

Nano-Fit™ Power Connectors 2.50mm Pitch

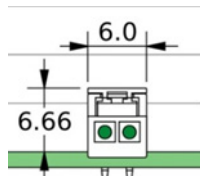
molex®

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

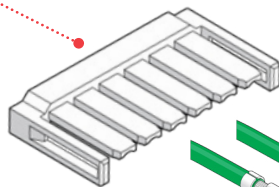
Smallest fully isolated headers in the market

Deliver up to 69% PCB space savings



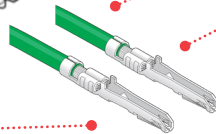
Optional TPA (terminal position assurance) retainer

Ensures terminals are fully seated in housing to reduce backout. Retains terminals if main retention feature fails



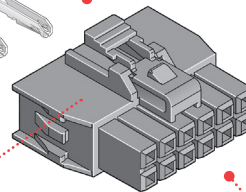
Ultra-low mate force terminal

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



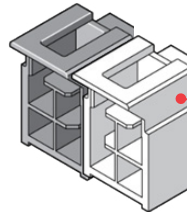
Enables use of multi-layer boards by eliminating the need for through holes

Opens up real estate on space-constricted PCBs. Potentially reduces costs by enabling use of smaller PCBs with fewer drilled holes



Available in embossed tape for pick-and-place assembly

Enables quick and accurate component placement to meet fast time-to-market requirements



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

Terminals available in gold and tin plating

Delivers different cost options while meeting performance needs.

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

Fully isolated terminals

Protect against potential damage of terminals during handling and mating

Short electrical path

Provide superior signal integrity performance

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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

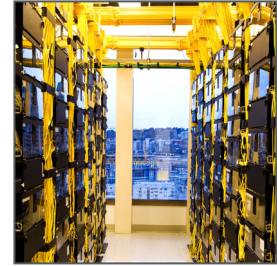
- C4ISR

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				
105405				

www.molex.com/link/nanofit.html