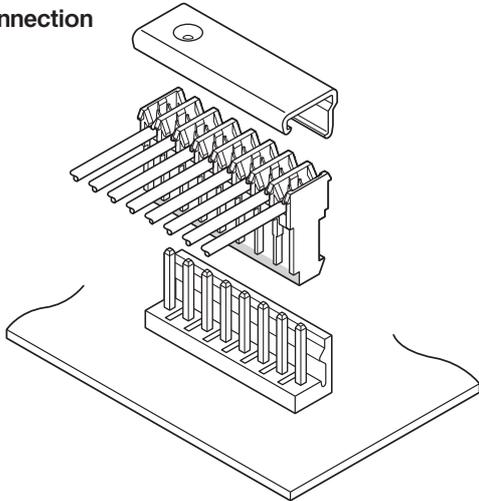


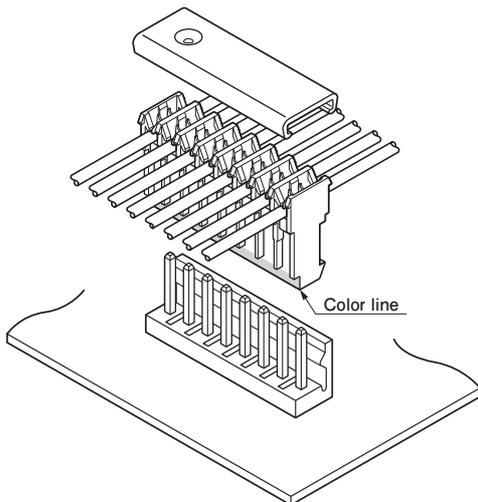
# VR CONNECTOR

3.96 mm/Wire-to-Board connectors/ IDC style (Insulation displacement connector) and Mating style

## End connection



## Daisy chain connection



The VR series is a 3.96 mm pitch wire-to-board connector for 7 A rated power supply circuits. Furthermore, it can accommodate AWG #18 wire, which is rare for an IDC connector.

## ■ Features

### • Twin U-slot insulation displacement section

The contacts built into the socket connect to the post with base at two separate points, in both the front and back areas, ensuring a high performance, stable electrical connection.

### • Two wiring styles

Two wiring styles are possible, including daisy chain through connections and end connections, depending on the circuit design.

## ■ Standards

Ⓜ: Recognized E60389

Ⓢ: Certified LR 20812

## ■ Specifications

### • Current rating: 7 A AC/DC (AWG #18)

Note) Notes on parallel branching current:

Do not branch to the multiple circuits in parallel current which 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: 250 V AC/DC

### • Temperature range: -25°C to +85°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:

There shall be no breakdown or flashover while applying 1,500 VAC for one minute.

### • Applicable wire range:

UL style No./ UL1007

Note) Please contact JST for details regarding the use of other UL style wires.

Conductor size/ AWG #26 to AWG #18

Conductor composition/

AWG #26 to AWG #22: 7 strands, tin-coated

AWG #20: 7 strands, 26 strands, tin-coated

AWG #18: 34 strands, 43 strands

Insulation O.D./  $\phi$  1.3 mm to  $\phi$  2.1 mm

### • Applicable PC board thickness: 0.8 mm to 1.6 mm

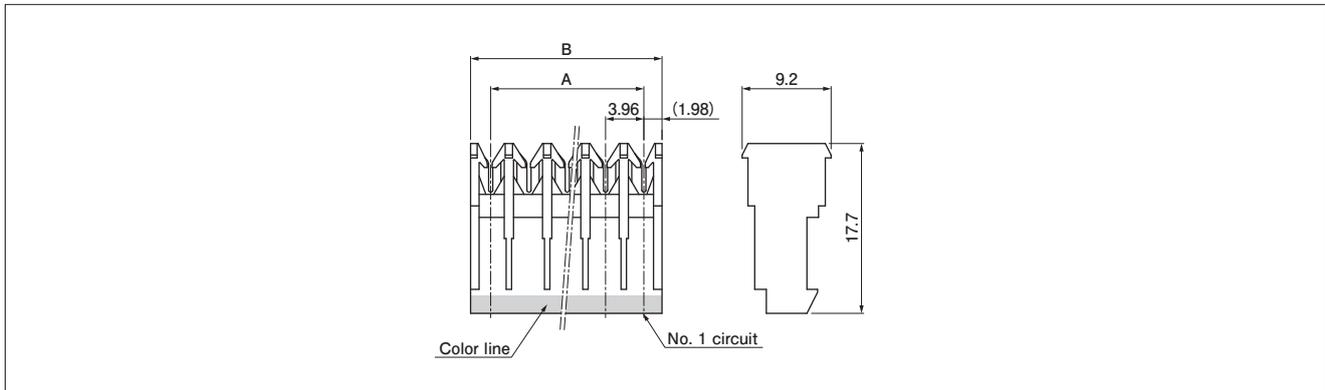
\* In using the products, refer to "Handling Precautions for Terminals and Connectors" described on our website (Technical documents of Product information page).

