



Versatile, robust family of high-density 1.27mm wire-to-board Picoflex® headers and connectors, now with reverse PCB footprint SMT headers, offer space-saving solutions for a greater range of compact power and signal ribbon-cable applications

Picoflex headers and connectors provide highly reliable 1.27mm ribbon-cable connections with high-retention forces in an extremely diverse range of applications including solar, weighing systems, vehicle infotainment, computer peripherals, telecommunications and portable heart-rate monitors. Molex has expanded the Picoflex family to include reverse-footprint SMT headers. Available with and without latches and in optional high-temperature plastic, the new headers provide customers with a wider range of application opportunities without the need for costly PCB re-design.

In addition to Tin (Sn) plated contacts, Molex offers Picoflex connectors and headers plated with Palladium Nickel (PdNi) plus a Gold (Au) flash. Palladium Nickel is a durable, technologically advanced plating material with excellent wear-resistance properties, resistance to corrosion and is non-oxidizing. A flash of Gold over the Palladium provides lubrication and surface wear resistance.

In today's economic climate, PdNi-plated connectors are being widely adopted as a replacement for pure Gold-plated versions owing to the superior deposit characteristics of PdNi over Gold and lower, more stable raw material costs. For additional information and to view the full range of available Picoflex headers and connectors visit: www.molex.com/product/ribbon/picoflex.html

Features and Benefits

Reverse PCB footprint SMT headers: series 93405 and 93407 compatible with Tyco's Micro-Match series 188275

Provides second source on existing customer BOMs without the need for PCB re-design
Vendor reduction, price competitiveness and shorter leadtime opportunities

SMT headers with positive retention latches available; series 90816/93407

Increases mated connector retention force by 50% over standard friction-lock series 90814/93405

SMT solder tails available

Header is soldered directly onto PCB pads

High-profile polarising peg

Avoids mis-mating of the header and receptacle
Acts as a lead-in to aid assembly

Available with Tin (Sn) or Palladium Nickel (PdNi) + Gold (Au) flash plated contacts

Cost-effective plating solutions for varied applications

High-temperature housing materials

Compatible with RoHS lead-free reflow soldering processes up to +260°C

Optional PCB pegs to polarise header to PCB

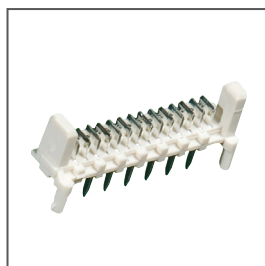
Ensures accurate assembly

Available in tubes or tape and reel

Packaging options to meet customer volume requirements



Low profile, vertical, through-hole header Series 90325



Low profile, high-temperature, vertical through-hole header Series 90779



Low profile IDT connector Series 90327/93338



Picoflex SMT header in standard and reverse footprint Series 90814/93405



Picoflex latched SMT header in standard and reverse footprint Series 90816/93407

**Picoflex®
1.27mm Ribbon
Cable Headers
and Connectors**

- 93405** Reverse footprint, vertical SMT header
- 93407** Reverse footprint, vertical, SMT latched header
- 90814** Vertical SMT header
- 90816** Vertical SMT latched header
- 90325** Low profile, vertical, through-hole header
- 90779** Low profile, high temperature, vertical, through-hole header
- 90327** Low profile, IDT connector
- 93338** Low profile, IDT connector, glow wire

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 units

Medical

Portable heart monitor
Patient monitor
Blood analysers/testers
Testers

Multimedia

CD players
LCD projector
Satellite receivers
Televisions and set top boxes

Consumer

Office equipment
Vending machines
Smart card reader
Home appliance

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

Picoflex® 1.27mm Ribbon Cable Headers and Connectors



Medical Applications



In Car Entertainment

Specifications

REFERENCE INFORMATION

Packaging: Tube / tape and reel / bags – check
molex.com for details of each series
Mates With: 90327 or 93338 (Glow Wire Version)
Designed In: Millimetres
RoHS: Yes
Halogen Free: No
Glow Wire Compliant: Yes - Mate with 93338 series

ELECTRICAL

Voltage (max.): 240V
Current (max.): 1.2A
Contact Resistance: 15 milliohms
Dielectric Withstanding Voltage: 750V
Insulation Resistance: 1000V min.

