



THE DATASHEET OF
1721601806



EdgeMate™ Wire-to-Edge-Card Power Connectors, 3.96mm Pitch, with Positive Lock

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Available in glow-wire-compatible versions, EdgeMate™ power connectors eliminate the need for mating headers, offering significant cost savings in appliance, industrial and lighting applications

Features and Benefits

Mates directly to the PCB edge card without a mating header

Reduced inventory, bill-of-material and manufacturing costs without having to invest in headers

Glow-wire compatible versions (meeting IEC 60355-1 safety standards)

Ensures safety and protection of end-users in the event of glow-wire overload

Positive-lock design (applicable to non glow-wire-compatible versions only)

Offers strong PCB-to-connector retention

Polarized housing

Ensures correct orientation with the PCB

Bifurcated (dual contact-point) terminals support up to 7.0A current

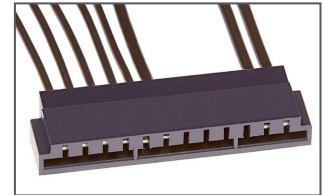
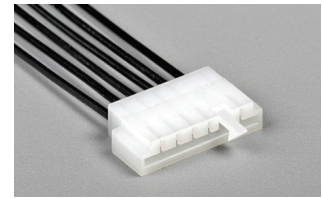
Allows secondary current paths for long-term electrical performance and reliability

Polarized crimp terminal

Ensures correct terminal orientation and insertion

Connectors without locking features (option)

Give pricing flexibility to suit customer needs



EdgeMate™ Wire-to-Edge Card Power Interconnects, with and without locking feature

Applications

Consumer/Home Appliances

- Fitness
- Home Appliances
- Home Entertainment
- HVAC

Industrial

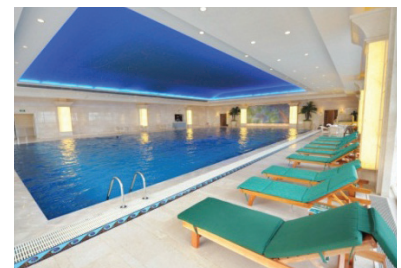
- Power (Power Supplies, UPS)
- Wire-to-Device

Solid State Lighting

- Indoor and Outdoor Illumination



Consumer Vehicles and Home Entertainment Systems



Indoor and Outdoor Lighting



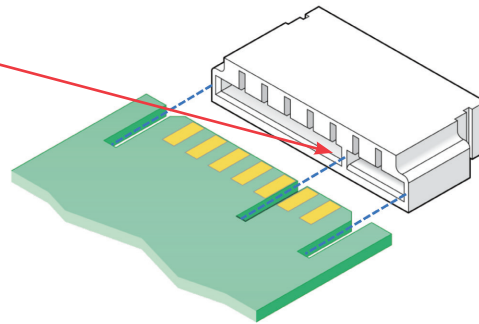
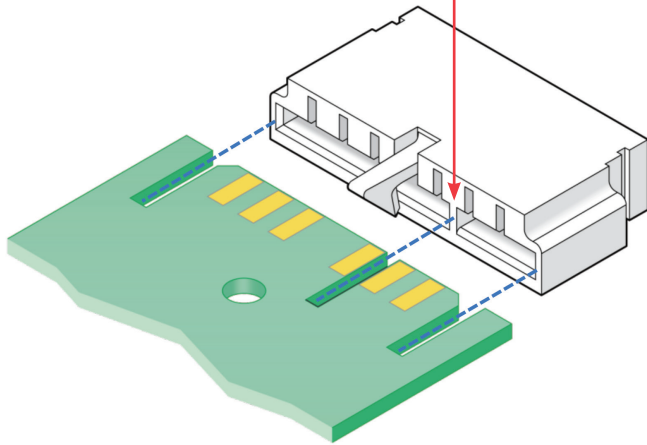
HVAC

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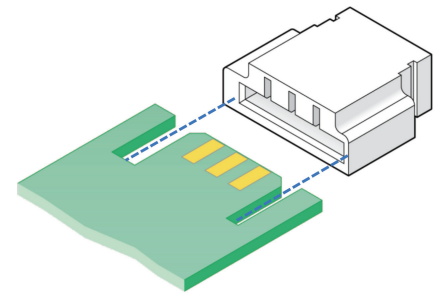
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Product Features

Polarization rib on connector housing provide fool-proof mating to PCB whether in locking or non-locking versions



