

# PC BOARD CONNECTORS

## 740 SERIES

RoHS Compliant

### FEATURES

- Various types of headers are available: one side shrouded, both sides shrouded, with simplified latch, and box type.
- The connector having a simplified latch prevents the connector from working loose because of vibration.
- The mini header has a clip to prevent incorrect insertion.
- A 740 series connector with a power terminal (2 in 1) for SCSI/IDE interface unit connections is also available.

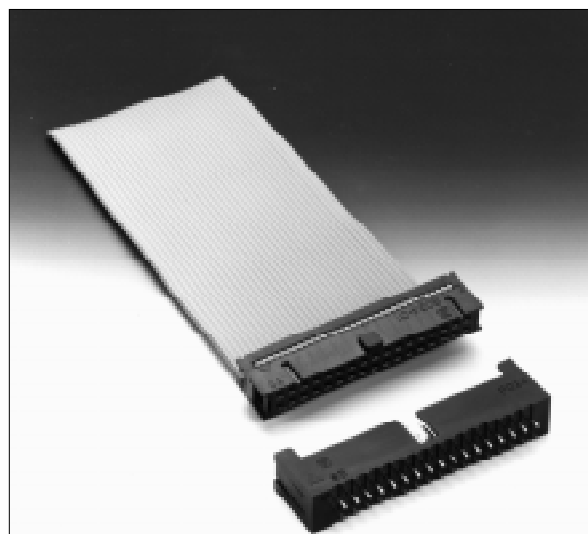
### SPECIFICATIONS

#### 1. Standard type

| Item                           | Specification                                                                  |
|--------------------------------|--------------------------------------------------------------------------------|
| Operating temperature range    | -55°C to +105°C                                                                |
| Current rating                 | DC 1 A                                                                         |
| Voltage rating                 | AC 250 V                                                                       |
| Contact resistance             | 15 mΩ max. (DC 6 V, 0.1 A)                                                     |
| Insulation resistance          | 1000 MΩ min. (DC 500 V)                                                        |
| Dielectric strength            | AC 500 V for 1 minute                                                          |
| Insertion force                | 3.5 kg max. (10 pins), 10.5 kg max. (30 pins)                                  |
| Withdrawal force               | 0.25 kg min. (10 pins), 1.0 kg min. (30 pins)                                  |
| Applicable wire                | Flat cable: 1.27 mm (0.050 in.) pitch<br>AWG #28 (stranded) or AWG #30 (solid) |
| Applicable PC board (standard) | 1.6 mm                                                                         |

#### 2. Power connector integrated type

| Item                           | Specification                                                                                                          |
|--------------------------------|------------------------------------------------------------------------------------------------------------------------|
| Operating temperature range    | -55°C to +105°C                                                                                                        |
| Current rating                 | DC 1 A (signal pin)<br>DC 5 A (power pin)                                                                              |
| Voltage rating                 | AC 250 V                                                                                                               |
| Contact resistance             | 15 mΩ max. (signal pin, DC 6 V, 0.1 A)<br>10 mΩ max. (power pin, DC 6 V, 0.3 A)                                        |
| Insulation resistance          | 1000 MΩ min. (DC 500 V)                                                                                                |
| Dielectric strength            | AC 500 V for 1 minute (signal pin)<br>AC 1000 V for 1 minute (power pin)                                               |
| Insertion force                | 50-contact signal pin: 17.5 kg max.<br>40-contact signal pin: 14.0 kg max.<br>Power pin (reference value): 8.8 kg max. |
| Withdrawal force               | 50-contact signal pin: 2.0 kg max.<br>40-contact signal pin: 1.5 kg max.<br>Power pin (reference value): 0.8 kg max.   |
| Applicable PC board (standard) | 1.6 mm (0.062 in.) (through hole type)                                                                                 |



