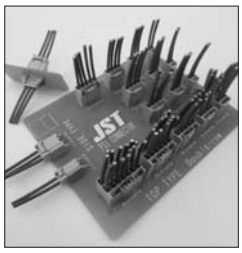
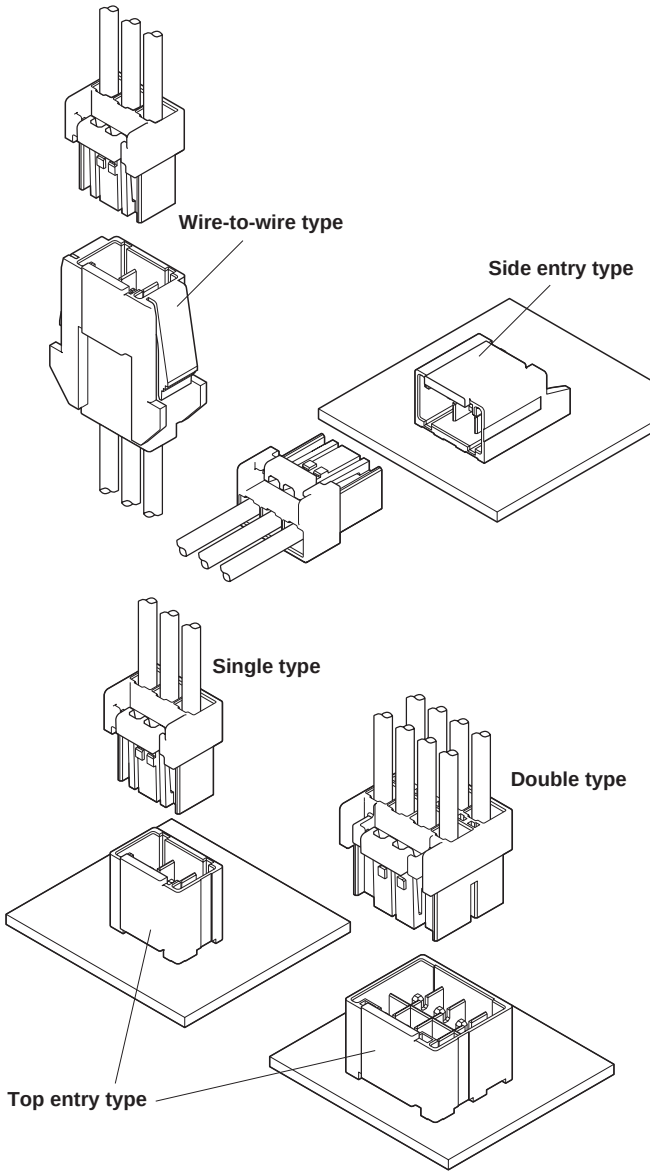


PSI CONNECTOR

4.0mm pitch/Disconnectable Crimp style connectors



This PSI connector is designed for wire-to-board and wire-to-wire 4.0 mm pitch connector. Low insertion force type contact is adopted and it provides excellent operability. This connector has the secure locking device that has the mechanism for preventing the inverse insertion.
By adopting key shape and multi colors of housing, prevention function of mis-mating is considered.

- ***Secure locking structure***
- ***Mis-mating prevention mechanism by keying (2 to 4 circuits/3 kinds of keying)***
- ***Finger-friendly design***
- ***Large electric current was realized.***

Specifications

- Current rating: 12 A AC, DC (Refer to the following table.)
- Voltage rating: 300 V AC, DC
- 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: 1,000 MΩ min.
- Withstanding voltage: 1,500 VAC/minute
- Applicable wire: AWG #26 to #16

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

Note: The current rating differs 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)					
	# 16	# 18	# 20	# 22	# 24	# 26
2	12	10	8	5	4	3
3	11	9	7	5	4	3
4, 5, 6, 8	10	8	6	5	4	3
10, 12	9	7	6	5	4	3
14	9	7	6	4.5	4	3

Note: Do not branch in parallel current which exceeds the rated current (e.g. more than 12 A in the case of 2 circuits with AWG #12). If branched in parallel, current imbalance or other problems may develop. If it is absolutely necessary to branch such a large current in parallel, design the circuits without causing any imbalance and provide an extra margin for each circuit.

