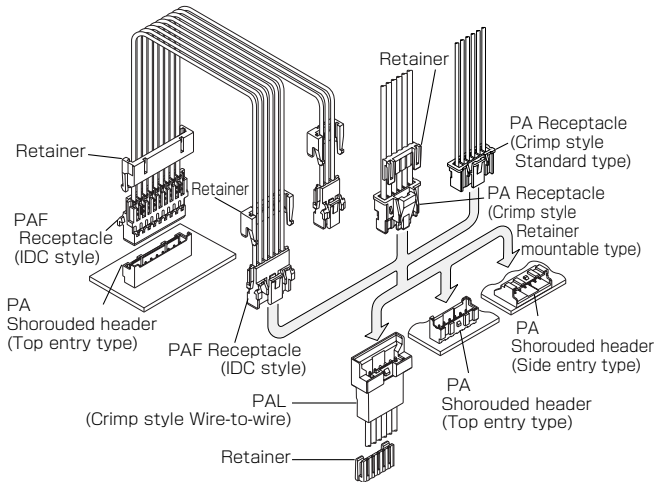


PA FAMILY SERIES/PA•PAF•PAL CONNECTOR

2.0mm pitch/Wire-to-board (Crimp style/IDC) / Wire-to-wire (Crimp style/IDC)



Based upon wire-to-board crimp style PA connectors, the PA series family of connector have been expanded to meet the requirement of complex wire harness of 2.0mm pitch connectors with secure locking mechanism thanks to the additional line up of wire-to-board IDC style PAF connectors and wire-to-wire crimp style PAL connectors.

- **Secure locking device**
- **Interchangeable between crimp and IDC socket**
- **Secondary retainers**
- **Harness variation**

PA connector (Standard type, Retainer mountable type)

- **Highly reliable contact**
- **Insertion guide mechanism**
- **Flanged press pin**

PAF connector

- **The industry's first secure lock ID connectors**
- **Metallic strain relief**
- **Retainer with four locking points**

PAL connector

- **The industry's first wire to wire 2.0mm pitch retainer mountable type connector.**
- **Either with or without panel lock can be selected according to application.**

Standards

- Recognized E60389
- Certified LR20812

Specifications

PA Connector (Standard type)

- Current rating: 3A AC, DC (AWG #22)
- Voltage rating: 250V AC, DC
- 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: Initial/ 1,000M Ω min.
- Withstanding voltage: 800V AC/minute
- Applicable wire: AWG #28 to #22
- Applicable PC board thickness: 1.6mm

PA Connector (Retainer mountable type)

- Current rating: 3A AC, DC (AWG #22)
- Voltage rating: 100V AC, DC
- Temperature range: -25°C to +85°C
(including temperature rise in applying electrical current)
- Contact resistance: Initial value/ 15m Ω max.
After environmental testing/ 25m Ω max.
- Insulation resistance: Initial/ 1,000M Ω min.
- Withstanding voltage: 800V AC/minute
- Applicable wire: AWG #28 to #22

PAF Connector

- Current rating: 1.0A AC, DC (AWG #26)
- Voltage rating: 100V AC, DC
- Temperature range: -25°C to +85°C
(including temperature rise in applying electrical current)
- Contact resistance: Initial value/ 15m Ω max.
After environmental testing/ 25m Ω max.
- Insulation resistance: Initial/ 1,000M Ω min.
- Withstanding voltage: 800V AC/minute
- Applicable wire: UL1061(Contact JST for details regarding other UL wires.)
AWG #26
Conductor/ 7 strands, tin-coated annealed copper
Insulation O.D./ 0.9 to 1.0mm

