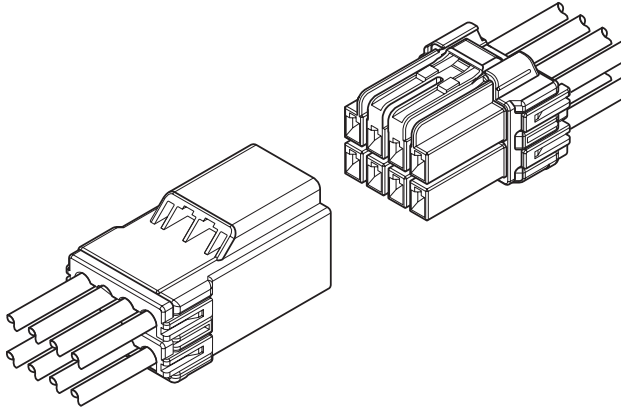


HIL CONNECTOR

3.3mm pitch/Crimp style Wire-to-wire connectors

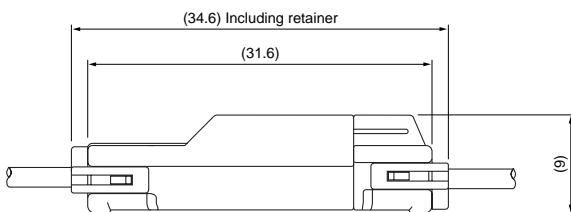


This HIL connector is 3.3mm pitch wire-to-wire connector that has a mechanism to prevent an incomplete mating when mating connector.

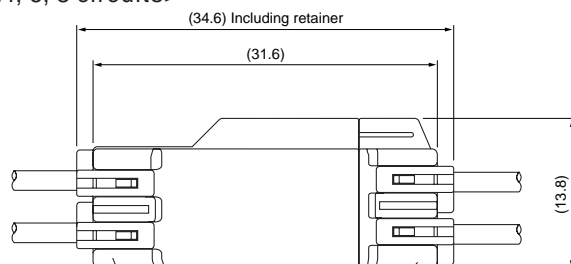
- **Inertia lock mechanism to prevent an incomplete mating**
- **Box-shaped contact to prevent the influence by external forces**
- **Polarizing key to prevent connector from mating with incorrect circuits**

Assembly layout

<2, 3 circuits>



<4, 6, 8 circuits>



Specifications

- Current rating: 5A AC, DC (2 circuits AWG #18)
 - Voltage rating: 300V AC, DC
 - Temperature range: -25°C to +85°C
(including temperature rise in applying electrical current)
 - Contact resistance: Initial value/10m max.
After environmental testing/20m max.
 - Insulation resistance: 1,000M min.
 - Withstanding voltage: 1,500V AC/minute
 - Applicable wire: Conductor size/01 type AWG #24 to #20
/21 type AWG #22 to #18
Insulation O.D./01 type 1.3 to 2.5mm
/21 type 1.5 to 2.7mm
(when using retainer for 21 type 1.5 to 2.5mm)
- * 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 current rating varies depending on the number of circuits and the wire size used in each connector. The table below lists the current rating as a function of the number of circuits and the wire size.

Current unit: A

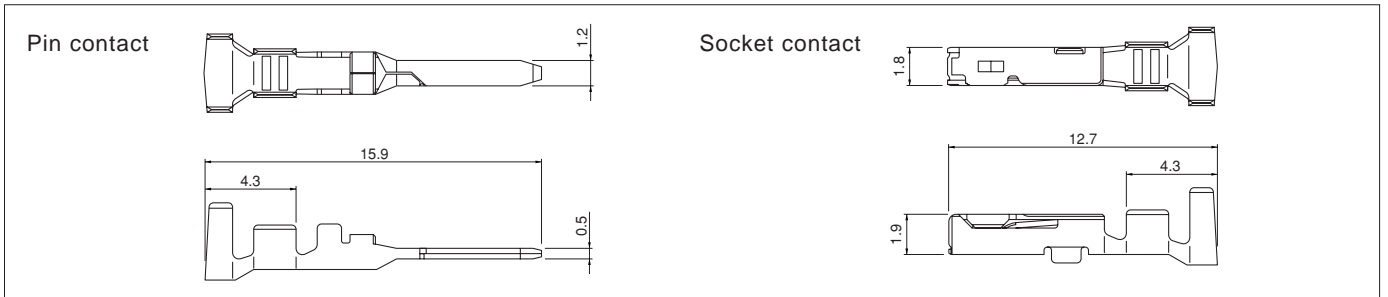
| Circuits | Wire size (AWG) | | | |
|----------|-----------------|-----|-----|-----|
| | #18 | #20 | #22 | #24 |
| 2 | 5 | 4 | 3 | 3 |
| 3 | 4 | 4 | 3 | 2 |
| 4 | 3 | 3 | 2 | 2 |
| 6 | 3 | 3 | 2 | 2 |
| 8 | 3 | 3 | 2 | 2 |

