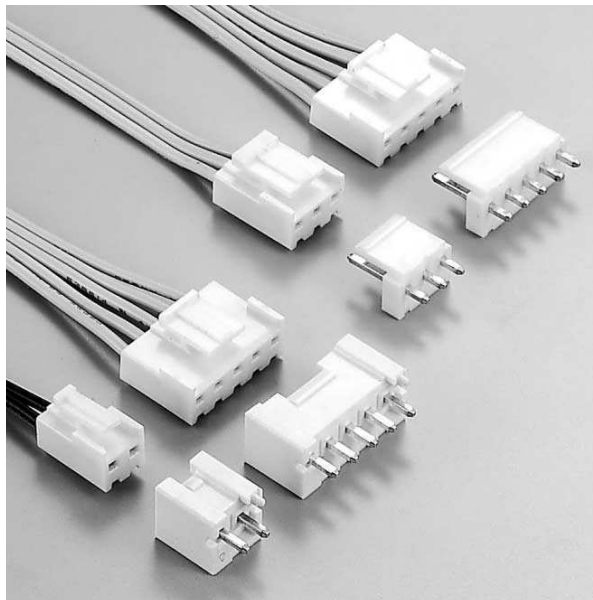
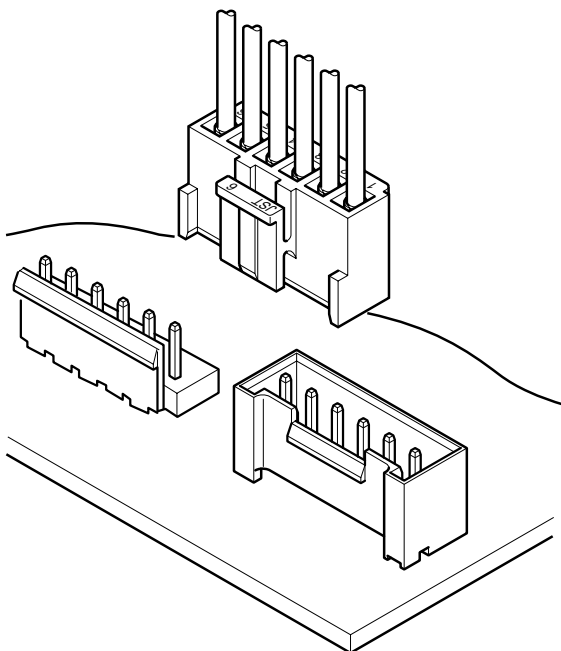


# VH CONNECTOR

Disconnectable Crimp style connectors



**This small, field-proven connector for printed circuit boards is reliable and has a large current carrying capacity. It can be used with a wide variety of signal, power supply, and output circuits that appear in consumer electronic products.**



## Features

### • Proven box contact

This connector was developed with the same box-shaped contact design used successfully in the NH connectors. The reliable VH connector can be used in a wide variety of applications, from low-voltage, low-current signal circuits to power supply circuits having a relatively large capacity.

### • Compact connector with a large capacity

Even though this connector has a large current carrying capacity (10A), it is compact, with a mounting height of 16.5mm (.650").

### • Secure contact and mounting

The housing has a lock mechanism which prevents the connector from coming loose due to vibration. The mechanism also prevents misinsertion (misalignment or reverse insertion).

## Specifications

- Current rating: 10A AC, DC (AWG#16)
- 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/20m Ω max.
- Insulation resistance: 1,000M Ω min.
- Withstanding voltage: 1,500V AC/minute
- Applicable wire: AWG #22 to #16
- Applicable PC board thickness: 1.6mm(.063")

**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 such a large current in parallel, be sure to use contacts made of phosphor bronze. Design the circuits without causing imbalance and provide an extra margin for each circuit.*

\* Contact JST if Lead-Free product is required.

\* Temperature Range:

The aforementioned temperature range of this connector is described in JST Standard Product Specification. Maximum temperature registered in UL is 105°C.

\* Refer to "General Instruction and Notice when using Terminals and Connectors" at the end of this catalog.