\* RoHS2 compliance

\* Dimensional unit: mm

\* Contact JST for details.

## Socket



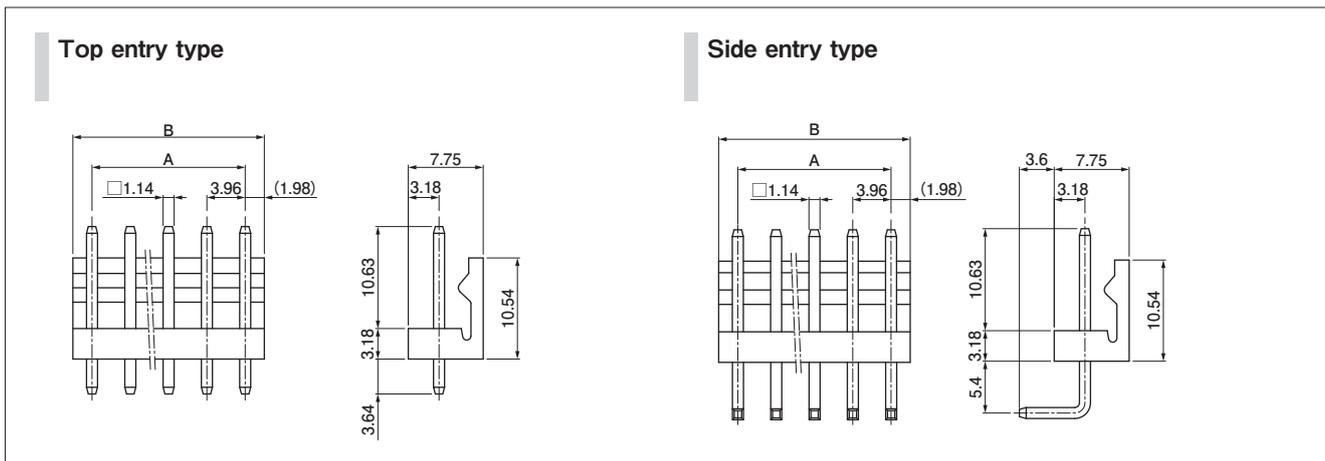
No. of circuits	Model No.					Dimensions (mm)		Q'ty/bag
	For AWG #26 Line color: No color	For AWG #24 Line color: black	For AWG #22 Line color: red	For AWG #20 Line color: brown	For AWG #18 Line color: orange	A	B	
2	—	—	—	02VR-AN	02VR-BO	3.96	7.92	2,000
3	—	03VR-4K	03VR-2R	03VR-AN	03VR-BO	7.92	11.88	1,000
4	—	—	—	04VR-AN	04VR-BO	11.88	15.84	1,000
5	—	—	—	—	05VR-BO	15.84	19.80	1,000
6	—	—	—	06VR-AN	06VR-BO	19.80	23.76	1,000
8	—	—	08VR-2R	08VR-AN	08VR-BO	27.72	31.68	500
10	10VR-6S	—	—	—	10VR-BO	35.64	39.60	500

Material and Surface finish, etc.

Contact: Brass, copper-undercoated, tin-plated  
Wafer: PA 66, UL94V-2

- Note: 1. This product displays (LF)(SN) on a label.  
2. A specified colored line is printed on the edge of each socket.

