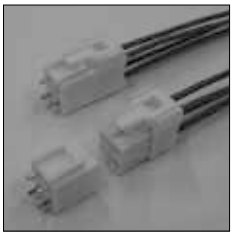
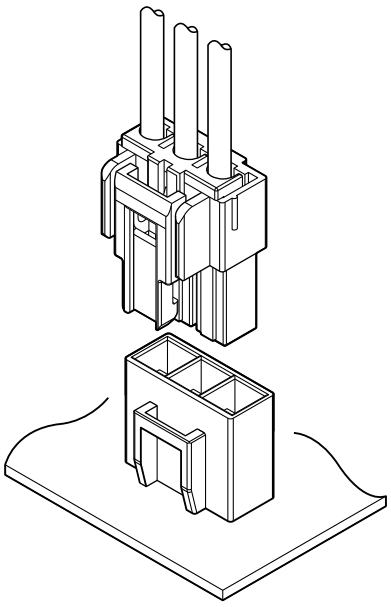


VL CONNECTOR (FOR HIGH CURRENT TYPE)

6.2 mm pitch/Disconnectable Crimp style connectors



This VL connector is 6.2 mm pitch wire-to-board connector. The connector suitable for the high current has been realized by using highly-conducting material.

- High current up to 23 A can be applied.
- Secure housing lance for easy inserting contacts into housing
- Lineup of retainers that improve mechanical reliability
- Contact and housing are common with wire-to-wire connection.

■ Standards

: Recognized E 60389
: Certified LR 20812
: R9351103

■ Specifications

- Current rating: 23 A AC/DC (2 circuits/ AWG #12)
  The following table shows the rated current when applying current for all circuits in each combination of the number of circuits and the wire to be used.

Unit: A

No. of circuits	Wire size (AWG)				
	#12	#14	#16	#18	#20
2	23	18	15	11	9
3	22	17	14	10	8
4	21	16	13	9	8

Note 1. Applicable range of rated current:
The rated current mentioned above is applied only in the combination of contact and header for high current specified in this catalogue.
When either is a normal type product, please be careful because the rated current of the normal type product is applied.

Note 2. Notes on parallel branching current:
Do not branch to the multiple circuits in parallel current which is exceeds the rated current, as it may cause problems such as imbalance when applying current.
If it is unavoidable that branch in parallel is necessary, design the circuits while suppressing the unbalanced current and proving the sufficient margin to the rated current.

- Voltage rating: 600 V AC/DC
- Temperature range: −25℃ to +90℃
  (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 #20 to #12
- Applicable PC board thickness: 1.6 mm

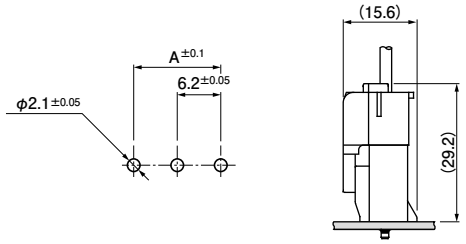
∗In using the products, refer to "Handling Precautions for Terminals and Connectors" described on our website (Technical documents of Product information page).
∗RoHS2 compliance
∗Dimensional unit: mm
∗Contact JST for details.

JST

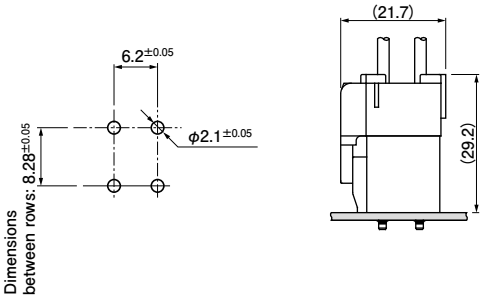
PC board layout and Assembly layout

Top entry type

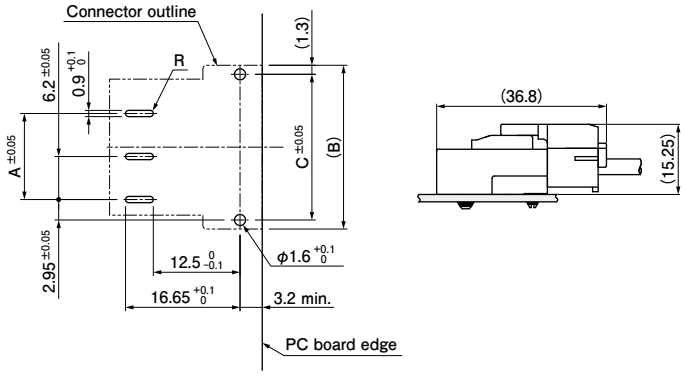
<2, 3, 4 (Single row) circuits>



<4 circuits (Dual rows) >

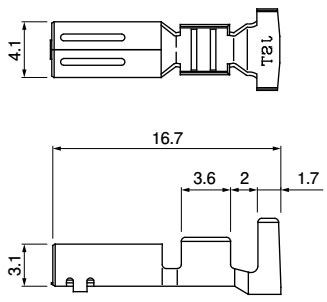


Side entry type



Note: 1. The PC board layout is the figure viewed from the connector mounting side.
2. A, B and C dimensions: See the section on header on pages 4 and 5.
3. Tolerance for the drilling hole pitch on PCB is ± 0.05 throughout, and shall not be cumulative over than ± 0.1 for the top entry type and over than ± 0.05 for the side entry type.
4. Hole dimensions differ according to the type of PC board and piercing method.
Please contact JST for details as the dimensions shown in the above figure are reference values.

