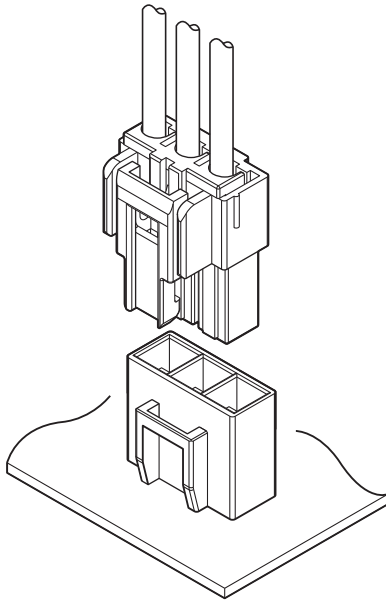


VL CONNECTOR (FOR HIGH CURRENT TYPE)

6.2 mm pitch/Wire-to-Board connectors/Crimp style and Mating style



This 6.2 mm pitch wire-to-board connector is designed for high current applications, made possible by the use of high conductivity materials.

- Supports high current carrying capacity up to 23 A
- Housing lance for easy and reliable contact insertion
- Retainers are available to enhance mechanical reliability as a secondary locking mechanism.
- The VL wire-to-wire connector shares the same VL contacts and housings to allow for design flexibility within the VL series.

Specifications

- Current rating: 23 A AC/DC (2 circuits/ AWG #12)

Note: The table below lists the current rating by number of circuits and wire size, with the assumption that each number of circuits is 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. Range of application for current rating:

The current rating indicated above only applies to the VL high current type contacts and headers specified on this datasheet. Please note that, if either the contact or header of the standard type is used in combination with the high current type, then the current rating of the VL standard type will apply.

Note 2. Do not branch in parallel current which exceeds the rated current. If branched in parallel, current imbalance or other problems may occur. If it is absolutely necessary to branch such a large current in parallel, design the circuits without causing any imbalance and provide extra margin for each circuit.

- Voltage rating: 600 V AC/DC
- Temperature range: -25°C to +90°C
(including temperature rise in applying electrical current)
- Contact resistance: Initial value/ 7 mΩ max.
After test/ 10 mΩ max.
- Insulation resistance: 1,000 MΩ min.
- Withstanding voltage:
There shall be no breakdown or flashover while applying 2,000 VAC for one minute.
- Applicable wire range:
Conductor size/ AWG #20 to AWG #12
Insulation O.D./ ϕ 1.9 mm to ϕ 4.1 mm
- Applicable PC board thickness: 1.6 mm
- * Please refer to the "Handling Precautions for Terminals and Connectors" on our website (listed in the "Technical Documents" column on the Product Information page) before use.
- * RoHS2 compliance
- * Dimensional unit: mm
- * Contact JST for details.

Standards

For information on overseas standard registrations, please refer to the "List of Registered Overseas Standards" on our website (listed in the "Technical Documents" column on the Product Information page).

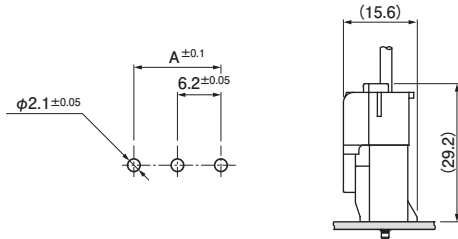
- * Specifications registered to overseas standards may differ from the general specifications listed above.

VL CONNECTOR (FOR HIGH CURRENT TYPE)

