



Series

Page

SF Series

1-7

IP rating: IP67
 Coupling: push-pull
 No. of contact: SF6: 2-5
 SF8: 2-8
 SF10: 2-5
 SF12: 2-9
 SF16: 2-10
 SF20: 2-12



SA Series

9-14

IP rating: IP67
 Coupling: push-pull
 No. of contact: SA10: 2-5
 SA12: 2-9
 SA16: 2-10
 SA20: 2-12
 SA28: 2-26



ST Series

17-18

IP rating: IP67
 Coupling: threaded
 No. of contact: 2-9



SP Series

19-24

IP rating: IP68
 Coupling: threaded
 No. of contact: SP11: 2-5
 SP13: 2-9
 SP17: 2-10
 SP21: 2-12
 SP29: 2-26



Series Page

SY Series 25-28

IP rating: IP67
 Coupling: bayonet
 No. of contact: SY13: 2-9
 SY17: 2-10
 SY21: 2-12



WA22 Series 31-33

IP rating: IP67
 Coupling: threaded
 No. of contact: 3+PE, 6+PE



WAC3 Series 35

IP rating: IP65
 Coupling: bayonet
 No. of contact: 3



RJ45F Series 36

IP rating: IP67
 Coupling: bayonet



Series Page

WP Series 37-38

IP rating: IP44, IP55
 Coupling: bayonet
 No. of contact: 2-12



WL Series 39-44

IP rating: IP67
 Coupling: threaded
 No. of contact: 19



WD Series 47-48

IP rating: IP55, IP65
 Coupling: threaded
 No. of contact: 4, 15



WS Series 49-56

IP rating: for indoor only
 Coupling: threaded
 No. of contact: 2-61



Series **Page**

WF Series 57-64

IP rating: IP44, IP55, IP65, IP67
Coupling: threaded
No. of contact: 2-61



WY Series 65-71

IP rating: IP44, IP55, IP65, IP66, IP67
Coupling: bayonet
No. of contact: 2-61



Cable gland 73

PG7, PG9, PG11, PG13.5, PG16, PG21,
PG29, PG36



Solder contact spec 75-76

For WP, WS, WF, WY series



Series **Page**

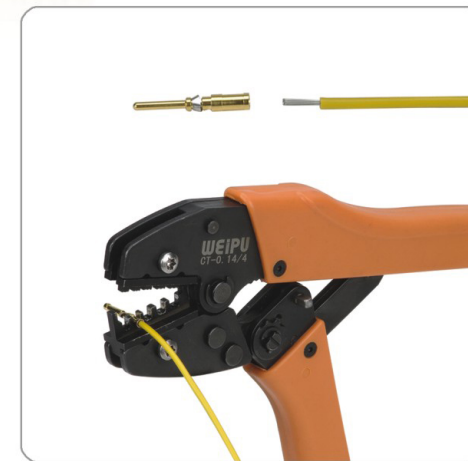
Crimp contact spec and tool 77-80

For SF, SA, SP, SY, WP, WS, WF, WY series



CRIMP

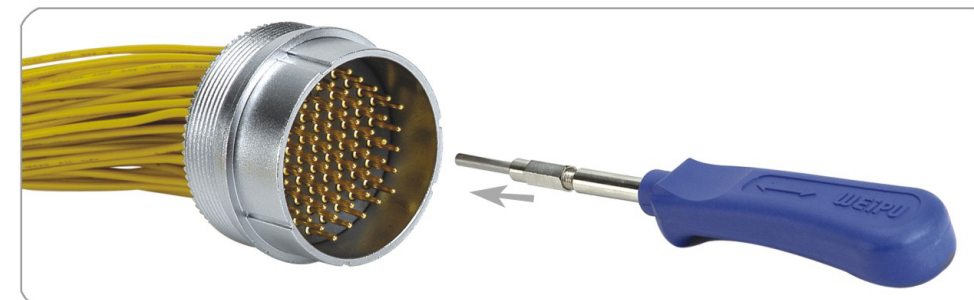
Patent pending



Crimp



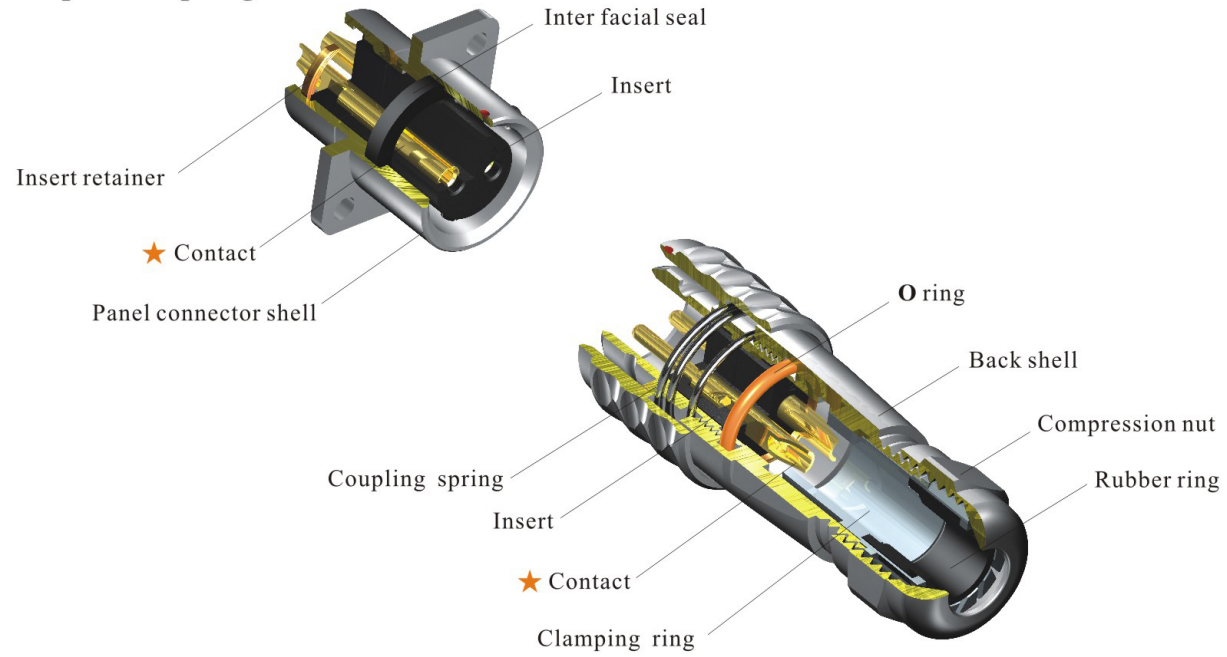
Insertion



Extraction



- SF Series IP67
- Push-pull coupling



★ Each side can be male or female contact

Material and spec

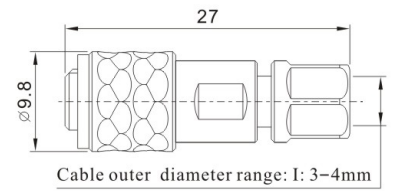
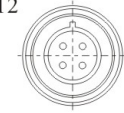
Coupling	Push-pull
Shell material	Brass with chrome plating
Insert material	PPS, max temperature 260 °C
Contact material	Brass with gold plating
Termination	Solder: SF6, SF8, SF10, SF12, SF16, SF20 Crimp: SF16, SF20 Screw: SF20 (∅2.5mm contact)
IP rating	IP67
Mating cycle	500
Temperature range	-40°C~+85°C
Insulation resistance (MΩ)	2000

SF6 Series



SF610/P___ SF610/S___

Cable connector
Mate with SF611, SF612

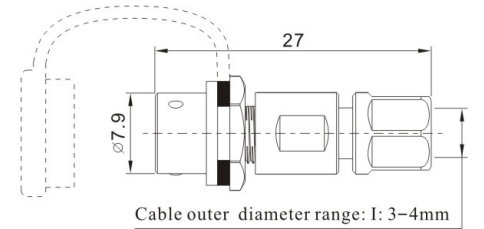


Cable outer diameter: I: 3-4mm
Number of contact



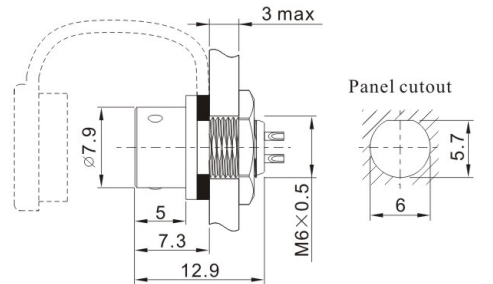
SF611/P___ SF611/S___

In-line cable connector
Mate with SF610



SF612/P___ SF612/S___

Rear-nut mount
Mate with SF610



Number of contact

Solder contact spec

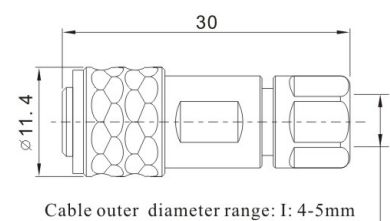
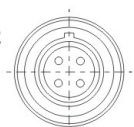
Number of contact	2	3	4	5
Male contact face view				
Rated current (A)	3	3	3	3
Contact diameter (mm)	0.6	0.6	0.6	0.6
Rated voltage (AC.V)	30	30	30	30
Test voltage(AC.V) 1 min	500	500	500	500
Contact resistance (mΩ)	10	10	10	10
Wire size (mm²/ AWG)	≤0.785/18	≤0.785/18	≤0.785/18	≤0.785/18

SF8

SF8 Series



Cable connector
Mate with SF811, SF812



Cable outer diameter range: I: 4-5mm

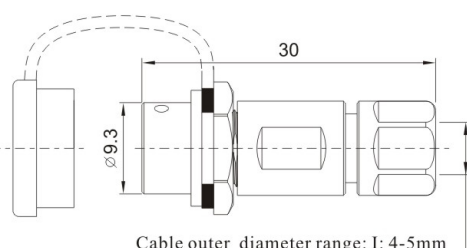
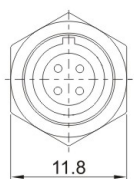
SF810/P

SF810/S

Cable outer diameter: I: 4-5mm
Number of contact



In-line cable connector
Mate with SF810



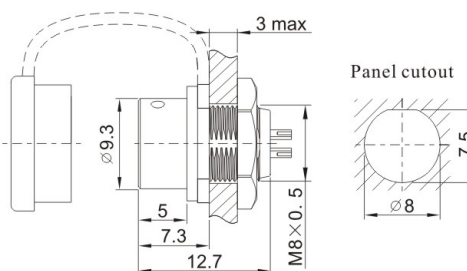
Cable outer diameter range: I: 4-5mm

SF811/P

SF811/S



Rear-nut mount
Mate with SF810



Panel cutout

SF812/P

SF812/S

Number of contact

Solder contact spec

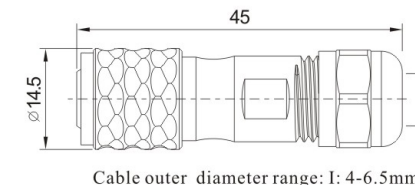
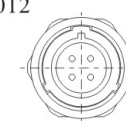
Number of contact	2	3	4	6	8
Male contact face view					
Rated current (A)	5	5	3	3	3
Contact diameter (mm)	1	1	0.6	0.6	0.6
Rated voltage (AC.V)	125	125	30	30	30
Test voltage(AC.V) 1 min	1000	1000	500	500	500
Contact resistance (mΩ)	5	5	10	10	10
Wire size (mm ² / AWG)	≤0.785/18	≤0.785/18	≤0.785/18	≤0.785/18	≤0.785/18

SF10

SF10 Series



Cable connector
Mate with SF1011, SF1012



Cable outer diameter range: I: 4-6.5mm

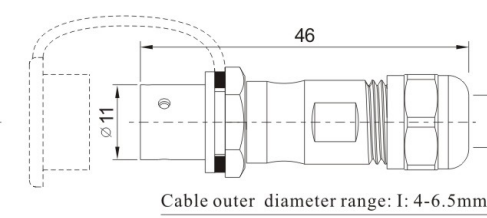
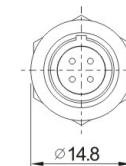
SF1010/P

SF1010/S

Cable outer diameter: I: 4-6.5mm
Number of contact



In-line cable connector
Mate with SF1010



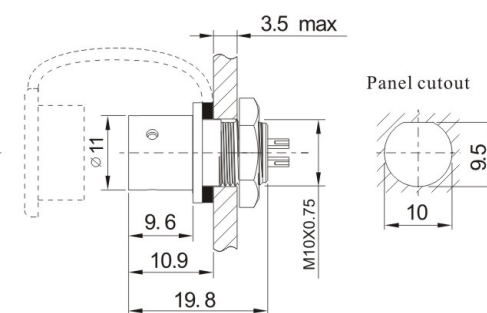
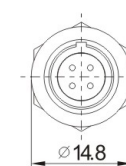
Cable outer diameter range: I: 4-6.5mm

SF1011/P

SF1011/S



Rear-nut mount
Mate with SF1010



Panel cutout

SF1012/P

SF1012/S

Number of contact

Solder contact spec

Number of contact	2	3	4	5
Male contact face view				
Rated current (A)	5	5	3	3
Contact diameter (mm)	1	1	0.7	0.7
Rated voltage (AC.V)	180	180	125	125
Test voltage(AC.V) 1 min	1000	1000	1000	1000
Contact resistance (mΩ)	5	5	10	10
Wire size (mm ² / AWG)	≤0.785/18	≤0.785/18	≤0.785/18	≤0.785/18

SF12 Series

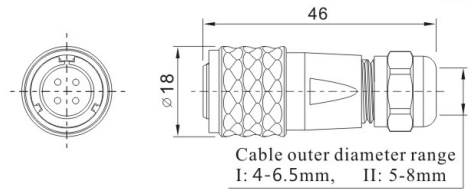
SF
12



SF1210 / P — SF1210 / S

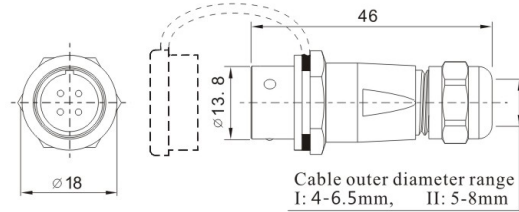
Cable connector
Mate with SF1211, SF1212,
SF1213

Cable outer diameter
I: 4-6.5mm, II: 5-8mm
Number of contact



SF1211 / P — SF1211 / S

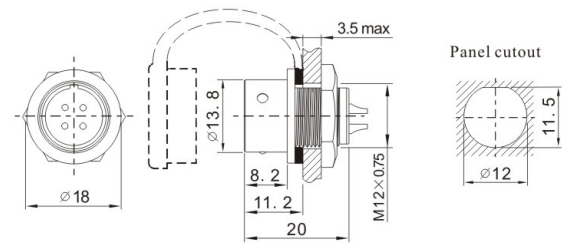
In-line cable connector
Mate with SF1210



SF1212 / P — SF1212 / S

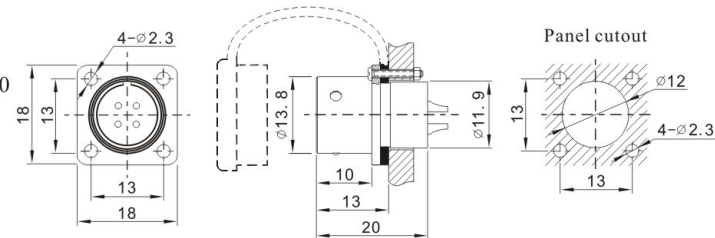
Rear-nut mount
Mate with SF1210

Number of contact



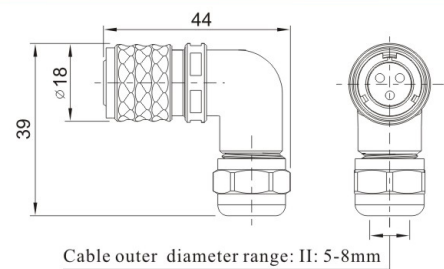
SF1213 / P — SF1213 / S

Square flange
Mate with SF1210



SF1214 / P — II SF1214 / S — II

Angled cable connector
Mate with SF1211, SF1212, SF1213



Solder contact spec

Number of contact	2	3	4	5	6	7	9
Male contact face view							
Rated current (A)	13	13	5	5	5	5	3
Contact diameter (mm)	1.6	1.6	1	1	1	1	0.7
Rated voltage (AC.V)	250	250	200	180	125	125	125
Test voltage(AC.V) 1 min	1500	1500	1500	1000	1000	1000	1000
Contact resistance (mΩ)	2	2	5	5	5	5	10
Wire size (mm ² / AWG)	≤2/14	≤2/14	≤0.785/18	≤0.785/18	≤0.785/18	≤0.785/18	≤0.785/18

