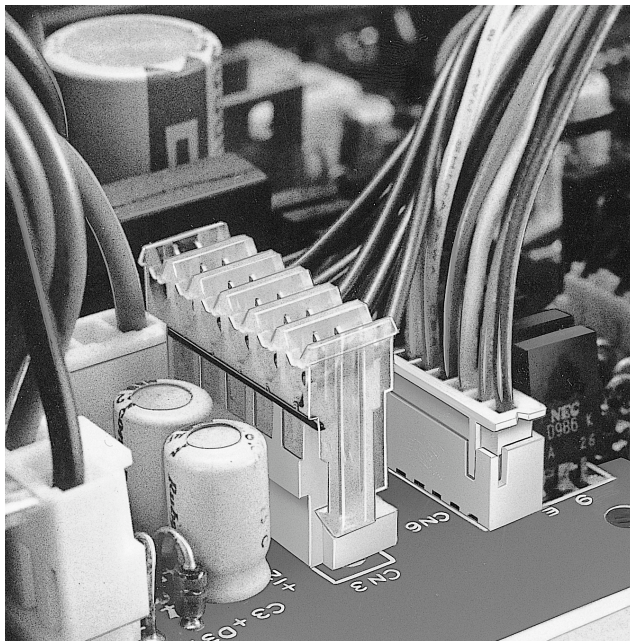
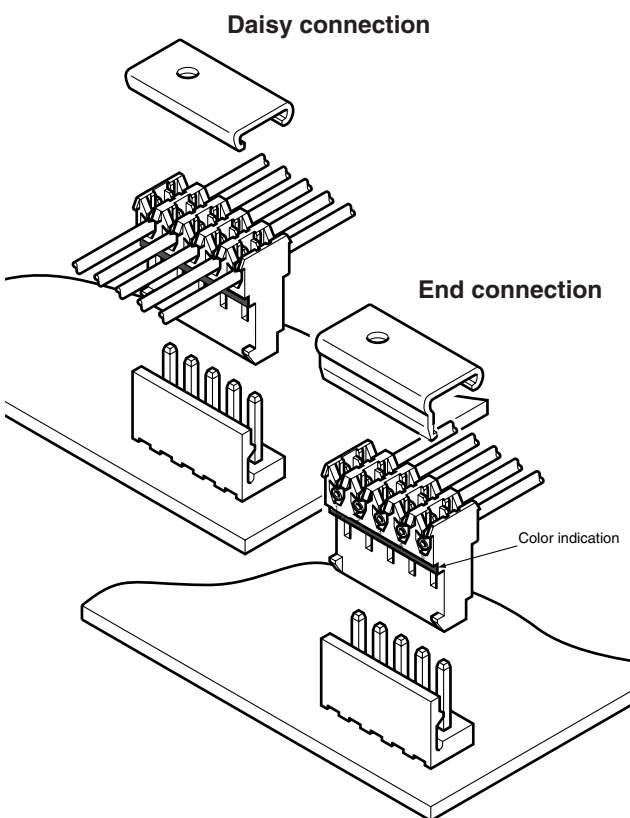


# VR CONNECTOR

Disconnectable Insulation displacement connectors



**This 3.96mm pitch insulation displacement connector is used with printed circuit boards. Since the connector can accommodate 18 AWG wires and has a large pitch, it is ideal for connecting power supply circuits.**



## Features

### • Twin U-slot insulation displacement section

The insulation displacement section connected to each wire consists of two tin-plated slots (twin U-slots), which ensures reliable connection.

### • Two types of connections

This receptacle can be used for both daisy chain (through) connections and end connections. The end connections can be made from either direction.

## Specifications

- Current rating: 7A AC, DC (AWG #18)
- Voltage rating: 250V AC, DC
- Temperature range: -25°C to +85°C  
(including temperature rise in applying electrical current)
- Contact resistance: Initial value/10m Ω max.  
After environmental testing/20 mΩ max.
- Insulation resistance: 1,000M Ω min.
- Withstanding voltage: 1,500V AC/minute
- Applicable wire: UL1007(Contact JST for details regarding other UL wires.)  
AWG #26, #24, #22, #20, #18  
Conductor construction/  
AWG #26 to #22: 7 strands, tin-coated  
AWG #20: 7 and 26 strands, tin-coated  
AWG #18: 34 and 43 strands  
Insulation O.D./1.3 to 2.1mm
- Applicable PC board thickness: 0.8 to 1.6mm
- \* Compliant with RoHS.
- \* Temperature Range:  
The aforementioned temperature range of this connector is described in JST Standard Product Specification.
- \* Refer to "General Instruction and Notice when using Terminals and Connectors" at the end of this catalog.
- \* Contact JST for details.

