Fatures

1. Ultra Miniature/Low Profile SMT Design
With dimensions of 3.9mm(H) x 6.4mm (W) x 6mm (D) for the 3 contact type, this series is ideal for today’s miniature, lightweight electronic products.

2. Automatic Mounting:
SMT receptacles are packaged in embossed tape and reel for automatic pick and place installation.

3. Reliable contact:
The 2-point contact design and lead construction provide a contact which is resistant to vibration and shocks.

4. High current capacity:
Unique contact design ensures high current capacity (e.g., 3A for 3-position), small as it is.

5. Positive Locking
Use of a snap-lock system provides the sensation of locking at the time of insertion.

6. Wide variety of suitable cables:
A wide selection of cable types can be utilized since the plug is of the soldered wiring type.
Additionally, the plug case and cord bushing are integrated into a one piece body, allowing for easy assembly by simply pressing the case into place after the harness work.

6. Keys for preventing incorrect insertion:
Both 3 and 4-contact types have keys to prevent incorrect insertion.

Applications
Portable remote terminals, portable telephones, PHS(personal handy phone system), Notebook PCs, Electronic measuring instruments, etc.
**Product Specifications**

<table>
<thead>
<tr>
<th>DESCRIPTION</th>
<th>SPECIFICATIONS</th>
<th>REQUIREMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Insulation resistance</td>
<td>1000MΩ or more</td>
<td>Should be measured at DC 100V.</td>
</tr>
<tr>
<td>2. Voltage resistance</td>
<td>No flashover/dielectric Breakdown</td>
<td>Should be powered at AC 250V for 1 minute.</td>
</tr>
<tr>
<td>3. Contact resistance</td>
<td>30mΩ or less</td>
<td>Measured at 10mA.</td>
</tr>
<tr>
<td>4. Vibration resistance</td>
<td>No instantaneous electric Disconnection of 1μsec or more</td>
<td>10~55Hz, one-sided amplitude 0.75mm, 3 directions for 2 hours, respectively</td>
</tr>
<tr>
<td>5. Humidity resistance</td>
<td>Contact resistance: 50mΩ or less Insulation resistance: 10MΩ or more</td>
<td>Leave under the condition of 40±2°C in temperature and of 90-95% in humidity for 96 hours.</td>
</tr>
<tr>
<td>6. Temperature cycle</td>
<td>Contact resistance: 50mΩ or less Insulation resistance: 1000MΩ or more</td>
<td>(-55°C: 30 minutes →15-35°C:max. 5 minutes →85°C: 30 minutes → 15-35°C:max. 5 minutes) 5 cycles</td>
</tr>
<tr>
<td>7. Plugging/unplugging life</td>
<td>Contact resistance: 50mΩ or less</td>
<td>5,000 times</td>
</tr>
</tbody>
</table>

(Note.1) For 4-contact type, rated current is 2A, or 3A for optional 2 terminals and 0.5A for other 2 terminals.

(Note.2) Above-stated specifications are typical of this series. For respective formal contract, please refer to "Delivery Specifications".

**Material Quality**

<table>
<thead>
<tr>
<th>Parts</th>
<th>Material</th>
<th>Processing</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dielectric</td>
<td>Synthetic resin</td>
<td>Black color</td>
<td>UL94V-0</td>
</tr>
<tr>
<td>Terminal</td>
<td>Phosphor bronze</td>
<td>Engagement area...Gold plating of 0.2μm Lead section...Solder-plating</td>
<td></td>
</tr>
<tr>
<td>Cover case(plug)</td>
<td>Synthetic resin</td>
<td>Black color</td>
<td>UL94V-0</td>
</tr>
<tr>
<td>Metal fittings(receptacle)</td>
<td>Stainless steel</td>
<td>Black color</td>
<td></td>
</tr>
<tr>
<td>Lock case(plug)</td>
<td>Stainless steel</td>
<td>Black color</td>
<td></td>
</tr>
</tbody>
</table>