List of combinations

| Resin color (Plug/Receptacle) | Natural | Red | Blue |
|-------------------------------|--------------------------|--------------------------|--------------------------|
| Polarizing key pattern | Polarizing key pattern 1 | Polarizing key pattern 2 | Polarizing key pattern 3 |
| | | | |
| Plug Model No. | HILP-()V-1-S | HILP-()V-2-R | HILP-()V-3-E |
| Receptacle Model No. | HILR-()VF-1-S | HILR-()VF-2-R | HILR-()VF-3-E |

HIL CONNECTOR

Contact



| Model No. | | Applicable wire | | Insulation O.D. (mm) | Q'ty / reel |
|----------------------|----------------------|-----------------|-------|----------------------|-------------|
| Pin contact | Socket contact | mm ² | AWG # | | |
| SHIM-01T-P0.5 | SHIF-01T-P0.5 | 0.2~0.5 | 24~20 | 1.3~2.5 | 5,000 |
| SHIM-21T-P0.5 | SHIF-21T-P0.5 | 0.3~0.75 | 22~18 | 1.5~2.7 | 5,000 |

Material and Finish

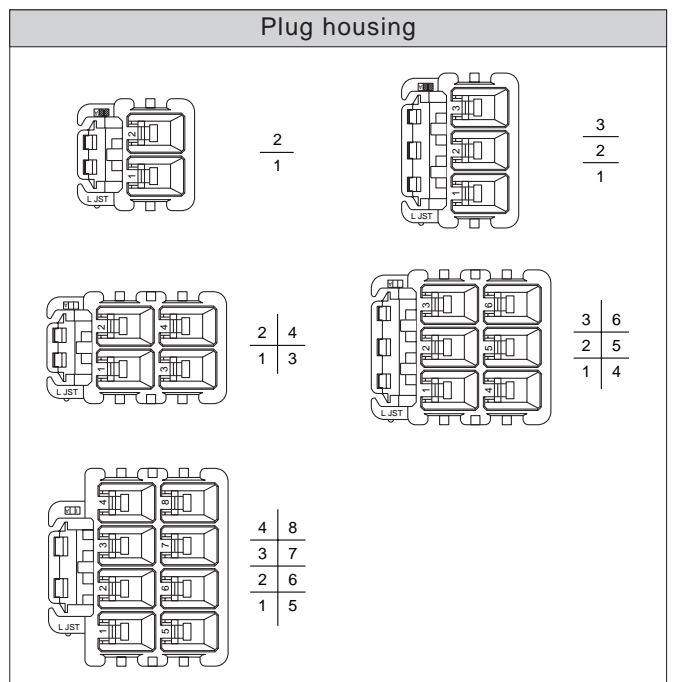