SF16 Series

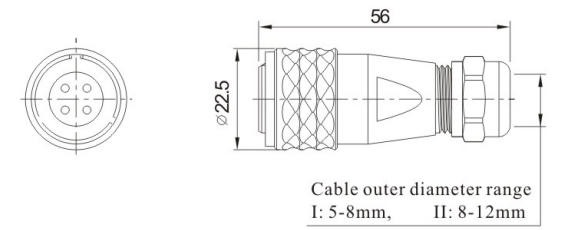
SF
16



SF1610 / P — SF1610 / S

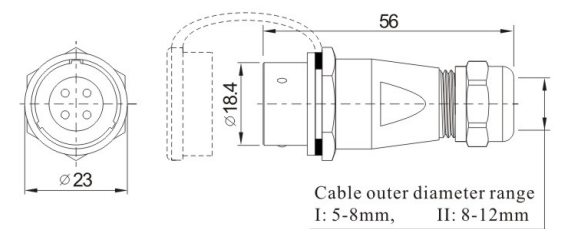
Cable connector
Mate with SF1611, SF1612,
SF1613

Number of contact
I: solder, 3: crimp
Cable outer diameter
I: 5-8mm, II: 8-12mm



SF1611 / P — SF1611 / S

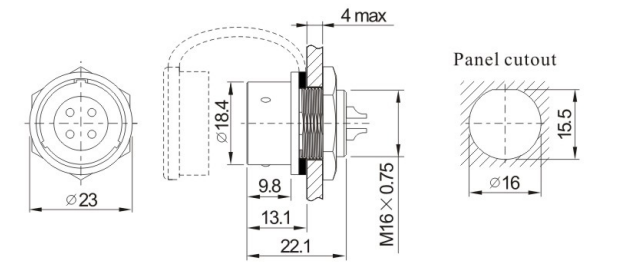
In-line cable connector
Mate with SF1610



SF1612 / P — SF1612 / S

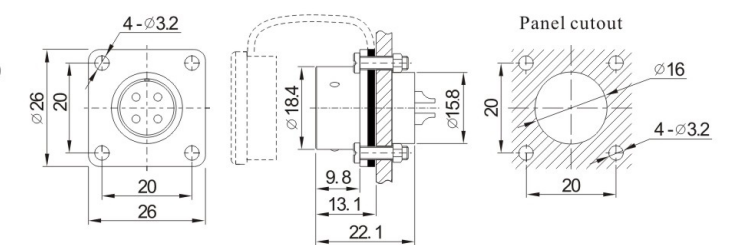
Rear-nut mount
Mate with SF1610

Number of contact
I: solder, 3: crimp



SF1613 / P — SF1613 / S

Square flange
Mate with SF1610



Solder contact spec

★ Crimp contact spec see page 77-80

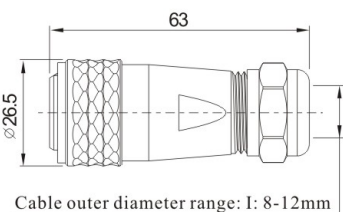
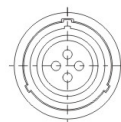
Number of contact	2	3	4	5	7	9	10
Male contact face view							
Rated current (A)	10	10	5	5	5	5	5
Contact diameter (mm)	1.5	1.5	1	1	1	1	1
Rated voltage (AC.V)	500	500	500	500	400	400	400
Test voltage(AC.V) 1 min	1500	1500	1500	1500	1200	1200	1200
Contact resistance (mΩ)	2.5	2.5	5	5	5	5	5
Wire size (mm ² / AWG)	≤2/14	≤2/14	≤0.785/18	≤0.785/18	≤0.785/18	≤0.785/18	≤0.785/18

SF20 Series

**SF
20**



Cable connector
Mate with SF2011, SF2012,
SF2013



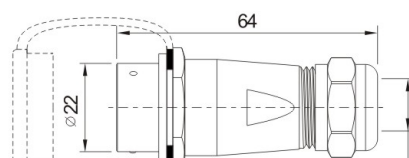
SF2010 / P --- SF2010 / S ---
Number of contact

1: solder, 2: screw, 3: crimp
Cable outer diameter: I: 8-12mm

Cable outer diameter range: I: 8-12mm



In-line cable connector
Mate with SF2010

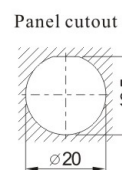
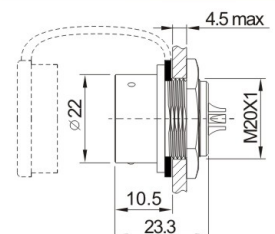


SF2011 / P --- SF2011 / S ---

Cable outer diameter range: I: 8-12mm



Rear-nut mount
Mate with SF2010

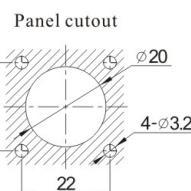
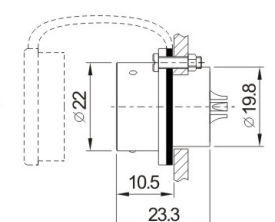
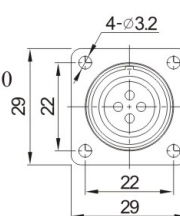


SF2012 / P --- SF2012 / S ---

1: solder, 2: screw, 3: crimp
Number of contact



Square flange
Mate with SF2010



SF2013 / P --- SF2013 / S ---

Solder contact spec

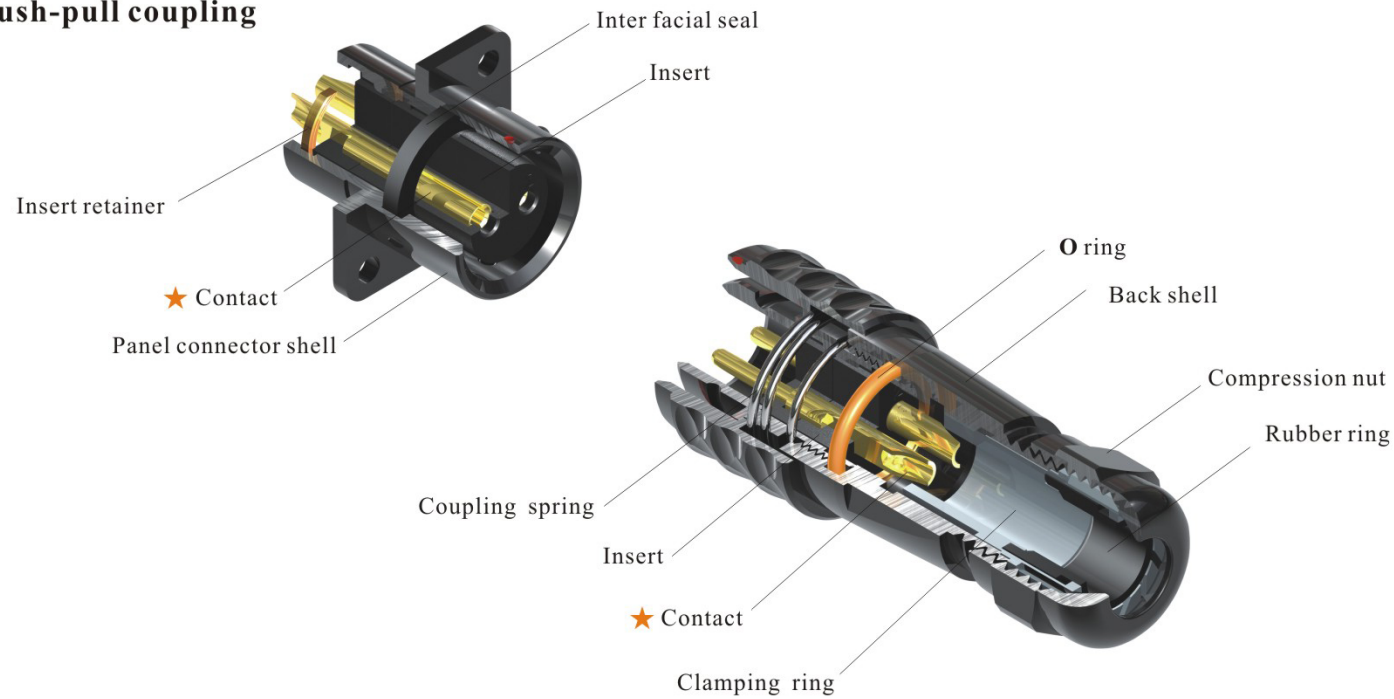
★ Crimp contact spec see page 77-80

Number of contact	2	3	4	5	6	7	9	12
Male contact face view								
Rated current (A)	25	25	25	10	25 5	10	5	5
Contact diameter (mm)	2.5	2.5	2.5	1.5	2.5X4 1X2	1.5	1	1
Rated voltage (AC.V)	500	500	500	500	500	500	500	400
Test voltage(AC.V) 1 min	1500	1500	1500	1500	1500	1500	1500	1200
Contact resistance (mΩ)	1	1	1	2.5	1 5	2.5	5	5
Termination	solder / screw	solder / screw	solder / screw	solder	solder	solder	solder	solder
Wire size for solder (mm ² / AWG)	≤4/11	≤4/11	≤4/11	≤2/14	≤4/11 ≤0.785/18	≤2/14	≤0.785/18	≤0.785/18
Wire size for screw termination (mm ² / AWG)	≤1.5/15	≤1.5/15	≤1.5/15	/	/	/	/	/





- SA Series IP67
- Push-pull coupling



★ Each side can be male or female contact

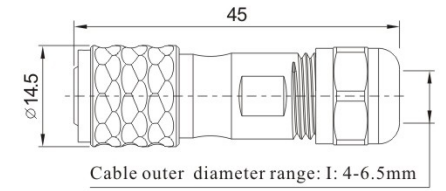
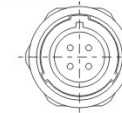
Material and spec

Coupling	Push-pull
Shell material	Anodized aluminium
Insert material	PPS, max temperature 260 °C
Contact material	Brass with gold plating
Termination	Solder: SA10, SA12, SA16, SA20, SA28 Crimp: SA16, SA20, SA28 Screw: SA20, SA28 (∅2.5, ∅3.5mm contact)
IP rating	IP67
Mating cycle	500
Temperature range	-40°C~+85°C
Insulation resistance (MΩ)	2000

SA10 Series



Cable connector
Mate with SA1011, SA1012

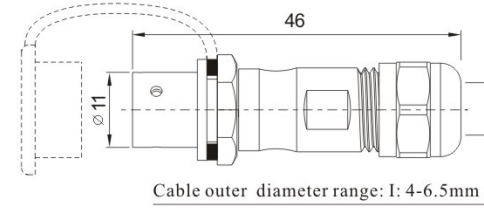


SA1010 / P — SA1010 / S
Number of contact
Cable outer diameter: I: 4-6.5mm

Colour:
B: Black
S: Silver
L: Blue
G: Green
R: Red } special order



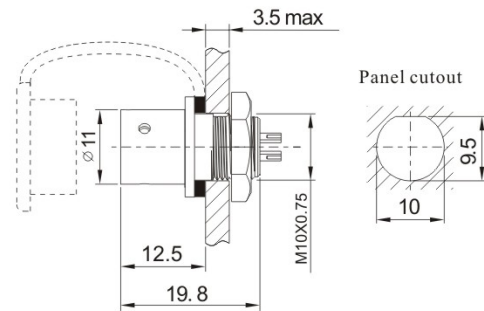
In-line cable connector
Mate with SA1010



SA1011 / P — SA1011 / S



Rear-nut mount
Mate with SA1010



SA1012 / P — SA1012 / S
Number of contact

Colour:
B: Black
S: Silver
L: Blue
G: Green
R: Red } special order

Solder contact spec

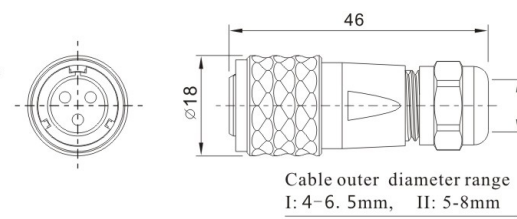
Number of contact	2	3	4	5
Male contact face view				
Rated current (A)	5	5	3	3
Contact diameter (mm)	1	1	0.7	0.7
Rated voltage (AC.V)	180	180	125	125
Test voltage(AC.V) 1 min	1000	1000	1000	1000
Contact resistance (mΩ)	5	5	10	10
Wire size (mm ² / AWG)	≤0.785/18	≤0.785/18	≤0.785/18	≤0.785/18

SA12 Series

**SA
12**



Cable connector
Mate with SA1211, SA1212, SA1213

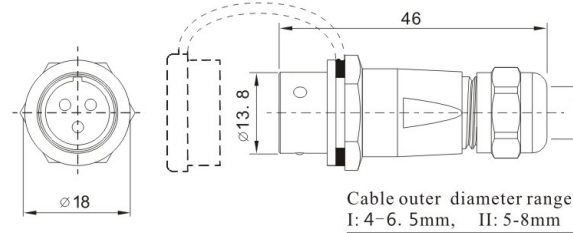


SA1210/P --- SA1210/S
Number of contact
Cable outer diameter
I: 4-6.5mm, II: 5-8mm

Colour:
B: Black
S: Silver
L: Blue
G: Green } special order
R: Red



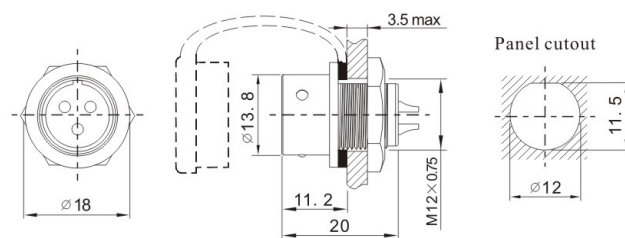
In-line cable connector
Mate with SA1210



SA1211/P --- SA1211/S



Rear-nut mount
Mate with SA1210

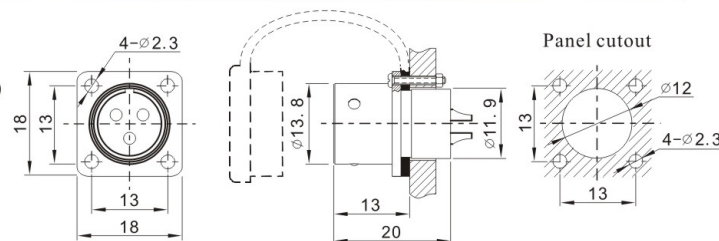


SA1212/P --- SA1212/S
Number of contact

Colour:
B: Black
S: Silver
L: Blue
G: Green } special order
R: Red



Square flange
Mate with SA1210



SA1213/P --- SA1213/S

Solder contact spec

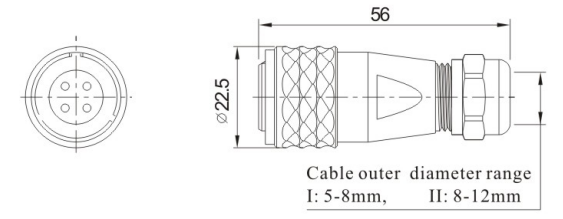
Number of contact	2	3	4	5	6	7	9
Male contact face view							
Rated current (A)	13	13	5	5	5	5	3
Contact diameter (mm)	1.6	1.6	1	1	1	1	0.7
Rated voltage (AC.V)	250	250	200	180	125	125	125
Test voltage(AC.V) 1 min	1500	1500	1500	1000	1000	1000	1000
Contact resistance (mΩ)	2	2	5	5	5	5	10
Wire size (mm ² / AWG)	≤2/14	≤2/14	≤0.785/18	≤0.785/18	≤0.785/18	≤0.785/18	≤0.785/18

