

# Picoflex®

1.27mm IDT Connector System  
for Ribbon Cable Applications



**molex®**

# Picoflex®

## MARKETS & APPLICATIONS

The versatile Picoflex® IDT connector system is ideal for a broad range of applications across all market segments:

### 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 & Set Top Boxes

### Others

- Office Equipment
- Vending Machines
- Smart Card Readers
- Washing Machines, Microwaves, etc.



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## INTRODUCTION

The Molex 1.27mm Picoflex® IDT connector system is a versatile, highly reliable connector system for high-density power and signal ribbon cable applications, where space & real estate is at a premium. Due to the compact size and low profile the Picoflex® IDT system is ideal for a broad range of applications in the automotive, industrial, medical and consumer electronic markets. Its highly reliable terminal design, locking and cable strain relief features guarantee secure electrical connection in applications with high vibrations and intense shock requirements.

The Picoflex® IDT system comprises PCB headers, cable connectors and standard ribbon cable assemblies in various lengths and circuit sizes.

Parts are delivered in a variety of packaging formats to suit individual customer requirements.

## PCB HEADERS

The Picoflex® family offers SMT and SMC PCB headers in high temperature nylon and Polyphthalamide. All headers are polarized both to the PCB and to the female connector. The staggered solder tails with 1.27mm pitch have 2.54mm distance between both solder tail rows, which substantially reduces the risk of solder bridging.

Seven header options are available:

- 90816 latched SMT header is molded with Polyphthalamide, a UL94 HB rated material. Its positive latches give increased retention between the header and the cable connector. It can be used in a RoHS lead-free process up to 260°C and is supplied with tin or select gold plating and either tube or tape and reel blister packaging.
- 90325 low-profile through hole header with tin or select gold plating and 94 V-0 flammability rating, supplied in bag or tube packaging
- 90779 low-profile SMC header has the same features as series 90325, but is molded with a high temperature nylon material with 94 V-0 flammability rating
- 90814 SMT standard (wave solder process) and low-profile (reflow process) header with tin or select gold plating featuring a high temperature nylon material with 94 V-0 flammability rating and is supplied either in tube or tape and reel blister packaging
- 90800 right-angle low-profile header with 94 V-0 flammability rating is delivered with kinked solder tails in tube packaging
- 91714 right-angle low-profile SMC header has the same features as series 90800, but is molded with a high temperature nylon material with 94 V-0 flammability rating
- 91330 bottom-entry low-profile SMT header in high temperature nylon material with 94 V-0 flammability rating can be used in a RoHS lead-free process up to 260°C. It creates a double-sided board effect with a single side SMT process which reduces assembly costs and is supplied in tin plating with tape and reel blister packaging

## CABLE CONNECTORS

The one-piece molded body with preloaded IDT terminals and cable guide removes the need for a separate upper housing, terminals or an insertion tool which significantly reduces applied costs.

The cable entry window on the IDT connectors has a scalloped profile which ensures precise positioning of the 1.27mm 26 to 28 AWG standard ribbon cable. The connector is terminated by the IDT terminal being pushed up into the housing, displacing the cable jacket as well as positioning itself in the top of the housing to

give an effective strain relief. Four contact points per circuit and the integral strain relief ensure excellent electrical contact.

Three optional cable connectors are available:

- 90327 IDT connector with 94 V-0 flammability rating mates with all PCB header versions, supplied with tin or select gold plating
- 90584 board-in connector for permanent board connections. The staggered tail footprint is compatible with the footprint of the standard male header, 94 V-0 flammability rating
- 91577 board-in connector for permanent board connections. The staggered tail footprint is compatible with the footprint of the standard male header, the pin layout of the 91577 layout is the opposite to 90584, giving more options to the customer, 94 V-0 flammability rating

## CABLE ASSEMBLIES

Standard cable assemblies are available from 6cm – 120cm.

Four standard options of cable assemblies are available:

- 92315 cable assembly featuring two 90327 connectors in C-style (page xx)
- 92317 cable assembly featuring two 90327 connectors in Z-style (page xx)
- 92318 cable assembly either featuring one 90327 connector and one 90584 board-in connector in Z-style (page xx)
- 92316 cable assembly featuring one 90327 receptacle and one 90584 board-in connector in C-style (page xx)

A full range of non-standard options, including shorter cable lengths, can be supplied where commercially viable. Please contact your Molex sales office for more information.

## TOOLING

The Picoflex® IDT connectors are designed to minimise assembly cost and are complemented by an extensive range of application tools, from hand-tools for field repair and prototyping to fully automatic, state of the art, computer controlled harness making machines. Depending on the level of tooling chosen, machines are capable of manufacturing double-ended electrical and continuity tested cables. Daisy chaining is also possible.

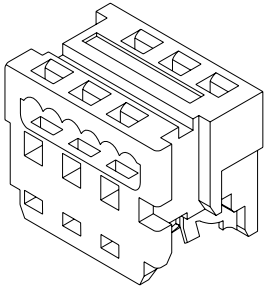
## PCB ASSEMBLIES

Molex offers customized PCB assemblies. Picoflex® is only one product family out of a variety of connector families which can be assembled on demand. Please contact your Molex sales office for more information.

