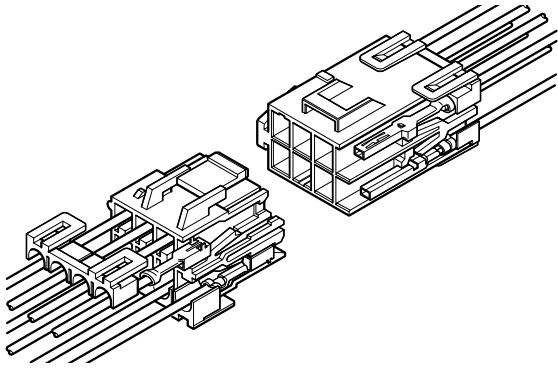


VL CONNECTOR

**6.2mm pitch/Disconnectable Crimp style Wire-to-wire connectors
(Combined use for both wire-to-wire and wire-to-board connections)**



This VL connector is 6.2 mm pitch wire-to-wire and wire-to-board connector, designed for large current up to 20 A (1 or 2-circuit with 3.5 mm² wire). 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
- Panel lock

Standards

- Recognized E60389
- Certified LR20812
- R9351103

Specifications

- Current rating: 20 A AC, DC max. (Refer to the following table.)
 - Voltage rating: 600 V AC, DC max.
 - Temperature range: -25°C to +90°C
(including temperature rise in applying electrical current)
 - Contact resistance: Initial value/ 7 mΩ max.
After environmental tests/ 10 mΩ max.
 - Insulation resistance: 1,000 MΩ min.
 - Withstanding voltage: 2,000 VAC/minute
 - Applicable wire: AWG #22 to #12
0.3 to 3.5 mm²
 - Applicable panel thickness: 0.5 to 2.0 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

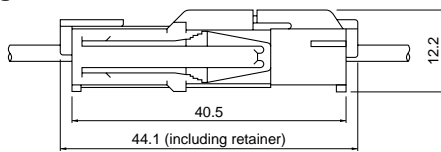
Note: The current rating varies depending on the number of circuits and the wire size used in each connector. The table below lists the current rating as a function of the number of circuits and the wire size.

| No. of circuits | Wire size (AWG) | | | | | |
|-----------------|-----------------|-----|-----|-----|-----|-----|
| | #12 | #14 | #16 | #18 | #20 | #22 |
| 1 | 20 | 15 | 10 | 8 | 6 | 4 |
| 2 | 20 | 15 | 10 | 8 | 6 | 4 |
| 3 | 19 | 14 | 9 | 8 | 6 | 4 |
| 4 | 18 | 13 | 9 | 7 | 6 | 4 |
| 6 | 16 | 12 | 8 | 7 | 5 | 3 |
| 8 | 16 | 11 | 7 | 6 | 5 | 3 |
| 12 | 15 | 10 | 7 | 6 | 4 | 3 |

