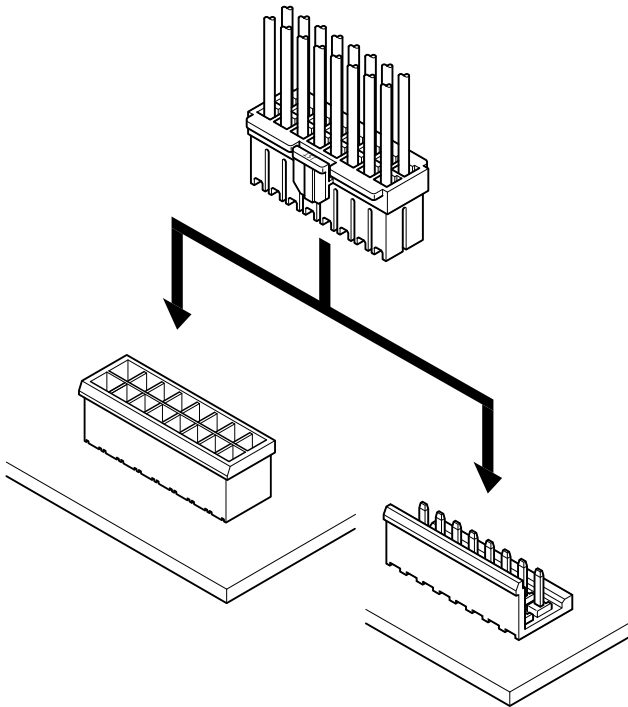


# XL CONNECTOR

5.0 mm pitch/Disconnectable Crimp style connectors

(Combined use for both wire-to-board and wire-to-wire connections)



The reliable XL connectors have been developed by utilizing the technology of JST's field proven VH and SM connectors. The XL connectors are being used in electric appliances, vending machines, and office automation equipment.

- Reliable housing construction
- Easy contact insertion
- Box-shaped contact
- Two types of connections

## Specifications

- Current rating: 10 A AC, DC (Refer to the table below.)
- Voltage rating: 150 V AC, DC
- Temperature range: -25°C to +90°C  
(including temperature rise in applying electrical current)
- Contact resistance: Initial value/ 7 mΩ max.  
After environmental testing/ 10 mΩ max.
- Insulation resistance: 1,000 MΩ min.
- Withstanding voltage: 1,500 VAC/minute
- Applicable wire: AWG #26 to #16
- Applicable PC board thickness: 1.6 mm
- \* Compliant with RoHS.
- \* Refer to "General Instruction and Notice when using Terminals and Connectors" at the end of this catalog.
- \* Contact JST for details.

Note:

The rated current varies depending on the number of circuits and the size of the wire to be connected by crimping.

Current unit:A

| No. of circuits | Wire size (AWG) |     |     |     |     |     |
|-----------------|-----------------|-----|-----|-----|-----|-----|
|                 | #16             | #18 | #20 | #22 | #24 | #26 |
| 2               | 10              | 6   | 5   | 4   | 3   | 3   |
| 3               | 9               | 5   | 4   | 3   | 3   | 2   |
| 4               | 9               | 5   | 4   | 3   | 3   | 2   |
| 8               | 6               | 4   | 3   | 3   | 2   | 2   |
| 12              | 6               | 4   | 3   | 3   | 2   | 2   |
| 16              | 5               | 3   | 2   | 2   | 1   | 1   |

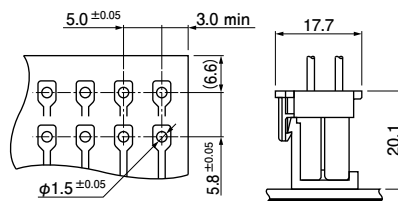
Note:

Do not branch in parallel current which exceeds the rated current per circuit listed below. (Example: more than 10A in the case of a 2-circuit connector using AWG #16 wires.) If branched in parallel, current imbalance or other problems may develop.

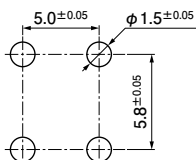
## Standards

- Ⓜ Recognized E60389
- Ⓢ Certified LR20812
- Ⓡ R75150

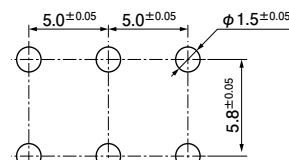
## PC board layout and Assembly layout



[HDS type]  
Top entry type



[HDS type]  
Side entry type



Note: 1. Tolerances are non-cumulative:  $\pm 0.05$  mm for all centers.

