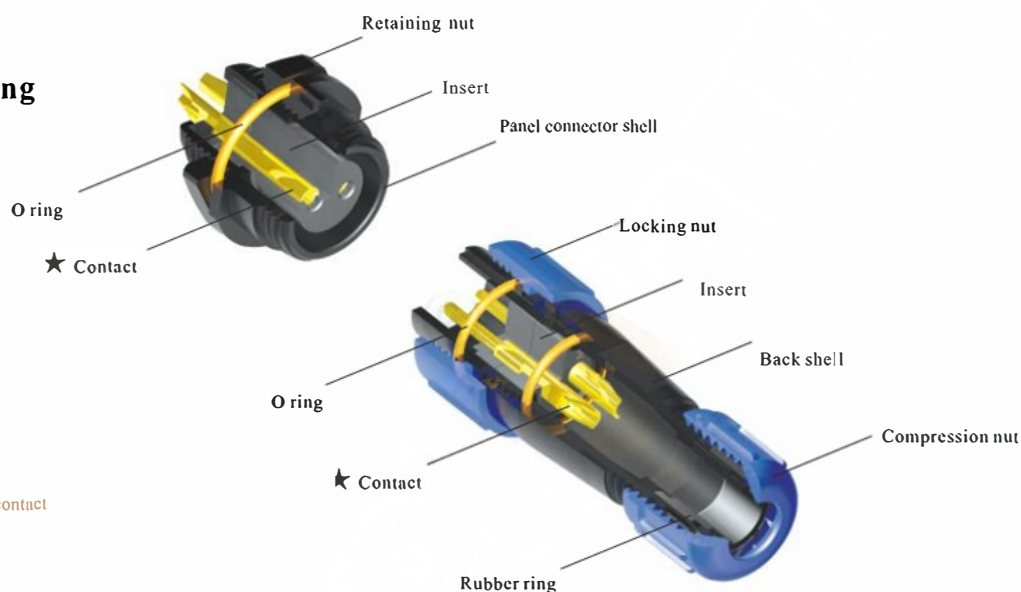


- SP Series IP68
- Threaded coupling



★ 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 -30°C~+125°C (Only for horizontal mount screw of SP17/SP21Series)	
Contact material	Brass with gold plating	
Termination	Solder: SP11, SP13, SP17, SP21, SP25, SP29 Crimp: SP17, SP21, SP25, SP29 Screw: 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	
Temperature range	-40°C~+85°C	
Insulation resistance	2000 MΩ	

SP17 Series



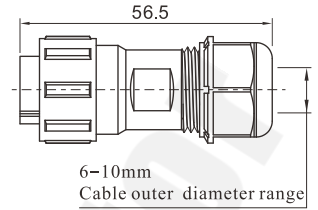
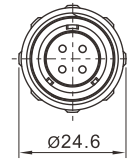
SP1710 / P — —

Male contact

SP1710 / S — —

Cable connector
Mate with SP1711, SP1711C,
SP1712

1: solder, 3: crimp
Number of contact
Female contact



***Note:** Crimp contacts are NOT included with the connector.
The crimp contact must be purchased separately according to the wire size.

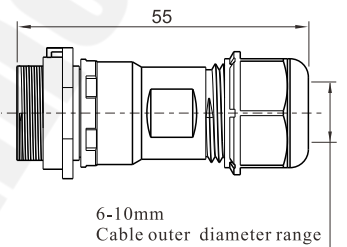
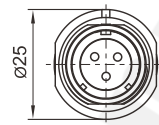
07



SP1711C / P — —

SP1711C / S — —

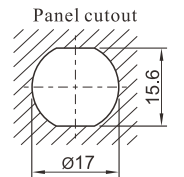
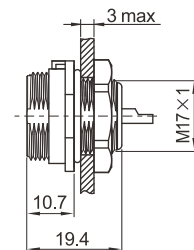
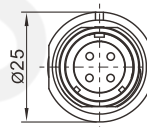
In-line cable connector C
Mate with SP1710



