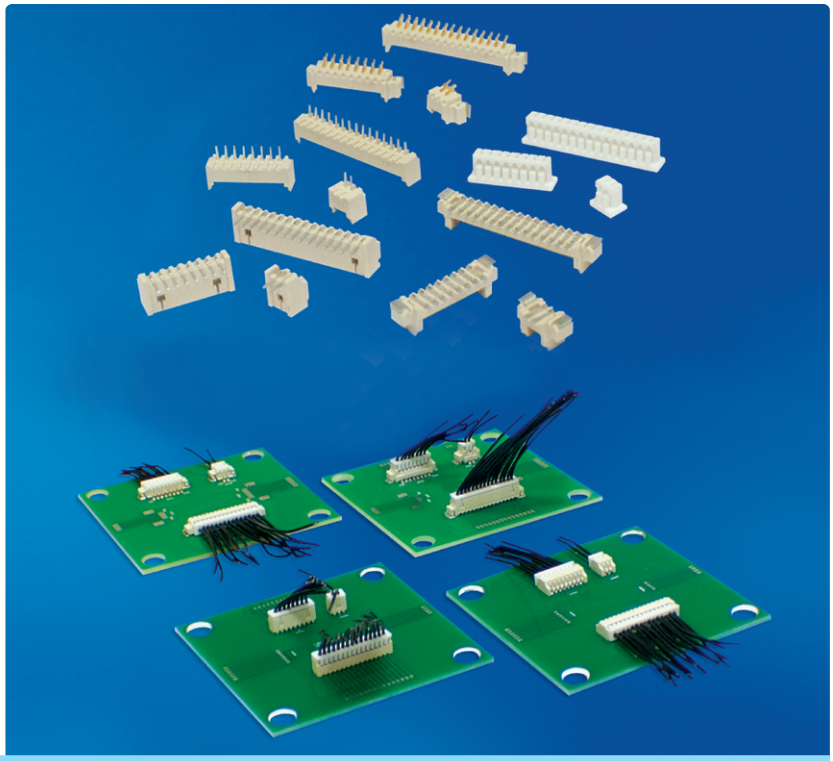
1.25mm Wire-To-Board System

DESCRIPTION

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

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 15 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℃ to +105℃.



FEATURES & BENEFITS

- Operating temperature: -40°C to +105°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 and Consumer

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

101148XX-X X X XX LF

- XX: 28 = SMT vertical header; 29 = Through hole vertical header; 30 = SMT right angle header; 31 = Through hole right angle header
- X (Resin Material): 1 = LCP
- X (Plating): 0 = tin; 1= gold flash
- X (Packing): 1 = tape and reel
- XX: Total number of positions (2 to 15)
- LF: Lead Free

101148XX-X 0 X XX LF

- XX: 26 = housing
- X (Resin Material): 0 = PA66
- X (Packing): 0 = Bulk
- XX: Total number of positions (2 to 15)
- LF: Lead Free

101148XX-00X

- XX: 27 = Terminal
- X (Plating): 1 = Matt Tin; 2 = Gold Flash

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