

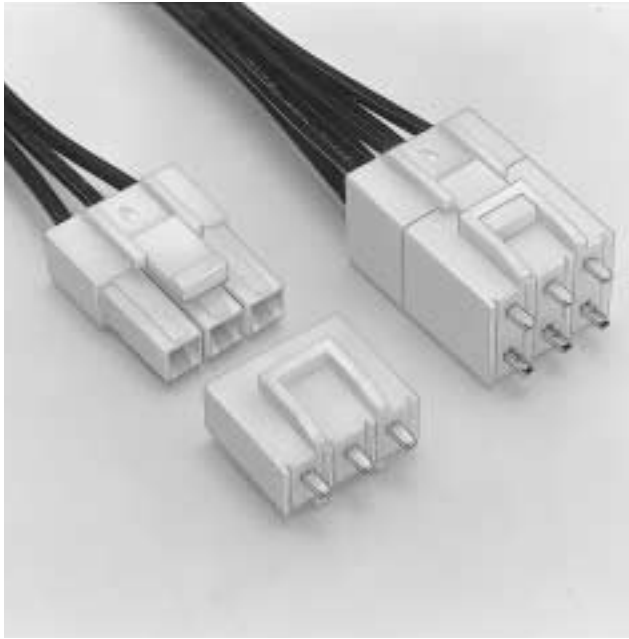
**JST**

Crimp

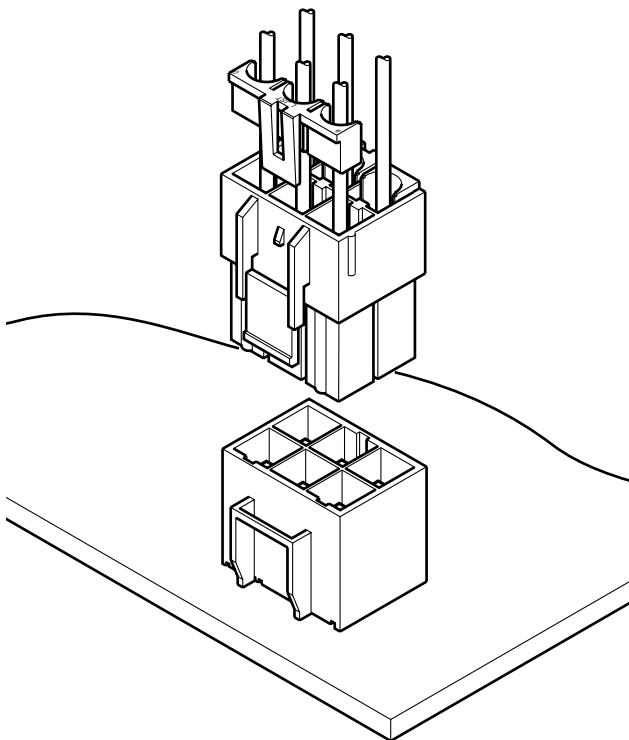
**6.2mm**  
(.244") pitch

# VL CONNECTOR

Disconnectable Crimp style connectors



**This 6.2mm (.244") pitch wire-to-board connector is designed for circuits with high power requirements.**



## Features

### • Housing lances for contact retention

Since the contact retention lances are part of the housing rather than protruding from the contact, they cannot be damaged by handling. They allow the contact to be easily inserted and securely locked into the housing.

### • Secondary retainer

The secondary retainer is optionally available. This retainer ensures that the contacts are fully seated and locked in the housing and prevents their accidental release. Installed after the contacts are inserted, the secondary retainer locks and secures the contacts.

### • Suited for circuits with high power requirements

Since these contacts have large cross-sectional areas and high contact pressure, they can accommodate circuits requiring high power.

### • Two kinds of connections

The VL connectors can be used for wire-to-wire or wire-to-board connections.

## Specifications

- Current rating: 20A AC, DC
  - Voltage rating: 600V AC, DC
  - 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 #20 to #12
  - Applicable PC board thickness: 1.6mm(.063")
- \* Contact JST for details.

#### Note:

The current rating differs 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
*2(3)	20	15	10	8	6
3	17	14	9	8	6
4	16	13	9	7	6
6	15	12	8	7	5
8	14	11	7	6	5
12	13	10	7	6	4


#### Note:

Do not branch in parallel current which exceeds the rated current (eg. 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.

