

**JST**

Crimp

**2.5mm**  
(.098") pitch

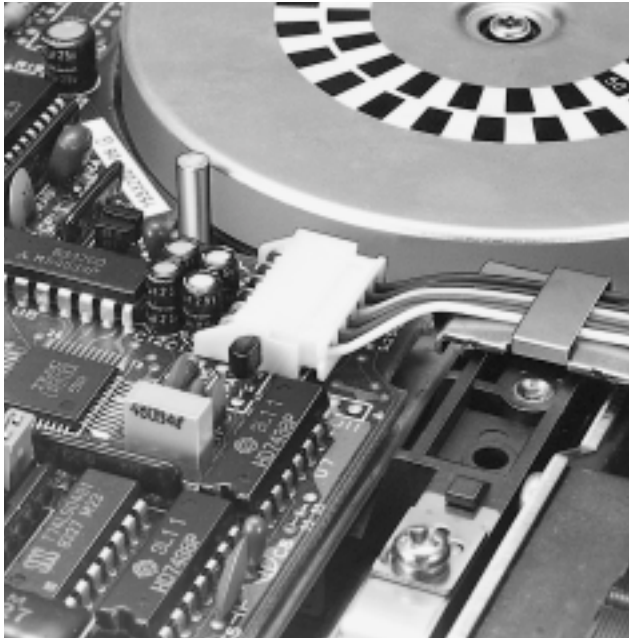
# XH CONNECTOR

*Disconnectable Crimp style connectors*

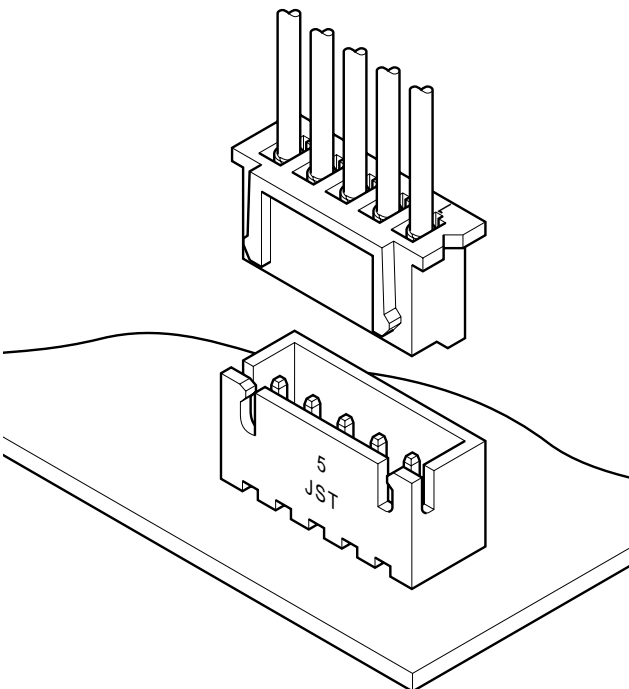
Emboss Tape



Radial Tape



**The XH connector was developed based on the high reliability and versatility of our NH series connectors. The connector is very small with a mounting height of 9.8mm (.386"). Yet it meets the needs for high-density mounting and miniaturization of electronic equipment, including VCRs, radio-cassette players, and car stereo systems.**



## Features

### • Original folded beam contact

The protected, folded beam contact in this connector provides high contact pressure with an over-stress stop feature. This ensures dependable continuity when used with low voltage, low current carrying circuits (dry circuits). The wire crimp section is mechanically decoupled from the post insertion section which, in turn, prevents the mating area from being adversely affected by crimping.

### • Box-shaped shrouded header

The four-sided, box-shaped shroud prevents the receptacle from being misinserted or pried during insertion and removal. The shroud also prevents foreign matter from reaching the posts and resists contact deformation due to handling and shipping. Furthermore, a serrated, oversized square post is pressure-fit into each square hole to completely protect the post against heat and to prevent flux from entering during dip soldering.

### • Header with a boss

This header has a boss (projection) on the bottom of the housing to prevent improper insertion in printed circuit boards.

### • Whisker prevention

The contact is treated with a reflow process and the square post is copper-undercoated and tin/lead-plated to prevent whiskers from being generated.

### • Interchangeability

This header is interchangeable with those of 2.5mm (.098") pitch insulation displacement NR, NRD and BR connectors and board-to-board JQ connectors.


### • Conforming to the HA terminal

The 4-circuit XH connector conforms to the HA terminal specified in JEM 1427 (Japanese Electric Machine Industry Association Standards).

## Specifications

- Current rating: 3A AC, DC (AWG#22)
  - Voltage rating: 250V AC, DC
  - Temperature range: -25°C to +85°C  
(including temperature rise in applying electrical current)
  - Contact resistance: Initial value/10m max.  
After environmental testing/20m max.
  - Insulation resistance: 1,000M min.
  - Withstanding voltage: 1,000V AC/minute
  - Applicable wire: AWG #30 to #22
  - Applicable PC board thickness: 1.6mm(.063")
- \* Contact JST for details.

## Standards

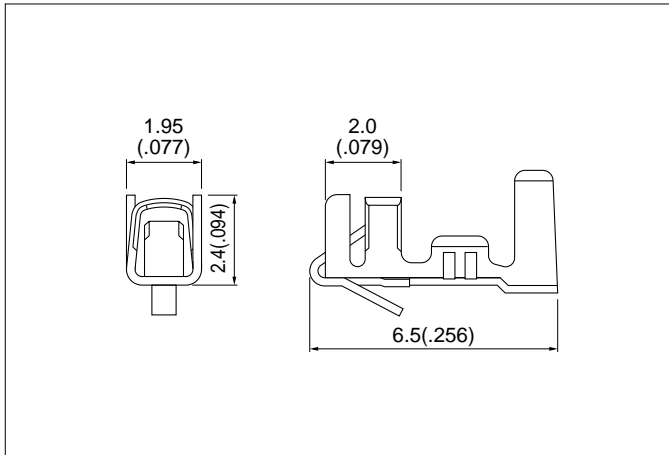
 Recognized E60389

 Certified LR20812

 R75085

# XH CONNECTOR

## Contact



Model No.	Applicable Wire			Q'ty / reel
	mm <sup>2</sup>	AWG#	Insulation O.D mm(in.)	
<b>SXH-001T-P0.6</b>	0.08 to 0.33	28 to 22	1.2 to 1.9(.047 to .075)	8,000
<b>SXH-002T-P0.6</b>	0.05 to 0.13	30 to 26	0.9 to 1.3(.035 to .051)	