Standards

Recognized E 60389

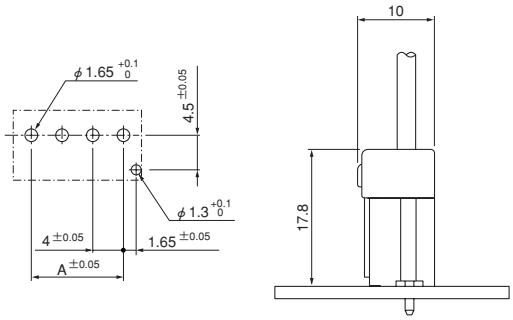
Certified LR 20812

R50259465

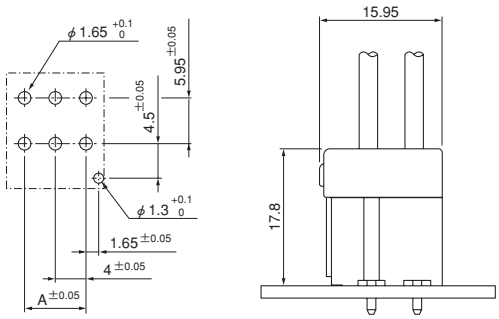
PC board layout and Assembly layout

Top entry type

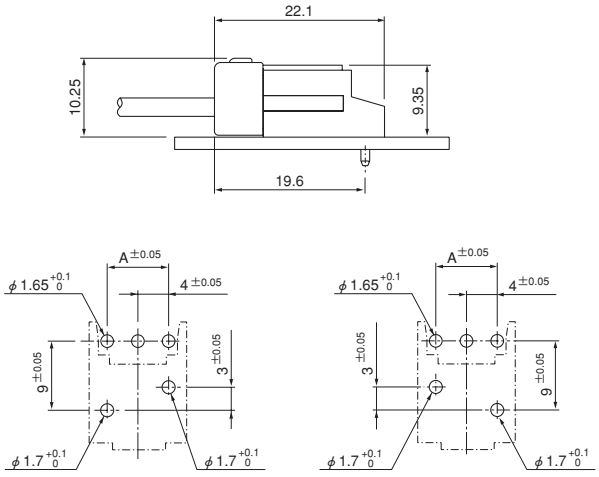
●Single type



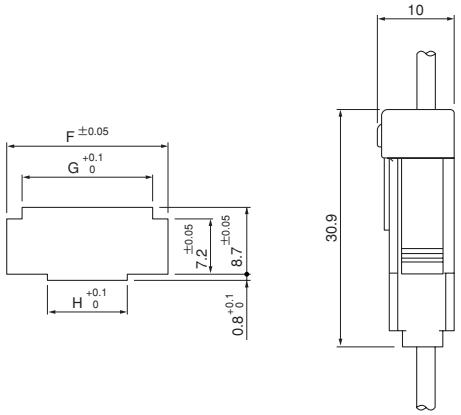
●Double type



Side entry type



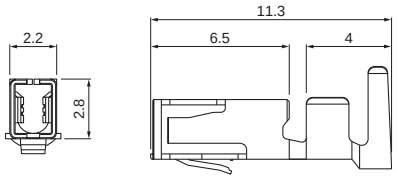
Wire-to-wire type



Circuits	F		G	H	Applicable panel thickness (mm)
	0.8≤t≤1.2	1.2<t≤2.0			
2	13	13.3	9	6.8	0.8～2.0
3	17	17.3	13	8.4	

Note: 1. The above figure is the figure viewed from the connector mounting side.
2. Tolerances are non-cumulative: ±0.05 mm for all centers.
3. Hole dimensions differ according to the type of PC board and piercing method. The dimensions above should serve as a guideline. Contact JST for details.

Socket contact



Model No.	Applicable wire		Insulation O.D. (mm)	Q'ty/reel
	mm²	AWG#		
SPSI-001T-M1.1	0.13～0.33	26～22	1.3～2.4	2,600
SPSI-41T-M1.1	0.5 ～1.25	20～16	1.7～3.2	2,600

Material and Finish
Copper alloy, tin-plated

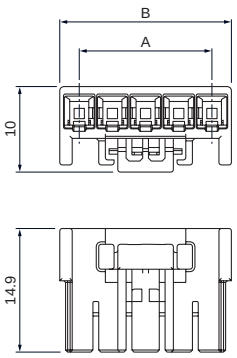
RoHS compliance

Contact	Crimping machine	Applicator		
		Crimp applicator	Dies	Crimp applicator with dies
SPSI-001T-M1.1	AP-K2N	MKS-L	MK/SPSI/M-001-11	APLMK SPSI/M001-11
		—	—	—
SPSI-41T-M1.1		MKS-L	MK/SPSI/M-41-11	APLMK SPSI/M41-11
		—	—	—

