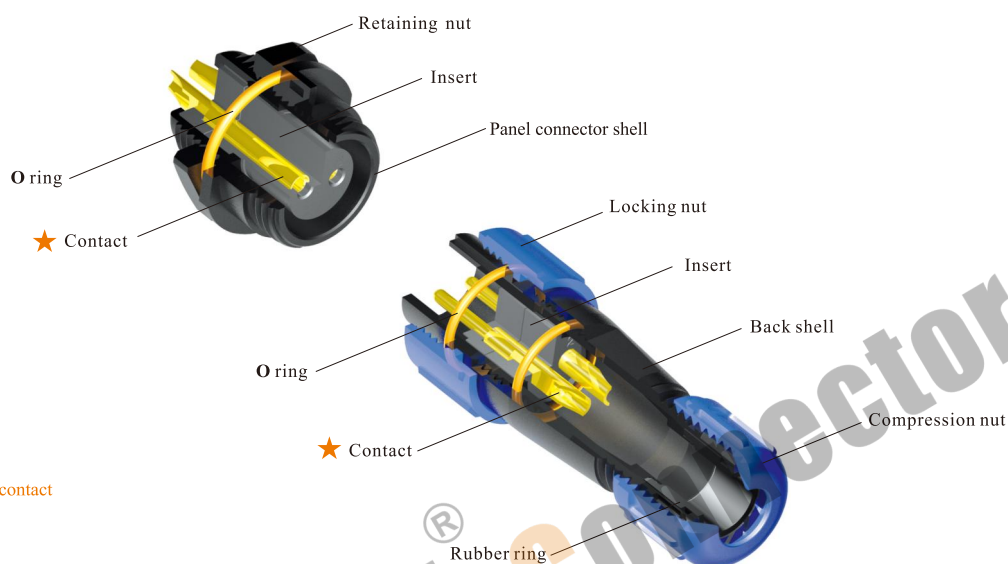


IP68



07

● Part Section Showing Internal Components



★ Each side can be male or female contact

Material and spec

Coupling	Threaded	
Shell material	PC, PA66, fire resistance: V-0	
Insert material	PPS, max temperature 260 °C PA66, max temperature 125°C (Only for horizontal mount screw of SP13/SP17/SP21Series)	
Contact material	Brass with gold plating	
Termination	Solder: SP11, SP13, SP17, SP21, SP25, SP29 Crimp: SP17, SP21, SP25, SP29 Screw: SP13/SP17, SP21, SP25, SP29(Ø2, Ø2.5, Ø3, Ø3.5mm contact)	
Cable outer diameter range	SP11: I: 3-4mm, II: 4-6.5mm SP17: I: 6-10mm SP25: I: 10-14mm, II: 7-12mm	SP13: I: 4-6.5mm, II: 5-8mm SP21: I: 4.5-7mm, II: 7-12mm, III: 5-9mm SP29: I: 9-13mm, II: 13-16mm
IP rating	IP68 (mated)	
Mating cycle	500	
Working temperature range	-40°C ~ +85°C	
Insulation resistance	2000 MΩ	

SP21 Series

**SP
21**

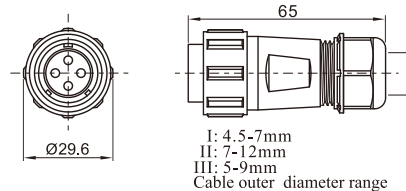


SP2110 / P — — — **SP2110 / S** — — —

Male contact
Female contact

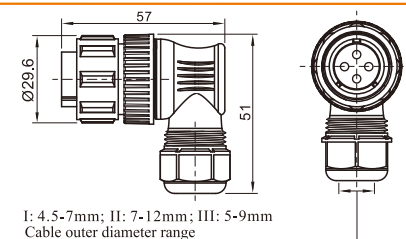
Cable connector
Mate with SP2111, SP2111C, SP2112,
SP2113, SP2115,

1: solder, 2: screw, 3: crimp, 8: angled screw
Cable outer diameter range
I: 4.5-7mm, II: 7-12mm, III: 5-9mm
Number of contact