**Ordering information**

**RECEPTACLE**

MQ172 X - 4 P A (66)

1. Series name: MQ172
2. Series configuration symbol: none...unshielded type X ...shielded type
3. Number of contacts: 3, 4
4. Connector type: P...receptacle S...plug
5. Key type symbol: A (only for A type)
6. Packing type: (55)...tray-based packing (66)...embossed tape packing
7. Cover case type: CV...standard product (color: black)
8. RoHS compliant : (50)
MQ172 Series●Micro-Miniature Interface Connectors For Power Supply / Signaling

■Plugs
●3-Position type

![Image of 3-Position type plug]

<table>
<thead>
<tr>
<th>Parts No.</th>
<th>HRS No.</th>
<th>RoHS</th>
</tr>
</thead>
<tbody>
<tr>
<td>MQ172-3SA-CV(50)</td>
<td>CL206-0951-7-50</td>
<td>YES</td>
</tr>
</tbody>
</table>

●4-Position type

![Image of 4-Position type plug]

<table>
<thead>
<tr>
<th>Parts No.</th>
<th>HRS No.</th>
<th>RoHS</th>
</tr>
</thead>
<tbody>
<tr>
<td>MQ172X-4SA-CV(50)</td>
<td>CL206-2001-9-50</td>
<td>YES</td>
</tr>
</tbody>
</table>

(Note.) As the crimp height after crimping depends on cable type, please consult factory about your designated cable.

■Harness Tool

<table>
<thead>
<tr>
<th>Tool name</th>
<th>Parts No.</th>
<th>HRS No.</th>
<th>Parts name of adaptive plugs</th>
<th>Adaptive cable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cable caulking jig</td>
<td>MQ172-3S/CK-MP</td>
<td>CL902-2069-4</td>
<td>MQ172-3SA-CV(50)</td>
<td>Outside diameter:Ø3.5</td>
</tr>
<tr>
<td></td>
<td>MQ172-4S/CK-MP</td>
<td>CL902-2070-3</td>
<td>MQ172X-4SA-CV(50)</td>
<td>AWG#24-#32</td>
</tr>
</tbody>
</table>

Jul.1.2020 Copyright 2020 HIROSE ELECTRIC CO., LTD. All Rights Reserved.
Receptacles

● 3-Position type

Illustration Of Receptacle
Set Installed

(Note.) For MQ172, mounting to circuit boards is SMT type. For the purpose of more adequate fixing against external force, it is desirable to affix the entire set after setting as shown in the figure above.

4-Position type

Parts No. HRS No. RoHS
MQ172-3PA-(***) CL206-0950-4(***) YES

(55) : tray-based packing
(66) : embossed tape packing
(1 reel = 1,000 pcs.)

Parts No. HRS No. RoHS
MQ172X-4PA-(***) CL206-2000-6(***) YES

(55) : tray-based packing
(66) : embossed tape packing
(1 reel = 1,000 pcs.)
Recomendated Land Pattern Dimensions Diagram

- **3-Position type**

- **4-Position type**

Note.) Mounting of this product to circuit boards is the SMT type.
To provide more adequate fixing, use of adhesive for board-installed area is recommended.
Embossed Tape Carrier Dimensions Diagram (JIS-C-0806 dependent)

Carrier Dimensions Diagram

(Note.) The figure above provides the case of a 3 contact type, dimensions shown in such figure are the same as those of a 4 contact type.

Reel Status Diagram
MQ172 Series - Micro-Miniature Interface Connectors For Power Supply / Signaling

**Recommended Temperature Profile**

(soldering requirements)

- **Board**
  - Dimensions: 50X33X0.8(mm)
  - Material: glass epoxy

- **Cream soldering**
  - Composition: Sn 96.5 / Ag 3.0 / Cu 0.5
  - Metal mask thickness: 0.15mm

- **Reflow method**
  - IR reflow

- **Measurement spot of setting temperature**
  - Housing (mold) surface