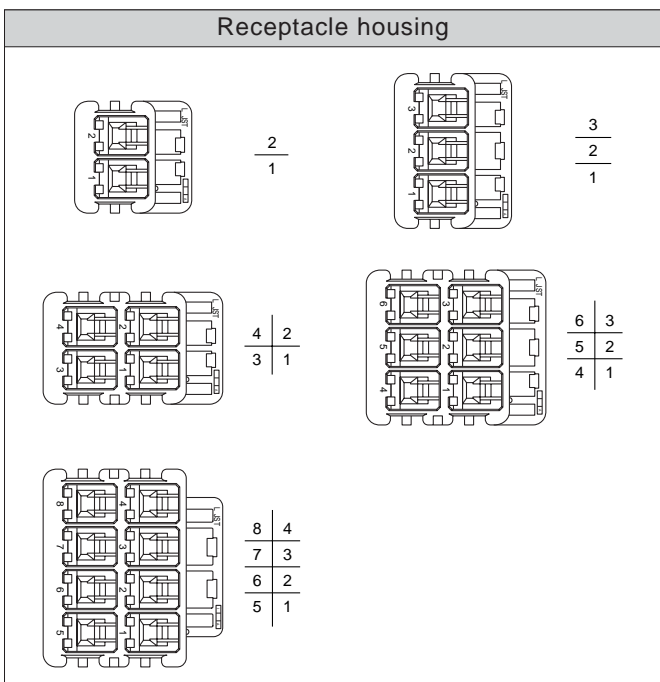
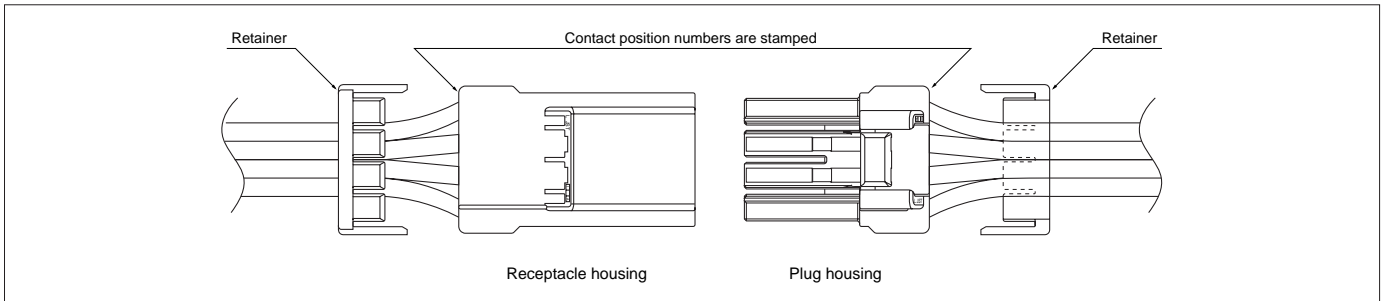
Copper alloy, tin-plated

RoHS compliance

Note: Insulation O.D. is 1.5mm to 2.5mm when using retainer for 21 type barrel size contact.

| Contact | Crimping machine | Applicator | | | Contact | Crimping machine | Applicator | | |
|----------------------|------------------|------------------|-----------------|----------------------------|----------------------|------------------|------------------|-----------------|----------------------------|
| | | Crimp applicator | Dies | Crimp applicator with dies | | | Crimp applicator | Dies | Crimp applicator with dies |
| SHIM-01T-P0.5 | AP-K2N | MKS-L | MK/SHIF/M-01-05 | APLMK SHIF/M01-05 | SHIF-01T-P0.5 | AP-K2N | MKS-L | MK/SHIF/M-01-05 | APLMK SHIF/M01-05 |
| SHIM-21T-P0.5 | | | MK/SHIF/M-21-05 | APLMK SHIF/M21-05 | SHIF-21T-P0.5 | | | MK/SHIF/M-21-05 | APLMK SHIF/M21-05 |