# 1.27mm (.050") Pitch Picoflex® PF-50 Connector

**90327**

**Low Profile, IDT**



### Features and Benefits

- 1-piece housing assures precise positioning of cable
- Molded-in polarization
- 4 points of contact with ribbon cable
- Preloaded contacts
- Accepts 28 or 26 AWG (7 strand) ribbon cable
- Tape option for high-speed termination, contact Molex for part numbers

### Reference Information

Product Specification: PS-99020-0011  
 Packaging: Bag (tape optional)  
 Tooling Information: See end of section  
 UL File No.: E29179  
 CSA File No.: LR19980-181  
 Mates With: 90816, 90325, 90779, 90800, 90814,  
 91330 and 91714  
 Use Molex Cable: 6800, 8863 and 40158  
 Designed In: Millimeters

### Electrical

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

### Mechanical

Mating Force: Tin — 1.7N; Gold — 1.1N  
 Unmating Force: Tin — 0.25N; Gold — 0.25N  
 Durability: Tin — 30 cycles max.  
 Gold — 100 cycles max. (using extraction tool)

### Physical

Housing: White polyester, UL 94V-0  
 Contact: Phosphor Bronze Alloy  
 Plating: See Table  
 Cable Accommodation: 26 and 28 AWG stranded

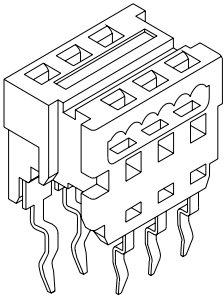
Circuits	Order No.	
	Tin 2-4µm (80-160µ")	Select Gold 0.76µm (30µ")
4	90327-0304	90327-3304
6	90327-0306	90327-3306
8	90327-0308	90327-3308
10	90327-0310	90327-3310
12	90327-0312	90327-3312
14	90327-0314	90327-3314

Circuits	Order No.	
	Tin 2-4µm (80-160µ")	Select Gold 0.76µm (30µ")
16	90327-0316	90327-3316
18	90327-0318	90327-3318
20	90327-0320	90327-3320
22	90327-0322	90327-3322
24	90327-0324	90327-3324
26	90327-0326	90327-3326

# 1.27mm (.050") Pitch Picoflex® PF-50 Connector

**90584**

**Low Profile, IDT  
Board-In**



### Features and Benefits

- For permanent wire-to-board connections
- Kinked solder tails for board retention during solder process
- Fits same board layout pattern as male header
- Height from board when soldered and terminated only 6.40mm (.252")
- 2 points of contact in IDT section
- Accepts 26 to 28 AWG, 7 strands, ribbon cable

### Reference Information

Product Specification: PS-99020-0011  
 Packaging: Tube (2 options)  
 Tooling Information: See end of section  
 Designed In: Millimeters

### Electrical

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

### Physical

Housing: White polyester, UL 94V-0  
 Contact: Phosphor Bronze Alloy  
 Plating: 2-4µm (80-160µ") Tin over Nickel  
 PCB Thickness: 1.60mm ± 0.20

Circuits	Order No.	
	Individual Tube	Stacked Tube
4	90584-1304	90584-2304
6	90584-1306	90584-2306
8	90584-1308	90584-2308
10	90584-1310	90584-2310
12	90584-1312	90584-2312
14	90584-1314	90584-2314

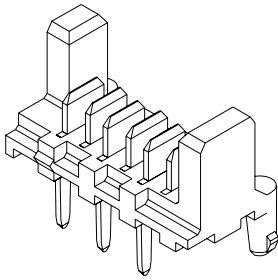
Circuits	Order No.	
	Individual Tube	Stacked Tube
16	90584-1316	90584-2316
18	90584-1318	90584-2318
20	90584-1320	90584-2320
22	90584-1322	90584-2322
24	90584-1324	90584-2324
26	90584-1326	90584-2326

Note: Stacked tube is a group of 7 individual tubes in a stack



# 1.27mm (.050") Pitch Picoflex® PF-50 Header

**90325**  
Low Profile



### Features and Benefits

- Polarizing side posts and PCB pegs
- Stamped contacts with in-line, flat blades
- 2 points of contact with female terminal
- Rigid, staggered solder tails
- Friction lock
- Tube option packaging for robotic delivery, contact Molex for part numbers

### Reference Information

Product Specification: PS-99020-0011  
Packaging: Bag or tube  
UL File No.: E29179  
CSA File No.: LR19980-181  
Mates With: 90327  
Designed In: Millimeters

### Electrical

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

### Mechanical

Contact Retention to Housing: 7N  
Mating Force: Tin — 1.7N; Gold — 1.1N  
Unmating Force: Tin — 0.25N; Gold — 0.25N  
Durability: Tin — 30 cycles max.  
Gold — 100 cycles max. (using extraction tool)

### Physical

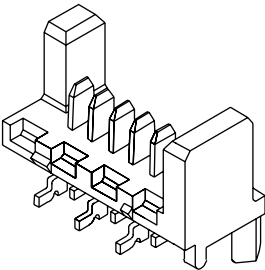
Housing: Black 15% glass-filled polyester, UL 94V-0  
Contact: Brass  
Plating: See Table  
PCB Thickness: 1.60mm ± 0.14