SA16 Series

**SA
16**



Cable connector
Mate with SA1611, SA1612, SA1613

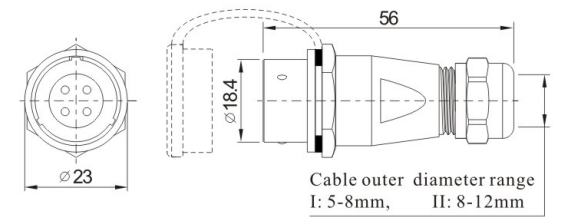


SA1610/P --- SA1610/S
Number of contact
Cable outer diameter
I: 5-8mm, II: 8-12mm

I: solder, 3: crimp
Colour:
B: Black
S: Silver
L: Blue
G: Green } special order
R: Red



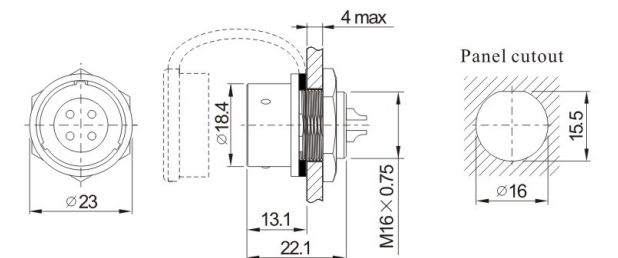
In-line cable connector
Mate with SA1610



SA1611/P --- SA1611/S



Rear-nut mount
Mate with SA1610

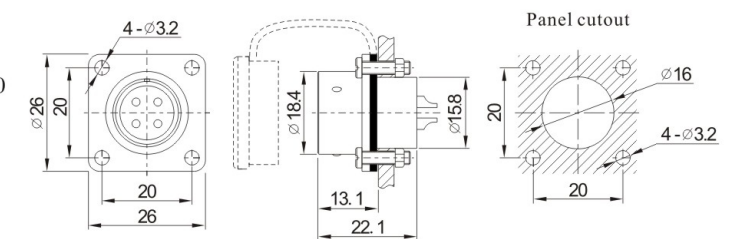


SA1612/P --- SA1612/S
Number of contact

I: solder, 3: crimp
Colour:
B: Black
S: Silver
L: Blue
G: Green } special order
R: Red



Square flange
Mate with SA1610



SA1613/P --- SA1613/S

Solder contact spec

★ Crimp contact spec see page 77-80

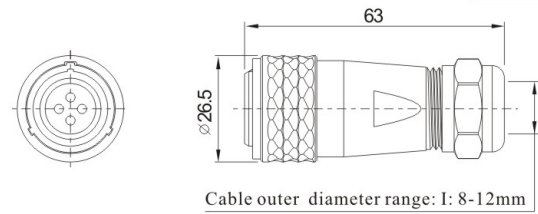
Number of contact	2	3	4	5	7	9	10
Male contact face view							
Rated current (A)	10	10	5	5	5	5	5
Contact diameter (mm)	1.5	1.5	1	1	1	1	1
Rated voltage (AC.V)	500	500	500	500	400	400	400
Test voltage(AC.V) 1 min	1500	1500	1500	1500	1200	1200	1200
Contact resistance (mΩ)	2.5	2.5	5	5	5	5	5
Wire size (mm ² / AWG)	≤2/14	≤2/14	≤0.785/18	≤0.785/18	≤0.785/18	≤0.785/18	≤0.785/18

SA20 Series

**SA
20**



Cable connector
Mate with SA2011, SA2012, SA2013

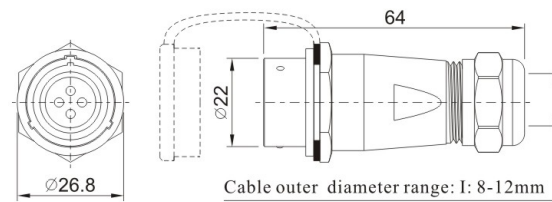


SA2010/P --- SA2010/S

Number of contact
Cable outer diameter: I: 8-12mm
1: solder, 2: screw, 3: crimp
Colour:
B: Black
S: Silver
L: Blue
G: Green } special order
R: Red



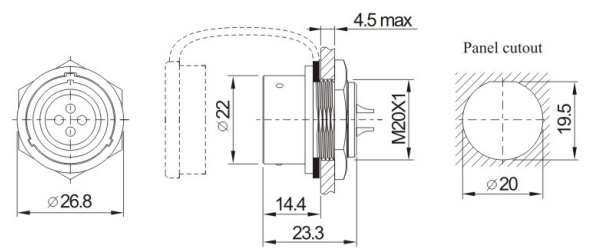
In-line cable connector
Mate with SF2010



SA2011/P --- SA2011/S



Rear-nut mount
Mate with SA2010

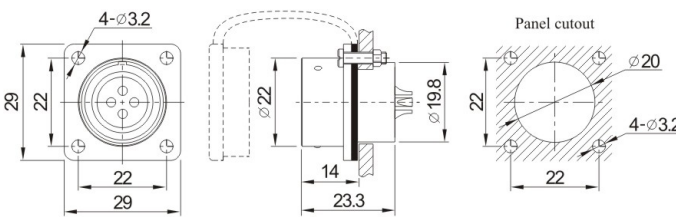


SA2012/P --- SA2012/S

Number of contact
1: solder, 2: screw, 3: crimp
Colour:
B: Black
S: Silver
L: Blue
G: Green } special order
R: Red



Square flange
Mate with SA2010



SA2013/P --- SA2013/S

Solder contact spec

★ Crimp contact spec see page 77-80

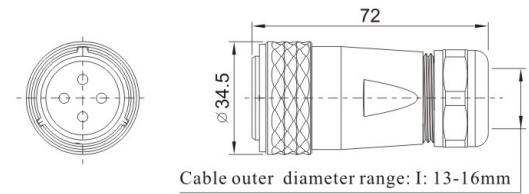
Number of contact	2	3	4	5	6	7	9	12
Male contact face view								
Rated current (A)	25	25	25	10	25 5	10	5	5
Contact diameter (mm)	2.5	2.5	2.5	1.5	2.5X4 1X2	1.5	1	1
Rated voltage (AC.V)	500	500	500	500	500	500	500	400
Test voltage(AC.V) 1 min	1500	1500	1500	1500	1500	1500	1500	1200
Contact resistance (mΩ)	1	1	1	2.5	1 5	2.5	5	5
Termination	solder / screw	solder / screw	solder / screw	solder	solder	solder	solder	solder
Wire size for solder (mm ² / AWG)	≤4/11	≤4/11	≤4/11	≤2/14	≤4/11 ≤0.785/18	≤2/14	≤0.785/18	≤0.785/18
Wire size for screw termination (mm ² / AWG)	≤1.5/15	≤1.5/15	≤1.5/15	/	/	/	/	/

SA28 Series

**SA
28**



Cable connector
Mate with SA2811, SA2812, SA2813

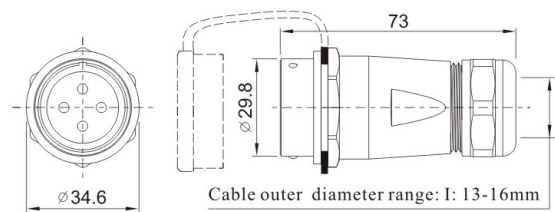


SA2810/P --- SA2810/S

Number of contact
Cable outer diameter: I: 13-16mm
1: solder, 2: screw, 3: crimp
Colour:
B: Black
S: Silver
L: Blue
G: Green } special order
R: Red



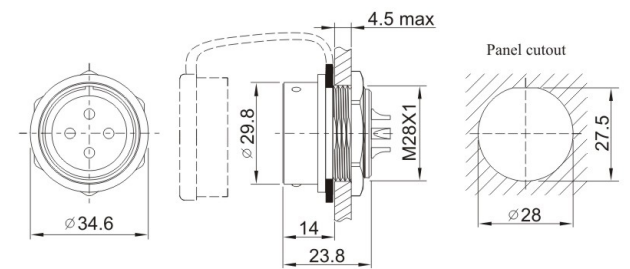
In-line cable connector
Mate with SA2810



SA2811/P --- SA2811/S



Rear-nut mount
Mate with SA2810

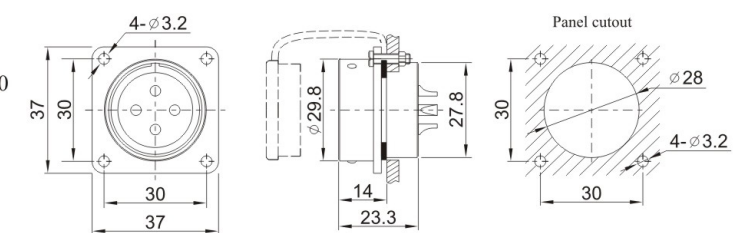


SA2812/P --- SA2812/S

Number of contact
1: solder, 2: screw, 3: crimp
Colour:
B: Black
S: Silver
L: Blue
G: Green } special order
R: Red



Square flange
Mate with SA2810



SA2813/P --- SA2813/S

Solder contact spec

★ Crimp contact spec see page 77-80

Number of contact	2	3	4	7	8	9	10	10B	12	16	17	20	24	26
Male contact face view														
Rated current (A)	50	50	25	25	25	25 5	25	10	10	10	10	5	5	5
Contact diameter(mm)	3.5	3.5	2.5	2.5	2.5	2.5 1X5	2.5	1.5	1.5	1.5	1.5	1	1	1
Rated voltage (AC.V)	500	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	1500	1200	1200	1200
Contact resistance (mΩ)	0.5	0.5	1	1	1	1 5	1	2.5	2.5	2.5	2.5	5	5	5
Termination	solder / screw	solder / screw	solder / screw	solder / screw	solder / screw	solder / screw	solder / screw	solder / screw	solder	solder	solder	solder	solder	solder
Wire size for solder (mm ² / AWG)	≤10/7	≤10/7	≤4/11	≤4/11	≤4/11	≤4/11 ≤0.785/18	≤4/11	≤2/14	≤2/14	≤2/14	≤2/14	≤0.785/18	≤0.785/18	≤0.785/18
Wire size for screw termination (mm ² / AWG)	≤6/10	≤6/10	≤1.5/15	≤1.5/15	≤1.5/15	/	≤1.5/15	/	/	/	/	/	/	/



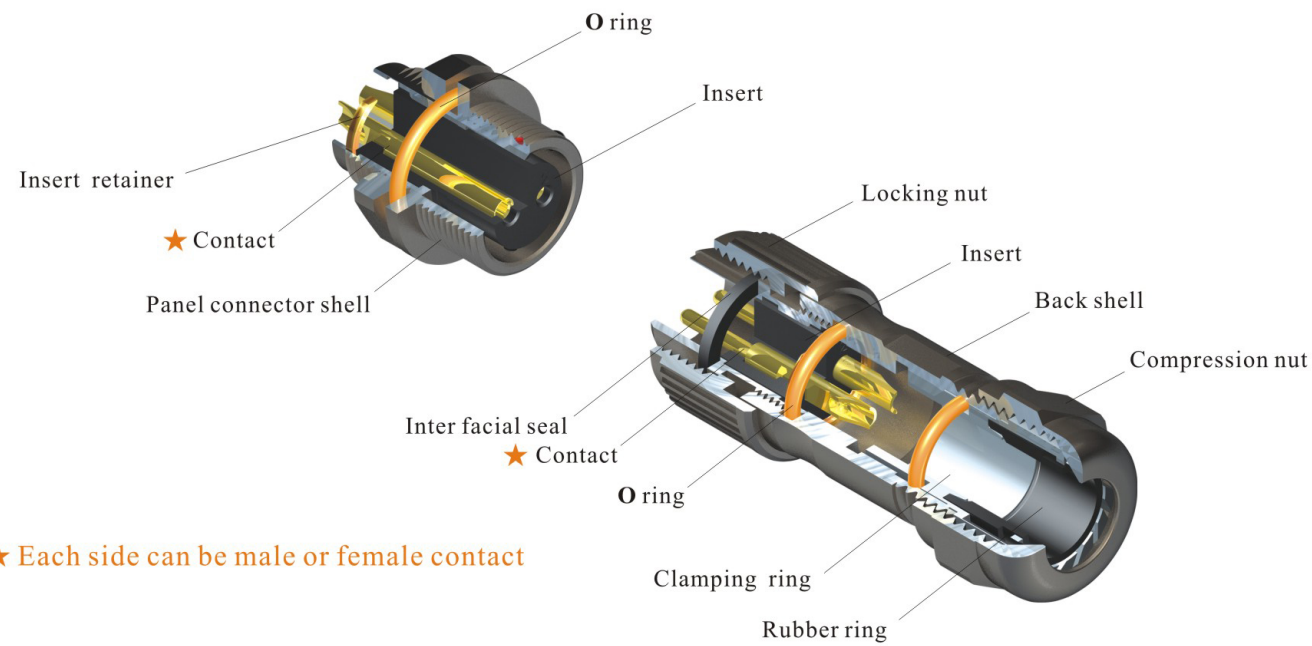
IP67

SA Series





- ST12 Series IP67
- Threaded coupling



★ Each side can be male or female contact

Material and spec

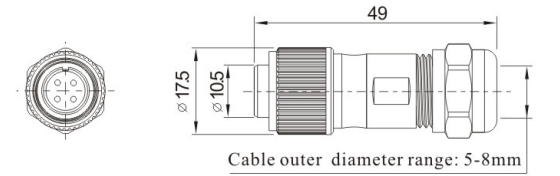
Coupling	Threaded
Shell material	Zinc alloy with black nickel plating
Insert material	PPS, max temperature 260 °C
Contact material	Brass with gold plating
Termination	Solder
IP rating	IP67
Mating cycle	500
Temperature range	-40°C ~ +85°C
Insulation resistance (M.Ω)	2000

