Pico-Lock 1.00 and 1.50mm Pitch Wire-to-Board Connector System

Available in both 1.00 and 1.50mm pitch, Pico-Lock Wire-to-Board Connector System is ideal for applications requiring ultra-low profile, high-current and secure locking

Features and Advantages

Beveled header in pin design
- Provides smooth mating and pin-and-contact protection

Ultra-low-profile mated height
- Provides space savings

Top friction locks
- Provide additional mating retention and visual mating assurance

Side positive locks
- Ensure secure mating retention with additional space savings compared to top-style locks

Markets and Applications

Automotive
- Infotainment
- Interior electronics
- Heads-up display
- Control units

Consumer
- LED/LCD TVs
- Notebook PCs
- Tablets
- Gaming equipment
- LED lightings

Industrial
- Smart meters
- Factory automation
- Power supplies
- Security/Surveillance devices
- Transformers

Telecommunications/Networking
- Wireless modems
### Specifications

**REFERENCE INFORMATION**

- **Packaging:**
  - Header (Embossed tape)
  - Housing (Bag)
  - Terminal (Reel)
- **Designed In:** millimeters
- **RoHS:** Yes
- **Halogen Free:** Low-halogen

**MECHANICAL**

- **Housing (Positive Lock) Strength:**
  - 1.00mm Pitch (min.): 5N (0.50kgf)
  - 1.50mm Pitch (min.): 10N (1.02kgf)
- **Crimp Terminal Retention Force (min.):**
  - 1.50mm: 6.7N
  - 1.00mm: 4N
- **Durability (min.):** 30 cycles

**ELECTRICAL**

- **Voltage (max.):** 150V
- **Current (max.):** 3.5A per circuit
- **Contact Resistance (max.):** 20 milliohms
- **Dielectric Withstanding Voltage:** 500V AC (rms) for 1 minute
- **Insulation Resistance (min.):** 1000 Megohms

**PHYSICAL**

- **Housing/Header:** Polyamide (PA), UL 94V-0, Black
- **Contact:** Copper Alloy (Cu)
- **Plating:**
  - Contact Area — Gold (Au)
  - Solder Tail Area — Gold (Au)
  - Underplating — Nickel (Ni)
- **Operating Temperature:** -40 to +105°C

**Ordering Information (1.00mm pitch)**

<table>
<thead>
<tr>
<th>Circuit Size</th>
<th>Applicable Wire Gauge</th>
<th>Housing</th>
<th>PCB Header</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>28 to 30 (Terminal 503765-0098)</td>
<td>503764-0201</td>
<td>503763-0291</td>
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<tr>
<td>3 (New)</td>
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<td>503764-0301</td>
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<tr>
<td>4</td>
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<tr>
<td>5 (New)</td>
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<tr>
<td>6 (New)</td>
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<td>503763-0691</td>
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**Ordering Information (1.50mm pitch)**

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<td>504051-0201</td>
<td>504050-0291</td>
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<tr>
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<td>30 to 32 (Terminal 504052-0098)</td>
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<td>11 (New)</td>
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<td>12</td>
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</tbody>
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*Derating table (For electrical specifications)

**1.50mm Pitch Pico-Lock rated current (max.)**

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<tr>
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<td>3.5</td>
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<tr>
<td>4-Circuit</td>
<td>3</td>
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<td>6-Circuit</td>
<td>2.5</td>
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<tr>
<td>6-Circuit</td>
<td>1.5</td>
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</tbody>
</table>

**Notes:**

1) Values are for reference only.
2) Current deratings are based on not exceeding 30°C temperature.
3) Temperature rise is measured in barrel area of crimp terminal.
4) PCB trace design can greatly affect temperature rise results.
5) Data is for all circuits powered.

www.molex.com/link/picolock.html

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