Circuits	Order No.	
	Tin 3-5µm (120-200µ")	Select Gold 0.76µm (30µ")
4	90325-0004	90325-3004
6	90325-0006	90325-3006
8	90325-0008	90325-3008
10	90325-0010	90325-3010
12	90325-0012	90325-3012
14	90325-0014	90325-3014

Circuits	Order No.	
	Tin 3-5µm (120-200µ")	Select Gold 0.76µm (30µ")
16	90325-0016	90325-3016
18	90325-0018	90325-3018
20	90325-0020	90325-3020
22	90325-0022	90325-3022
24	90325-0024	90325-3024
26	90325-0026	90325-3026

# 1.27mm (.050") Pitch Picoflex® PF-50 Header

**90814**  
Low Profile, SMT



### Features and Benefits

- Polarizing side posts and PCB pegs
- Stamped SMT contacts with in-line, flat blades
- 2 points of contact with female terminal
- Rigid, staggered SMT solder tails
- Friction lock

### Reference Information

Product Specification: PS-99020-0011  
Packaging: Tube or blister pack (contact Molex)  
Mates With: 90327  
Designed In: Millimeters

### Electrical

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

### Mechanical

Contact Retention to Housing: 7N  
Mating Force: Tin — 1.7N; Gold — 1.1N  
Unmating Force: Tin — 0.25N; Gold — 0.25N  
Durability: Tin — 30 cycles max.  
Gold — 100 cycles max. (using extraction tool)

### Physical

Housing: Natural 30% glass-filled nylon, UL 94V-0  
Contact: Brass  
Plating: See Table

Circuits	Order No.			
	Tube Pack		Blister Pack	
	Tin 3-5µm (120-200µ")	Select Gold 0.76µm (30µ")	Tin 3-5µm (120-200µ")	Select Gold 0.76µm (30µ")
4	90814-0X04	90814-3X04	90814-0X04	90814-3X04
6	90814-0X06	90814-3X06	90814-0X06	90814-3X06
8	90814-0X08	90814-3X08	90814-0X08	90814-3X08
10	90814-0X10	90814-3X10	90814-0X10	90814-3X10
12	90814-0X12	90814-3X12	90814-0X12	90814-3X12
14	90814-0X14	90814-3X14	90814-0X14	90814-3X14
16	90814-0X16	90814-3X16	90814-0X16	90814-3X16
18	90814-0X18	90814-3X18	90814-0X18	90814-3X18
20	90814-0X20	90814-3X20	90814-0X20	90814-3X20
22	90814-0X22	90814-3X22	90814-0X22	90814-3X22
24	90814-0X24	90814-3X24	90814-0X24	90814-3X24
26	90814-0X26	90814-3X26	90814-0X26	90814-3X26

Replace X with the combination of PEC peg option and polarizing side post height:

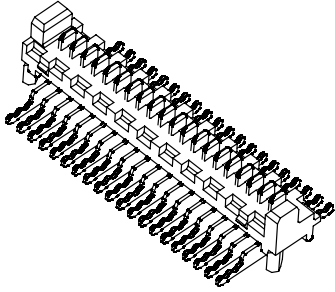
	PCB Pegs	Polarizing Side Post Height
0	Yes	6.40mm / 0.252"
3	No	6.40mm / 0.252"
6	No	4.10mm / 0.161"
8	Yes	4.10mm / 0.161"

	PCB Pegs	Polarizing Side Post Height
2	Yes	6.40mm / 0.252"
5	No	6.40mm / 0.252"
7	No	4.10mm / 0.161"
9	Yes	4.10mm / 0.161"

# 1.27mm (.050") Pitch Picoflex® PF-50 Header

**91330**

**Low Profile, Bottom Entry  
SMT**



### Features and Benefits

- Polarizing side posts and PCB pegs
- Stamped SMT contacts
- Two points of contact with female terminal
- Friction lock
- Can be used in RoHS lead-free process up to 260°C
- Kapton tape for pick and place during SMT assembly
- Low profile application which creates a double-sided board effect with a single-side SMT process

### Reference Information

Product Specification: PS-99020-0011  
Packaging: Tape and Reel  
Mates With: 90327  
Designed In: Millimeters

### Electrical

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

### Mechanical

Contact Insertion Force: 1.7N  
Contact Retention to Housing: 7N  
Durability: 30 cycles max.