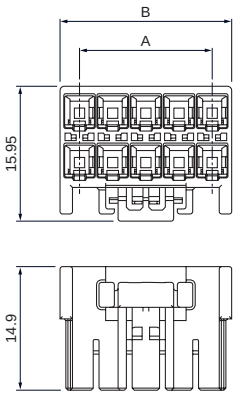
Socket housing

Top entry type

<2 to 5 circuits>



<6 to 14 circuits>



Circuits	Keying	Model No.	Dimensions (mm)		Q'ty/ box
			A	B	
2	A	**PSIP-02V-LE-A**	4.0	8.7	500
	B	**PSIP-02V-Y-B**	4.0	8.7	500
	C	**PSIP-02V-R-C**	4.0	8.7	500
3	A	**PSIP-03V-LE-A**	8.0	12.7	300
	B	**PSIP-03V-Y-B**	8.0	12.7	300
	C	**PSIP-03V-R-C**	8.0	12.7	300
4	A	**PSIP-04V-LE-A**	12.0	16.7	200
	B	**PSIP-04V-Y-B**	12.0	16.7	200
	C	**PSIP-04V-R-C**	12.0	16.7	200
5	—	**PSIP-05V-LE**	16.0	20.7	200
6	—	**PSIP-06V-LE**	8.0	12.7	200
8	—	**PSIP-08V-LE**	12.0	16.7	200
10	—	**PSIP-10V-LE**	16.0	20.7	150
12	—	**PSIP-12V-LE**	20.0	24.7	150
14	—	**PSIP-14V-LE**	24.0	28.7	100

Material
Glass-filled PBT, UL94V-0

RoHS compliance

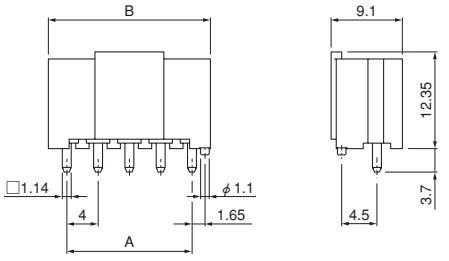
<For reference> As the color identification,
the following alphabet shall be put in the underlined part.
For availability, delivery and minimum order quantity, contact JST.

ex. **PSIP-02V-LE-A** *LE...light blue Y...yellow R...red*

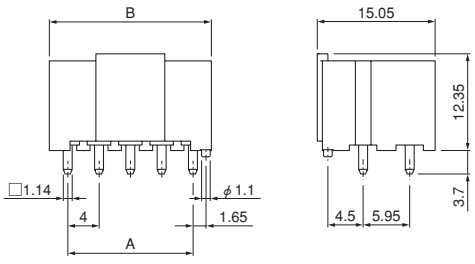
Header

Top entry type

<2 to 5 circuits>



<6 to 14 circuits>



Circuits	Keying	Model No.	Dimensions (mm)		Q'ty/ box
			A	B	
2	A	**B02B-PSILE-A1**	4.0	8.7	500
	B	**B02B-PSIY-B1**	4.0	8.7	500
	C	**B02B-PSIR-C1**	4.0	8.7	500
3	A	**B03B-PSILE-A1**	8.0	12.7	300
	B	**B03B-PSIY-B1**	8.0	12.7	300
	C	**B03B-PSIR-C1**	8.0	12.7	300
4	A	**B04B-PSILE-A1**	12.0	16.7	200
	B	**B04B-PSIY-B1**	12.0	16.7	200
	C	**B04B-PSIR-C1**	12.0	16.7	200
5	—	**B05B-PSILE-1**	16.0	20.7	200
6	—	**B06B-PSILE-1**	8.0	12.7	200
8	—	**B08B-PSILE-1**	12.0	16.7	200
10	—	**B10B-PSILE-1**	16.0	20.7	150
12	—	**B12B-PSILE-1**	20.0	24.7	125
14	—	**B14B-PSILE-1**	24.0	28.7	100

Material and Finish
Post: Copper alloy, copper-undercoated, tin-plated (reflow treatmnent) Header: Glass-filled PBT, UL94V-0

RoHS compliance *This product displays (LF)(SN) on a label.*
Note: Other kinds of post-omitted products are available. Contact JST for details.