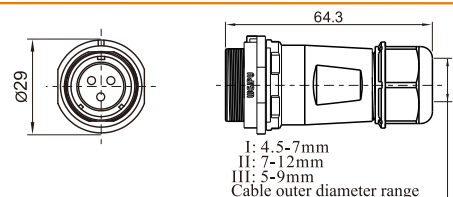
SP2116 / P — — — **SP2116 / S** — — —

Angled cable connector
Mate with SP2111, SP2111C, SP2112,
SP2113, SP2115,



SP2111C / P — — — **SP2111C / S** — — —

In-line cable connector C
Mate with SP2110, SP2116

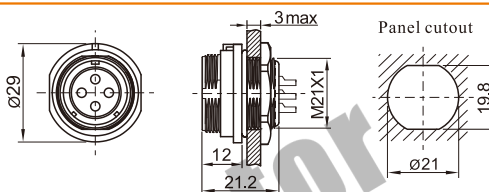


SP2112 / P — — — **SP2112 / S** — — —

Number of contact

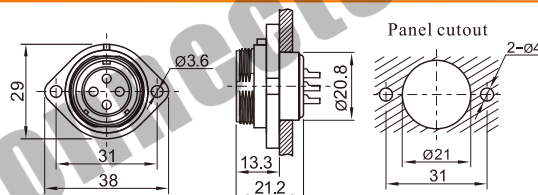
Rear-nut mount
Mate with SP2110, SP2116

1: solder, 2: screw, 3: crimp, 8: angled screw



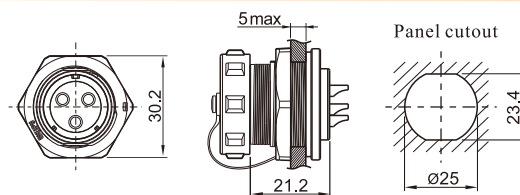
SP2113 / P — — — **SP2113 / S** — — —

2-hole flange
Mate with SP2110, SP2116



SP2115 / P — — — **SP2115 / S** — — —

Front-nut mount
Mate with SP2110, SP2116



Solder contact spec

★Crimp contact spec see P22

★Screw contact spec see P23

Number of contact	2	3	4	5	5B	5C	6	6B	7	8	9	12	15
Male contact face view													
Rated current (A)	30	30	30	30	30 5	15	25 5	30 5	15	10	5	5	5
Contact diameter (mm)	Ø3X2	Ø3X3	Ø3X4	Ø3X5	Ø3X2 Ø1X3	Ø2X5	Ø2.5X4 Ø1X2	Ø3X2 Ø1X4	Ø2X7	Ø1.5X8	Ø1X9	Ø1X12	Ø1X15
Rated voltage (AC.V)	500	500	500	500	500	500	500	500	500	500	400	400	400
Test voltage(AC.V) 1 min	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1200	1200	1200
Contact resistance (mΩ)	1	1	1	1	1 5	2.5	1 5	1 5	2.5	2.5	5	5	5
Termination	solder / screw	solder / screw	solder / screw	solder / screw	solder	solder	solder	solder	solder	solder	solder	solder	solder
Wire size for solder (mm ² / AWG)	≤4/12	≤4/12	≤4/12	≤4/12	≤4/12 ≤0.75/18	≤2/14	≤4/12 ≤0.75/18	≤4/12 ≤0.75/18	≤2/14	≤1.5/16	≤0.75/18	≤0.75/18	≤0.75/18
Wire size for screw termination (mm ² /AWG)	Min:0.5/20 Max:1.5/15	Min:0.5/20 Max:1.5/15	Min:0.5/20 Max:1.5/15	Min:0.5/20 Max:1.5/15	/	/	/	/	/	/	/	/	/

SP21 Series



SP
21



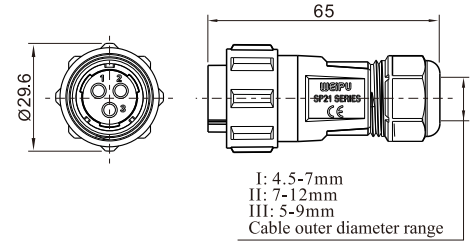
Plug with horizontal mount screw
Mate with SP2111, SP2112