### MATERIALS

#### 1. Standard type

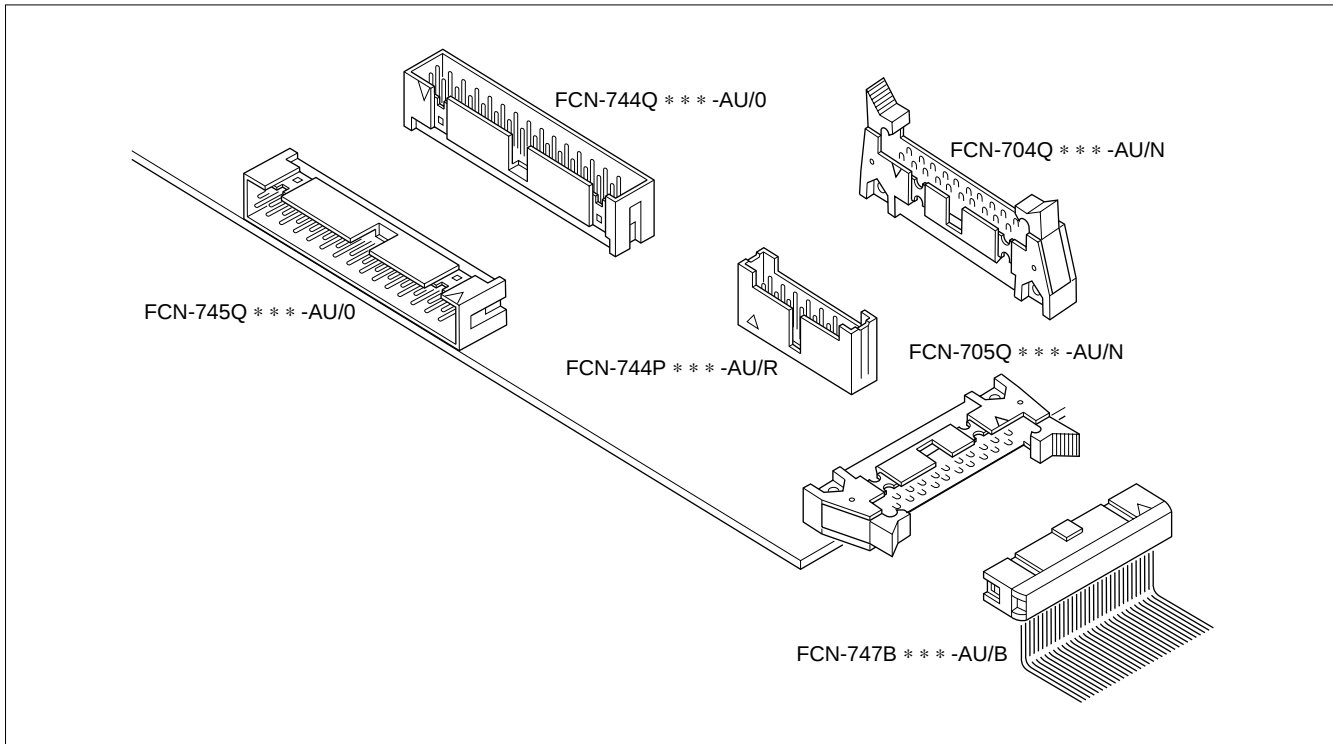
| Item                |          | Materials           |
|---------------------|----------|---------------------|
| Insulating material |          | Polyester (UL94V-0) |
| Conductor           |          | Copper alloy        |
| Plating             | Contact  | Gold                |
|                     | Terminal | Palladium           |

