Low Profile Connectors for AC power supply

RP34L Series

Features

1. **Low profile**
   Receptacles are designed with their installation heights to be shorter than those of conventional RP34 series.

2. **Space saving**
   Both 2 and 3 position receptacles are miniaturized to 7mm length, resulting in a small board mounting area.

3. **Snap-lock mechanism**
   Audible click when connector is fully mated.

4. **Precise mated connection**
   Secure hold of the plug on au 3 axis.

5. **Sequence mating**
   The 3 contact type has sequenced mating. One pin makes contact as a ground terminal before the other contacts.

6. **No Mismating**
   Two polarized keys prevent any insertion error.

7. **Ease of Mating**
   An arrow on the top of the plug shows the proper direction for insertion.

Applications

Notebook PCs, portable remote terminals, AV equipment, etc.

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Receptacle installed height

Mated dimensions

This 2 contact plug is an over-molded (i.e., cable-integrated form) type. Recommended cable diameter is 3.5mm dia.

Mated dimensions

This 3-contact plug is a field assembly type. Recommended cable diameter is 4mm dia.

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# Product Specifications

<table>
<thead>
<tr>
<th>Item</th>
<th>Specification</th>
<th>Conditions</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Contact resistance</td>
<td>30mΩ or max.</td>
<td>1A DC</td>
</tr>
<tr>
<td>2. Insulation resistance</td>
<td>1000mΩ min.</td>
<td>100V DC</td>
</tr>
<tr>
<td>3. Withstanding voltage</td>
<td>No flashover or insulation breakdown</td>
<td>150V AC/1 minute</td>
</tr>
<tr>
<td>4. Vibration</td>
<td>No electric disconnection of 10µs or more</td>
<td>10~55Hz, one-sided amplitude 0.75mm, 3 directions for 2hours, respectively</td>
</tr>
<tr>
<td>5. Temperature cycle</td>
<td>Insulation resistance: 100mΩ min.</td>
<td>-55°C for 30 min, -5°C~+85°C for 30 min, -5°C~+85°C for 30 min, -5°C~+85°C for 10~15 min. 5 cycles</td>
</tr>
<tr>
<td>6. Salt spray</td>
<td>No corrosions</td>
<td>5% salt water solution, 48 hours</td>
</tr>
<tr>
<td>7. Durability</td>
<td>Contact resistance: 60mΩ max.</td>
<td>5,000 mating / un-mating</td>
</tr>
</tbody>
</table>

## Material

<table>
<thead>
<tr>
<th>Component</th>
<th>Material</th>
<th>Finish / Color</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 pos.</td>
<td>Metal comp.</td>
<td>Phosphor bronze</td>
<td>Solder-plating</td>
</tr>
<tr>
<td></td>
<td>Insulator</td>
<td>Nylon</td>
<td>Black</td>
</tr>
<tr>
<td></td>
<td>Contacts</td>
<td>Brass</td>
<td>Palladium-plating</td>
</tr>
<tr>
<td></td>
<td>Cover</td>
<td>Vinyl chloride</td>
<td>Black</td>
</tr>
<tr>
<td></td>
<td>Insulator</td>
<td>Nylon</td>
<td>Black</td>
</tr>
<tr>
<td></td>
<td>Contacts</td>
<td>Phosphor bronze</td>
<td>________</td>
</tr>
<tr>
<td>3 pos.</td>
<td>Metal comp.</td>
<td>Phosphor bronze</td>
<td>Solder-plating</td>
</tr>
<tr>
<td></td>
<td>Insulator</td>
<td>PPS</td>
<td>Black</td>
</tr>
<tr>
<td></td>
<td>Contacts</td>
<td>Brass</td>
<td>Palladium-plating</td>
</tr>
<tr>
<td>3 pos.</td>
<td>Cover</td>
<td>Polycarbonate</td>
<td>Black</td>
</tr>
<tr>
<td></td>
<td>Insulator</td>
<td>PPS</td>
<td>Black</td>
</tr>
<tr>
<td></td>
<td>Contacts</td>
<td>Phosphor bronze</td>
<td>Palladium-plating</td>
</tr>
</tbody>
</table>

## Ordering Information

**RP34L - 5 PA - 2 SC (****)**

1. Series name: RP34L
2. Shell: Shell.size, 5
3. Type:
   - Receptacle: R
   - Assembled straight plug: P
   - Assembled right angle plug: LP
   - Cable ass’y, straight plug: PA
4. Number of contacts:
   - 2, 3
5. Type of contact:
   - PD: through hole male contact
   - SC: crimp female contact
6. Cable length: (****) depends on each cable (mm).

