

**JST**

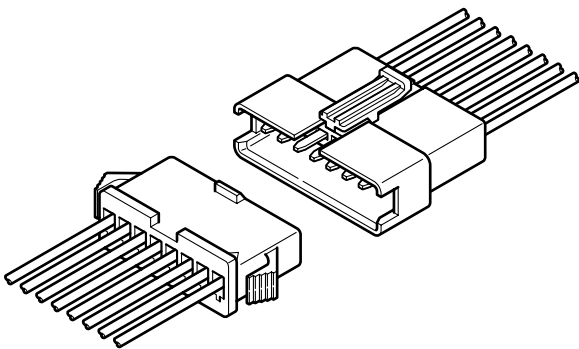
Crimp

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

# SM CONNECTOR

*Disconnectable Crimp style wire-to-wire connectors*

**The SM series are 2.5mm (.098") pitch, wire-to-wire connectors that perform reliably in high-density, small current applications.**



## Features

- **High contact pressure**

With each insertion and withdrawal, the mating contacts wipe against each other to remove foreign matter. Moreover, the socket contacts tolerate a large variation in mating post thickness without a reduction in their normally high contact pressure. These factors insure an especially long service life. Moreover, the design of the housing and contacts allows the contacts to be easily inserted into the housing.

- **Highly reliable housing construction**

Since all the contacts are individually and totally surrounded by housing walls, the contacts are protected from deformation from outside sources of stress or from mismatching. The polarized housing shape prevents reverse connection.

- **Mountable on a variety of panels**

Due to our unique panel installation locking mechanisms, the housing can be easily installed on panels of various thicknesses without using tools.


- **Arm lock mechanism**

An arm lock mechanism securely holds the plug and the receptacle together when they are connected.


## Specifications

- Current rating: 3A AC, DC max.
  - Voltage rating: 250V AC, DC max.
  - 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: 500M Ω min.
  - Withstanding voltage: 1,500V AC/minute
  - Applicable wire: AWG #28 to #22  
0.08 to 0.33mm<sup>2</sup>
  - Applicable panel thickness: 0.5 to 2.0mm (.020" to .079")
- \* Contact JST for details.

## Standards

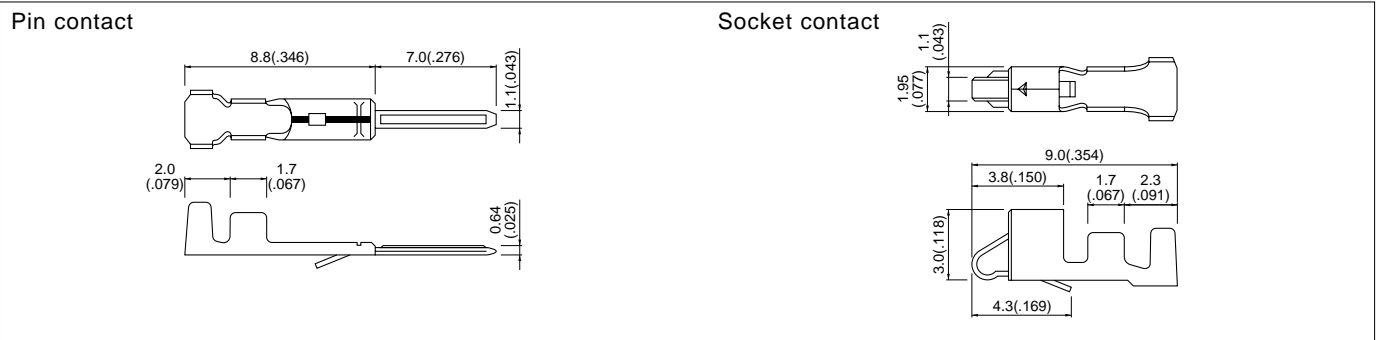
 Recognized E60389

 Certified LR20812

 R75050

# SM CONNECTOR

## Contact



Model No.		Applicable wire			Q'ty / reel
Pin contact	Socket contact	mm <sup>2</sup>	AWG #	Insulation O.D. mm(in.)	
<b>SYM-001T-P0.6</b>	<b>SHF-001T-0.8BS</b>	0.08 to 0.33	28 to 22	1.2 to 1.8(.047 to .071)	Pin contact: 8,500 Socket contact: 5,000

**Material and Finish**  
 Phosphor bronze, tin-plated

Note: Contact JST for special products.