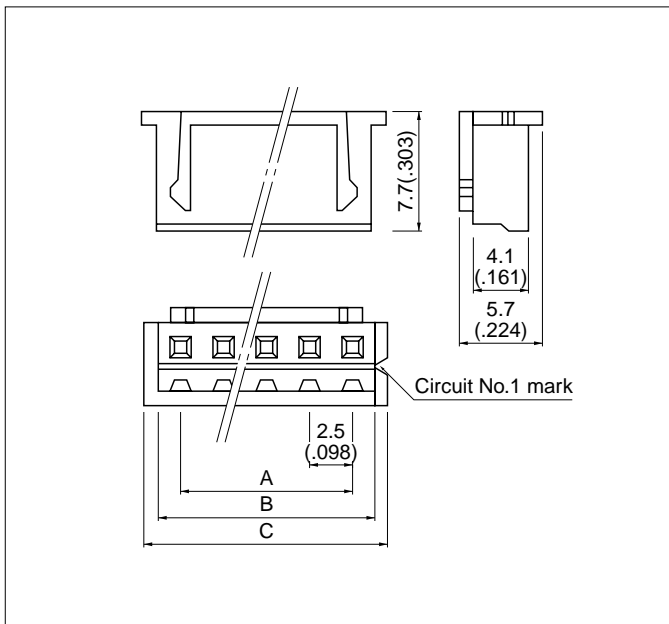
### Material and Finish

Phosphor bronze, tin-plated

### Note:

1. Contact JST if you require gold-plated contacts or contacts made of brass.
2. Also Contact JST also if you require shielded wires, thin wires or other special wires.

## Housing



Circuits	Model No.	Dimensions mm(in.)			Q'ty / bag
		A	B	C	
1	<b>XHP- 1</b>	—	3.2( .126)	4.8( .189)	1,000
2	<b>XHP- 2</b>	2.5(.098)	5.7( .224)	7.3( .287)	1,000
3	<b>XHP- 3</b>	5.0(.197)	8.2( .323)	9.8( .386)	1,000
4	<b>XHP- 4</b>	7.5(.295)	10.7( .421)	12.3( .484)	1,000
5	<b>XHP- 5</b>	10.0(.394)	13.2( .520)	14.8( .583)	1,000
6	<b>XHP- 6</b>	12.5(.492)	15.7( .618)	17.3( .681)	1,000
7	<b>XHP- 7</b>	15.0(.591)	18.2( .717)	19.8( .780)	1,000
8	<b>XHP- 8</b>	17.5(.689)	20.7( .815)	22.3( .878)	1,000
9	<b>XHP- 9</b>	20.0(.787)	23.2( .913)	24.8( .976)	1,000
10	<b>XHP-10</b>	22.5(.886)	25.7(1.012)	27.3(1.075)	1,000
11	<b>XHP-11</b>	25.0(.984)	28.2(1.110)	29.8(1.173)	1,000
12	<b>XHP-12</b>	27.5(1.083)	30.7(1.209)	32.3(1.272)	1,000
13	<b>XHP-13</b>	30.0(1.181)	33.2(1.307)	34.8(1.370)	1,000
14	<b>XHP-14</b>	32.5(1.280)	35.7(1.406)	37.3(1.469)	1,000
15	<b>XHP-15</b>	35.0(1.378)	38.2(1.504)	39.8(1.567)	1,000
16	<b>XHP-16</b>	37.5(1.476)	40.7(1.602)	42.3(1.665)	1,000
20	<b>XHP-20</b>	47.5(1.870)	50.7(1.996)	52.3(2.059)	500

### Material

Nylon 6, UL94V-0, natural (white)

<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. XHP-1-oo

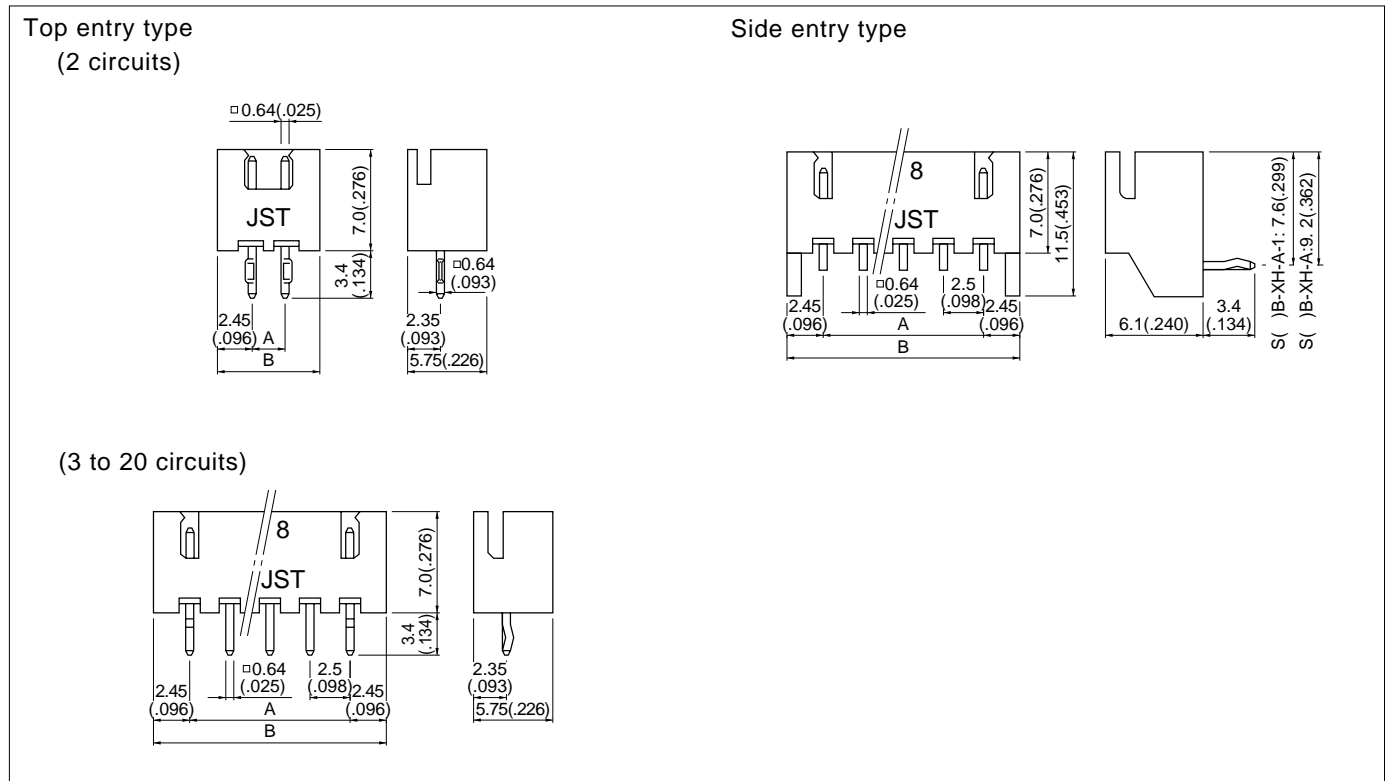
(blank)...natural (white)

BK...black R...red E...blue Y...yellow L...lemon yellow

M...green D...orange N...brown FY...vivid yellow

## Through-hole type shrouded header

The shrouded headers are interchangeable with those of the NR, NRD and BR insulation displacement connectors, and JQ board-to-board connectors.



