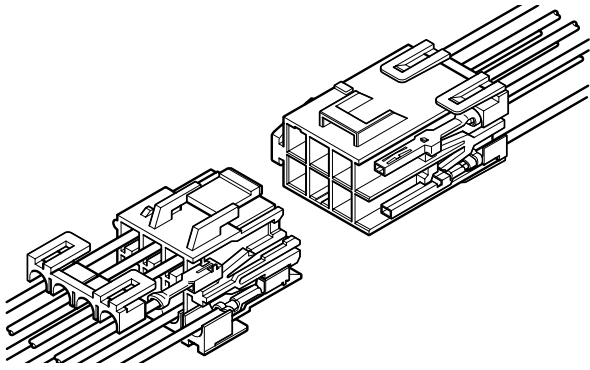


VL CONNECTOR

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



This VL connector is designed for wire-to-wire and wire-to-board 6.2 mm pitch connector corresponding to 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 for contact retention
- Secondary retainer
- Suited for circuits with high power requirements
- Panel lock construction

Standards

- Recognized E60389
- Certified LR20812
- R9351103

Specifications

- Current rating: 20 A AC, DC max.
- 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

- * Refer to "General Instruction and Notice when using Terminals and Connectors" at the end of this catalog.
- * Contact JST for details.
- * Compliant with RoHS.

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.

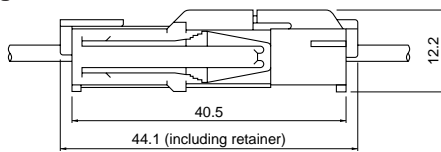
Current unit: A

| 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 |

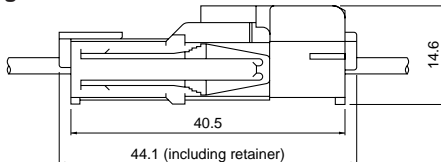
Panel layout and Assembly layout

<2, 3, 4 circuits (single-row)>

Inner-housing lock

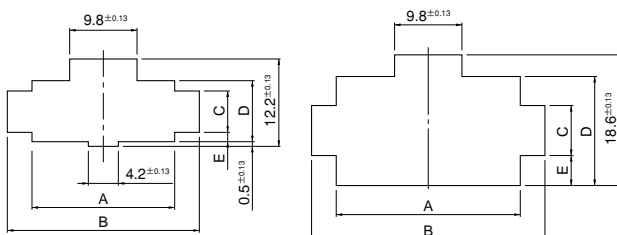


Outer-housing lock



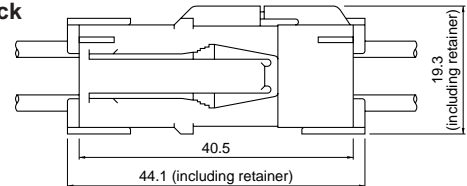
Shape I

Shape II

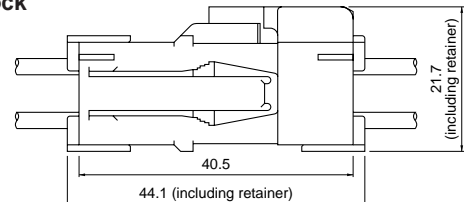


<4, 6, 8, 12 circuits>

Inner-housing lock



Outer-housing lock

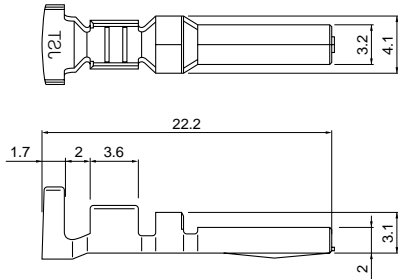


| Circuits | Receptacle housing Model No. | Panel hole shape | Panel hole dimensions (mm) | | | | | Applicable panel thickness (mm) |
|----------------|------------------------------|------------------|--|------|-----|------|-----|---------------------------------|
| | | | General tolerance A, B, D: ±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 | |

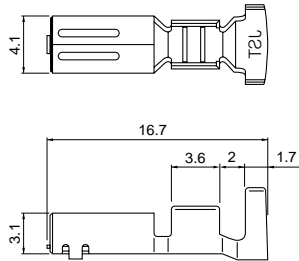
- Note: 1. Punch holes in the panel according to the figures and table shown above. Burrs must be removed.
 2. The strength of the panel must be considered when punching two or more holes.
 3. The connector must be inserted from the same side as the hole is punched.