ST12 Series



ST1210 / P- ST1210 / S-

Cable connector
Mate with ST1211, ST1212, ST1213, ST1214

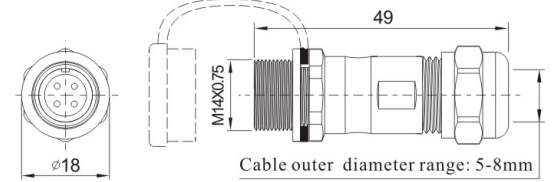


Number of contact



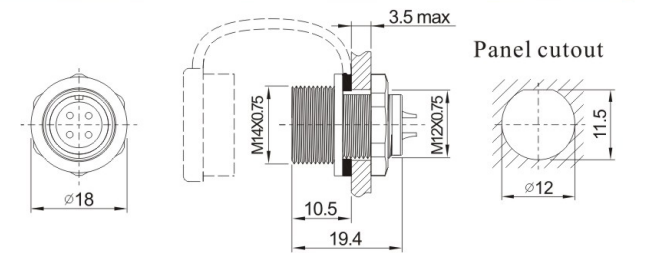
ST1211 / P- ST1211 / S-

In-line cable connector
Mate with ST1210



ST1212 / P- ST1212 / S-

Rear-nut mount
Mate with ST1210

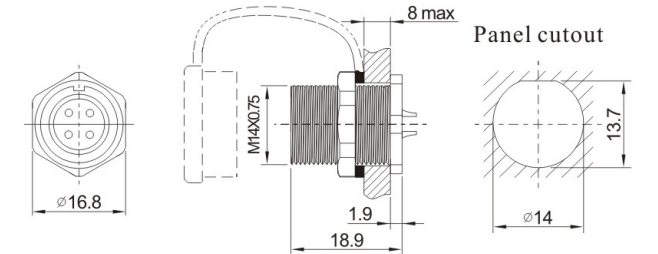


Number of contact



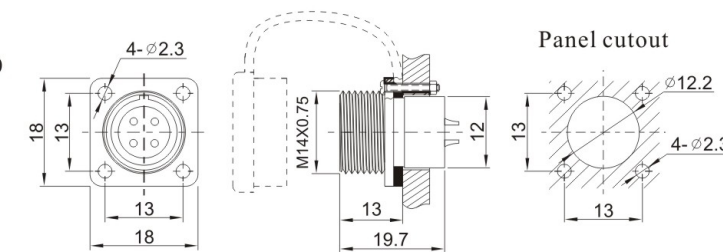
ST1213 / P- ST1213 / S-

Front-nut mount
Mate with ST1210



ST1214 / P- ST1214 / S-

Square flange
Mate with ST1210



Solder contact spec

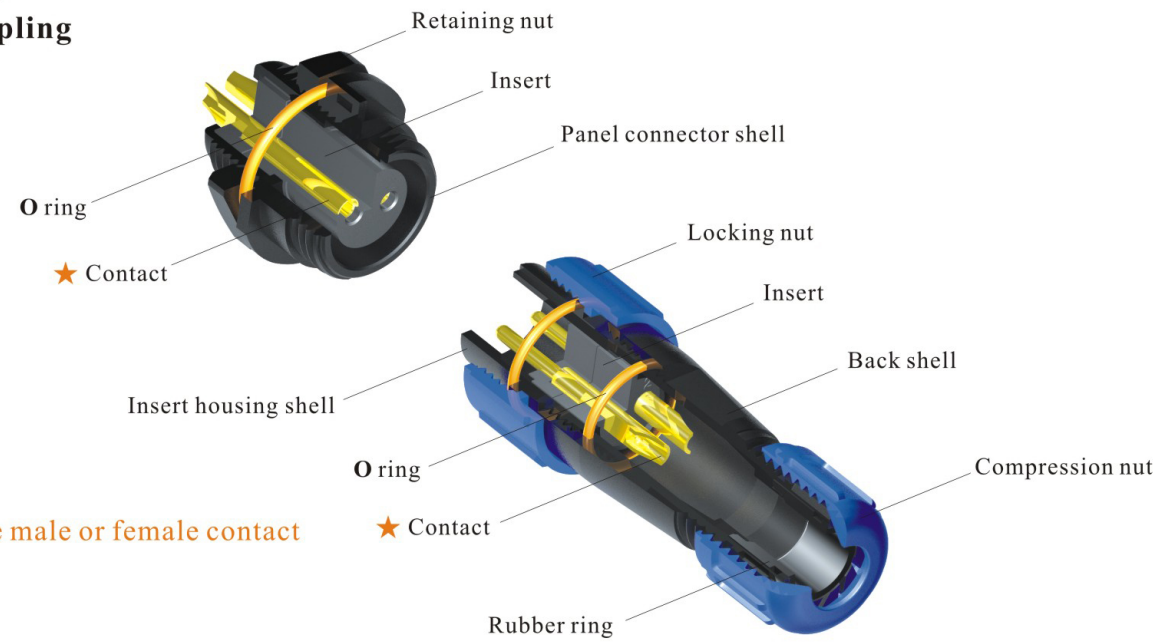
Number of contact	2	3	4	5	6	7	9
Male contact face view							
Rated current (A)	13	13	5	5	5	5	3
Contact diameter (mm)	1.6	1.6	1	1	1	1	0.7
Rated voltage (AC.V)	250	250	200	180	125	125	125
Test voltage(AC.V) 1 min	1500	1500	1500	1000	1000	1000	1000
Contact resistance (mΩ)	2	2	5	5	5	5	10
Wire size (mm ² / AWG)	≤2/14	≤2/14	≤0.785/18	≤0.785/18	≤0.785/18	≤0.785/18	≤0.785/18



SP Series

IP68

- SP Series IP68
- Threaded coupling



★ Each side can be male or female contact

Material and spec

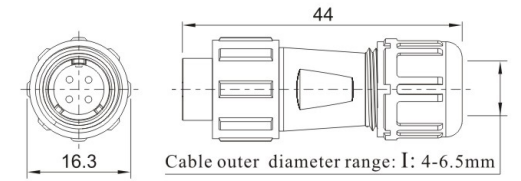
Coupling	Threaded
Shell material	PC: Panel connector shell, Insert housing shell Nylon66: Locking nut, Back shell, Compressing nut, Retaining nut Fire resistance: V-0
Insert material	PPS, max temperature 260 °C
Contact material	Brass with gold plating
Termination	Solder: SP11, SP13, SP17, SP21, SP29 Crimp: SP17, SP21, SP29 Screw: SP21, SP29 (∅2.5, ∅3, ∅3.5mm contact)
IP rating	IP68
Mating cycle	500
Temperature range	-40°C~+85°C
Insulation resistance (MΩ)	2000

SP 11

SP11 Series



Cable connector
Mate with SP1111, SP1112

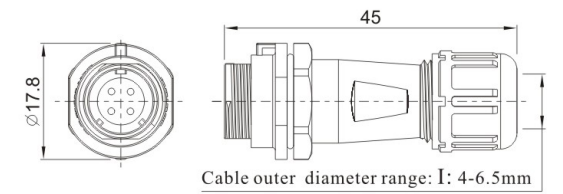


SP1110/P_ _ SP1110/S_ _

Cable outer diameter: I: 4-6.5mm
Number of contact



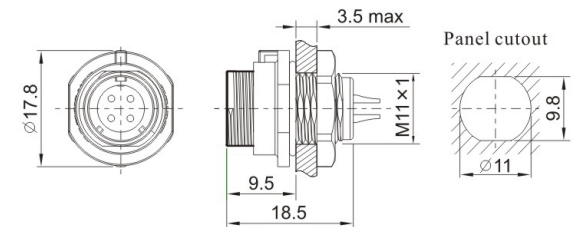
In-line cable connector
Mate with SP1110



SP1111/P_ _ SP1111/S_ _



Rear-nut mount
Mate with SP1110



SP1112/P_ _ SP1112/S_ _

Number of contact

Solder contact spec

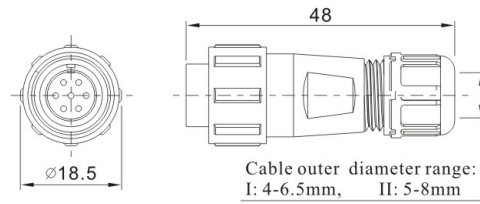
Number of contact	2	3	4	5
Male contact face view				
Rated current (A)	5	5	3	3
Contact diameter(mm)	1	1	0.7	0.7
Rated voltage (AC.V)	180	180	125	125
Test voltage(AC.V) 1 min	1000	1000	1000	1000
Contact resistance (mΩ)	5	5	10	10
Wire size (mm ² /AWG)	≤0.785/18	≤0.785/18	≤0.785/18	≤0.785/18

SP13 Series

SP
13



Cable connector
Mate with SP1311, SP1312

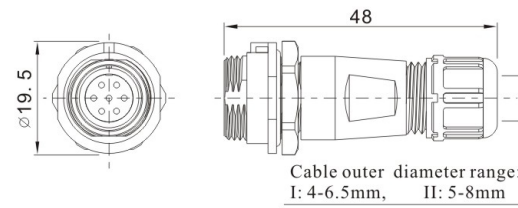


SP1310 / P__ SP1310 / S__

Cable outer diameter
I: 4-6.5mm, II: 5-8mm
Number of contact

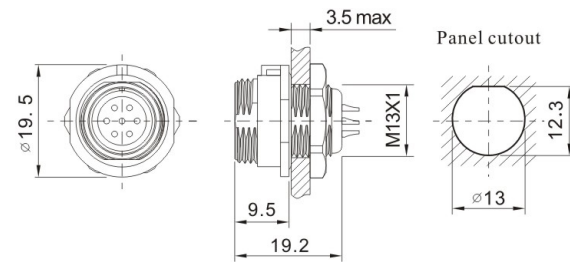
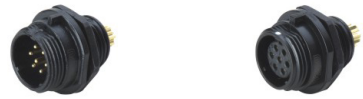


In-line cable connector
Mate with SP1310



SP1311 / P__ SP1311 / S__

Rear-nut mount
Mate with SP1310



SP1312 / P__ SP1312 / S__

Number of contact

Solder contact spec

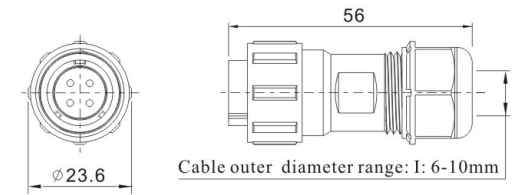
Number of contact	2	3	4	5	6	7	9
Male contact face view							
Rated current (A)	13	13	5	5	5	5	3
Contact diameter(mm)	1.6	1.6	1	1	1	1	0.7
Rated voltage (AC.V)	250	250	200	180	125	125	125
Test voltage(AC.V) 1 min	1500	1500	1500	1000	1000	1000	1000
Contact resistance (mΩ)	2	2	5	5	5	5	10
Wire size (mm ² /AWG)	≤2/14	≤2/14	≤0.785/18	≤0.785/18	≤0.785/18	≤0.785/18	≤0.785/18

SP17 Series

SP
17



Cable connector
Mate with SP1711, SP1712

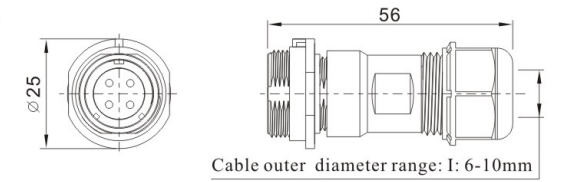


SP1710 / P__ SP1710 / S__

1: solder, 3: crimp
Cable outer diameter: I: 6-10mm
Number of contact

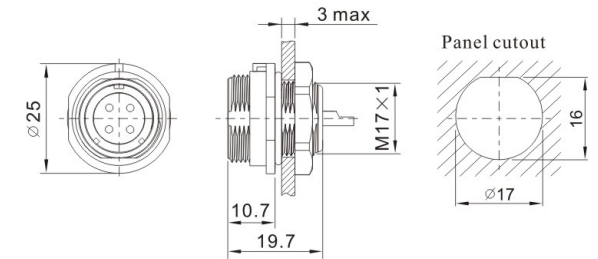


In-line cable connector
Mate with SP1710



SP1711 / P__ SP1711 / S__

Rear-nut mount
Mate with SP1710



SP1712 / P__ SP1712 / S__

1: solder, 3: crimp
Number of contact

Solder contact spec

★ Crimp contact spec see page 77-80

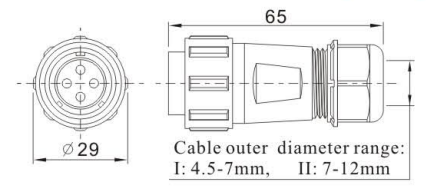
Number of contact	2	3	4	5	7	9	10
Male contact face view							
Rated current (A)	10	10	5	5	5	5	5
Contact diameter(mm)	1.5	1.5	1	1	1	1	1
Rated voltage (AC.V)	500	500	500	500	400	400	400
Test voltage(AC.V) 1 min	1500	1500	1500	1500	1200	1200	1200
Contact resistance (mΩ)	2.5	2.5	5	5	5	5	5
Wire size (mm ² /AWG)	≤2/14	≤2/14	≤0.785/18	≤0.785/18	≤0.785/18	≤0.785/18	≤0.785/18

**SP
21**

SP21 Series



Cable connector
Mate with SP2111, SP2112, SP2113

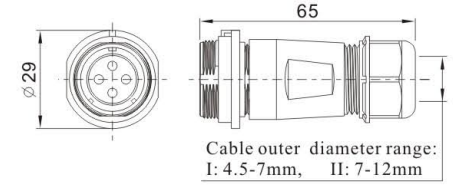


SP2110 / P ___ SP2110 / S ___
Number of contact

1: solder, 2: screw, 3: crimp
Cable outer diameter: I: 4.5-7mm, II: 7-12mm



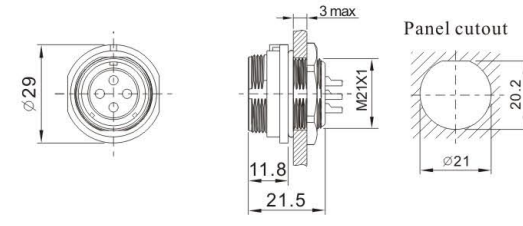
In-line cable connector
Mate with SP2110



SP2111 / P ___ SP2111 / S ___



Rear-nut mount
Mate with SP2110

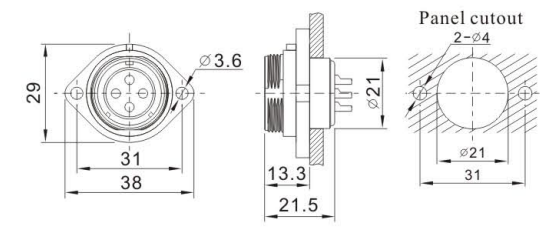


SP2112 / P ___ SP2112 / S ___
Number of contact

1: solder, 2: screw, 3: crimp



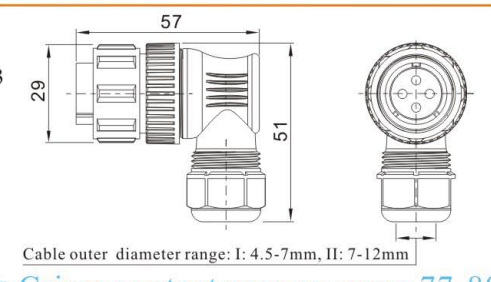
2-hole flange
Mate with SP2110



SP2113 / P ___ SP2113 / S ___



Angled cable connector
Mate with SP2111, SP2112, SP2113



SP2116 / P ___ SP2116 / S ___
Number of contact

1: solder, 2: screw, 3: crimp
Cable outer diameter: I: 4.5-7mm, II: 7-12mm

★ Crimp contact spec see page 77-80

Solder contact spec

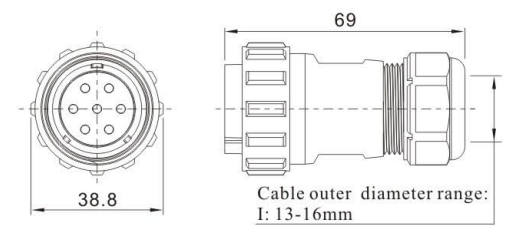
Number of contact	2	3	4	5	5B	5C	7	9	12
Male contact face view									
Rated current (A)	30	30	30	30	30 5	15	15	5	5
Contact diameter(mm)	3	3	3	3	ø3X2 ø1X3	2	2	1	1
Rated voltage (AC.V)	500	500	500	500	500	500	500	500	400
Test voltage(AC.V) 1 min	1500	1500	1500	1500	1500	1500	1500	1500	1200
Contact resistance (mΩ)	1	1	1	1	1 5	2.5	2.5	5	5
Termination	solder / screw	solder / screw	solder / screw	solder / screw	solder	solder	solder	solder	solder
Wire size for solder (mm ² / AWG)	≤4/11	≤4/11	≤4/11	≤4/11	≤4/11 ≤0.785/18	≤2/14	≤2/14	≤0.785/18	≤0.785/18
Wire size for screw termination (mm ² / AWG)	≤1.5/15	≤1.5/15	≤1.5/15	≤1.5/15	/	/	/	/	/

**SP
29**

SP29 Series



Cable connector
Mate with SP2911, SP2912, SP2913

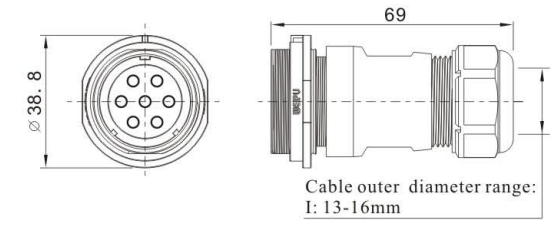


SP2910 / P ___ SP2910 / S ___

1: solder, 2: screw, 3: crimp
Cable outer diameter: I: 13-16mm
Number of contact



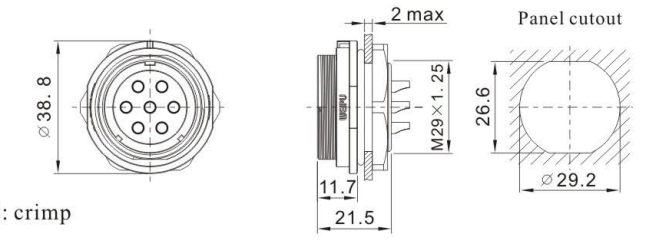
In-line cable connector
Mate with SP2910



