This VL connector is 6.2 mm pitch wire-to-wire and wire-to-board connector, designed for large current. Secondary retainer, which prevents from insufficient insertion of contact and coming off contact, may use and large current circuit can be connected certainly and safety.

- Housing lances
- Retainer
- Suited for large current
- Compatible for both wire-to-wire and wire-to-board connections

### Specifications

- **Current rating:** 20 A AC, DC (Refer to the following table.)
- **Voltage rating:** 600 V AC, DC
- **Temperature range:** -25˚C to +90˚C (including temperature rise in applying electrical current)
- **Contact resistance:** Initial value: 7 mΩ max.
- **Insulation resistance:** 1,000 MΩ min.
- **Withstanding voltage:** 2,000 VAC/minute
- **Applicable wire:** AWG #22 to #12
- **Applicable PC board thickness:** 1.6 mm

* In using the products, refer to “Handling Precaution for Terminal and Connector” described on our website (Technical documents of Product information page).
* Contact JST for details.
* RoHS2 compliance

### Standards

- Recognized E60389
- Certified LR20812
- R9351103

### PC board layout and Assembly layout

<table>
<thead>
<tr>
<th>No. of circuits</th>
<th>#12</th>
<th>#14</th>
<th>#16</th>
<th>#18</th>
<th>#20</th>
<th>#22</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>20</td>
<td>15</td>
<td>10</td>
<td>8</td>
<td>6</td>
<td>4</td>
</tr>
<tr>
<td>3</td>
<td>17</td>
<td>14</td>
<td>9</td>
<td>8</td>
<td>6</td>
<td>4</td>
</tr>
<tr>
<td>4</td>
<td>16</td>
<td>13</td>
<td>9</td>
<td>7</td>
<td>6</td>
<td>4</td>
</tr>
<tr>
<td>6</td>
<td>15</td>
<td>12</td>
<td>8</td>
<td>7</td>
<td>5</td>
<td>3</td>
</tr>
<tr>
<td>8</td>
<td>14</td>
<td>11</td>
<td>7</td>
<td>6</td>
<td>5</td>
<td>3</td>
</tr>
<tr>
<td>12</td>
<td>13</td>
<td>10</td>
<td>7</td>
<td>6</td>
<td>4</td>
<td>3</td>
</tr>
</tbody>
</table>

Current unit: A

Note: Do not branch in parallel current which exceeds the rated current (e.g. more than 17A in the case of 3 circuits with AWG #12). If branched in parallel, current imbalance or other problems may develop. If it is absolutely necessary to branch such a large current in parallel, design the circuits without causing any imbalance and provide an extra margin for each circuit.

**Note:**
1. The above figure is the figure viewed from soldering side.
2. Tolerances are non-cumulative: ±0.05 mm for all centers.
3. Hole dimensions differ according to the type of PC board and piercing method. The dimensions above should serve as a guideline. Contact JST for details.
**Material and Finish**
- Phosphor bronze, tin-plated (reflow treatment)

**RoHS2 compliance**
- Contact JST for fully automatic crimping applicator.

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**Contact**

<table>
<thead>
<tr>
<th>Model No.</th>
<th>Applicable wire</th>
<th>Insulation O.D.</th>
<th>Q'ty/reel</th>
</tr>
</thead>
<tbody>
<tr>
<td>SVF-42T-P2.0</td>
<td>0.3—1.25</td>
<td>2.2—16</td>
<td>1.7—3.2</td>
</tr>
<tr>
<td>SVF-61T-P2.0</td>
<td>0.5—2.0</td>
<td>2.0—14</td>
<td>1.9—3.4</td>
</tr>
<tr>
<td>SVF-81T-P2.0</td>
<td>3.5</td>
<td>12</td>
<td>4.1</td>
</tr>
</tbody>
</table>

**RoHS2 compliance**
- Contact JST for Glow Wire compliant connectors.

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**Housing (Inner-housing lock)**

- PA 66, UL 94V-0, natural (white)

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**Contact**

- Crimping machine
  - MKS-L
  - MK/SVF/M-42-20
  - APLMK/SVF/M42-20

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**RoHS2 compliance**
- Note: Contact JST for fully automatic crimping applicator.
### Housing (Outer-housing lock)

<table>
<thead>
<tr>
<th>No. of circuits</th>
<th>Model No.</th>
<th>Q’ty/bag</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>VLP-02V-1</td>
<td>500</td>
</tr>
<tr>
<td>3</td>
<td>VLP-03V-1</td>
<td>500</td>
</tr>
<tr>
<td>4</td>
<td>VLP-04V-1</td>
<td>500</td>
</tr>
<tr>
<td>4 (Single-row)</td>
<td>VLP-04VN-1</td>
<td>500</td>
</tr>
<tr>
<td>6</td>
<td>VLP-06V-1</td>
<td>500</td>
</tr>
<tr>
<td>8</td>
<td>VLP-08V-1</td>
<td>500</td>
</tr>
<tr>
<td>12</td>
<td>VLP-12V-1</td>
<td>500</td>
</tr>
</tbody>
</table>

**Material**

PA 66, UL94V-0, natural (white)

**RoHS 2 compliance**

Note: Contact JST for Glow Wire compliant connectors.
**Retainer**

<table>
<thead>
<tr>
<th>No. of circuits</th>
<th>Model No.</th>
<th>Qty/box</th>
</tr>
</thead>
<tbody>
<tr>
<td>2, 4</td>
<td>VLS-02V</td>
<td>1,000</td>
</tr>
<tr>
<td>3, 6</td>
<td>VLS-03V</td>
<td>1,000</td>
</tr>
<tr>
<td>4 (Single-row)</td>
<td>VLS-08V</td>
<td>1,000</td>
</tr>
<tr>
<td>12</td>
<td>VLS-12V</td>
<td>1,000</td>
</tr>
</tbody>
</table>

**Material**

Glass-filled PA 66, UL94V-0, natural (ivory)

**RoHS2 compliance**

**Header**

**Material and Finish**

- Post: Copper-alloy, tin-plated (reflow treatment)
- Wafer: PA 66, UL94V-0, natural (white)

**RoHS2 compliance**

Note: Contact JST for Glow Wire compliant connectors.
**Contact position location numbers**

**Inner-housing lock**
- <2 circuits>  
- <3 circuits>  
- <4 circuits>  
- <6 circuits>  
- <8 circuits>  
- <12 circuits>

**Outer-housing lock**
- <2 circuits>  
- <3 circuits>  
- <4 circuits>  
- <4 circuits (Single-row)>  
- <6 circuits>  
- <8 circuits>  
- <12 circuits>

**Model number identification**

**Connector**
- Form: S --- Strip form, B --- Loose piece  
- Series name  
- Shape: F --- Socket contact  
- Applicable wire: 42 --- AWG #22 to #16  
- 61 --- AWG #16 to #14  
- 81 --- AWG #12  
- Surface finish: T --- Tin-plated (Reflow treatment)  
- Material: P --- Phosphor bronze  
- Terminal size

**Housing**
- Series name  
- Part name: Plug  
- No. of circuits: 2, 3, 4, 6, 8, 12  
- Flammability: V --- UL94V-0  
- Shape: None --- Inner lock  
- 1 --- Outer lock

**Header**
- Assembly style: B --- Top entry type  
- No. of circuits: 2, 3, 4, 6, 8, 12  
- Series name

**Retainer**
- Series name  
- Part name: Retainer  
- No. of circuits: 2, 3, 4, 6, 8, 12  
- Flammability: V --- UL94V-0