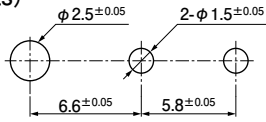
2. Hole dimensions differ according to the type of PC board and piercing method. The dimensions above should serve as a guideline. Contact JST for details.

# XL CONNECTOR

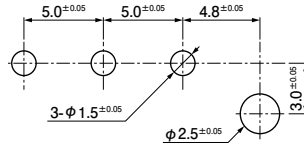
## PC board layout

### [HDB type] Top entry type

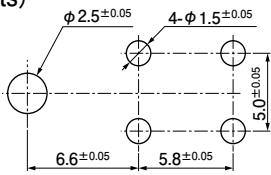
(2 circuits)



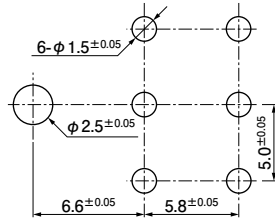
(3 circuits)



(4 circuits)

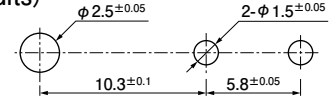


(6 circuits)

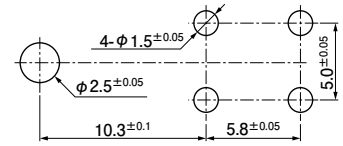


### [HDB type] Side entry type

(2 circuits)



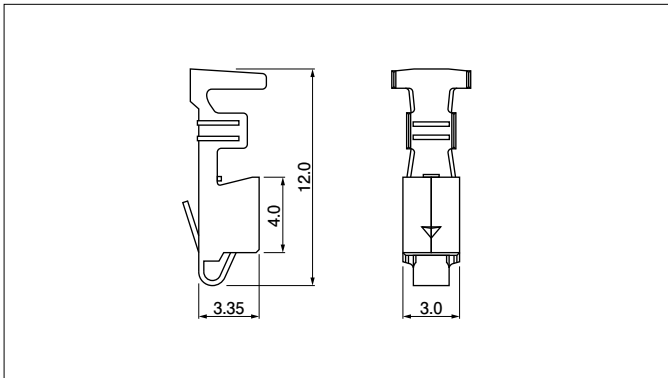
(4 circuits)



Note: 1. Tolerances are non-cumulative:  $\pm 0.05$  mm for all centers.

2. Hole dimensions differ according to the type 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.<br>(mm) | Q'ty/<br>reel |
|--------------|-----------------|--------------|-------------------------|---------------|
|              | mm <sup>2</sup> | AWG #        |                         |               |
| SXF-01T-P0.7 | 0.13 to 0.5     | 26 to 20     | 1.3 to 2.7              | 3,000         |
| SXF-41T-P0.7 | 0.5 to 1.25     | 20 to 16     | 1.9 to 3.1              |               |
|              | 0.3×2 to 0.5×2  | 22×2 to 20×2 | 1.7×2 to 2.0×2          |               |

### Material and Finish

Phosphor bronze, tin-plated (reflow treatment)

