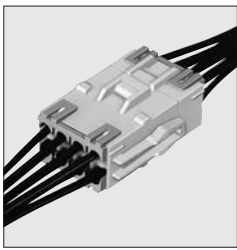




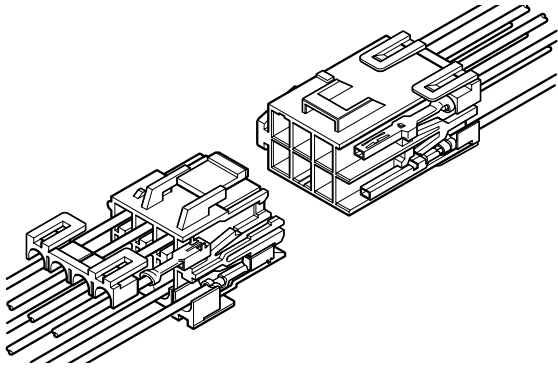
THE DATASHEET OF VLR-03V





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

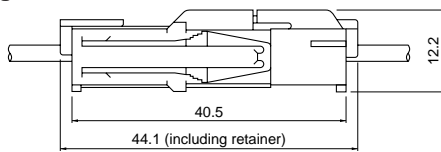
Note: The current rating varies depending on the number of circuits and the wire size used in each connector. The table below lists the current rating as a function of the number of circuits and the wire size.

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

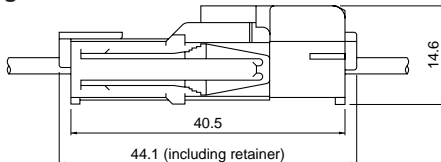
Current unit: A

Panel layout and Assembly layout

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

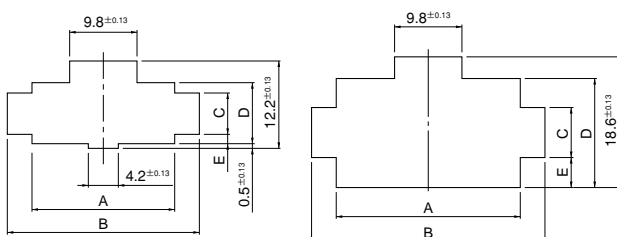


Outer-housing lock

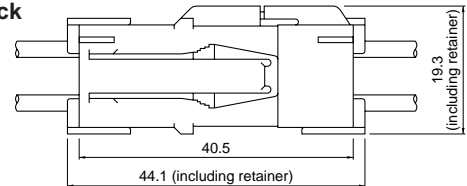


Shape I

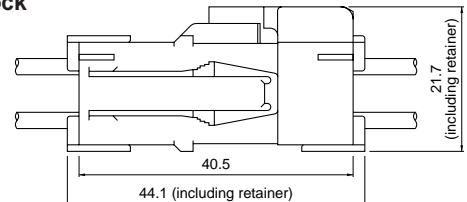
Shape II



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



Outer-housing lock

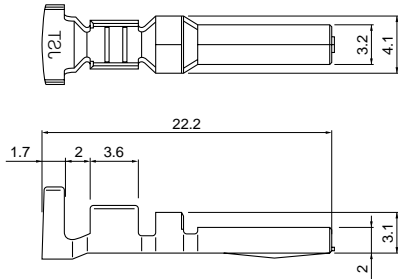


No. of circuits	Receptacle housing Model No.	Panel hole shape	Panel hole dimensions (mm)					Applicable panel thickness (mm)
			General tolerance A, B, D: ±0.13 C, E: ±0.1					
			A	B	C	D	E	
2	VLR-02V	I	13.8	20.6	5.7	8.5	1.4	0.5~2.0
3	VLR-03V	I	20.0	26.8	5.7	8.5	1.4	
4	VLR-04V	II	13.8	20.6	7.0	15.4	4.2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

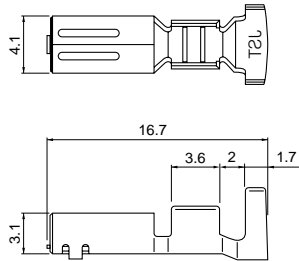
- Note: 1. Punch holes in the panel according to the figures and table shown above. Burrs must be removed.
2. The strength of the panel must be considered when punching two or more holes.
3. The connector must be inserted from the same side as the hole is punched.