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)

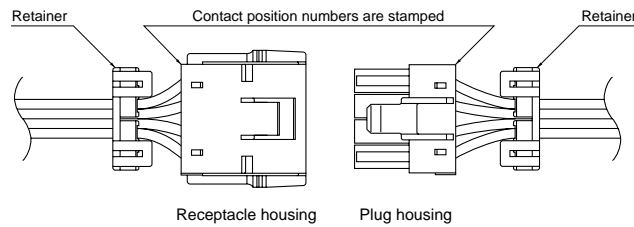
RoHS compliance

Note: Contact JST for special products.

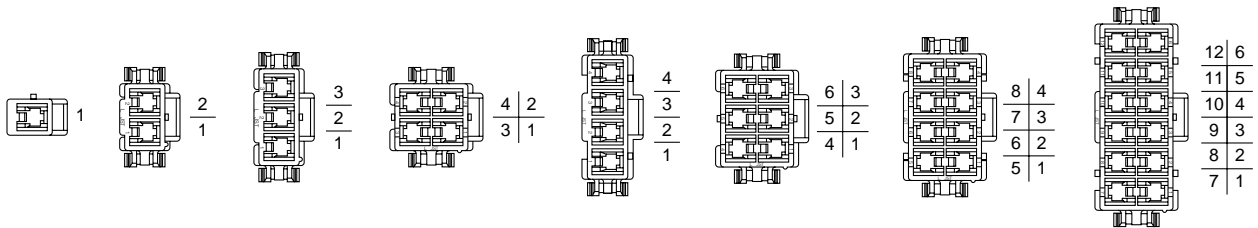
| Contact | Crimping machine | Applicator | | |
|---------------------|------------------|------------------|----------------|----------------------------|
| | | Crimp applicator | Dies | Crimp applicator with dies |
| SVM-42T-P2.0 | AP-K2N | MKS-L | MK/SVF/M-42-20 | APLMK SVF/M42-20 |
| SVF-42T-P2.0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

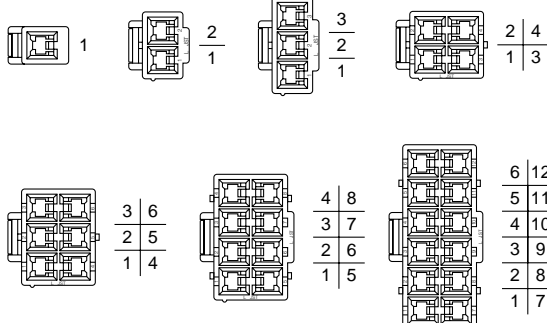


Receptacle housing

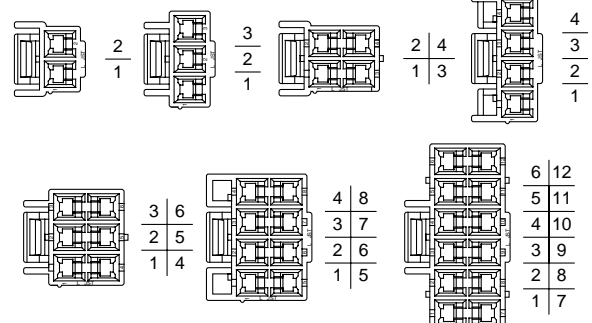


Plug housing

<Inner-housing lock>



<Outer-housing lock>



VL CONNECTOR

Housing

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

| Circuits | Voltage rating | Current rating | Receptacle housing (for pin contact) | Plug housing (for socket contact) | Retainer |
|----------|----------------|---------------------|--|---|---|
| 1 | 600V | 20A | VLR-01VF (Without panel product) | VLP-01V | VLS-01V |
| 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) | |

RoHS 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

| 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 | |

RoHS compliance

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