

Micro-Fit 3.0 Connector System Product Family

molex®

Micro-Fit 3.0 Connector Systems, available in multiple circuit sizes and cable lengths for power and signal applications, offer a 3.00mm pitch, a 8.5A maximum current rating and many design options such as a terminal position assurance, blind-mating and compliant pin features

Features and Benefits

Fitting nails and solderable clips available
Offers header retention and strain relief options

SMT, press-fit or surface mount compatible versions available
Provides design flexibility. Offers options to meet many application needs

High-temperature LCP headers
Withstand 260°C IR reflow processes

Fully polarized housings
Prevents accidental mismatching

Positive latching
Ensures a reliable connection

Fully isolated terminals
Protect against potential damage of terminals during handling and mating

Tang-less terminals and terminals with locking tangs available
Offers design flexibility. Locking tang secures terminals in housings. Tang-less terminals avoid snagging during mating

Optional terminal position assurance (TPA) feature
Reduces assembly error that results in terminal back-outs. Single row: one-piece plug and receptacle design with integrated secondary lock. Dual row: two-piece TPA design

Micro-Fit BMI Connectors

Blind-mating wire-to-wire and wire-to-board connectors
Offers full range of options for every application and orientation

Micro-Fit (Compliant Pin) CPI Connectors

Uses eye-of-the-needle press-fit design
Provides a reliable connection

Accepts standard Micro-Fit female and male crimp terminals
Eliminates the need to purchase or inventory additional terminals

Self-aligning feature molded into housings
Allows up to 2.54mm misalignment

Micro-Fit TPA Single Row Plug

The plug's TPA retainer mates with the existing Micro-Fit TPA Receptacle to prevent terminal back-outs in wire-to-wire applications
Prevents end product failure. Ensures both components provide a reliable connection

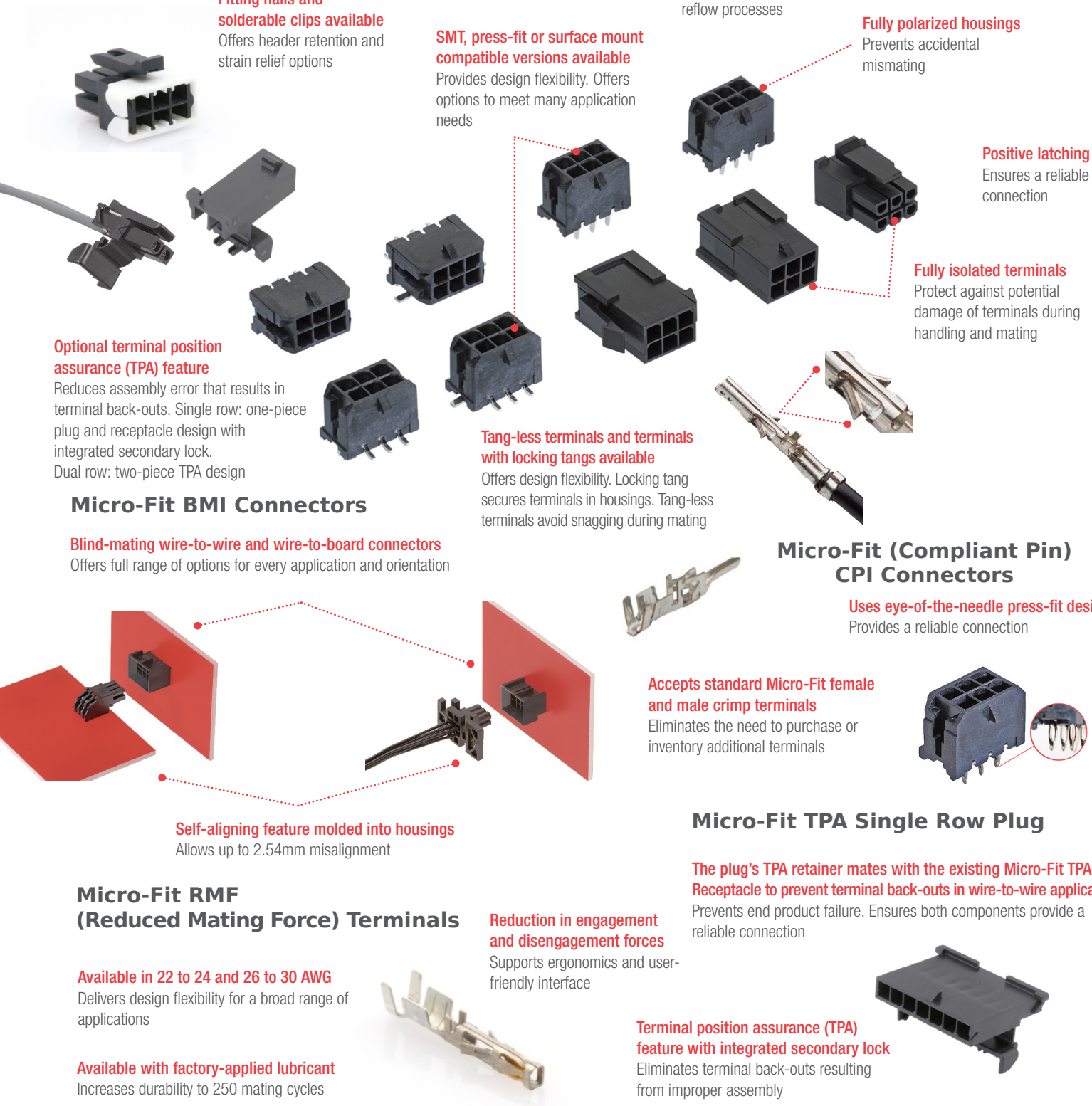
Micro-Fit RMF (Reduced Mating Force) Terminals

