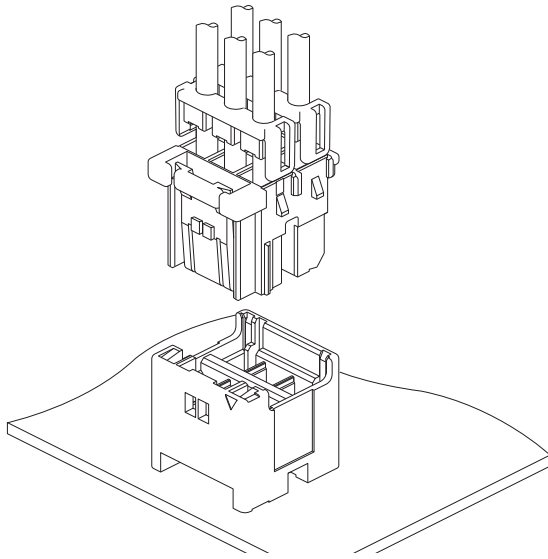


# HYV CONNECTOR

5.0mm pitch/Disconnectable Crimp style connectors



**This HYV connector is 5.0 mm pitch wire-to-board type connector and has the mechanism to suppress the incomplete mating in mating operation. Box-shaped contact to prevent the influence by external forces, thereby increasing safety of large current circuit connection. 4 type key patterns prevents mismatching insertion when using multiple pieces connector in the same model.**

- Keying structure
- Secure locking structure
- Inertia lock structure
- Retainer mountable type
- Header for use specifically with resin coated ("potted") PC board.

## Specifications

- Current rating: 10 A AC, DC (Refer to the table below.)
- Voltage rating: 300 V AC, DC
- Temperature range: -30°C to +105°C (including temperature rise in applying electrical current)
- Contact resistance: Initial value/ 10 mΩ max. After environmental tests/ 20 mΩ max.
- Insulation resistance: 1,000 MΩ min.
- Withstanding voltage: 1,500 VAC/minute
- Applicable wire: Conductor size 21 type/ AWG #22 to #18  
41 type/ AWG #18 to #16  
Insulation O.D. 21 type/ 1.8 mm to 2.7 mm  
41 type/ 2.3 mm to 3.0 mm  
(41 type: Insulation O.D. when mounting a retainer/ 2.3 mm to 2.9 mm)
- Applicable PC board thickness: 1.6 mm

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)			
	#16	#18	#20	#22
2	10	7	5	3
3	9	7	5	3
4	9	7	5	3
6	8	7	5	3

Note: Do not branch in parallel current which exceeds the rated current (e.g. more than 10 A in the case of 2 circuits with AWG #16). 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.

- \* Refer to "General Instruction and Notice when using Terminals and Connectors" at the end of this catalog.
- \* Contact JST for details.
- \* Compliant with RoHS.

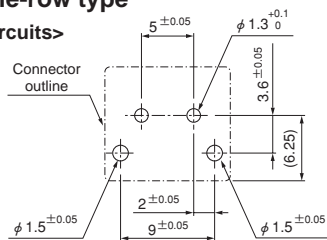
## Standards

- Ⓜ Recognized E60389
- Ⓢ Certified LR20812

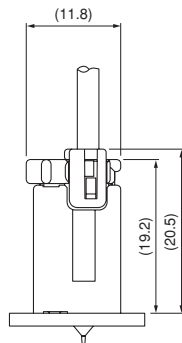
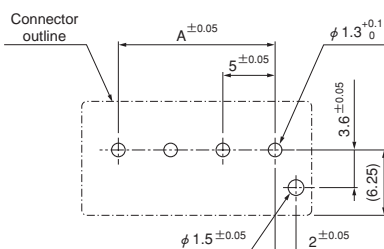
### PC board layout and Assembly layout

#### Single-row type

<2 circuits>

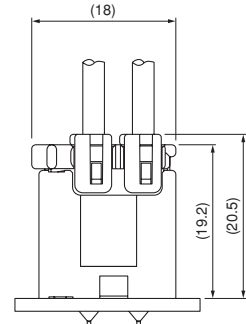
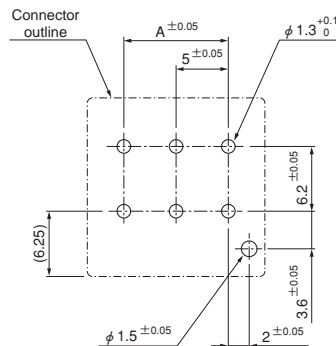