SP2911 / P ___ SP2911 / S ___



Rear-nut mount
Mate with SP2910

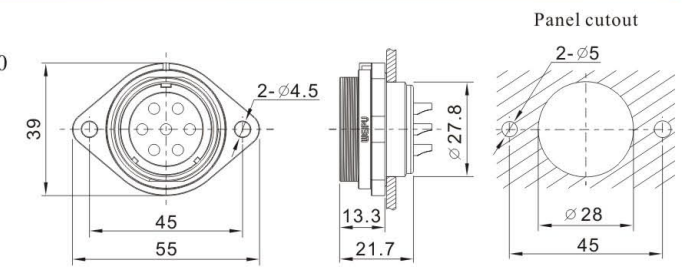


SP2912 / P ___ SP2912 / S ___

1: solder, 2: screw, 3: crimp
Number of contact



2-hole flange
Mate with SP2910



SP2913 / P ___ SP2913 / S ___

Solder contact spec

Number of contact	2	3	4	7	8	9	10	10B	12	16	17	20	24	26
Male contact face view														
Rated current (A)	50	50	25	25	25	25 5	25	10	10	10	10	5	5	5
Contact diameter(mm)	3.5	3.5	2.5	2.5	2.5	ø2.5X4 ø1X5	2.5	1.5	1.5	1.5	1.5	1	1	1
Rated voltage (AC.V)	500	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	1500	1200	1200	1200
Contact resistance (mΩ)	0.5	0.5	1	1	1	1 5	1	2.5	2.5	2.5	2.5	5	5	5
Termination	solder / screw	solder / screw	solder / screw	solder / screw	solder / screw	solder / screw	solder / screw	solder / screw	solder	solder	solder	solder	solder	solder
Wire size for solder (mm ² / AWG)	≤10/7	≤10/7	≤4/11	≤4/11	≤4/11	≤4/11 ≤0.785/18	≤4/11	≤2/14	≤2/14	≤2/14	≤2/14	≤0.785/18	≤0.785/18	≤0.785/18
Wire size for screw termination (mm ² / AWG)	≤6/10	≤6/10	≤1.5/15	≤1.5/15	≤1.5/15	/	≤1.5/15	/	/	/	/	/	/	/

★ Crimp contact spec see page 77-80

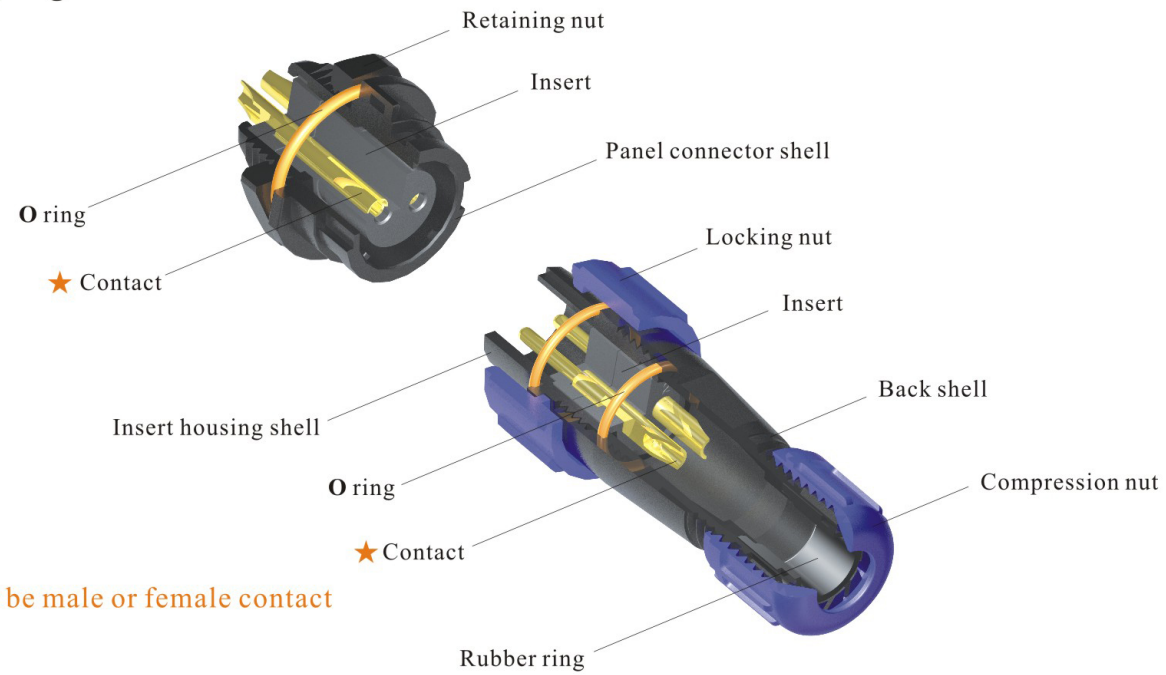


IP67

SY
Series



- SY Series IP67
- Bayonet coupling



★ Each side can be male or female contact

Material and spec

Coupling	Bayonet
Shell material	PC: Panel connector shell, Insert housing shell Nylon66: Locking nut, Back shell, Compressing nut, Retaining nut Fire resistance: V-0
Insert material	PPS, max temperature 260 °C
Contact material	Brass with gold plating
Termination	Solder: SY13, SY17, SY21 Crimp: SY17, SY21 Screw: SY21 (∅3mm contact)
IP rating	IP67
Mating cycle	500
Temperature range	-40°C ~ +85°C
Insulation resistance (MΩ)	2000

SY
13

SY13 Series

Cable connector
Mate with SY1311, SY1312

SY1310 / P__ SY1310 / S__

Cable outer diameter
I: 4-6.5mm, II: 5-8mm
Number of contact

In-line cable connector
Mate with SY1310

SY1311 / P__ SY1311 / S__

Rear-nut mount
Mate with SY1310

SY1312 / P__ SY1312 / S__

Number of contact

Solder contact spec

Number of contact	2	3	4	5	6	7	9
Male contact face view							
Rated current (A)	13	13	5	5	5	5	3
Contact diameter(mm)	1.6	1.6	1	1	1	1	0.7
Rated voltage (AC.V)	250	250	200	180	125	125	125
Test voltage(AC.V) 1 min	1500	1500	1500	1000	1000	1000	1000
Contact resistance (mΩ)	2	2	5	5	5	5	10
Wire size (mm ² /AWG)	≤2/14	≤2/14	≤0.785/18	≤0.785/18	≤0.785/18	≤0.785/18	≤0.785/18

SY 17

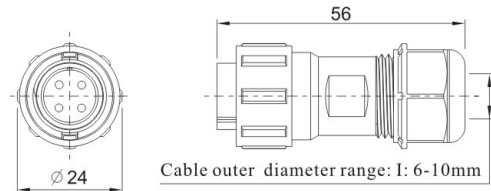
SY17 Series



Cable connector
Mate with SY1711, SY1712

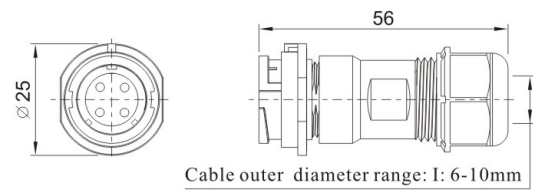
SY1710 / P --- SY1710 / S

1: solder, 3: crimp
Cable outer diameter: I: 6-10mm
Number of contact



In-line cable connector
Mate with SY1710

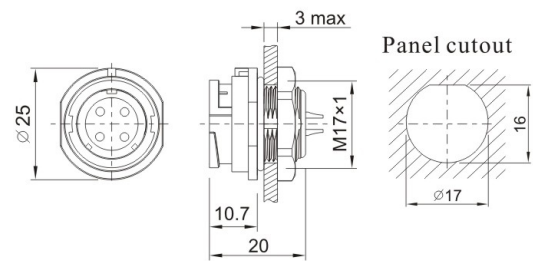
SY1711 / P --- SY1711 / S



Rear-nut mount
Mate with SY1710

SY1712 / P --- SY1712 / S

Number of contact



Solder contact spec

★ Crimp contact spec see page 77-80

Number of contact	2	3	4	5	7	9	10
Male contact face view							
Rated current (A)	10	10	5	5	5	5	5
Contact diameter(mm)	1.5	1.5	1	1	1	1	1
Rated voltage (AC.V)	500	500	500	500	400	400	400
Test voltage(AC.V) 1 min	1500	1500	1500	1500	1200	1200	1200
Contact resistance (mΩ)	2.5	2.5	5	5	5	5	5
Wire size (mm ² /AWG)	≤ 2/14	≤ 2/14	≤ 0.785/18	≤ 0.785/18	≤ 0.785/18	≤ 0.785/18	≤ 0.785/18

SY 21

SY21 Series

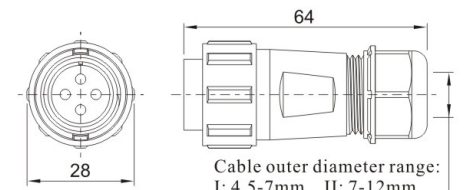


Cable connector
Mate with SY2111, SY2112, SY2113

SY2110 / P --- SY2110 / S

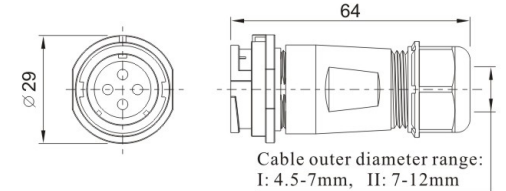
Number of contact

1: solder, 2: screw, 3: crimp
Cable outer diameter: I: 4.5-7mm, II: 7-12mm



In-line cable connector
Mate with SY2110

SY2111 / P --- SY2111 / S

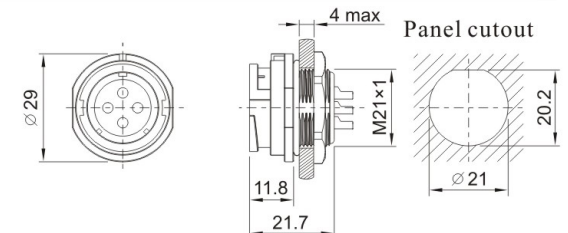


Rear-nut mount
Mate with SY2110

SY2112 / P --- SY2112 / S

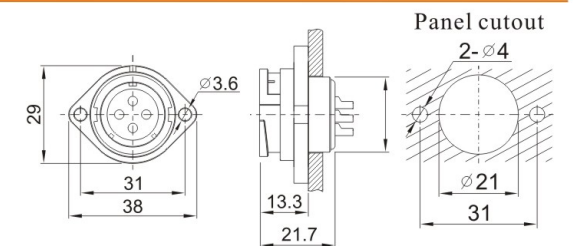
Number of contact

1: solder, 2: screw, 3: crimp



2-hole flange
Mate with SY2110

SY2113 / P --- SY2113 / S

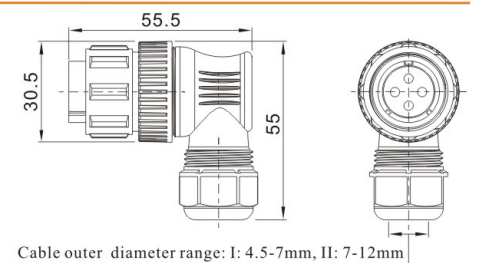


Angled cable connector
Mate with SY2111, SY2112, SY2113

SY2116 / P --- SY2116 / S

Number of contact

1: solder, 2: screw, 3: crimp
Cable outer diameter:
I: 4.5-7mm, II: 7-12mm



Solder contact spec

★ Crimp contact spec see page 77-80

Number of contact	2	3	4	5	5B	5C	7	9	12
Male contact face view									
Rated current (A)	30	30	30	30	30 5	15	15	5	5
Contact diameter(mm)	3	3	3	3	ø3X2 ø1X3	2	2	1	1
Rated voltage (AC.V)	500	500	500	500	500	500	500	500	400
Test voltage(AC.V) 1 min	1500	1500	1500	1500	1500	1500	1500	1500	1200
Contact resistance (mΩ)	1	1	1	1	1 5	2.5	2.5	5	5
Termination	solder / screw	solder / screw	solder / screw	solder / screw	solder	solder	solder	solder	solder
Wire size for solder (mm ² /AWG)	≤ 4/11	≤ 4/11	≤ 4/11	≤ 4/11	≤ 4/11 ≤ 0.785/18	≤ 2/14	≤ 2/14	≤ 0.785/18	≤ 0.785/18
Wire size for screw termination (mm ² /AWG)	≤ 1.5/15	≤ 1.5/15	≤ 1.5/15	≤ 1.5/15	/	/	/	/	/








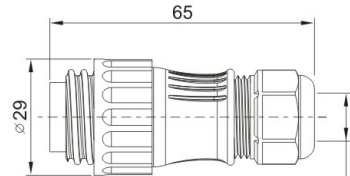

IP67


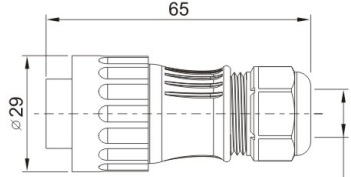


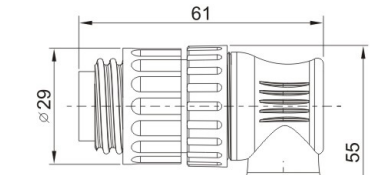


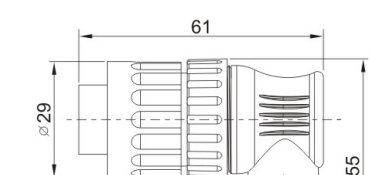


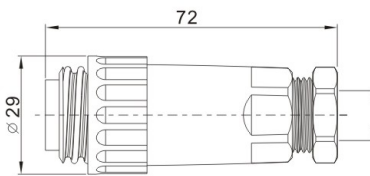

WA
22


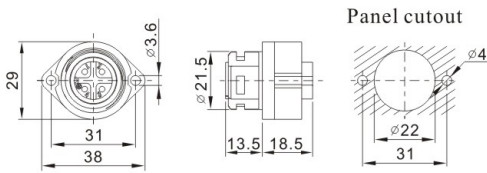

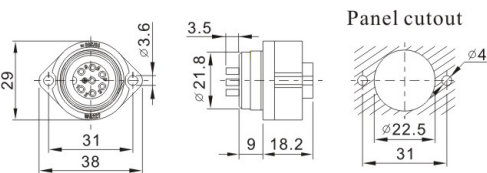

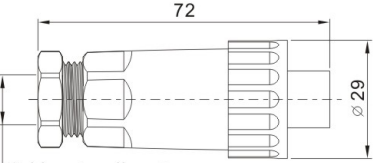


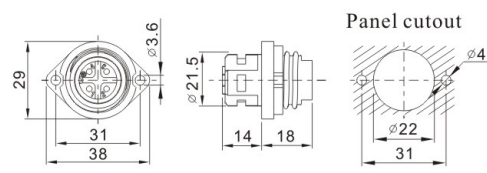

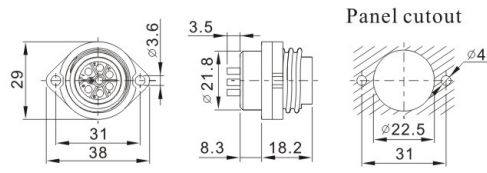

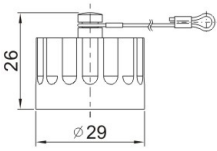

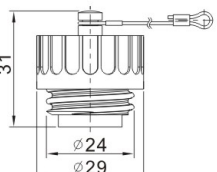


● WA22 Series IP67

Material and spec		
Number of contact	3+PE	6+PE
Contact diameter (mm)	∅2	∅1.5
Rated voltage (AC.V)	400	250
Rated current (A)	16	10
Wire size (mm ² /AWG)	≤2. 5/14	≤0. 75/18
Termination	Screw	Solder
Test voltage(AC.V)1min	2000	
Insulation resistance (MΩ)	2000	
Shell material	Nylon66, fire resistance: V-0	
Contact material	Brass with gold plating	
Temperature range	-40C~+85C	
Mating cycle	500	

Part number	Description	Drawing
WA22J4TK2 	3+PE male cable connector with short back shell Screw termination	 <p>Cable outer diameter range: I: 4.5-7mm, II: 7-12mm</p>
WA22J7TK1 	6+PE male cable connector with short back shell Solder termination	