## Standards

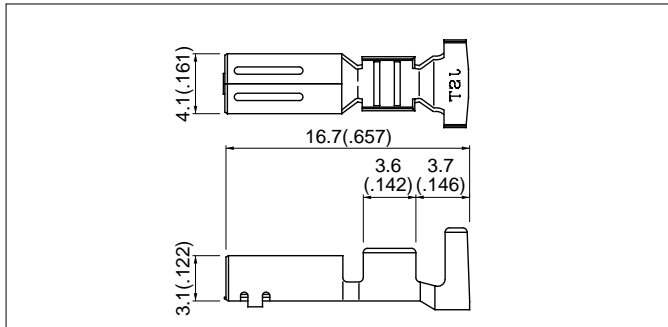
 Recognized E60389

 Certified LR20812

 R9351103

# VL CONNECTOR

## Contact



Model No.	Applicable wire			Qty / reel
	mm <sup>2</sup>	AWG #	Insulation O.D. mm(in.)	
<b>SVF-42T-P2.0</b>	0.3 to 1.25	22 to 16	1.7 to 3.2(.067 to .126)	2,000
<b>SVF-61T-P2.0</b>	0.5 to 2.0	20 to 14	1.9 to 3.4(.075 to .134)	2,000
<b>SVF-81T-P2.0</b>	3.5	12	4.1(.161)	2,000

### Material and Finish

Phosphor bronze, tin-plated

Note: SVF-42T-P2.0 is not TÜV approved.

## Housing (Inter-housing lock)

Circuits	Model No.	Qty / bag
2	<b>VLP-02V</b>	500
3	<b>VLP-03V</b>	500
4	<b>VLP-04V</b>	500
6	<b>VLP-06V</b>	500
8	<b>VLP-08V</b>	200
12	<b>VLP-12V</b>	100

### Material

Nylon 66, UL94V-0, natural (white)

## Housing (Outer-housing lock)

Circuits	Model No.	Qty / bag
2	<b>VLP-02V-1</b>	500
3	<b>VLP-03V-1</b>	500
4	<b>VLP-04V-1</b>	500
4 (single-row)	<b>VLP-04VN-1</b>	500
6	<b>VLP-06V-1</b>	500
8	<b>VLP-08V-1</b>	200
12	<b>VLP-12V-1</b>	100

Material	
Nylon 66, UL94V-0, natural (white)	

Note: Not TÜV approved.

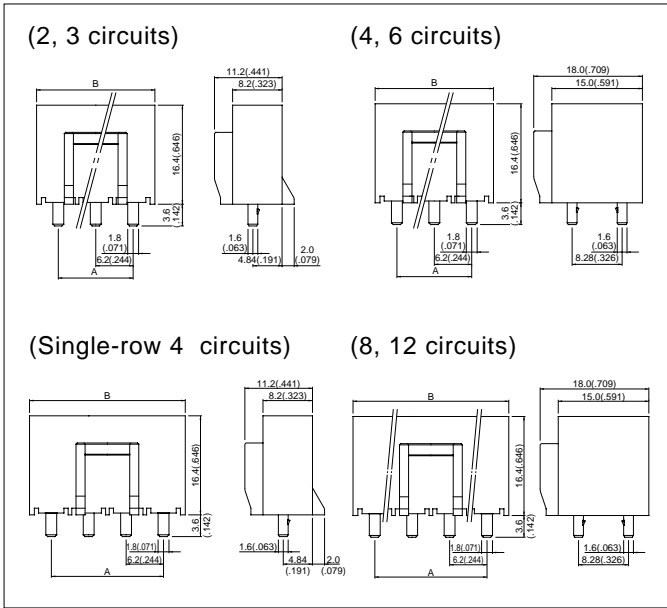
## Retainer

Cir-cuits	Model No.	Qty / bag
2, 4	<b>VLS-02V</b>	1,000
3, 6	<b>VLS-03V</b>	1,000
4 (single-row), 8	<b>VLS-08V</b>	1,000
12	<b>VLS-12V</b>	1,000

Material	
Glass-filled nylon 66, UL94V-0, natural (ivory)	