SP1712 / P — —

SP1712 / S — —

Rear-nut mount
Mate with SP1710



Solder contact spec

★ Crimp contact spec see P22

Number of contact	2	3	4	2B	3B	4B	5	7	9	10
Male contact face view										
Rated current (A)	10	10	5	15	15	15	5	5	5	5
Contact diameter(mm)	Ø1.5X2	Ø1.5X3	Ø1X4	Ø2X2	Ø2X3	Ø2X4	Ø1X5	Ø1X7	Ø1X9	Ø1X10
Rated voltage (AC.V)	500	500	500	500	500	500	500	400	400	400
Test voltage(AC.V) 1 min	1500	1500	1500	1500	1500	1500	1500	1200	1200	1200
Contact resistance (mΩ)	2.5	2.5	5	2.5	2.5	2.5	5	5	5	5
Wire size (mm ² /AWG)	≤2/14	≤2/14	≤0.75/18	≤2/14	≤2/14	≤2/14	≤0.75/18	≤0.75/18	≤0.75/18	≤0.75/18

SP17 Series



SP
17

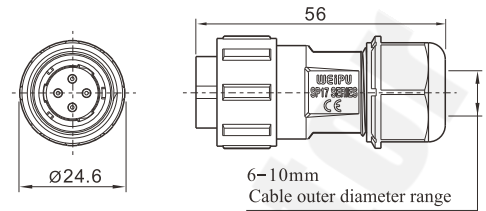


Plug with horizontal mount screw
Mate with SP1711, SP1712

SP1710 / P__-9 SP1710 / S__-9

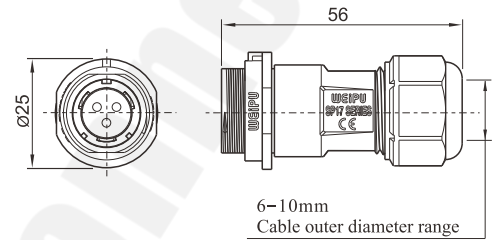
Male contact

Number of contact
Female contact



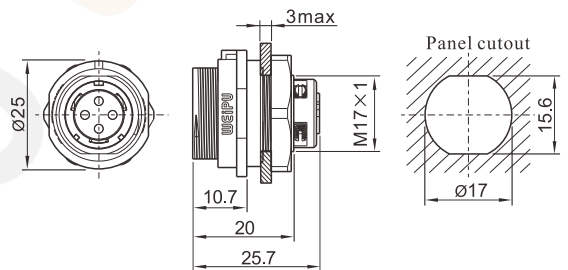
Connector with horizontal mount screw
Mate with SP1710

SP1711 / P__-9 SP1711 / S__-9



Rear-nut mount receptacle with horizontal mount screw
Mate with SP1710

SP1712 / P__-9 SP1712 / S__-9



Allen Key size: 1.3

Screw contact spec

Number of contact	2B	3B	4B
Male contact face view			
Rated current (A)	15	15	15
Contact diameter(mm)	Ø2X2	Ø2X3	Ø2X4
Rated voltage (AC.V)	500	500	500
Test voltage(AC.V) 1 min	1500	1500	1500
Contact resistance (mΩ)	2.5	2.5	2.5
Wire size (mm²/AWG)	Min: 0.75/18 Max: 2/14	Min: 0.75/18 Max: 2/14	Min: 0.75/18 Max: 2/14

SF16, SA16, SP17 , SY17 WS16, WF16, WY16	1	2	3	4
Male contact face view				
Rated current (A)	50	10	10	5
Contact diameter(mm)	Ø3.5X1	Ø1.5X2	Ø1.5X3	Ø1X4
Rated voltage (AC.V)	500	500	500	400
Test voltage(AC.V) 1 min	1500	1500	1500	1200
Contact resistance(mΩ)	0.5	2.5	2.5	5
Insulation resistance (MΩ)	2000	2000	2000	2000

For straight connector only

WK20,SF20, SA20, SP21, SY21 WS20,WF20, WY20, WP20	1	2	3	4	5	7	7B	8
Male contact face view								
Rated current (A)	100	25	25	25	10	10	5	5
Contact diameter(mm)	Ø5.5X1	Ø2.5X2	Ø2.5X3	Ø2.5X4	Ø1.5X5	Ø1.5X7	Ø1X7	Ø1X8
Rated voltage (AC.V)	500	500	500	500	500	500	400	400
Test voltage(AC.V) 1 min	1500	1500	1500	1500	1500	1500	1200	1200
Contact resistance(mΩ)	0.3	1	1	1	2.5	2.5	5	5
Insulation resistance (MΩ)	2000	2000	2000	2000	2000	2000	2000	2000