### RoHS compliance

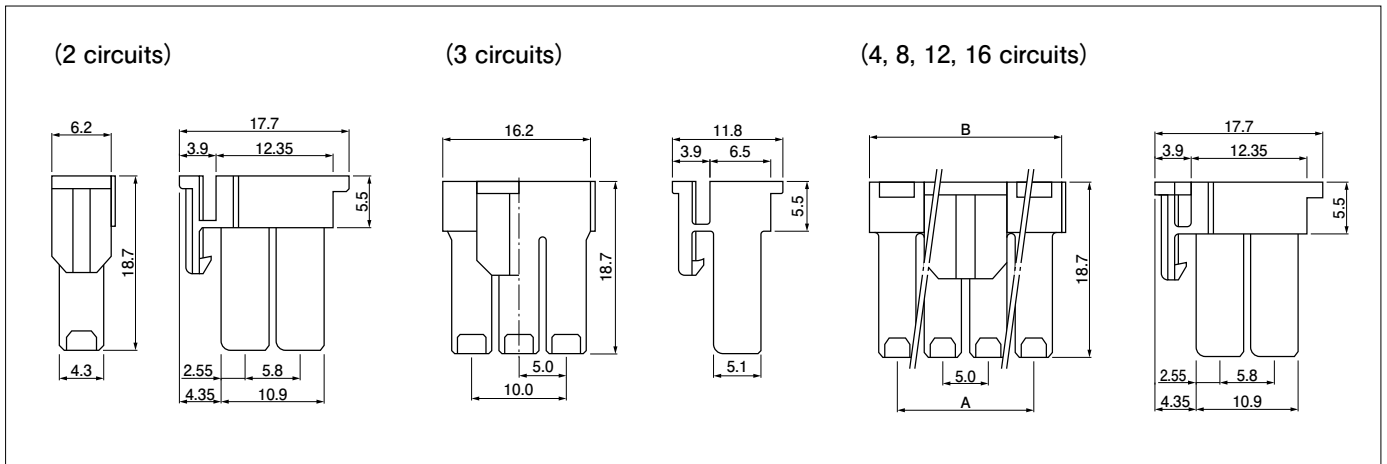
Note: Contact JST for brass products.

| Contact      | Crimping<br>machine | Applicator       |              |                            |
|--------------|---------------------|------------------|--------------|----------------------------|
|              |                     | Crimp applicator | Dies         | Crimp applicator with dies |
| SXF-01T-P0.7 | AP-K2N              | MKS-L            | MK/SXF-01-07 | APLMK SXF01-07             |
| SXF-41T-P0.7 |                     |                  | MK/SXF-41-07 | APLMK SXF41-07             |

Note: Contact JST for fully automatic crimping applicator.

# XL CONNECTOR

## Housing



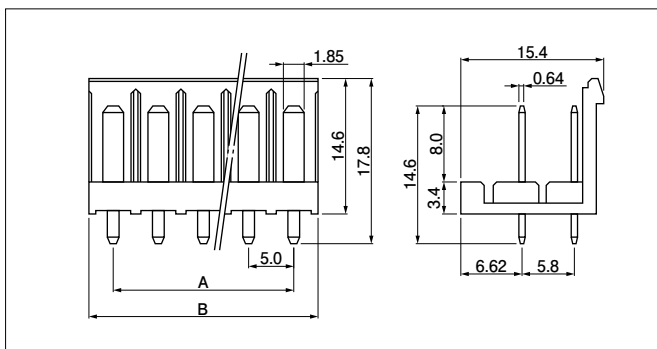
| No. of circuits | Model No. | Dimensions (mm) |      | Q'ty/bag |
|-----------------|-----------|-----------------|------|----------|
|                 |           | A               | B    |          |
| 2               | XLP-02V   | —               | —    | 500      |
| 3               | XLP-03V   | —               | —    | 500      |
| 4               | XLP-04V   | 5.0             | 11.2 | 500      |
| 8               | XLP-08V   | 15.0            | 21.2 | 500      |
| 12              | XLP-12V   | 25.0            | 31.2 | 200      |
| 16              | XLP-16V   | 35.0            | 41.2 | 200      |

### Material

PA 66, UL94V-0, natural (white)

RoHS compliance

## Header



| No. of circuits | Model No. | Dimensions (mm) |      | Q'ty/box |
|-----------------|-----------|-----------------|------|----------|
|                 |           | A               | B    |          |
| 2               | B02P-XL   | —               | 5.0  | 250      |
| 4               | B04P-XL   | 5.0             | 10.0 | 200      |
| 8               | B08P-XL   | 15.0            | 20.0 | 100      |
| 12              | B12P-XL   | 25.0            | 30.0 | 50       |
| 16              | B16P-XL   | 35.0            | 40.0 | 50       |

### Material and Finish

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

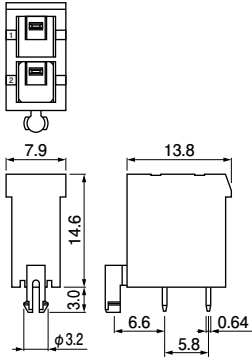
RoHS compliance This product displays (LF)(SN) on a label.