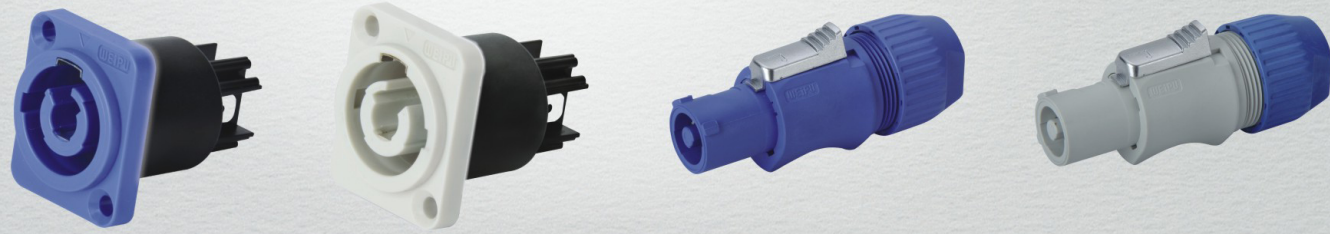
Part number	Description	Drawing
WA22K4TK2 	3+PE female cable connector with short back shell Screw termination	 <p>Cable outer diameter range: I: 4.5-7mm, II: 7-12mm</p>
WA22K7TK1 	6+PE female cable connector with short back shell Solder termination	
WA22J4TL2 	3+PE male cable connector with angled back shell Screw termination	 <p>Cable outer diameter range: I: 4.5-7mm, II: 7-12mm</p>
WA22J7TL1 	6+PE male cable connector with angled back shell Solder termination	
WA22K4TL2 	3+PE female cable connector with angled back shell Screw termination	 <p>Cable outer diameter range: I: 4.5-7mm, II: 7-12mm</p>
WA22K7TL1 	6+PE female cable connector with angled back shell Solder termination	
WA22J4TE2 	3+PE male cable connector Screw termination	 <p>Cable outer diameter range: I: 6.5mm, II: 8.5mm, III: 10.5mm</p>
WA22J7TE1 	6+PE male cable connector Solder termination	

Part number	Description	Drawing
WA22K4Z2 	3+PE female panel connector Screw termination	
WA22K7Z1 	6+PE female panel connector Solder termination	
WA22K4ZE2 	3+PE female cable connector Screw termination	 <p>Cable outer diameter range: I: 6.5mm, II: 8.5mm, III: 10.5mm</p>
WA22K7ZE1 	6+PE female cable connector Solder termination	
WA22J4Z2 	3+PE male panel connector Screw termination	
WA22J7Z1 	6+PE male panel connector Solder termination	
WA22G1 	Cap 1	
WA22G2 	Cap 2	



IP65

WAC3



● WAC3 Series IP65

WAC3MPA-1

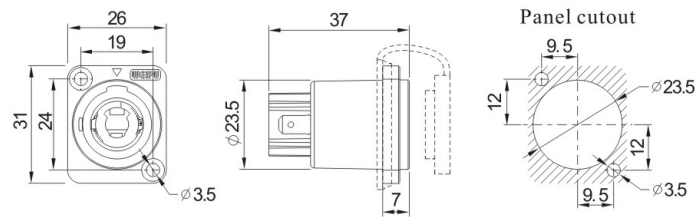
WAC3MPB-1



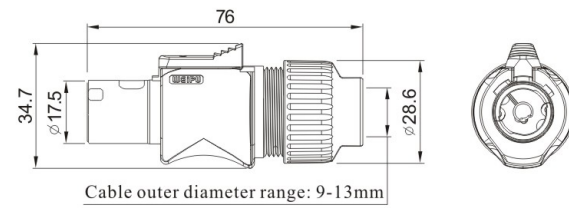
WAC3FCA

WAC3FCB

● Receptacle



● Plug



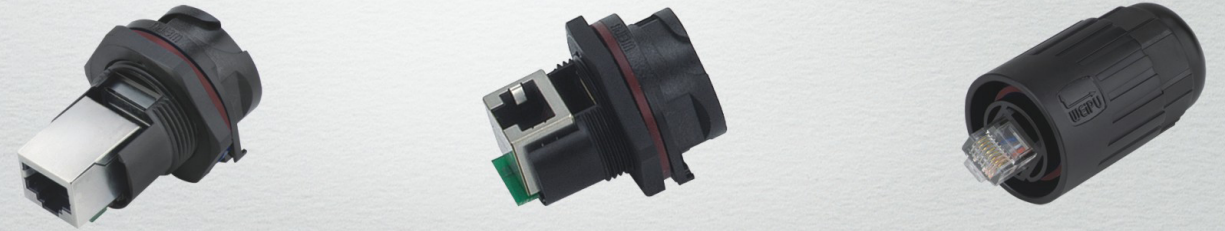
Material and spec

Coupling	Bayonet
Shell	Plug: Nylon PA66 Socket: PC
Insert material	PPS, max temperature 260°C
Contact material	Brass with silver plating
Rated current (A)	20
Rated voltage (AC.V)	250
Test voltage (AC.V) 1 min	2500
Insulation resistance (MΩ)	2000
Mating cycle	1000
Temperature range	-40°C ~ +85°C
IP rating	IP65
Termination	Receptacle: 3/16" flat tab terminals Plug: screw



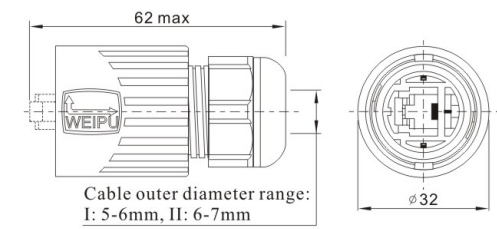
IP67

RJ45F

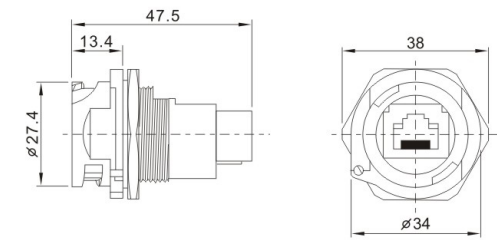


RJ45F plug

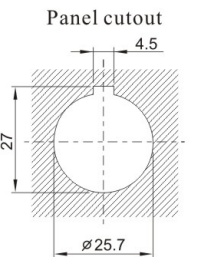
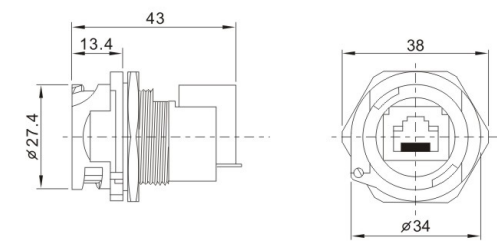
RJ45F6 Cable outer diameter range: I: 5-6mm, II: 6-7mm



RJ45F Receptacle RJ45F71

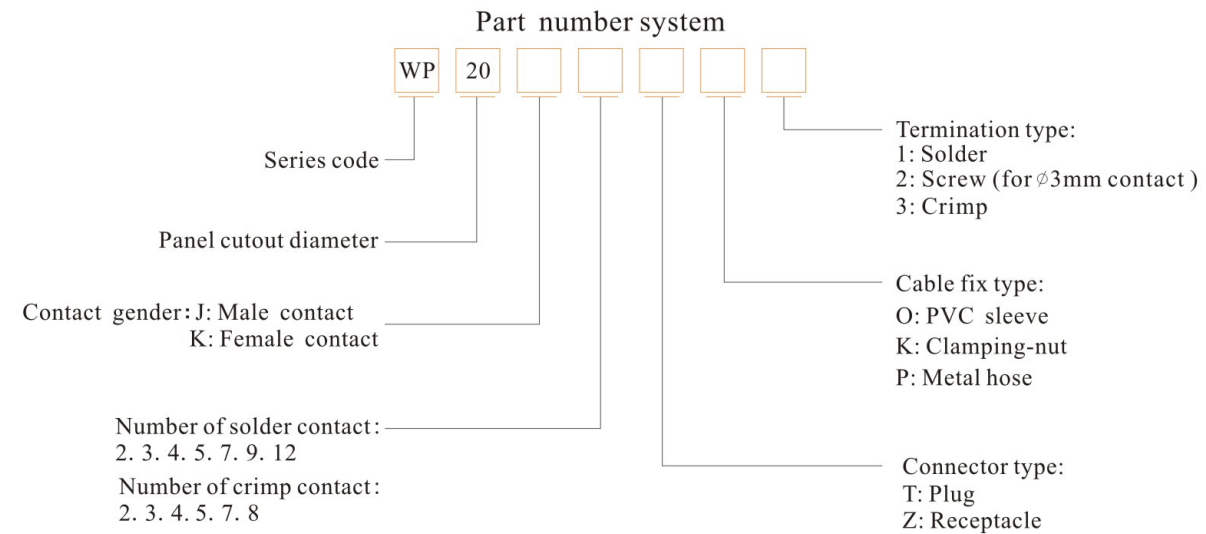


Angled Receptacle RJ45F71RA



Material and spec

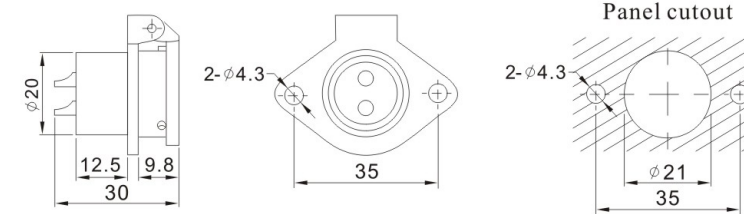
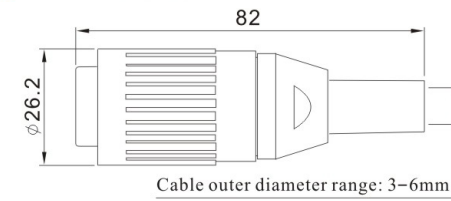
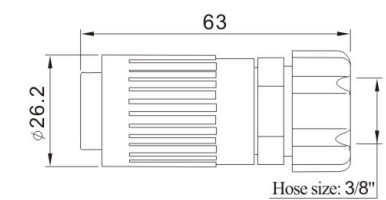
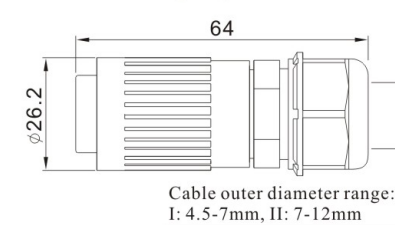
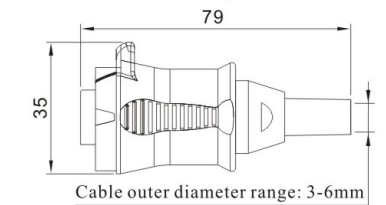
Coupling	Bayonet
Shell material	PC, fire resistance: V-0
IP rating	IP67
Temperature range	-40°C ~ +85°C


WP Series


★ Each side can be male or female contact

Material and spec

Material and spec	
Coupling	Bayonet
Shell	Nylon 66 / Zinc alloy
Insert material	PPS, max temperature 260 °C
Contact material	Brass with gold plating
Termination	Solder ($\phi 1, \phi 2, \phi 3$ mm contact) Screw ($\phi 3$ mm contact) Crimp ($\phi 1, \phi 1.5, \phi 2.5$ mm contact)
Mating cycle	500
Temperature range	-40°C ~ +85°C

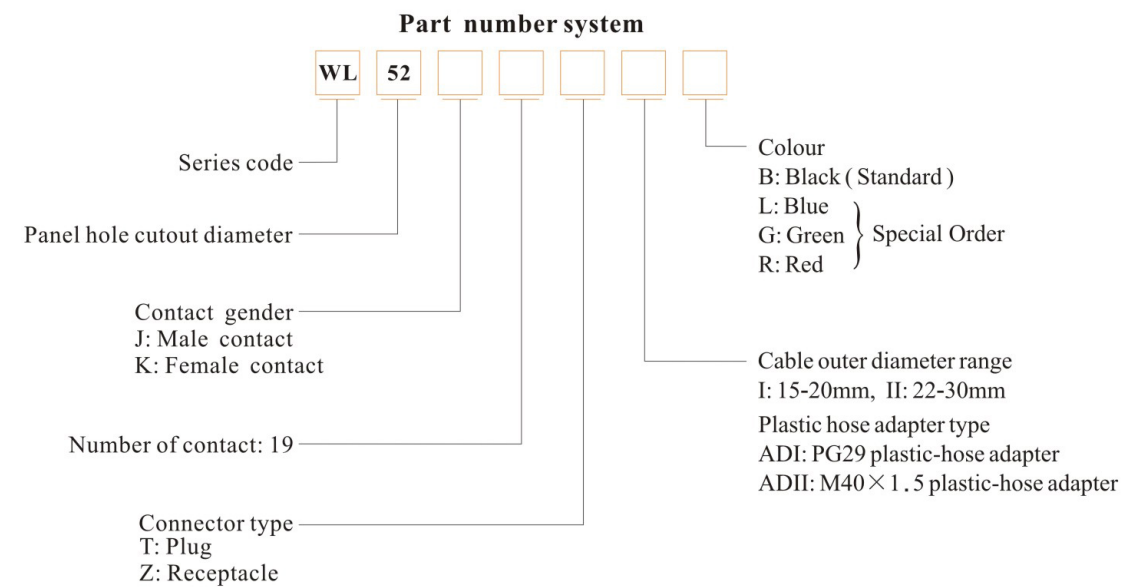

Receptacle: Z IP44

PVC sleeve : TO

Metal hose: TP

Plastic clamping-nut: TK IP55

Without bayonet: TO-G

Solder contact spec

★ Crimp contact spec see page 77-80

Number of contact	2	3	4	5	5B	5C	7	9	12
Male contact face view									
Rated current (A)	30	30	30	30	30 5	15	15	5	5
Contact diameter(mm)	3	3	3	3	$\phi 3 \times 2$ $\phi 1 \times 3$	2	2	1	1
Rated voltage (AC.V)	500	500	500	500	500	500	500	500	400
Test voltage(AC.V) 1 min	1500	1500	1500	1500	1500	1500	1500	1500	1200
Contact resistance (m Ω)	1	1	1	1	1 5	2.5	2.5	5	5
Termination	solder / screw	solder / screw	solder / screw	solder / screw	solder	solder	solder	solder	solder
Wire size for solder (mm ² / AWG)	$\leq 4/11$	$\leq 4/11$	$\leq 4/11$	$\leq 4/11$	$\leq 4/11$ $\leq 0.785/18$	$\leq 2/14$	$\leq 2/14$	$\leq 0.785/18$	$\leq 0.785/18$
Wire size for screw termination (mm ² / AWG)	$\leq 1.5/15$	$\leq 1.5/15$	$\leq 1.5/15$	$\leq 1.5/15$	/	/	/	/	/



● WL52 Series IP66/67

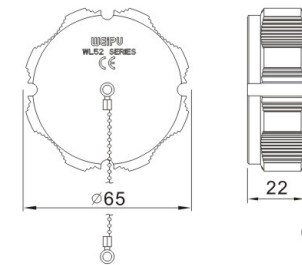


Material and spec

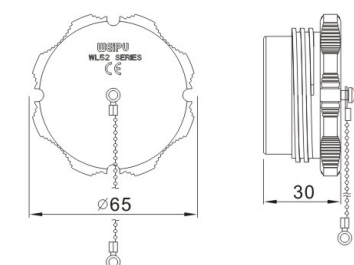
Coupling	Threaded
Shell material	Anodized aluminium
Insert material	PPS, max temperature 260°C
Contact material	Brass with gold plating
IP rating	IP66/67
Termination	Solder
Mating cycle	500
Temperature range	-40°C ~ +85°C
Insulation resistance (MΩ)	2000



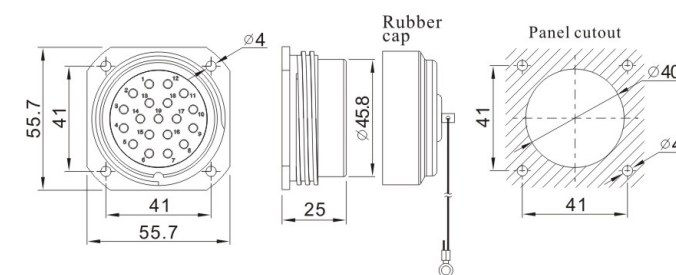
● Aluminium cap for female-contact connector: WL52-GZK IP67



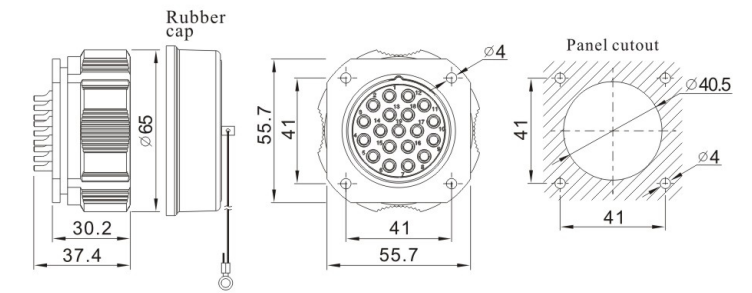
● Aluminium cap for male-contact connector: WL52-GZJ IP67