MECHANICAL

Contact Insertion Force: 1.1N per circuit
Contact Retention to Housing: 7N
Insertion Force to PCB:
Mating Force:
Tin = 1.7 N
PdNi + Au flash = 1.5N
Unmating Force: 0.25N per circuit
Durability (min.):
Tin = 30 cycles
PdNi + Au flash = 100 cycles
90816 / 93407 = PdNi+Au flash –
5 cycles (using extraction tool) due to latches

PHYSICAL

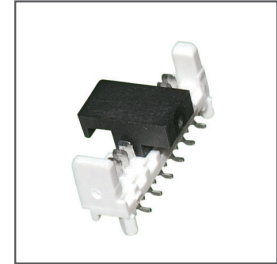
Housing: Refer to Sales Drawing
Contact: Refer to Sales Drawing
Plating:
Contact Area —
Tin (Sn) or Palladium Nickel
(PdNi) with Gold (Au) flash
Solder Tail Area — Tin (Sn)
Underplating — Nickel (Ni)
Operating Temperature: -40 to +105°C



Ordering Information

| Order Number | Circuit Size | Plating |
|--------------|--------------|----------|
| 93405-0304 | 4 | Tin (Sn) |
| 93405-0306 | 6 | |
| 93405-0308 | 8 | |
| 93405-0310 | 10 | |
| 93405-0312 | 12 | |
| 93405-0314 | 14 | |
| 93405-0316 | 16 | |
| 93405-0318 | 18 | |
| 93405-0320 | 20 | |
| 93405-0322 | 22 | |
| 93405-0324 | 24 | |
| 93405-0326 | 26 | |

93405 Reverse Footprint, Vertical SMT Header



93405

For additional options refer to molex.com

93405- X X XX

| Circuit Sizes | | |
|---------------|----|----|
| 04 | 12 | 20 |
| 06 | 14 | 22 |
| 08 | 16 | 24 |
| 10 | 18 | 26 |

0 = TIN
3 = PDNI

| X= | PCB Pegs | Tubes | Tape and Reel | Polarizing Peg Height |
|----|----------|-------|---------------|-----------------------|
| 0 | Yes | Yes | No | 6.40 |
| 2 | | No | Yes | |
| 3 | No | Yes | No | 4.10 |
| 5 | | No | Yes | |
| 6 | | Yes | No | |
| 7 | | No | Yes | |
| 8 | Yes | Yes | No | |
| 9 | | No | Yes | |

Ordering Information

| Order Number | Circuit Size | Plating |
|--------------|--------------|----------|
| 93407-0506 | 6 | Tin (Sn) |
| 93407-0508 | 8 | |

93407 Reverse Footprint, Vertical Latched SMT Header



93407

For additional options refer to molex.com

93407- X X XX

| Circuit Sizes | | |
|---------------|----|----|
| 04 | 12 | 20 |
| 06 | 14 | 22 |
| 08 | 16 | 24 |
| 10 | 18 | 26 |

0 = TIN
3 = PDNI

| X= | PCB Pegs | Tubes | Tape and Reel |
|----|----------|-------|---------------|
| 0 | Yes | Yes | No |
| 2 | | No | Yes |
| 3 | No | Yes | No |
| 5 | | No | Yes |

Ordering Information

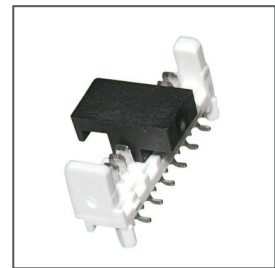
For more information refer to molex.com

90814 Vertical SMT Header

90814- X X XX

| CIRCUIT SIZE | | PCB Pegs | Tube Packed | Tape and Reel Packed | Polarizing Peg Height |
|--------------|---|----------|-------------|----------------------|-----------------------|
| 0 | 2 | Yes | Yes | No | 6.40 |
| | | | No | Yes | |
| 3 | 5 | No | Yes | No | |
| | | | No | Yes | |
| | | | Yes | No | |
| | | | No | Yes | |
| 6 | 7 | Yes | Yes | No | 4.10 |
| | | | No | Yes | |
| | | | Yes | No | |
| 8 | 9 | Yes | Yes | No | |
| | | | No | Yes | |