#### 2. Power connector integrated type

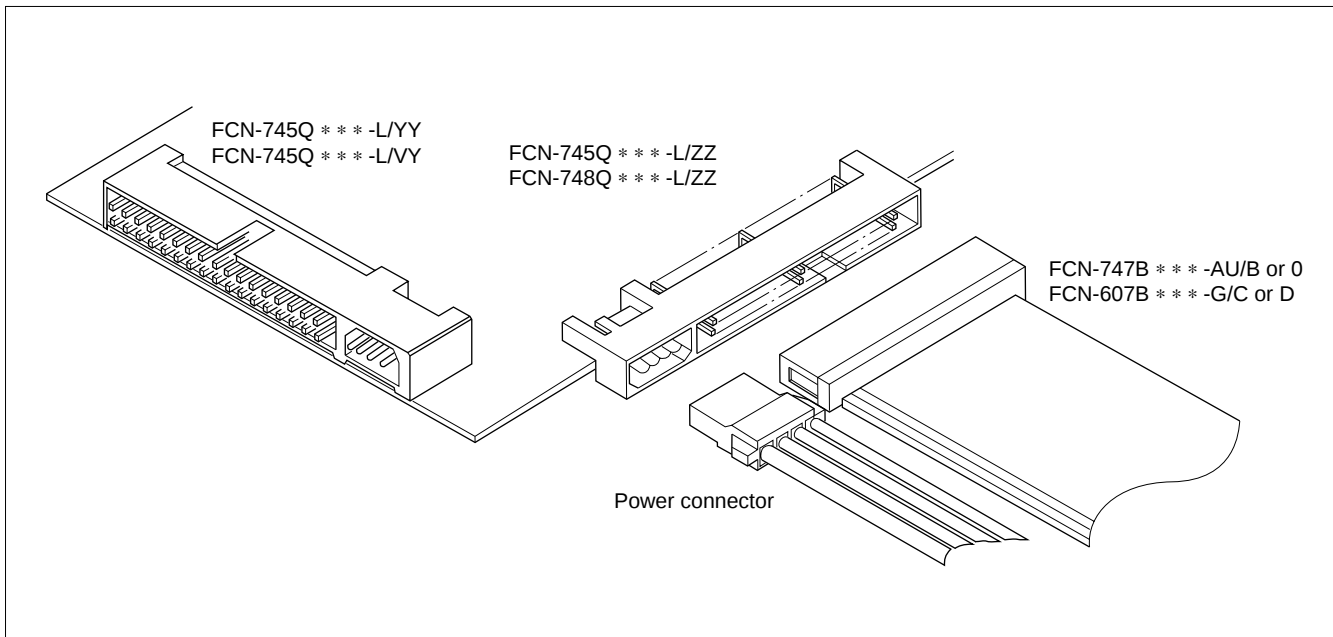
| Item                |                    | Materials                                                            |
|---------------------|--------------------|----------------------------------------------------------------------|
| Insulating material |                    | Through hole type:<br>Polyester (UL94V-0)<br>SMT type: PPS (UL94V-0) |
| Conductor           |                    | Copper alloy                                                         |
| Plating             | Signal pin contact | Gold                                                                 |
|                     | Signal pin tail    | Palladium                                                            |
|                     | Power pin          | Solder                                                               |