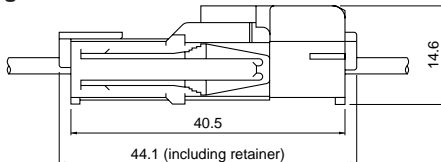
Current unit: A

Panel layout and Assembly layout

<2, 3, 4 circuits (Single-row)>
Inner-housing lock

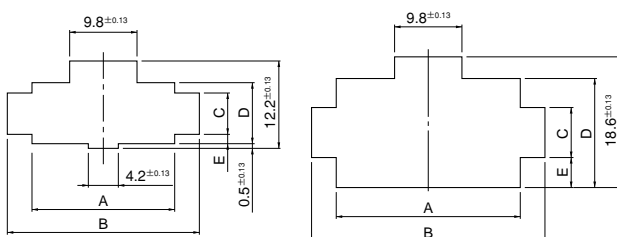


Outer-housing lock

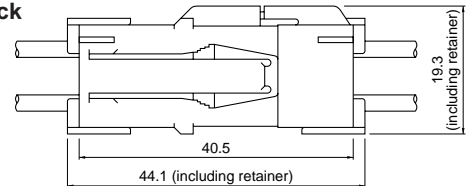


Shape I

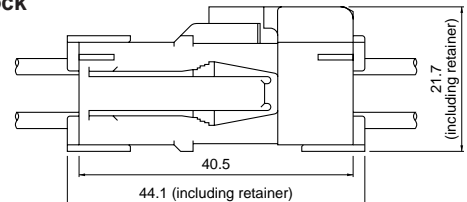
Shape II



<4, 6, 8, 12 circuits>
Inner-housing lock



Outer-housing lock

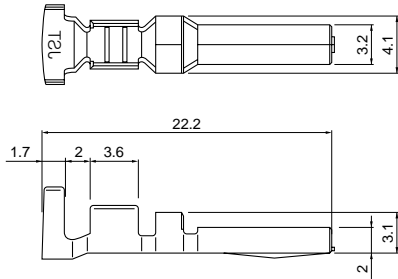


| No. of circuits | Receptacle housing Model No. | Panel hole shape | Panel hole dimensions (mm) | | | | | Applicable panel thickness (mm) |
|-----------------|------------------------------|------------------|--|------|-----|------|-----|---------------------------------|
| | | | General tolerance A, B, D: ±0.13 C, E: ±0.1 | | | | | |
| | | | A | B | C | D | E | |
| 2 | VLR-02V | I | 13.8 | 20.6 | 5.7 | 8.5 | 1.4 | 0.5~2.0 |
| 3 | VLR-03V | I | 20.0 | 26.8 | 5.7 | 8.5 | 1.4 | |
| 4 | VLR-04V | II | 13.8 | 20.6 | 7.0 | 15.4 | 4.2 | |
| 4 (Single-row) | VLR-04VN | I | 26.2 | 33.0 | 5.7 | 8.5 | 1.4 | |
| 6 | VLR-06V | II | 20.0 | 26.8 | 7.0 | 15.4 | 4.2 | |
| 8 | VLR-08V | II | 26.2 | 33.0 | 7.0 | 15.4 | 4.2 | |
| 12 | VLR-12V | II | 38.9 | 45.4 | 7.0 | 15.4 | 4.2 | |

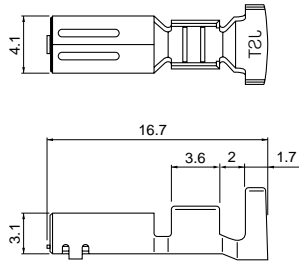
- Note: 1. Punch holes in the panel according to the figures and table shown above. Burrs must be removed.
2. The strength of the panel must be considered when punching two or more holes.
3. The connector must be inserted from the same side as the hole is punched.

Contact

Pin contact



Socket contact



| Model No. | | Applicable wire | | Insulation O.D. (mm) | Q'ty/reel |
|---------------------|---------------------|-----------------------|-----------------|----------------------|-----------|
| Pin contact | Socket contact | mm ² | AWG # | | |
| SVM-42T-P2.0 | SVF-42T-P2.0 | 0.3~1.25 | 22~16 | 1.7~3.2 | 2,000 |
| | | 0.3+0.3~ 0.5+0.75 | 22+22~ 20+18 | 1.7+1.7~ 2.5+2.7 | |
| SVM-61T-P2.0 | SVF-61T-P2.0 | 0.5~2.0 | 20~14 | 1.9~3.4 | |
| | | 0.5+0.5~ 0.75+1.25 | 20+20~ 18+16 | 1.9+1.9~ 2.1+2.7 | |
| SVM-81T-P2.0 | SVF-81T-P2.0 | 3.5 | 12 | 4.1 | |

Material and Finish

Phosphor bronze, tin-plated (reflow treatment)

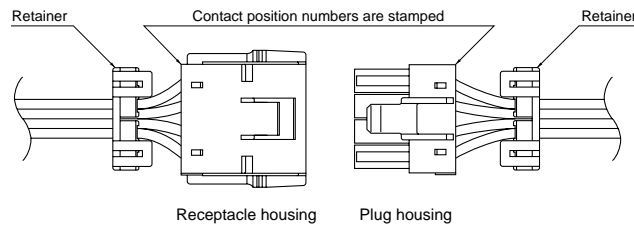
RoHS2 compliance

Note: Contact JST for special products.

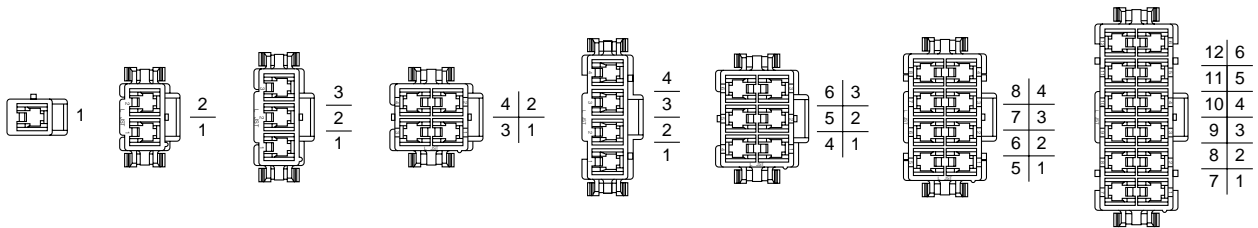
| Contact | Crimping machine | Applicator | | |
|---------------------|------------------|------------------|----------------|----------------------------|
| | | Crimp applicator | Dies | Crimp applicator with dies |
| SVM-42T-P2.0 | AP-K2N | MKS-L | MK/SVF/M-42-20 | APLMK SVF/M42-20 |
| SVF-42T-P2.0 | | — | — | — |
| SVM-61T-P2.0 | | MKS-L | MK/SVF/M-61-20 | APLMK SVF/M61-20 |
| SVF-61T-P2.0 | | — | — | — |
| SVM-81T-P2.0 | | MKS-L | MK/SVF/M-81-20 | APLMK SVF/M81-20 |
| SVF-81T-P2.0 | | — | — | — |

