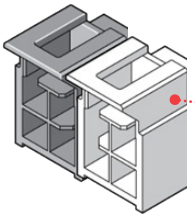
Nano-Fit Power Connectors 2.50mm Pitch

molex®

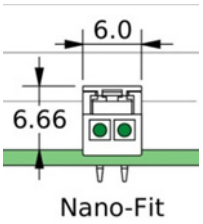
Nano-Fit Power Connectors deliver both fully protected header terminals and a small package, while also offering keying options to ensure proper mating and terminal position assurance (TPA) retainers to prevent terminal backout

Features and Advantages



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

Smallest fully isolated headers in the market
Up to 69% smaller than competing connectors in the x axis

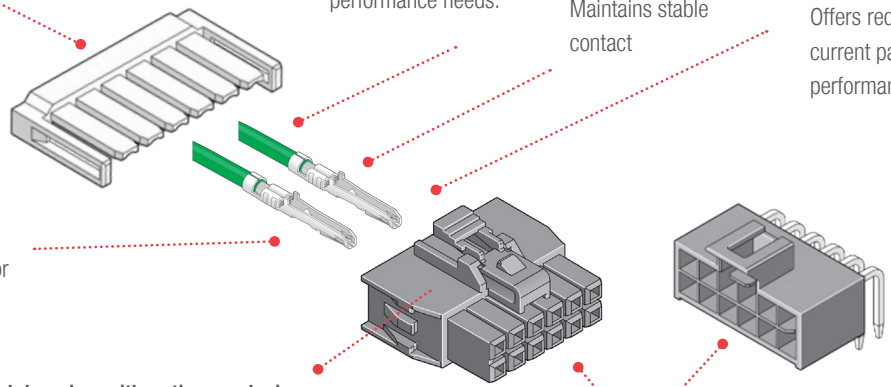


Terminals available in gold and tin plating
Delivers different cost options while meeting performance needs.

Optional TPA (terminal position assurance) retainer
Ensures terminals are fully seated in housing to reduce backout.
Retains terminals if main retention feature fails

Retention tang and contact rib
Maintains stable contact

Terminal interface with 4 points of contact
Offers redundant, secondary current paths for long-term performance and reliability

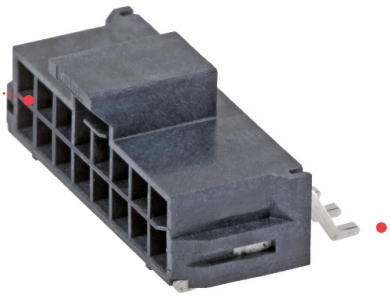


Ultra-low mate force terminal
Reduces operator fatigue.
Improves assembly compliance for high-circuit applications

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

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

Enables use of multi-layer boards by eliminating the need for through holes
Opens up real estate on space-constricted PCBs. Potentially reduces costs by enabling use of smaller PCBs with fewer drilled holes



Short electrical path
Provide superior signal integrity performance

Available in embossed tape for pick-and-place assembly
Enables quick and accurate component placement to meet fast time-to-market requirements

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Applications

Consumer/Home Appliance
- Refrigerators
- Washers and dryers

Telecommunications/Networking
- Servers
- Hubs

Automotive
- Interior
- Lighting

Lighting
- Home lighting fixtures
- Ballasts

Aerospace and Defense
- C4ISR

Industrial
- Assembly line equipment
- Food and beverage

Medical
- Healthcare IT
- Patient care equipment

Specifications

REFERENCE INFORMATION
Packaging:
- Terminals – Reel
- Headers – Tray
- Receptacles – Bulk

UL File No.: E29179
CSA File No.: LR19980
IEC File No.: Pending
Mates With: Nano-Fit Connectors and Receptacles
Terminal Used: Nano-Fit
Designed In: Millimeters
RoHS: Yes
Halogen Free: Yes

ELECTRICAL
Voltage (max.): 250V AC/DC
Current (max.): 6.5A
Contact Resistance Change Over Life (max.):
10 milliohms (Gold); 20 milliohms (Tin)
Dielectric Withstanding Voltage: 1600V
Insulation Resistance (min.): 1000 Megohms

MECHANICAL
Contact Insertion Force: 2.5N
Contact Retention to Housing: 27N
Insertion Force to PCB: 5N
Mating Force: 3N
Unmating Force: 3N
Durability (min.): 20 tin, 50 gold

PHYSICAL
Housing:
- Receptacle: Nylon UL 94V-0
- Header: LCP UL 94V-0

Contact: High-conductivity copper
Plating:
- Contact Area – Tin or .381µ (15µ") Gold or .762µ (30µ") Gold
- Solder Tail Area – Tin
- Underplating – Nickel

PCB Thickness: 1.60 and 2.40mm
Operating Temperature: -40 to +115°C

Ordering Information

Series No.	Component	Orientation	Rows	Termination Style
105300	Female Crimp Terminal (Gold and Tin Plated Available)	—	—	—
105307	Receptacle		Single	
105308			Dual	
105325	TPA Retainer		—	
105309	Header	Vertical	Single	Kinked Pin
105311				Solder Clip
105310			Dual	Kinked Pin
105312				Solder Clip
105313		Right Angle	Single	Through Hole
105314			Dual	
105405				SMT

www.molex.com/link/nanofit.html

Order No. 987651-1223 Rev. 2 USA/0k/GF/2017.08