<3 & 4 circuits>



#### Double-row type

<4 & 6 circuits>



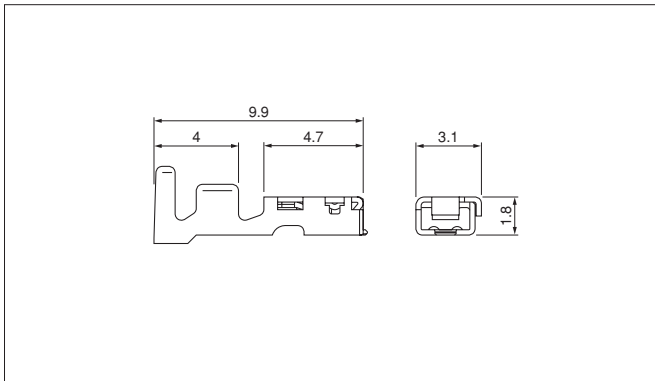
Note: 1. The above figure is the figure viewed from the connector mounting side.

2. Tolerances are non-cumulative: ±0.05 mm for all centers.

3. Hole dimensions differ according to the type of PC board and piercing method. The dimensions above should serve as a guideline. Contact JST for details.

# HYV CONNECTOR

## Contact



Model No.	Applicable wire		Insulation O.D. (mm)	Q'ty/reel
	mm <sup>2</sup>	AWG#		
<b>SHYVF-21T-M0.5</b>	0.33~0.83	22~18	1.8~2.7	4,000
<b>SHYVF-41T-M0.5</b>	0.83~1.25	18~16	2.3~3.0	3,000

### Material and Finish

Copper alloy, tin-plated (reflow treatment)

### RoHS compliance

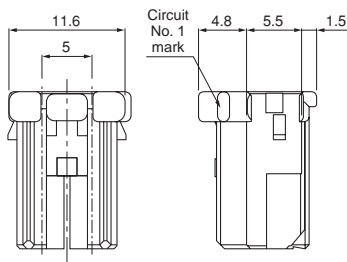
Note: Insulation O.D. of 41 barrel when mounting a retainer shall be 2.3 mm to 2.9 mm dia.

Contact	Crimping machine	Applicator		
		Crimp applicator	Dies	Crimp applicator with dies
<b>SHYVF-21T-M0.5</b>	AP-K2N	MKS-L	MK/SHYVF-21-05	APLMK SHYVF21-05
		—	—	—
<b>SHYVF-41T-M0.5</b>	—	MKS-L	MK/SHYVF-41-05	APLMK SHYVF41-05
		—	—	—

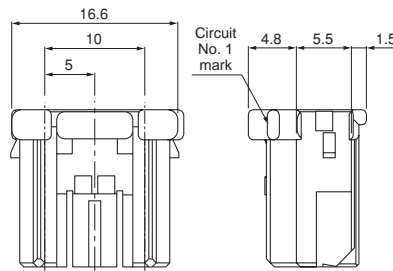
## Housing

### Single-row type

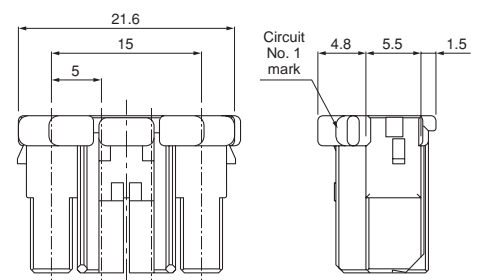
<2 circuits>



<3 circuits>

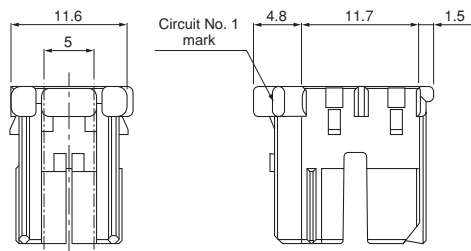


<4 circuits>

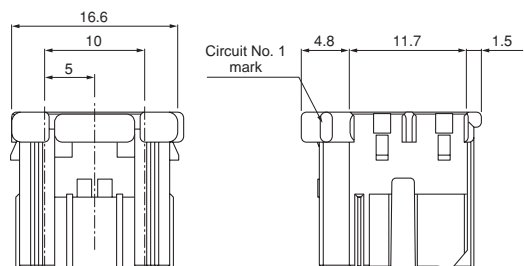


### Double-row type

<4 circuits>



<6 circuits>



Type	Circuits	Model No.	Q'ty/bag
Single-row type	2	<b>HYVRP-02V-A-S</b>	1,000
	3	<b>HYVRP-03V-A-S</b>	1,000
	4	<b>HYVRP-04V-A-S</b>	600
Double-row type	4	<b>HYVRP-04V-W-A-S</b>	600
	6	<b>HYVRP-06V-W-A-S</b>	600