Contact



Model No.	Applicable wire range		Q'ty/ reel
	Conductor size AWG (mm²)	Insulation O.D. (mm)	
SVSF-61T-S2.0	#20 to #14 (0.5 to 2.0)	1.9 to 3.4	2,000
SVSF-81T-S2.0	#12 (3.5)	4.1	2,000

Material and Finish
Copper alloy, tin-plated

RoHS2 compliance

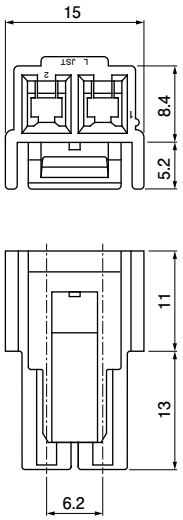
Crimping machine

Contact	Crimping machine	Applicator	Crimp applicator with dies
SVSF-61T-S2.0	AP-K2N	MKS-L	APLMK SVF/M61-20
SVSF-81T-S2.0			APLMK SVF/M81-20

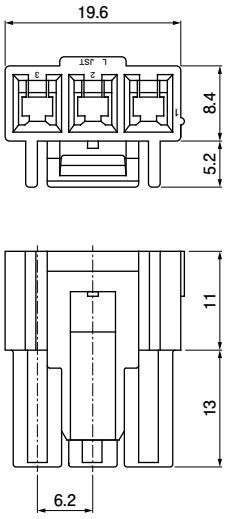
Note: Contact JST for fully automatic crimping applicator.

Housing

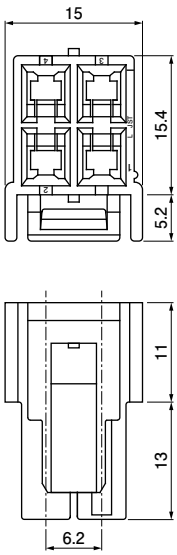
<2 circuits>



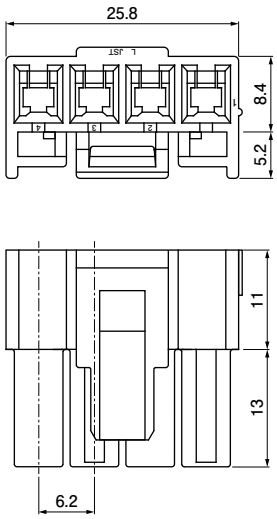
<3 circuits>



<4 circuits (Dual rows)>



<4 circuits (Single row) >



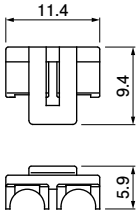
No. of circuits	Model No.	Q'ty/bag
2	**VLP-02V-1**	500
3	**VLP-03V-1**	500
4 (Dual rows)	**VLP-04V-1**	500
4 (Single row)	**VLP-04VN-1**	500

Material and Finish
PA 66, UL94V-0, natural (white)

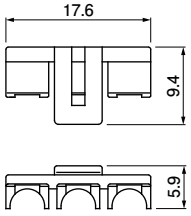
RoHS2 compliance

Retainer

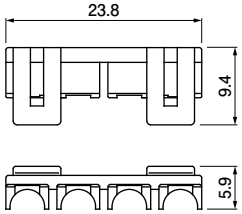
<2, 4 circuits (Dual rows)>



<3 circuits>



<4 circuits (Single row) >



No. of circuits	Model No.	Q'ty/bag
2	**VLS-02V**	1,000
3	**VLS-03V**	1,000
4 (Dual rows)	**VLS-02V**	1,000
4 (Single row)	**VLS-08V**	1,000

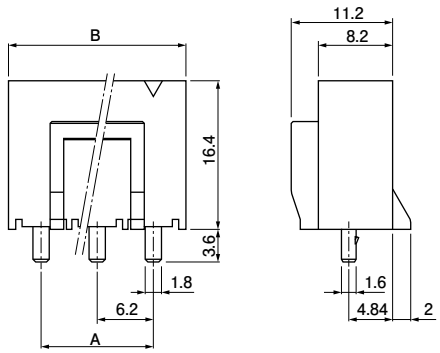
Material and Finish
PA 66 (Glass-filled), UL94V-0, natural (ivory)

