XL CONNECTOR
Disconnected Crimp style Wire-to-wire connectors

Features

• **Reliable housing construction**
  Since all the contacts in this connector are individually and
totally surrounded by housing walls (egg-crate style), and since
the contact pitch is 5.0mm (.197"), the electrical creep distances
and dielectric spacings are great enough to meet most safety
requirements. In addition, the housings are sturdy enough to
prevent deformation and ensure smooth mating.

• **Easy contact insertion**
  Contacts can be inserted into the housing easily and smoothly.

• **Box-shaped contact**
  The box-shaped contact used successfully in the VH and NH
  connectors is used as a socket contact in the XL connectors.
  This contact covers a wide range of applications from low-
voltage, low-current signal circuits to power supply circuits.

• **Two kinds of connections**
  XL connectors can be used for wire-to-wire connection and for
  printed circuit board connection.

Specifications

• Current rating: 10A AC, DC max.
• Voltage rating: 300V AC, DC max.
• Temperature range: -25˚C to +90˚C
  (including temperature rise in applying
electrical current)
• Contact resistance: Initial value/7m Ω max.
  After environmental testing/10m Ω max.
• Insulation resistance: 1,000M Ω min.
• Withstanding voltage: 1,500V AC/minute
• Applicable wire: AWG #26 to #16
  0.13 to 1.25mm²
• Applicable panel thickness: 0.7 to 2.4mm (.028" to .094")
  * Contact JST if Lead-Free product is required.
  * Refer to “General Instruction and Notice when using
    Terminals and Connectors” at the end of this catalog.
  * Contact JST for details.

Note: The current rating varies depending on the number of
circuits and the wire size used in each connector.
The table below lists the current rating as a function of the
number of circuits and wire size.

<table>
<thead>
<tr>
<th>Current unit: A</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Circuits</th>
<th>#16</th>
<th>#18</th>
<th>#20</th>
<th>#22</th>
<th>#24</th>
<th>#26</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>10</td>
<td>6</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>4</td>
<td>9</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>8</td>
<td>6</td>
<td>4</td>
<td>3</td>
<td>3</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>12</td>
<td>6</td>
<td>4</td>
<td>3</td>
<td>3</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>16</td>
<td>5</td>
<td>3</td>
<td>2</td>
<td>2</td>
<td>1</td>
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</tr>
</tbody>
</table>

Standards

- Recognized E60389
- Certified LR20812
- R75150
**XL CONNECTOR**

**Contact**

- **Pin contact**
  - Note: 1. Contact JST for special products.
  - Contact JST for brass products.

<table>
<thead>
<tr>
<th>Model No.</th>
<th>Applicable wire</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pin contact</td>
<td>Socket contact</td>
</tr>
<tr>
<td>SYM-01T-P0.7</td>
<td>SXF-01T-P0.7</td>
</tr>
<tr>
<td>SYM-41T-P0.7</td>
<td>SXF-41T-P0.7</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- **Material and Finish**
  - Phosphor bronze, tin-plated

**Housing**

- **Material:** Nylon 66, UL94V-0, white

<table>
<thead>
<tr>
<th>Circuits</th>
<th>Voltage rating</th>
<th>Current rating</th>
<th>Receptacle housing (for pin contact)</th>
<th>Qty / bag</th>
<th>Plug housing (for socket contact)</th>
<th>Qty / bag</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>300V</td>
<td>10A</td>
<td>XLR-02V</td>
<td>500</td>
<td>XLP-02V</td>
<td>500</td>
</tr>
<tr>
<td>4</td>
<td>300V</td>
<td>9A</td>
<td>XLR-04V</td>
<td>500</td>
<td>XLP-04V</td>
<td>500</td>
</tr>
</tbody>
</table>
### Housing