\* Contact JST for details.

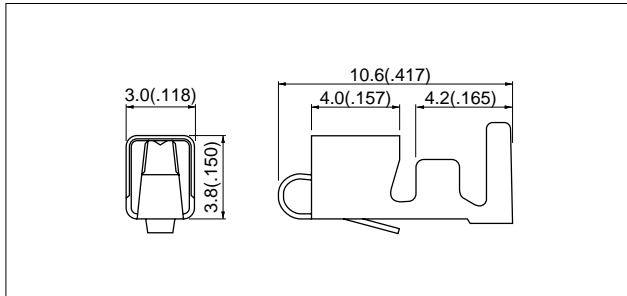
## Standards

Ⓜ Recognized E60389

Ⓢ Certified LR20812

⚠ R75122

## Contact



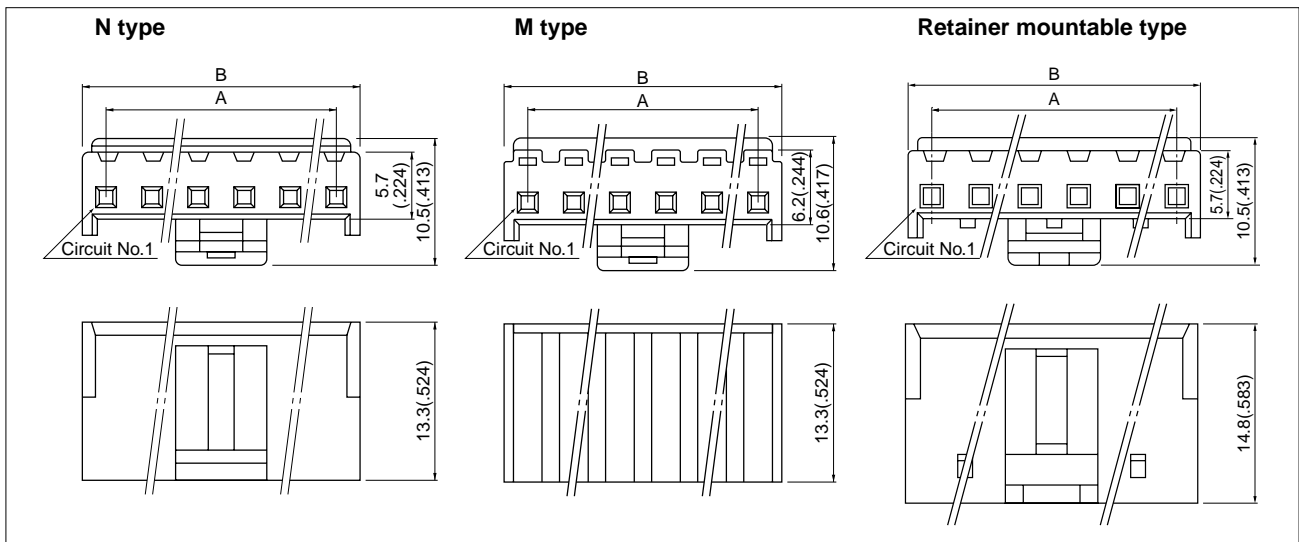
Model No.	Applicable wire			Q'ty / reel
	mm <sup>2</sup>	AWG #	Insulation O.D. mm(in.)	
<b>SVH-21T-P1.1</b>	0.33 to 0.83	22 to 18	1.7 to 3.0 (.067 to .118)	4,500
<b>SVH-41T-P1.1</b>	0.5 to 1.25	20 to 16	1.7 to 3.0 (.067 to .118)	3,500

### Material and Finish

Phosphor bronze, tin-plated

- Note: 1. Contact JST if you require contacts made of brass.  
 2. When using retainer mountable type housing, applicable wire's insulation O. D. shall be 1.7 to 2.2mm(.067" to .087").