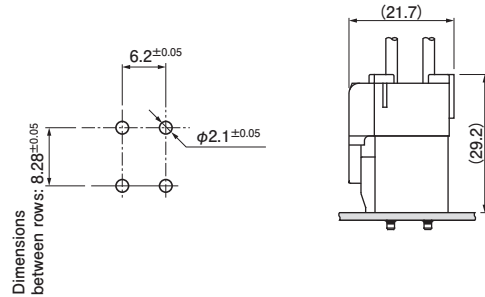
PC board layout and Assembly layout

Top entry type

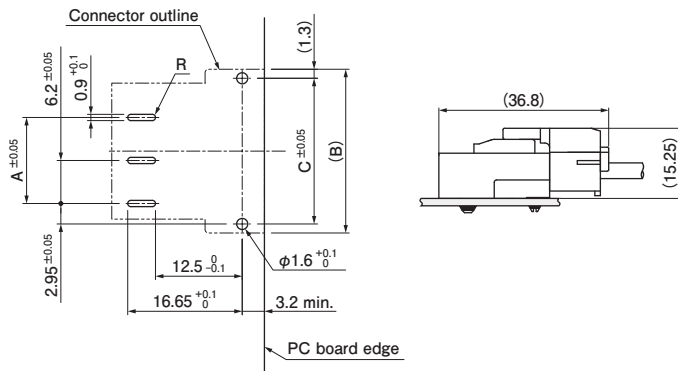
<2 circuits, 3 circuits, 4 circuits (Single-row)>



<4 circuits (Dual-row)>

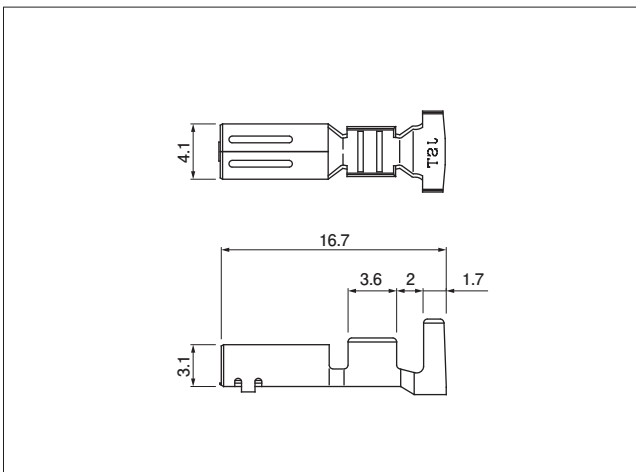


Side entry type



- Note: 1. The PC board layout figure shown is viewed from the connector mounting surface.
 2. Dimensions A, B and C: See header section on pages 4 and 5.
 3. Tolerance for the PCB hole pitch shall be ± 0.05 , and shall not accumulate more than ± 0.1 for the top entry type and more than ± 0.05 for the side entry type.
 4. Hole dimensions differ depending on the type of PCB and PCB drilling method.
 The above dimensions are for reference only. Please contact JST for further details.

Contact



Model No.	Applicable wire range		Q'ty/ reel	
	Conductor size	AWG (mm ²)		
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 Surface finish, etc.

Copper alloy, tin-plated

- Note: 1. Contact JST for special specifications.
 2. Please take caution that even for 2 crimped wires in the 2-circuit version, the retainer cannot be used with 81 style barrel contacts.

