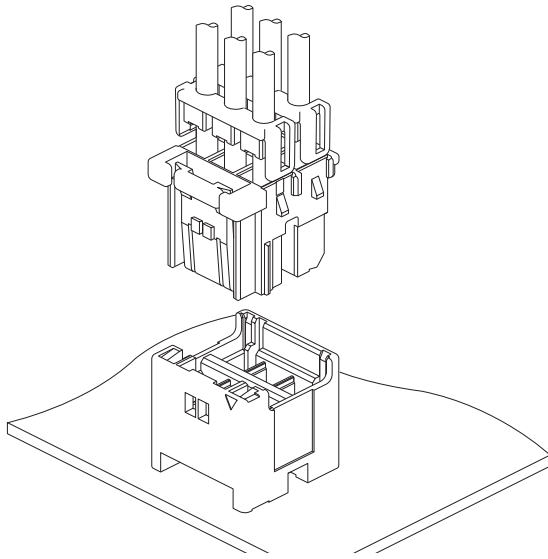


HYV CONNECTOR

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.

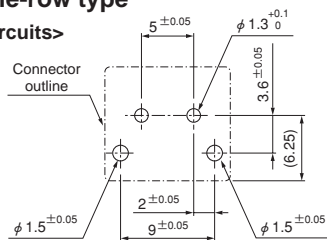
Standards

- Ⓜ Recognized E60389
- Ⓢ Certified LR20812

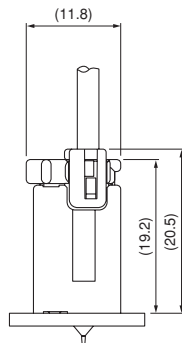
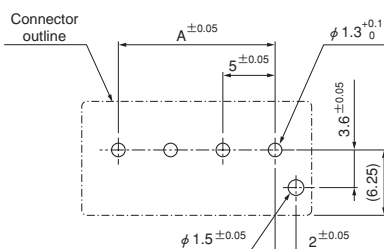
PC board layout and Assembly layout

Single-row type

<2 circuits>

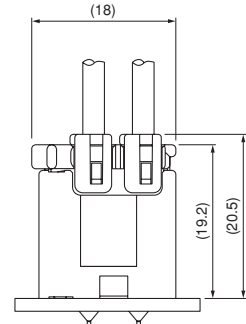
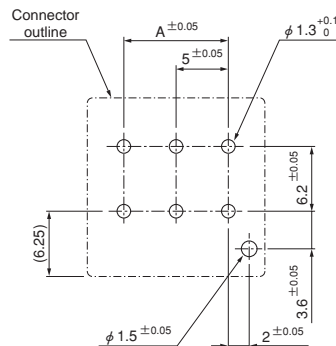


<3 & 4 circuits>



Double-row type

<4 & 6 circuits>



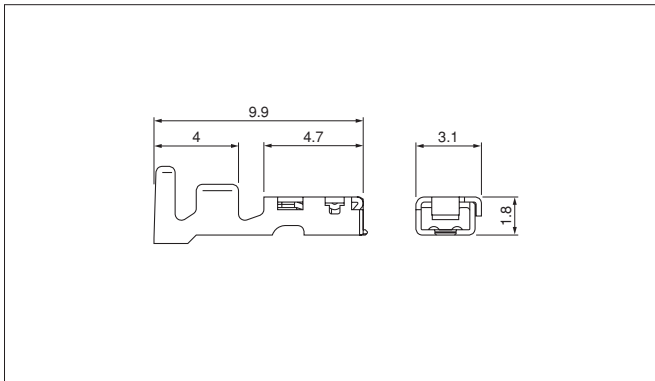
Note: 1. The above figure is the figure viewed from the connector mounting side.

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 ² | AWG# | | |
| SHYVF-21T-M0.5 | 0.33~0.83 | 22~18 | 1.8~2.7 | 4,000 |
| SHYVF-41T-M0.5 | 0.83~1.25 | 18~16 | 2.3~3.0 | 3,000 |

Material and Finish

Copper alloy, tin-plated (reflow treatment)

RoHS compliance

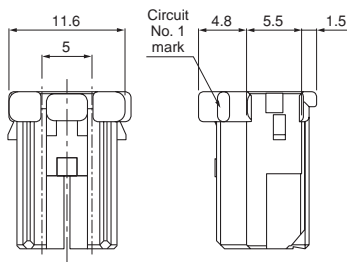
Note: Insulation O.D. of 41 barrel when mounting a retainer shall be 2.3 mm to 2.9 mm dia.