## Housing

Material: Nylon 6, UL94V-0

Circuits	Current rating	Receptacle housing(for pin contact)		Q'ty / bag	Plug housing(for socket contact)		Q'ty / bag
2	3.0A	<b>SMR-02V-B</b> , black <b>SMR-02V-N</b> , natural (white)	 8.0 (.315) 7.5 (.295) 10.2 (.402) 18.2 (.717) 5.5 (.217)	1,000	<b>SMP-02V-BC</b> , black <b>SMP-02V-NC</b> , natural (white)	 5.5 (.217) 11.7 (.461) 7.4 (.291)	1,000
3	3.0A	<b>SMR-03V-B</b> , black <b>SMR-03V-N</b> , natural (white)	 10.5 (.413) 7.5 (.295) 10.2 (.402) 18.2 (.717) 8.0 (.315)	1,000	<b>SMP-03V-BC</b> , black <b>SMP-03V-NC</b> , natural (white)	 8.0 (.315) 11.7 (.461) 7.4 (.291)	1,000
4	3.0A	<b>SMR-04V-B</b> , black <b>SMR-04V-N</b> , natural (white)	 13.0 (.512) 7.5 (.295) 10.2 (.402) 18.2 (.717) 10.5 (.413)	500	<b>SMP-04V-BC</b> , black <b>SMP-04V-NC</b> , natural (white)	 10.5 (.413) 11.7 (.461) 7.4 (.291)	1,000

# SM CONNECTOR

## Housing

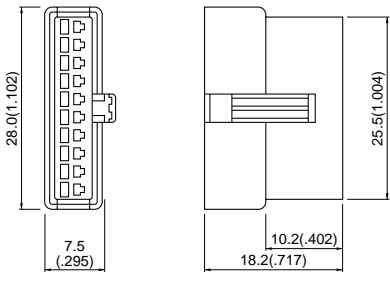
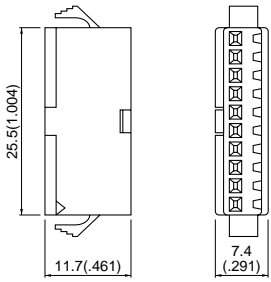
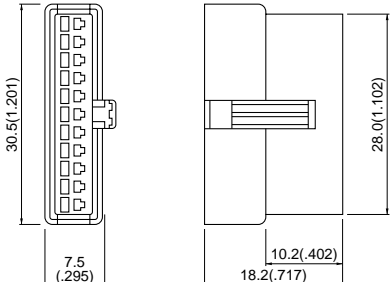
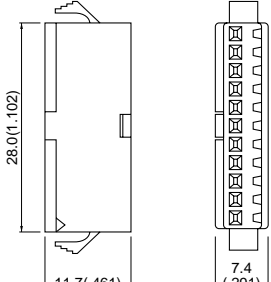
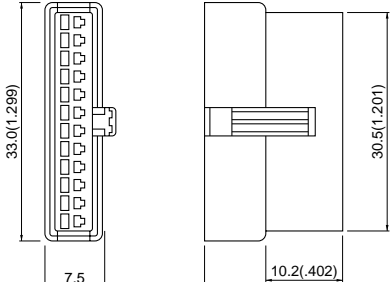
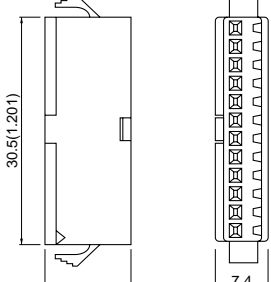
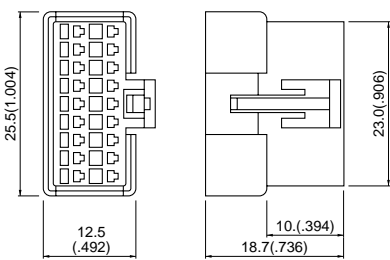
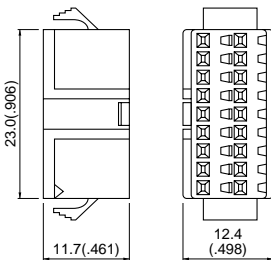
Material: Nylon 6, UL94V-0

Circuits	Current rating	Receptacle housing(for pin contact)	Q'ty / bag	Plug housing(for socket contact)	Q'ty / bag
5	3.0A	<p><b>SMR-05V-B</b>, black <b>SMR-05V-N</b>, natural (white)</p>	500	<p><b>SMP-05V-BC</b>, black <b>SMP-05V-NC</b>, natural (white)</p>	1,000
6	3.0A	<p><b>SMR-06V-B</b>, black <b>SMR-06V-N</b>, natural (white)</p>	500	<p><b>SMP-06V-BC</b>, black <b>SMP-06V-NC</b>, natural (white)</p>	500
7	3.0A	<p><b>SMR-07V-B</b>, black <b>SMR-07V-N</b>, natural (white)</p>	500	<p><b>SMP-07V-BC</b>, black <b>SMP-07V-NC</b>, natural (white)</p>	500
8	3.0A	<p><b>SMR-08V-B</b>, black <b>SMR-08V-N</b>, natural (white)</p>	500	<p><b>SMP-08V-BC</b>, black <b>SMP-08V-NC</b>, natural (white)</p>	500
9	3.0A	<p><b>SMR-09V-B</b>, black <b>SMR-09V-N</b>, natural (white)</p>	500	<p><b>SMP-09V-BC</b>, black <b>SMP-09V-NC</b>, natural (white)</p>	500

