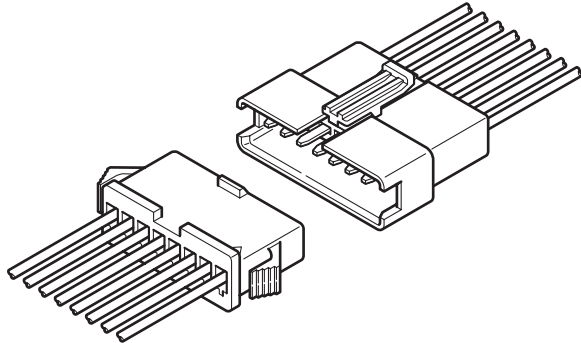




# SM CONNECTOR

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



**The SM series are 2.5mm 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: 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
- \* RoHS compliant products are published.
- \* Refer to "General Instruction and Notice when using Terminals and Connectors" at the end of this catalog.
- \* Contact JST for details.

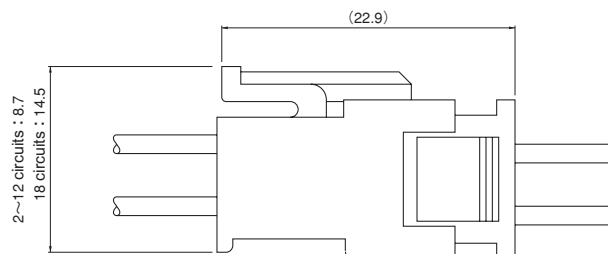
## Standards

Recognized E60389

Certified LR20812

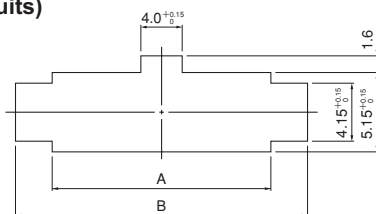
R50120150

## Assembly layout

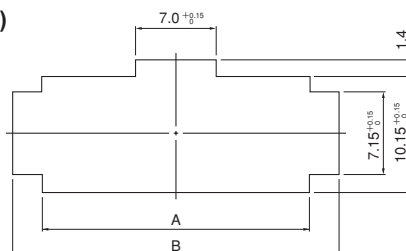


## Panel layout

(2 to 12 circuits)



(18 circuits)

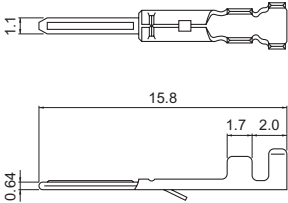


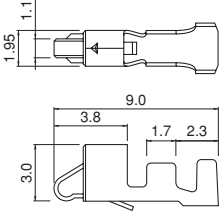
| Circuits | Plug housing Model No. | Panel thickness (mm)                         |                   |                          |                   |                          |                   |
|----------|------------------------|----------------------------------------------|-------------------|--------------------------|-------------------|--------------------------|-------------------|
|          |                        | 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) |  |  |  |  |  |

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

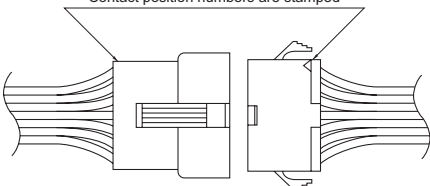
| Contact       | Crimping machine | Applicator       |               |                            |
|---------------|------------------|------------------|---------------|----------------------------|
|               |                  | Crimp applicator | Dies          | Crimp applicator with dies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