# XL CONNECTOR

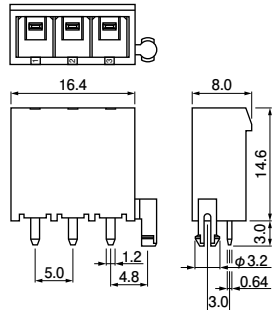
## Header <HDB type>

### Top entry type

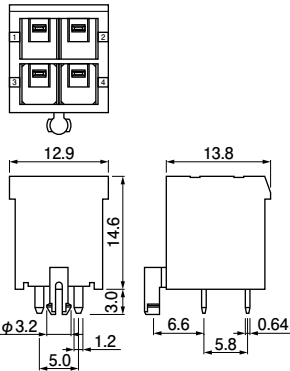
(2 circuits)



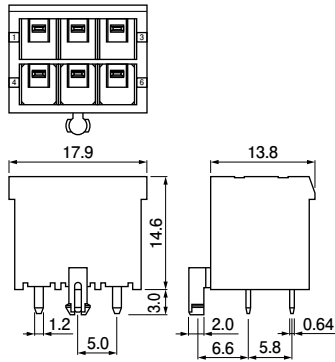
(3 circuits)



(4 circuits)

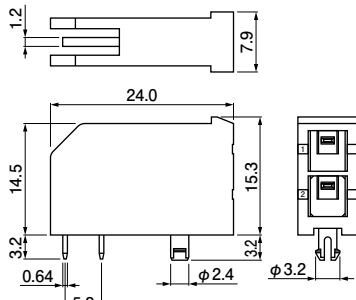


(6 circuits)

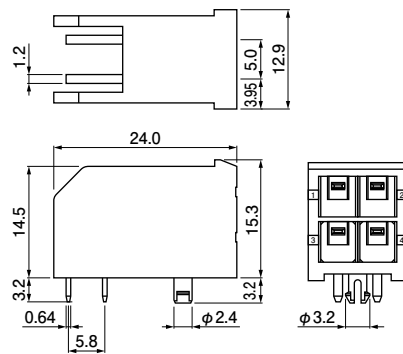


### Side entry type

(2 circuits)



(4 circuits)



| No. of circuits | Model No.      |                 | Q'ty/box       |                 |
|-----------------|----------------|-----------------|----------------|-----------------|
|                 | Top entry type | Side entry type | Top entry type | Side entry type |
| 2               | B02P-XL-HDB    | S02P-XL-HDB     | 200            | 100             |
| 3               | B03P-XL-HDB    | —               | 200            | —               |
| 4               | B04P-XL-HDB    | S04P-XL-HDB     | 200            | 100             |
| 6               | B06P-XL-HDB    | —               | 100            | —               |

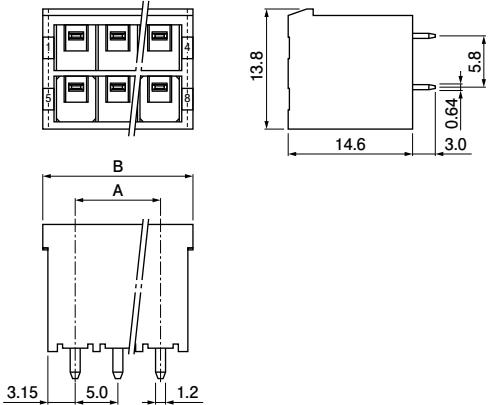
### Material and Finish

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

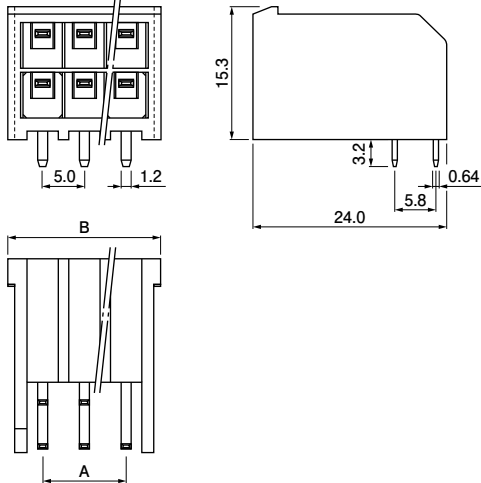
RoHS compliance This product displays (LF)(SN) on a label.

