

Swing TPA Connectors

For appliance customers seeking connector optimization, Swing TPA Connectors offer a genderless connector system with only two bill of materials (BOM) items. The design also integrates terminal position assurance (TPA) to simplify connector selection and streamline the BOM. Significantly reducing connector mating time, these connectors reduce production costs while prioritizing operator safety and efficiency through their compact, space-saving design.



ADVANTAGES AND FEATURES

Saves cost

Genderless connectors and integrated TPA eliminate the need for a separate purchase and additional inventory, reducing the cost.

Streamlines the BOM with fewer items

Instead of purchasing two connectors, customers can buy a single connector with a double-crimp wire option (20+20 AWG).

Improves operational efficiency

The genderless housing and terminal system requires only two parts, simplifying assembly and avoiding connector mishaps.

Offers exceptional connector reliability for high performance

The TPA feature ensures terminals are fully seated to help prevent connector disengagement.

Current	8.5A
Voltage	600V
Pitch	3.96mm
Circuits	4 to 12
Row	Dual
Lock	Outer positive lock
AWG	18-24, 20+20 double crimp
Operating Temperatures	-55 to +130°C

Provides robust and durable performance

Operational temperatures range from -55 to +130°C, allowing for exceptional performance in harsh environments.

Promotes environmental reliability

These connectors comply with low-halogen and UL/cUL requirements.

Helps prevent mis-mating

Colored housings have key polarization options for accurate connector mating.

Enhances mating accuracy

Blind mating is possible using four to 12 poles of even circuit sizes, multiple color options and a wide range of circuit sizes, easing mating difficulties in areas where operators cannot see.















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MARKETS AND APPLICATIONS

Appliances

Air-conditioning systems Stoves/ovens Dishwashers Dryers Refrigerators Washing machines







Dishwashers

Refrigerators

Washing Machines and Dryers

SPECIFICATIONS

Reference Information

Packaging:

Housing—Poly bag

Terminal—Reel

UL File No.: E29179

RoHS Capable: Yes

Low Halogen: Yes

Glow Wire Capable: No

Electrical

Voltage (max.): 600V

Current (max.): 8.5A

Contact Resistance (max.): 20 milliohms

Dielectric Withstanding Voltage: 2,200V

Insulation Resistance: 1,000 Megohms

Mechanical

Pitch: 3.96mm

Connector Insertion Force (max.): 53.38N (12 circuit)
Connector Withdrawal Force (min.): 12.81N (12 circuit)

Durability (max.): 30 cycles

Physical

Circuits: 4 to 12

Rows: Dual

Lock: Outer positive lock

Wire Gauge: 18-24, 20+20 double crimp

Housing: Nylon—natural, red and blue

Contact: Copper (before tin plating)

Plating: Tin

Operating Temperatures: -55 to +130°C