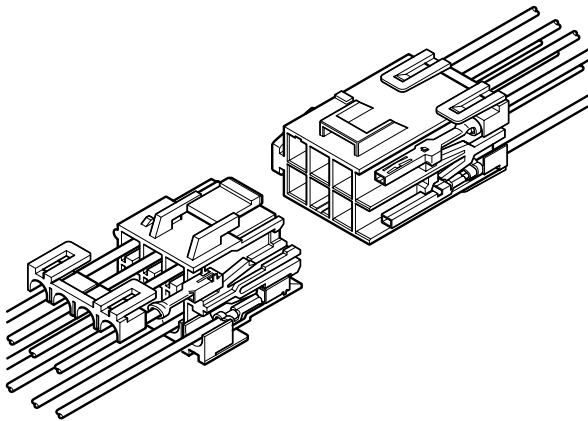


# VL CONNECTOR

6.2mm pitch/Disconnectable Crimp style Wire-to-wire connectors



The VL connector is a 6.2mm pitch wire-to-wire connector designed for circuits requiring up to 20A (1 or 2-circuit with AWG #12 wire).

- 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: 20A AC, DC max.
- Voltage rating: 600V AC, DC max. (300V in accordance with the Electrical Appliance and Material Safety Law in Japan)
- 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: 2,000V AC/minute
- Applicable wire: AWG #22 to #12  
0.3 to 3.5mm<sup>2</sup>
- Applicable panel thickness: 0.5 to 2.0mm
- \* RoHS compliant products are published.
- \* Temperature Range:  
The aforementioned temperature range of this connector is described in JST Standard Product Specification. Maximum temperature registered in UL is 105°C.
- \* 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 the wire size.

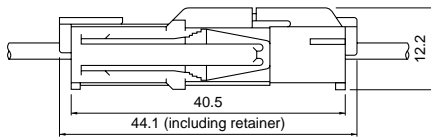
Current unit: A

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

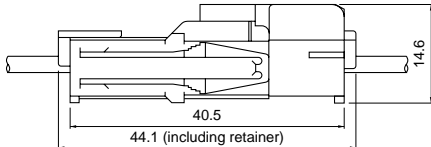
## Assembly layout and Panel layout

(2, 3 and single-row 4 circuits)

<Inner-housing lock>

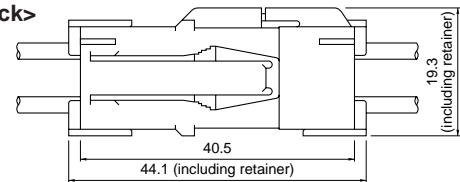


<Outer-housing lock>

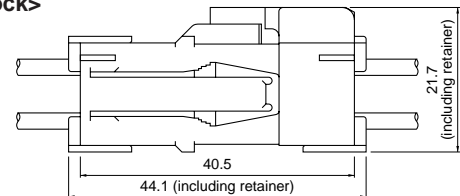


(4, 6, 8 and 12 circuits)

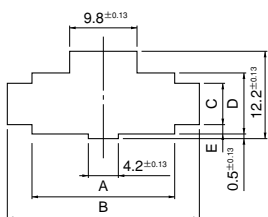
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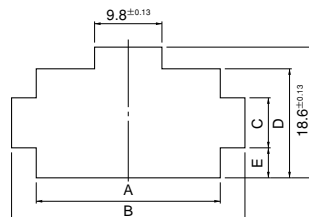
<Outer-housing lock>



Shape I



Shape II

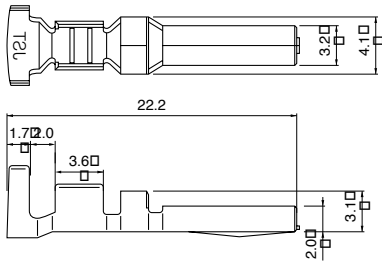


Circuits	Receptacle housing Model No.	Panel hole shape	Panel hole dimensions (mm)					Applicable panel thickness (mm)
			General tolerance A, B, D: ±0.13 C, E: ±0.1					
2	VLR-02V	I	13.8	20.6	5.7	8.5	1.4	0.5 ~ 2.0
3	VLR-03V	I	20.0	26.8	5.7	8.5	1.4	
4	VLR-04V	II	13.8	20.6	7.0	15.4	4.2	
4 (Single-row)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