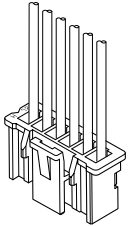
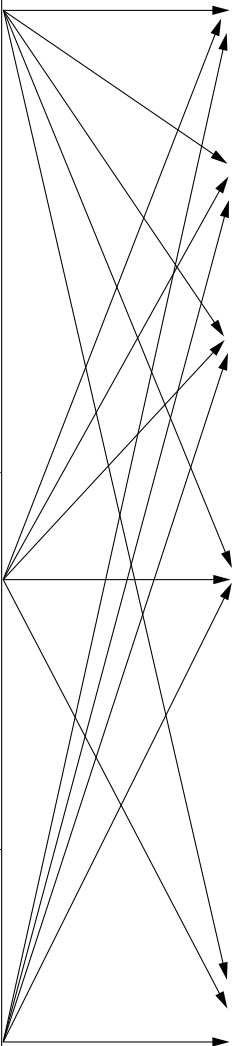
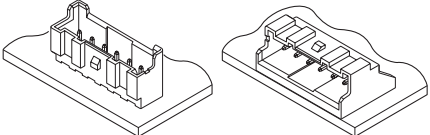
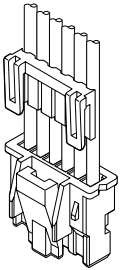
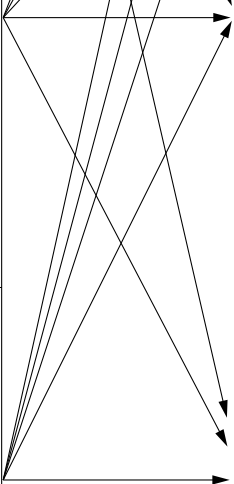
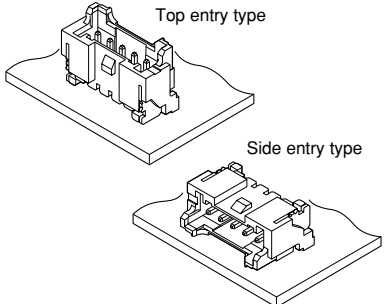
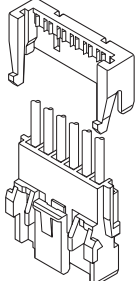

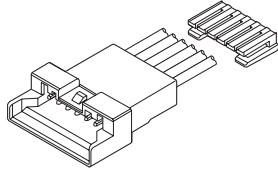
PAL Connector

- Current rating: 3A AC, DC (AWG #22)
- Voltage rating: 100V AC, DC
- Temperature range: -25°C to +85°C
(including temperature rise in applying electrical current)
- Contact resistance: Initial value/ 15m Ω max.
After environmental testing/ 25m Ω max.
- Insulation resistance: Initial/ 1,000M Ω min.
- Withstanding voltage: 800V AC/minute
- Applicable wire: AWG #28 to #22
- Applicable panel thickness : 0.5 to 2.0mm

- * Compliant with RoHS.
- * Refer to "General Instruction and Notice when using Terminals and Connectors" at the end of this catalog.
- * Contact JST for details.

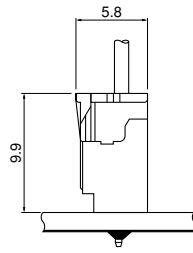
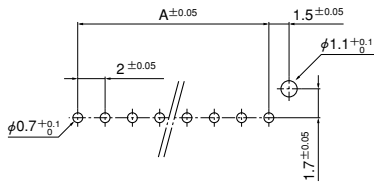
PA FAMILY SERIES /PA•PAF•PAL CONNECTOR

