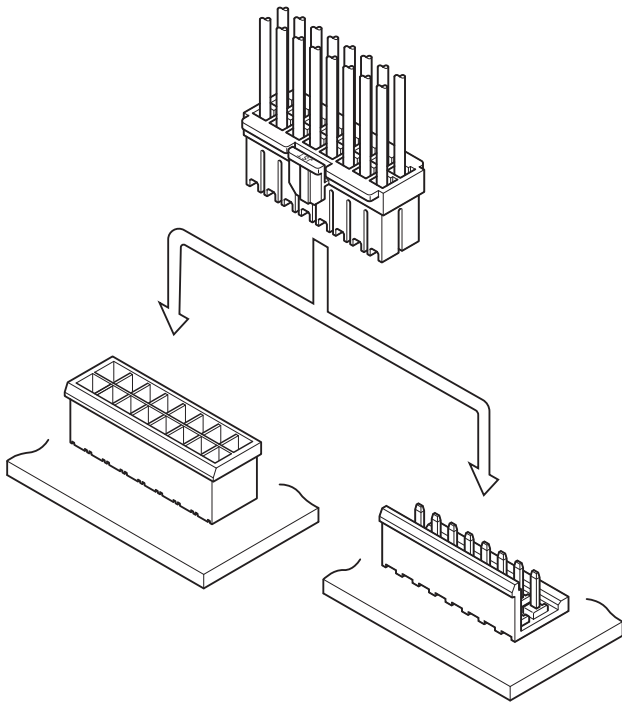


# XL CONNECTOR

5.0 mm pitch/Wire-to-Board connectors/Crimp style and Mating style



This highly reliable wire-to-board connector was developed based on the proven track record of the VH connector, which is widely used in numerous electronic and electrical equipment such as home appliances, vending machines and office machines.

- Excellent contact insertion workability
- High-reliability box-type leaf contact
- Wire-to-wire type also available

## Specifications

- Current rating: 10 A AC/DC (2 circuits/ AWG #16)

※ The following table shows the rated current when applying current for all circuits in each combination of the number of circuits and the wire to be used.

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. If branched in parallel, current imbalance or other problems may occur. If it is absolutely necessary to branch such a large current in parallel, design the circuits without causing any imbalance and provide extra margin for each circuit.

- 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 tests/ 10 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:
    - Conductor size/ AWG #26 to AWG #16
    - Insulation O.D./ φ 1.3 mm to φ 3.1 mm

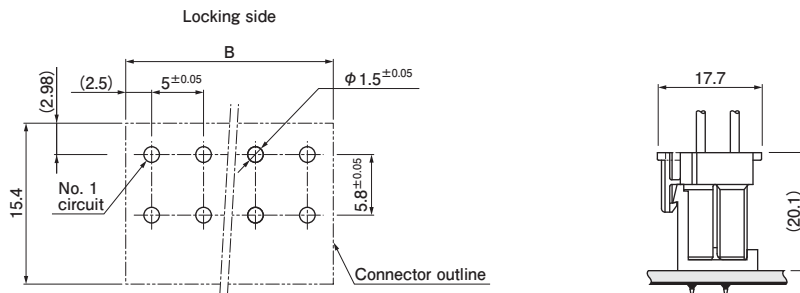
Note: Refer to the Socket Contacts section on page 3 for information on when two wires are crimped together.
  - Applicable PC board thickness: 1.6 mm
- \* In using the products, refer to "Handling Precautions for Terminals and Connectors" described on our website (Technical documents of Product information page).
- \* RoHS2 compliance
- \* Dimensional unit: mm
- \* Contact JST for details.

## Standards

For information on overseas standard registrations, please refer to the "List of Registered Overseas Standards" on our website (listed in the "Technical Documents" column on the Product Information page).

\* Specifications registered to overseas standards may differ from the general specifications listed above.

## PC board layout and Assembly layout

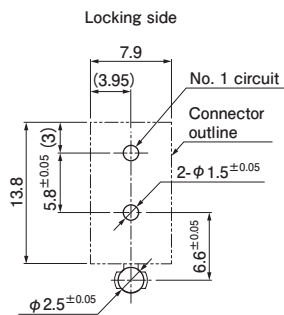


- Note: 1. The PC board layout figure shown is viewed from the connector mounting surface.  
 2. Dimension B: See "Header" section on page 4.  
 3. Tolerance for the PCB hole pitch shall be  $\pm 0.05$  and shall not accumulate.  
 4. Hole dimensions differ depending on the type of PCB and PCB drilling method.  
 The above dimensions are reference values. Please contact JST for details.

