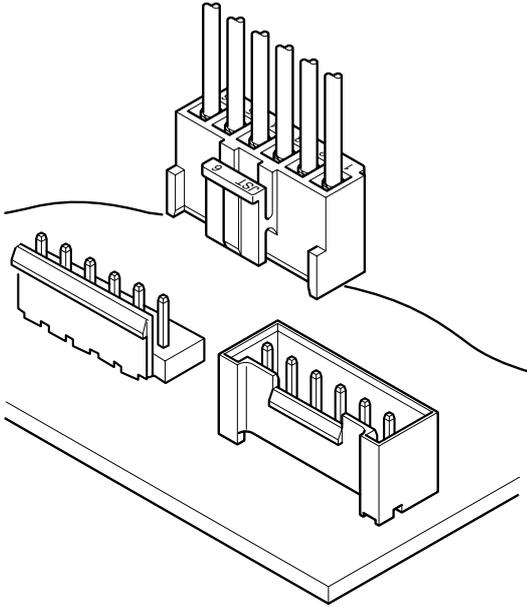# VH CONNECTOR

3.96mm pitch/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.

- **Proven box contact**
- **Compact connector with a large capacity**
- **Secure contact and mounting**

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

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.

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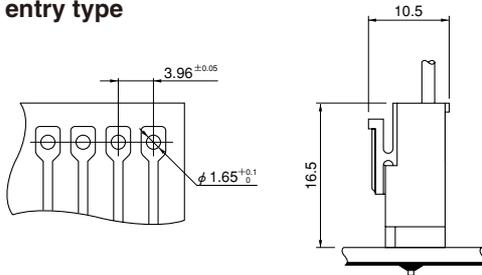* Contact JST for details.

Standards

- **U** Recognized E60389
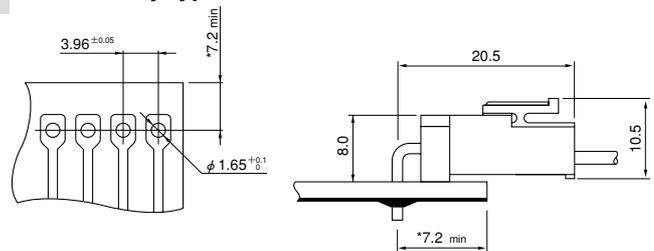- **CSA** Certified LR20812
- **△** R75122

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

Locking header
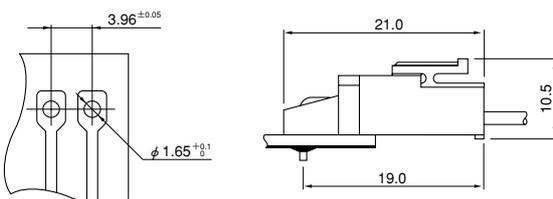#### Top entry type

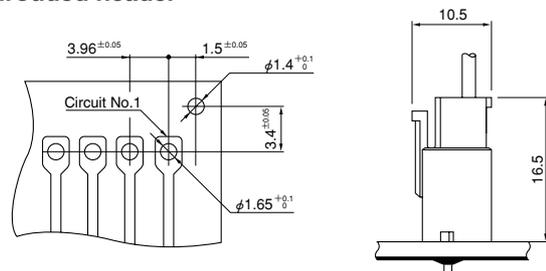

Locking header
Side entry type

11.0 max. when used with the VR connector receptacle.

Locking header
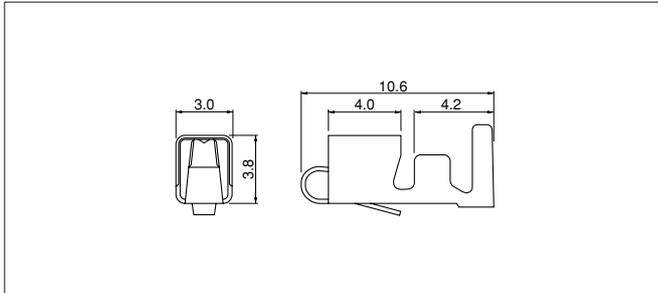#### Side entry type with PCB stabilizer

Shrouded header

Note: 1. Tolerances are non-cumulative: ±0.05mm for all centers.
2. Please consider the pattern layout design in case of applying the large current.
3. 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.

Contact

Model No.	Applicable wire		Insulation O.D. (mm)	Q'ty / reel
	mm²	AWG#		
SVH-21T-P1.1	0.33～0.83	22～18	1.7～3.0	4,500
SVH-41T-P1.1	0.5 ～1.25	20～16	1.7～3.0	3,500

Material and Finish
Phosphor bronze, tin-plated (reflow treatment)

RoHS compliance
*Note: 1. Contact JST for brass products.*
2. When using retainer mountable type housing, applicable wire's insulation O. D. shall be 1.7 to 2.2mm.