## ■ APPLICATION EXAMPLE

### 1. Standard type

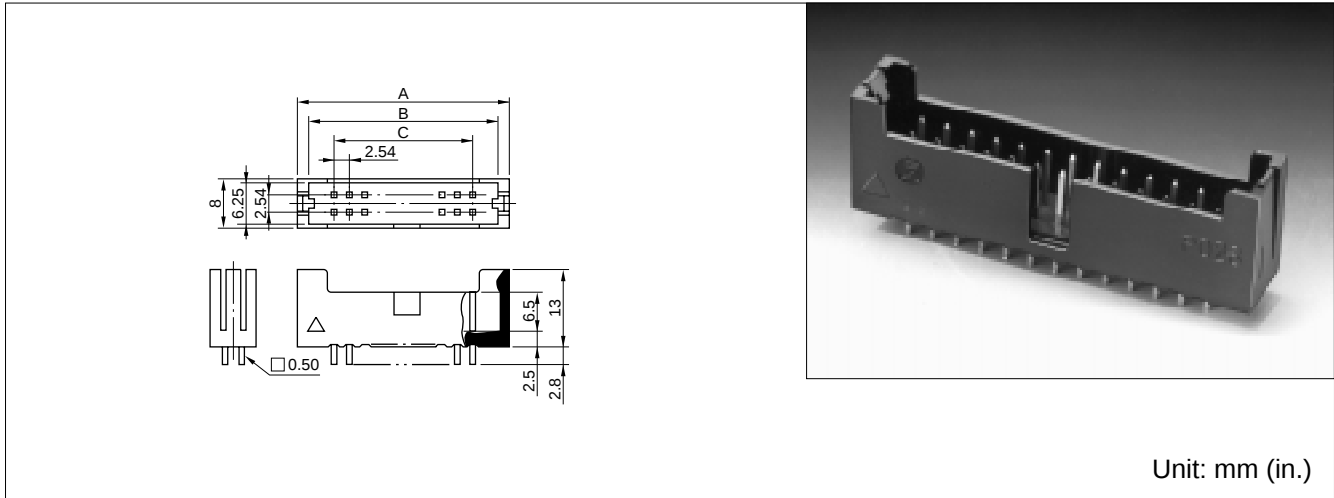


### 2. Power connector integrated type

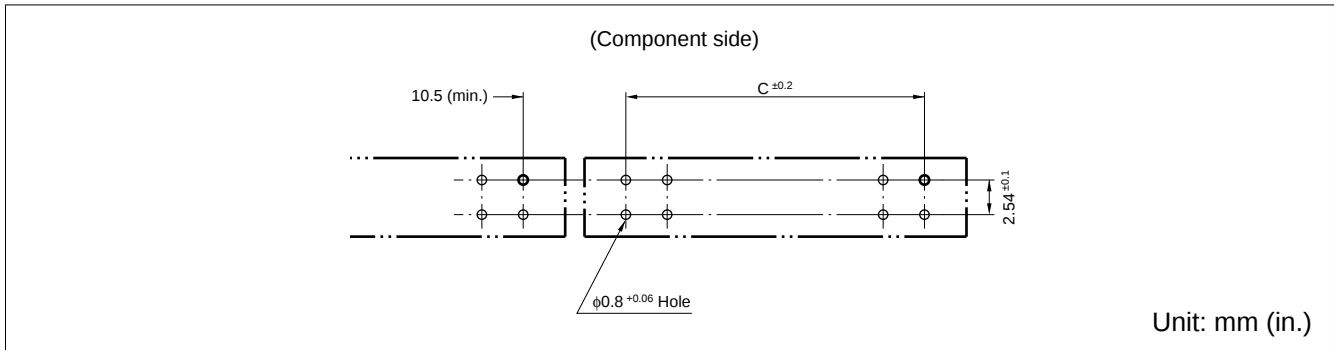


## STRAIGHT PLUG (WITH SIMPLIFIED LATCH)

### ■ DIMENSIONS



### ■ MOUNTING HOLE LAYOUT



### ■ PART NUMBERS AND DIMENSIONS

| Number of contacts | Part number      | Mini header          |       |       |
|--------------------|------------------|----------------------|-------|-------|
|                    |                  | Dimensions: mm (in.) |       |       |
|                    |                  | A                    | B     | C     |
| 10                 | FCN-744P010-AU/R | 20.12                | 17.72 | 10.16 |
| 14                 | FCN-744P014-AU/R | 25.20                | 22.80 | 15.24 |
| 16                 | FCN-744P016-AU/R | 27.74                | 25.34 | 17.78 |
| 20                 | FCN-744P020-AU/R | 32.82                | 30.42 | 22.86 |
| 24                 | FCN-744P024-AU/R | 37.90                | 35.50 | 27.94 |
| 26                 | FCN-744P026-AU/R | 40.44                | 38.04 | 30.48 |
| 30                 | FCN-744P030-AU/R | 45.52                | 43.12 | 35.56 |
| 34                 | FCN-744P034-AU/R | 50.60                | 48.20 | 40.64 |

## **Fujitsu Components International Headquarter Offices**

### **Japan**

Fujitsu Component Limited  
Gotanda-Chuo Building  
3-5, Higashigotanda 2-chome, Shinagawa-ku  
Tokyo 141, Japan  
Tel: (81-3) 5449-7010  
Fax: (81-3) 5449-2626  
Email: [promothq@ft.ed.fujitsu.com](mailto:promothq@ft.ed.fujitsu.com)  
Web: [www.fcl.fujitsu.com](http://www.fcl.fujitsu.com)

### **North and South America**

Fujitsu Components America, Inc.  
250 E. Caribbean Drive  
Sunnyvale, CA 94089 U.S.A.  
Tel: (1-408) 745-4900  
Fax: (1-408) 745-4970  
Email: [marcom@fcai.fujitsu.com](mailto:marcom@fcai.fujitsu.com)  
Web: [www.fcai.fujitsu.com](http://www.fcai.fujitsu.com)

### **Europe**

Fujitsu Components Europe B.V.  
Diamantlaan 25  
2132 WV Hoofddorp  
Netherlands  
Tel: (31-23) 5560910  
Fax: (31-23) 5560950  
Email: [info@fceu.fujitsu.com](mailto:info@fceu.fujitsu.com)  
Web: [www.fceu.fujitsu.com](http://www.fceu.fujitsu.com)

### **Asia Pacific**

Fujitsu Components Asia Ltd.  
102E Pasir Panjang Road  
#04-01 Citilink Warehouse Complex  
Singapore 118529  
Tel: (65) 6375-8560  
Fax: (65) 6273-3021  
Email: [fcsl@fcal.fujitsu.com](mailto:fcsl@fcal.fujitsu.com)  
[www.fcal.fujitsu.com](http://www.fcal.fujitsu.com)

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