## Housing



Cir-uits	Model No.			Dimensions mm(in.)		Q'ty / bag
	N type	M type	Retainer mountable type	A	B	
2	<b>VHR-2N</b>	<b>VHR-2M</b>	<b>VHRR-2N</b>	3.96( .156)	7.86( .309)	1,000
3	<b>VHR-3N</b>	<b>VHR-3M</b>	<b>VHRR-3N</b>	7.92( .312)	11.82( .465)	1,000
4	<b>VHR-4N</b>	<b>VHR-4M</b>	—	11.88( .468)	15.78( .621)	1,000
5	<b>VHR-5N</b>	<b>VHR-5M</b>	<b>VHRR-5N</b>	15.84( .624)	19.74( .777)	1,000
6	<b>VHR-6N</b>	<b>VHR-6M</b>	—	19.80( .780)	23.70( .933)	500
7	<b>VHR-7N</b>	<b>VHR-7M</b>	<b>VHRR-7N</b>	23.76( .935)	27.66(1.089)	500
8	<b>VHR-8N</b>	—	<b>VHRR-8N</b>	27.72(1.091)	31.62(1.245)	500
9	<b>VHR-9N</b>	<b>VHR-9M</b>	<b>VHRR-9N</b>	31.68(1.247)	35.58(1.401)	500
10	<b>VHR-10N</b>	—	—	35.64(1.403)	39.54(1.557)	500
11	<b>VHR-11N</b>	—	—	39.60(1.559)	43.50(1.713)	500

### Material

Nylon 6, UL94V-0, natural (white)

- Note: 1. Models identified as VHR-( ) M incorporate measures to prevent electric shock and are thus safer in regard to high voltages.  
 2. The applicable housing for 2-circuits shrouded header is "VHR-2N" only. "VHRR-2N" is not applicable.  
 3. Models VHR-11N and VHRR-( )N are not TÜV approved.

<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.

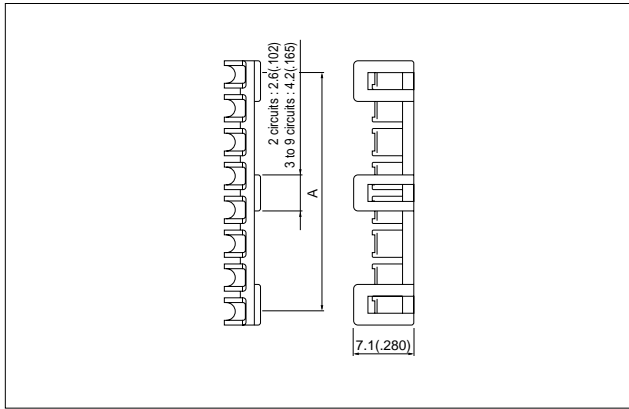
ex. **VHR-2N-oo**

(blank)...natural (white)

BK...black R...red BL...blue M...green D...orange Y...yellow PK...pink H...gray

# VH CONNECTOR

## Retainer



Circuits	Model No.	A	Q'ty / bag
2	<b>VHS-2V</b>	3.70( .146)	1,000
3	<b>VHS-3V</b>	7.52( .296)	1,000
5	<b>VHS-5V</b>	15.44( .608)	1,000
7	<b>VHS-7V</b>	23.36( .920)	1,000
8	<b>VHS-8V</b>	27.32(1.076)	1,000
9	<b>VHS-9V</b>	31.28(1.231)	1,000

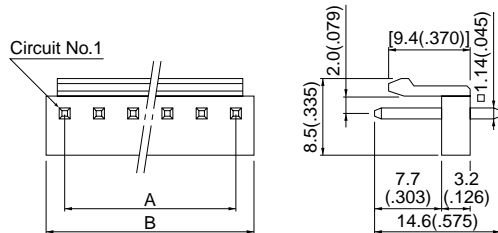
### Material

Glass-filled nylon 66, UL94V-0, natural (ivory)

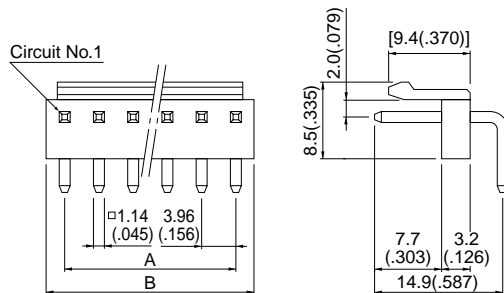
Note: Not TÜV approved.