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 2B-XH-A</b>	—	<b>S 2B-XH-A</b>	2.5 (.098)	7.4 (.291)	1,000	1,000
3	<b>B 3B-XH-A</b>	<b>S 3B-XH-A-1</b>	<b>S 3B-XH-A</b>	5.0 (.197)	9.9 (.390)	1,000	1,000
4	<b>B 4B-XH-A</b>	<b>S 4B-XH-A-1</b>	<b>S 4B-XH-A</b>	7.5 (.295)	12.4 (.488)	500	500
5	<b>B 5B-XH-A</b>	<b>S 5B-XH-A-1</b>	<b>S 5B-XH-A</b>	10.0 (.394)	14.9 (.587)	500	500
6	<b>B 6B-XH-A</b>	<b>S 6B-XH-A-1</b>	<b>S 6B-XH-A</b>	12.5 (.492)	17.4 (.685)	500	500
7	<b>B 7B-XH-A</b>	<b>S 7B-XH-A-1</b>	<b>S 7B-XH-A</b>	15.0 (.591)	19.9 (.783)	500	250
8	<b>B 8B-XH-A</b>	<b>S 8B-XH-A-1</b>	<b>S 8B-XH-A</b>	17.5 (.689)	22.4 (.882)	500	250
9	<b>B 9B-XH-A</b>	<b>S 9B-XH-A-1</b>	<b>S 9B-XH-A</b>	20.0 (.787)	24.9 (.980)	500	250
10	<b>B10B-XH-A</b>	<b>S10B-XH-A-1</b>	<b>S10B-XH-A</b>	22.5 (.886)	27.4(1.079)	250	250
11	<b>B11B-XH-A</b>	<b>S11B-XH-A-1</b>	<b>S11B-XH-A</b>	25.0 (.984)	29.9(1.177)	250	250
12	<b>B12B-XH-A</b>	<b>S12B-XH-A-1</b>	<b>S12B-XH-A</b>	27.5(1.083)	32.4(1.276)	250	200
13	<b>B13B-XH-A</b>	<b>S13B-XH-A-1</b>	<b>S13B-XH-A</b>	30.0(1.181)	34.9(1.374)	250	200
14	<b>B14B-XH-A</b>	<b>S14B-XH-A-1</b>	<b>S14B-XH-A</b>	32.5(1.280)	37.4(1.472)	250	200
15	<b>B15B-XH-A</b>	<b>S15B-XH-A-1</b>	<b>S15B-XH-A</b>	35.0(1.378)	39.9(1.571)	250	100
16	<b>B16B-XH-A</b>	—	<b>S16B-XH-A</b>	37.5(1.476)	42.4(1.669)	200	100
20	<b>B20B-XH-A</b>	—	—	47.5(1.870)	52.4(2.063)	100	—

### Material and Finish

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

<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. S3B-XH-A(-1)-oo

(blank)...natural (white)

BK...black R...red E...blue Y...yellow L...lemon yellow

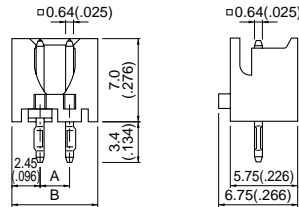
M...green D...orange N...brown FY...vivid yellow

# XH CONNECTOR

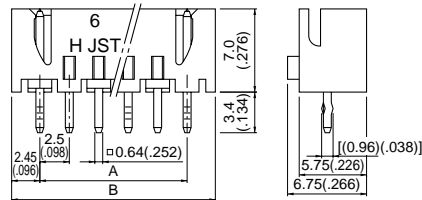
## Through-hole type shrouded header

- Top entry type of glass-filled nylon

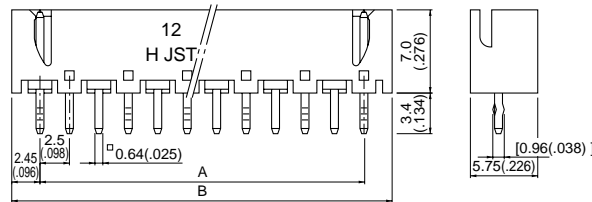
(2 circuits)



(3 to 8 circuits)



(9 to 15 circuits)



Circuits	Model No.	Dimensions mm(in.)		Q'ty / box
		A	B	
2	<b>B 2B-XH-2</b>	2.5( .098)	7.4( .291)	1,000
3	<b>B 3B-XH-2</b>	5.0( .196)	9.9( .390)	1,000
4	<b>B 4B-XH-2</b>	7.5( .295)	12.4( .488)	500
5	<b>B 5B-XH-2</b>	10.0( .394)	14.9( .587)	500
6	<b>B 6B-XH-2</b>	12.5( .492)	17.4( .685)	500
7	<b>B 7B-XH-2</b>	15.0( .591)	19.9( .783)	500
8	<b>B 8B-XH-2</b>	17.5( .689)	22.4( .882)	250
9	<b>B 9B-XH-2</b>	20.0( .787)	24.9( .980)	250
10	<b>B10B-XH-2</b>	22.5( .888)	27.4(1.079)	250
11	<b>B11B-XH-2</b>	25.0( .984)	29.9(1.177)	250
12	<b>B12B-XH-2</b>	27.5(1.083)	32.4(1.276)	250
13	<b>B13B-XH-2</b>	30.0(1.181)	34.9(1.374)	250
14	<b>B14B-XH-2</b>	32.5(1.280)	37.4(1.472)	250
15	<b>B15B-XH-2</b>	35.0(1.378)	39.9(1.571)	250

### Material and Finish

Post: Brass, copper-undercoated, tin/lead-plated

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

<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. **B2B-XH-2-00**

(blank)...natural (ivory)

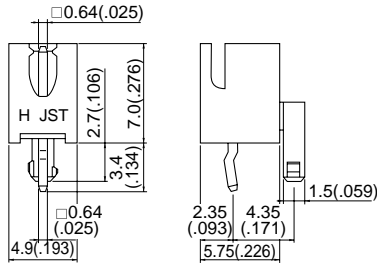
C...black R...red E...blue Y...yellow M...green

## Through-hole type shrouded header

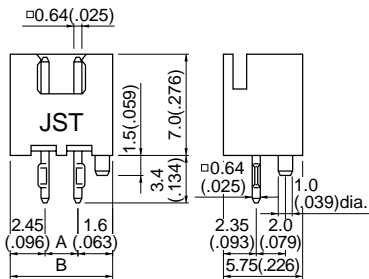
The shrouded headers are interchangeable with those of the NR, NRD and BR insulation displacement connectors, and JQ board-to-board connectors.