**Note:**

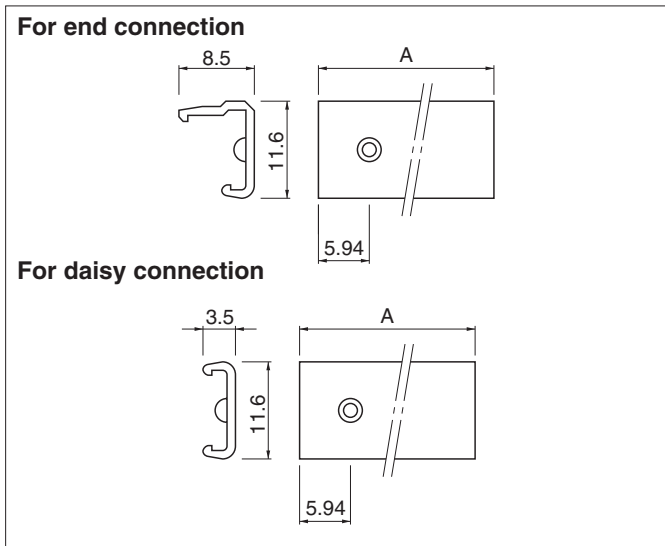
Do not branch in parallel current which exceeds the rated current. If branched in parallel, current imbalance or other problems may develop. If it is absolutely necessary to branch a large current in parallel, design the circuits without causing imbalance and provide an extra margin for each circuit.

## Standards

Recognized E60389

Certified LR20812

## Cover



| Cir-cuits | Model No.          |                      | Dimensions A (mm) | Q'ty / box |
|-----------|--------------------|----------------------|-------------------|------------|
|           | For end connection | For daisy connection |                   |            |
| 2         | VRC-02E            | VRC-02D              | 7.92              | 1,000      |
| 3         | VRC-03E            | VRC-03D              | 11.88             | 1,000      |
| 4         | VRC-04E            | VRC-04D              | 15.84             | 500        |
| 5         | VRC-05E            | VRC-05D              | 19.80             | 500        |
| 6         | VRC-06E            | VRC-06D              | 23.76             | 500        |
| 8         | VRC-08E            | VRC-08D              | 31.68             | 250        |
| 9         | VRC-09E            | VRC-09D              | 35.64             | 250        |
| 10        | VRC-10E            | VRC-10D              | 39.60             | 200        |
| 12        | VRC-12E            | VRC-12D              | 47.52             | 200        |
| 15        | VRC-15E            | VRC-15D              | 59.40             | 200        |

### Material

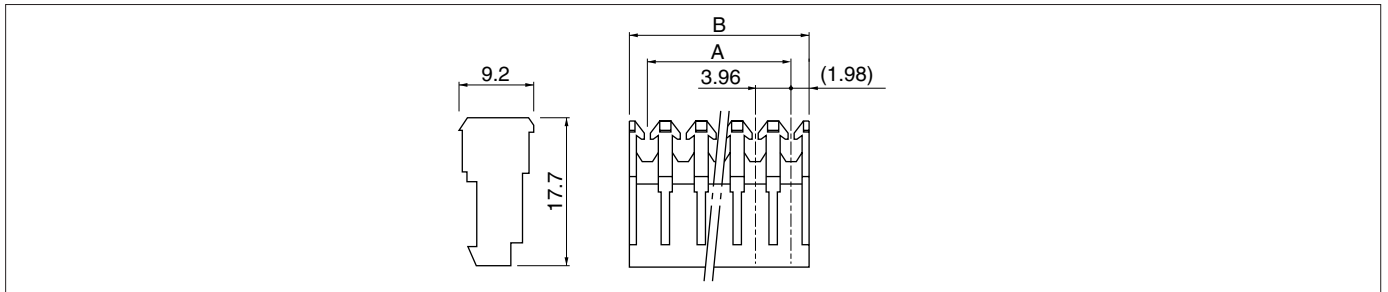
Polyvinyl chloride, UL94V-0 (black)

### RoHS compliance

Note:

1. The use of this cover keeps the terminated part from dust.
2. Contact JST if cover is required.

## Receptacle



| Cir-cuits | Model No.               |                 |               |                 |                  | Dimensions (mm) |       | Q'ty / bag |
|-----------|-------------------------|-----------------|---------------|-----------------|------------------|-----------------|-------|------------|
|           | AWG #26 (natural/white) | AWG #24 (black) | AWG #22 (red) | AWG #20 (brown) | AWG #18 (orange) | A               | B     |            |
| 2         | 02VR-6S                 | 02VR-4K         | 02VR-2R       | 02VR-AN         | 02VR-BO          | 3.96            | 7.92  | 2,000      |
| 3         | 03VR-6S                 | 03VR-4K         | 03VR-2R       | 03VR-AN         | 03VR-BO          | 7.92            | 11.88 | 1,000      |
| 4         | 04VR-6S                 | 04VR-4K         | 04VR-2R       | 04VR-AN         | 04VR-BO          | 11.88           | 15.84 | 1,000      |
| 5         | 05VR-6S                 | 05VR-4K         | 05VR-2R       | 05VR-AN         | 05VR-BO          | 15.84           | 19.80 | 1,000      |
| 6         | 06VR-6S                 | 06VR-4K         | 06VR-2R       | 06VR-AN         | 06VR-BO          | 19.80           | 23.76 | 1,000      |
| 8         | 08VR-6S                 | 08VR-4K         | 08VR-2R       | 08VR-AN         | 08VR-BO          | 27.72           | 31.68 | 500        |
| 9         | 09VR-6S                 | 09VR-4K         | 09VR-2R       | 09VR-AN         | 09VR-BO          | 31.68           | 35.64 | 500        |
| 10        | 10VR-6S                 | 10VR-4K         | 10VR-2R       | 10VR-AN         | 10VR-BO          | 35.64           | 39.60 | 500        |
| 12        | 12VR-6S                 | 12VR-4K         | 12VR-2R       | 12VR-AN         | 12VR-BO          | 43.56           | 47.52 | 250        |
| 15        | 15VR-6S                 | 15VR-4K         | 15VR-2R       | 15VR-AN         | 15VR-BO          | 55.44           | 59.40 | 250        |

### Material and Finish

Contact: Brass, Copper-undercoated, tin-plated (reflow treatment)  
Housing: PA 66, UL94V-2

**RoHS compliance** This product displays (LF)(SN) on a label.

Note:

1. In addition to mating with the VR headers, the VR receptacle will also mate with VH and VS headers.
2. Color indication is shown by a line on each receptacle.

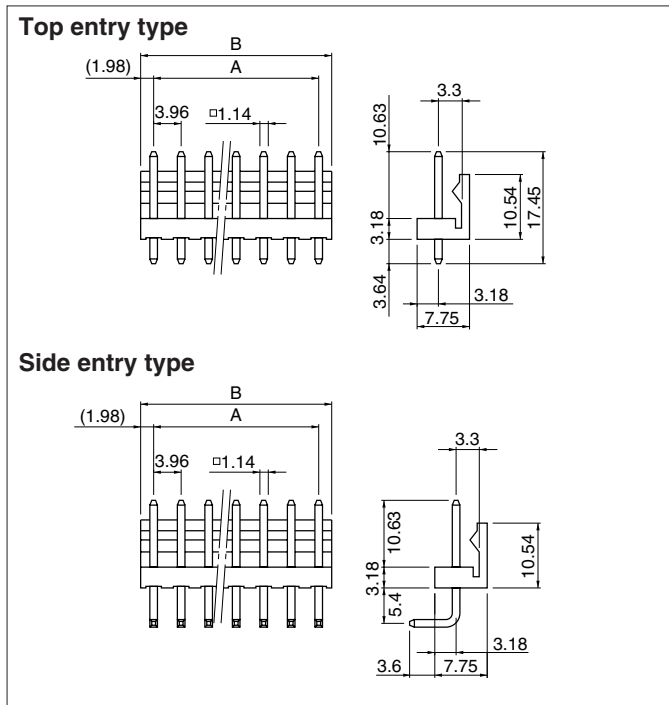
<For reference> As the color identification, the following alphabet shall be put in the underlined part. For availability, delivery and minimum order quantity, contact JST.

ex. **02VR-6S**

standard color AWG#26: S...natural (white), AWG#24: K...black, AWG#22: R...red, AWG#20: N...brown, AWG#18: O...orange, TR...tomato red E...blue M...green