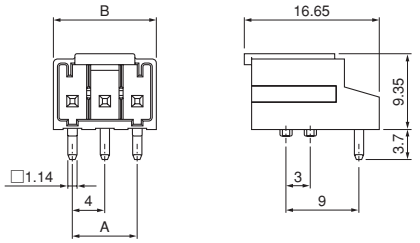
<For reference> As the color identification,
the following alphabet shall be put in the underlined part.
For availability, delivery and minimum order quantity, contact JST.

ex. **B02B-PSILE-A1** *LE...light blue Y...yellow R...red*

Header

Side entry type

<2 to 4 circuits>



Circuits	Keying	Model No.	Dimensions (mm)		Q'ty/box
			A	B	
2	A	**S02B-PSILE-A1**	4.0	8.7	350
	B	**S02B-PSIY-B1**	4.0	8.7	350
	C	**S02B-PSIR-C2**	4.0	8.7	350
3	A	**S03B-PSILE-A1**	8.0	12.7	200
	B	**S03B-PSIY-B1**	8.0	12.7	200
	C	**S03B-PSIR-C2**	8.0	12.7	200
4	A	**S04B-PSILE-A1**	12.0	16.7	150
	B	**S04B-PSIY-B1**	12.0	16.7	150
	C	**S04B-PSIR-C2**	12.0	16.7	150

Material and Finish
Post: Copper alloy, copper-undercoated, tin-plated (reflow treatmnent) Header: Glass-filled PBT, UL94V-0

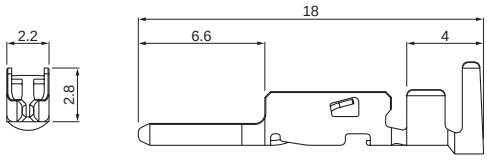
RoHS compliance *This product displays (LF)(SN) on a label.*

Note: Other kinds of post-omitted products are available. Contact JST for details.

<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. **S02B-PSILE-A1** *LE...light blue Y...yellow R...red*

Pin contact



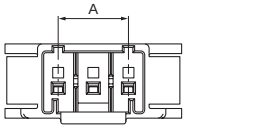
Model No.	Applicable wire		Insulation O.D. (mm)	Q'ty/reel
	mm²	AWG#		
SPSM-001T-M1.1	0.13～0.33	26～22	1.3～2.4	2,600
SPSM-41T-M1.1	0.5 ～1.25	20～16	1.7～3.2	2,600

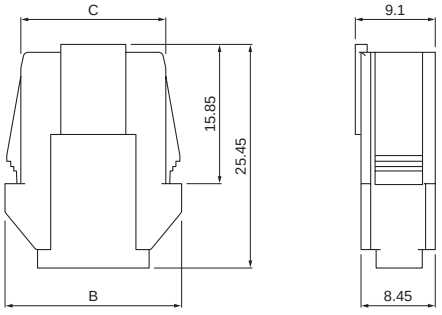
Material and Finish
Copper alloy, tin-plated

RoHS compliance

Contact	Crimping machine	Applicator		
		Crimp applicator	Dies	Crimp applicator with dies
SPSM-001T-M1.1	AP-K2N	MKS-L	MK/SPSI/M-001-11	APLMK SPSI/M001-11
		—	—	—
SPSM-41T-M1.1		MKS-L	MK/SPSI/M-41-11	APLMK SPSI/M41-11
		—	—	—

Receptacle housing





Circuits	Keying	Model No.	Dimensions (mm)			Q'ty/bag
			A	B	C	
2	A	**PSIR-02V-LE-A**	4.0	16.1	12.5	200
	B	**PSIR-02V-Y-B**	4.0	16.1	12.5	200
3	A	**PSIR-03V-LE-A**	8.0	20.1	16.5	150
	B	**PSIR-03V-Y-B**	8.0	20.1	16.5	150

Material
Glass-filled PBT, UL94V-0

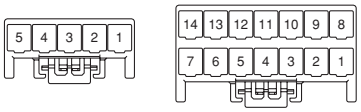
RoHS compliance

<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. **PSIR-03V-LE-A**
LE...light blue Y...yellow