## Header <HDS type>

### Top entry type



### Side entry type



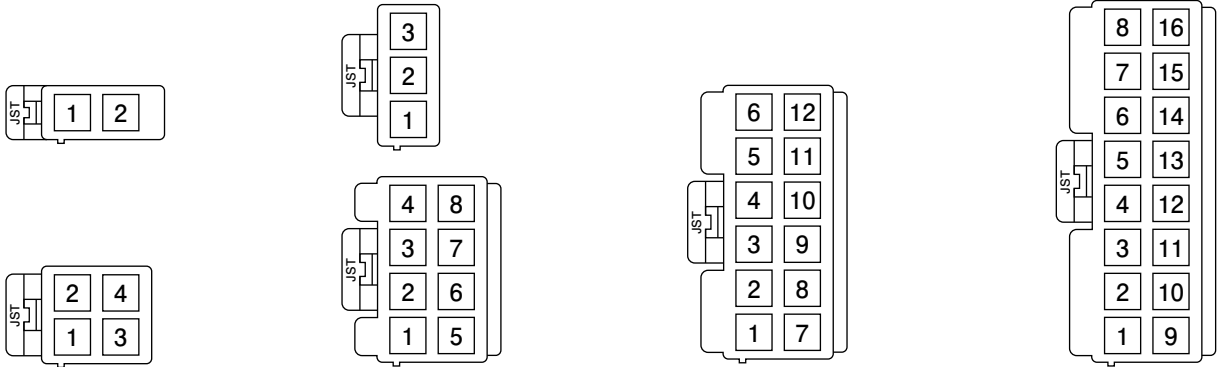
| No. of circuits | Model No.      |                 | Dimensions (mm) |      | Q'ty    |          |
|-----------------|----------------|-----------------|-----------------|------|---------|----------|
|                 | Top entry type | Side entry type | A               | B    | Top/bag | Side/box |
| 2               | B02P-XL-HDS    | —               | —               | 7.9  | 200     | —        |
| 4               | B04P-XL-HDS    | —               | 5.0             | 12.9 | 200     | —        |
| 8               | B08P-XL-HDS    | S08P-XL-HDS     | 15.0            | 22.9 | 100     | 40       |
| 12              | B12P-XL-HDS    | S12P-XL-HDS     | 25.0            | 32.9 | 50      | 30       |
| 16              | B16P-XL-HDS    | S16P-XL-HDS     | 35.0            | 42.9 | 40      | 20       |

### 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.

## Contact position location numbers



# XL CONNECTOR

## Model number allocation

### Contact

**SXF - 01 T - P 0.7**

Form: S...Strip form, B...Loose piece

Series name

Shape: F...Socket contact

Applicable wire range:  
 01...AWG #26 to #20  
 41...AWG #20 to #16  
 41...AWG #22 × 2 conductors to AWG #20 × 2 conductors

Surface finish: T...Tin-plated (reflow treatment)

Material: P...Phosphor bronze

Terminal size

### Housing

**XL P - 02 V - ■**

Series name

Part name: Plug

No. of circuits: 2, 3, 4, 8, 12, 16

Flammability: V...UL94V-0

Color: None...Natural (White), K...Black, R...Red, E...Blue, Y...Yellow

### Header

**B 02 P - XL - ■**

Shape of assembled product: B...Top entry type

No. of circuits: 2, 4, 8, 12, 16

Series name

Color: S...Natural (White), K...Black, R...Red, E...Blue, Y...Yellow

### Header (HDB type)

**B 02 P - XL - HDB - ■**

Shape of assembled product:  
 B...Top entry type  
 S...Side entry type

No. of circuits: Top entry type...2 to 4, 6  
 Side entry type...2, 4

Series name

Type name

Color: None...Natural (White), K...Black, R...Red, E...Blue,  
 Y...Yellow, M...Green, H...Gray, N...Brown,  
 D...Orange, L...Lemon yellow

### Header (HDS type)

**B 08 P - XL - HDS - ■**

Shape of assembled product:  
 B...Top entry type  
 S...Side entry type

No. of circuits: Top entry type...2, 4, 8, 12, 16  
 Side entry type...8, 12, 16

Series name

Type name

Color: None...Natural (White), K...Black, R...Red, E...Blue, Y...Yellow

Note: Depending on the colors, it may take some time for delivery.