List of combinations

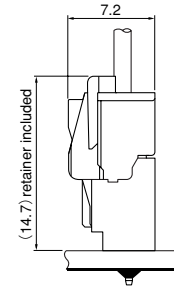
<p>Crimp style Standard type</p> 	<p><u>Contact</u> SPHD-001T-P0.5 SPHD-002T-P0.5</p> <p><u>Housing</u> PAP-()V-S</p>		<p><u>Shrouded header</u> B()B-PASK B()B-PASK-1 S()B-PASK-2</p>	<p>Top entry type Side entry type</p> 
<p>Crimp style Retainer mountable type</p> 	<p><u>Contact</u> SPA-001T-P0.5</p> <p><u>Housing</u> PARP-()V</p> <p><u>Retainer</u> PMS-()V-S</p>		<p><u>Shrouded header</u> BM()B-PASS BM()B-PASS-1 SM()B-PASS SM()B-PASS-1</p>	<p>SMT type</p> <p>Top entry type</p> <p>Side entry type</p> 
<p>Insulation displacement type</p> 	<p><u>Receptacle</u> ()PAF-6S</p> <p><u>Retainer</u> PAFS-()V-S</p>		<p><u>Contact</u> SPAL-001T-P0.5 SPAL-002T-P0.5</p> <p><u>Receptacle housing</u> PALR-()V(F)</p> <p><u>Retainer</u> PMS-()V-S</p>	<p>Wire to wire Connectors</p> 

PA FAMILY SERIES /PA•PAF•PAL CONNECTOR

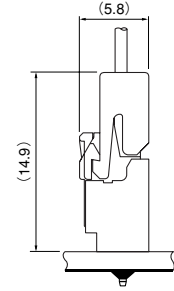
Through-hole type Top entry type



PA Receptacle
(Standard type)
+
PA Header

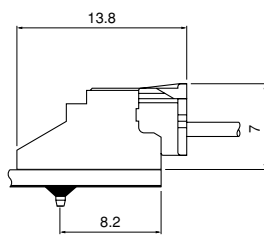
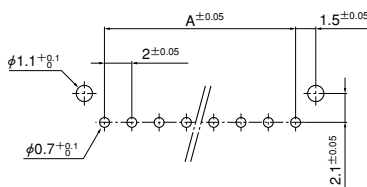


PA Receptacle
(Retainer mountable type)
+
PA Header

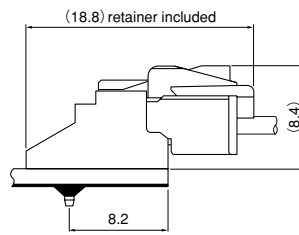


PAF Receptacle
+
PA Header

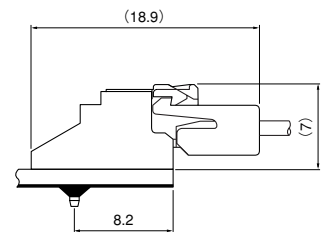
Side entry type



PA Receptacle
(Standard type)
+
PA side entry type header

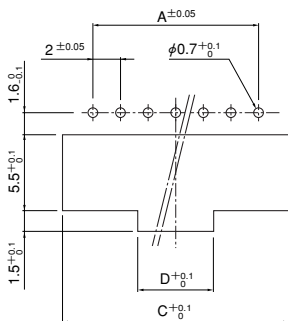


PA Receptacle
(Retainer mountable type)
+
PA side entry type header

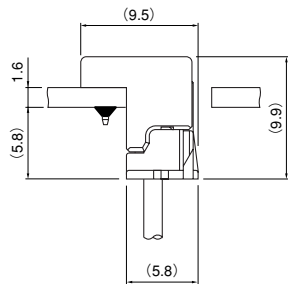


PAF Receptacle
+
PA side entry type header

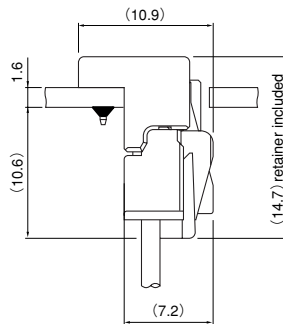
Bottom type



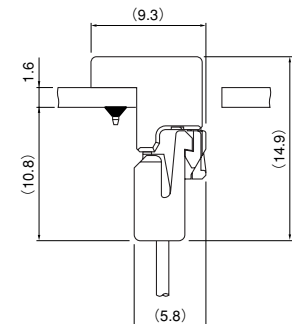
Note: C and D dimensions; Refer to the header bottom type.