# VL CONNECTOR

## Shrouded header



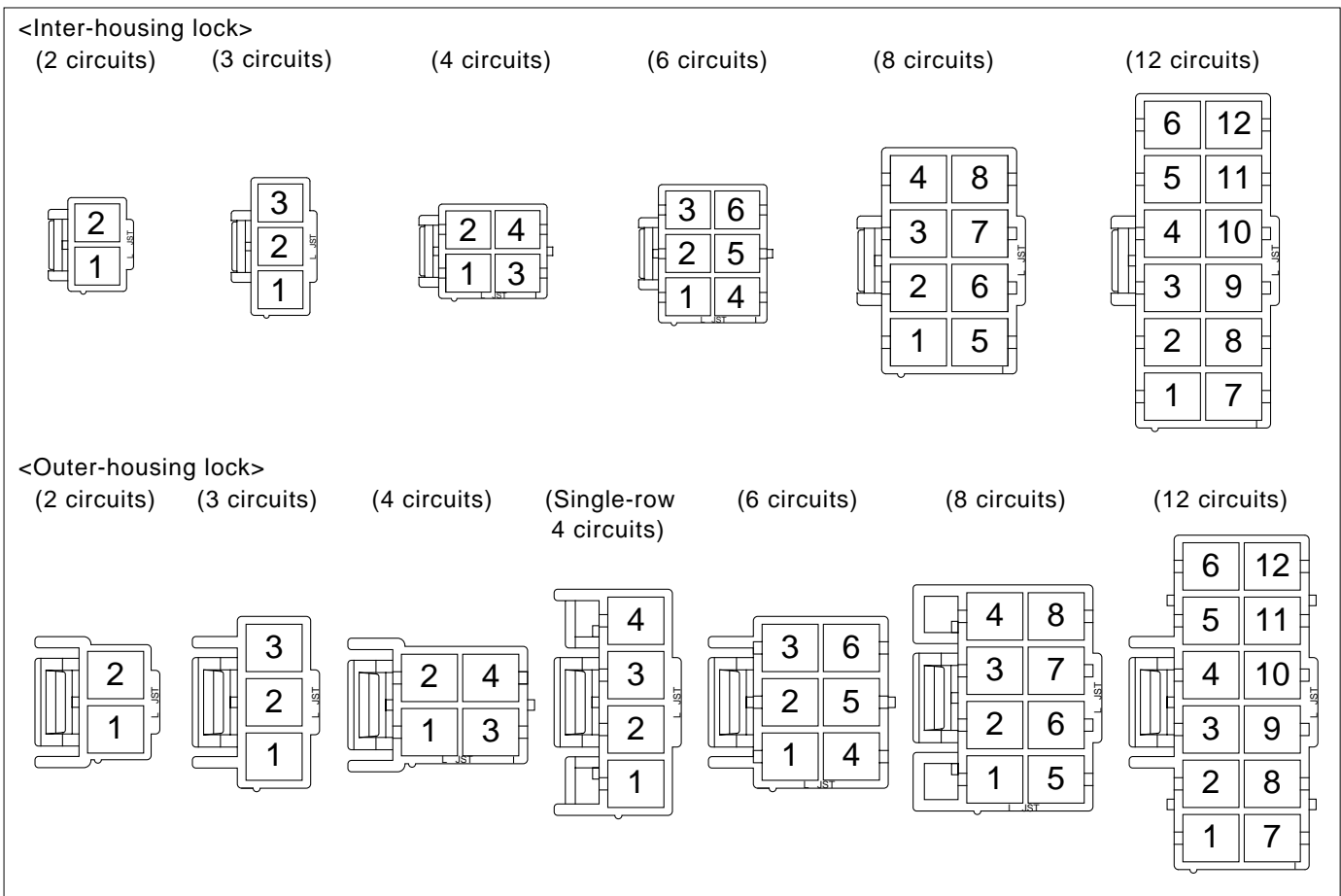
Circuits	Model No.	Dimensions mm(in.)		Q'ty / box
		A	B	
2	<b>B02P-VL</b>	6.2( .244)	13.4( .528)	100
3	<b>B03P-VL</b>	12.4( .488)	19.6( .772)	100
4	<b>B04P-VL</b>	6.2( .244)	13.4( .528)	100
4(single-row)	<b>B04P-VL-VN-1.8</b>	18.6( .732)	26.2(1.031)	100
6	<b>B06P-VL</b>	12.4( .488)	19.6( .772)	50
8	<b>B08P-VL</b>	18.6( .732)	26.2(1.031)	50
12	<b>B12P-VL</b>	31.0(1.220)	38.6(1.520)	40

