

Mega-Fit Power Connectors, 5.70mm Pitch >

Mega-Fit Power Connectors deliver 30.0A per circuit through fully protected header pins and receptacle terminals while offering unique keying options to ensure proper mating during termination.

FEATURES AND ADVANTAGES

Power-dense design with high-current terminals, tight pitch and row spacing

Provides more power per linear and square millimeter than other mid-range power products in the industry

Positive locking housing

Ensures secure retention when receptacle and header are mated. Delivers an audible click to provide feedback that connector is fully mated

Tin-planted contacts available

Enhances design flexibility. Provides significant cost savings

Fully isolated header pins and receptacle terminals

Protects against potential damage during handling and mating

Sacrificial contacts

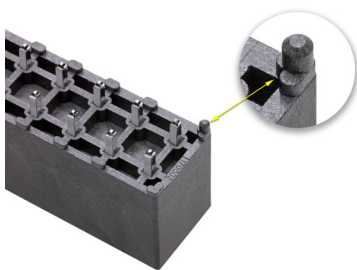
Allows system to be "hot plugged" at 48V/30.0A up to 30 cycles

Tangless terminal design

Reduces the risk of handling/transit damage

Terminal interface with six independent points of contact (split-box terminal design)

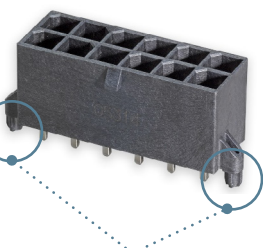
Offers redundant, secondary current paths for long-term performance and reliability



Mega-Fit Power Connector Family
 A. Vertical Header (Series 172065, 76829)
 B. Right-Angle Header (Series 172064, 76825)
 C. Receptacle (Series 171692)
 D. Female Crimp Terminal (Series 172063, 76823)

Polarization peg to engage with PCB

Replaces the crush pegs to provide stability without taking up room on the PCB. Aids assembly by ensuring correct orientation

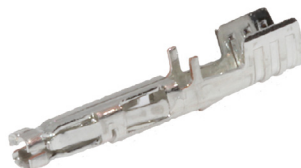


Crush peg removal

Delivers a smaller footprint on the PCB

Flexible wire gauge options

10-16 AWG offers superior design options for reliable connections



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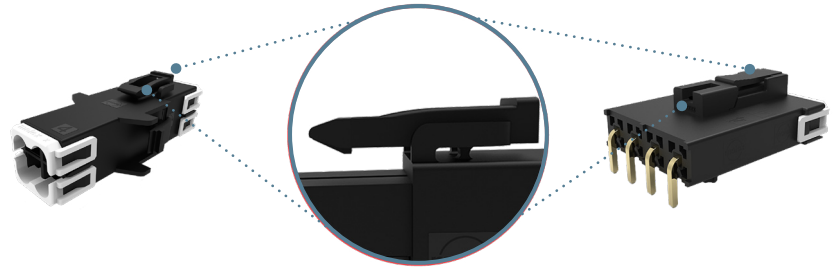
FEATURES AND ADVANTAGES

Dual-Row W-to-W and Single-Row Systems



Polarizing and unique keying features

- Provides protection of the terminals in the receptacle
- Allows for compatibility with all current Mega-Fit Dual-Row headers
- Prevents electrical arcing when charged
- Avoids mis-mating of receptacles to header housings



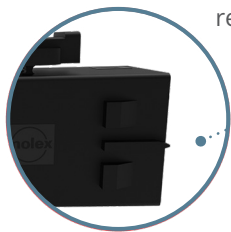
New latch design

Provides superior retention when mated to the header and allows for low-mating force



TPA lead-in

Provides a guide and lead-in for the TPA on both the receptacle and plug



TPA

Prevents terminal backout



New housing material

Meets V0 and glow-wire European standards

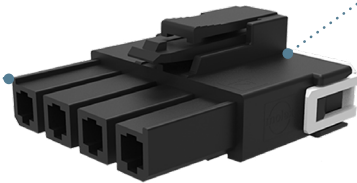


FEATURES AND ADVANTAGES

Single Row

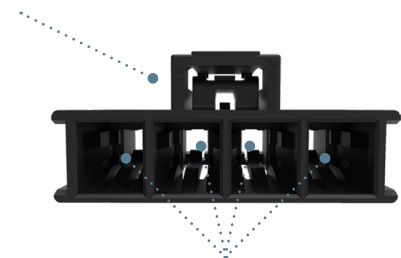
Fully isolated terminals

Protects against potential damage of header terminals during mating



Inertia latch

Provides superior retention when mated to the header and allows for low-mating force