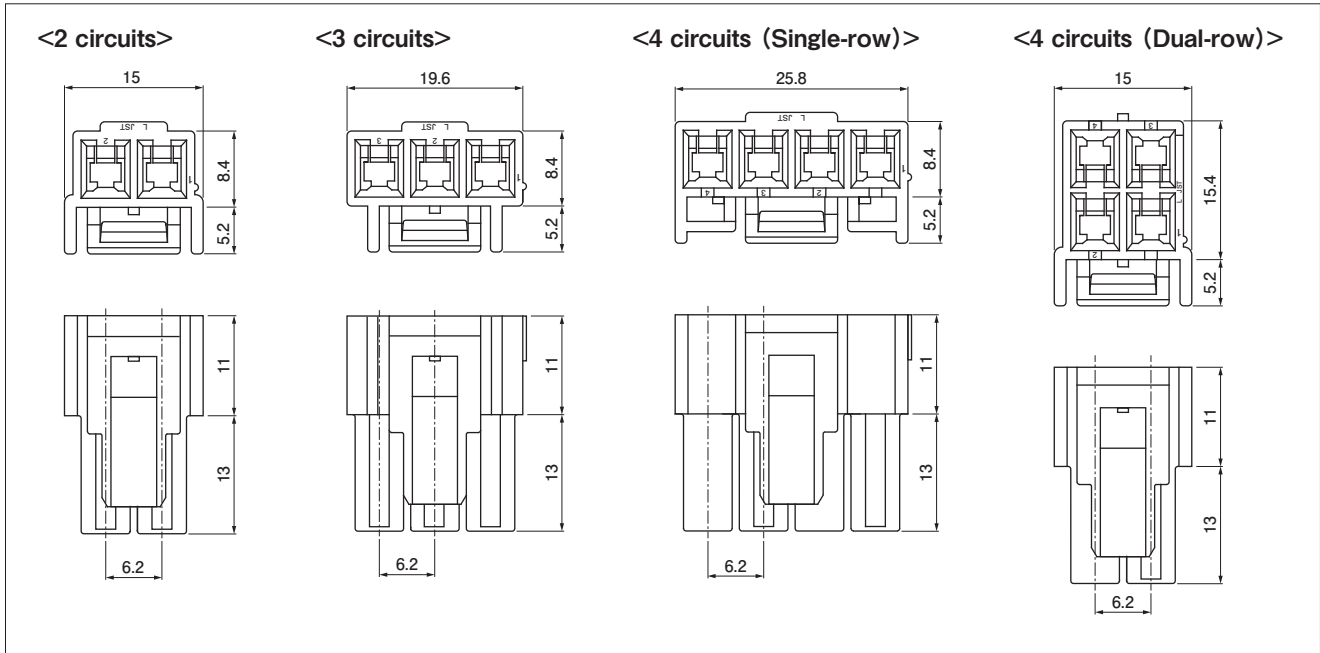
Crimping machine

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.

VL CONNECTOR (FOR HIGH CURRENT TYPE)

Housing



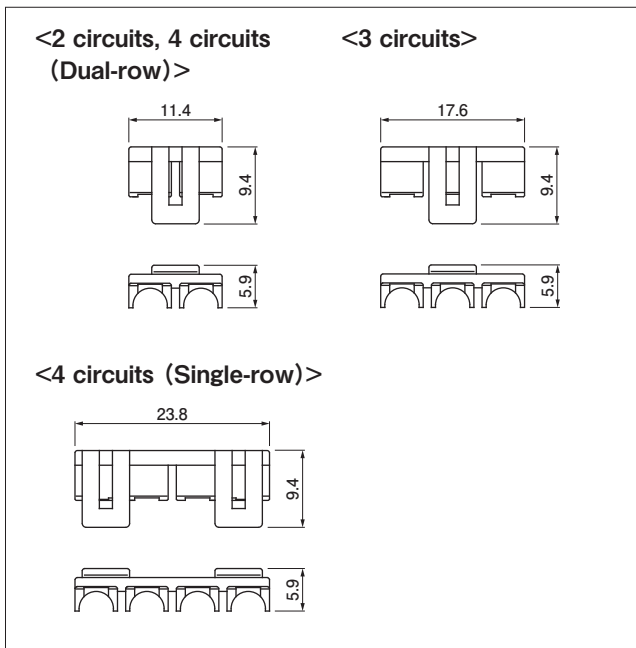
No. of circuits	Model No.	Q'ty/bag
2	VLP-02V-1	500
3	VLP-03V-1	500
4 (Single-row)	VLP-04VN-1	500
4 (Dual-row)	VLP-04V-1	500

Material and Surface finish, etc.

PA 66, natural (white)

Note: For flame retardant grade of resin material used, please refer to the "List of Registered Overseas Standards" on our website (listed in the "Technical Documents" column on the Product Information page).

Retainer



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

Material and Surface finish, etc.

PA 66 (GF), natural (ivory)

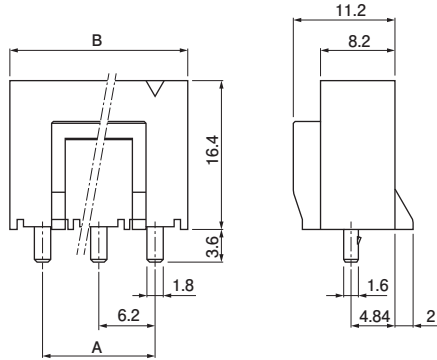
Note: For flame retardant grade of resin material used, please refer to the "List of Registered Overseas Standards" on our website (listed in the "Technical Documents" column on the Product Information page).