## Header



No. of circuits	Model No.		Dimensions (mm)		Q'ty/box	
	Top entry type	Side entry type	A	B	Top entry type	Side entry type
2	B2P-VR	B2PS-VR	3.96	7.92	1,000	250
3	B3P-VR	B3PS-VR	7.92	11.88	500	250
4	B4P-VR	B4PS-VR	11.88	15.84	250	250
5	B5P-VR	B5PS-VR	15.84	19.80	250	250
6	B6P-VR	B6PS-VR	19.80	23.76	250	100
8	B8P-VR	B8PS-VR	27.72	31.68	200	100
9	B9P-VR	—	31.68	35.64	100	—
10	B10P-VR	B10PS-VR	35.64	39.60	100	100

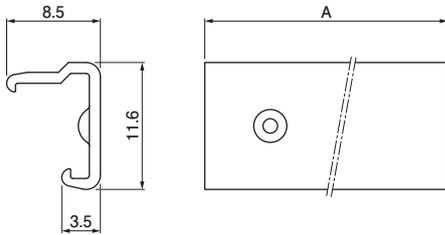
Material and Surface finish, etc.

Post: Brass, copper-undercoated, tin-plated  
Wafer: PA 66, UL94V-0, natural (white)

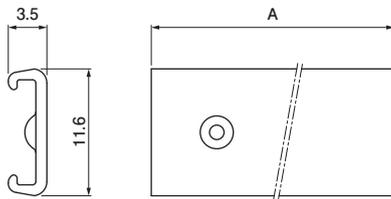
- Note: 1. This product displays (LF)(SN) on a label.  
2. In addition to VR headers, the VR socket can also be mated with VS headers and VH headers.  
For further details, please refer to product catalogs and specifications or contact JST.

## Cover

### For end connection



### For daisy chain connection



No. of circuits	Model No.		Dimension A (mm)	Q'ty/box
	For end connection	For daisy chain 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	—	19.80	500
6	VRC-06E	VRC-06D	23.76	500

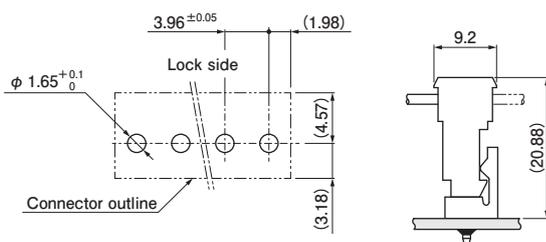
Material and Surface finish, etc.

Polyvinyl chloride, UL94V-0, black

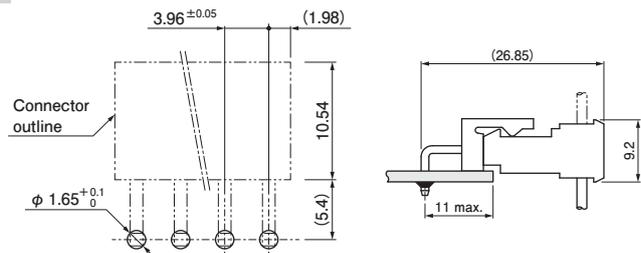
- Note: 1. This product displays (LF) on a label.  
 2. Polyvinyl chloride material is a rigid form of PVC which has lower normal heat-resistance temperature and a lower softening point than nylon. Therefore, please take temperature into consideration when using the cover.  
 3. The use of the cover helps to prevent dust from adhering to the IDC contact area.

## PC board layout and Assembly layout

### Top entry type



### Side entry type



- Note: 1. The figure of PC board layout is the figure viewed from the connector mounting side.  
 2. Tolerance for the PCB hole pitch shall be  $\pm 0.05$  and shall not accumulate.  
 3. Hole dimensions differ according to the type of PC board and piercing method.  
 The above dimensions are reference values. Please contact JST for details.

## Model number allocation

### Socket

	<b>02 VR - BO</b>
No. of circuits	
Series name	
Applicable wire: 6···AWG #26, 4···AWG #24, 2···AWG #22 A···AWG #20, B···AWG #18	
Line color : S···No color, K···black, R···red, N···brown, O···orange	

### Header

	<b>B 2 P - VR</b>
Assembly product	
No. of circuits	
Assembly form : P···Top entry type PS···Side entry type	
Series name	

### Cover

	<b>VRC - 02 E</b>
Series name	
Type: Cover	
No. of circuits	
Type: E···For end connection D···For daisy chain connection	