### Material

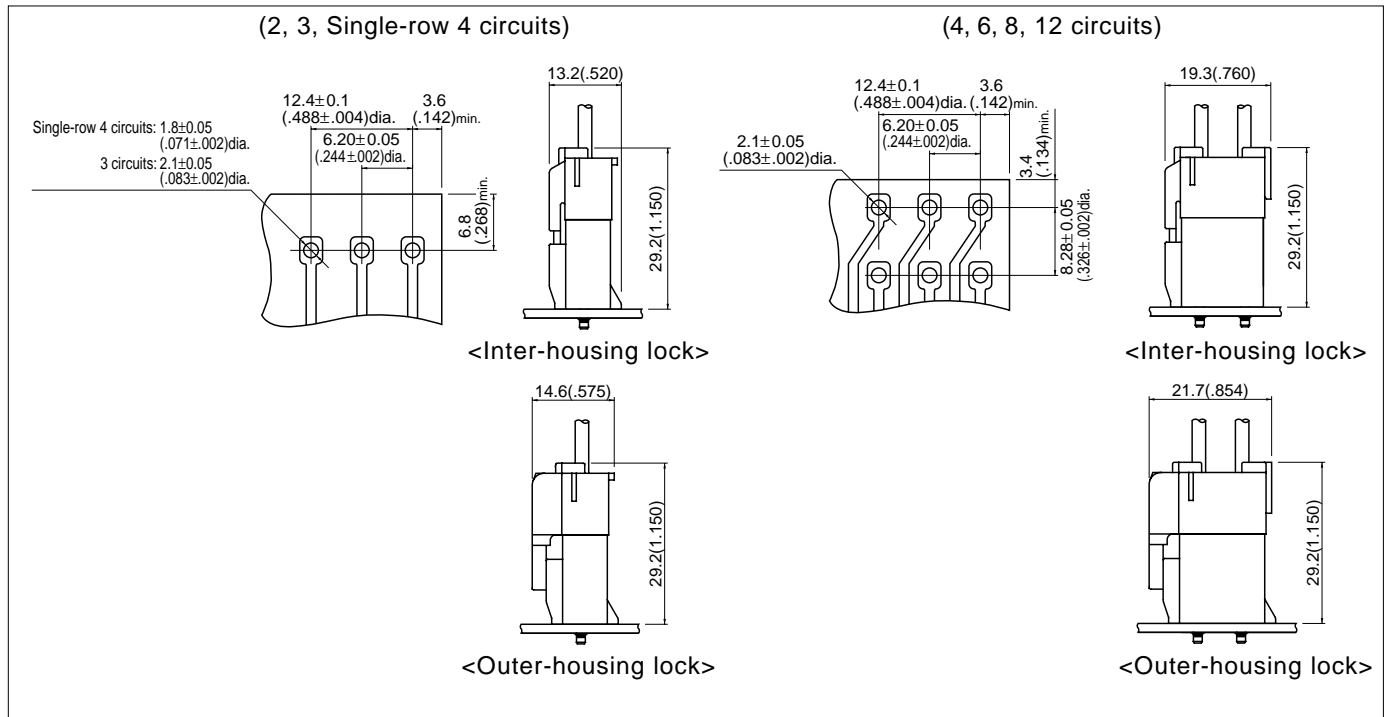
Post: Copper-alloy, tin-plated  
Wafer: Nylon 66, UL94V-0, natural (white)

Note: B04P-VL-VN-1.8, B08P-VL and B12P-VL are not TÜV approved.

## Contact position location numbers



## PC board layout (viewed from soldering side) and Assembly layout



**Note:**

1. Tolerances are non-cumulative:  $\pm 0.05\text{mm} (\pm .002")$  for all centers.
2. Hole dimensions differ according to the kind of PC board and piercing method. The dimensions above should serve as a guideline. Contact JST for details.