### Top entry type with a boss

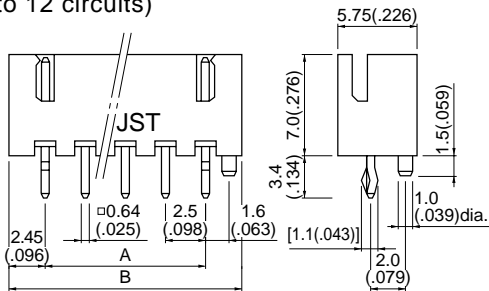
(1 circuit)



(2 circuits)



(3 to 12 circuits)



Circuits	Model No.	Dimensions mm(in.)		Qty / box
		A	B	
1	<b>B 1B-XH-AM</b>	—	—	1,000
2	<b>B 2B-XH-AM</b>	2.5( .098)	7.4( .291)	1,000
3	<b>B 3B-XH-AM</b>	5.0( .197)	9.9( .390)	1,000
4	<b>B 4B-XH-AM</b>	7.5( .295)	12.4( .488)	500
5	<b>B 5B-XH-AM</b>	10.0( .394)	14.9( .587)	500
6	<b>B 6B-XH-AM</b>	12.5( .492)	17.4( .685)	500
7	<b>B 7B-XH-AM</b>	15.0( .591)	19.9( .783)	500
8	<b>B 8B-XH-AM</b>	17.5( .689)	22.4( .882)	250
9	<b>B 9B-XH-AM</b>	20.0( .787)	24.9( .980)	250
10	<b>B10B-XH-AM</b>	22.5( .886)	27.4(1.079)	250
12	<b>B12B-XH-AM</b>	27.5(1.083)	32.4(1.276)	250

### Material and Finish

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

Note: B1B-XH-AM is not UL/CSA/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. **B1B-XH-AM-oo**

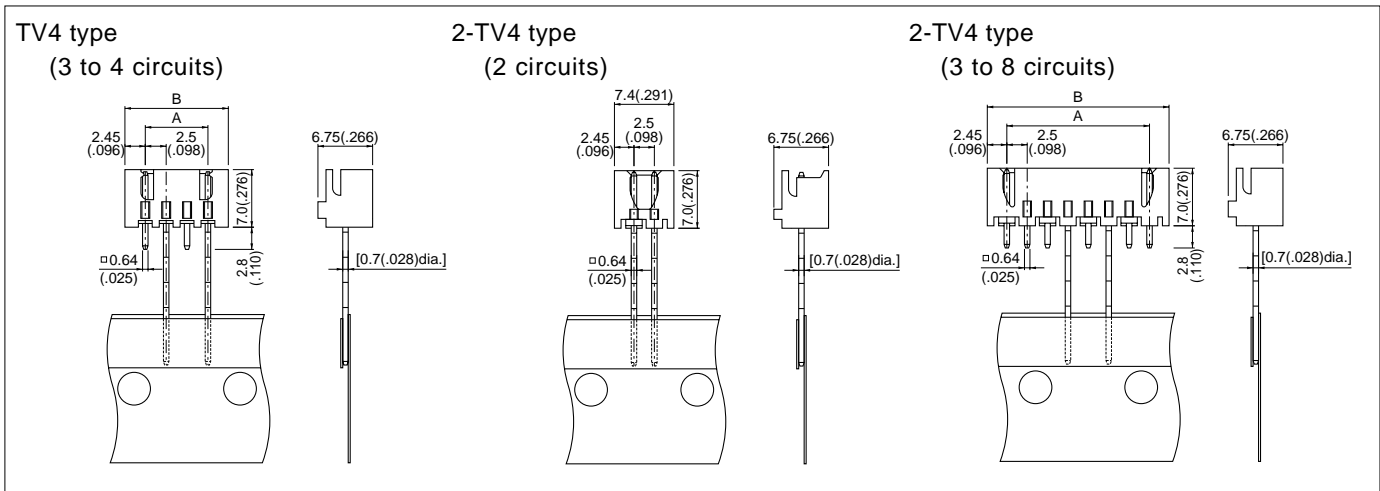
(blank)...natural (white)

BK...black R...red E...blue Y...yellow L...lemon yellow

M...green

# XH CONNECTOR

## Through-hole type shrouded header on radial-tape



Circuits	Model No.		Dimensions mm(in.)		Q'ty / box
	A	B	A	B	
2	—	<b>B2B-XH-2-TV4</b>	—	—	1,000
3	<b>B3B-XH-TV4</b>	<b>B3B-XH-2-TV4</b>	5.0(.197)	9.9(.390)	1,000
4	<b>B4B-XH-TV4</b>	<b>B4B-XH-2-TV4</b>	7.5(.295)	12.4(.488)	500
5	—	<b>B5B-XH-2-TV4</b>	10.0(.394)	14.9(.587)	500
6	—	<b>B6B-XH-2-TV4</b>	12.5(.492)	17.4(.685)	500
7	—	<b>B7B-XH-2-TV4</b>	15.0(.591)	19.9(.783)	500
8	—	<b>B8B-XH-2-TV4</b>	17.5(.689)	22.4(.882)	500

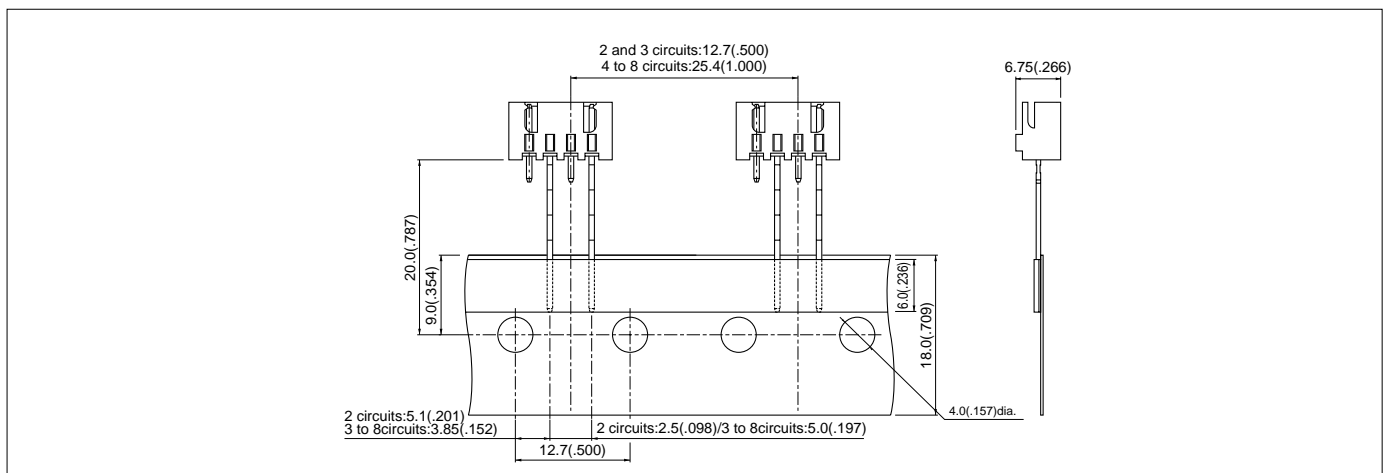
### Material and Finish

Post: Copper alloy, copper-undercoated, tin/lead-plated  
 Wafer: TV4 type/ Nylon 66, UL94V-0  
 2-TV4 type/ Glass-filled nylon 66, UL94V-0

<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.