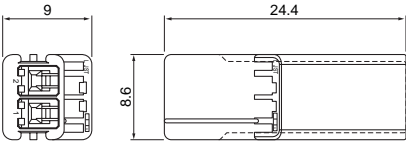
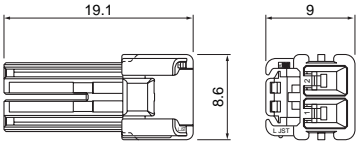
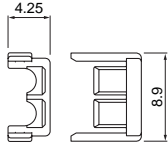
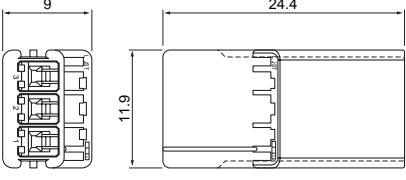
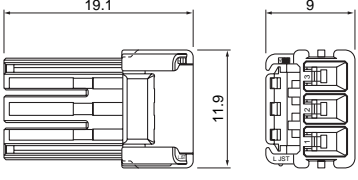
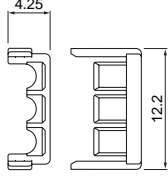
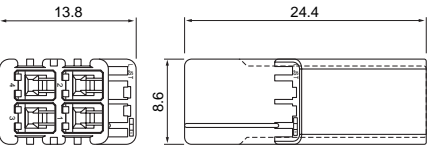
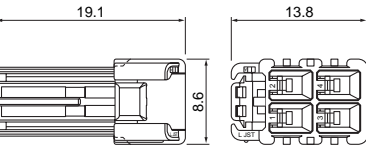
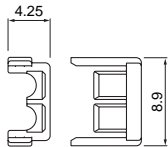
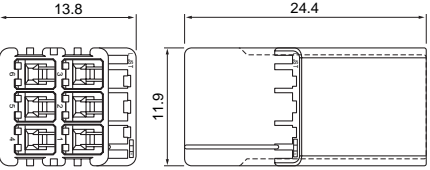
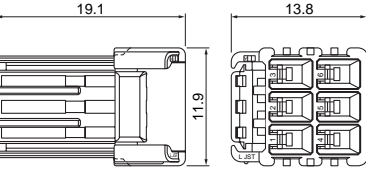
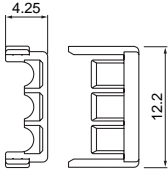
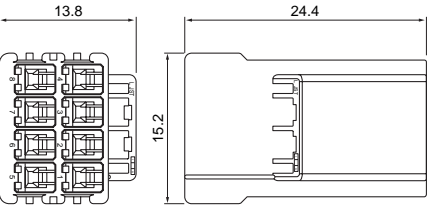
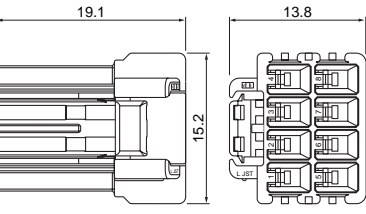
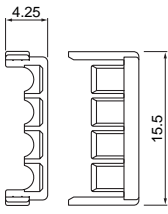
Contact position location numbers



HIL CONNECTOR

Housing

Material: Housing...PA 66, UL94V-0, natural
Retainer...Glass-filled PA 66, UL94V-0, natural

| Circuits | Voltage rating | Current rating | Receptacle housing (for pin contact) | | Plug housing (for socket contact) | | Retainer | |
|----------|----------------|----------------|-------------------------------------------------------------------------------------------------------------|---------------------|-------------------------------------------------------------------------------------------------------------|---------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|
| 2 | 300V | 5A | HILR-02VF-1-S  | Q'ty / bag 1,000 | HILP-02V-1-S  | Q'ty / bag 1,000 | HILS-02V (commonly used for 2-circuit housing and 4-circuit housing)  | Q'ty / bag 1,000 |
| 3 | 300V | 4A | HILR-03VF-1-S  | Q'ty / bag 1,000 | HILP-03V-1-S  | Q'ty / bag 1,000 | HILS-03V (commonly used for 3-circuit housing and 6-circuit housing)  | Q'ty / bag 1,000 |
| 4 | 300V | 3A | HILR-04VF-1-S  | Q'ty / bag 1,000 | HILP-04V-1-S  | Q'ty / bag 1,000 | HILS-02V (commonly used for 2-circuit housing and 4-circuit housing)  | Q'ty / bag 1,000 |
| 6 | 300V | 3A | HILR-06VF-1-S  | Q'ty / bag 500 | HILP-06V-1-S  | Q'ty / bag 1,000 | HILS-03V (commonly used for 3-circuit housing and 6-circuit housing)  | Q'ty / bag 1,000 |
| 8 | 300V | 3A | HILR-08VF-1-S  | Q'ty / bag 500 | HILP-08V-1-S  | Q'ty / bag 1,000 | HILS-04V  | Q'ty / bag 1,000 |

RoHS compliance

Note: Current rating is for use with AWG #18 wire.