### Physical

Housing: Natural 30% glass-filled Nylon, UL 94V-0  
Contact: Brass  
Plating: Tin 3 - 5µm (120µ" - 200µ")  
PCB Thickness: 1.57mm ± 0.13

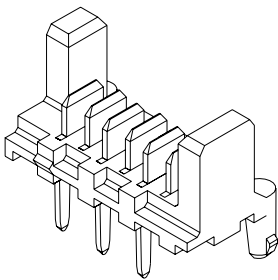
Circuits	Order No.
6	91330-0006
8	91330-0008
10	91330-0010
12	91330-0012
14	91330-0014
16	91330-0016

Circuits	Order No.
18	91300-0018
20	91330-0020
22	91330-0022
24	91330-0024
26	91330-0026

# 1.27mm (.050") Pitch Picoflex® PF-50 Header

**90779**

**Low Profile  
High Temperature**



### Features and Benefits

- Polarizing side posts and PCB pegs
- Stamped contacts with in-line, flat blades
- 2 points of contact with female terminal
- Rigid, staggered solder tails
- Friction Lock
- High Temperature Surface Mount Compatible housing

### Reference Information

Product Specification: PS-99020-0011  
Packaging: Bag (contact Molex for tube part numbers)  
Mates With: 90327  
Designed In: Millimeters

### Electrical

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

### Mechanical

Contact Retention to Housing: 7N  
Mating Force: Tin—1.7N; Gold—1.1N  
Unmating Force: Tin—0.25N; Gold—0.25N  
Durability: Tin—30 cycles max.  
Gold—100 cycles max. (using extraction tool)

### Physical

Housing: Natural 30% glass-filled nylon, UL 94V-0  
Contact: Brass  
Plating: See Table  
PCB Thickness: 1.60mm ± 0.14

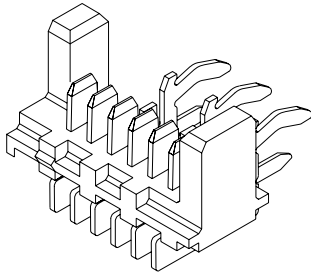
Circuits	Order No.	
	Tin 4-6µm (160-240µ")	Select Gold 0.76µm (30µ")
4	90779-0001	90779-3001
6	90779-0002	90779-3002
8	90779-0003	90779-3003
10	90779-0004	90779-3004
12	90779-0005	90779-3005
14	90779-0006	90779-3006

Circuits	Order No.	
	Tin 4-6µm (160-240µ")	Select Gold 0.76µm (30µ")
16	90779-0007	90779-3007
18	90779-0008	90779-3008
20	90779-0010	90779-3010
22	90779-0011	90779-3011
24	90779-0012	90779-3012
26	90779-0013	90779-3013



# 1.27mm (.050") Pitch Picoflex® PF-50 Header

**90800**  
Right Angle, Low Profile



### Features and Benefits

- Polarizing side posts
- Stamped contacts
- 2 points of contact with female terminal
- Kinked solder tails for board retention during solder process
- Friction lock

### Reference Information

Packaging: Tube  
Tooling Information: See end of section  
Mates With: 90327  
Designed In: Millimeters

### Electrical

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

### Mechanical

Contact Retention to Housing: 7N  
Mating Force: Tin — 1.7N  
Unmating Force: Tin — 0.25N  
Durability: Tin — 30 cycles max. (using extraction tool)

### Physical

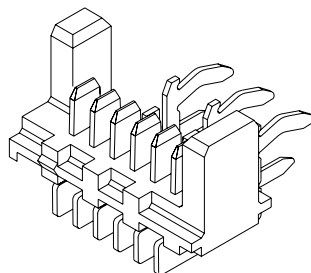
Housing: Black 15% glass-filled polyester, UL 94V-0  
Contact: Brass  
Plating: See Table  
PCB Thickness: 1.60mm ± 0.20

Circuits	Order No.	
	Tin 3-5µm Tin over Nickel	Select Gold 0.76µm (30µ")
4	90800-0004	90800-3004
6	90800-0006	90800-3006
8	90800-0008	
10	90800-0010	
12	90800-0012	90800-3012
14	90800-0014	90800-3014

Circuits	Order No.	
	Tin 3-5µm Tin over Nickel	Select Gold 0.76µm (30µ")
16	90800-0016	
18	90800-0018	
20	90800-0020	90800-3020
22	90800-0022	
24	90800-0024	90800-3024
26	90800-0026	90800-3026

# 1.27mm (.050") Pitch Picoflex® PF-50 Header

**91714**  
Right Angle, Low Profile  
High Temperature  
Through Hole



### Features and Benefits

- Polarizing side posts
- Stamped contacts
- Two points of contact with female terminal
- Kinked solder tails for board retention during solder process
- Friction lock
- High-temperature Surface Mount Compatible housing

### Reference Information

Product Specification: PS-99020-0011  
Packaging: Tube  
Mates With: 90327  
Designed In: Millimeters

### Mechanical

Contact Insertion Force: 1.7N  
Contact Retention to Housing: 7N  
Durability: 30 cycles min.

### Physical

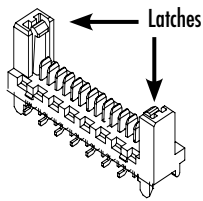
Housing: Natural 30% glass-filled Nylon, UL 94V-0  
Contact: Brass  
Plating: See Table  
PCB Thickness: 1.60mm ± 0.20

Circuits	Order No.	
	Tin 3-5µm Tin over Nickel	Select Gold 0.76µm (30µ")
4	91714-0004	91714-3004
6	91714-0006	91714-3006
8	91714-0008	91714-3008
10	91714-0010	91714-3010
12	91714-0012	91714-3012
14	91714-0014	91714-3014