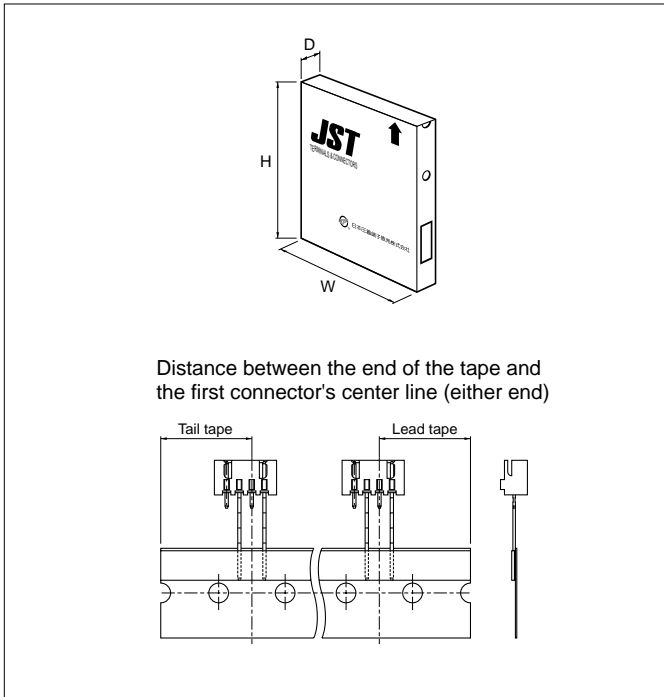
ex. **B2B-XH-2-TV4-oo**  
 (blank)...natural (ivory)  
 C...black (glass-filled) BK...black R...red E...blue Y...yellow  
 M...green

## Taping specification of through-hole type shrouded header



Note: Conforms to JIS C 0805.

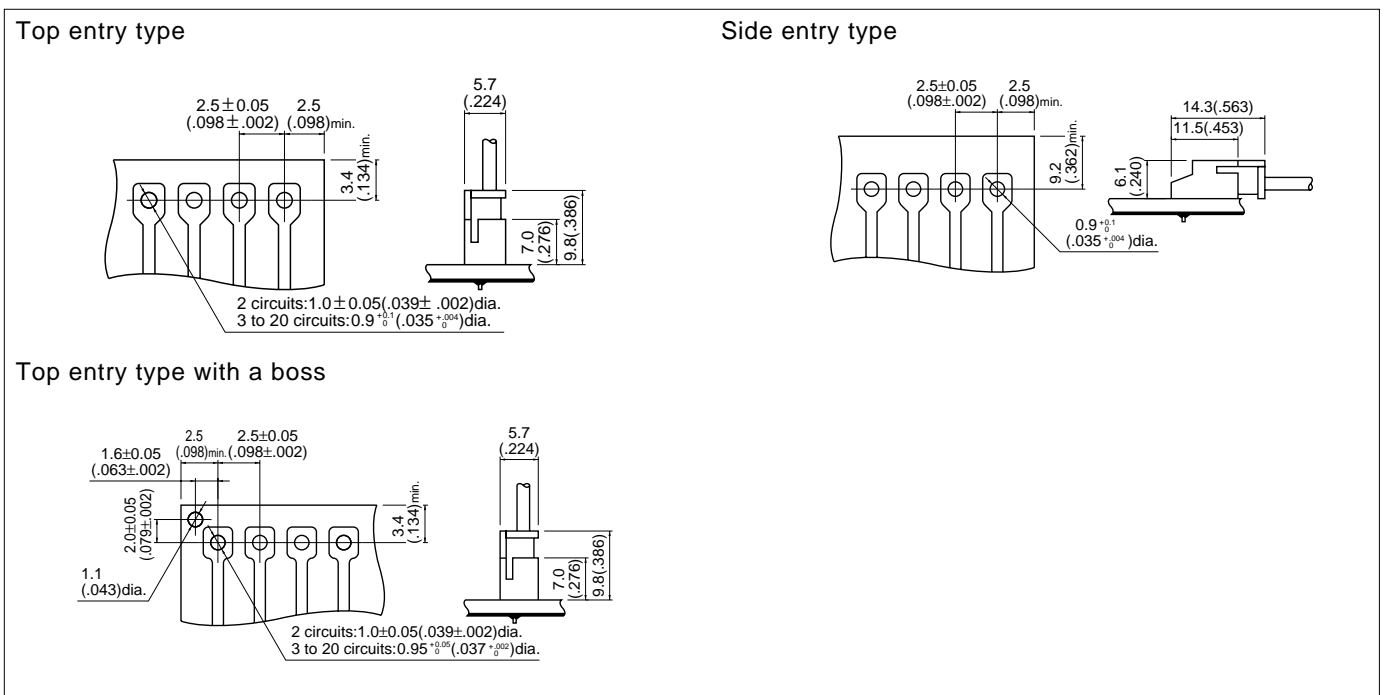
## Packaging specifications of through-hole type shrouded header



Package type	Flat pack (zig zag folded)
Distance between folds	24 indexing holes perfold (304.8mm/12")
Box size	(316x45x330mm)12.4"(W)x1.8"(D)x13.0"(H)
Distance between the end of the tape and the first connector's center line (either end)	19.05mm(.750")

Products of different packaging specifications are also available. Contact JST for details.

## Through-hole type PC board layout (viewed from soldering side) and Assembly layout

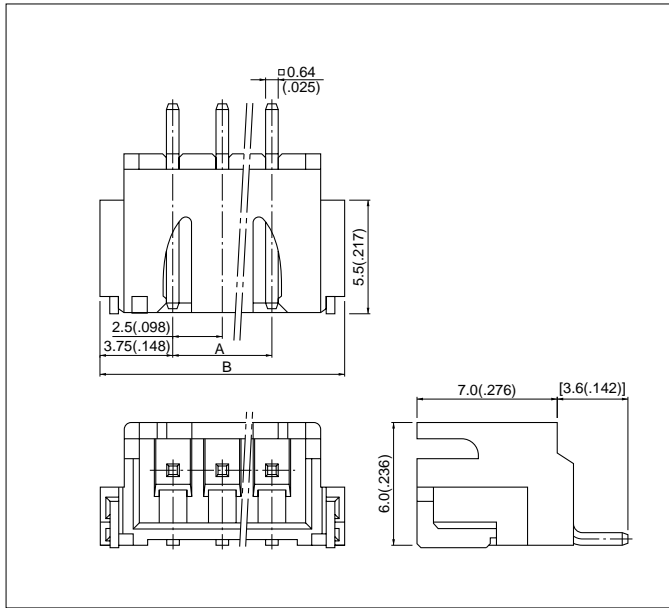


**Note:**

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. If printed circuit boards made of hard material such as FR-4 are used, the hole dimensions should be larger. The dimensions above should serve as a guideline. Contact JST for details.