Contact	Crimping machine	Applicator		
		Crimp applicator	Dies	Crimp applicator with dies
SVH-21T-P1.1	AP-K2N	MKS-L	MK/SVH-21-11	APLMK SVH21-11
		*MKS-SC	SC/SVH-21-11	APLSC SVH21-11

*Note: *Strip-crimp applicator*

Contact	Crimping machine	Applicator		
		Crimp applicator	Dies	Crimp applicator with dies
SVH-41T-P1.1	AP-K2N	MKS-L	MK/SVH-41-11	APLMK SVH41-11
		—	—	—

Housing

N type
M type
Retainer mountable type
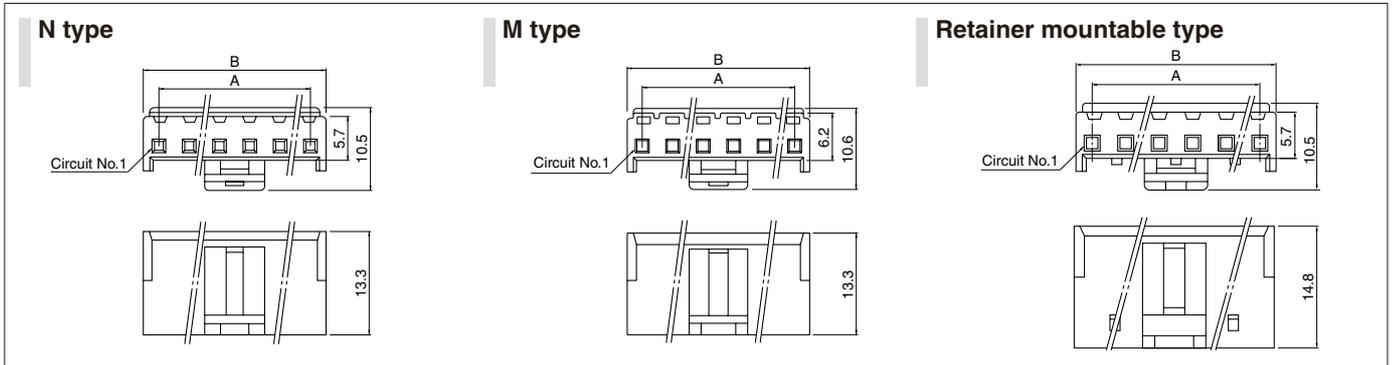
Circuits	Model No.			Dimensions (mm)		Q'ty / bag
	N type	M type	Retaine mountable type	A	B	
2	VHR-2N	VHR-2M	*VHRR-2N	3.96	7.86	1,000
3	VHR-3N	VHR-3M	*VHRR-3N	7.92	11.82	1,000
4	VHR-4N	VHR-4M	—	11.88	15.78	1,000
5	VHR-5N	VHR-5M	*VHRR-5N	15.84	19.74	1,000
6	VHR-6N	VHR-6M	—	19.80	23.70	500
7	VHR-7N	VHR-7M	*VHRR-7N	23.76	27.66	500
8	VHR-8N	—	*VHRR-8N	27.72	31.62	500
9	VHR-9N	VHR-9M	*VHRR-9N	31.68	35.58	500
10	VHR-10N	—	—	35.64	39.54	500
11	*VHR-11N	—	—	39.60	43.50	500

Material
PA 6, UL94V-0, natural (white)

RoHS compliance

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. *Marked products 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.
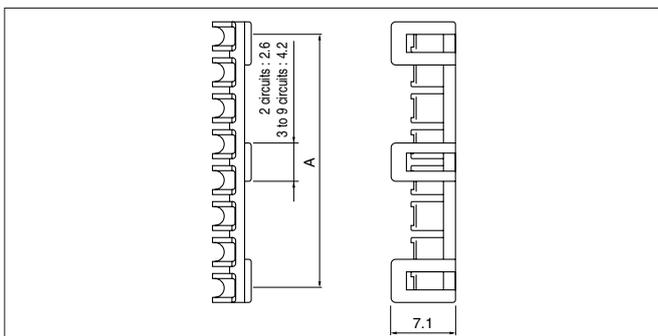
ex.   **VHR-2N-oo**
(blank)…natural (white)
BK…black R…red BL…blue M…green D…orange Y…yellow
PK…pink H…gray

Retainer

Circuits	Model No.	A	Q'ty / bag
2	**VHS-2V**	3.70	1,000
3	**VHS-3V**	7.52	1,000
5	**VHS-5V**	15.44	1,000
7	**VHS-7V**	23.36	1,000
8	**VHS-8V**	27.32	1,000
9	**VHS-9V**	31.28	1,000

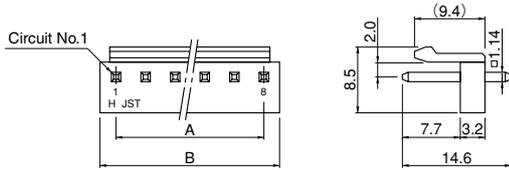| Material |
|---|
| Glass-filled PA 66, UL94V-0, natural (ivory) |