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)

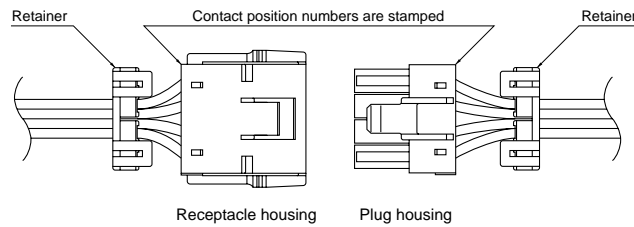
RoHS2 compliance

Note: Contact JST for special products.

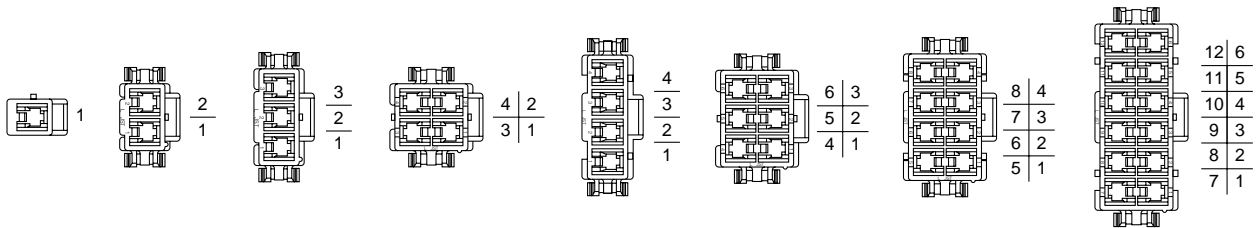
Contact	Crimping machine	Applicator		
		Crimp applicator	Dies	Crimp applicator with dies
SVM-42T-P2.0	AP-K2N	MKS-L	MK/SVF/M-42-20	APLMK SVF/M42-20
SVF-42T-P2.0		—	—	—
SVM-61T-P2.0		MKS-L	MK/SVF/M-61-20	APLMK SVF/M61-20
SVF-61T-P2.0		—	—	—
SVM-81T-P2.0		MKS-L	MK/SVF/M-81-20	APLMK SVF/M81-20
SVF-81T-P2.0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

Note: Contact JST for fully automatic crimping applicator.