# SM CONNECTOR

## Housing

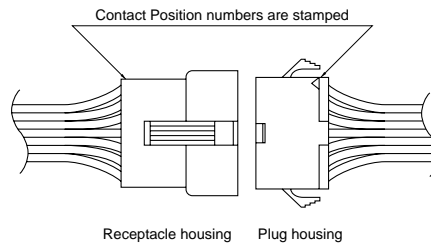
Material: Nylon 6, UL94V-0

Circuits	Current rating	Receptacle housing(for pin contact)		Q'ty / bag	Plug housing(for socket contact)		Q'ty / bag
10	3.0A	<b>SMR-10V-B</b> , black <b>SMR-10V-N</b> , natural (white) 	28.0(1.102) 7.5 (.295) 10.2(.402) 18.2(.717) 25.5(1.004)	200	<b>SMP-10V-BC</b> , black <b>SMP-10V-NC</b> , natural (white) 	25.5(1.004) 11.7(.461) 7.4 (.291)	500
11	3.0A	<b>SMR-11V-B</b> , black <b>SMR-11V-N</b> , natural (white) 	30.5(1.201) 7.5 (.295) 10.2(.402) 18.2(.717) 28.0(1.102)	200	<b>SMP-11V-BC</b> , black <b>SMP-11V-NC</b> , natural (white) 	28.0(1.102) 11.7(.461) 7.4 (.291)	500
12	3.0A	<b>SMR-12V-B</b> , black <b>SMR-12V-N</b> , natural (white) 	33.0(1.299) 7.5 (.295) 10.2(.402) 18.2(.717) 30.5(1.201)	200	<b>SMP-12V-BC</b> , black <b>SMP-12V-NC</b> , natural (white) 	30.5(1.201) 11.7(.461) 7.4 (.291)	500
18	2.0A	<b>SMR-18V-B</b> , black <b>SMR-18V-N</b> , natural (white) 	25.5(1.004) 12.5 (.492) 10.(.394) 18.7(.736) 23.0(.906)	200	<b>SMP-18V-BC</b> , black <b>SMP-18V-NC</b> , natural (white) 	23.0(.906) 11.7(.461) 12.4 (.498)	500

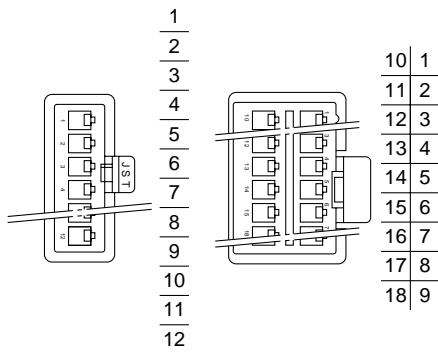
Note:  
 1. SM connectors with any number of circuits can be either panel mounted or free hanging.  
 2. Contact JST for special products.