Note: Contact JST for fully automatic crimping applicator.

Contact position location numbers

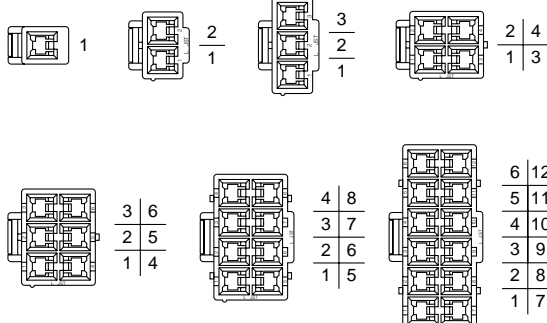


Receptacle housing

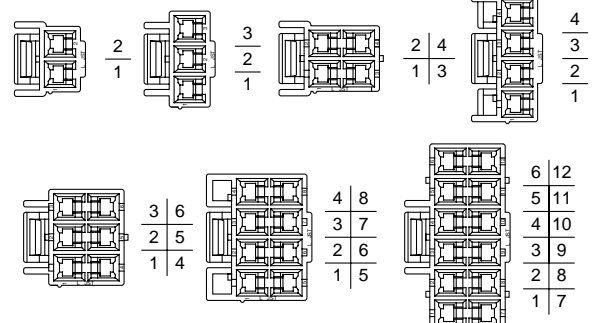


Plug housing

<Inner-housing lock>



<Outer-housing lock>



VL CONNECTOR

Housing

Material: Housing...PA 66, UL94V-0, white
Retainer...Glass-filled PA 66, UL94V-0, ivory

| No. of circuits | Voltage rating | Current rating | Receptacle housing (for pin contact) | Plug housing (for socket contact) | Retainer |
|-----------------|----------------|---------------------|--|---|---|
| 1 | 600V | 20A | VLR-01VF (Without panel lock product) | VLP-01V | VLS-01V |
| | | | Q'ty/bag 500 | Q'ty/bag 500 | Q'ty/bag 1,000 |
| 2 | 600V | 20A | VLR-02V | VLP-02V | VLS-02V (commonly used for 2-circuit housing and 4-circuit housing) |
| | | | VLR-02VF (Without panel lock product) | VLP-02V-1 | |
| 3 | 600V | 19A | VLR-03V | VLP-03V | VLS-03V (commonly used for 3-circuit housing and 6-circuit housing) |
| | | | | VLP-03V-1 | |
| 4 | 600V | 18A | VLR-04V | VLP-04V | VLS-02V |
| | | | VLR-04VF (Without panel lock product) | VLP-04V-1 | |
| | | VLR-04VN | VLP-04VN-1 | VLS-08V (commonly used for 4-circuit housing and 8-circuit housing) | Q'ty/bag 500 |

RoHS2 compliance

Note: 1. Contact JST for special products.

2. Contact JST for Glow Wire compliant connectors.

VL CONNECTOR

Housing

Material: Housing...PA 66, UL94V-0, white
Retainer...Glass-filled PA 66, UL94V-0, ivory

| No. of circuits | Voltage rating | Current rating | Receptacle housing (for pin contact) | Plug housing (for socket contact) | Retainer |
|-----------------|----------------|----------------|--------------------------------------|-----------------------------------|---|
| 6 | 600V | 16A | VLR-06V | VLP-06V | VLS-03V (commonly used for 3-circuit housing and 6-circuit housing) |
| | | | | Q'ty/ bag 500 | |
| 8 | 600V | 16A | VLR-08V | VLP-08V | VLS-08V (commonly used for 4-circuit housing and 8-circuit housing) |
| | | | | Q'ty/ bag 100 | |
| 12 | 600V | 15A | VLR-12V | VLP-12V | VLS-12V |
| | | | | Q'ty/ bag 100 | |

RoHS2 compliance

Note: 1. Contact JST for special products.
2. Contact JST for Glow Wire compliant connectors.

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