Board-in Connectors

Vertical and Right Angle,
1.25, 2.00, 2.50 and 4.00mm Pitch

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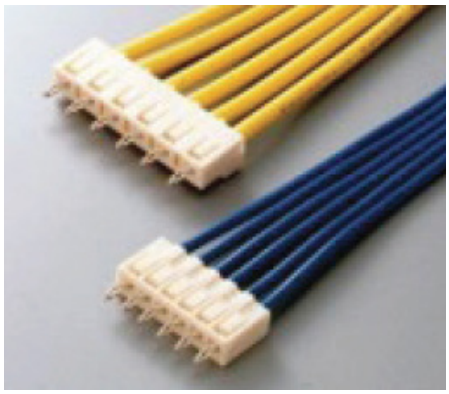
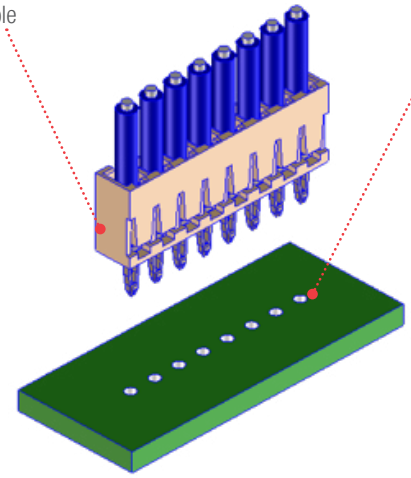
Ideal for simple and permanent connections, Molex's Board-in connectors provide a wide range of pitch options, mating configurations and circuit sizes with secure reliability than hand-soldering



Features and Benefits

One-piece direct solder-to-board assembly
Provides space and cost saving compared to the two-piece connection system. Easy to assemble

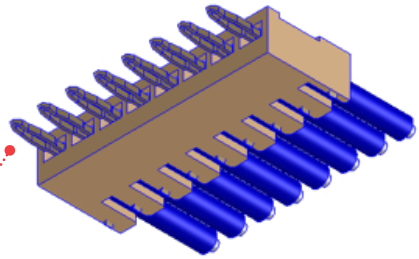
Accepts standard through-hole soldering methods
More reliable solder fillet compared to uneven and labor-intensive hand soldering

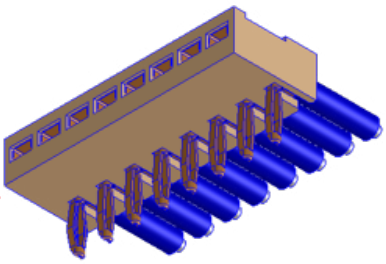


Wide variety of pitch, configuration and circuit sizes
Design flexibility

Board-in connectors in various pitch sizes and configurations

Terminal and housing locking features
Ensures secure terminal retention force





Right-angle and vertical housing options
Protects terminal and functions as wire alignment and retention device. Provides strain relief after soldering

Applications

Automotive
- Infotainment

Medical
- Patient monitoring

Home Appliance
- HVAC
- Refrigerator

Industrial
- Factory machines

Lighting
- Down Lights

Other
- Power tools

Automotive Lighting

Factory Machines

Patient Monitoring

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Specifications - 1.25mm Vertical (51022)

REFERENCE INFORMATION
Packaging:
Terminal: Reel
Housing: Bag
Designed In: Millimeters
RoHS: Yes
Halogen Free: No

ELECTRICAL
Voltage (max.): 125V
Current (max.): 1.0A
Contact Resistance (max.): 5 milliohms
Dielectric Withstanding Voltage: 250V AC (rms)
Insulation Resistance (min.): 100 Megaohm
Wire Size: AWG 26 to 32

PHYSICAL
Housing: Polyamide (Natural)
Terminal: Phosphor Bronze

PLATING
Contact Area — Tin
Operating Temperature: -40 to +85°C

Specifications - 2.00mm Vertical (51015)

REFERENCE INFORMATION
Packaging:
Terminal: Reel
Housing: Bag
Designed In: Millimeters
RoHS: Yes
Halogen Free: No

ELECTRICAL
Voltage (max.): 125V
Current (max.): 2.0A
Contact Resistance (max.): 5 milliohms
Dielectric Withstanding Voltage: 500V AC (rms)
Insulation Resistance (min.): 1000 Megaohm
Wire Size: AWG 26 to 30

PHYSICAL
Housing: Polyamide (Natural)
Terminal: Phosphor Bronze

PLATING
Contact Area — Tin
Operating Temperature: -40 to +105°C

Specifications - 2.00mm Right-Angle/Vertical (35023)