Circuits	Order No.	
	Tin 3-5µm Tin over Nickel	Select Gold 0.76µm (30µ")
16	91714-0016	91714-3016
18	91714-0018	91714-3018
20	91714-0020	91714-3020
22	91714-0022	91714-3022
24	91714-0024	91714-3024
26	91714-0026	91714-3026

# 1.27mm (.050") Pitch Picoflex® PF-50 Latched Header

**90816**  
**SMT**



### Features and Benefits

- Positive latch for increased retention
- Polarizing side posts and PCB pegs
- Stamped SMT contacts with in-line, flat blades
- 2 points of contact with female terminal
- Rigid, staggered SMT solder tails
- Can be used in RMS lead-free process up to 260°

### Reference Information

Product Specification: PS-99020-0011  
Packaging: Tube or blister pack (contact Molex)  
Mates With: 90327  
Designed In: Millimeters

### Electrical

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

### Mechanical

Contact Retention to Housing: 7N  
Mating Force: Tin—1.7N; Gold—1.1N  
Unmating Force: Tin—0.25N; Gold—0.25N  
Unmating Force 90327 Header: 0.25N  
Durability: Tin—5 cycles max. (using extraction tool)  
Gold—5 cycles max. (using extraction tool)

### Physical

Housing: Black Polyphthalamide 30% glass-filled  
Contact: Brass  
Plating: See Table

Circuits	Order No.			
	Tube Pack		Blister Pack	
	Tin 3-5µm (120-200µ")	Select Gold 0.76µm (30µ")	Tin 3-5µm (120-200µ")	Select Gold 0.76µm (30µ")
4	90816-0X04	90816-3X04		
6	90816-0X06	90816-3X06	90816-0X06	90816-3X06
8	90816-0X08	90816-3X08	90816-0X08	90816-3X08
10	90816-0X10	90816-3X10	90816-0X10	90816-3X10
12	90816-0X12	90816-3X12	90816-0X12	90816-3X12
14	90816-0X14	90816-3X14	90816-0X14	90816-3X14
16	90816-0X16	90816-3X16	90816-0X16	90816-3X16
18	90816-0X18	90816-3X18	90816-0X18	90816-3X18
20	90816-0X20	90816-3X20	90816-0X20	90816-3X20
22	90816-0X22	90816-3X22	90816-0X22	90816-3X22
24	90816-0X24	90816-3X24	90816-0X24	90816-3X24
26	90816-0X26	90816-3X26	90816-0X26	90816-3X26

Replace X with the combination of PEC peg option and polarizing side post height:

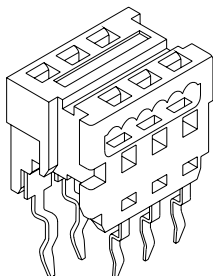
	PCB Pegs
0	Yes
3	No

	PCB Pegs
2	Yes
4	No

# 1.27mm (.050") Pitch Picoflex® PF-50 Connector

**91577**

**Low Profile, IDT  
Board-In, Opposite Pin Layout**



### Features and Benefits

- For permanent wire-to-board connections
- Kinked solder tails for board retention during solder process
- Fits same board layout pattern as male header
- Height from board when soldered and terminated only 6.40mm (.252")
- 2 points of contact in IDT section
- Accepts 26 to 28 AWG, 7 strands, ribbon cable
- Opposite pin layout vs. 90584

### Reference Information

Product Specification: PS-99020-0011  
Packaging: Tube (2 options)  
Tooling Information: See end of section  
Designed In: Millimeters

### Electrical

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

### Physical

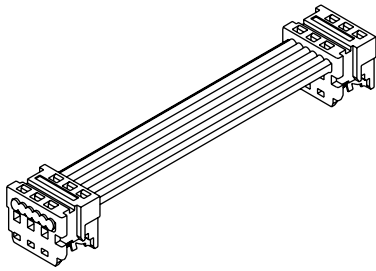
Housing: White polyester, UL 94V-0  
Contact: Phosphor Bronze Alloy  
Plating: 2-4µm (80-160µ") Tin over Nickel  
PCB Thickness: 1.60mm ± 0.20

Circuits	Order No.	
	Individual Tube	Stacked Tube
4	91577-1304	91577-2304
6	91577-1306	91577-2306
8	91577-1308	91577-2308
10	91577-1310	91577-2310
12	91577-1312	91577-2312
14	91577-1314	91577-2314

Circuits	Order No.	
	Individual Tube	Stacked Tube
16	91577-1316	91577-2316
18	91577-1318	91577-2318
20	91577-1320	91577-2320
22	91577-1322	91577-2322
24	91577-1324	91577-2324
26	91577-1326	91577-2326

# 1.27mm (.050") Pitch Picoflex® PF-50 Standard Cable Harness

92315



### Features and Benefits

- Cable assembly with two 90327 connectors, C-style
- Sizes 4 to 26
- UL 2651, 28 AWG (7 strand) ribbon cable
- Lengths from 6 to 120cm

### Reference Information

Packaging: Bag  
Mates With: 90816, 90779, 90800, 90814, 91330 and 91714  
Designed In: Millimeters

### Electrical

Voltage: 250V  
Current: 1.2A

### Mechanical

Mating Force: 1.7N  
Unmating Force: 0.25N  
Durability: 30 cycles max.

