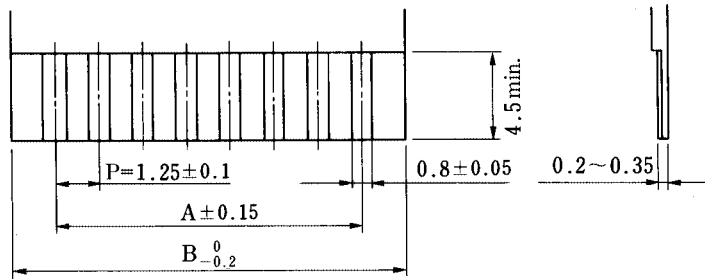
## Ordering Information

Please determine the specific product. If needed, please select and order the product from the product No. as listed on catalog page D8 and D9.

**FH 3 - 17 S 1.25 DS (01)**  
 q w e r t y u

|  |   |
|--|---|
| <b>q</b> Series Name : FH  | <b>t</b> Contacts Pitch : 1.25mm                                      |
| <b>w</b> Series No. : 3  | <b>y</b> Contact Style : DS : Right angle type<br>DSA : Straight type |
| <b>e</b> Number of Contacts : 4, 6, 8, 10, 12, 13, 14, 15, 16,<br>17, 18, 19, 20, 22, 24, 30 | <b>u</b> (01): Tube   |
| <b>r</b> Contact alignment : Single  |   |

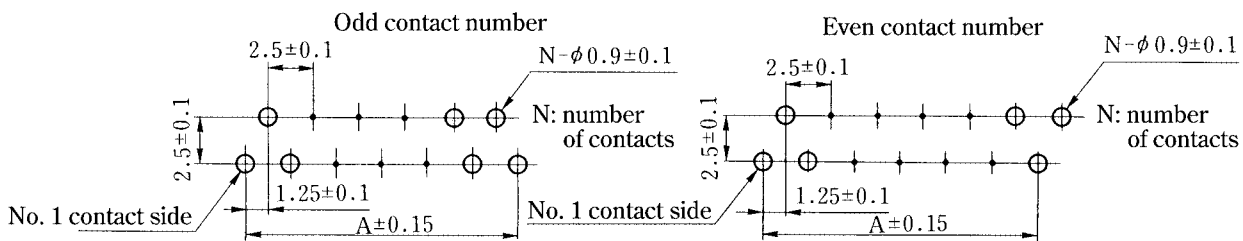
## FPC - FFC Dimensions



Unit: mm

| Number of Contacts | 4    | 6    | 8     | 10    | 12    | 13   | 14    | 15   | 16    | 17   | 18    | 20    | 22    | 24    | 30    |
|--------------------|------|------|-------|-------|-------|------|-------|------|-------|------|-------|-------|-------|-------|-------|
| Size A             | 3.75 | 6.25 | 8.75  | 11.25 | 13.75 | 15   | 16.25 | 17.5 | 18.75 | 20   | 21.25 | 23.75 | 26.25 | 28.75 | 36.25 |
| Size B             | 6.25 | 8.75 | 11.25 | 13.75 | 16.25 | 17.5 | 18.75 | 20   | 21.25 | 22.5 | 23.75 | 26.25 | 28.75 | 31.25 | 38.75 |