## Locking header

### Top entry type



### Side entry type



Circuits	Model No.		Dimensions mm(in.)		Q'ty / box	
	Top entry type	Side entry type	A	B	Top entry type	Side entry type
2	<b>B 2P-VH</b>	<b>B 2PS-VH</b>	3.96( .156)	7.86( .309)	1,000	1,000
3	<b>B 3P-VH</b>	<b>B 3PS-VH</b>	7.92( .312)	11.82( .465)	1,000	500
4	<b>B 4P-VH</b>	<b>B 4PS-VH</b>	11.88( .468)	15.78( .621)	500	500
5	<b>B 5P-VH</b>	<b>B 5PS-VH</b>	15.84( .624)	19.74( .777)	500	250
6	<b>B 6P-VH</b>	<b>B 6PS-VH</b>	19.80( .780)	23.70( .933)	250	250
7	<b>B 7P-VH</b>	<b>B 7PS-VH</b>	23.76( .935)	27.66(1.089)	250	250
8	<b>B 8P-VH</b>	<b>B 8PS-VH</b>	27.72(1.091)	31.62(1.245)	200	200
9	<b>B 9P-VH</b>	<b>B 9PS-VH</b>	31.68(1.247)	35.58(1.401)	200	200
10	<b>B10P-VH</b>	<b>B10PS-VH</b>	35.64(1.403)	39.54(1.557)	200	200

### Material and Finish

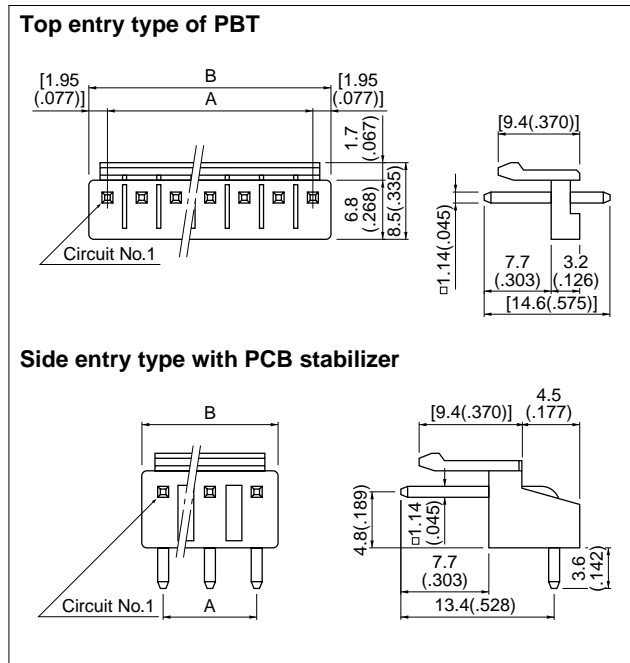
Post: Brass, copper-undercoated, tin/lead-plated  
Wafer: Nylon 66, UL94V-0, natural (white)

Note: Headers with a reduced number of posts are also available.  
Contact JST for details.

<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. **B2P(S)-VH-oo**  
(blank)...natural (white)  
BK...black R...red TR...tomato red BL...blue M...green  
O...orange Y...yellow PK...pink H...gray