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

Note: \*Strip-crimp applicator

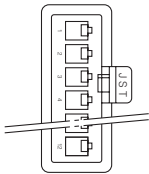
## Contact position location numbers

Contact position numbers are stamped



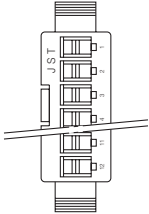
Receptacle housing      Plug housing

**Receptacle housing**



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

**Plug housing**



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

## Housing

Material: PA 6, UL94V-0

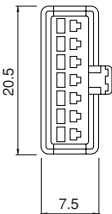
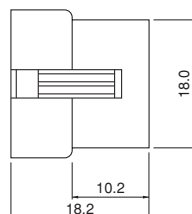
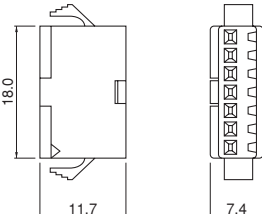
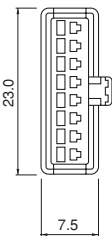
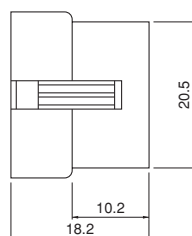
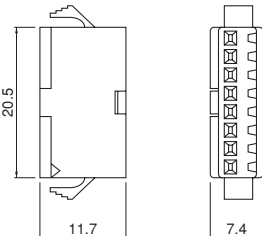
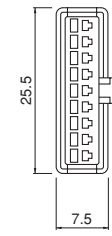
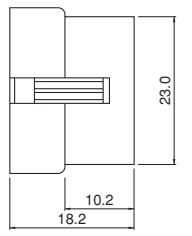
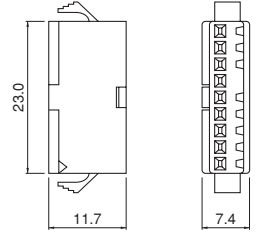
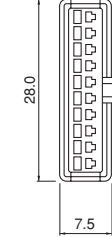
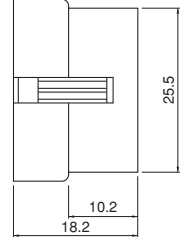
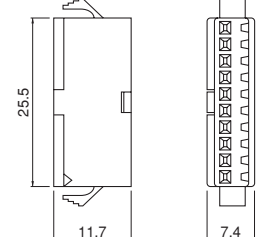
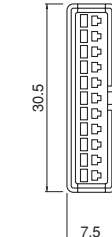
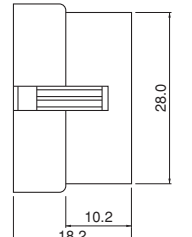
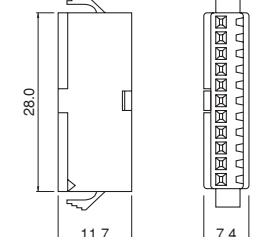
| Circuits | Current rating | Receptacle housing(for pin contact)                            |            | Plug housing(for socket contact)                                 |            |
|----------|----------------|----------------------------------------------------------------|------------|------------------------------------------------------------------|------------|
| 2        | 3A             | <b>SMR-02V-B</b> , black<br><b>SMR-02V-N</b> , white (natural) | Q'ty / bag | <b>SMP-02V-BC</b> , black<br><b>SMP-02V-NC</b> , white (natural) | Q'ty / bag |
|          |                |                                                                | 1,000      |                                                                  | 1,000      |
| 3        | 3A             | <b>SMR-03V-B</b> , black<br><b>SMR-03V-N</b> , white (natural) | Q'ty / bag | <b>SMP-03V-BC</b> , black<br><b>SMP-03V-NC</b> , white (natural) | Q'ty / bag |
|          |                |                                                                | 1,000      |                                                                  | 1,000      |
| 4        | 3A             | <b>SMR-04V-B</b> , black<br><b>SMR-04V-N</b> , white (natural) | Q'ty / bag | <b>SMP-04V-BC</b> , black<br><b>SMP-04V-NC</b> , white (natural) | Q'ty / bag |
|          |                |                                                                | 500        |                                                                  | 1,000      |
| 5        | 3A             | <b>SMR-05V-B</b> , black<br><b>SMR-05V-N</b> , white (natural) | Q'ty / bag | <b>SMP-05V-BC</b> , black<br><b>SMP-05V-NC</b> , white (natural) | Q'ty / bag |
|          |                |                                                                | 500        |                                                                  | 1,000      |
| 6        | 3A             | <b>SMR-06V-B</b> , black<br><b>SMR-06V-N</b> , white (natural) | Q'ty / bag | <b>SMP-06V-BC</b> , black<br><b>SMP-06V-NC</b> , white (natural) | Q'ty / bag |
|          |                |                                                                | 500        |                                                                  | 500        |