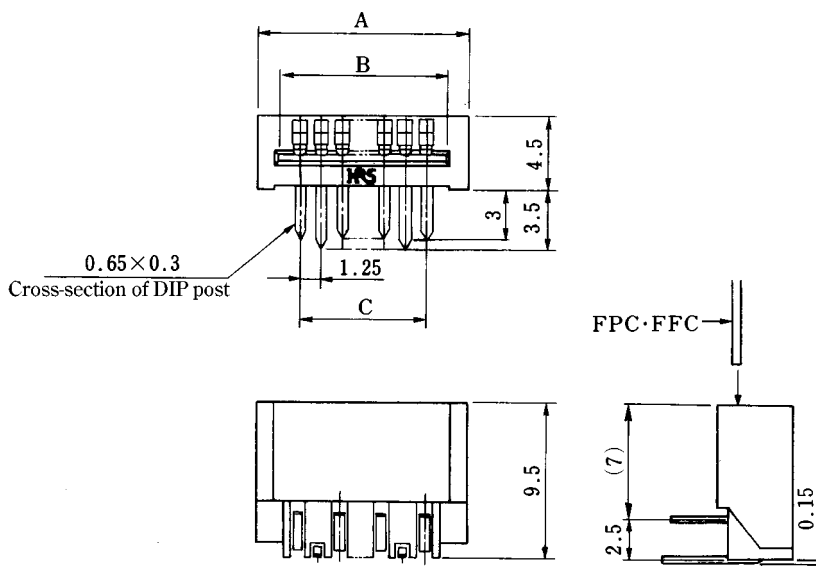
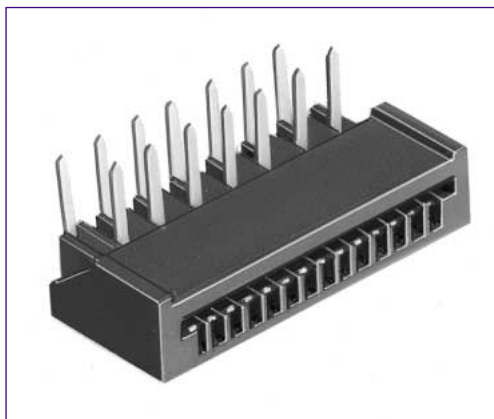
## PCB Footprints



Unit: mm

| Number of Contacts | 4   | 6 | 8   | 10 | 12   | 13 | 14 | 15   | 16   | 17 | 18 | 20   | 22 | 24   | 30 |
|--------------------|-----|---|-----|----|------|----|----|------|------|----|----|------|----|------|----|
| Size A             | 2.5 | 5 | 7.5 | 10 | 12.5 | 15 | 15 | 17.5 | 17.5 | 20 | 20 | 22.5 | 25 | 27.5 | 35 |

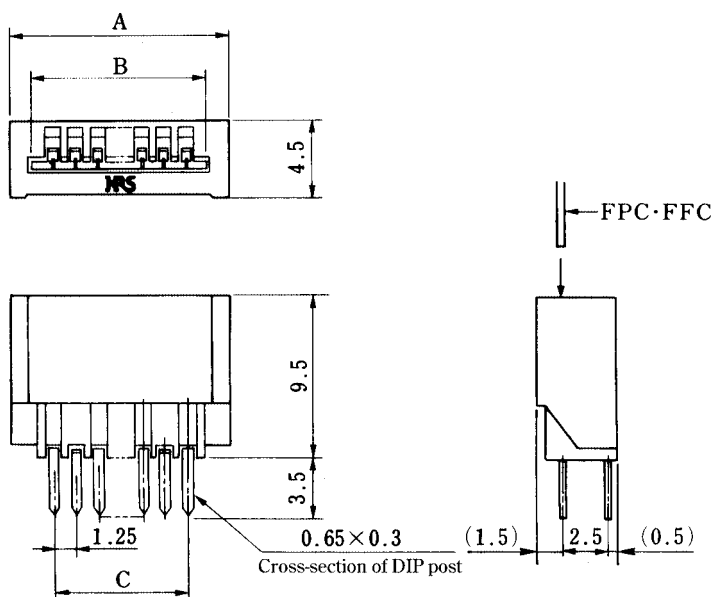
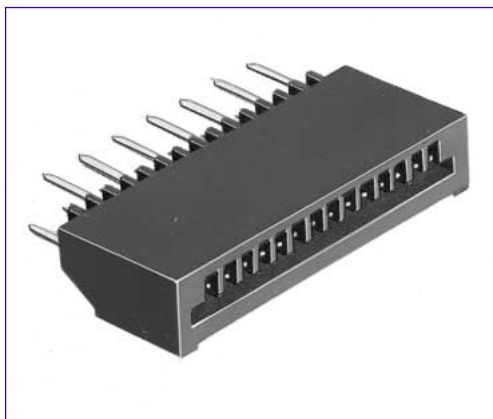
## Right Angle Type



