

Micro-Fit TPA W-to-W, W-to-B and B-to-B Connector Family

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Micro-Fit TPA Connector Family ensures proper terminal insertion and prevents accidental back-outs for wire-to-wire, wire-to-board and board-to-board configurations, with single-row components delivering a one-piece solution and the double-row a two-piece retainer

Features and Benefits



Terminal position assurance (TPA) feature with integrated secondary lock

Eliminates terminal back-outs resulting from improper assembly

Fully polarized housings

Assures proper mating orientation. Compatible with existing headers and plugs

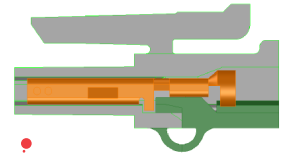


Single-row receptacle incorporates a 1-piece housing and terminal lock design

No secondary pieces, reducing SKUs

Fully isolated contacts on each side of the interface

Prevents potential arcing



Cross Section Showing TPA Feature Activated in the Single-Row Receptacle

Single- and dual-row, wire-to-wire and wire-to-board configurations immediately available in multiple circuit sizes

Provides wide range of design flexibility, and supports rapid implementation

Applications

Consumer / Home Appliance

Harness manufacturers
Appliances

Data / Computing

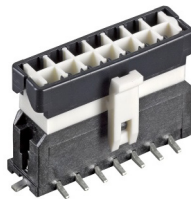
Harness manufacturers
Desktops
Workstations
Power supplies
Uninterruptible Power Supply (UPS)

Telecommunications / Networking

Harness manufacturers
Servers
Routers
Switches

Automotive / Commercial Vehicle

Harness manufacturers
Non-sealed applications
Inside devices

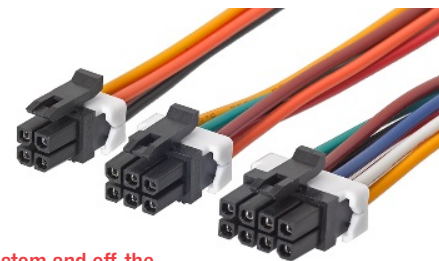


Micro-Fit TPA Dual-Row Receptacle and Plug, Mated



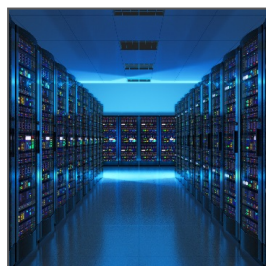
New tang-less terminals

Avoids snagging during mating



Both custom and off-the-shelf assemblies available

Provides quick availability for development and production programs and customized versions for final designs



Servers



Work Station



Refrigerator

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Specifications

REFERENCE INFORMATION

Packaging:

UL File No.: E29179

CSA File No.: LR19980

Mates With:

Micro-Fit TPA Single-Row Receptacles mate with Micro-Fit TPA Single-Row Plugs (series [200875](#)), Micro-Fit 3.0 Single-Row Plug (Series [43640](#)) and Header (Series [43650](#));

Micro-Fit 3.0 Dual-Row Plug Housing (Series [43020](#)) and Header (Series [43045](#) and [44914](#))

Terminal Used: Micro-Fit 3.0 female crimp terminals (Series [43030](#), [46235](#)); Micro-Fit male crimp terminals (Series [43031](#))

Designed In: Millimeters

RoHS: Yes

Halogen Free: Yes (non-Glow-Wire versions)

Glow Wire Compliant: Option Available, [Contact Molex](#)

ELECTRICAL

Voltage (max.): 600V

Current (max.): 5.0 to 10.0A (Please see product specifications; determined by terminal used)

Contact Resistance (max.): 10 milliohms

Dielectric Withstanding Voltage: <5mA

Insulation Resistance (min.): 1,000 Megohms

MECHANICAL

Contact Insertion Force (max.): 14.7N per contact

Contact Retention to Housing (min.): 24.5N

Mating Force (max.): 8N per circuit

Unmating Force (min.): 3.7N per circuit

Durability (max.): typically 30 cycles, refer to product specifications

PHYSICAL

Housing: Nylon

Contact: Various

(Phosphor Bronze, Copper Alloy – see Product Specifications for Particular Connector System)

Operating Temperature: -40 to +105°C

Ordering Information

Receptacles and TPA Retainers

Series No.	Component	Configuration
171850	TPA Single-Row Receptacle (mates with 43640, 43650)	Wire-to-Wire, Wire-to-Board
172952	TPA Dual-Row Receptacle (mates with 43020, 43045, 44914)	
172953	TPA Retainer	2 Parts per Receptacle; Same Part Number
200875	Plug (Mates with 171850 and Micro-Fit 3.0 Receptacle 43645)	Wire-to-Wire

Terminals

Series No.	Component	Wire Gauge (AWG)
43031	Male Terminal (Use with Housing Series 200875)	20 to 30
43030	Female Terminal (use with Receptacle Series 171850, 172952)	

Off-the-Shelf Cable Assemblies

Series No.	Product	Circuits	Lengths (m)
45132	Off-the-Shelf Micro-Fit TPA Discrete Wire Cable Assemblies	4, 6, 8	1.0, 1.5, 3.0

AVAILABLE OPTIONS: OTHER CIRCUIT SIZES

Series No.	Rows	Component	Configuration	Circuits
Contact Molex	Single	Receptacle	Wire-to-Wire, Wire-to-Board	8 to 12
	Dual			16 to 24

www.molex.com/link/microfit30.html

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