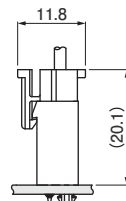
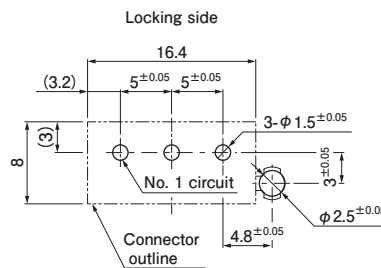
## PC board layout and Assembly layout/ HDB type

### Top entry type

#### <2 circuits>

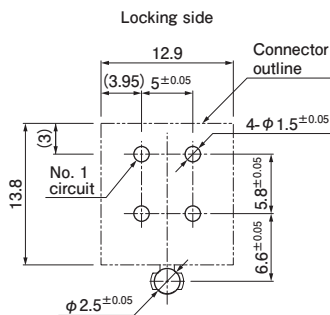


#### <3 circuits>

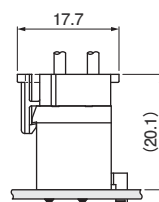
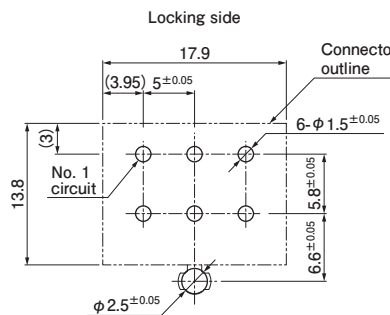


Top entry type :  
3 circuits

#### <4 circuits>



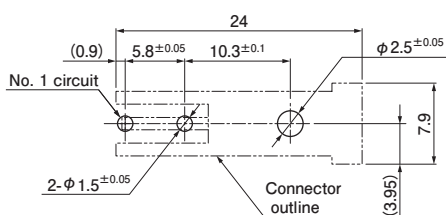
#### <6 circuits>



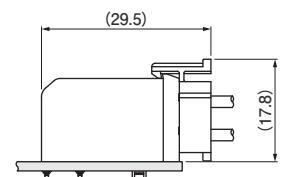
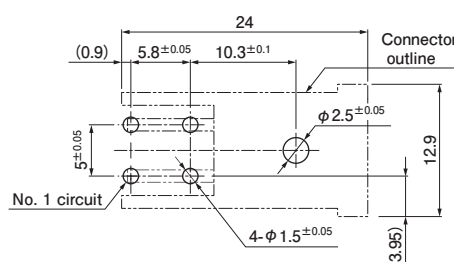
Top entry type :  
2, 4, 6 circuits

### Side entry type

#### <2 circuits>



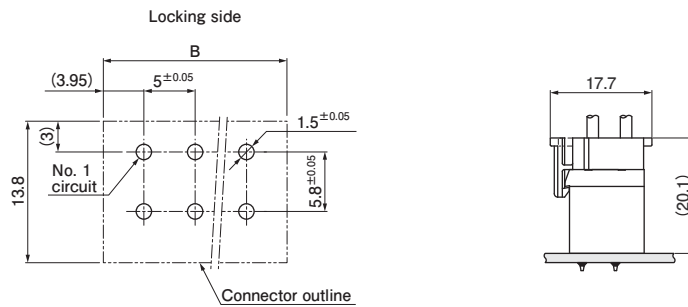
#### <4 circuits>



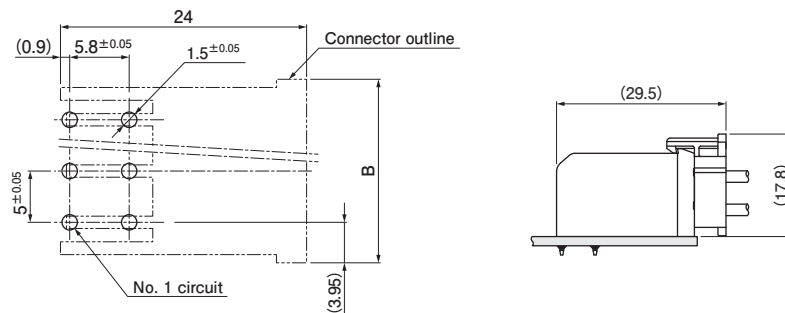
- Note: 1. The PC board layout figure shown is viewed from the connector mounting surface.  
 2. Tolerance for the PCB hole pitch shall be  $\pm 0.05$  and shall not accumulate.  
 3. Hole dimensions differ depending on the type of PCB and PCB drilling method.  
 The above dimensions are reference values.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