Internal receptacle locking mechanism

Supports the tangless locking terminal with low insertion force



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APPLICATIONS

Home Appliance

Washers and dryers
Heaters and air conditioners

Telecommunications/Networking

Hubs and servers
Power supplies and distribution

Industrial

Machinery and heavy equipment
Lighting and automation

Commercial Vehicle

Unsealed electronic control modules
Power converters



Consumer Appliances



Industrial Automation



Commercial Vehicles

SPECIFICATION

Reference Information

Packaging: Bag, Reel, Tray
UL File No.: Refer to Product Specification
CSA File No.: Refer to Product Specification
Mates With: Mega-Fit Receptacles, Plugs
Use With: Mega-Fit Receptacles, Plugs
Terminal Used: Series 172063, 076823,
105418, 105417
Designed In: Millimeters
RoHS: Yes, Compliant Materials
Halogen Free: Yes or No
Glow Wire Capable: Yes

Dual-Row Wire-to-Wire and Single-Row Systems

Mates With:

Single-Row HDR: 200456
Single-Row REC: 200241
TPA: 200456, 171692, 105412
Dual-Row Plug: 171692
Dual-Row HDR: 171692
Dual-Row REC: 105412, 76825, 76829,
172064, 172065
Male Terminal: 76823, 172063
Female Terminal: 105418, 105417

Use With:

Male Terminal: 105412
Female Terminal: 171692, 200456
TPA: 200456, 171692
Single-Row Receptacle: 76823, 105415
Dual-Row Receptacle: 76823, 105415
Single-Row Receptacle: 76823, 105415
Dual-Row Plug: 105418, 105415

Electrical

Voltage (max.): 600V
Current (max.): 30.0A
Contact Resistance: 6 milliohms
Dielectric Withstanding Voltage: No Breakdown
Current leakage: <5mA
Insulation Resistance (min.): 1,000 Megohms

Mechanical

Contact Insertion Force (max.): 6.8N
Contact Retention to Housing: 30N
Insertion Force to PCB (max.): 85N

Mating Force: Tin plated (max.):

6.8N initial mating force per circuit
0.38 or 0.76 μ (15 or 30 μ) Gold plated (max.):
6.0N per circuit

Unmating Force: Tin plated (max.):

6.5N initial unmating force per circuit
0.38 or 0.76 μ (15 or 30 μ) Gold plated (max.):
5.6N per circuit

Durability (min.): Maximum change from initial:

Tin: 2 Megohms; Gold: 2 Megohms

Header Pin Retention Force in Housing

Vertical Header: 89N min per pin

Physical

Housing: UL 94 V-0, Glow Wire Combination

Contact: High-Conductivity Copper

Plating:

Contact Area: Gold (Au) 0.38 or 0.76 μ

(15 or 30 μ) options or Tin (Sn)

Solder Tail Area: Tin (Sn)

Underplating — Nickel (Ni)

PCB Thickness: 1.60 and 2.40mm (.062 and .093")

Operating Temperature: -40 to +150°C

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ORDERING INFORMATION

Header

Series No.	Component	Row	Circuits	Plating
76825	Right Angle	Dual	2 to 12	Tin
76829	Vertical			Gold
172064	Right Angle			Tin/Gold
172065	Vertical	2 to 8		
200241-11XX				
200241-12XX	Right Angle	Single		

Terminal

Series No.	Type	AWG	Plating
76823	Female	10 to 16	Tin
172063			Gold
105417	Male		Tin
105418			Gold

Receptacle

Series No.	Row	Circuits
171692	Dual	2 to 12
200456	Single	2 to 8

Plug

Series No.	Row	Circuits	Panel Mount
105411-01XX	Dual	2 to 12	No
105411-11XX			Yes
213814	Single	2 to 8	Yes
213815			No

TPA (Terminal Position Assurance)

Series No.	Circuits
105415	2 to 8

www.molex.com/link/megafit.html