



NANO-FIT WIRE-TO-BOARD, WIRE-TO-WIRE CONNECTORS

Adding a blind-mating interface (BMI) design to the Nano-Fit portfolio in both wire-to-board and wire-to-wire. BMI is a selfaligning interface that enables the operator to mate connectors in hard-to-reach areas such as drawers or fan assembly trays, and connectors that require mating and unmating without a visual. Doing so can cause damage to the connector and/or terminal and consume valuable labor time. BMI decreases assembly time and errors for a wide range of BMI applications and is a valuable option that can eliminate misalignment and significantly reduce the number of errors associated with improper installation in tight spaces. Also adding Gold flash terminals to reduce connector mating force, operator fatigue and corrosion.

NPI ENHANCEMENT

FEBRUARY 2024

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NANO-FIT WIRE-TO-BOARD, WIRE-TO-WIRE CONNECTORS

Nano-Fit Power Connectors deliver fully protected header terminals in a compact size and provide many feature options to ensure proper installation and excellent reliability in tight spaces; available in wireto-board and wire-to-wire configurations.

Key Product Information

Category:	Wire-to-Board, Wire-to-Wire Connectors
Current:	8.0A
Pitch:	2.50mm
Circuits:	4 to 16
Operating Temps:	-40 to +105°C (Tin); -40 to +115°C (Gold)
Optional:	Panel Mount/Free Hanging

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Series

- 219268 Nano-Fit Receptacle Wire-to-Board Plugs
- 219637 Nano-Fit Wire-to-Board Headers
- 224556 Nano-Fit Wire-to-Wire Free Hang and Panel Mount Plugs
- 105300 Nano-Fit Female Terminal (Tin, Gold Flash and Gold)
- 201447 Nano-Fit Male Terminal (Tin, Gold Flash and Gold)

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VITAL PRODUCT INFORMATION



BMI Option

Assembly errors can occur when operators do not have a visual advantage for mating/unmating connectors. Nano-Fit Connectors offer a self-aligning interface that enables operators to correctly mate/unmate connectors in unseen and hard-to-reach areas. This BMI option eliminates misalignment and decreases errors associated with improper installation in tight spaces.

Gold Flash Terminal Option

Nano-Fit Gold flash terminals have a 50% reduced mating force compared to tin-plated terminals and thus improve ergonomics by reducing operator fatigue during assembly. These Gold-plated terminals also improve corrosion resistance.

High Current in a Small Package

Industries are challenged by space constraints in their applications. The Nano-Fit Connector has a small PCB footprint and provides space-saving opportunities for industries to meet their design requirements.

Glow Wire Capable

Nano-Fit Connectors contain a V-0/Glow Wire combination resin which reduces the cost of materials and labor, by providing less items on a bill of materials. These connectors also allow customers to meet the European standard for electrical requirements.

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MARKETS AND APPLICATIONS



Home Appliances

Consumer

- Copiers
- Small appliances
- 3D printers
- Home appliances
- Vacuum cleaners



Infotainment Systems

Automotive

- Non-critical applications
- Telemetrics
- Infotainment systems
- Consoles
- Equipment for USCAR-2 rated designs

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PRODUCT FEATURES AND ADVANTAGES

Prevents damage to the connector or terminals by avoiding misalignment; decreases assembly time and mis-mating errors

with blind-mate interface (BMI) connector design

Provides a small package that eases space constraints; allows up to 69% more space in the x-axis than competing connectors

as it is the smallest fully isolated header in the market

Reduces operator fatigue due to its ultra-low mate force terminal

Reduces backout by ensuring terminals are fully seated in housing when using the TPA retainer option

Maintains stable contact with retention tang and contact rib



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PRODUCT ADVANTAGES AND FEATURES

Helps to prevent risk of cross-mating; enables faster assembly with multiple mechanical keying and color-coded options for visual indication of proper mating

Provides various cost options while meeting performance needs since terminals are available in gold and tin plating

Offers redundant, secondary current paths for long term performance and reliability because there are 4-point contact, multi-layer boards on the terminal interface

Ensures mated connector assemblies will not accidentally disengage as these connectors have positive-lock housing with an anti-snag design

Enables quick and accurate component placement with embossed tape for pick-and-place assembly

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THANK YOU

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