



## 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](http://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

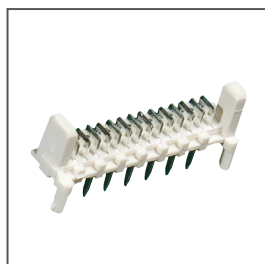
Ensures accurate assembly

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

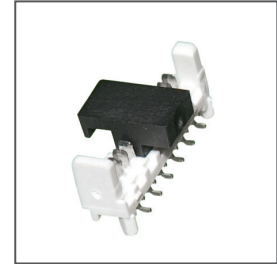
Housing: Refer to Sales Drawing  
Contact: Refer to Sales Drawing  
Plating:  
Contact Area —  
Tin (Sn) or Palladium Nickel  
(PdNi) with Gold (Au) flash  
Solder Tail Area — Tin (Sn)  
Underplating — Nickel (Ni)  
Operating Temperature: -40 to +105°C



## 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	
5		No	Yes	
6		Yes	No	
7		No	Yes	
8	Yes	Yes	No	4.10
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

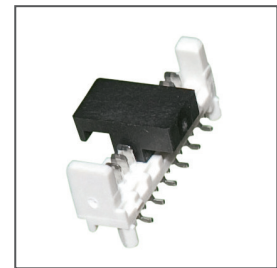
For more information refer to molex.com

## 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



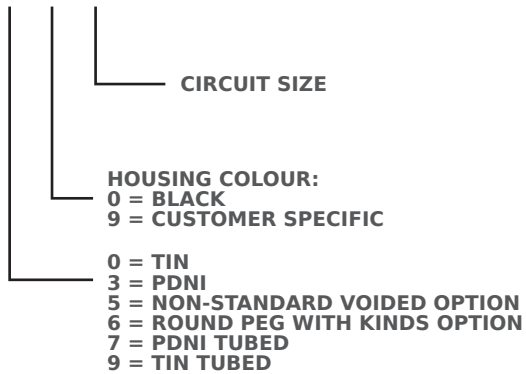
90816



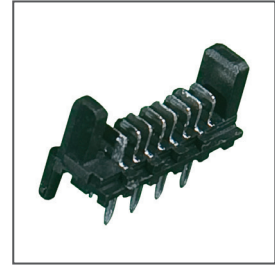
## Ordering Information

For more information refer to [molex.com](http://molex.com)

**90325- X X XX**



## 90325 Low Profile, Vertical, Through- Hole Header

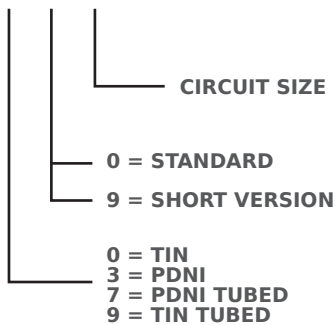


90325

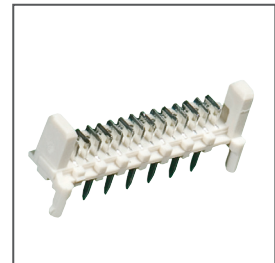
## Ordering Information

For more information refer to [molex.com](http://molex.com)

**90779- X X XX**



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



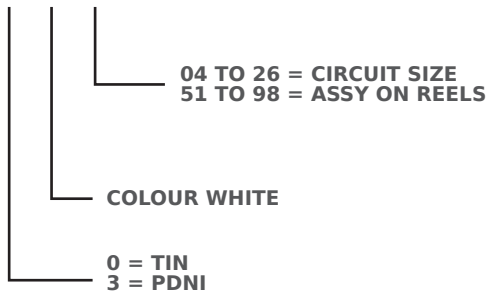
90779



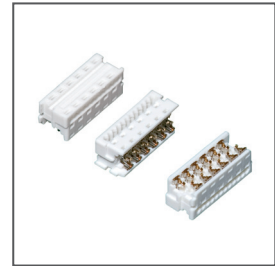
## Ordering Information

For more information refer to [molex.com](http://molex.com)

### 90327- X 3 XX



## 90327 Low Profile, IDT Connector

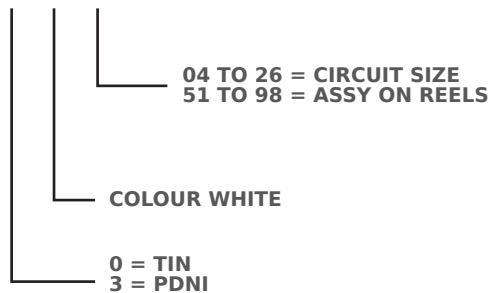


90327

## Ordering Information

For more information refer to [molex.com](http://molex.com)

### 93338- X 3 XX



## 93338 Low Profile, IDT Connector, Glow Wire



93338