● Square flange female contact receptacle: WL52K19Z IP67



● Square flange male contact receptacle: WL52J19Z IP67

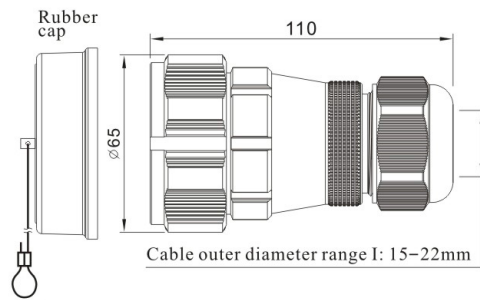


Solder contact spec

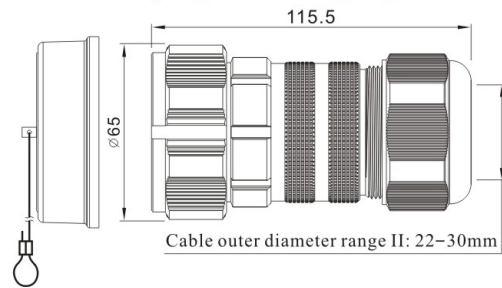
Number of contact	19
Male contact face view	
Rated current (A)	25
Contact diameter (mm)	3
Rated voltage	700 (DC.V), 500 (AC.V)
Test voltage(AC.V) 1 min	2500
Contact resistance (mΩ)	1
Wire size (mm ² / AWG)	≤6/9



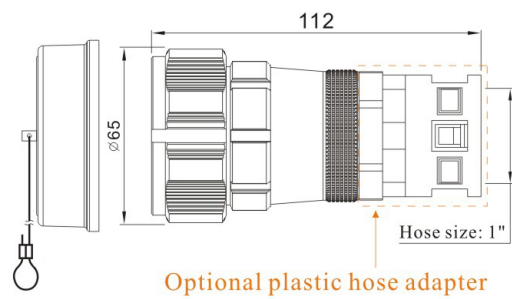
- Male-contact plug with clamping-nut 1: WL52J19TI IP67



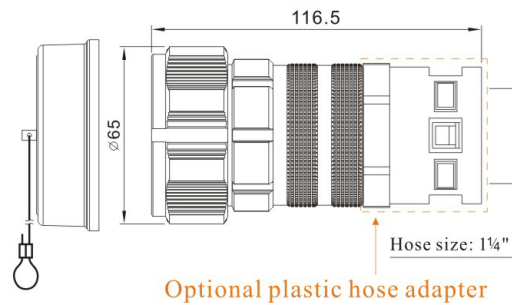
- Male-contact plug with clamping-nut 2: WL52J19TII IP67



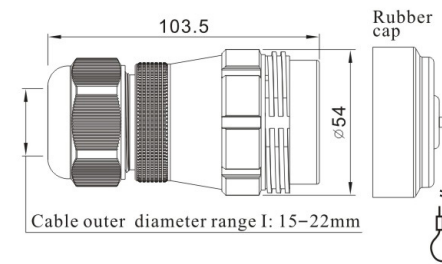
- Male-contact plug for PG29 Plastic hose adapter: WL52J19ADI IP66



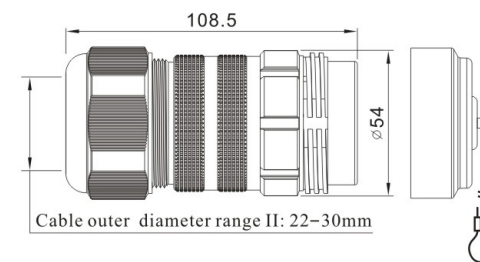
- Male-contact plug for M40 × 1.5 plastic hose adapter: WL52J19ADII IP66



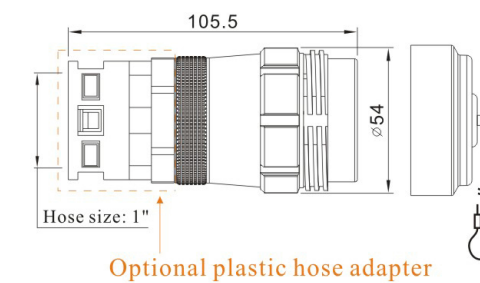
- Female-contact connector with clamping-nut 1: WL52K19TI IP67



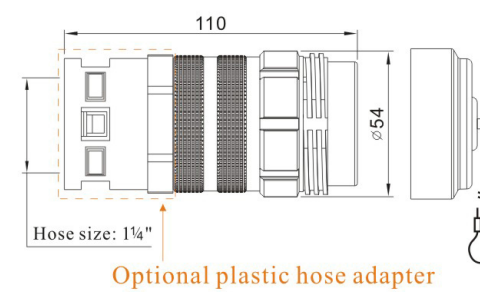
- Female-contact connector with clamping-nut 2: WL52K19TII IP67



- Female-contact connector for PG29 Plastic hose adapter: WL52K19ADI IP66

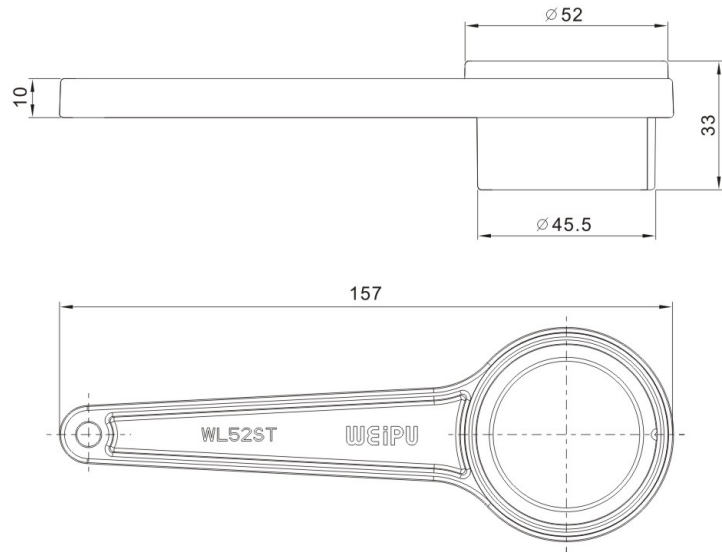


- Female-contact connector for M40 × 1.5 Plastic hose adapter: WL52K19ADII IP66

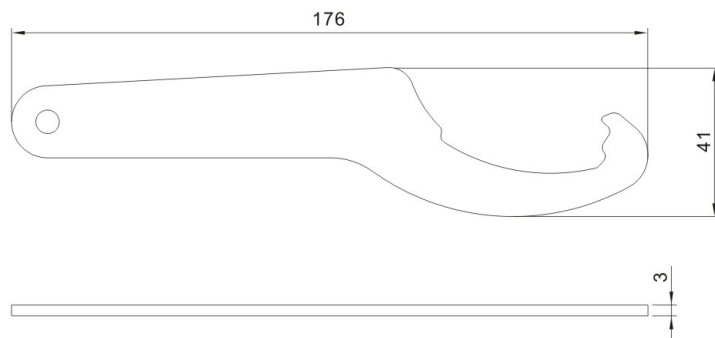




● Wrench 1: WL52ST



● Wrench 2: WL52SY

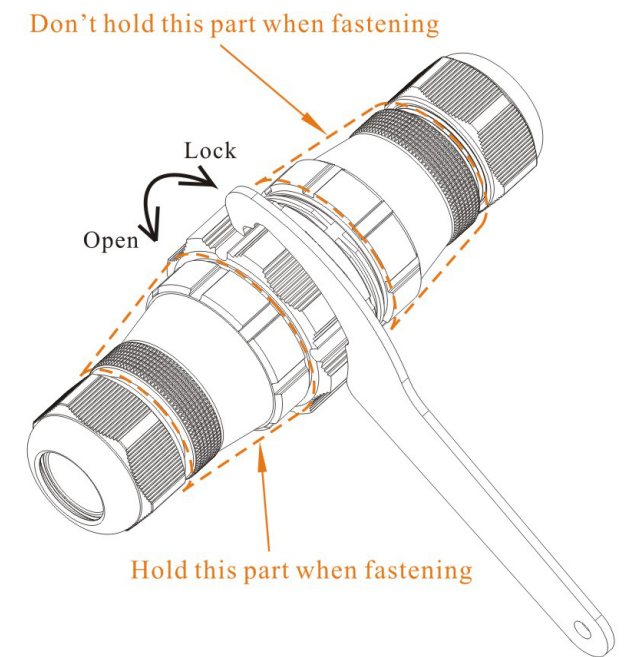
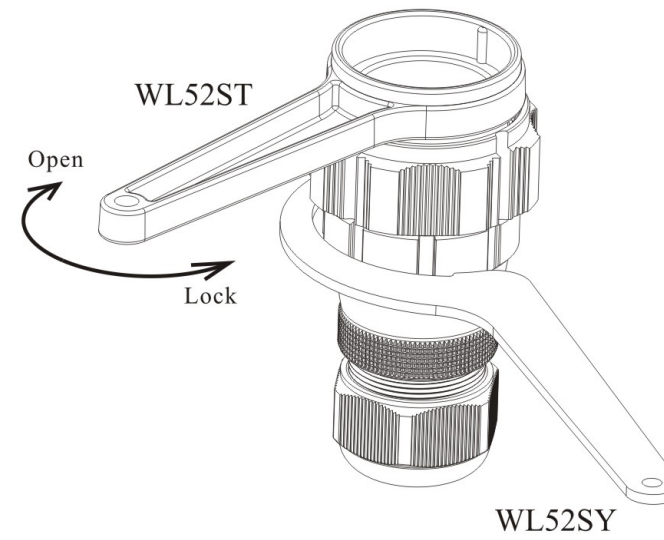
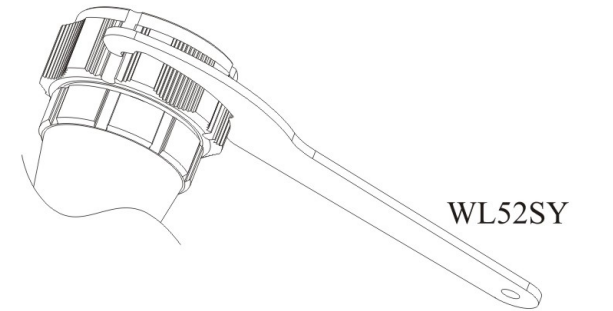
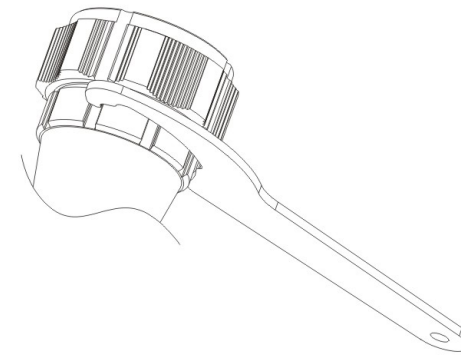
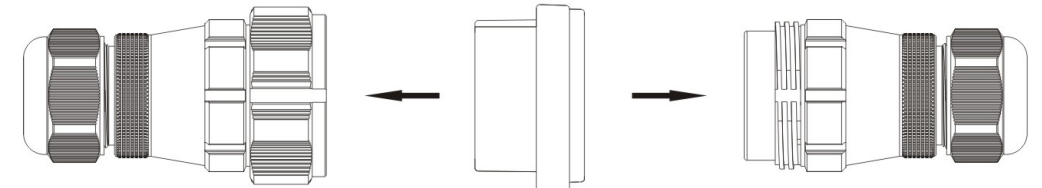


Instruction

Male-contact connector

WL52ST

Female-contact connector





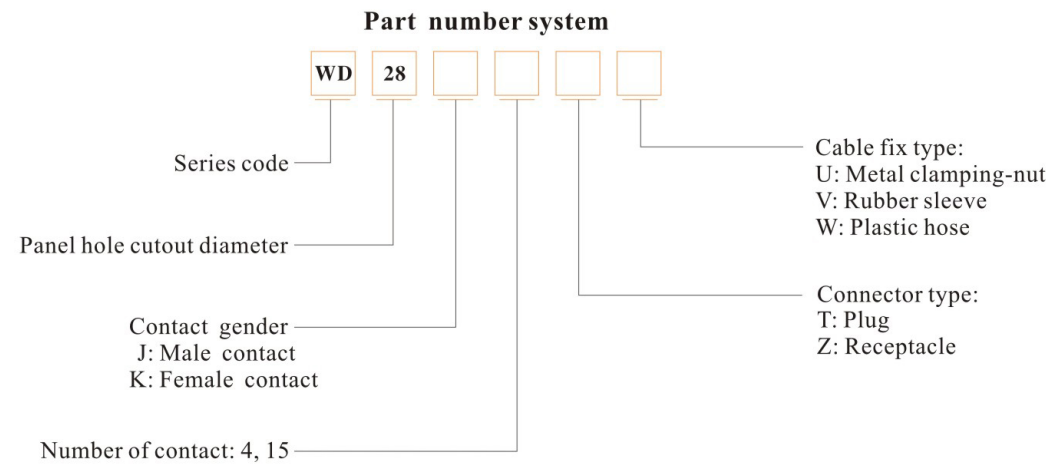
IP67

WL52 Series





● WD Series



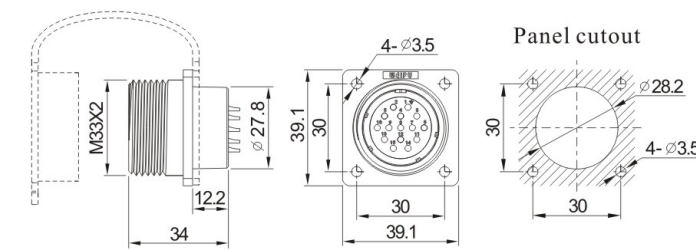
★ This connector can be used for servo motor, socket is IP67 waterproof without mating or cap, there is a layer of rubber-seal-insert which stops water goes back of socket.