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Receptacles

2 pos.

RP34L-5R-2PD(71)

3.45±0.05

2.1±0.05

1.35±0.05

9.1

2.5

Recommended panel cutout

PCB mounting pattern

Connector front

Printed circuit board

Recommended panel cutout

PCB mounting pattern

Connector front

Printed circuit board

3 pos.

RP34L-5R-3PD(71)

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<table>
<thead>
<tr>
<th>Part Number</th>
<th>CL No.</th>
<th>RoHS</th>
</tr>
</thead>
<tbody>
<tr>
<td>RP34L-5R-2PD(71)</td>
<td>113-5154-6-71</td>
<td>YES</td>
</tr>
<tr>
<td>RP34L-5R-3PD(71)</td>
<td>113-5157-4-71</td>
<td>YES</td>
</tr>
</tbody>
</table>
Plugs

- **RP34L-5PA-2SC(1857)(71)**

- **RP34L-5PA-3SC(71)**

- **RP34L-5LP-3SC(71)**

<table>
<thead>
<tr>
<th>Part Number</th>
<th>CL No.</th>
<th>RoHS</th>
</tr>
</thead>
<tbody>
<tr>
<td>RP34L-5PA-2SC(1857)(71)</td>
<td>113-5153-3-71</td>
<td></td>
</tr>
<tr>
<td>RP34L-5PA-3SC(71)</td>
<td>113-5178-4-71</td>
<td>YES</td>
</tr>
<tr>
<td>RP34L-5LP-3SC(71)</td>
<td>113-5161-1-71</td>
<td></td>
</tr>
</tbody>
</table>
## Crimp contact

**RP34L-SC1-212(01)**

![Crimp contact](image)

### Applicable Tools

<table>
<thead>
<tr>
<th>Type</th>
<th>Part Number</th>
<th>CL No.</th>
<th>Applicable contact</th>
<th>Applicable conductor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manual crimping tool</td>
<td>HT-102/RP34L-SC1-212</td>
<td>901-0005-4</td>
<td>RP34L-SC1-112(01)</td>
<td>AWG#18~#22</td>
</tr>
<tr>
<td>Crimper</td>
<td>CM-105</td>
<td>901-0005-4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Crimper body</td>
<td>AP105-RP34L-SC1-212</td>
<td>901-2043-4</td>
<td>RP34L-SC1-212(01)</td>
<td>AWG#18~#22</td>
</tr>
<tr>
<td>Cable crimping tool</td>
<td>RP34-TC-01</td>
<td>150-0074-1</td>
<td></td>
<td>Ø4</td>
</tr>
<tr>
<td>Drawing tool</td>
<td>RP6-SC-TP</td>
<td>150-0039-0</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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Assembly Instructions (3-Position Plug)

**Straight Plug**

1. Slide the bushing over the cable.
2. Prepare the cable end and the conductors as shown.
3. Crimp the contacts to each conductor. Verify the crimp dimensions.
4. Insert each of the contacts into the insulator body. Verify that the contact is secure by slightly pulling on the conductor. Should the contacts require reinsertion, use the tool RP6-SC-TP to remove them (Inserted from the termination side).
5. Crimp the cable clamp over the cable at designated dimension (Tool number: RP34-TC-01).
6. Place the outer case on a flat surface, with inside facing up.
7. Carefully place the insulator body, clamp and the bushing into corresponding indents and cut-outs in the outer case. Verify correct location. (As shown on drawing)

**Note A:** When placing all components in the case, exercise caution as NOT to damage any of the protruding snap.

**Note B:** All components should fit easily, without use of any force.
8. Carefully align the other outer case over all components case. Do not force alignment.
9. Snap the case in place.

**Right Angle Plug**

1. The right angle plug can also be assembled by using the same procedure as the straight plug.
Precautions

1. Use the connector section with its panel held down so as not to have excessive load. For 2-contact type, hold the outer shell section of the receptacle, and for 3 contact type, the outer shell section of the plug.

2. After connector assembly, cable must not be pulled over 30N in the arrow-indicated direction. Be careful not to add excessive tensile load because it will lead the damage of connectors.
Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

Hirose Electric:
- RP34L-SC1-212(01)
- RP34L-5R-2PD(71)
- RP34L-5R-3PD(71)
- RP34L-5R-3PD(75)
- RP34L-5LP-3SC(71)
- RP34L-5LP-3PD-A(71)
- RP34L-5PA-3SC(71)
- RP34L-5PA-3SC(73)
- RP34L-SC1-112(01)
- RP34L-5PA-2SC(1857)(71)