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

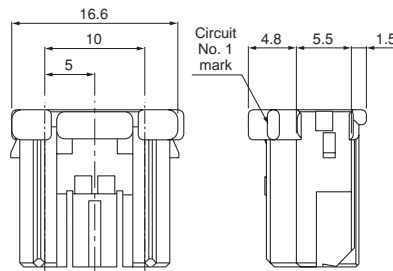
Housing

Single-row type

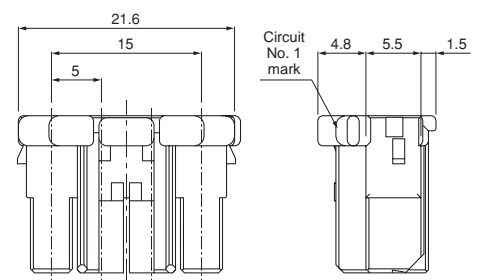
<2 circuits>



<3 circuits>

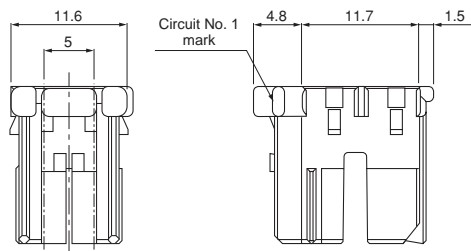


<4 circuits>

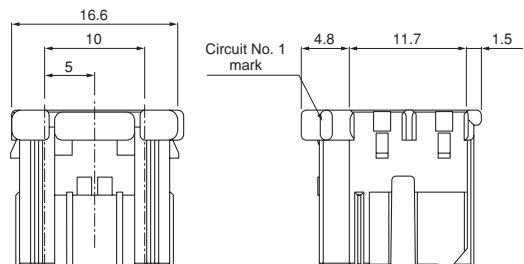


Double-row type

<4 circuits>



<6 circuits>



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

Material

Glass-filled PA 66, UL94V-0, natural

RoHS compliance

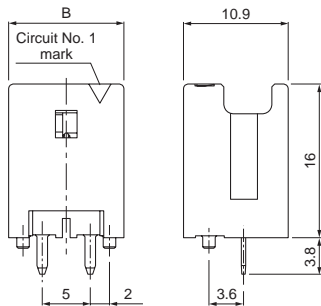
Note: Contact JST for key pattern.

HYV CONNECTOR

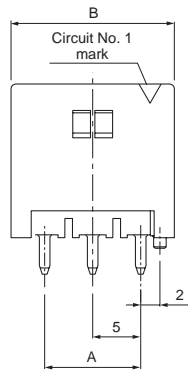
Shrouded header

Single-row type

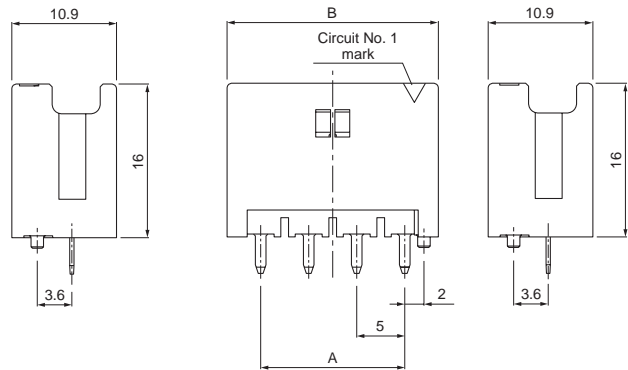
<2 circuits>



<3 circuits>

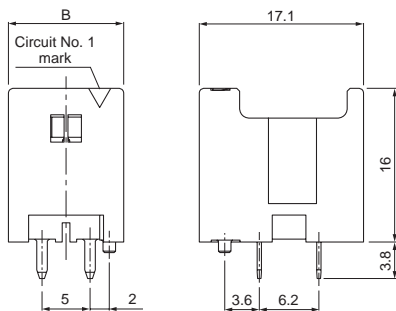


<4 circuits>

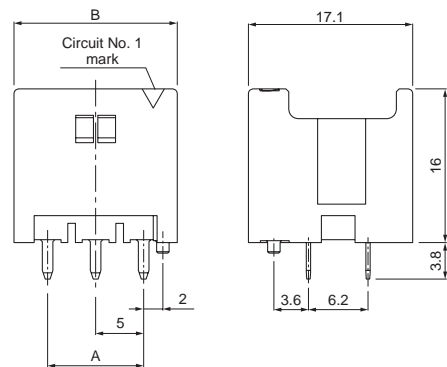


Double-row type

<4 circuits>



<6 circuits>



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

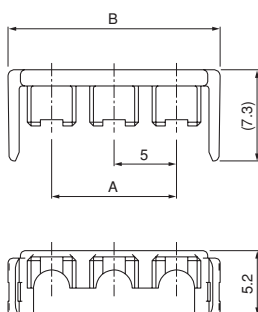
Material and Finish

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 | HYVS-02V | — | 12.0 | 2,000 |
| 3 | HYVS-03V | 10.0 | 17.0 | 2,000 |
| 4 | HYVS-04V | 15.0 | 22.0 | 1,000 |

Material

Glass-filled PA 66, UL94V-0, natural

RoHS compliance

HYV CONNECTOR

Contact position location numbers