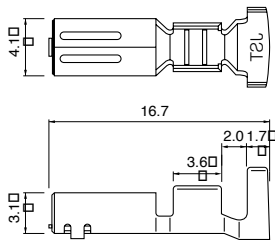
- Note: 1. Punch holes in the panel according to the sketch and table shown above. Burrs must be removed.  
2. The strength of the panel must be considered when punching two or more holes.  
3. The connector must be inserted from the same side as the hole is punched.

## Contact

### Pin contact



### Socket contact



Model No.		Applicable wire		Insulation O.D. (mm)	Q'ty / reel
Pin contact	Socket contact	mm <sup>2</sup>	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)

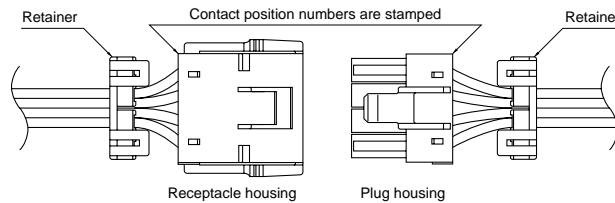
### RoHS compliance

Note: 1. Contact JST for special products.

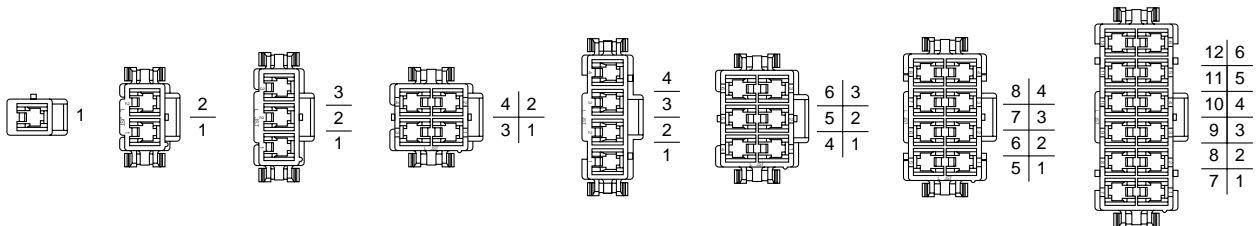
2. \*Marked products are not TÜV approved.

