

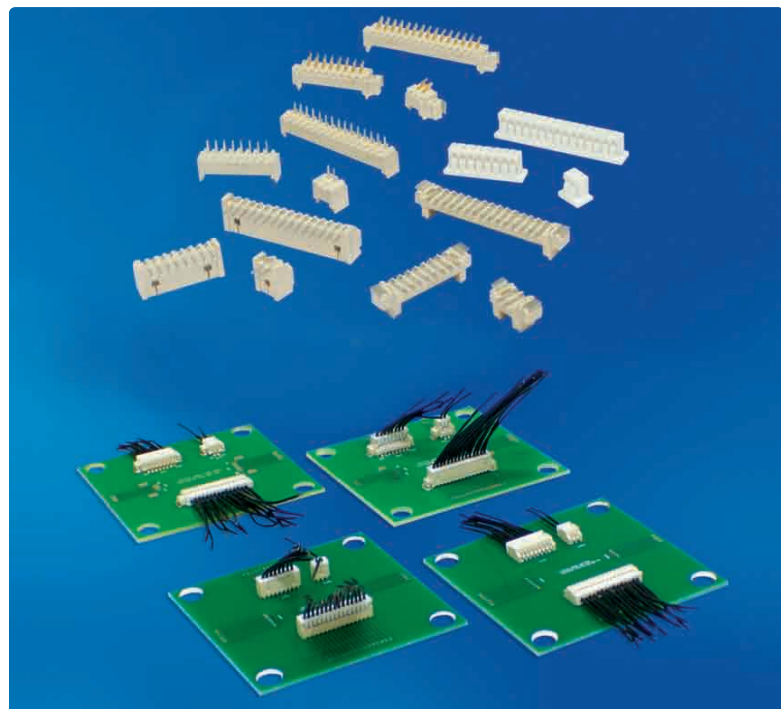
# 1.25mm Wire-To-Board System

## DESCRIPTION

FCI's 1.25mm pitch wire-to-board connector series is designed for a wide variety of applications in Industrial, Automotive, Consumer and White Goods sectors.

The range consists of terminals, crimp housings and PCB headers in straight and right angle, surface mount and through mount configurations. It is a single row design, available with from 2 to 20 circuits. A crimping application tool is also available for wire harness assembly.

Unlike many other products for the same applications, FCI's 1.25mm wire-to-board range conforms to the EU Industry Safety Standard, PCB header material meets halogen free requirements and the products can be operated in the temperature range from  $-40^{\circ}\text{C}$  to  $+105^{\circ}\text{C}$ .



## FEATURES & BENEFITS

- Operating temperature:  $-40^{\circ}\text{C}$  to  $+105^{\circ}\text{C}$
- Plating options: gold flash or tin
- Circuits: #2~#15 positions available, extension up to 20 positions
- Current rating: 1 Amp
- Polarized Mating Geometry: crimping housing is polarized to prevent mis-mating with PCB header
- Friction lock: crimping housing is equipped with friction locks to secure retention force with PCB header
- PCB header material (resin) meets halogen free requirement
- Housing meets EU Industry Safety Standard
- RoHS compliance and UL approved
- Tape and reel packaging befits pick and place of SMT production process.

## TARGET MARKETS & APPLICATIONS

- Target Application: Office equipment, industry control, instrumentation/metering, vending POS machine, small motor/robot control, security, car audio and alarm systems
- Target Markets: Industrial, consumer, and white goods



## TECHNICAL INFORMATION

### MATERIALS

- Contact: copper alloy  
Plating: matt tin or gold flash over nickel
- Housing: Thermoplastic or Thermoplastic high temperature, UL94V-0
- Metal hold down: copper alloy  
Plating: matt tin

### ELECTRICAL PERFORMANCE

- Contact Resistance: 20mΩ (maximum)
- Insulation Resistance: 100MΩ (minimum)
- Voltage Rating: 125 Volts AC,DC
- Current Rating: 1 Amp (0.8 A --32 AWG)
- Dielectric Withstand Voltage: 500 VAC/minute

### APPROVALS AND CERTIFICATIONS

- RoHS conforms to EU Directive 2002/95/EC
- UL approval
- Housing connector conforms to IEC 60695-2 Industry Safety Standard (Glow Wire test)

### PACKAGING

- PCB Header: tape and reel
- Crimping Housing: bag
- Terminal: reel

### ENVIRONMENTAL

- Resistance to Reflow Soldering Heat:
  - Pre-heat: 150°C to 180°C, 60 - 90 seconds
  - Heat: 230°C minimum, 40 seconds minimum
  - Peak temperature: 260°C maximum, 10seconds maximum
- Resistance to Hand Soldering Heat:
  - Soldering iron: 350±10°C
  - Duration: 3 - 4 seconds minimum
- Thermal shock (temperature cycling): conforms to EIA-364-32A
- Humidity (temperature cycling): conforms to EIA-361-31A
- Temperature life (heat aging): conforms to EIA-361-17A, 105°C for 96 hours
- Salt spray: conforms to EIA-364-26B
- Solderability: solderable area to have minimum 95% solder coverage

### MECHANICAL PERFORMANCES

- Mating & un-mating force: conforms to EIA-364-13
- Contact retention force: 0.5Kgf (minimum)
- Hold down/Housing retention force: 1.0Kgf (minimum)
- Wire retention force: 0.5Kgf (minimum)
- Terminal/ Housing retention force: 0.5Kgf (minimum)
- Vibration: 1μs (maximum), EIA-364-28 Condition I
- Shock: 1μs (maximum), EIA-364-27A
- Durability: 30 cycles

### SPECIFICATIONS

- Product Spec.: GS-12-675
- Packaging Spec.: GS-14-1592; GS-14-1593

### PART NUMBERS

