



## Delivering up to 13.0A, the Mini-Fit® Plus 4.20mm pitch connector system increases power delivery for high-current applications in virtually any industry without increasing design footprints

The Mini-Fit® Plus system offers a high-current, power-dense, mid-range power connection system. The Mini-Fit Plus system leverages the same housings, PCB footprint and application tooling as Mini-Fit Jr.™ and Mini-Fit BMI systems. With the launch of the Mini-Fit Plus high-conductive terminal, customers can increase power carrying capabilities while leveraging the extensive Mini-Fit Jr.™ product portfolio.

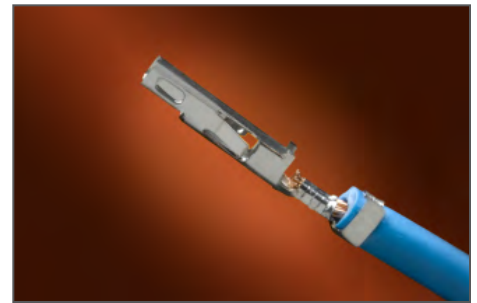
The Mini-Fit Plus system consists of crimp terminals, headers and PCB receptacles; 13.0A per circuit can be achieved using 16 AWG wire. Mini-Fit Plus terminals can be used with all existing Mini-Fit plug and receptacle housings. In addition, all standard Mini-Fit right-angle headers (Series 5569, 42404, 43810, 46991) are inherently Mini-Fit Plus compatible, as they feature a solid-pin construction which is designed to handle high current.

### Features and Benefits

Crimp terminals are produced from a proprietary, high-current alloy	Rated up to 13.0A per circuit
Terminals feature a patented, elongated dimple design	Provide long wipe lengths and increased contact area for improved long-term reliability
Mini-Fit® Plus terminals are used in existing Mini-Fit Jr.™ header housings and Mini-Fit receptacles and plugs	Leverages the extensive features already offered by the Mini-Fit product portfolio
Crimp terminals are compatible with existing Molex crimp tooling	No new application tooling is required
Advanced crimp design	Meets the latest industry requirement A620 as defined by the Institute of Printed Circuits and the Wiring Harness Manufacturers Association
Select series offer up to 1500 mating cycles with gold terminals; standard series support 100 mating cycles with gold plated terminals; 75 mating cycles with tin plated terminals	Ideal for applications requiring a high number of mating cycles
Select color options include white and black	To differentiate between multiple harness connections

## Mini-Fit® Plus Connector System 4.20mm Pitch

- 45750** Female Crimp Terminal
- 46012** Male Crimp Terminal
- 46018** Female High-Cycle Crimp Terminal
- 46014** Single-Row Vertical Header
- 46015** Dual-Row Vertical Header
- 46011** Dual-Row Vertical BMI Header
- 46010** Dual-Row Vertical Board Receptacle



Mini-Fit® Plus Female Terminal



Mini-Fit® Plus Receptacle



Mini-Fit® Plus Header



## Specifications

### Reference Information

#### Packaging:

- Terminal: Reel or bag
- Header: Tray
- UL File No.:E29179
- CSA File No.:LR19980
- Mates With: Other Mini-Fit Plus series
- Use With: Mini-Fit Jr.™ Housings
- Designed In: Millimeters
- RoHS: Yes
- Halogen Free: Yes – some series
- Glow Wire Compliant: Yes – some series

### Electrical

- Voltage (max.): 600V
- Current (max.): 13.0A
- Contact Resistance (max.): 10 milliohm
- Dielectric Withstanding Voltage: 2200V AC
- Insulation Resistance (min.): 1000 Megohms

### Mechanical

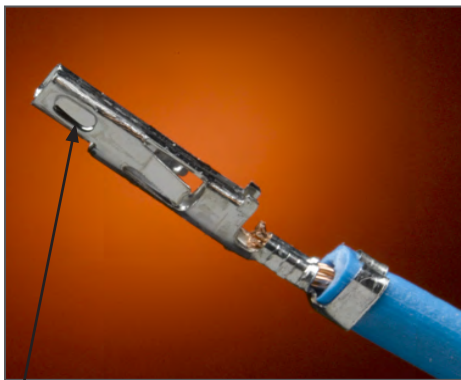
- Contact Insertion Force (max.): 4.9N
- Contact Retention to Housing (min.): 30.0N
- Insertion Force to PCB (max.): 98.0N
- Mating Force (max.): 4.5N per circuit
- Unmating Force (max.): 4.0N
- Durability (min.):
  - Tin — 75 cycles;
  - Gold — 100 cycles, 1500 cycles for select options

