

Ultra-Fit™ Power Connectors

3.50mm Pitch



Eliminate same-circuit-size cross mating, optimize space savings and reduce terminal back-out with low mating force, high-density Ultra-Fit™ Power Connectors

Features and Benefits

Multiple mechanical keying and color-coded options Allow same-circuit, multiple connector use with virtually no chance of cross mating. Color coding provides visual indication of the proper mating connector — enabling faster assembly

17% reduction in pitch over similar power connectors Current-dense design saves PCB space. Allows for smaller packaging without sacrificing current-carrying capabilities

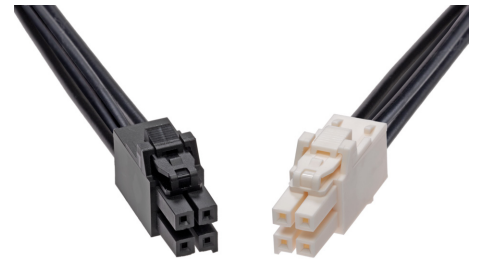
Optional TPA (Terminal Position Assurance) retainer Guarantees the terminal is fully seated in the housing to reduce terminal back-out. Retains terminal if main retention feature fails

Ultra low mating force terminal Reduces operator fatigue and improves assembly compliance for high-circuit applications

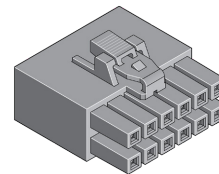
Positive-lock housing with anti-snag design Ensures mated connector assemblies will not accidentally disengage. Provides an audible click while mating. Protects latch from damage due to wire snags

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

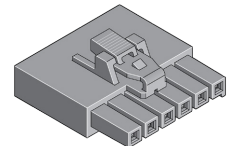
Terminal interface with six independent points of contact (split-box terminal design) Offers redundant, secondary current paths for long-term performance and reliability



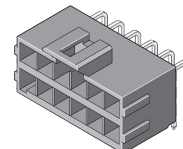
Ultra-Fit™ Power Connector Receptacles



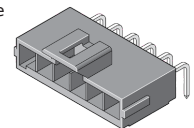
Dual-Row Receptacle 172258 Series



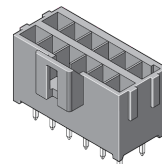
Single-Row Receptacle Housing 172256 Series



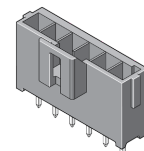
Dual-Row Right-Angle Header 172316 Series



Single-Row Right-Angle Header 172310 Series



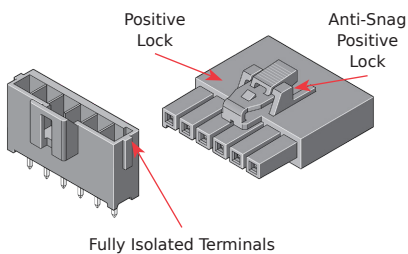
Dual-Row Vertical Header 172298 and 172299 Series



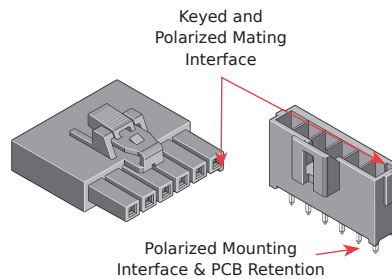
Single-Row Vertical Header 172286 and 172287 Series

Product Features

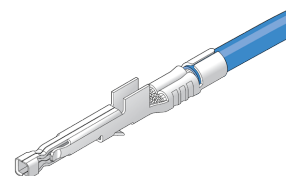
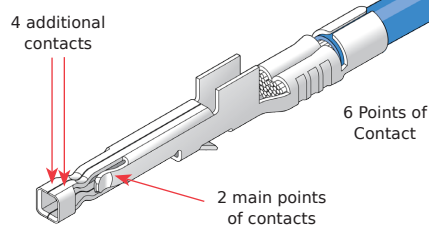
Key Housing Features



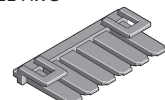
Keying and Polarization Features



Ultra-Fit Terminal



Ultra-Fit Terminal 16-22 AWG 172253 Series



TPA Retainer 172264 and 172268 Series

Ultra-Fit™ Power Connectors

3.50mm Pitch



Applications

Consumer / Home Appliance

Washers
Refrigerators

Telecommunications/Networking

Hubs
Servers

Transportation

Infotainment
Interior

Lighting

Ballasts
Home Lighting Fixtures

Aerospace and Defense

C4ISR

Industrial

Food and Beverage
Assembly Line Equipment

Medical

Patient Care Equipment
Healthcare IT

Specifications

REFERENCE INFORMATION

Packaging:
Terminals — Reel; Headers — Tray;
Receptacles — Bulk
UL File No.: E29179, Vol. 10
CSA File No.: LR 19980
IEC File No.: Pending
Terminal Used: Ultra-Fit
Designed In: Millimeters
RoHS: Yes
Halogen Free: Yes (specified series)

ELECTRICAL

Voltage (max.): 400V
Current (max.): Tin — 14.0A; Gold — 12.0A
Contact Resistance Tin and Gold (max.): 7 milliohms
change over life
Dielectric Withstanding Voltage: 1800V
Insulation Resistance (min.): 1000 Megohms

MECHANICAL

Contact Mating Force: Tin — 4.5N; Gold — 2.8N
Contact Retention to Housing: 27N
Durability (min.): 25 Tin, 200 Gold

PHYSICAL

Housing:
Receptacle: Nylon UL 94V-0
Header: LCP — UL 94V-0 & Glow-Wire
per IEC 60335-1
Contact: Copper Alloy
Plating:
Contact Area — Tin, 15µ" or 30µ" Gold
Solder Tail Area — Tin
Underplating — Nickel
PCB Thickness: 1.60 and 2.40mm
Operating Temperature: -40 to +120°C Gold
-40 to +105°C Tin

Ordering Information

Series No.	Component	Orientation	Rows	Termination Style
172253	Crimp Terminal	---	---	---
172256	Receptacle Housing		Single	
172258			Dual	
172286	Header	Vertical	Single	Kinked Pin
172287				Solder Clip
172298			Dual	Kinked Pin
172299				Solder Clip
172310		Right-Angle	Single	Through Hole
172316			Dual	

Order No.	Component	Wire Gauge	For Terminal
63903-2800	Applicator	16 to 18 AWG	172253-3011 ; 172253-3012 ; 172253-3023
63903-2900		20 to 22 AWG	172253-3111 ; 172253-3112 ; 172253-3123
63827-5300	Hand Tool	16 to 18 AWG	172253-3011 ; 172253-3012 ; 172253-3023
63827-5400		20 to 22 AWG	172253-3111 ; 172253-3112 ; 172253-3123

www.molex.com/link/ultrafit.html