Unit:mm

| Product No.        | HRS No.         | Number of Contacts | A     | B     | C     | Tube Case Packed Quantity |
|--------------------|-----------------|--------------------|-------|-------|-------|---------------------------|
| FH3- 4S-1.25DS(01) | CL586-0038-0-01 | 4                  | 8.70  | 6.27  | 3.75  | 55                        |
| FH3- 6S-1.25DS(01) | CL586-0065-3-01 | 6                  | 11.20 | 8.77  | 6.25  | 42                        |
| FH3- 8S-1.25DS(01) | CL586-0039-3-01 | 8                  | 13.70 | 11.27 | 8.75  | 35                        |
| FH3-10S-1.25DS(01) | CL586-0057-5-01 | 10                 | 16.20 | 13.77 | 11.25 | 29                        |
| FH3-12S-1.25DS(01) | CL586-0058-8-01 | 12                 | 18.70 | 16.27 | 13.75 | 25                        |
| FH3-13S-1.25DS(01) | CL586-0040-2-01 | 13                 | 19.95 | 17.52 | 15.00 | 24                        |
| FH3-14S-1.25DS(01) | CL586-0041-5-01 | 14                 | 21.20 | 18.77 | 16.25 | 22                        |
| FH3-15S-1.25DS(01) | CL586-0078-5-01 | 15                 | 22.45 | 20.02 | 17.50 | 21                        |
| FH3-16S-1.25DS(01) | CL586-0047-1-01 | 16                 | 23.70 | 21.27 | 18.75 | 20                        |
| FH3-18S-1.25DS(01) | CL586-0081-0-01 | 18                 | 26.20 | 23.77 | 21.25 | 17                        |
| FH3-20S-1.25DS(01) | CL586-0048-4-01 | 20                 | 28.70 | 26.27 | 23.75 | 16                        |
| FH3-22S-1.25DS(01) | CL586-0049-7-01 | 22                 | 31.20 | 28.77 | 26.25 | 15                        |
| FH3-24S-1.25DS(01) | CL586-0060-0-01 | 24                 | 33.70 | 31.27 | 28.75 | 14                        |
| FH3-30S-1.25DS(01) | CL586-0050-6-01 | 30                 | 41.20 | 38.77 | 36.25 | 11                        |

## ■Straight Type



Unit:mm

| Product No.         | HRS No.         | Number of Contacts | A     | B     | C     | Tube Case Packed Quantity |
|---------------------|-----------------|--------------------|-------|-------|-------|---------------------------|
| FH3- 4S-1.25DSA(01) | CL586-0043-0-01 | 4                  | 8.70  | 6.27  | 3.75  | 55                        |
| FH3- 6S-1.25DSA(01) | CL586-0069-4-01 | 6                  | 11.20 | 8.77  | 6.25  | 42                        |
| FH3- 8S-1.25DSA(01) | CL586-0044-3-01 | 8                  | 13.70 | 11.27 | 8.75  | 35                        |
| FH3-10S-1.25DSA(01) | CL586-0061-2-01 | 10                 | 16.20 | 13.77 | 11.25 | 29                        |
| FH3-12S-1.25DSA(01) | CL586-0062-5-01 | 12                 | 18.70 | 16.27 | 13.75 | 25                        |
| FH3-13S-1.25DSA(01) | CL586-0052-1-01 | 13                 | 19.95 | 17.52 | 15.00 | 24                        |
| FH3-14S-1.25DSA(01) | CL586-0045-6-01 | 14                 | 21.20 | 18.77 | 16.25 | 22                        |
| FH3-16S-1.25DSA(01) | CL586-0053-4-01 | 16                 | 23.70 | 21.27 | 18.75 | 20                        |
| FH3-17S-1.25DSA(01) | CL586-0063-8-01 | 17                 | 24.95 | 22.52 | 20.00 | 19                        |
| FH3-18S-1.25DSA(01) | CL586-0080-7-01 | 18                 | 26.20 | 23.77 | 21.25 | 17                        |
| FH3-20S-1.25DSA(01) | CL586-0054-7-01 | 20                 | 28.70 | 26.27 | 23.75 | 16                        |
| FH3-22S-1.25DSA(01) | CL586-0055-0-01 | 22                 | 31.20 | 28.77 | 26.25 | 15                        |
| FH3-24S-1.25DSA(01) | CL586-0064-0-01 | 24                 | 33.70 | 31.27 | 28.75 | 14                        |
| FH3-30S-1.25DSA(01) | CL586-0056-2-01 | 30                 | 41.20 | 38.77 | 36.25 | 11                        |