PA Receptacle
(Standard type)
+
PA bottom type header

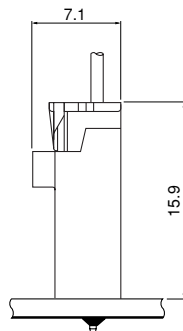
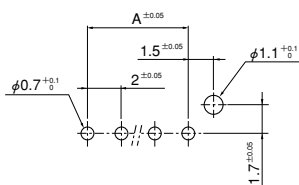


PA Receptacle
(Retainer mountable type)
+
PA bottom type header

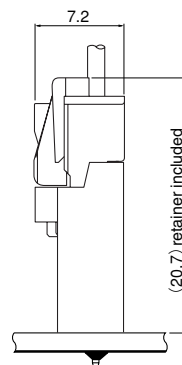


PAF Receptacle
+
PA bottom type header

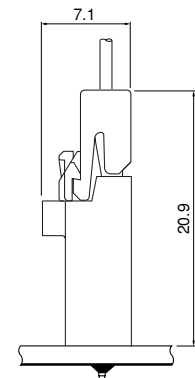
High box type



PA Receptacle
(Standard type)
+
PA high box type header



PA Receptacle
(Retainer mountable type)
+
PA high box type header



PAF Receptacle
+
PA high box type header

Note: 1. The above figure is the figure viewed from the connector mounting side.

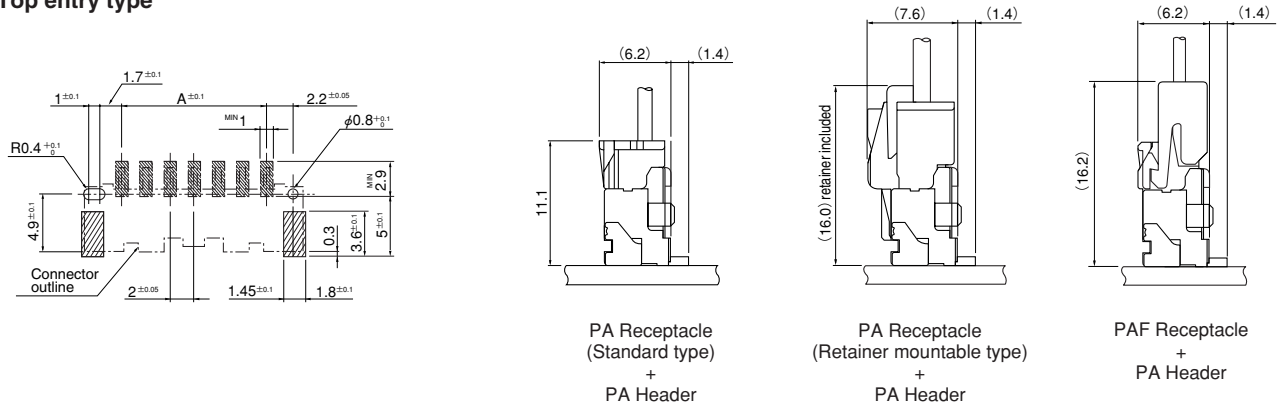
2. Tolerances are non-cumulative: ±0.05mm for all centers.

3. Hole dimensions differ according to the kind of PC board and piercing method. The dimensions above should serve as a guideline. Contact JST for details.

