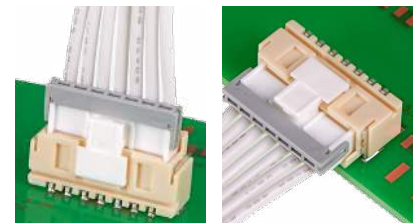
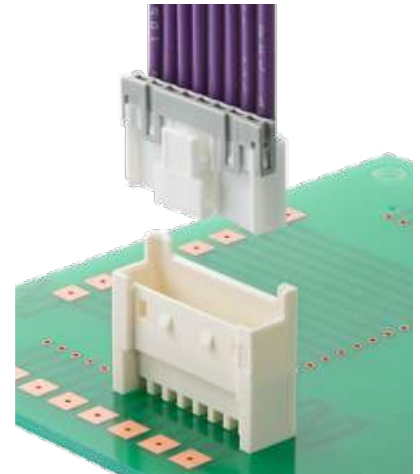


Mini-Lock Wire-to-Board Connector System >

The versatile and proven 2.50mm pitch Mini-Lock Wire-to-Board/Wire-to-Wire Connector system extends design options to include vertical and right-angle SMT headers, with terminal position assurance (TPA) retainer and Glow-Wire through-hole vertical header options

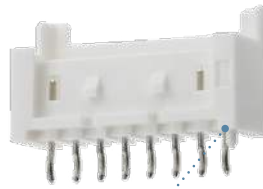
FEATURES AND ADVANTAGES



Terminal Position Assurance (TPA)

Ensures that wires are fully inserted

Receptacle Housing: 51163 TPA: 51164

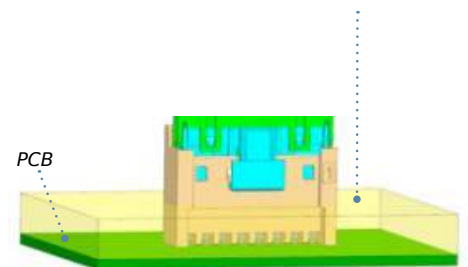


Locating Peg (Boss)

Mitigates the misalignment by assisting in right mount orientation

Potting treatment (Height 2.00 to 6.00mm)

Protects the components on PCB from dust and water



Header for Potting: 53517xx30



Kinked Pins

Provide secure header retention on the PCB before soldering

Terminal Position Assurance feature

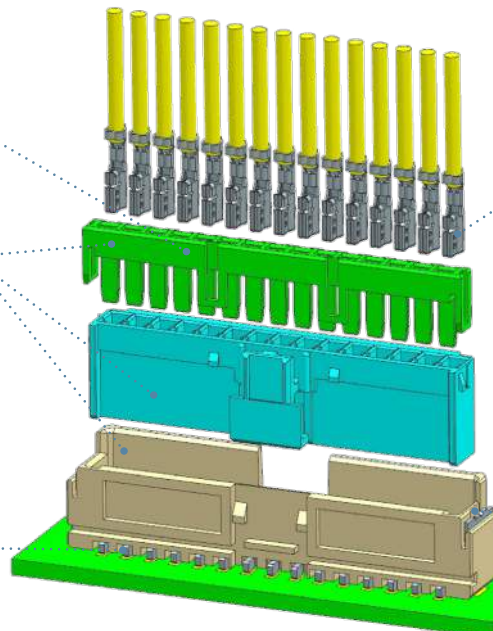
Seats the crimp terminal fully in the receptacle housing to reduce terminal backout

Glow Wire compliance

Meets global safety and environmental requirements

SMT Header Terminals

Allow quick, automated mounting assembly on the PCB when used as a vertical header



Series 215931 SMT Vertical Header
2 to 15 circuits

Use of Popular Crimp Terminals

Enables easy access to crimp applicators that are readily available in the market



SMT Solder Tabs

Enable robust retention on the PCB when mounted as a right-angle header (in which case a different series number, 215932 is assigned)

Mini-Lock Wire-to-Board Connector System >

APPLICATIONS

Home Appliance

Refrigerators
Washers and dryers
Air conditioners

Industrial

Automation equipment
Vending machines

Consumer

Fitness equipment
Gaming machines
Security systems

Automotive

Interior/exterior lightings
Audio equipment
Navigation systems



Washers and dryers



Refrigerators



Vending Machines

SPECIFICATIONS

REFERENCE INFORMATION

Packaging: Refer to Packaging Specifications
UL File No.: E29179
CSA File No.: LR19980
Designed In: Millimeters
RoHS: Yes
Halogen Free: No
Glow Wire Compliant: Yes

ELECTRICAL

Voltage (max.): 250V
Current (max.):
Refer to Current Derating Reference Information
Contact Resistance (max.): 20 milliohms
Dielectric Withstanding Voltage: 1000V AC/min
Insulation Resistance (min.): 1000 Megohms

MECHANICAL

Contact Insertion Force (max.): 9.8N
Contact Retention to Housing (min.): 14.7N
Mating Force (max.): 58.8N (8 circuit)
Unmating Force (min.): 7.9N (8 circuit)
Durability (max.): 30 cycles

PHYSICAL

Housing:
PBTP UL94V-O (51163, 51164, 53375, 53426)
PA66 UL94V-O (53517)
PA9T UL94V-O (215931, 215932)
Contact: Phosphor Bronze
Plating: Pre-Tin
Contact Area (min.)- 0.9 micrometer
Header Pin: Phosphor Bronze
Plating: Pre-Tin
Contact Area (min.) - 1.0 micrometer
Operating Temperature: -40 to+ 105°C

Mini-Lock Wire-to-Board Connector System >

CURRENT DERATING REFERENCE INFORMATION

| AWG | 2-circuits | 7-circuits | 15-circuits |
|-----|------------|------------|-------------|
| | Amps (A) | Amps (A) | Amps (A) |
| 20 | 5.0 | 3.5 | 3.5 |
| 22 | 4.5 | 3.0 | 3.0 |
| 24 | 4.0 | 2.5 | 2.5 |
| 26 | 3.5 | 2.5 | 2.0 |

(1) Values are for REFERENCE ONLY.

(2) Current derating values are based on temperatures not exceeding 30°C.

(3) PCB trace design can greatly affect temperature rise results in wire-to-board applications.

(4) Data is for all powered circuits.

(5) All data are interpolated information.

ORDERING INFORMATION

| Series No. | Components | AWG or Circuits | Glow Wire Compliant |
|---------------------------|---|-----------------|--------------------------|
| 50752 | Crimp Terminal | 20 to 26 AWG | - |
| 51163 | Receptacle Housing | 2 to 15 | Yes |
| 51164 | TPA Retainer | | Yes |
| 53517 | Vertical Header for Potting, H=17.5mm,Through Hole | | Yes |
| 53375 | Vertical Header, H=11.5mm, Through Hole | | No |
| 53476 | Vertical Header, H=11.5mm, Through Hole | | Yes |
| 53426xx10 | Right Angle Header, Through Hole | | No |
| 534269xx0 | Right Angle Header, Through Hole | | Yes |
| 215931 | Vertical Header, SMT | | Qualification in process |
| 215932 | Right Angle Header, SMT | | Qualification in process |

www.molex.com/link/minilock.html