REFERENCE INFORMATION
Packaging:
Terminal: Reel
Housing: Bag
Designed In: Millimeters
RoHS: Yes
Halogen Free: Low Halogen

ELECTRICAL
Voltage (max.): 125V
Current (max.): 2.5A
Contact Resistance (max.): 5 milliohms
Dielectric Withstanding Voltage: 1000V AC (rms)
Insulation Resistance (min.): 1000 Megaohm
Wire Size: AWG 24 to 30

PHYSICAL
Housing: Polyamide (Ivory)
Terminal: Phosphor Bronze, Brass

PLATING
Contact Area — Tin
Operating Temperature: -40 to +105°C

Specifications - 2.50mm Vertical (51035)

REFERENCE INFORMATION
Packaging:
Terminal: Reel
Housing: Bag
Designed In: Millimeters
RoHS: Yes
Halogen Free: Low Halogen

ELECTRICAL
Voltage (max.): 250V
Current (max.): 4.0A
Contact Resistance (max.): 5 milliohms
Dielectric Withstanding Voltage: 1000V AC (rms)
Insulation Resistance (min.): 1000 Megaohm
Wire Size: AWG 20 to 24

PHYSICAL
Housing: Polyamide (Natural)
Terminal: Phosphor Bronze

PLATING
Contact Area — Tin
Operating Temperature: -40 to +105°C

Specifications - 2.50mm Right-Angle/Vertical (35022)

REFERENCE INFORMATION
Packaging:
Terminal: Reel
Housing: Bag
Designed In: Millimeters
RoHS: Yes
Halogen Free: Low Halogen

ELECTRICAL
Voltage (max.): 125V
Current (max.): 3.0A
Contact Resistance (max.): 5 milliohms
Dielectric Withstanding Voltage: 1000V AC (rms)
Insulation Resistance (min.): 1000 Megaohm
Wire Size: AWG 22 to 28

PHYSICAL
Housing: Polyamide (Ivory)
Terminal: Phosphor Bronze, Brass

PLATING
Contact Area — Tin
Operating Temperature: -40 to +105°C

Board-in Connectors

Vertical and Right Angle,
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Specifications - 4.00mm Vertical (51036)

REFERENCE INFORMATION
Packaging:
Terminal: Reel
Housing: Bag
Designed In: Millimeters
RoHS: Yes
Halogen Free: No

ELECTRICAL
Voltage (max.): 250V
Current (max.): 5.0A
Contact Resistance (max.): 5 milliohms
Dielectric Withstanding Voltage: 1000V AC (rms)
Insulation Resistance (min.): 1000 Megaohm
Wire Size: AWG 18 to 22

PHYSICAL
Housing: Polyamide (Natural)
Terminal: Phosphor Bronze

PLATING
Contact Area — Tin
Operating Temperature: -40 to +105°C

Ordering Information

1.25mm Pitch (Replace xx with circuit size)

Order No.	Type	Comments
51022-xx00	Housing (Vertical)	2 to 6 circuit sizes
50061-8000	Terminal (Vertical)	AWG# 28 to 32
50080-8000		AWG# 26 to 28

2.00mm Pitch (Replace xx with circuit size)

Order No.	Type	Comments
51015-xx00	Housing (Vertical)	2 to 15 circuit sizes
50034-8000	Terminal (Vertical)	AWG# 26 to 30
35023-00xx	Housing (Right-Angle/Vertical)	2 to 16 circuit sizes
35021-1201/1301/1360	Terminal (Right-Angle)	AWG# 24 to 30
35044-9102/9260	Terminal (Vertical)	AWG# 24 to 28

2.50mm Pitch (Replace xx with circuit size)

Order No.	Type	Comments
51035-xx00	Housing (Vertical)	2 to 16, 18 circuit sizes
50097-8000	Terminal (Vertical)	AWG# 20 to 24
35022-00xx	Housing (Right-Angle/Vertical)	2 to 15 circuit sizes
35021-1001/1160	Terminal (Right-Angle)	AWG# 22 to 28
35044-9104/9105	Terminal (Vertical)	AWG# 22 to 28

4.00mm Pitch Vertical (Replace xx with circuit size)

Order No.	Type	Comments
51036-xx00	Housing (Vertical)	2 to 12 circuit sizes
50098-8000	Terminal (Vertical)	AWG# 18 to 22

www.molex.com/link/boardin.html

Order No. 987651-3351 Rev. 3 APN/0k/GF/2018.04