# XH CONNECTOR

## SMT type shrouded header



Circuits	Model No.	Dimensions mm(in.)		Q'ty / reel
		A	B	
3	<b>S3B-XH-SM3-TB</b>	5.0(.197)	12.5(.492)	500
4	<b>S4B-XH-SM3-TB</b>	7.5(.295)	15.0(.591)	500
6	<b>S6B-XH-SM3-TB</b>	12.5(.492)	20.0(.787)	500

### Material and Finish

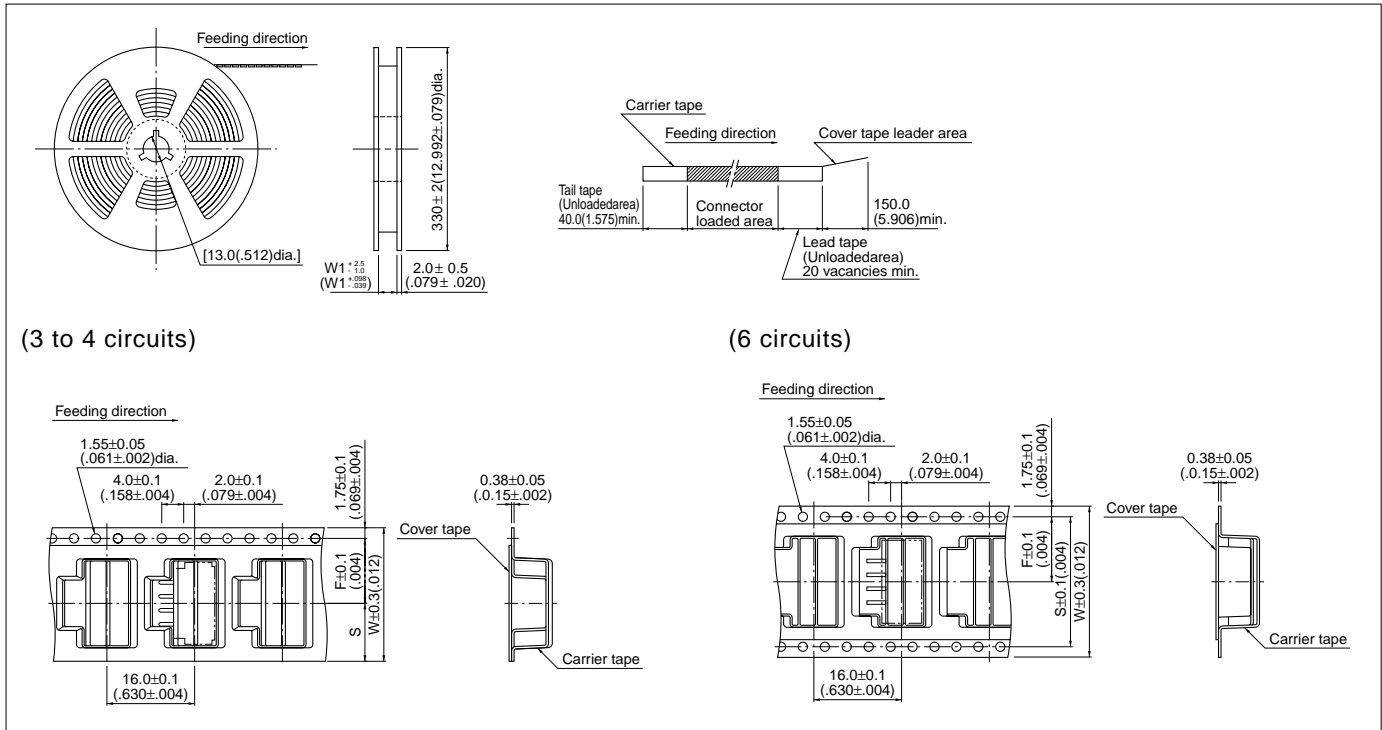
Pin: Copper alloy, Copper-undercoated, tin/lead plated  
 Wafer: Glass-filled nylon 46, UL94V-0, natural (white)  
 Solder tab: Brass, Copper-undercoated, tin/lead plated

Note: The products listed above are supplied on embossed-tape.

<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. S3B-XH-SM3-QO-TB  
 (blank)...natural (white)  
 M...green

## Taping specifications of SMT type shrouded headers



(3 to 4 circuits)

(6 circuits)

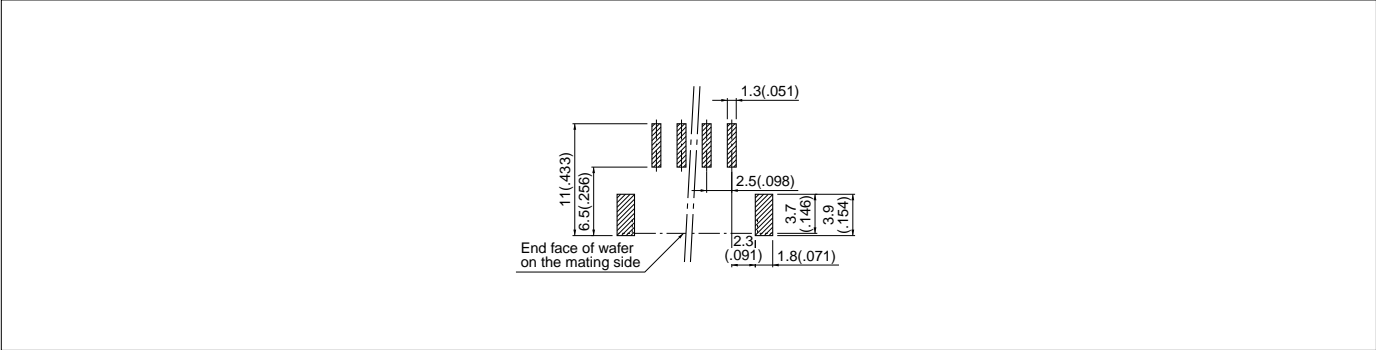
Circuits	Taping dimensions mm(in.)			Reel dimensions mm(in.)	Q'ty / reel
	F	S	W		
3 to 4	11.5(.453)	[10.75(.423)]	24.0(.945)	25.5(1.004)	500
6	14.2(.559)	28.4 (1.118)	32.0(1.260)	33.5(1.319)	500

Note:

- Specifications conform to JIS C 0806. The tape width, connector recess dimensions, etc. are determined by the number of circuits and external shape of the connector to be loaded.
- Specifications are subject to change without prior notice.