For straight connector only

WK24, SA24, SY25, SP25 WS24, WF24, WY24	4	5	9	12
Male contact face view				
Rated current (A)	25	25	10	5
Contact diameter(mm)	Ø2.5X4	Ø2.5X5	Ø1.5X9	Ø1X12
Rated voltage (AC.V)	500	500	500	400
Test voltage(AC.V) 1 min	1500	1500	1500	1200
Contact resistance(mΩ)	1	1	2.5	5
Insulation resistance (MΩ)	2000	2000	2000	2000

WK28, SA28, SP29, SY29 WS28, WF28, WY28	2	3	7	12	15	19
Male contact face view						
Rated current (A)	50	50	25	10	5	5
Contact diameter(mm)	Ø3.5X2	Ø3.5X3	Ø2.5X7	Ø1.5X12	Ø1X15	Ø1X19
Rated voltage (AC.V)	500	500	500	500	400	400
Test voltage(AC.V) 1 min	1500	1500	1500	1500	1200	1200
Contact resistance(mΩ)	0.5	0.5	1	2.5	5	5
Insulation resistance (MΩ)	2000	2000	2000	2000	2000	2000

WS32, WF32, WY32	4	6	10	15	19
Male contact face view					
Rated current (A)	50	50 10	25	10	10
Contact diameter(mm)	Ø3.5X4	Ø3.5X4 Ø1.5X2	Ø2.5X10	Ø1.5X15	Ø1.5X19
Rated voltage (AC.V)	500	500	500	500	500
Test voltage(AC.V) 1 min	1500	1500	1500	1500	1500
Contact resistance(mΩ)	0.5	0.5 2.5	1	2.5	2.5
Insulation resistance (MΩ)	2000	2000	2000	2000	2000

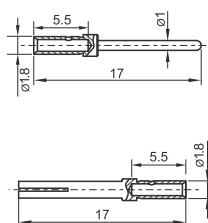
WS40, WF40, WY40	5	19	31
Male contact face view			
Rated current (A)	50	25	10
Contact diameter(mm)	Ø3.5X5	Ø2.5X19	Ø1.5X31
Rated voltage (AC.V)	500	500	500
Test voltage(AC.V) 1 min	1500	1500	1500
Contact resistance(mΩ)	0.5	1	2.5
Insulation resistance (MΩ)	2000	2000	2000

WS48, WF48, WY48	31	42
Male contact face view		
Rated current (A)	25	10
Contact diameter(mm)	Ø2.5X31	Ø1.5X42
Rated voltage (AC.V)	500	500
Test voltage(AC.V) 1 min	1500	1500
Contact resistance(mΩ)	1	2.5
Insulation resistance (MΩ)	2000	2000

WS55, WF55, WY55	38	61
Male contact face view		
Rated current (A)	25	10
Contact diameter(mm)	Ø2.5X38	Ø1.5X61
Rated voltage (AC.V)	500	500
Test voltage(AC.V) 1 min	1500	1500
Contact resistance(mΩ)	1	2.5
Insulation resistance (MΩ)	2000	2000

5A Crimp contact

- ※ Contact diameter: $\varnothing 1$
- ※ Material: Brass with gold plating
- ※ Contact resistance: $5\text{m}\Omega$



5A Male crimp contact

For SF, SA, SP, SY, WP, WS/WF/WY16-28

Wire size	Stripping length	Male crimp contact p/n	Crimping tool p/n	Removal tool p/n
0.20-0.52mm ² AWG 24-20	5.5mm	YJ1-17-0.52AU	CTW-0.14/4	RT-1.0

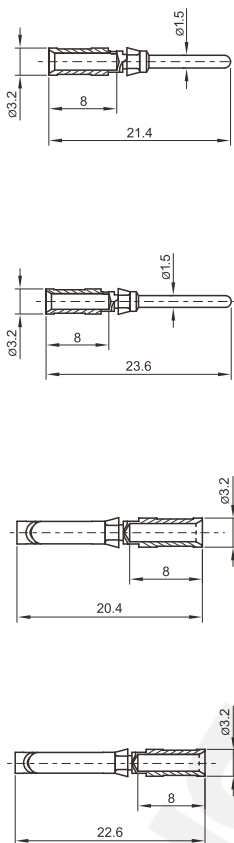
5A Female crimp contact

For SF, SA, SP, SY, WP, WS/WF/WY16-28

Wire size	Stripping length	Male crimp contact p/n	Crimping tool p/n	Removal tool p/n
0.20-0.52mm ² AWG 24-20	5.5mm	YK1-17-0.52AU	CTW-0.14/4	RT-1.0