SP2110 / P__-9 SP2110 / S__-9

Male contact

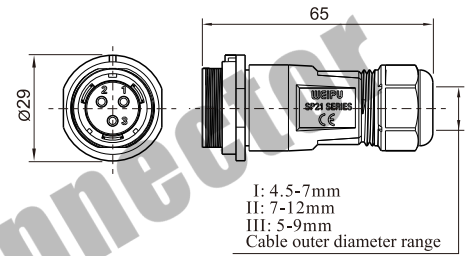
Female contact

Cable outer diameter range
I: 4.5-7mm, II: 7-12mm, III: 5-9mm
Number of contact



Connector with horizontal mount screw
Mate with SP2110

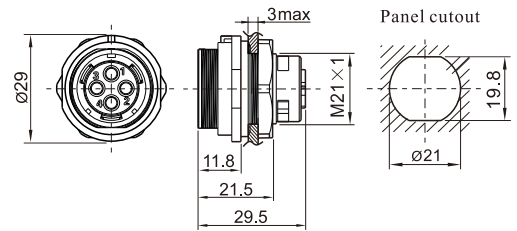
SP2111 / P__-9 SP2111 / S__-9



Rear-nut mount receptacle with
horizontal mount screw
Mate with SP2110

SP2112 / P__-9 SP2112 / S__-9

Number of contact



Allen Key size: 1.5

Screw contact spec

Number of contact	2	3	4	5
Male contact face view				
Rated current (A)	30	30	30	30
Contact diameter (mm)	Ø3X2	Ø3X3	Ø3X4	Ø3X5
Rated voltage (AC.V)	500	500	500	500
Test voltage(AC.V) 1 min	1500	1500	1500	1500
Contact resistance (mΩ)	1	1	1	1
Wire size for screw termination (mm²/AWG)	Min: 0.75/18 Max: 4/12	Min: 0.75/18 Max: 4/12	Min: 0.75/18 Max: 4/12	Min: 0.75/18 Max: 4/12

SP21 Series

US



SP2110 / P

US



SP2110 / S

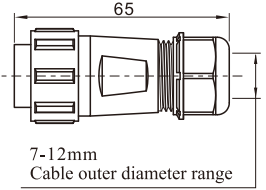
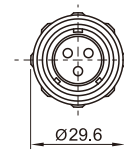
Male contact

Female contact

Cable connector
Mate with SP2111, SP2112, SP2113, SP2115

(U): (CU):
Colour: All black

Number of contact



65
7-12mm
Cable outer diameter range

US



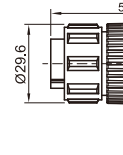
SP2116 / P

US



SP2116 / S

Angled cable connector
Mate with SP2111, SP2112, SP2113, SP2115



57
51
7-12mm
Cable outer diameter range

US



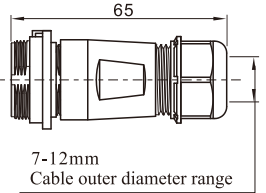
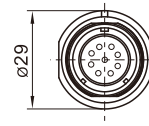
SP2111 / P

US



SP2111 / S

In-line cable connector
Mate with SP2110, SP2116



65
7-12mm
Cable outer diameter range

US



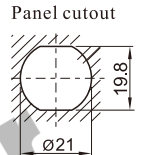
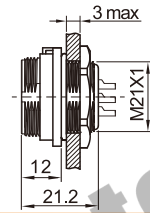
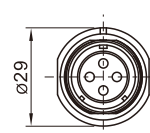
SP2112 / P

US



SP2112 / S

Rear-nut mount
Mate with SP2110, SP2116



US



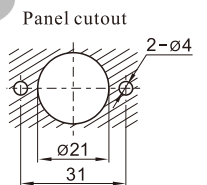
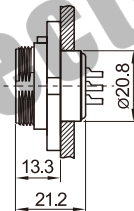
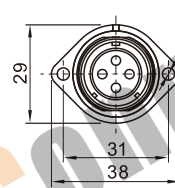
SP2113 / P

US



SP2113 / S

2-hole flange
Mate with SP2110, SP2116



US



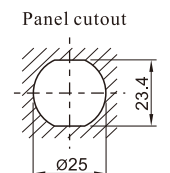
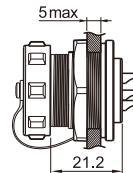
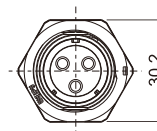
SP2115 / P

US



SP2115 / S

Front-nut mount
Mate with SP2110, SP2116



Solder contact spec

★Crimp contact spec see P22

★Screw contact spec see P23

Number of contact	2	3	4	5	5B	5C	6	6B	7	8	9	12	15
Male contact face view													
Rated current (A)	30 	25 	30 	25 	30 	25 	30 	25 	30 	15 	10 	5 	5
Contact diameter (mm)	Ø3X2	Ø3X3	Ø3X4	Ø3X5	Ø3X2 Ø1X3	Ø2X5	Ø2.5X4 Ø1X2	Ø3X2 Ø1X4	Ø2X7	Ø1.5X8	Ø1X9	Ø1X12	Ø1X15
Rated voltage (AC.V)	500	500	500	500	500	500	500	500	500	500	400	400	400
Test voltage(AC.V) 1 min	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1200	1200	1200
Contact resistance (mΩ)	1	1	1	1	1 5	2.5	1 5	1 5	2.5	2.5	5	5	5
Termination	solder	solder	solder	solder	solder	solder	solder	solder	solder	solder	solder	solder	solder
Wire size for solder (mm ² / AWG)	12	12	12	12	12/18	14	12/18	12/18	14	16	18	18	18