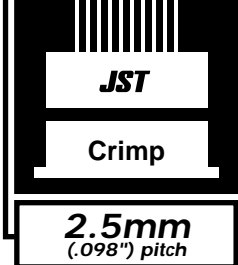
## SMT type PC board layout (viewed from component side)



Note:  
 1. Tolerances are non-cumulative:  $\pm 0.05\text{mm} (\pm .002")$  for all centers.  
 2. The dimensions above should serve as a guideline. Contact JST for details.

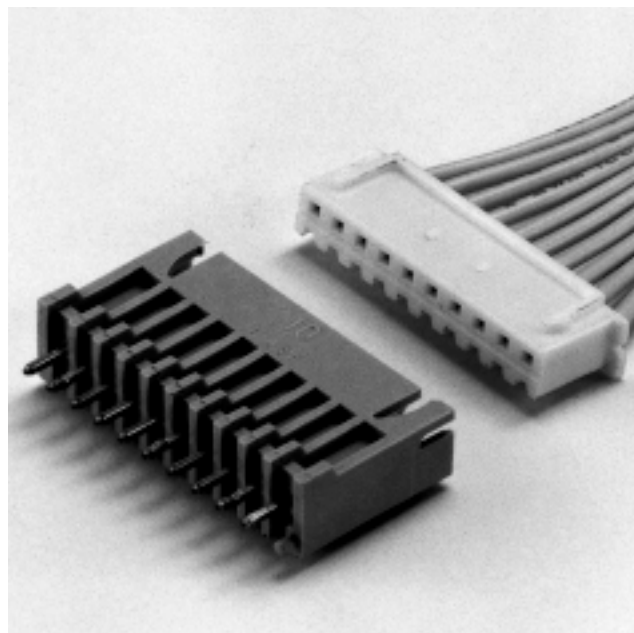
## Applicator for the semi-automatic press AP-K2N

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
SXH-001T-P0.6	APLMK SXH001-06	APLNC SXH001-06	APLMKLS SXH001-06	APLLSNC SXH001-06	APLSC SXH001-06
SXH-002T-P0.6	APLMK SXH002-06	APLNC SXH002-06	APLMKLS SXH002-06	APLLSNC SXH002-06	APLSC SXH002-06

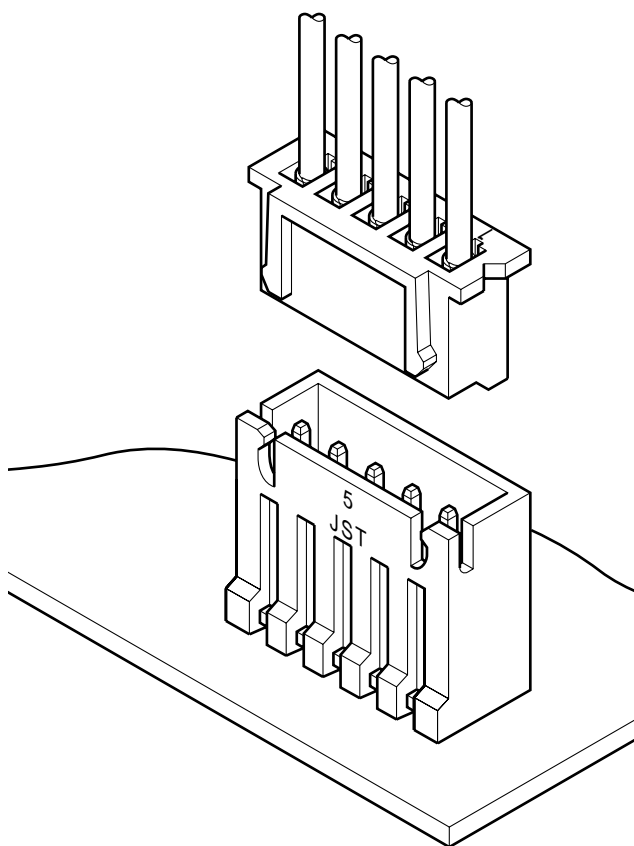


# XH CONNECTOR (High box type)

Disconnectable Crimp style connectors



Header for 2.5mm(.098") pitch XH connector for use specifically with resin coated ("potted") PC boards.



## Features

- **Header for 2.5mm (.098") pitch XH connector for use specifically with resin coated ("potted") PC boards**

This header is tall and fully shrouded so as to prevent the resin used to coat the PC board from coming into contact with the mating pins.

- **Interchangeability**

Designed to accept XH mating receptacles.

## Specifications

- Current rating: 3A AC, DC (AWG#22)
  - Voltage rating: 250V AC, DC
  - Temperature range: -25°C to +85°C  
(including temperature rise in applying electrical current)
  - Contact resistance: Initial value/10m max.  
After environmental testing/20m max.
  - Insulation resistance: 1,000M min.
  - Withstanding voltage: 1,000V AC/minute
  - Applicable wire: AWG #30 to #22
  - Applicable PC board thickness: 1.6mm(.063")
- \* Contact JST for details.

## Standards

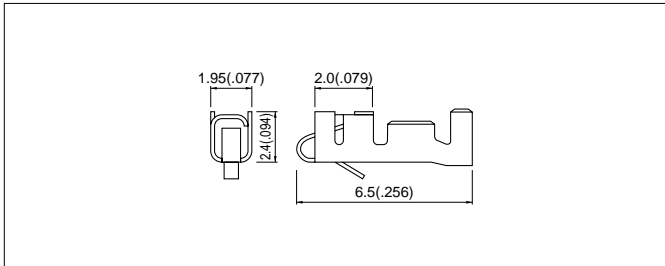
Recognized E60389

Certified LR20812

R75089

# XH CONNECTOR (High box type)

## Contact



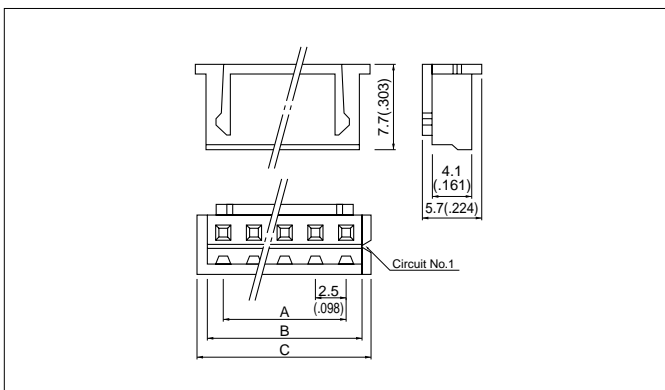
Model No.	Applicable wire			Q'ty / reel
	mm <sup>2</sup>	AWG#	Insulation O.D. mm(in.)	
<b>SXH-001T-P0.6</b>	0.08 to 0.33	28 to 22	1.2 to 1.9(.047 to .075)	8,000
<b>SXH-002T-P0.6</b>	0.05 to 0.13	30 to 26	0.9 to 1.3(.035 to .051)	

Material and Finish	
Phosphor bronze, tin-plated	

Note :

- Contact JST if you require gold-plated contacts or contacts made of brass.
- Also Contact JST also if you require shielded wires, thin wires or other special wires.