Available in 22 to 24 and 26 to 30 AWG
Delivers design flexibility for a broad range of applications

Available with factory-applied lubricant
Increases durability to 250 mating cycles

Reduction in engagement and disengagement forces
Supports ergonomics and user-friendly interface

Terminal position assurance (TPA) feature with integrated secondary lock
Eliminates terminal back-outs resulting from improper assembly



Micro-Fit 3.0 Connector System Product Family

molex[®]

Applications

Consumer

Washers and dryers
Freezers
Gaming machines
Printers
Refrigerators
Scanners
Security systems
Vending machines
White goods

Medical

Diagnostic equipment
Patient monitors

Sustainable Energy

Solar power

Automotive

Harness manufacturers
Non-sealed applications
Inside devices



Refrigerator



Office Equipment

Telecommunications/Networking

Routers and switches
Servers
Storage



Servers

Specifications

REFERENCE INFORMATION

Packaging:

UL File No.: E29179
CSA File No.: LR19980

Mates With:

Micro-Fit* 3.0 Single-Row Plug
(Series [43640](#)) and Header (Series [43650](#));
TPA Single-Row Receptacle (Series [171850](#))

Micro-Fit* 3.0 Dual-Row Plug Housing

(Series [43020](#)) and Header

TPA Dual-Row Receptacle (Series [172952](#))

(Series [43045](#) and [44914](#))

Terminal Used:

Micro-Fit* 3.0 female crimp terminals
(Series [43030](#) and [46235](#))

Designed In: Millimeters

RoHS: Yes

Halogen Free: Yes (Non-Glow-Wire Versions)

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

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 +260°C

ELECTRICAL

Voltage (max.): 600V

Current (max.): 5.0 to 8.5A

(Please see product specifications;
determined by terminal used)