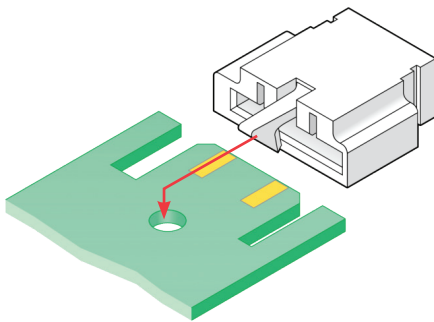
Inner-rib polarization feature of a non-locking housing



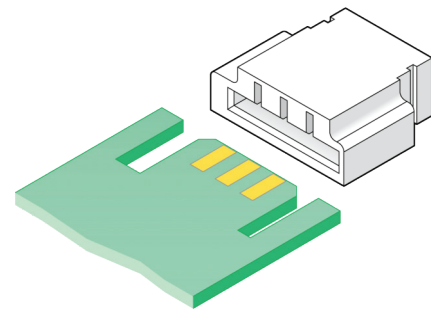
Polarization ribs on the connector housing ensure correct mating to PCB circuitry

Thick-wall polarization feature of a non-locking housing

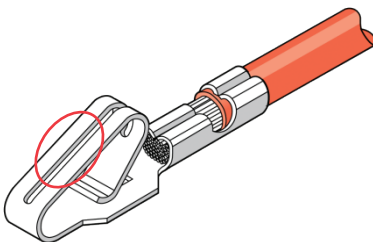
Additional Product Features



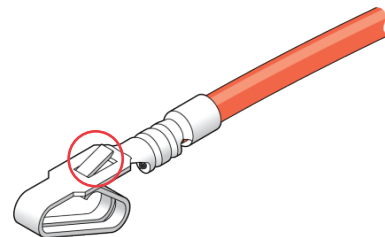
A PCB with hole is used with locking connector version



A PCB without hole is used with a non-locking version connector



The bifurcated crimp terminal offers 2 points of contact (or secondary paths) for long-term electrical reliability



Reverse side of crimped terminal showing locking tang feature which prevents accidental terminal back-out once inserted into the housing cavity

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Specifications

Reference Information

Packaging:
 Bag for Housing;
 Reel for Terminals
 Mates With: Edge Card PCB (circuit size determined by customer)
 Terminal Used: Series 172160
 Designed In: Millimeters
 RoHS: Yes
 Halogen Free: Yes
 Glow Wire Compliant:
 Refer table below

Electrical

Voltage (max.): 600V AC/DC
 Current (max.):
 7.0A (Phosphor Bronze)
 5.0A (Brass)
 Contact Resistance (max.):
 10 milliohms
 Dielectric Withstanding Voltage: 1000V
 Insulation Resistance (min.):
 1000 Megohms

Mechanical

Contact Insertion Force (max.): 17.8N
 Contact Retention to Housing (min.): 35.6N
 Durability (min.): 25 cycles

Physical

Housing:
 Nylon 6/6 and Glow-wire UL94-V2
 Plating:
 Contact Area — Refer Table
 Underplating — Nickel (Ni)
 PCB Thickness: 1.57mm
 Operating Temperature:
 Brass Terminals -40° to +80°C
 Phosphor Bronze Terminals
 -40° to +105°C

* Including terminal temperature rise when applying electrical current.

Ordering Information

Crimp Terminals

Part No.	Wire Range	Base Material	Finish
172160-1802	18-20 AWG	Phosphor Bronze	Select Gold (Au)
172160-1803			Tin (Sn)
172160-1805		Brass	Select Gold (Au)
172160-1806			Tin (Sn)

Housing with Positive Lock

Part No.	Circuits	Part No.	Circuits
172159-0502	2	172159-0608	8
172159-0503	3	172159-0609	9
172159-0604	4	172159-0610	10
172159-0605	5	172159-0611	11
172159-0606	6	172159-0612	12
172159-0607	7	-	-

Housing without Lock

Part No.	Circuits	Part No.	Circuits
172159-0003	3	172159-0208	8
172159-0004	4	172159-0209	9
172159-0205	5	172159-0210	10
172159-0206	6	172159-0211	11
172159-0207	7	172159-0212	12

Housing without Lock (Glow-wire compatible versions)

Part No.	Circuits	Part No.	Circuits
172879-0003	3	172879-0208	8
172879-0004	4	172879-0209	9
172879-0205	5	172879-0210	10
172879-0206	6	172879-0211	11
172879-0207	7	172879-0212	12

www.molex.com/link/edgemate.html

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