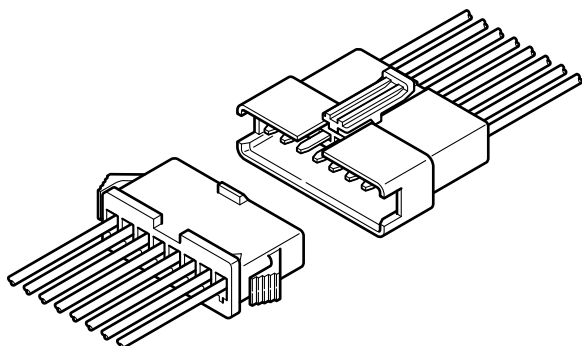




# SM CONNECTOR

2.5 mm pitch/Disconnectable Crimp style wire-to-wire connectors



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

- High contact pressure
- Highly reliable housing construction
- Mountable on a variety of panels
- Arm lock mechanism

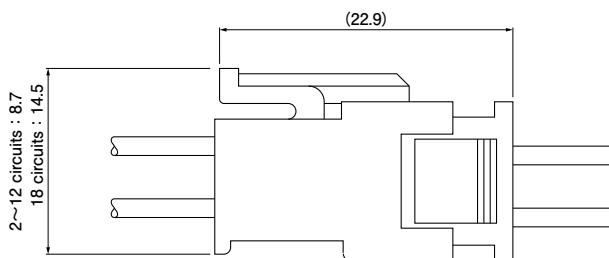
## Specifications

- Current rating: 3 A AC/DC max.
  - Voltage rating: 250 V AC/DC max.
  - Temperature range: -25°C to +85°C  
(including temperature rise in applying electrical current)
  - Contact resistance: Initial value/ 10 mΩ max.  
After environmental tests/ 20 mΩ max.
  - Insulation resistance: 500 MΩ min.
  - Withstanding voltage: 1,500 VAC/minute
  - Applicable wire: AWG #28 to #22  
0.08 to 0.33 mm<sup>2</sup>
  - Applicable panel thickness: 0.5 to 2.0 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.