# SM CONNECTOR

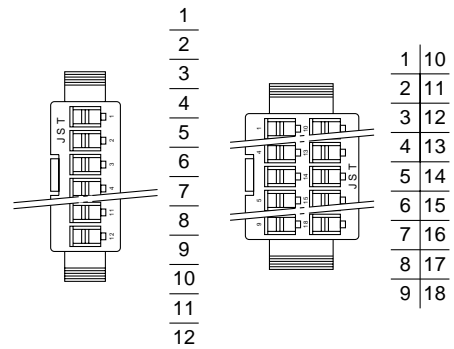
## Contact position location numbers



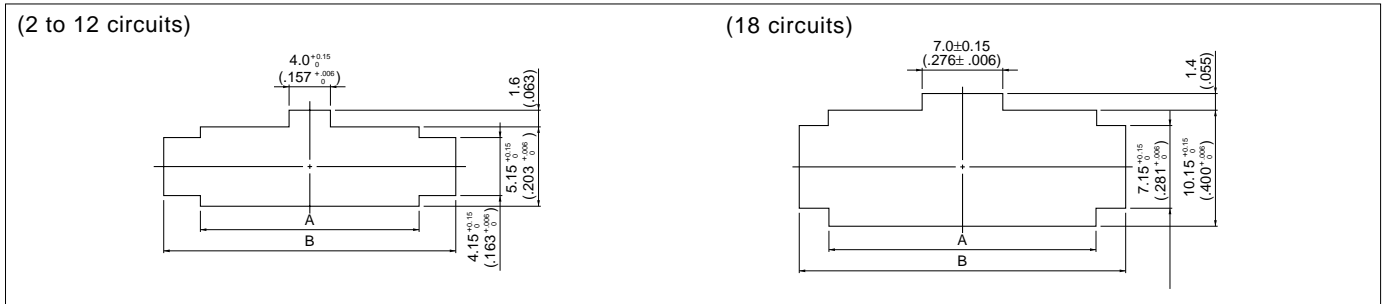
### Receptacle housing



### Plug housing



## Panel layout

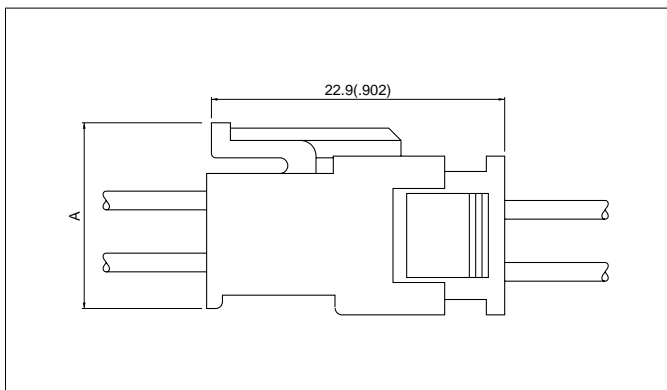


Circuits	Housing Model No.	Panel thickness mm(in.)					
		0.5 to 0.9(.020 to .035)		1.0 to 1.5(.039 to .059)		1.5 to 2.0(.059 to .079)	
		A $\pm 0.15$ ( $\pm .006$ )	B $\pm 0.1$ ( $\pm 0.04$ )	A $\pm 0.15$ ( $\pm .006$ )	B $\pm 0.1$ ( $\pm 0.04$ )	A $\pm 0.15$ ( $\pm .006$ )	B $\pm 0.1$ ( $\pm 0.04$ )
2	SMP-02V-B(N)C	5.7(.224)	9.6(.378)	5.7(.224)	9.8(.386)	5.7(.224)	10.0(.394)
3	SMP-03V-B(N)C	8.2(.323)	12.1(.476)	8.2(.323)	12.3(.484)	8.2(.323)	12.5(.492)
4	SMP-04V-B(N)C	10.7(.421)	14.6(.575)	10.7(.421)	14.8(.583)	10.7(.421)	15.0(.591)
5	SMP-05V-B(N)C	13.2(.520)	17.1(.673)	13.2(.520)	17.3(.681)	13.2(.520)	17.5(.689)
6	SMP-06V-B(N)C	15.7(.618)	19.6(.772)	15.7(.618)	19.8(.780)	15.7(.618)	20.0(.787)
7	SMP-07V-B(N)C	18.2(.717)	22.1(.870)	18.2(.717)	22.3(.878)	18.2(.717)	22.5(.886)
8	SMP-08V-B(N)C	20.7(.815)	24.6(.969)	20.7(.815)	24.8(.976)	20.7(.815)	25.0(.984)
9	SMP-09V-B(N)C	23.2(.913)	27.1(1.067)	23.2(.913)	27.3(1.075)	23.2(.913)	27.5(1.083)
10	SMP-10V-B(N)C	25.7(1.012)	29.6(1.165)	25.7(1.012)	29.8(1.173)	25.7(1.012)	30.0(1.181)
11	SMP-11V-B(N)C	28.2(1.110)	32.1(1.264)	28.2(1.110)	32.3(1.272)	28.2(1.110)	32.5(1.280)
12	SMP-12V-B(N)C	30.7(1.209)	34.6(1.362)	30.7(1.209)	34.8(1.370)	30.7(1.209)	35.0(1.378)
18	SMP-18V-B(N)C	23.2(.913)	27.2(1.071)	23.2(.913)	27.4(1.079)	23.2(.913)	27.6(1.087)

**Note:**

1. Punch holes in the panel according to the sketch and table shown above. Burrs must be removed.
2. The strength of the panel must be considered when punching two or more holes.
3. The connector must be inserted from the same side as the hole is punched.

## Assembly layout



Circuits	Dimension A mm(in.)
2 to 12	8.7(.343)
18	14.5(.571)

## 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
SHF-001T-0.8BS	APLMK SHF001-08S	APLNC SHF001-08S	APLMKLS SHF001-08S	APLLSNC SHF001-08S	APLSC SHF001-08S
SYM-001T-P0.6	APLMK SYM001-06	APLNC SYM001-06	APLMKLS SYM001-06	APLLSNC SYM001-06	APLSC SYM001-06