RoHS2 compliance

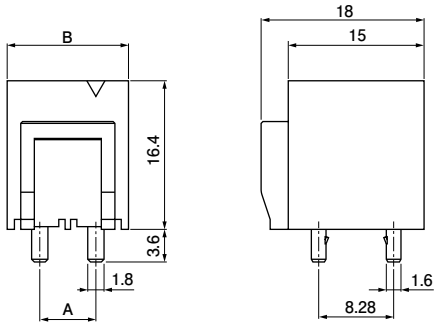
Header

Top entry type

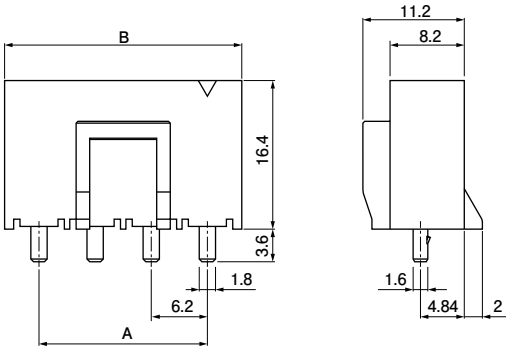
<2, 3 circuits>



<4 circuits (Dual rows)>



<4 circuits (Single row)>



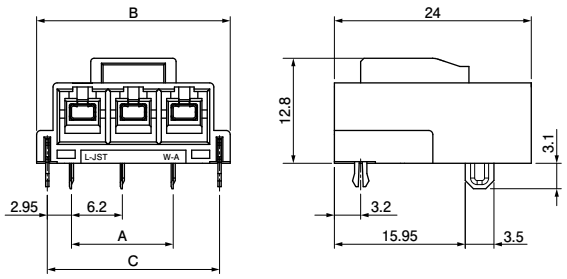
No. of circuits	Model No.	Dimensions (mm)		Q'ty/box
		A	B	
2	**B02P-VL-1**	6.2	13.4	100
3	**B03P-VL-1**	12.4	19.6	100
4 (Dual rows)	**B04P-VL-1**	6.2	13.4	100
4 (Single row)	**B04P-VL-VN-1**	18.6	26.2	100

Material and Finish
Post: Copper-alloy, tin-plated Wafer: PA 66, UL94V-0, natural (white)

RoHS2 compliance

Header

Side entry type



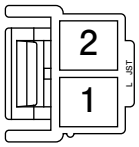
No. of circuits	Model No.	Dimensions (mm)			Q'ty/box
		A	B	C	
2	**S02P-VL-13**	6.2	17.4	14.8	425
3	**S03P-VL-13**	12.4	23.6	21.0	300

Material and Finish
Post: Copper alloy, tin-plated Reinforcement: Copper alloy, tin-plated Wafer: PA 66 (Glass-filled), UL94V-0, natural (ivory)

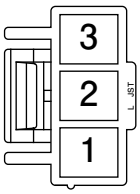
RoHS2 compliance
Note: Unlisted in the CSA Standard.

Contact position location numbers

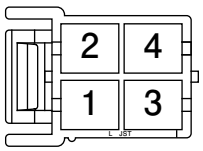
<2 circuits>



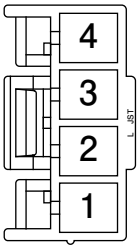
<3 circuits>



<4 circuits (Dual rows)>



<4 circuits (Single row)>



Model number allocation

Contact

S VS F - 61 T - S 2.0

- Form: S···Strip form
- Series name
- Shape: F···Socket contact
- Applicable wire: 61···AWG #20 to #14
  81···AWG #12
- Surface finish: T···Tin-plated
- Material: S···High conductivity copper alloy
- Applicable post size

Housing

VL P - 04 V N - 1

- Series name
- Part name: Plug
- No. of circuits: 2, 3, 4
- Flammability: V···UL94V-0
- Circuit array: None···Single row (2, 3 circuits)
  Dual rows (4 circuits)
  N···Single row (4 circuits)
- Shape of lock: 1···Outer lock

Retainer

VL S - 02 V

- Series name
- Part name: Retainer
- No. of circuits : 2, 3, 4*
  *4 circuits (Single row)···08
  4 circuits (Dual rows)···02
- Flammability : V···UL94V-0

Header

B 04P - VL - VN - 1 ■

- Shape of assembled product:
  B···Top entry type
  S···Side entry type
- No. of circuits: Top entry type···2, 3, 4
  Side entry type···2, 3
- Series name
- Circuit array: None···Single row (2, 3 circuits)
  Dual rows (4 circuits)
  -VN···Single row (4 circuits)
- 1 : For high current type
- Supplementary symbol: None···For top entry type
  3···For side entry type