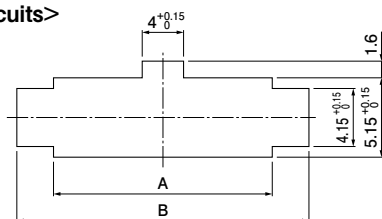
## Standards

- Recognized E60389
- △ R50120150

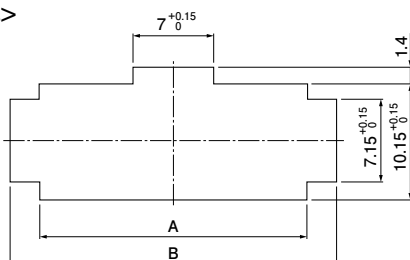
## Panel Layout and Assembly layout



<2 to 12 circuits>



<18 circuits>

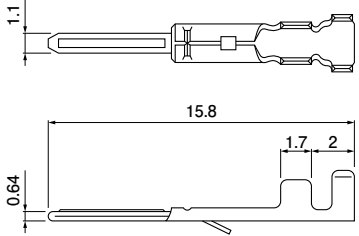


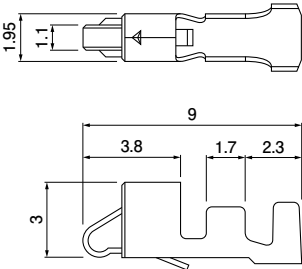
| No. of<br>circuits | Model No.<br>Plug housing | Panel thickness (mm)       |                   |                          |                   |                          |                   |
|--------------------|---------------------------|----------------------------|-------------------|--------------------------|-------------------|--------------------------|-------------------|
|                    |                           | 0.5~0.9                    |                   | 1.0~1.5                  |                   | 1.5~2.0                  |                   |
|                    |                           | Panel hole dimensions (mm) |                   |                          |                   | General tolerance        |                   |
|                    |                           | A <sup>+0.15<br/>0</sup>   | B <sup>±0.1</sup> | A <sup>+0.15<br/>0</sup> | B <sup>±0.1</sup> | A <sup>+0.15<br/>0</sup> | B <sup>±0.1</sup> |
| 2                  | SMP-02V-B(N)C             | 5.7                        | 9.6               | 5.7                      | 9.8               | 5.7                      | 10.0              |
| 3                  | SMP-03V-B(N)C             | 8.2                        | 12.1              | 8.2                      | 12.3              | 8.2                      | 12.5              |
| 4                  | SMP-04V-B(N)C             | 10.7                       | 14.6              | 10.7                     | 14.8              | 10.7                     | 15.0              |
| 5                  | SMP-05V-B(N)C             | 13.2                       | 17.1              | 13.2                     | 17.3              | 13.2                     | 17.5              |
| 6                  | SMP-06V-B(N)C             | 15.7                       | 19.6              | 15.7                     | 19.8              | 15.7                     | 20.0              |
| 7                  | SMP-07V-B(N)C             | 18.2                       | 22.1              | 18.2                     | 22.3              | 18.2                     | 22.5              |
| 8                  | SMP-08V-B(N)C             | 20.7                       | 24.6              | 20.7                     | 24.8              | 20.7                     | 25.0              |
| 9                  | SMP-09V-B(N)C             | 23.2                       | 27.1              | 23.2                     | 27.3              | 23.2                     | 27.5              |
| 10                 | SMP-10V-B(N)C             | 25.7                       | 29.6              | 25.7                     | 29.8              | 25.7                     | 30.0              |
| 11                 | SMP-11V-B(N)C             | 28.2                       | 32.1              | 28.2                     | 32.3              | 28.2                     | 32.5              |
| 12                 | SMP-12V-B(N)C             | 30.7                       | 34.6              | 30.7                     | 34.8              | 30.7                     | 35.0              |
| 18                 | SMP-18V-B(N)C             | 23.2                       | 27.2              | 23.2                     | 27.4              | 23.2                     | 27.6              |

- 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.

# SM CONNECTOR

## Contact

**Pin contact**

**Socket contact**

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

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

RoHS2 compliance  
Note: 1. Contact JST for special products.  
2. Contact JST for brass products.

| Contact       | Crimping machine | Applicator       |               |                            |
|---------------|------------------|------------------|---------------|----------------------------|
|               |                  | Crimp applicator | Dies          | Crimp applicator with dies |
| SYM-001T-P0.6 | AP-K2N           | MKS-L            | MK/SYM-001-06 | APLMK SYM001-06            |

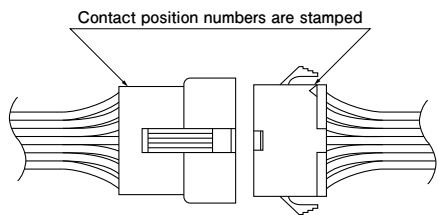
Note: Contact JST for fully automatic crimping applicator.

| Contact        | Crimping machine | Applicator       |                |                            |
|----------------|------------------|------------------|----------------|----------------------------|
|                |                  | Crimp applicator | Dies           | Crimp applicator with dies |
| SHF-001T-0.8BS | AP-K2N           | MKS-L            | MK/SHF-001-08S | APLMK SHF001-08S           |

Note: Contact JST for fully automatic crimping applicator.

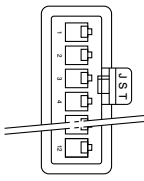
## Contact position location numbers

Contact position numbers are stamped



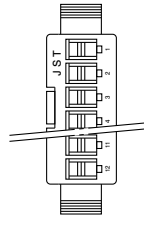
Receptacle housing      Plug housing

**Receptacle housing**



|    |    |
|----|----|
| 1  | 10 |
| 2  | 11 |
| 3  | 12 |
| 4  | 13 |
| 5  | 14 |
| 6  | 15 |
| 7  | 16 |
| 8  | 17 |
| 9  | 18 |
| 10 |    |
| 11 |    |
| 12 |    |