## PC board layout and Assembly layout/ HDS type

### Top entry type

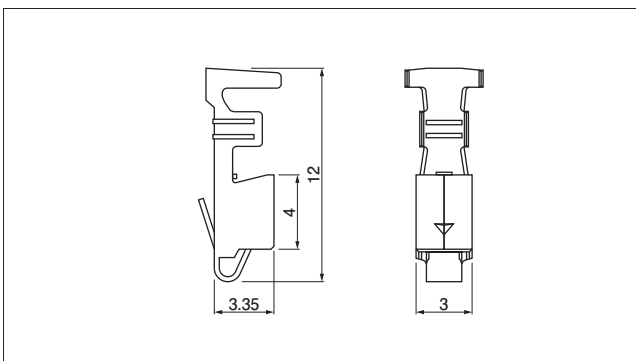


### Side entry type



- Note: 1. The PC board layout figure shown is viewed from the connector mounting surface.  
 2. Dimension B: See "Header/HDS type" section on page 6  
 3. Tolerance for the PCB hole pitch shall be  $\pm 0.05$  and shall not accumulate.  
 4. Hole dimensions differ depending on the type of PCB and PCB drilling method.  
 The above dimensions are reference values. Please contact JST for details.

## Socket contact



Model No.	Applicable wire range		Q'ty/ reel
	Conductor size AWG (mm <sup>2</sup> )	Insulation O.D. (mm)	
SXF-01T-P0.7	#26 to #20 (0.13 to 0.5)	1.3 to 2.7	3,000
SXF-41T-P0.7	#20 to #16 (0.5 to 1.25)	1.9 to 3.1	
		#22×2 wires to #20×2 wires (0.3×2 wires to 0.5×2 wires)	1.7×2 wires to 2.0×2 wires
Material and Surface finish, etc.			
Phosphor bronze, tin-plated			