### Physical

- Housing: Nylon
- Contact:
  - High-Current Copper (Cu) Alloy
- Plating:
  - Contact Area — 100μ" Tin (Sn) or 30μ" Gold (Au) Solder
  - Tail Area — 100μ" Tin (Sn)
  - Underplating — 50μ" Nickel (Ni)
- PCB Thickness: Multiple options
- Operating Temperature:
  - 40 to +105°C

## Mini-Fit® Plus Connector System 4.20mm Pitch

## Product Features



Patented, elongated contact design

## Applications

- Consumer – White Goods
  - Washers and dryers
  - Refrigerators and freezers
  - Copiers and printers
  - Vending and gaming
  - Pinball and slot machines
  - Video poker and pachinko
- Telecommunications
  - Hubs and routers
  - Power supplies and distribution
  - Servers and backplanes
- Medical
  - X-ray machines
- Commercial Vehicle
  - Electronic control modules
- Industrial (General)
  - Food and beverage dispensers



Server and Storage Room



Laundry Equipment (washers and dryers)

## Ordering Information - Wire-to-Board

### Terminals

Order No.	Gender	Wire Range (AWG)	Base Material	Plating	Packaging
45750-1111	Female	18 to 20	Copper	Tin	Reel
45750-3111		16			
45750-1211		18 to 20			
45750-3211		16			

### Receptacles

Order No.	Rows	Circuits	Resin	Flammability	Packaging
39-01-4XX1	Single	3 to 5	Nylon	UL 94V-0	Bag
39-01-4XX0				UL 94V-2	
39-01-2XX5	Dual	2 to 24		UL 94V-0	
39-01-2XX0				UL 94V-2	

### Headers

Order No.	Rows	Plating	Circuits	Flammability	PCB Processing	Packaging
46014-XX04	Vertical, Single	Tin	3 to 5	UL 94V-0	Wave Solder	Tray
46014-XX06		Gold				
46014-XX05		Tin				
46015-XX03	*Vertical, Dual	Gold	2 to 24	UL 94V-0		
46015-XX09		Tin				
46015-XX07		Gold				
39-30-3XX2	*Right Angle, Single	Tin	3 to 5	UL 94V-0		
39-30-3XX3		Gold				
39-30-3XX5		Tin				
39-29-1XX7	*Right Angle, Dual	Gold	2 to 24	UL 94V-0		
39-30-0XX0		Tin				
39-28-1XX8		Gold				

\* Replace XX with number of circuits required. For example, if an 8-circuit part is required, insert 08.

\* Right-angle single and dual-row headers are standard 5569 series; solid pins carry higher current

## Ordering Information - Wire-to-Wire

### Terminals

Order No.	Gender	Wire Range (AWG)	Base Material	Plating	Packaging
45750-1111	Female	18 to 20	Copper	Tin	Reel
45750-3111		16			
45750-1211		18 to 20			
45750-3211		16			
46012-1141	Male	16		Tin	
46012-3141		18 to 20			
46012-3241		16			
46012-1240		18 to 20		Gold	

### Receptacles

Order No.	Rows	Circuits	Resin	Flammability	Packaging
39-01-4XX1	Single	3 to 5	Nylon	UL 94V-0	Bag
39-01-4XX0				UL 94V-2	
39-01-2XX5	Dual	2 to 24		UL 94V-0	
39-01-2XX0				UL 94V-2	

### Plugs

Order No.	Rows	Circuits	Resin	Flammability	Packaging
39-01-4XX7	Free-Hanging, Single	3 to 5	Nylon	UL 94V-0	Bag
39-01-4XX6				UL 94V-2	
39-01-2XX9	Free-Hanging, Dual	2 to 24		UL 94V-0	
39-01-2XX3				UL 94V-2	
39-01-4XX3	Panel-Mount, Single	3 to 5		UL 94V-0	
39-01-4XX2				UL 94V-2	
39-01-2XX6	Panel-Mount, Dual	2 to 24		UL 94V-0	
39-01-2XX1				UL 94V-2	

\* Replace XX with number of circuits required. For example, if an 8-circuit part is required, insert 08.