### Physical

Housing: 6/6 nylon, UL 94V-0  
Contact: Phosphor Bronze Alloy  
Plating: 3 to 6µ" Tin  
Insulation: Cable—Gray PVC  
Wire Range: 28 AWG

Circuits	Order No.
4	92315-04XX
6	92315-06XX
8	92315-08XX
10	92315-10XX
12	92315-12XX
14	92315-14XX

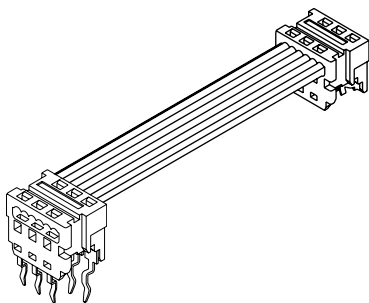
Circuits	Order No.
16	92315-16XX
18	92315-18XX
20	92315-20XX
22	92315-22XX
24	92315-24XX
26	92315-26XX

Length	XX
6-99cm	06-99
100cm	01
105cm	02
110cm	03
115cm	04
120cm	05

Replace XX with length in cm (min. 6cm, max. 120cm), see table  
Example: 92315-0832 is a cable with two 90327-0308, 32cm long

# 1.27mm (.050") Pitch Picoflex® PF-50 Standard Cable Harness

92316



### Features and Benefits

- Cable assembly with 90327 and 90584 connectors, C-style
- Sizes 4 to 26
- UL 2651, 28 AWG (7 strand) ribbon cable
- Lengths from 6 to 120cm

### Reference Information

Packaging: Tube  
Mates With: 90816, 90325, 90779, 90800, 90814, 91330 and 91714  
Designed In: Millimeters

### Electrical

Voltage: 250V  
Current: 1.2A

### Mechanical

Mating Force: 1.7N  
Unmating Force: 0.25N  
Durability: 30 cycles max.

### Physical

Housing: 6/6 nylon, UL 94V-0  
Contact: Phosphor Bronze Alloy  
Plating: 3 to 6µ" Tin  
Insulation: Cable—Gray PVC  
Wire Range: 28 AWG  
PCB Thickness: 1.60mm ± 0.20

Circuits	Order No.
4	92316-04XX
6	92316-06XX
8	92316-08XX
10	92316-10XX
12	92316-12XX
14	92316-14XX

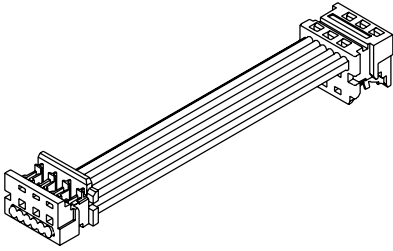
Circuits	Order No.
16	92316-16XX
18	92316-18XX
20	92316-20XX
22	92316-22XX
24	92316-24XX
26	92316-26XX

Length	XX
6-99cm	06-99
100cm	01
105cm	02
110cm	03
115cm	04
120cm	05

Replace XX with length in cm (min. 6cm, max. 120cm), see table  
Example: 92316-0832 is a cable with 90327-0308 and 90584-2308, 32cm long

# 1.27mm (.050") Pitch Picoflex® PF-50 Standard Cable Harness

92317



### Features and Benefits

- Cable assembly with two 90327 connectors, Z-style
- Sizes 4 to 26
- UL 2651, 28 AWG (7 strand) ribbon cable
- Lengths from 6 to 120cm

### Reference Information

Packaging: Bag  
Mates With: 90816, 90325, 90779, 90800, 90814, 91330 and 91714  
Designed In: Millimeters

### Electrical

Voltage: 250V  
Current: 1.2A

### Mechanical

Mating Force: 1.7N  
Unmating Force: 0.25N  
Durability: 30 cycles max.

### Physical

Housing: 6/6 nylon, UL 94V-0  
Contact: Phosphor Bronze Alloy  
Plating: 3 to 6µ" Tin  
Insulation: Cable— Gray PVC  
Wire Range: 28 AWG

Circuits	Order No.
4	92317-04XX
6	92317-06XX
8	92317-08XX
10	92317-10XX
12	92317-12XX
14	92317-14XX

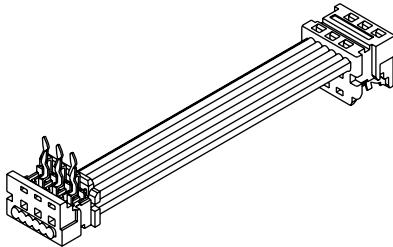
Circuits	Order No.
16	92317-16XX
18	92317-18XX
20	92317-20XX
22	92317-22XX
24	92317-24XX
26	92317-26XX

Length	XX
6-99cm	06-99
100cm	01
105cm	02
110cm	03
115cm	04
120cm	05

Replace XX with length in cm (min. 6cm, max. 120cm), see table  
Example: 92317-0832 is a cable with two 90327-0308, 32cm long

# 1.27mm (.050") Pitch Picoflex® PF-50 Standard Cable Harness

92318



### Features and Benefits

- Cable assembly with 90327 and 90584 connectors, Z-style
- Sizes 4 to 26
- UL 2651, 28 AWG (7 strand) ribbon cable
- Lengths from 6 to 120cm

### Reference Information

Packaging: Tube  
Mates With: 90816, 90325, 90779, 90800, 90814, 91330 and 91714  
Designed In: Millimeters

### Electrical

Voltage: 250V  
Current: 1.2A

### Mechanical

Mating Force: 1.7N  
Unmating Force: 0.25N  
Durability: 30 cycles max.