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		—	—	—

## Contact position location numbers

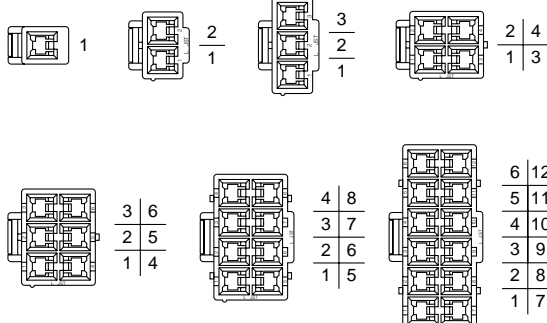


### Receptacle housing

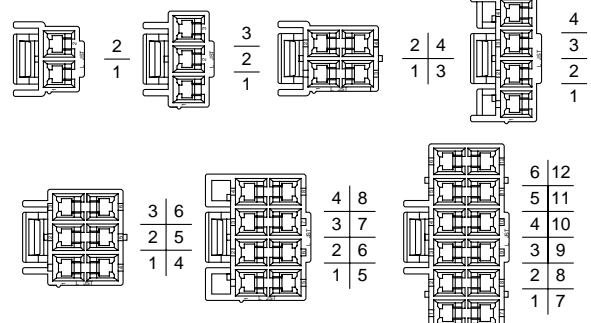


### Plug housing

#### <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	<b>VLR-01VF</b> 	Q'ty/ bag 500	<b>VLP-01V</b> 	Q'ty/ bag 500	<b>VLS-01V</b> 	Q'ty/ bag 1,000
2	600V	20A	<b>VLR-02V</b> 	Q'ty/ bag 500	<b>VLP-02V</b> 	Q'ty/ bag 500	<b>VLS-02V</b> (commonly used for 2-circuit housing and 4-circuit housing) 	Q'ty/ bag 1,000
					<b>VLP-02V-1</b> 			
3	600V	19A	<b>VLR-03V</b> 	Q'ty/ bag 500	<b>VLP-03V</b> 	Q'ty/ bag 500	<b>VLS-03V</b> (commonly used for 3-circuit housing and 6-circuit housing) 	Q'ty/ bag 1,000
					<b>VLP-03V-1</b> 			
4	600V	18A	<b>VLR-04V</b> 	Q'ty/ bag 500	<b>VLP-04V</b> 	Q'ty/ bag 500	<b>VLS-02V</b> 	Q'ty/ bag 1,000
					<b>VLP-04V-1</b> 			
			<b>VLR-04VN</b> 	Q'ty/ bag 500	<b>VLP-04VN-1</b> 	Q'ty/ bag 500	<b>VLS-08V</b> (commonly used for 4-circuit housing and 8-circuit housing) 	Q'ty/ bag 1,000

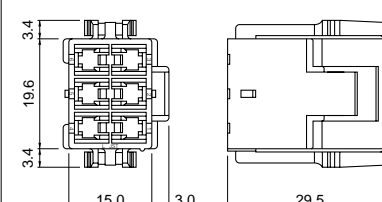
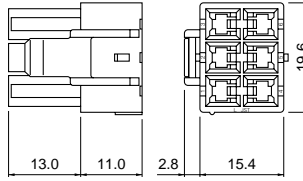
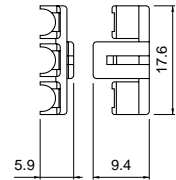
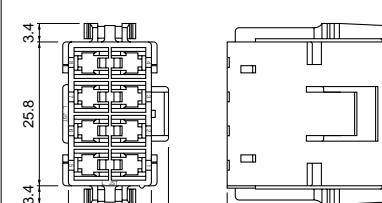
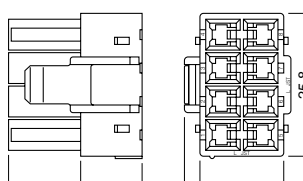
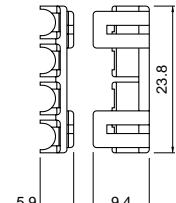
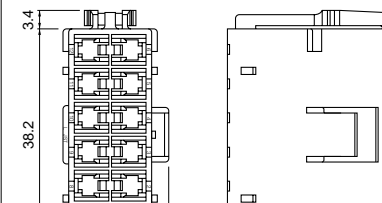
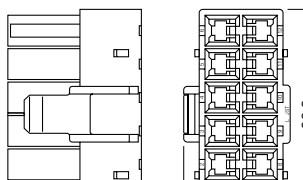
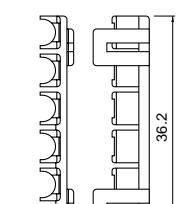
### RoHS compliance

Note: 1. VLR-01VF is exclusively for free hanging. The other circuits can be used either for panel mounted or free hanging.  
2. Contact JST for special products.

# 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	<b>VLR-06V</b> 	<b>VLP-06V</b> 	<b>VLS-03V</b> (commonly used for 3-circuit housing and 6-circuit housing) 
				Q'ty/ bag 500	
8	600V	16A	<b>VLR-08V</b> 	<b>VLP-08V</b> 	<b>VLS-08V</b> (commonly used for 4-circuit housing and 8-circuit housing) 
				Q'ty/ bag 100	
12	600V	15A	<b>VLR-12V</b> 	<b>VLP-12V</b> 	<b>VLS-12V</b> 
				Q'ty/ bag 100	

RoHS compliance

Note: Contact JST for special products.

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