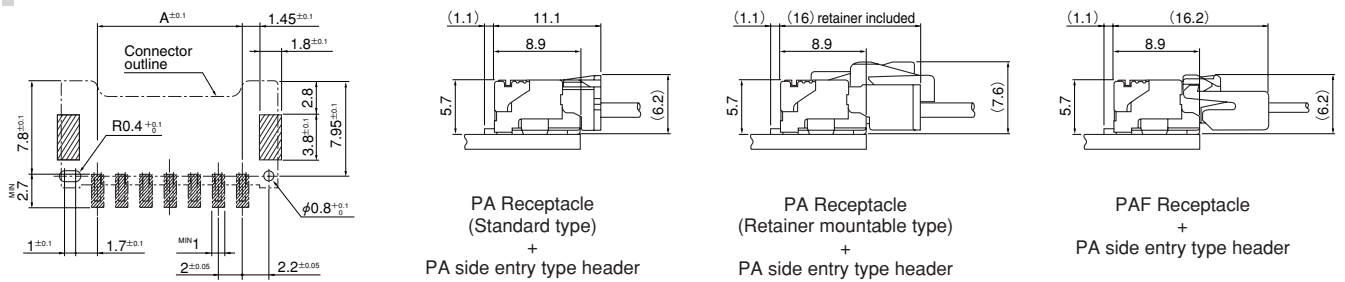
PA FAMILY SERIES /PA•PAF•PAL CONNECTOR

SMT type

Top entry type

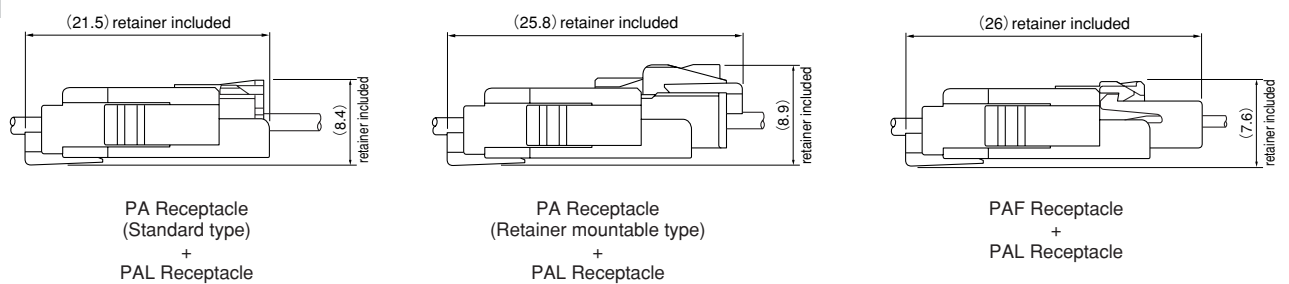


Side entry type



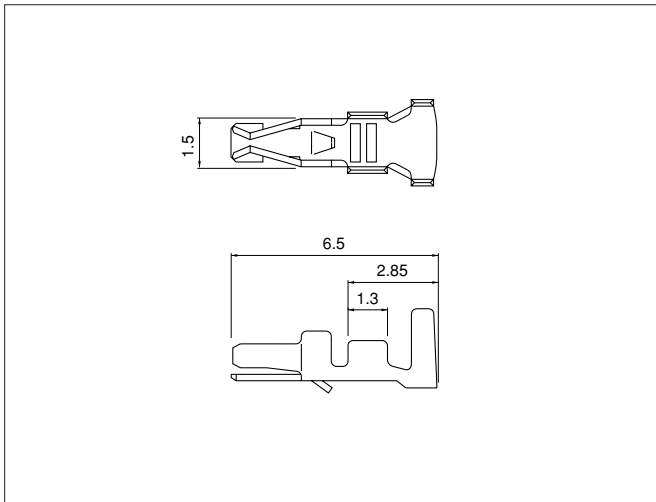
- Note: 1. The above figure is the figure viewed from the connector mounting side.
 2. Tolerances are non-cumulative: $\pm 0.05\text{mm}$ for all centers.
 3. The dimensions above should serve as a guideline. Contact JST for details.