### Physical

Housing: 6/6 nylon, UL 94V-0  
Contact: Phosphor Bronze Alloy  
Plating: 3 to 6µ" Tin  
Insulation: Cable— Gray PVC  
Wire Range: 28 AWG  
PCB Thickness: 1.60mm ± 0.20

Circuits	Order No.
4	92318-04XX
6	92318-06XX
8	92318-08XX
10	92318-10XX
12	92318-12XX
14	92318-14XX

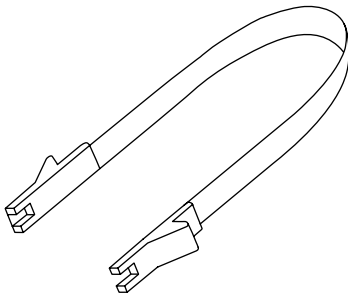
Circuits	Order No.
16	92318-16XX
18	92318-18XX
20	92318-20XX
22	92318-22XX
24	92318-24XX
26	92318-26XX

Length	XX
6-99cm	06-99
100cm	01
105cm	02
110cm	03
115cm	04
120cm	05

Replace XX with length in cm (min. 6cm, max. 120cm), see table  
Example: 92318-0832 is a cable with 90327-0308 and 90584-2308, 32cm long

## Application Tooling

### Manual Extraction Tool for Picoflex®



This extraction tool is used to unmate the Picoflex connector 90327 from its header

#### Features

- Steel and plastic construction with moulded heads
- Long life spring steel handle
- Designed for "in the field" use, will help prevent damage to termination area and to connectors
- Suitable for all circuit sizes 4 to 26

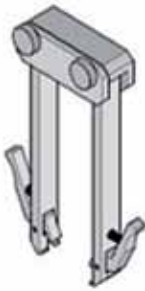
#### Specifications

Size: (open) 105 by 110 by 12mm  
Weight: 0.05kg approximate

Description	Order No.	Used with Molex Connector
Extraction Tool for 4 to 26 circuits	69008-1070	90327

## Application Tooling

### Manual Extraction Tool for Picoflex®



This extraction tool is used to unmate the Picoflex connector 90327 from the latched header 90816

#### Features

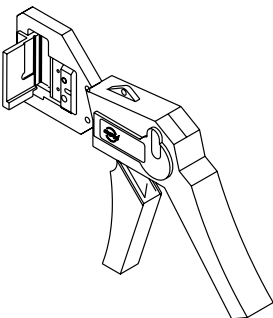
- Steel construction
- Designed for "in the field" use, will help prevent damage to termination area and to connectors
- Suitable for all circuit sizes 4 to 26

#### Specifications

Size: 45mm by 100mm by 17mm  
Weight: 0.13kg

Description	Order No.	Used with Molex Connector
Extraction Tool for 4 to 26 circuits	62100-6000	90327

### Manual Handtool for Picoflex®



#### Features

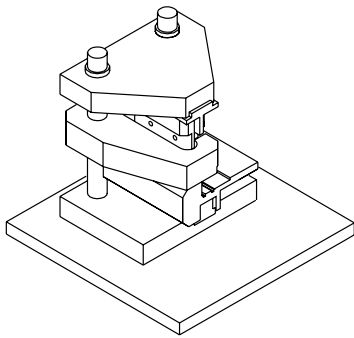
- Terminates Molex connectors 90327 and 90584, 4 to 26 circuits
- Designed for prototype: small batch and field repair applications
- Daisy chain and jumper harnesses can be made on this handtool with a small amount of adjustment
- Parallel Action Handtool with cable guide

#### Specifications

Size: 260 by 150 by 50mm  
Weight: 0.75kg  
Working Services: None  
Engineering Number: 69008-1080

Description	Order No.	Used with Molex Connector
Picoflex Hand Tool for 4 to 26 circuits	69008-1090	90327, 90584

## Manual Press Tool Kit for Picoflex®



Allows manual termination of pre-cut ribbon cable in an Arbor press

### Features

- Fully-manual operation—requires no electrical or air supply
- Hand loading of connector and cable
- Cable guide
- Fits into Arbor press number 69020-0660
- Optional connector clamp 69020-1935
- Feed-to and feed-through application
- Suitable for all circuit sizes 4 to 26
- Terminates 90327 and 90584 series

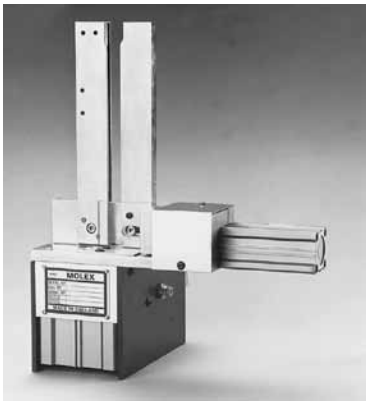
### Specifications

Weight: 1kg  
 Dimensions: 15.5 by 110 by 90mm  
 Working Services: None  
 Engineering Number: 69020-1902