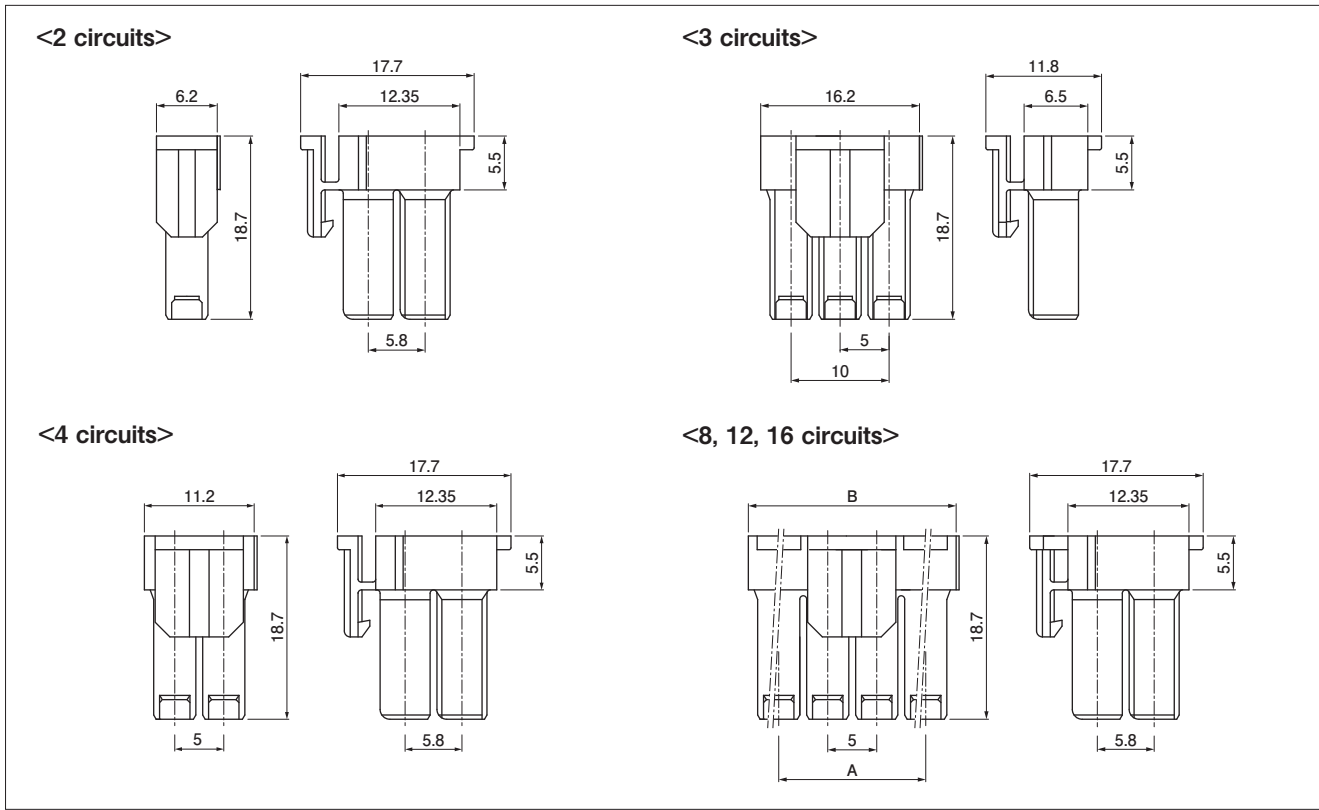
### Crimping machine

Contact	Crimping machine	Applicator	Crimp applicator with dies
SXF-01T-P0.7	AP-K2N	MKS-L	APLMK SXF01-07
SXF-41T-P0.7			APLMK SXF41-07

Note: Contact JST for fully automatic crimping applicator.

# XL CONNECTOR

## Plug housing



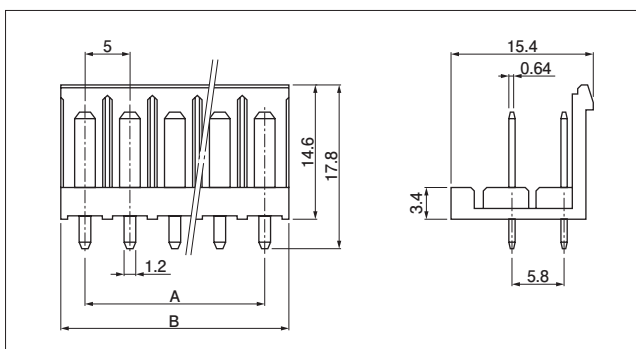
No. of circuits	Model No.	Dimensions (mm)		Q'ty/bag
		A	B	
2	XLP-02V	—	—	500
3	XLP-03V	—	—	500
4	XLP-04V	—	—	500
8	XLP-08V	15.0	21.2	500
12	XLP-12V	25.0	31.2	200
16	XLP-16V	35.0	41.2	200

Material and Surface finish, etc.

PA 66, natural (white)

Note: For flame retardant grade of resin material used, please refer to the "List of Registered Overseas Standards" on our website (listed in the "Technical Documents" column on the Product Information page).

## 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 Surface finish, etc.

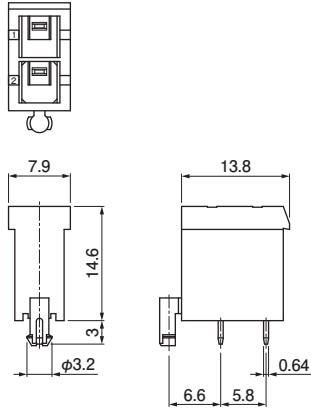
Post: Brass, copper-undercoated, tin-plated  
Wafer: PA 66, natural (white)

Note: 1. This product displays (LF)(SN) on a label.  
2. For flame retardant grade of resin material used, please refer to the "List of Registered Overseas Standards" on our website (listed in the "Technical Documents" column on the Product Information page).