10A Crimp contact

- ※ Contact diameter: $\varnothing 1.5$
- ※ Material: Brass with gold plating
- ※ Contact resistance: $2.5\text{m}\Omega$



10A Male crimp contact

For SF, SA, SP, SY, WP, WS/WF/WY16-28

Wire size	Stripping length	Male crimp contact p/n	Crimping tool p/n	Removal tool p/n
0.14-0.37mm ² AWG 26-22	8mm	YJ1.5-21.4-0.37AU	CTW-0.14/4	RT-1.5
0.5mm ² AWG 20	8mm	YJ1.5-21.4-0.5AU	CTW-0.14/4	RT-1.5
0.75-1.0mm ² AWG 18	8mm	YJ1.5-21.4-1.0AU	CTW-0.14/4	RT-1.5
1.5mm ² AWG 16	8mm	YJ1.5-21.4-1.5AU	CTW-0.14/4	RT-1.5
2.5mm ² AWG 14	8mm	YJ1.5-21.4-2.5AU	CTW-0.14/4	RT-1.5

10A Male crimp contact

For WS/WF/WY32-55

Wire size	Stripping length	Male crimp contact p/n	Crimping tool p/n	Removal tool p/n
0.14-0.37mm ² AWG 26-22	8mm	YJ1.5-23.6-0.37AU	CTW-0.14/4	RT-1.5
0.5mm ² AWG 20	8mm	YJ1.5-23.6-0.5AU	CTW-0.14/4	RT-1.5
0.75-1.0mm ² AWG 18	8mm	YJ1.5-23.6-1.0AU	CTW-0.14/4	RT-1.5
1.5mm ² AWG 16	8mm	YJ1.5-23.6-1.5AU	CTW-0.14/4	RT-1.5
2.5mm ² AWG 14	8mm	YJ1.5-23.6-2.5AU	CTW-0.14/4	RT-1.5

10A Female crimp contact

For SF, SA, SP, SY, WP, WS/WF/WY16-28

Wire size	Stripping length	Male crimp contact p/n	Crimping tool p/n	Removal tool p/n
0.14-0.37mm ² AWG 26-22	8mm	YK1.5-20.4-0.37AU	CTW-0.14/4	RT-1.5
0.5mm ² AWG 20	8mm	YK1.5-20.4-0.5AU	CTW-0.14/4	RT-1.5
0.75-1.0mm ² AWG 18	8mm	YK1.5-20.4-1.0AU	CTW-0.14/4	RT-1.5
1.5mm ² AWG 16	8mm	YK1.5-20.4-1.5AU	CTW-0.14/4	RT-1.5
2.5mm ² AWG 14	8mm	YK1.5-20.4-2.5AU	CTW-0.14/4	RT-1.5

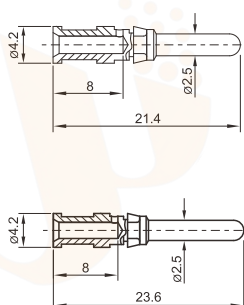
10A Female crimp contact

For WS/WF/WY32-55

Wire size	Stripping length	Male crimp contact p/n	Crimping tool p/n	Removal tool p/n
0.14-0.37mm ² AWG 26-22	8mm	YK1.5-22.6-0.37AU	CTW-0.14/4	RT-1.5
0.5mm ² AWG 20	8mm	YK1.5-22.6-0.5AU	CTW-0.14/4	RT-1.5
0.75-1.0mm ² AWG 18	8mm	YK1.5-22.6-1.0AU	CTW-0.14/4	RT-1.5
1.5mm ² AWG 16	8mm	YK1.5-22.6-1.5AU	CTW-0.14/4	RT-1.5
2.5mm ² AWG 14	8mm	YK1.5-22.6-2.5AU	CTW-0.14/4	RT-1.5

25A Crimp contact

- ※ Contact diameter: $\varnothing 2.5$
- ※ Material: Brass with gold plating
- ※ Contact resistance: $1\text{m}\Omega$