Description	Order No.	Used with Molex Connector
Tool Kit 4 to 26 circuits	69020-1902	90327, 90584
Manual Press for Tool Kit	69020-0660	
Optional Connector Clamp	69020-1935	

## Application Tooling

### Semi-Automatic PB14 Pneumatic Machine for Picoflex®



### Features

- For Picoflex 90327 connector (4 to 26 circuits)
- Fully pneumatic
- Cable triggers termination
- Production rate: 520 per hour
- Magazine feed
- Cable guidance
- Quick adjustment for different circuit sizes

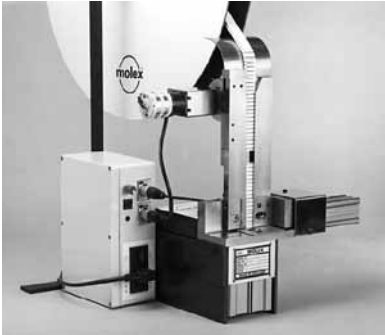
### Specifications

Weight: 12kg (26.45 lb)  
 Pneumatics: Pressure—6 BAR  
 Size: Width—210mm (8.26")  
 Depth—30mm (1.18")  
 Length—330mm (12.99")

Description	Order No.	Connector
PB14 Terminator for 4 to 26 circuits	69127-1001	90327



## Semi-Automatic PB14T Tape Feed Machine for Picoflex®



### Features

- Automatic tape feed which increases the production capabilities of the PB14 terminator
- Cable entry triggers termination
- Quick adjustment between circuit sizes
- Sensor automatically keeps magazine track full, allowing the operator to concentrate on production

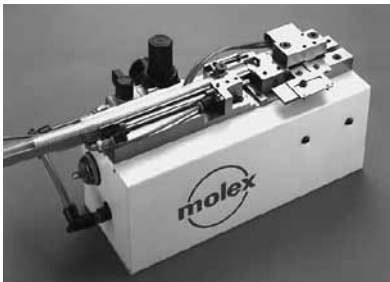
### Specifications

Weight: 25kg (55.12 lb)  
 Pneumatics: Pressure—6 BAR  
 Size: Width—280mm (11.00")  
 Depth—330mm (12.99")  
 Height—500mm (19.69")  
 Electrical: 220V—50 Hz  
 120V—60 Hz  
 Rate: Up to 2100 connectors per hour, dependent on operator speed and cable length

Description	Order No.	Connector
PB14 Terminator (220V) for 4 to 26 circuits	69127-1004	90327
PB14 Terminator (120V) for 4 to 26 circuits	69127-1024	

## Application Tooling

### Semi-Automatic PB16 Tube Feed Pneumatic Machine for Picoflex®



### Features

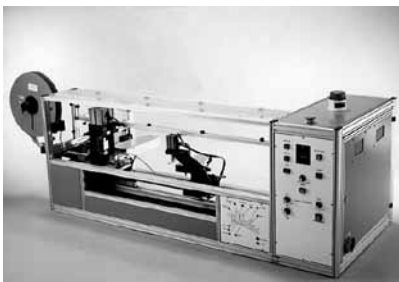
- For Picoflex 90584
- Fully pneumatic
- Automatic connector reloading
- Tube feed with connector orientation
- Timer to ensure complete termination
- Cable entry triggers termination

### Specifications

Weight: 25kg (55.12 lb)  
 Pneumatics: Pressure—6 BAR (90psig)  
 Size: Width—125mm (4.92")  
 Depth—175mm (6.89")  
 Length—700mm (27.56")

Description	Order No.	Connector
PB16 Terminator	69127-1010	90584

### Automatic Desktop (PDT) Machine for Picoflex®



### Features

- Medium volume, with fully-automatic means of termination
- Pneumatically actuated
- Continuity testing built in
- Wire straightener
- PLC control
- Harness collection tray

### Specifications

Weight: 140kg (308 lb)  
 Electrical: 240V, 50 Hz single phase  
 Pneumatics: Pressure—6 BAR (90psig)  
 Consumption—6L per minute (0.22 CFM)  
 Rate: Up to 360 harnesses per hour, dependent on operator speed and application

Description	Order No.	Connector
Picoflex Desktop Machine	Contact Molex	90327, 90584







## PICOFLEX® SAMPLE BOX

Sample kits are available on request to demonstrate the versatility of the Picoflex IDT system.

The kit contains a demonstration board with mounted PCB headers and cable assemblies to show the functionality of the Picoflex® IDT system.

In addition to comprehensive product information there are also loose samples of all PCB headers and cable connectors for design purposes in the kit.

There is a CD with a product presentation, including links for all products to the Molex website for further product information. There is also a leaflet where you can see the features and benefits of the Picoflex product family.

If you are interested in being shown a sample kit, please contact your local Molex sales office or Molex distributor.



[www.molex.com/product/ribbon/picoflex.html](http://www.molex.com/product/ribbon/picoflex.html)

[www.molex.com](http://www.molex.com)

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