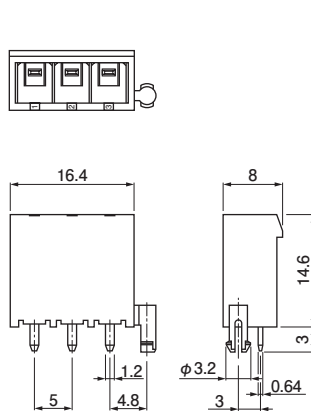
## Header/ HDB type

### Top entry type

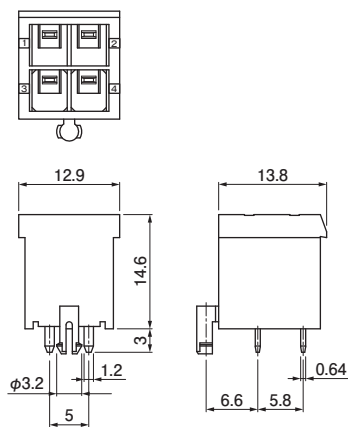
<2 circuits>



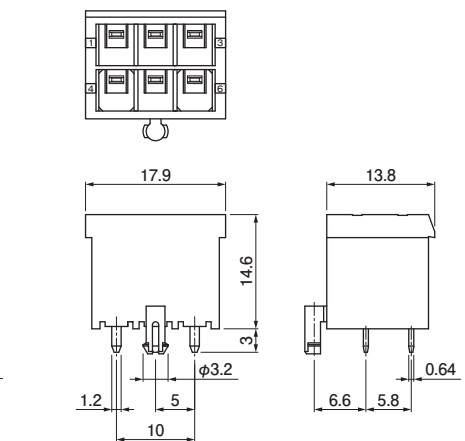
<3 circuits>



<4 circuits>

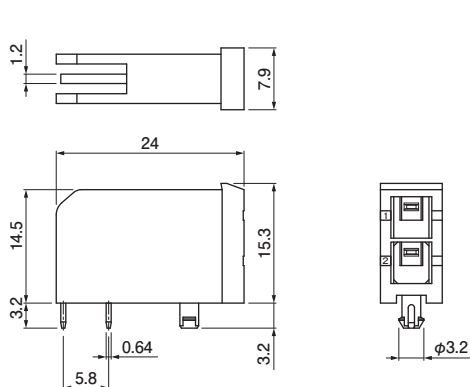


<6 circuits>

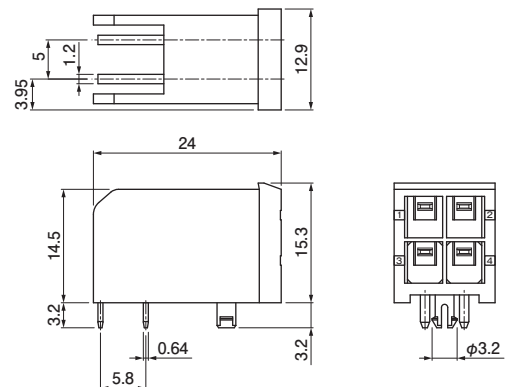


### Side entry type

<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	—

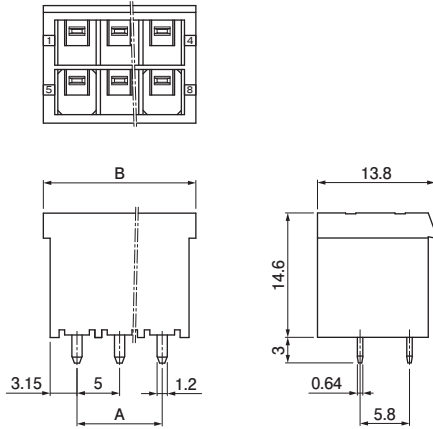
Material and Surface finish, etc.

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

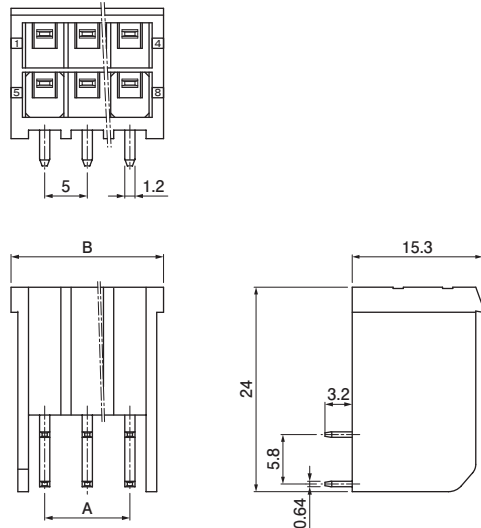
Note: 1. This product displays (LF)(SN) on a label.  
2. For flame retardant grade of resin material used, please refer to the "List of Registered Overseas Standards" on our website (listed in the "Technical Documents" column on the Product Information page).