**Plug housing**



|    |    |
|----|----|
| 1  | 1  |
| 2  | 2  |
| 3  | 3  |
| 4  | 4  |
| 5  | 5  |
| 6  | 6  |
| 7  | 7  |
| 8  | 8  |
| 9  | 9  |
| 10 | 10 |
| 11 | 11 |
| 12 | 12 |

## Housing

Material: PA 6, UL94V-0

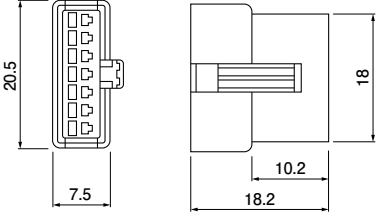
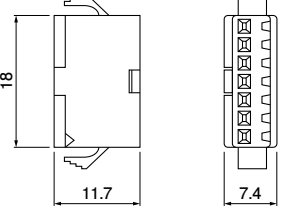
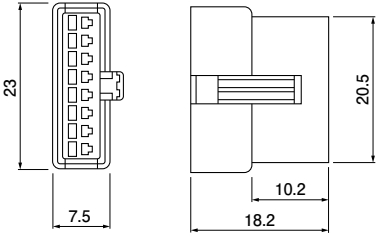
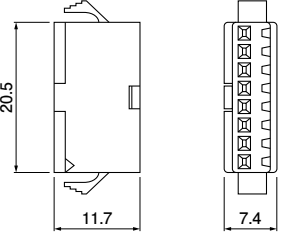
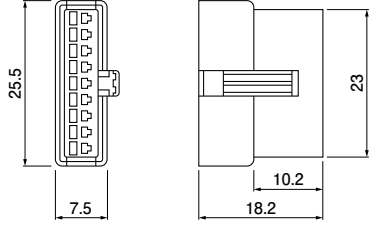
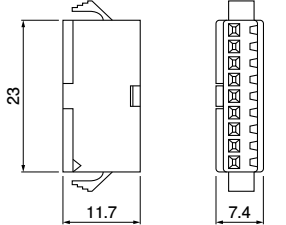
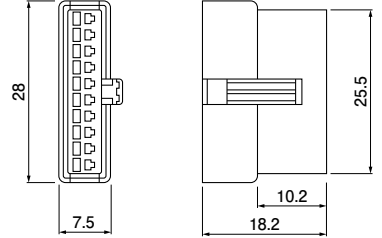
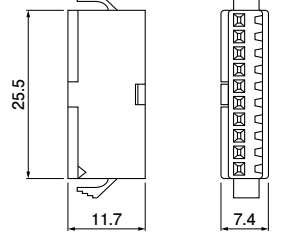
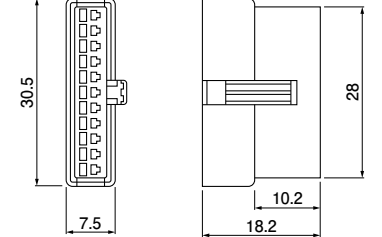
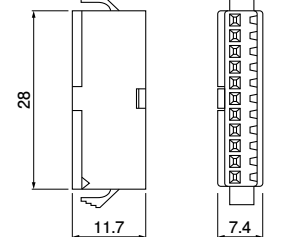
| No. of circuits | Current rating | Receptacle housing (for pin contact)                         |              | Plug housing (for socket contact)                              |              |
|-----------------|----------------|--------------------------------------------------------------|--------------|----------------------------------------------------------------|--------------|
| 2               | 3 A            | <b>SMR-02V-B, black</b><br><b>SMR-02V-N, white (natural)</b> | Q'ty/<br>bag | <b>SMP-02V-BC, black</b><br><b>SMP-02V-NC, white (natural)</b> | Q'ty/<br>bag |
|                 |                |                                                              | 1,000        |                                                                | 1,000        |
| 3               | 3 A            | <b>SMR-03V-B, black</b><br><b>SMR-03V-N, white (natural)</b> | Q'ty/<br>bag | <b>SMP-03V-BC, black</b><br><b>SMP-03V-NC, white (natural)</b> | Q'ty/<br>bag |
|                 |                |                                                              | 1,000        |                                                                | 1,000        |
| 4               | 3 A            | <b>SMR-04V-B, black</b><br><b>SMR-04V-N, white (natural)</b> | Q'ty/<br>bag | <b>SMP-04V-BC, black</b><br><b>SMP-04V-NC, white (natural)</b> | Q'ty/<br>bag |
|                 |                |                                                              | 500          |                                                                | 1,000        |
| 5               | 3 A            | <b>SMR-05V-B, black</b><br><b>SMR-05V-N, white (natural)</b> | Q'ty/<br>bag | <b>SMP-05V-BC, black</b><br><b>SMP-05V-NC, white (natural)</b> | Q'ty/<br>bag |
|                 |                |                                                              | 500          |                                                                | 1,000        |
| 6               | 3 A            | <b>SMR-06V-B, black</b><br><b>SMR-06V-N, white (natural)</b> | Q'ty/<br>bag | <b>SMP-06V-BC, black</b><br><b>SMP-06V-NC, white (natural)</b> | Q'ty/<br>bag |
|                 |                |                                                              | 500          |                                                                | 500          |