Contact position location numbers

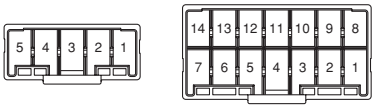
Socket housing



Single <2 to 5 circuits>

Double <6 to 14 circuits>

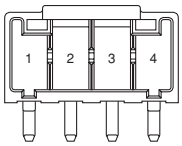
Header
●Top entry



Single <2 to 5 circuits>

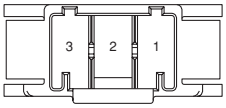
Double <6 to 14 circuits>

Header
●Side entry



Single <2 to 4 circuits>

Receptacle housing



Single <2 to 3 circuits>

Pin-omitted Header

1) When setting two times of pitch in single type header with omitting every other one pin
However, pins shall be inserted in No.1-circuit and No. N-circuit.

B*1 (8.0)B-PSI

***1; No. of circuits (No. of pins)**

○; With circuit (pin) ×; Without circuit (pin)

e.g.)

Circuit No.	3	2	1
Circuit (pin)	○	×	○
Model No.	B2(8.0)B-PSILE-A1		

Circuit No.	5	4	3	2	1
Circuit (pin)	○	×	○	×	○
Model No.	B3(8.0)B-PSILE-1				

2) When setting two times of pitch in double type header with omitting every other one pin
However, pins shall be inserted in the both ends of circuit.

B*1 (*2-*3)B-PSI

***1; No. of circuits (No. of pins)**
***2; Circuit No. of used original header**
***3; Circuit number without pin (Circuit number in which pin was removed)**

e.g.)

Circuit No.	6	5	4
Circuit (pin)	○	×	○
Circuit No.	3	2	1
Circuit (pin)	○	×	○
Model No.	B4(6-2, 5)B-PSILE-1		

3) When setting three times of pitch in double type header with omitting every other two pins
However, pins shall be inserted in the both ends of circuit.

B*1 (*2-*3)B-PSI

e.g.)

Circuit No.	14	13	12	11	10	9	8
Circuit (pin)	○	×	×	○	×	×	×
Circuit No.	7	6	5	4	3	2	1
Circuit (pin)	○	×	×	○	×	×	×
Model No.	B6(14-2, 3, 5, 6, 9, 10, 12, 13)B-PSILE-1						

4) When omitting a pin of No.3 circuit in single type herder
However, pins shall be inserted in the both ends of circuit.

B*1 (*2-*3)B-PSI

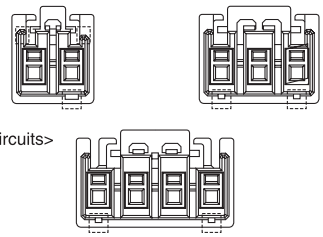
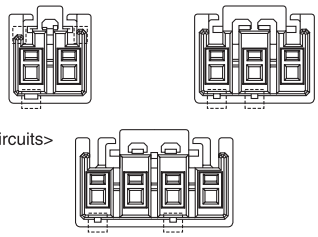
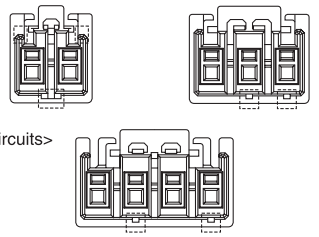
e.g.)

Circuit No.	5	4	3	2	1
Circuit (post)	○	○	×	○	○
Model No.	B4(5-3)B-PSILE-1				

Note) As for pin-omitted product, there is a setting that cannot be used. Contact JST for details.

Keying

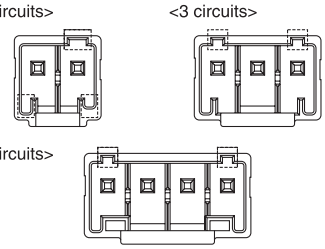
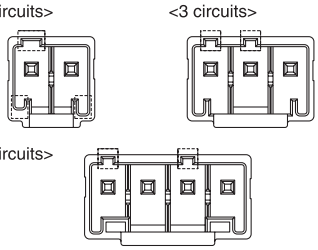
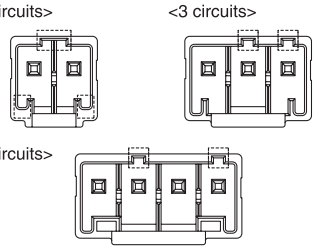
■ Socket housing

Shape		A type		B type		C type	
Mating part		<2 circuits> <3 circuits> <4 circuits> 		<2 circuits> <3 circuits> <4 circuits> 		<2 circuits> <3 circuits> <4 circuits> 	
Model No.	2 circuits	Blue	PSIP-02V-LE-A	Yellow	PSIP-02V-Y-B	Red	PSIP-02V-R-C
	3 circuits		PSIP-03V-LE-A		PSIP-03V-Y-B		PSIP-03V-R-C
	4 circuits		PSIP-04V-LE-A		PSIP-04V-Y-B		PSIP-04V-R-C

From 2 circuit to 4 circuit are applied.