0 = TIN
3 = PDNI



90814

Ordering Information

For more information refer to molex.com

90816 Vertical Latched SMT Header

90816- X X XX

| CIRCUIT SIZE | | PCB Pegs | Tube Packed | Tape and Reel Packed |
|--------------|---|----------|-------------|----------------------|
| 0 | 2 | Yes | Yes | No |
| | | | No | Yes |
| 3 | 5 | No | Yes | No |
| | | | No | Yes |

0 = TIN
3 = PDNI



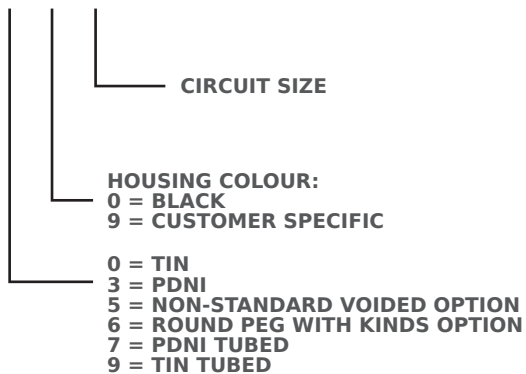
90816



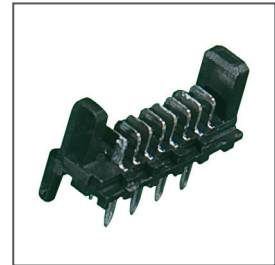
Ordering Information

For more information refer to molex.com

90325- X X XX



90325 Low Profile, Vertical, Through- Hole Header

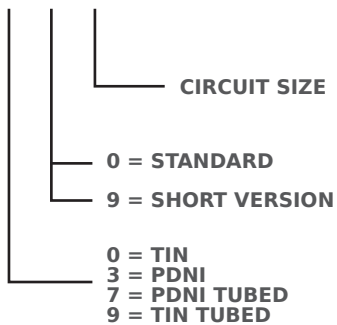


90325

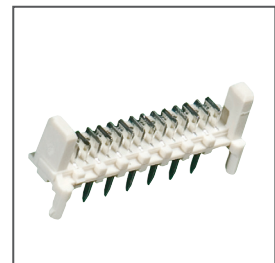
Ordering Information

For more information refer to molex.com

90779- X X XX



90779 Low Profile, High Temperature, Vertical ,Through- Hole Header



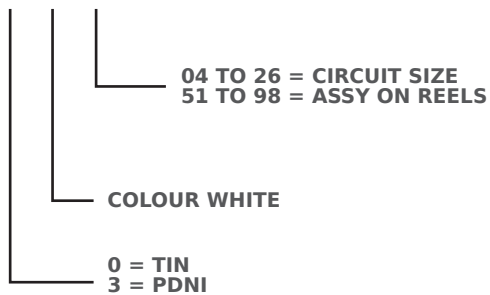
90779



Ordering Information

For more information refer to molex.com

90327- X 3 XX



90327 Low Profile, IDT Connector

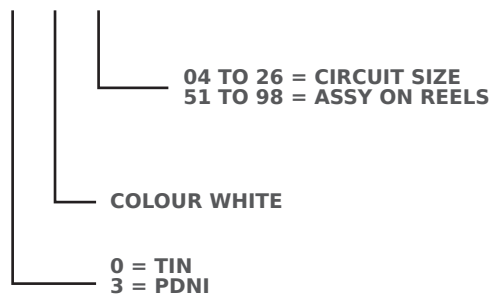


90327

Ordering Information

For more information refer to molex.com

93338- X 3 XX



93338 Low Profile, IDT Connector, Glow Wire



93338