RoHS compliance
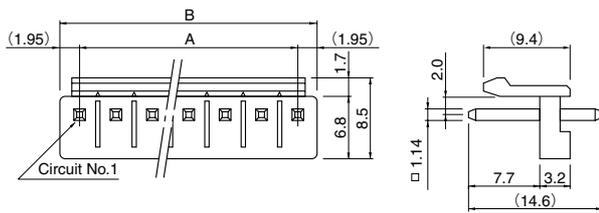*Note: Not TÜV approved.*
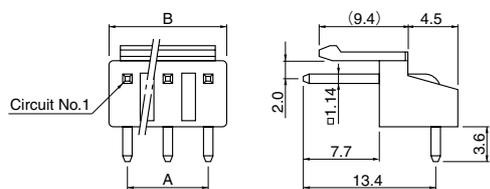
VH CONNECTOR

Locking header

Top entry type

Circuit No.1

H JST

Side entry type

Circuit No.1

H JST

Top entry type of PBT

Circuit No.1

Side entry type with PCB stabilizer

Circuit No.1

Circuits	Model No.		Dimensions (mm)		Q'ty / box	
	Top entry type	Side entry type	A	B	Top entry type	Side entry type
2	B2P-VH	B2PS-VH	3.96	7.86	1,000	1,000
3	B3P-VH	B3PS-VH	7.92	11.82	1,000	500
4	B4P-VH	B4PS-VH	11.88	15.78	500	500
5	B5P-VH	B5PS-VH	15.84	19.74	500	250
6	B6P-VH	B6PS-VH	19.80	23.70	250	250
7	B7P-VH	B7PS-VH	23.76	27.66	250	250
8	B8P-VH	B8PS-VH	27.72	31.62	200	200
9	B9P-VH	B9PS-VH	31.68	35.58	200	200
10	B10P-VH	B10PS-VH	35.64	39.54	200	100

Material and Finish
Post: Brass, copper-undercoated, tin-plated (reflow treatment) Wafer: PA 66 UL94V-0, natural (white)

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

Circuits	Model No.		Dimensions (mm)		Q'ty / box	
	Top entry type of PBT	Side entry type with PCB stabilizer	A	B	Top entry type	Side entry type
2	B2P-VH-B	S2P-VH	3.96	7.86	1,000	1,000
3	B3P-VH-B	S3P-VH	7.92	11.82	1,000	500
4	B4P-VH-B	S4P-VH	11.88	15.78	500	500
5	B5P-VH-B	S5P-VH	15.84	19.74	500	250
6	B6P-VH-B	S6P-VH	19.80	23.70	250	250
7	B7P-VH-B	S7P-VH	23.76	27.66	250	250
8	B8P-VH-B	—	27.72	31.62	200	—
9	B9P-VH-B	—	31.68	35.58	200	—
10	B10P-VH-B	—	35.64	39.54	200	—
11	*B11P-VH-B	—	39.60	43.50	200	—

Material and Finish
Post: Brass, copper-undercoated, tin-plated (reflow treatment) Wafer: Top entry type of PBT: Glass-filled PBT, UL94V-0, natural (white) Side entry type with PCB stabilizer: PA 66, UL94V-0, natural (white)

RoHS compliance   *This product displays (LF)(SN) on a label.*
*Note: *Marked product 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 (white)
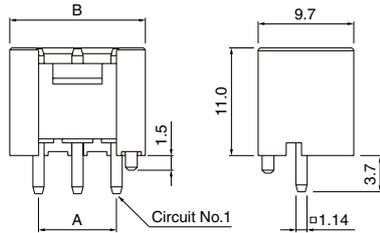   *C…black   R…red   E…blue   M…green   Y…yellow*
<Side entry type with PCB stabilizer>

  ex.   S2P-VH-oo

   (blank)…natural (white)
   BK…black   R…red   BL…blue   Y…yellow   M…green

Shrouded header

(2 , 3 circuits)

(4 to 10 circuits)
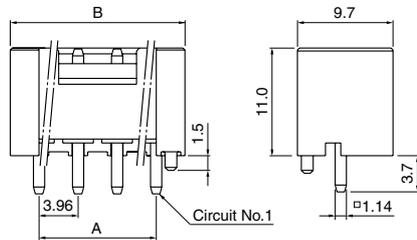
Circuits	Model No.	Dimensions (mm)		Q'ty / box
		A	B	
2	**B2P-VH-FB-B**	3.96	9.80	250
3	**B3P-VH-FB-B**	7.92	13.76	200
4	**B4P-VH-FB-B**	11.88	17.72	150
5	**B5P-VH-FB-B**	15.84	21.68	200
6	**B6P-VH-FB-B**	19.80	25.64	200
7	**B7P-VH-FB-B**	23.76	29.60	100
8	**B8P-VH-FB-B**	27.72	33.56	100
9	**B9P-VH-FB-B**	31.68	37.52	100
10	**B10P-VH-FB-B**	35.64	41.48	125

Material and Finish

Post: Copper alloy, copper-undercoated, tin-plated (reflow treatment)
Wafer: Glass-filled PBT, UL94V-0, natural (white)

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