VL CONNECTOR (FOR HIGH CURRENT TYPE)

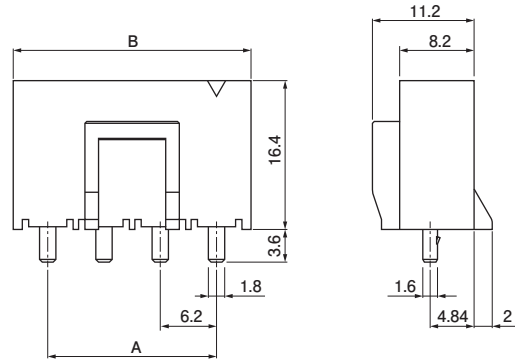
Header

Top entry type

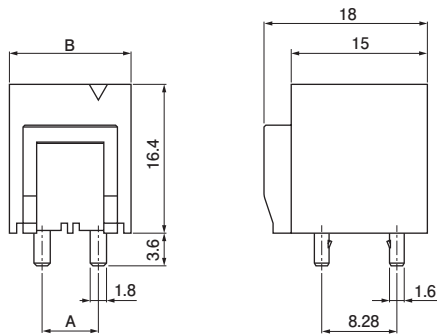
<2 circuits, 3 circuits>



<4 circuits (Single-row)>



<4 circuits (Dual-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 (Single-row)	B04P-VL-VN-1	18.6	26.2	100
4 (Dual-row)	B04P-VL-1	6.2	13.4	100

Material and Surface finish, etc.

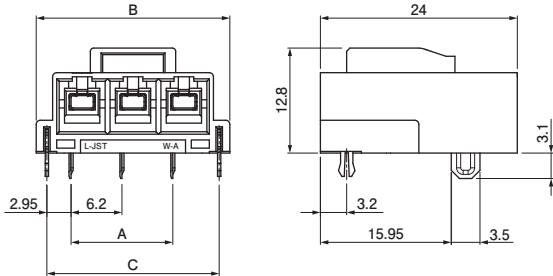
Base contact: Copper-alloy, tin-plated
Base housing: PA 66, natural (white)

Note: For flame retardant grade of resin material used, please refer to the "List of Registered Overseas Standards" on our website (listed in the "Technical Documents" column on the Product Information page).

VL CONNECTOR (FOR HIGH CURRENT TYPE)

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

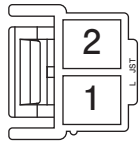
Material and Surface finish, etc.

Base contact: Copper alloy, tin-plated
 Reinforcement: Copper alloy, tin-plated
 Base housing: PA 66 (GF), natural (ivory)

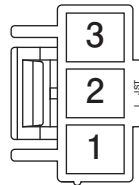
Note: For flame retardant grade of resin material used, please refer to the "List of Registered Overseas Standards" on our website (listed in the "Technical Documents" column on the Product Information page).

Housing position location numbers

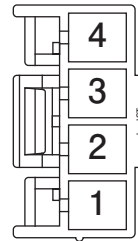
<2 circuits>



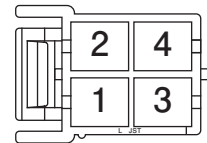
<3 circuits>



<4 circuits (Single-row)>



<4 circuits (Dual-row)>



Note: The above figure shows the contact insertion side.

VL CONNECTOR (FOR HIGH CURRENT TYPE)

Model number allocation

Contact

S VS F - 61 T - S 2.0

Supply form: Strip form

Series name

Type: Socket

Applicable wire range: 61...AWG #20 to AWG #14
81...AWG #12

Surface finish: Tin-plated

Material: Copper alloy

Applicable contact size

Housing

VL P - 02 V ■ - 1

Series name

Type: Plug

No. of circuits

Sub model number

Number of rows: No indication...2- or 3-circuit single row,
or 4-circuit dual row
N...4-circuit single row

Lock type: Outer lock

Retainer

VLS - 02 V

Series name

Type: Retainer

No. of circuits: 2, 3, 4*
*4 circuits (dual row) are shown as 02,
while 4 circuits (single row) are shown as 08

Sub model number

Header/ Top entry type

B 02P - VL - ■ - 1

Header type: Top entry type

No. of circuits

Series name

Number of rows: No indication...2- or 3-circuit single row,
or 4-circuit dual row
VN...4-circuit single row

For high current type

Header/ Side entry type

S 02P - VL - 1 3

Header type: Side entry type

No. of circuits

Series name

For high current type

Sub model number