## Locking header



Circuits	Model No.		Dimensions mm(in.)		Q'ty / box	
	Top entry type of PBT	Side entry type with PCB stabilizer	A	B	Top entry type	Side entry type
2	<b>B 2P-VH-B</b>	<b>S2P-VH</b>	3.96( .156)	7.86( .309)	1,000	1,000
3	<b>B 3P-VH-B</b>	<b>S3P-VH</b>	7.92( .312)	11.82( .465)	500	500
4	<b>B 4P-VH-B</b>	<b>S4P-VH</b>	11.88( .468)	15.78( .621)	500	500
5	<b>B 5P-VH-B</b>	<b>S5P-VH</b>	15.84( .624)	19.74( .777)	250	250
6	<b>B 6P-VH-B</b>	—	19.80( .780)	23.70( .933)	250	—
7	<b>B 7P-VH-B</b>	<b>S7P-VH</b>	23.76( .935)	27.66(1.089)	250	250
8	<b>B 8P-VH-B</b>	—	27.72(1.091)	31.62(1.245)	200	—
9	<b>B 9P-VH-B</b>	—	31.68(1.247)	35.58(1.401)	200	—
10	<b>B10P-VH-B</b>	—	35.64(1.403)	39.54(1.557)	200	—
11	<b>B11P-VH-B</b>	—	39.60(1.559)	43.50(1.713)	—	—

### Material and Finish

Post: Brass, copper-undercoated, tin/lead-plated  
 Wafer: Top entry type of PBT: Glass-filled PBT, UL94V-0, natural (ivory)  
 Side entry type with PCB stabilizer: Nylon 66, UL94V-0, natural (white)

Note : B11P-VH-B is not TÜV approved.

<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.

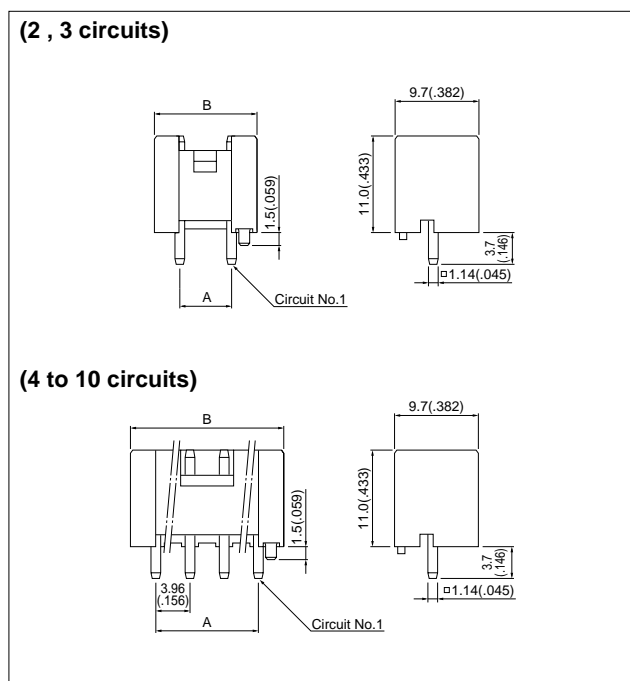
<Top entry type of PBT>

ex. **B2P-VH-B-oo**  
 (blank)...natural (ivory)  
 C...black R...red E...blue M...green Y...yellow

<Side entry type with PCB stabilizer>

ex. **S2P-VH-oo**  
 (blank)...natural (white)  
 BK...black R...red BL...blue Y...yellow M...green

## Shrouded header



Circuits	Model No.	Dimensions mm(in.)		Q'ty / box
		A	B	
2	<b>B 2P-VH-FB-B</b>	3.96( .156)	9.80( .386)	250
3	<b>B 3P-VH-FB-B</b>	7.92( .312)	13.76( .542)	200
4	<b>B 4P-VH-FB-B</b>	11.88( .468)	17.72( .698)	150
5	<b>B 5P-VH-FB-B</b>	15.84( .624)	21.68( .854)	200
6	<b>B 6P-VH-FB-B</b>	19.80( .780)	25.64(1.009)	200
7	<b>B 7P-VH-FB-B</b>	23.76( .935)	29.60(1.165)	100
8	<b>B 8P-VH-FB-B</b>	27.72(1.091)	33.56(1.321)	100
9	<b>B 9P-VH-FB-B</b>	31.68(1.247)	37.52(1.477)	100
10	<b>B10P-VH-FB-B</b>	35.64(1.403)	41.48(1.633)	125

### Material and Finish

Post: Brass, copper-undercoated, tin/lead-plated  
 Wafer: Glass-filled PBT, UL94V-0, natural (white)