Wire-to-wire



PA FAMILY SERIES /PA CONNECTOR (Crimp style Standard type)

Contact



Model No.	Applicable wire		Insulation O.D. (mm)	Q'ty / reel
	mm ²	AWG #		
SPHD-001T-P0.5	0.13~0.33	26~22	1.0~1.5	8,000
SPHD-002T-P0.5	0.08~0.21	28~24	0.9~1.5	8,000

Material and Finish

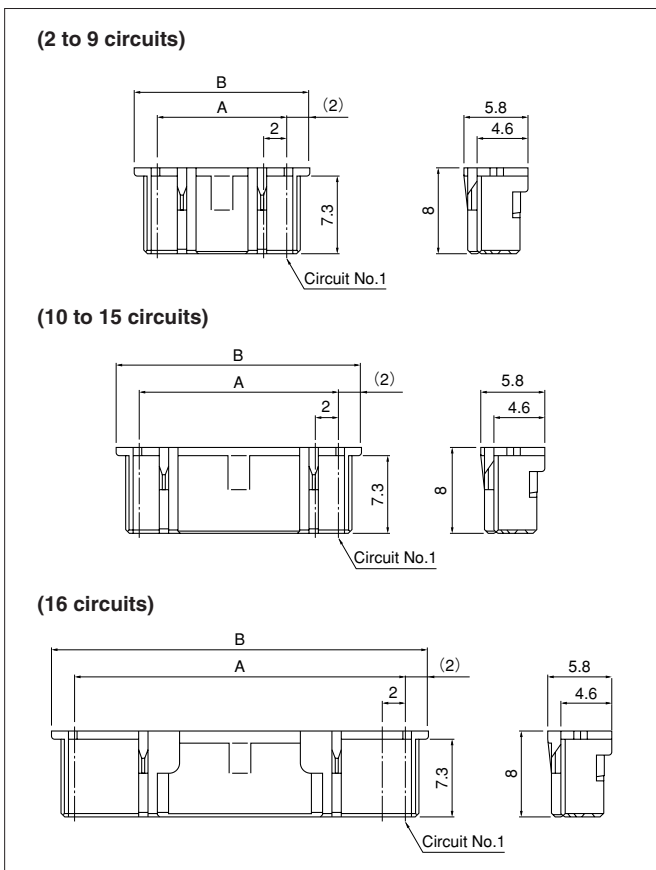
Phosphor bronze, tin-plated (reflow treatment)

RoHS compliance

Contact	Crimping machine	Applicator		
		Crimp applicator	Dies	Crimp applicator with dies
SPHD-002T-P0.5	AP-K2N	MKS-L-10	MK/SPHD-002-05	APLMK SPHD002-05
		*MKS-SC-10	SC/SPHD-002-05	APLSC SPHD002-05
SPHD-001T-P0.5	AP-K2N	MKS-L-10	MK/SPHD-001-05	APLMK SPHD001-05
		*MKS-SC-10	SC/SPHD-001-05	APLSC SPHD001-05

Note: *Strip-crimp applicator

Housing



Circuits	Model No.	Dimensions (mm)		Q'ty / bag
		A	B	
2	PAP-02V-S	2.0	6.0	1,000
3	PAP-03V-S	4.0	8.0	1,000
4	PAP-04V-S	6.0	10.0	1,000
5	PAP-05V-S	8.0	12.0	1,000
6	PAP-06V-S	10.0	14.0	1,000
7	PAP-07V-S	12.0	16.0	1,000
8	PAP-08V-S	14.0	18.0	1,000
9	PAP-09V-S	16.0	20.0	1,000
10	PAP-10V-S	18.0	22.0	1,000
11	PAP-11V-S	20.0	24.0	1,000
12	PAP-12V-S	22.0	26.0	1,000
13	PAP-13V-S	24.0	28.0	1,000
14	PAP-14V-S	26.0	30.0	1,000
15	PAP-15V-S	28.0	32.0	1,000
16	PAP-16V-S	30.0	34.0	1,000

Material

PA 66, UL94V-0, natural (white)

RoHS compliance

<For reference> As the color identification, the following alphabet shall be put in the underlined part. For availability, delivery and minimum order quantity, contact JST.

ex. **PAP-02V-S**

S...natural (white)

K...black R...red E...blue M...green O...orange N...brown

P...purple PK...pink Y...yellow L...lemon yellow FY...vivid yellow

LE...light blue H...gray TR...tomato red