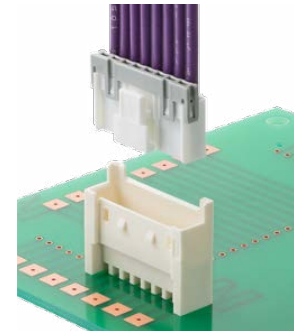


Mini-Lock Wire-to-Board Connector System >

The 2.50mm-pitch Mini-Lock Wire-to-Board/Wire-to-Wire Connector System offers design versatility with vertical and right-angle SMT headers, and terminal position assurance (TPA) while also providing Glow Wire options for safety and protection in the home appliance market.



FEATURES AND ADVANTAGES

Ensures that wires are fully inserted

Terminal position assurance (TPA)

Can be supplied to global home appliance makers who require glow wire material

Glow Wire capable

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

TPA feature

Meets global safety and environmental requirements

Glow Wire capable

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

SMT Header Terminal

Mitigates the misalignment by assisting in right mount orientation

Locating Peg (Boss)

Provides secure header retention on the PCB before soldering

Kinked pin

Protects the components on PCB from dust and water

Potting treatment
(Height 2.00 to 6.00mm)

Voltage	250V
Pitch	2.50mm
Glow Wire Capable	Yes
Operating Temperature	-40 to +105°C

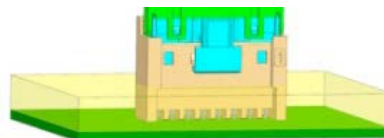
Enables robust retention on the PCB when mounted as a right-angle header (in which case a different series number, 215932 is assigned)
SMT solder tab

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

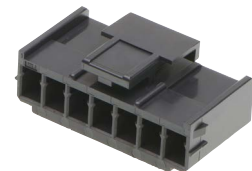
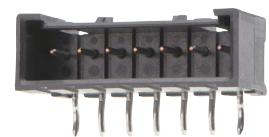
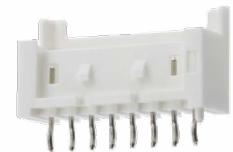
Use of popular crimp terminals



Receptacle Housing: 51163 TPA: 51164



Header for Potting: 53517xx30



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 Capable: 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-0 (51163, 51164, 53375, 53426)
PA66 UL94V-0 (53517, 53426 GW, 51163 GW)
PA9T UL94V-0 (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 Capable
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		Yes
534269xx0	Right-Angle Header, Through Hole		Yes
534269xx1	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