# VR CONNECTOR

## Locking header (Friction lock header)

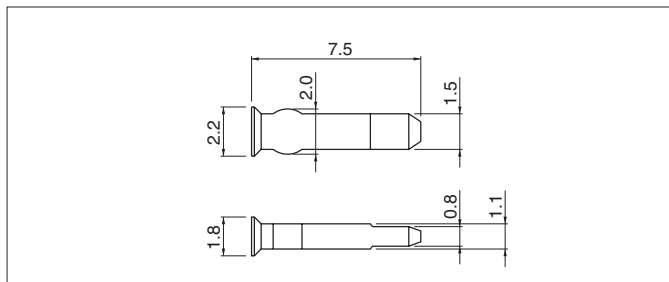


| Circuits | Model No.        |                   | Dimensions (mm) |       | Q'ty / box     |                 |
|----------|------------------|-------------------|-----------------|-------|----------------|-----------------|
|          | Top entry type   | Side entry type   | A               | B     | Top entry type | Side entry type |
| 2        | <b>B 2P-VR</b>   | <b>B 2PS-VR</b>   | 3.96            | 7.92  | 1,000          | 250             |
| 3        | <b>B 3P-VR</b>   | <b>B 3PS-VR</b>   | 7.92            | 11.88 | 500            | 250             |
| 4        | <b>B 4P-VR</b>   | <b>B 4PS-VR</b>   | 11.88           | 15.84 | 250            | 250             |
| 5        | <b>B 5P-VR</b>   | <b>B 5PS-VR</b>   | 15.84           | 19.80 | 250            | 250             |
| 6        | <b>B 6P-VR</b>   | <b>B 6PS-VR</b>   | 19.80           | 23.76 | 250            | 100             |
| 8        | <b>B 8P-VR</b>   | <b>B 8PS-VR</b>   | 27.72           | 31.68 | 200            | 100             |
| 9        | <b>B 9P-VR</b>   | <b>B 9PS-VR</b>   | 31.68           | 35.64 | 100            | 100             |
| 10       | <b>B10P-VR</b>   | <b>B10PS-VR</b>   | 35.64           | 39.60 | 100            | 100             |
| 12       | <b>B12P-VR-P</b> | <b>B12PS-VR-P</b> | 43.56           | 47.52 | 100            | 100             |
| 15       | <b>B15P-VR-P</b> | <b>B15PS-VR-P</b> | 55.44           | 59.40 | 100            | 100             |

**Material and Finish**  
 Post: Brass, copper-undercoated, tin-plated (reflow treatment)  
 Wafer: 2 to 10 circuits / PA 66, UL94V-0, natural (white)  
 12 and 15 circuits / PBT, UL94V-0, natural (white)

**RoHS compliance** This product displays (LF)(SN) on a label.

## Polarizing key

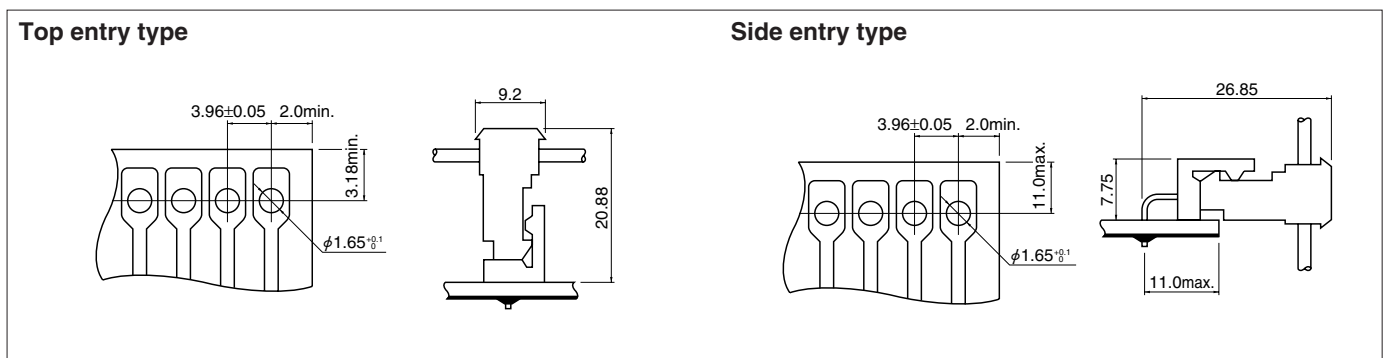


| Model No.    | Q'ty / bag |
|--------------|------------|
| <b>PK-VR</b> | 5,000      |

**Material**  
 Glass-filled PA 66, UL94V-0, natural (gray)

**RoHS compliance**  
 Note: Not UL/CSA approved.

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



**Note:**  
 1. Tolerances are non-cumulative: ±0.05mm 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.