RoHS2 compliance

# SM CONNECTOR

## Housing

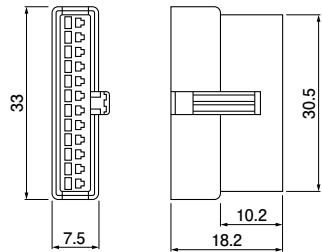
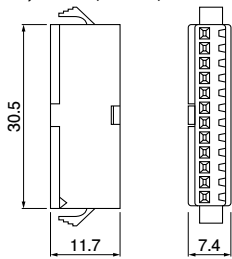
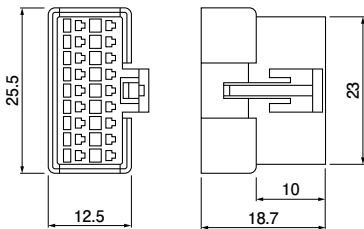
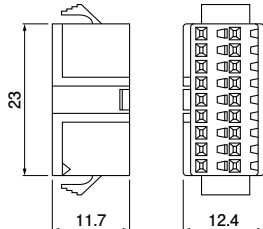
Material: PA 6, UL94V-0

| No. of circuits | Current rating | Receptacle housing (for pin contact)                                                |              | Plug housing (for socket contact)                                                    |              |
|-----------------|----------------|-------------------------------------------------------------------------------------|--------------|--------------------------------------------------------------------------------------|--------------|
|                 |                | SMR-07V-B, black<br>SMR-07V-N, white (natural)                                      | Q'ty/<br>bag | SMP-07V-BC, black<br>SMP-07V-NC, white (natural)                                     | Q'ty/<br>bag |
| 7               | 3 A            |    | 500          |    | 500          |
| 8               | 3 A            |   | 500          |   | 500          |
| 9               | 3 A            |  | 500          |  | 500          |
| 10              | 3 A            |  | 200          |  | 500          |
| 11              | 3 A            |  | 200          |  | 500          |

RoHS2 compliance

## Housing

Material: PA 6, UL94V-0

| No. of circuits | Current rating | Receptacle housing (for pin contact)                                                                                                            | Q'ty/<br>bag | Plug housing (for socket contact)                                                                                                                   | Q'ty/<br>bag |
|-----------------|----------------|-------------------------------------------------------------------------------------------------------------------------------------------------|--------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|--------------|
| 12              | 3 A            | <b>SMR-12V-B, black</b><br><b>SMR-12V-N, white (natural)</b>   | 500          | <b>SMP-12V-BC, black</b><br><b>SMP-12V-NC, white (natural)</b>   | 500          |
| 18              | 2 A            | <b>SMR-18V-B, black</b><br><b>SMR-18V-N, white (natural)</b>  | 200          | <b>SMP-18V-BC, black</b><br><b>SMP-18V-NC, white (natural)</b>  | 200          |

### RoHS2 compliance

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

# Mouser Electronics

Authorized Distributor

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[SYM-001GU-0.6A](#)