### Material

Glass-filled PA 66, UL94V-0, natural

### RoHS compliance

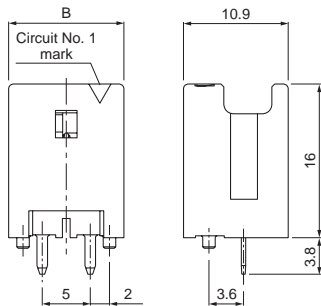
Note: Contact JST for key pattern.

# HYV CONNECTOR

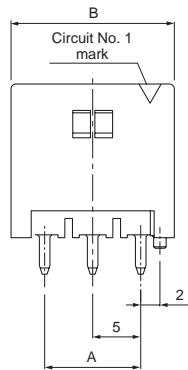
## Shrouded header

### Single-row type

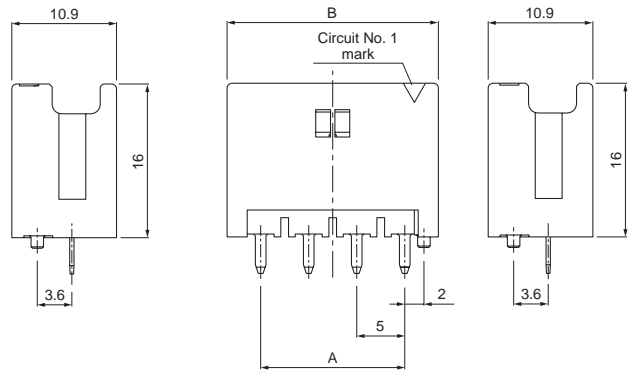
<2 circuits>



<3 circuits>

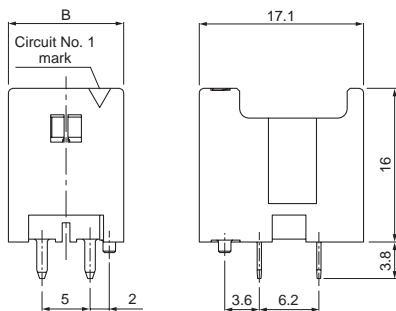


<4 circuits>

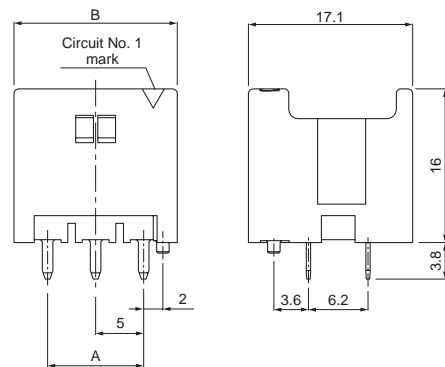


### Double-row type

<4 circuits>



<6 circuits>



Type	Circuits	Model No.	Dimensions (mm)		Q'ty/ box
			A	B	
Single-row type	2	<b>B02B-HYVSS-A-1</b>	—	12.0	150
	3	<b>B03B-HYVSS-A-1</b>	10.0	17.0	100
	4	<b>B04B-HYVSS-A-1</b>	15.0	22.0	100
Double-row type	4	<b>B04B-HYVSS-A-1W</b>	—	12.0	100
	6	<b>B06B-HYVSS-A-1W</b>	10.0	17.0	50

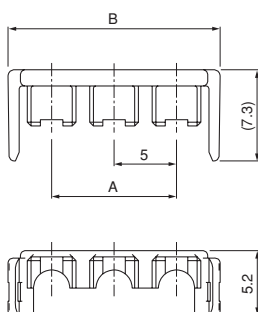
#### Material and Finish

Post: Copper alloy, copper-undercoated, tin-plated (reflow treatment)  
Wafer: Glass-filled PA 66, UL94V-0

#### RoHS compliance

Note: Contact JST for key pattern.

## Retainer



Circuits	Model No.	Dimensions (mm)		Q'ty/ bag
		A	B	
2	<b>HYVS-02V</b>	—	12.0	2,000
3	<b>HYVS-03V</b>	10.0	17.0	2,000
4	<b>HYVS-04V</b>	15.0	22.0	1,000

#### Material

Glass-filled PA 66, UL94V-0, natural

#### RoHS compliance

# HYV CONNECTOR

## Contact position location numbers