**Material:** Nylon 66, UL94V-0, white

<table>
<thead>
<tr>
<th>Circuits</th>
<th>Voltage rating</th>
<th>Current rating</th>
<th>Receptacle housing (for pin contact)</th>
<th>Plug housing (for socket contact)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>XLR-08V</td>
<td>XLP-08V</td>
</tr>
<tr>
<td>8</td>
<td>300V</td>
<td>6A</td>
<td>XLR-08V</td>
<td>XLP-08V</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td><img src="image1" alt="Diagram" /></td>
<td><img src="image2" alt="Diagram" /></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Q'ty / bag</td>
<td>Q'ty / bag</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>500</td>
<td>500</td>
</tr>
<tr>
<td>12</td>
<td>300V</td>
<td>6A</td>
<td>XLR-12V</td>
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<td></td>
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<td><img src="image4" alt="Diagram" /></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Q'ty / bag</td>
<td>Q'ty / bag</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>200</td>
<td>500</td>
</tr>
<tr>
<td>16</td>
<td>300V</td>
<td>5A</td>
<td>XLR-16V</td>
<td>XLP-16V</td>
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<td><img src="image6" alt="Diagram" /></td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>Q'ty / bag</td>
<td>Q'ty / bag</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>100</td>
<td>200</td>
</tr>
</tbody>
</table>

**Note:**

1. XL connectors with any number of circuits can be used either panel mounted or free hanging. The panel hole dimensions are given on the next page.
2. Contact JST for special products.
## XL CONNECTOR

### Contact position location numbers

Contact position numbers are stamped

![Diagram showing receptacle and plug housing with contact position numbers]

<table>
<thead>
<tr>
<th>Receptacle housing</th>
<th>Plug housing</th>
</tr>
</thead>
<tbody>
<tr>
<td>![Receptacle housing image]</td>
<td>![Plug housing image]</td>
</tr>
</tbody>
</table>

- **Receptacle housing**
  - Numbers:
    - 2, 1
    - 8, 4
    - 7, 3
    - 6, 2
    - 5, 1
    - 12, 6
    - 11, 5
    - 10, 4
    - 9, 3
    - 8, 2
    - 7, 1
    - 16, 8
    - 15, 7
    - 14, 6
    - 13, 5
    - 12, 4
    - 11, 3
    - 10, 2
    - 9, 1

- **Plug housing**
  - Numbers:
    - 1, 2
    - 2, 4
    - 1, 3
    - 4, 8
    - 3, 7
    - 2, 6
    - 1, 5
    - 5, 11
    - 4, 10
    - 3, 9
    - 2, 8
    - 1, 7
    - 8, 12
    - 5, 16
    - 4, 15
    - 3, 14
    - 2, 13
    - 1, 12
    - 1, 11
    - 2, 10
    - 1, 9
Panel layout

Note:
1. Punch holes in the panel according to the sketch and table shown above. Burrs must be removed.
2. The strength of the panel must be considered when punching two or more holes.
3. The connector must be inserted from the same side as the hole is punched.

Assembly layout

Applicator for the semi-automatic press AP-K2N

<table>
<thead>
<tr>
<th>Contact</th>
<th>Crimp applicator MKS-L</th>
<th>Compact crimp applicator MKS-LS</th>
<th>Strip-crimp applicator MKS-SC</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>with safety cover</td>
<td>without safety cover</td>
<td>with safety cover</td>
</tr>
<tr>
<td>SXF-01T-P0.7</td>
<td>APLMK SXF01-07</td>
<td>APLNC SXF01-07</td>
<td>–</td>
</tr>
<tr>
<td>SXF-41T-P0.7</td>
<td>APLMK SXF41-07</td>
<td>APLNC SXF41-07</td>
<td>–</td>
</tr>
<tr>
<td>SYM-01T-P0.7</td>
<td>APLMK SYM01-07</td>
<td>APLNC SYM01-07</td>
<td>–</td>
</tr>
<tr>
<td>SYM-41T-P0.7</td>
<td>APLMK SYM41-07</td>
<td>APLNC SYM41-07</td>
<td>–</td>
</tr>
</tbody>
</table>