RoHS compliance

# SM CONNECTOR

## Housing

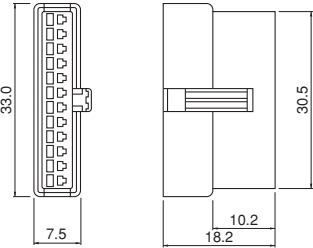
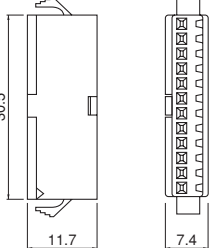
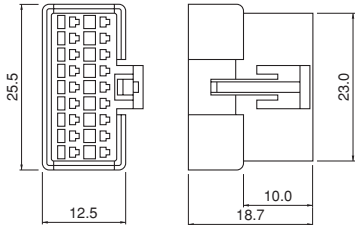
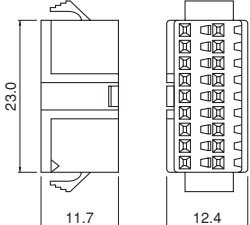
Material: PA 6, UL94V-0

| Circuits | Current rating | Receptacle housing(for pin contact)                                                                                                                   |                                                                                     | Plug housing(for socket contact)                                                                                                                         |                   |
|----------|----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|
| 7        | 3A             | <b>SMR-07V-B</b> , black<br><b>SMR-07V-N</b> , white (natural)<br>   |    | <b>SMP-07V-BC</b> , black<br><b>SMP-07V-NC</b> , white (natural)<br>   | Q'ty / bag<br>500 |
|          |                |                                                                                                                                                       |                                                                                     |                                                                                                                                                          |                   |
| 8        | 3A             | <b>SMR-08V-B</b> , black<br><b>SMR-08V-N</b> , white (natural)<br>  |   | <b>SMP-08V-BC</b> , black<br><b>SMP-08V-NC</b> , white (natural)<br>  | Q'ty / bag<br>500 |
|          |                |                                                                                                                                                       |                                                                                     |                                                                                                                                                          |                   |
| 9        | 3A             | <b>SMR-09V-B</b> , black<br><b>SMR-09V-N</b> , white (natural)<br> |  | <b>SMP-09V-BC</b> , black<br><b>SMP-09V-NC</b> , white (natural)<br> | Q'ty / bag<br>500 |
|          |                |                                                                                                                                                       |                                                                                     |                                                                                                                                                          |                   |
| 10       | 3A             | <b>SMR-10V-B</b> , black<br><b>SMR-10V-N</b> , white (natural)<br> |  | <b>SMP-10V-BC</b> , black<br><b>SMP-10V-NC</b> , white (natural)<br> | Q'ty / bag<br>200 |
|          |                |                                                                                                                                                       |                                                                                     |                                                                                                                                                          |                   |
| 11       | 3A             | <b>SMR-11V-B</b> , black<br><b>SMR-11V-N</b> , white (natural)<br> |  | <b>SMP-11V-BC</b> , black<br><b>SMP-11V-NC</b> , white (natural)<br> | Q'ty / bag<br>200 |
|          |                |                                                                                                                                                       |                                                                                     |                                                                                                                                                          |                   |

RoHS compliance

Housing

Material: PA 6, UL94V-0

| Circuits | Current rating | Receptacle housing(for pin contact)                                                                                                                  |            | Plug housing(for socket contact)                                                                                                                         |            |
|----------|----------------|------------------------------------------------------------------------------------------------------------------------------------------------------|------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|------------|
| 12       | 3A             | <b>SMR-12V-B</b> , black<br><b>SMR-12V-N</b> , white (natural)<br>  | Q'ty / bag | <b>SMP-12V-BC</b> , black<br><b>SMP-12V-NC</b> , white (natural)<br>  | Q'ty / bag |
|          |                |                                                                                                                                                      | 500        |                                                                                                                                                          | 500        |
| 18       | 2A             | <b>SMR-18V-B</b> , black<br><b>SMR-18V-N</b> , white (natural)<br> | Q'ty / bag | <b>SMP-18V-BC</b> , black<br><b>SMP-18V-NC</b> , white (natural)<br> | Q'ty / bag |
|          |                |                                                                                                                                                      | 200        |                                                                                                                                                          | 200        |

**RoHS 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.