## Header/ HDS type

### Top entry type



### Side entry type



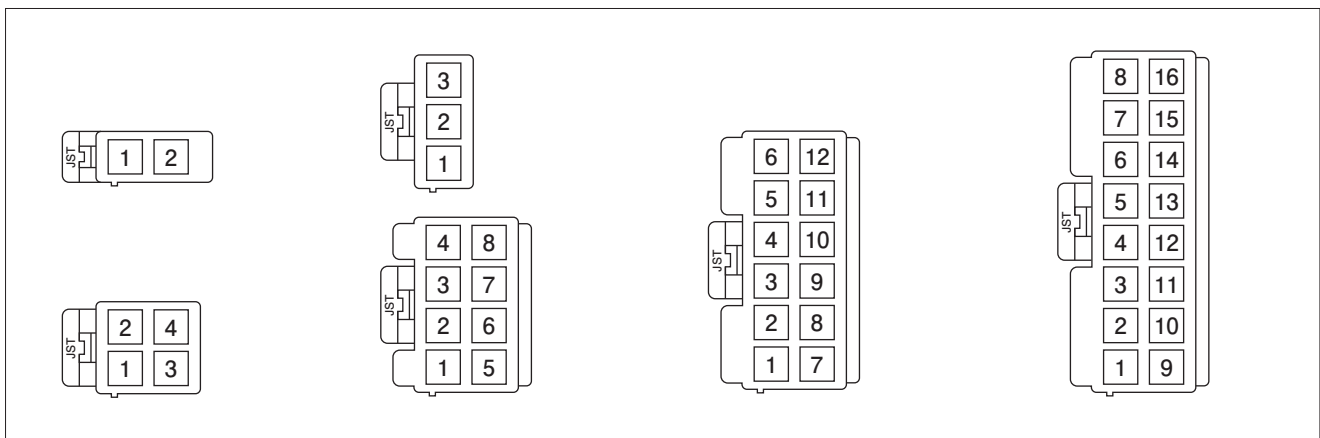
No. of circuits	Model No.		Dimensions (mm)		Q'ty/box	
	Top entry type	Side entry type	A	B	Top	Side
2	B02P-XL-HDS	—	—	7.9	200	—
4	B04P-XL-HDS	—	5.0	12.9	200	—
8	B08P-XL-HDS	S08P-XL-HDS	15.0	22.9	100	40
12	B12P-XL-HDS	S12P-XL-HDS	25.0	32.9	50	30
16	B16P-XL-HDS	S16P-XL-HDS	35.0	42.9	40	20

### Material and Surface finish, etc.

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

- Note: 1. This product displays (LF)(SN) on a label.  
 2. For flame retardant grade of resin material used, please refer to the "List of Registered Overseas Standards" on our website (listed in the "Technical Documents" column on the Product Information page).

## Plug housing position location numbers



## Model number allocation

### Socket contact

**SXF - 01 T - P 0.7**

Supply form: S...Strip form  
B...Loose piece

Series name

Type: Socket

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

Surface finish: Tin-plated

Material: Phosphor bronze

Applicable post size

### Plug housing

**XLP - 02 V - ■**

Series name

Type: Plug

No. of circuits

Sub model number

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

### Header

**B 02 P - XL - ■**

Header type: Top entry type

No. of circuits

Assembly product

Series name

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

### Header/ HDB type

**B 02 P - XL - HDB - ■**

Header type: B...Top entry type  
S...Side entry type

No. of circuits

Assembly product

Series name

Type name

Color: Blank...Natural (White), K...Black, R...Red  
E...Blue, Y...Yellow, M...Green, N...Brown  
D...Orange, L...Lemon yellow

### Header/ HDS type

**B 08 P - XL - HDS - ■**

Header type: B...Top entry type  
S...Side entry type

No. of circuits

Assembly product

Series name

Type name

Color: Blank...Natural (White), K...Black, R...Red  
E...Blue, Y...Yellow, L...Lemon yellow