The new Picoflex® SMT Header with positive retention latches to provide a robust wire-to-board connection with increased retention force for rugged applications and high-vibration environments

Picoflex connectors are suitable for many high-density applications where space is at a premium and power and signal are required. The positive-latch system of this new Picoflex SMT Header meets customer requirements for a wire-to-board connection with a greater retention force than can be achieved with the standard Picoflex SMT header. The latches increase the retention force between the header and receptacle by at least 50% compared to the Molex standard friction-lock header, series 90814.

A typical customer requirement for the latched header would exist in an application where part of a harness protrudes from the assembly. Without the positive retention latches, tension on the harness, especially during the final assembly process, can disconnect the header and receptacle. The latches also make this an ideal connector for compact, wire-to-board connections in high-vibration environments in the industrial and automotive markets.

The Picoflex surface-mount latched header features a high-profile polarising peg which avoids mis-mating of the header and receptacle and also acts as a lead-in to aid assembly. The header is backward compatible and mates with existing Picoflex receptacles, series 90327.

The Picoflex® SMT Latched Header 1.27mm (.050") Pitch

90816 Vertical SMT Header with Latches

MARKETS AND APPLICATIONS

- **Industrial**
  - Solar
  - Weighing Systems
  - Heating Systems
  - Security Devices
  - Access Controls
  - Industrial Lighting
  - Advertising Displays
  - Power Supplies

- **Automotive**
  - Car Stereo Systems
  - Navigation Systems
  - In Car Entertainment
  - Dashboard Applications
  - Air Conditioning

- **Medical**
  - Portable Heart Monitor
  - Patient Monitor
  - Blood Analyser
  - Testers

- **Multimedia**
  - CD Players
  - LCD Projector
  - Satellite Receivers
  - Televisions and Set Top Boxes

- **Others**
  - Office Equipment
  - Vending machines
  - Smart Card Readers
  - Home Appliances

- **Used across all markets where signal and power connections are required**

Solar Panels  Weighing Systems  Automotive Applications  Medical Applications  Office Equipment
FEATURES AND BENEFITS

- Positive latches increase the retention force between the header and receptacle by at least 50% than is specified for the standard friction-lock series 90814
- SMT solder tails so that header can be soldered directly onto the PCB
- Polarising peg avoids mis-mating of the header and receptacle and acts as a lead-in to aid assembly
- Gold plating option provides easier mating, higher mating cycles and is recommended for parts running at consistently high temperatures and in low-current applications

SPECIFICATIONS

Reference Information
Packaging: Tube or Blister Pack
UL file No.: N/A
CSA File No.: N/A
Mates with: Series 90327
Designed In: Millimeters

Electrical
Voltage (max.): 250V
Current (max.): 1.2A
Contact Resistance: 15 milliohms max.
Dielectric Withstanding Voltage: 750V rms
Insulation Resistance: 1000 Megohms min.

Physical
Housing: Black 30% glass filled polyphthalamide
Contact: Brass
Plating: See Table
Contact Area - Tin (Sn) or Gold (Au)
Solder Tail Area - Tin (Sn) or Gold (Au)
Underplating - Nickel (Ni)
PCB Thickness: 1.60 ± 0.14mm
(0.063 ± 0.005")
Operating temperature: -40 up to +105°C

Mechanical
Contact Insertion Force: 1.7N max. on Tin (Sn)
1.1N max. Gold (Au)
Contact Retention to Housing: 7N
Insertion Force to PCB: N/A
Mating Force: 1.7N max. on Tin (Sn)
1.1N max on Gold (Au)
Durability (min.): 5 cycles
(using extraction tool)

ORDERING INFORMATION

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* 4-Circuit only available in a tube

www.molex.com/product/ribbon/picoflex.html

Order No. 9876503010

Ordering Information

Europe/9/09/03

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