Contact position location numbers

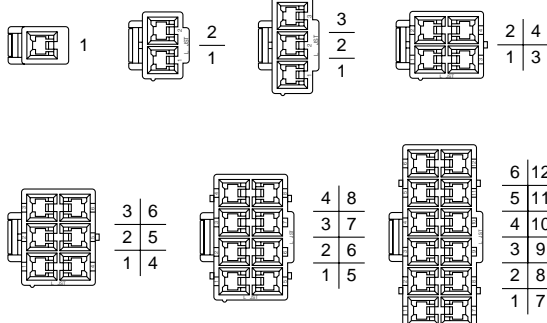


Receptacle housing

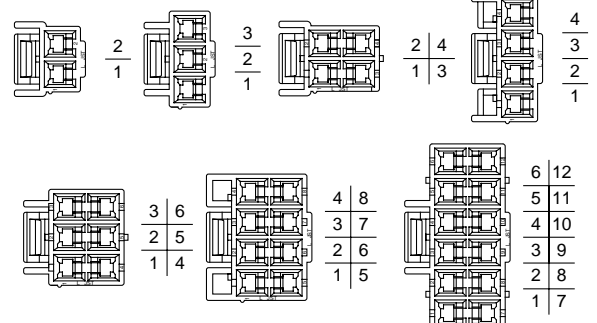


Plug housing

<Inner-housing lock>



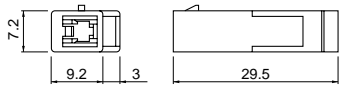
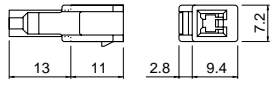
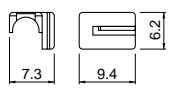
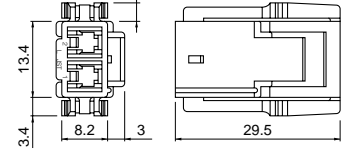
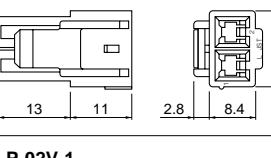
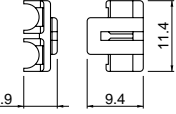
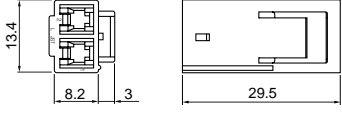
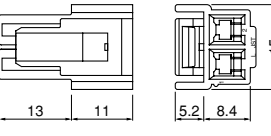
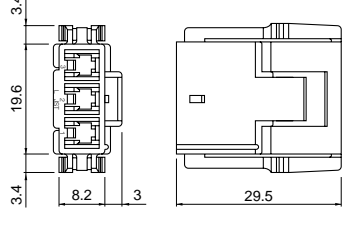
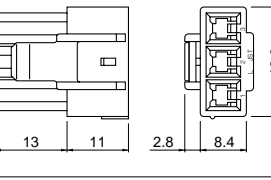
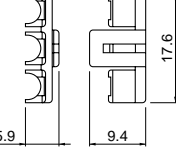
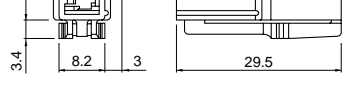
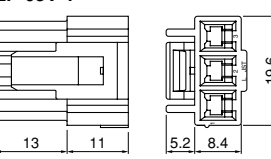
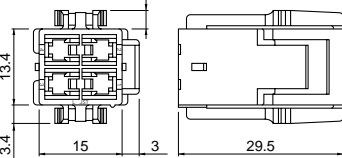
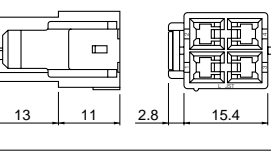
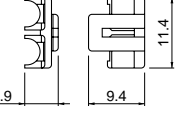
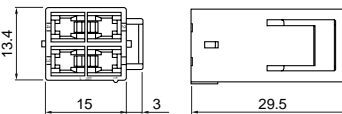
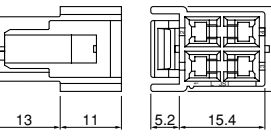
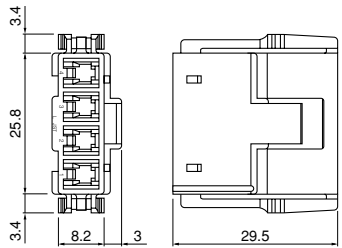
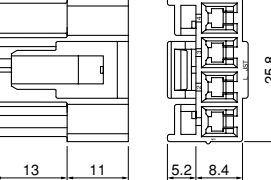
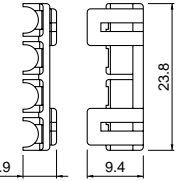
<Outer-housing lock>



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) 		Q'ty/ bag	VLP-01V 		Q'ty/ bag	VLS-01V 	Q'ty/ bag
			500	500	500	1,000				
2	600V	20A	VLR-02V 		Q'ty/ bag	VLP-02V 		Q'ty/ bag	VLS-02V (commonly used for 2-circuit housing and 4-circuit housing) 	Q'ty/ bag
			500	VLR-02VF (Without panel lock product) 		500	VLP-02V-1 			
3	600V	19A	VLR-03V 		Q'ty/ bag	VLP-03V 		Q'ty/ bag	VLS-03V (commonly used for 3-circuit housing and 6-circuit housing) 	Q'ty/ bag
			500	VLR-03VF (Without panel lock product) 		500	VLP-03V-1 			
4	600V	18A	VLR-04V 		Q'ty/ bag	VLP-04V 		Q'ty/ bag	VLS-02V 	Q'ty/ bag
			500	VLR-04VF (Without panel lock product) 		500	VLP-04V-1 			
		500	VLR-04VN 		Q'ty/ bag	VLP-04VN-1 		Q'ty/ bag	VLS-08V (commonly used for 4-circuit housing and 8-circuit housing) 	Q'ty/ bag
				500	500	500	1,000			

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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