25A Male crimp contact

For SF, SA, SP, SY, WP, WS/WF/WY16-28

Wire size	Stripping length	Male crimp contact p/n	Crimping tool p/n	Removal tool p/n
0.75-1.0mm ² AWG 18	8mm	YJ2.5-21.4-1.0AU	CTW-0.14/4	RT-2.5
1.5mm ² AWG 16	8mm	YJ2.5-21.4-1.5AU	CTW-0.14/4	RT-2.5
2.5mm ² AWG 14	8mm	YJ2.5-21.4-2.5AU	CTW-0.14/4	RT-2.5
4.0mm ² AWG 12	8mm	YJ2.5-21.4-4.0AU	CTW-0.14/4	RT-2.5

25A Male crimp contact

For WS/WF/WY32-55

Wire size	Stripping length	Male crimp contact p/n	Crimping tool p/n	Removal tool p/n
0.75-1.0mm ² AWG 18	8mm	YJ2.5-23.6-1.0AU	CTW-0.14/4	RT-2.5
1.5mm ² AWG 16	8mm	YJ2.5-23.6-1.5AU	CTW-0.14/4	RT-2.5
2.5mm ² AWG 14	8mm	YJ2.5-23.6-2.5AU	CTW-0.14/4	RT-2.5
4.0mm ² AWG 12	8mm	YJ2.5-23.6-4.0AU	CTW-0.14/4	RT-2.5

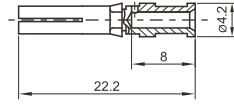
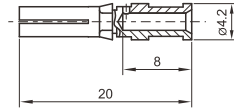
Crimp contact

25A Crimp contact

※ Contact diameter: Ø2.5

※ Material: Brass with gold plating

※ Contact resistance: 1m Ω



25A Female crimp contact

For SF, SA, SP, SY, WP, WS/WF/WY16-28

Wire size	Stripping length	Female crimp contact p/n	Crimping tool p/n	Removal tool p/n
0.75-1.0mm ² AWG 18	8mm	YK2.5-20-1.0AU	CTW-0.14/4	RT-2.5
1.5mm ² AWG 16	8mm	YK2.5-20-1.5AU	CTW-0.14/4	RT-2.5
2.5mm ² AWG 14	8mm	YK2.5-20-2.5AU	CTW-0.14/4	RT-2.5
4.0mm ² AWG 12	8mm	YK2.5-20-4.0AU	CTW-0.14/4	RT-2.5

25A Female crimp contact

For WS/WF/WY32-55

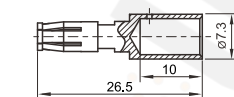
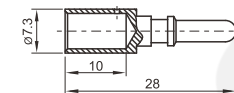
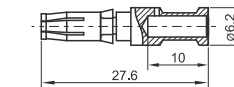
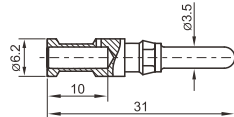
Wire size	Stripping length	Female crimp contact p/n	Crimping tool p/n	Removal tool p/n
0.75-1.0mm ² AWG 18	8mm	YK2.5-22.2-1.0AU	CTW-0.14/4	RT-2.5
1.5mm ² AWG 16	8mm	YK2.5-22.2-1.5AU	CTW-0.14/4	RT-2.5
2.5mm ² AWG 14	8mm	YK2.5-22.2-2.5AU	CTW-0.14/4	RT-2.5
4.0mm ² AWG 12	8mm	YK2.5-22.2-4.0AU	CTW-0.14/4	RT-2.5

50A Crimp contact

※ Contact diameter: Ø3.5

※ Material: copper

※ Contact resistance: 0.5m Ω



50A Male crimp contact

For WS/WF/WY32-55

Wire size	Stripping length	Female crimp contact p/n	Crimping tool p/n	Removal tool p/n
1.5mm ² AWG 16	10mm	YJ3.5-31-1.5AU	CTW-0.14/4	RT-3.5
2.5mm ² AWG 14	10mm	YJ3.5-31-2.5AU	CTW-0.14/4	RT-3.5
4.0mm ² AWG 12	10mm	YJ3.5-31-4.0AU	CTW-0.14/4	RT-3.5
6.0mm ² AWG 10	10mm	YJ3.5-31-6.0AU	CT-4/10	RT-3.5
10.0mm ² AWG 7	10mm	YJ3.5-31-10.0AU	CT-4/10	RT-3.5