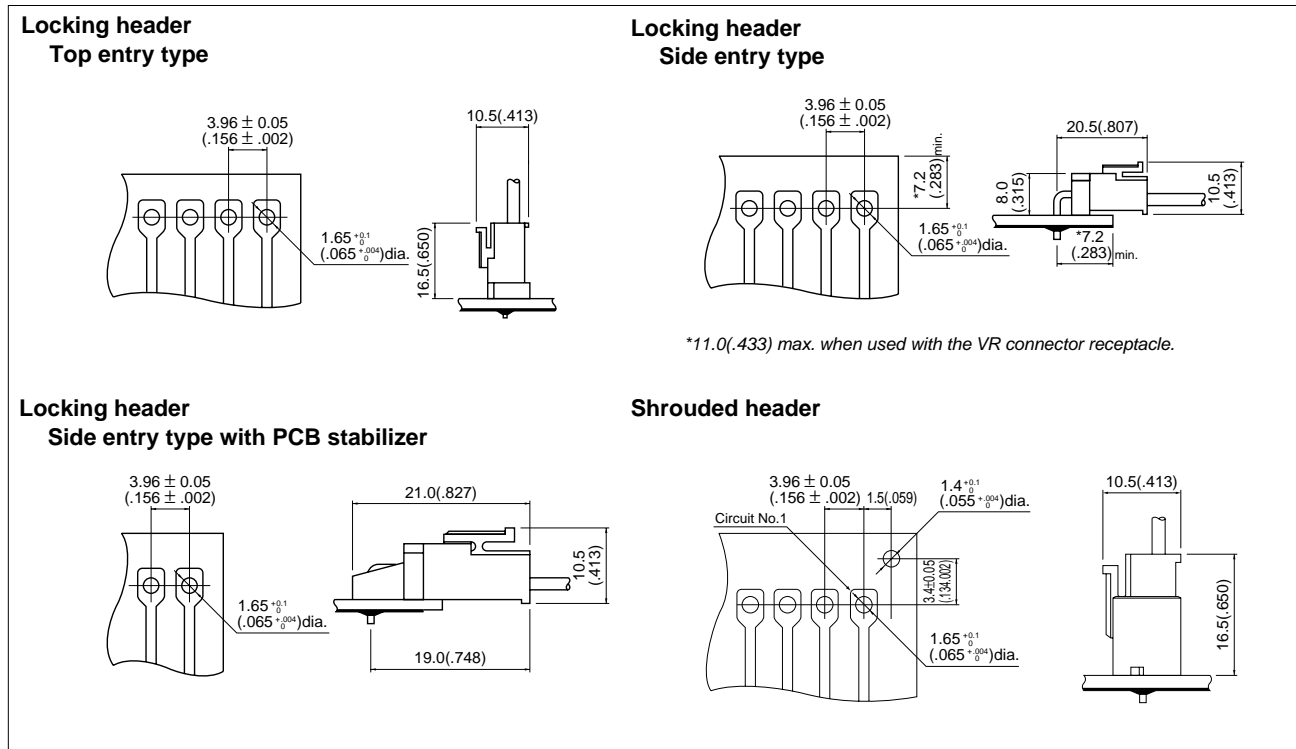
Note : The applicable housing for 2-circuits shrouded header is "VHR-2N" only. "VHRR-2N" is not applicable.

<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. **B2P-VH-FB-B-oo**  
 (blank)...natural (white)  
 R...red C...black E...blue M...green Y...yellow O...orange  
 H...gray PK...pink

# VH CONNECTOR

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



Note:

1. Tolerances are non-cumulative:  $\pm 0.05\text{mm}(\pm .002)$  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.

## Applicator for the semi-automatic press AP-K2N

Contact	Crimp applicator MKS-L		Compact crimp applicator MKS-LS		Strip-crimp applicator MKS-SC
	with safety cover	without safety cover	with safety cover	without safety cover	with safety cover
SVH-21T-P1.1	APLMK SVH21-11	APLNC SVH21-11	-	-	APLSC SVH21-11
SVT-41T-P1.1	APLMK SVT41-11	APLNC SVT41-11	-	-	-