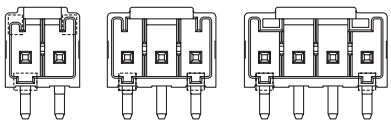
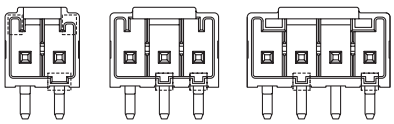
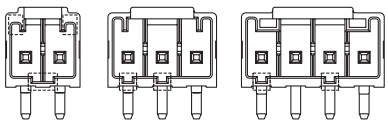
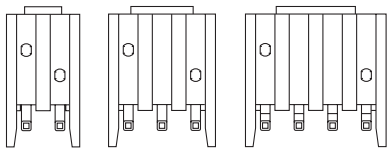
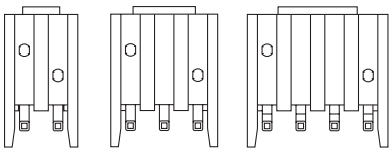
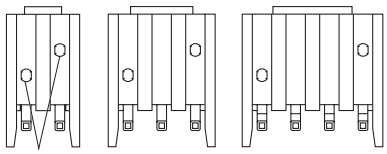
■ Header

Top entry type

Shape		A type		B type		C type	
Mating part		<2 circuits> <3 circuits> <4 circuits> 		<2 circuits> <3 circuits> <4 circuits> 		<2 circuits> <3 circuits> <4 circuits> 	
Model No.	2 circuits	Blue	B02B-PSILE-A1	Yellow	B02B-PSIY-B1	Red	B02B-PSIR-C1
	3 circuits		B03B-PSILE-A1		B03B-PSIY-B1		B03B-PSIR-C1
	4 circuits		B04B-PSILE-A1		B04B-PSIY-B1		B04B-PSIR-C1

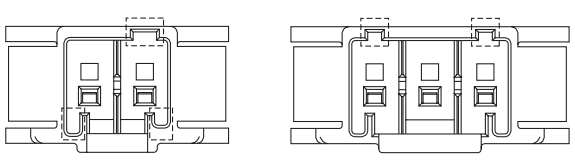
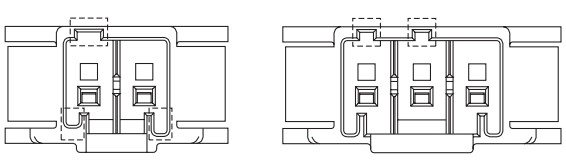
From 2 to 4 circuits are applied.

Side entry type

Shape		A type		B type		C type	
Mating part		<2 circuits> <3 circuits> <4 circuits> 		<2 circuits> <3 circuits> <4 circuits> 		<2 circuits> <3 circuits> <4 circuits> 	
		<2 circuits> <3 circuits> <4 circuits> 		<2 circuits> <3 circuits> <4 circuits> 		<2 circuits> <3 circuits> <4 circuits>  Note) Boss	
Model No.	2 circuits	Blue	S02B-PSILE-A1	Yellow	S02B-PSIY-B1	Red	S02B-PSIR-C2
	3 circuits		S03B-PSILE-A1		S03B-PSIY-B1		S03B-PSIR-C2
	4 circuits		S04B-PSILE-A1		S04B-PSIY-B1		S04B-PSIR-C2

From 2 to 4 circuit are applied.
Note) Boss: Only C type boss position is reversed.

■ Receptacle housing

Shape		A type		B type	
Mating part		<2 circuits> <3 circuits> 		<2 circuits> <3 circuits> 	
Model No.	2 circuits	Blue	PSIR-02V-LE-A	Yellow	PSIR-02V-Y-B
	3 circuits		PSIR-03V-LE-A		PSIR-03V-Y-B

From 2 to 3 circuits are applied.