50A Female crimp contact

For WS/WF/WY32-55

Wire size	Stripping length	Female crimp contact p/n	Crimping tool p/n	Removal tool p/n
1.5mm ² AWG 16	10mm	YK3.5-27.6-1.5AU	CTW-0.14/4	RT-3.5
2.5mm ² AWG 14	10mm	YK3.5-27.6-2.5AU	CTW-0.14/4	RT-3.5
4.0mm ² AWG 12	10mm	YK3.5-27.6-4.0AU	CTW-0.14/4	RT-3.5
6.0mm ² AWG 10	10mm	YK3.5-27.6-6.0AU	CT-4/10	RT-3.5
10.0mm ² AWG 7	10mm	YK3.5-27.6-10.0AU	CT-4/10	RT-3.5

50A Male crimp contact

For 2 & 3 pins of SP29, SY29, SA28, WS/WF/WY28

Wire size	Stripping length	Female crimp contact p/n	Crimping tool p/n	Removal tool p/n
4.0mm ² AWG 12	10mm	YJ3.5-28-4.0AU	CT-4/10	RT-3.5
6.0mm ² AWG 10	10mm	YJ3.5-28-6.0AU	CT-4/10	RT-3.5
10mm ² AWG 7	10mm	YJ3.5-28-10.0AU	CT-4/10	RT-3.5
16mm ² AWG 5	10mm	YJ3.5-28-16.0AU	YQK-70	RT-3.5

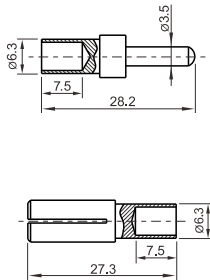
50A Female crimp contact

For 2 & 3 pins of SP29, SY29, SA28, WS/WF/WY28

Wire size	Stripping length	Female crimp contact p/n	Crimping tool p/n	Removal tool p/n
4.0mm ² AWG 12	10mm	YK3.5-26.5-4.0AU	CT-4/10	RT-3.5
6.0mm ² AWG 10	10mm	YK3.5-26.5-6.0AU	CT-4/10	RT-3.5
10mm ² AWG 7	10mm	YK3.5-26.5-10.0AU	CT-4/10	RT-3.5
16mm ² AWG 5	10mm	YK3.5-26.5-16.0AU	YQK-70	RT-3.5

50A Crimp contact

- ※ Contact diameter: Ø3.5
- ※ Material:brass with silver plating
- ※ Contact resistance:0.5m Ω



50A Male crimp contact

For WS/WF/WY16/SY17/SP17/SA16/SF16

Wire size		Stripping length	Crimping tool p/n
10.0mm ²	AWG 7	10mm	YQK-70

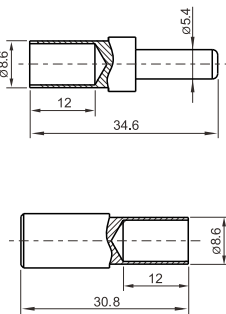
50A Female crimp contact

For WS/WF/WY16/SY17/SP17/SA16/SF16

Wire size		Stripping length	Crimping tool p/n
10.0mm ²	AWG 7	10mm	YQK-70

100A Crimp contact

- ※ Contact diameter: Ø5.5
- ※ Material:brass with silver plating
- ※ Contact resistance:0.3m Ω



100A Male crimp contact

For WS/WF/WY20/SP21/SY21/SA20/SF20/WP20

Wire size		Stripping length	Crimping tool p/n
25mm ²	AWG 3	10mm	YQK-70

100A Female crimp contact

For WS/WF/WY20/SP21/SY21/SA20/SF20/WP20

Wire size		Stripping length	Crimping tool p/n
25mm ²	AWG 3	10mm	YQK-70

Crimp tool

For crimping the male / female contacts



Part number	Crimping wire range
YQK-70	4-70mm ² AWG 11-2/0

Crimp tool and Removal tool

Crimp tool

For crimping the male / female contacts



Part number	Crimping wire range
CTW-0.14/4	0.14-4mm ² AWG 26-12

Part number	Crimping wire range
CT-4/10	4-10mm ² AWG 12-7

Removal tool

For taking out male / female contacts



Part number	Removal range
RT-1.0	5A Male / Female crimp contact
RT-1.5	10A Male / Female crimp contact
RT-2.5	25A Male / Female crimp contact
RT-3.5	50A Male / Female crimp contact