## Housing



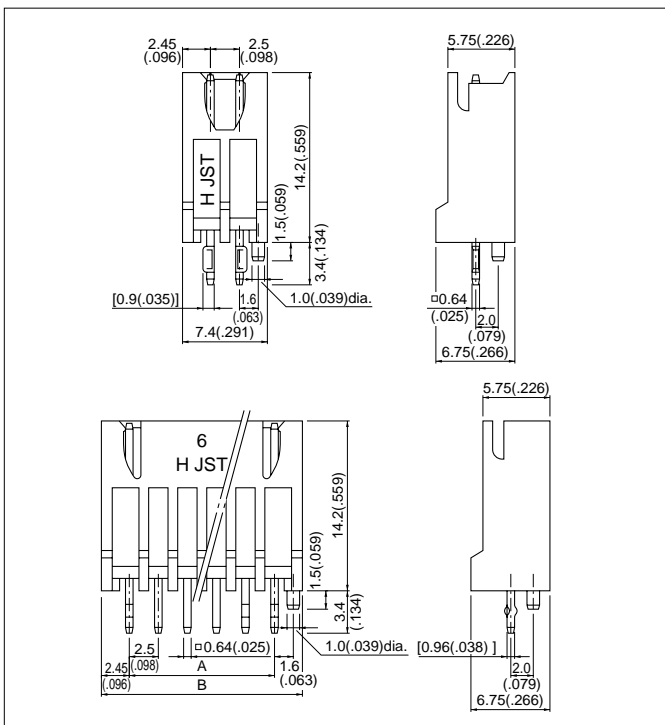
Circuits	Model No.	Dimensions mm(in.)			Q'ty / bag
		A	B	C	
2	<b>XHP- 2</b>	2.5(.098)	5.7(.224)	7.3(.287)	1,000
3	<b>XHP- 3</b>	5.0(.197)	8.2(.323)	9.8(.386)	1,000
4	<b>XHP- 4</b>	7.5(.295)	10.7(.421)	12.3(.484)	1,000
5	<b>XHP- 5</b>	10.0(.394)	13.2(.520)	14.8(.583)	1,000
6	<b>XHP- 6</b>	12.5(.492)	15.7(.618)	17.3(.681)	1,000
7	<b>XHP- 7</b>	15.0(.591)	18.2(.717)	19.8(.780)	1,000
8	<b>XHP- 8</b>	17.5(.689)	20.7(.815)	22.3(.878)	1,000
9	<b>XHP- 9</b>	20.0(.787)	23.2(.913)	24.8(.976)	1,000
10	<b>XHP-10</b>	22.5(.886)	25.7(1.012)	27.3(1.075)	1,000

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

<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. XHP-2-00  
 (blank)...natural (white)  
 BK...black R...red E...blue Y...yellow

## Shrouded header



Circuits	Model No.	Dimensions mm(in.)		Q'ty / box
		A	B	
2	<b>BH 2B-XH-2</b>	2.5(.098)	7.4(.291)	700
3	<b>BH 3B-XH-2</b>	5.0(.197)	9.9(.390)	500
4	<b>BH 4B-XH-2</b>	7.5(.295)	12.4(.488)	300
5	<b>BH 5B-XH-2</b>	10.0(.394)	14.9(.587)	300
6	<b>BH 6B-XH-2</b>	12.5(.492)	17.4(.685)	250
7	<b>BH 7B-XH-2</b>	15.0(.591)	19.9(.783)	200
8	<b>BH 8B-XH-2</b>	17.5(.689)	22.4(.882)	150
9	<b>BH 9B-XH-2</b>	20.0(.787)	24.9(.980)	150
10	<b>BH10B-XH-2</b>	22.5(.886)	27.4(1.079)	150

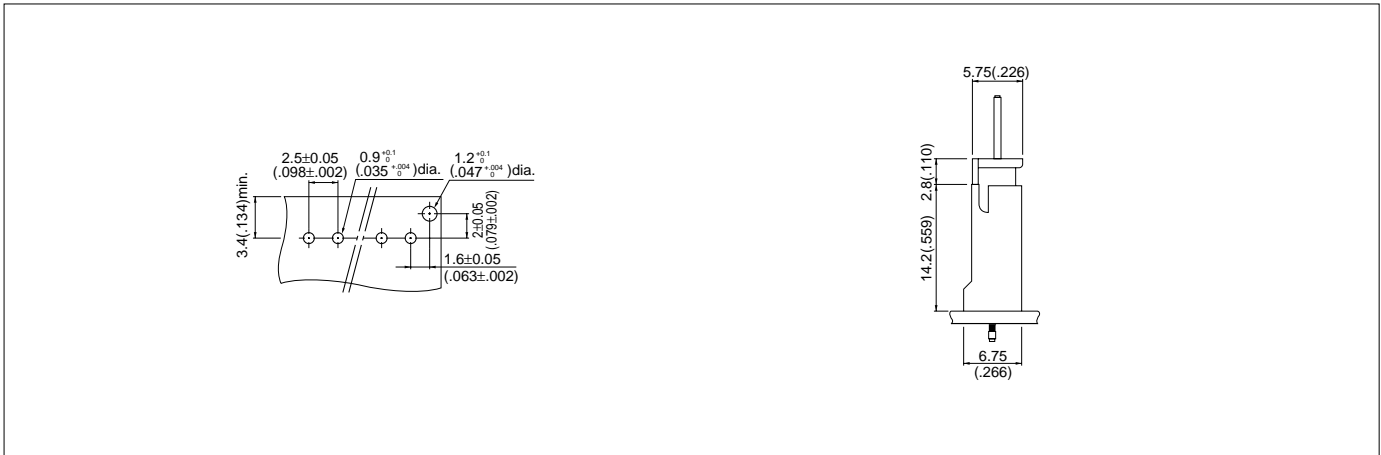
Material and Finish	
Post: Copper alloy, copper-undercoated, tin/lead-plated	
Wafer: Glass-filled nylon 66, UL94V-0, natural (ivory)	

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- ex. BH2B-XH-2-00  
 (blank)...natural (ivory)  
 R...red C...black E...blue Y...yellow

# XH CONNECTOR (High box type)

## PC board layout (viewed from component 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. If printed circuit boards made of hard material such as FR-4 are used, the hole dimensions should be larger. 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
SXH-001T-P0.6	APLMK SXH001-06	APLNC SXH001-06	APLMKLS SXH001-06	APLLSNC SXH001-06	APLSC SXH001-06
SXH-002T-P0.6	APLMK SXH002-06	APLNC SXH002-06	APLMKLS SXH002-06	APLLSNC SXH002-06	APLSC SXH002-06