Contact Resistance (max.): 10 milliohms





Dielectric Withstanding Voltage: <5mA

Insulation Resistance (min.): 1,000 Megohms

Micro-Fit 3.0 Connector System Product Family



Ordering Information

Series No.	Component	
43030	Female Terminal (Available in: 0.25µm Select Tin, 0.38µm and 0.76µm Select Gold)(18 - 30AWG)	
46235	Reduced Mating Force (RMF) Female Terminal, available with or without Lubricant (Available in: 0.25µm Select Tin, 0.38µm and 0.76µm Select Gold)(20 - 30AWG)	
43031	Male Terminal (Available in: 0.25µm Select Tin, 0.38µm and 0.76µm Select Gold) (20 - 30AWG)	
43025	Dual-Row Receptacle Housing (mates with 43020, 43045, 44914, 44242) (Available in: UL 94V-0, Glow Wire, Low-Halogen)(2 - 24CKTS)	
43020	Dual-Row Plug (mates with 43025, 45132, 245132, 172952) (Available in: UL 94V-0, Glow Wire, Low-Halogen) (Panel/Non-Panel Mount)(2 - 24CKTS)	
43045	Dual-Row Header (mates with 43025, 45132, 245132, 172952) (Available in: 0.25µm Select Tin, 0.38µm and 0.76µm Select Gold)(2 - 24CKTS) (Right Angle and Vertical Orientations; Surface Mount, Through Hole - Kinked Pin and Through Hole Termination Interface Style)	
43645	Single-Row Receptacle (mates with 43640, 43650) (Available in: UL 94V-0, Glow Wire, Low-Halogen)(2 - 12CKTS)	
43640	Single-Row Plug (mates with 43645, 171850) (Available in: UL 94V-0, Glow Wire, Low-Halogen)(2 - 12CKTS) (Panel Mount and Non-Panel Mount)	
43650	Single-Row Header (mates with 43645, 171850) (Available in: 0.25µm Select Tin, 0.38µm and 0.76µm Select Gold)(2 - 12CKTS) (Right Angle and Vertical Orientations; Surface Mount, Through Hole - Kinked Pin and Through Hole Termination Interface Style)	
171850	TPA Single-Row Receptacle (mates with 43640, 43650) (Available In: UL 94V-0, Low-Halogen)(2 - 7CKTS)	
200875	TPA Single-Row Plug (mates with 171850, 43645)	
172952	TPA Dual-Row Receptacle (2 TPA parts required for each receptacle) (mates with 43020, 43045, 44914) (Available In: UL 94V-0, 94V-2, Glow Wire, Low-Halogen)(4 - 14CKTS) (Black and Natural Color)	
172953	TPA Retainer (2 TPA parts required for each receptacle) (Available In: Low-Halogen)(4 - 14CKTS) (Black and Natural Color)	
45132	Off-the-Shelf Micro-Fit TPA Discrete Wire Cable Assemblies (Available in: 4 - 8CKTS)(1.0M, 150.00mm, 300.00mm Lengths)	
200875	Single Row TPA Plug (Mates with Micro-Fit 171850 and 43645) (UL94V-0)(Low Halogen)(Color – Black)(2-7CKT)	

Micro-Fit 3.0 Connector System Product Family



Ordering Information

Series No.	Component	
44133	BMI Dual Row, Panel Mount Receptacle Housing (mates with 44300, 44432, 44428, 45280) (Available In: UL 94V-0, Halogen-Free)(4 - 24CKTS)	
44300	BMI Dual Row, Panel Mount Plug Housing (mates with 44133, 44769, 44764) (Available In: 4 - 24CKTS)	
44428	BMI Dual Row, Surface Mount Compatible, Right Angle Headers (mates with 44769, 44764, 44133) (Available In: Tin, 0.38µm and 0.76µm Select Gold; Low-Halogen)(4 - 24CKTS)	
44432	BMI Dual Row, Surface Mount Compatible, Vertical Header (mates with 44769, 44764, 44133) (Available In: Tin, 0.38µm and 0.76µm Select Gold; Low-Halogen)(4 - 24CKTS)	
44764	BMI Dual Row, Right Angle PCB Receptacle Header with Press-fit Plastic Pegs (mates with 44300, 44428, 44432, 45280) (Available In: Tin, 0.38µm and 0.76µm Select Gold; Low-Halogen)(4 - 24CKTS)	
44769	BMI Dual Row, Vertical Receptacle Header with Press-fit Plastic Pegs (mates with 44300, 44432, 45280, 44428) (Available In: Tin, 0.38µm and 0.76µm Select Gold; Low-Halogen)(4 - 24CKTS)	
45280	BMI Vertical Compliant Pin Header, Dual Row (mates with 44769, 44764, 44133) (Available In: Tin, 0.38µm and 0.76µm Select Gold; UL 94V-0)(4 - 24CKTS)	
44914	Compliant Pin Vertical Header, Dual Row (mates with 43025, 172952) (Available In: Tin, 0.38µm and 0.76µm Select Gold; Glow Wire)(4 - 24CKTS)	
46622	BMI Single Row Header (mates with 46623, 46625) (Available in Tin, 0.38µm and 0.76µm Select Gold; UL 94V-0, Halogen-Free; Right Angle, Vertical)(2 - 7CKTS)	
46623	BMI Single Row Panel Mount Receptacle (mates with 46622) (UL 94V-0; Halogen-Free)(2 - 7CKTS)	
46625	BMI Single Row Panel Mount Plug (mates with 46622) (UL 94V-0; Halogen-Free)(2 - 7CKTS)	

Custom Product	Description
Contact Molex	Customized Micro-Fit Overmolded Cable Assemblies
	Customized Micro-Fit Discrete Wire Cable Assemblies

www.molex.com/link/microfit30.html

Molex is a registered trademark of Molex, LLC in the United States of America and may be registered in other countries; all other trademarks listed herein belong to their respective owners.