Material and spec

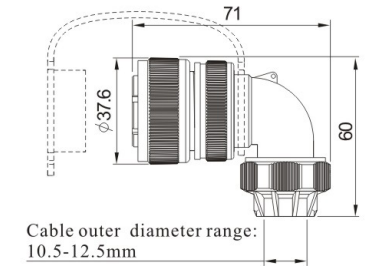
Coupling	Threaded
Shell material	Zinc alloy with black nickel plating
Insert material	Plug: PPS, max temperature 260°C Socket: Rubber and PPS, max temperature 260°C
Contact material	Brass with gold plating
Termination	Solder
Mating cycle	500
Temperature range	-40°C~+85°C
Insulation resistance (MΩ)	2000



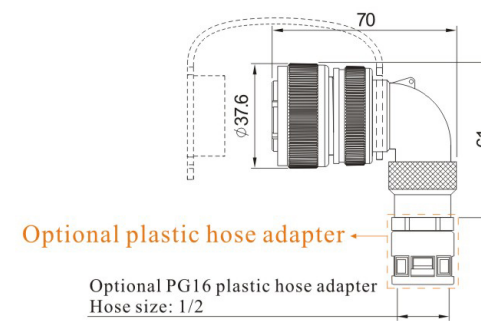
● Receptacle: Z IP65



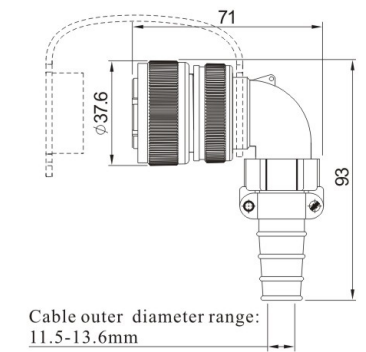
● Cable connector with clamping-nut: TU IP65



● Cable connector for plastic hose: TW IP55



● Cable connector with with rubber sleeve: TV IP65

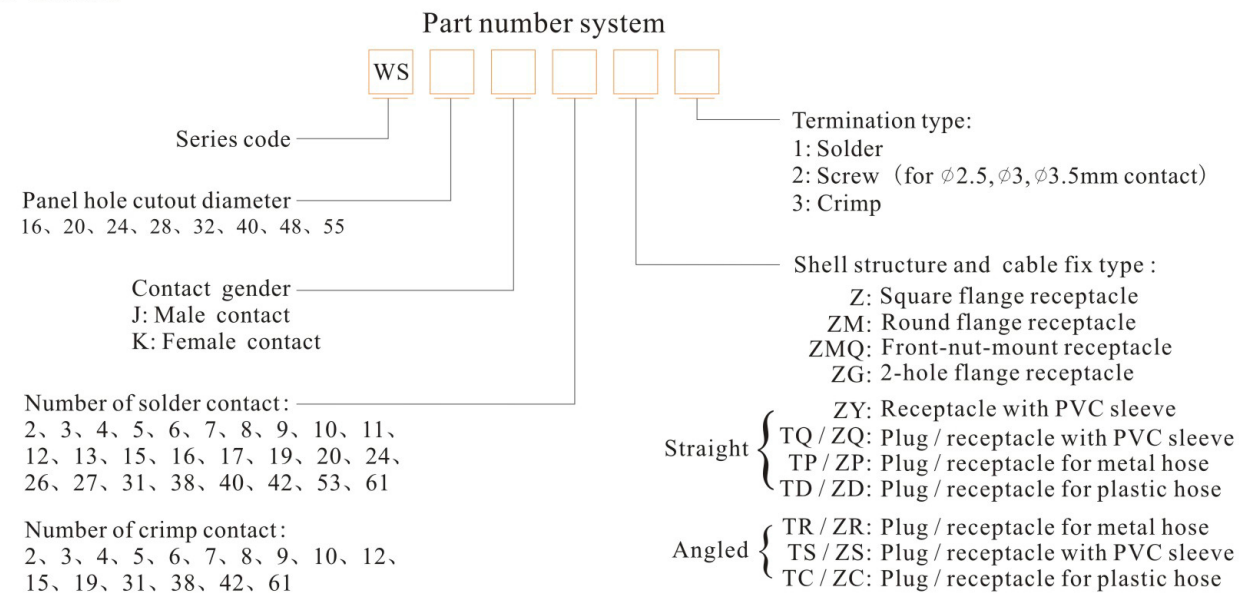


Solder contact spec

Number of contact	4	15
Male contact face view		
Rated current (A)	50 25	10
Contact diameter (mm)	3.5 2.5	1.5
Rated voltage (AC.V)	500	500
Test voltage(AC.V) 1 min	1500	1500
Contact resistance (mΩ)	0.5 1	2.5
Wire size (mm ² / AWG)	≤10 / 7 ≤4 / 11	≤2 / 14



● **WS Series**



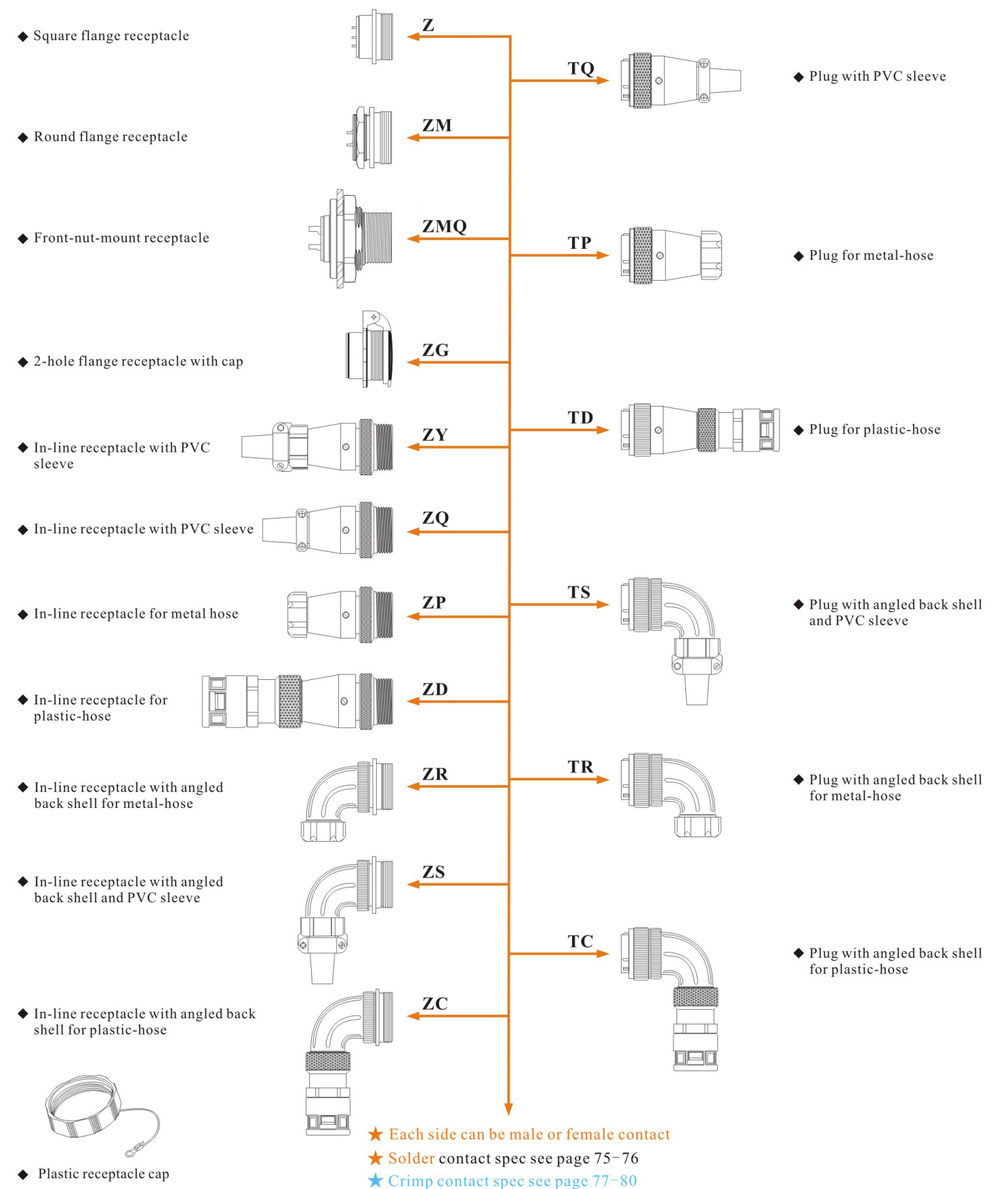
● **Remarks :** The rated current decreases according to the number of contacts, more contacts, less rated current.

Number of contact	1-3	4-10	11-20	21-30	31-40	41-50	51-61
Rated current decrease rate (%)	0	10	20	30	40	50	60

Material and spec

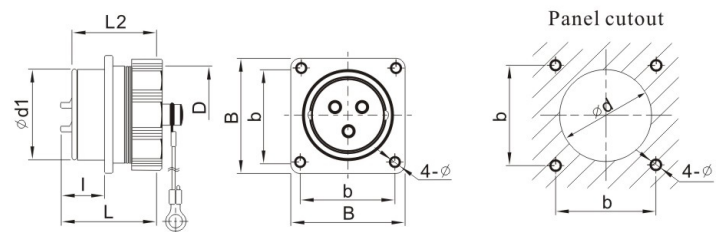
Coupling	Threaded
Shell material	Zinc alloy with chrome plating
Insert material	PPS, max temperature 260 °C
Contact material	Brass with gold plating
Termination	Solder: $\phi 1, 1.5, 2.5, 3.5, 5.5$ mm contact Screw: $\phi 2.5, 3, 3.5$ mm contact Crimp: $\phi 1, 1.5, 2.5, 3.5$ mm contact
Mating cycle	500
Temperature range	-40°C~+85°C

WS Series Mating diagram



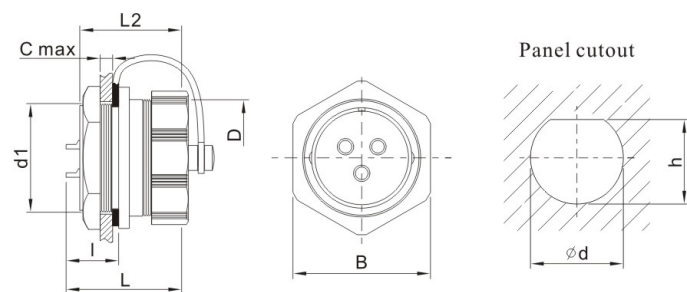


● Square flange receptacle : Z



Dimension (mm)	WS16	WS20	WS24	WS28	WS32	WS40	WS48	WS55
φd1	15.8	19.8	23.8	27.8	31.8	39.8	47.8	54.8
D	M18X1	M22X1	M26X1	M30X1	M35X1.5	M44X1.5	M52X1.5	M59X1.5
l	13	14	15	15	18.6	20.5	20.5	20.5
L	26	28	28	28	38.2	39.7	39.7	39.7
L2	21.6	23	23	23	34	34	34	34
b	20	22	26	30	32	40	48	52
B	26	29	32	36	42	50	58	64
φd	16.5	20.5	24.5	28.5	32.5	40.5	48.5	55.5
φ	3.2	3.2	3.2	3.2	3.5	4.5	4.5	4.5

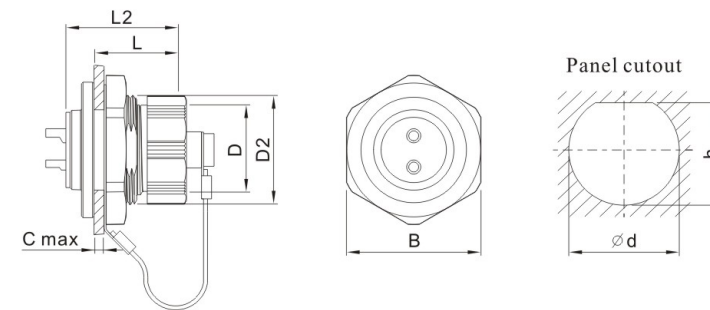
● Round flange receptacle : ZM



Dimension (mm)	WS16	WS20	WS24	WS28
d1	M16X1	M20X1	M24X1	M28X1
D	M18X1	M22X1	M26X1	M30X1
C	5	5	5	5
l	13	14	15	15
L	26	28	28	28
L2	22	23	23	23
B	21.2	25.5	29.2	33.3
φd	15.9	19.9	23.9	27.9
h	15.4	19.4	23.2	26.9

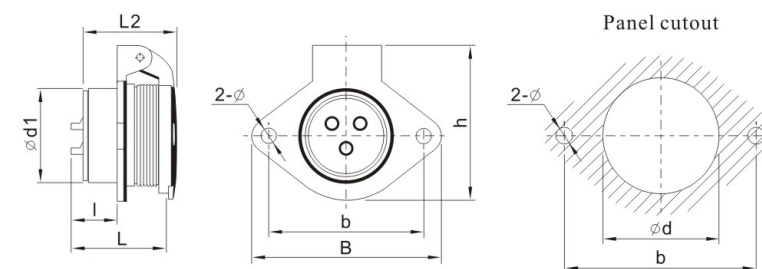


● Front-nut-mount receptacle: ZMQ IP67



Dimension (mm)	WF16	WF20	WF24	WF28
D	M18X1	M22X1	M26X1	M30X1
D2	M22X1	M26X1	M30X1	M34X1
L	16	17	17	17
L2	21.6	23	23	23
C	5	5	5	5
B	26.8	30.8	34.8	38.8
φd	22	26	30	34
h	20.4	24.4	28.4	32.4

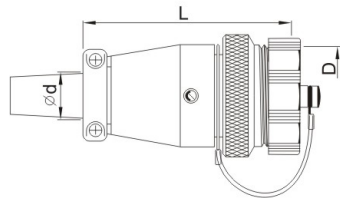
● 2-hole flange receptacle with cap : ZG



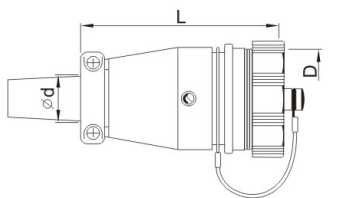
Dimension (mm)	WS16	WS20	WS24	WS28	WS32	WS40	WS48	WS55
φd1	15.8	19.8	23.8	27.8	31.8	39.8	47.8	54.8
l	13	14	15	15	18.1	20.5	20.5	20.5
L	30	32.3	32.3	32.3	42.2	42.2	42.2	43.2
L2	22	23	23	23	34	34	34	34
b	30	35	40	45	55	65	80	85
B	38	44	50	55	67	77	92	98
h	32.5	36.5	40.5	45.5	52.5	63.5	74.5	80
φd	16.5	20.5	24.5	28.5	32.5	40.5	48.5	55.5
φ	3.5	4.5	4.5	4.5	5.5	5.5	5.5	6.5



● In-line receptacle with PVC sleeve: ZQ

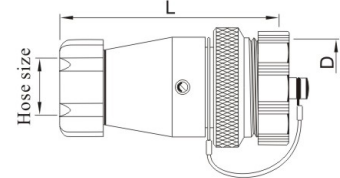


Dimension (mm)	WS16	WS20	WS24	WS28
D	M18X1	M22X1	M26X1	M30X1
L	44.3	48.3	53.5	56
ϕd max	10	11.6	12.4	15.7

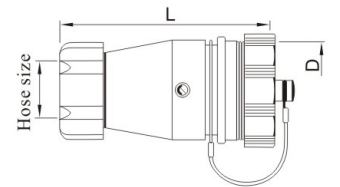


Dimension (mm)	WS32	WS40	WS48	WS55
D	M35X1.5	M44X1.5	M52X1.5	M59X1.5
L	70	77	85	97
ϕd max	19.5	24	24	30

● In-line receptacle for metal-hose: ZP

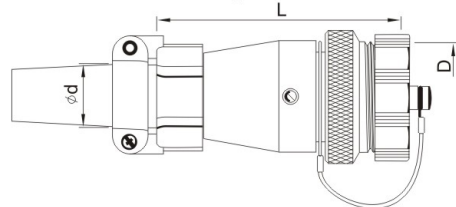


Dimension (mm)	WS16	WS20	WS24	WS28
D	M18X1	M22X1	M26X1	M30X1
L	49.5	58	62	65
Hose size	1/4"	3/8"	3/8"	1/2"

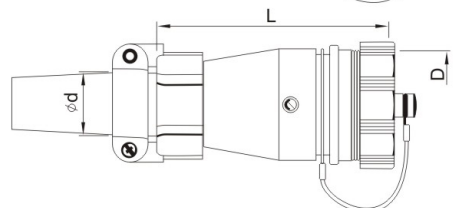


Dimension (mm)	WS32	WS40	WS48	WS55
D	M35X1.5	M44X1.5	M52X1.5	M59X1.5
L	75	99	103	106
Hose size	3/4"	1"	I: 1" II: 1 1/4"	1 1/4"

● In-line receptacle with mechanical clamp: ZY



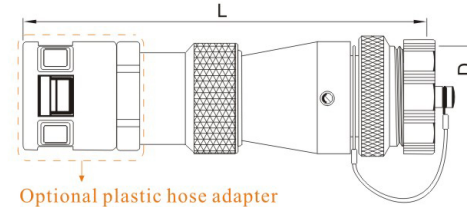
Dimension (mm)	WS16	WS20	WS24	WS28
D	M18X1	M22X1	M26X1	M30X1
L	48.5	54.5	55.5	65.3
ϕd max	10	13	13	17



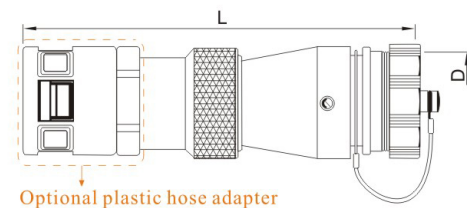
Dimension (mm)	WS32	WS40	WS48	WS55
D	M35X1.5	M44X1.5	M52X1.5	M59X1.5
L	89.2	94.8	101.8	124.7
ϕd max	19	23	I: 23 II: 31	31



● In-line receptacle for plastic-hose: ZD

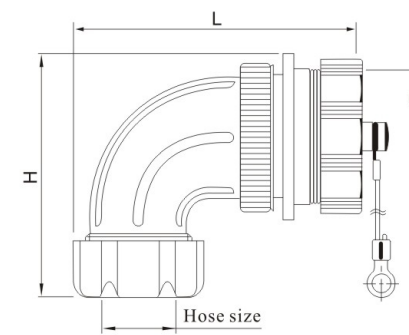


Dimension (mm)	WS16	WS20	WS24	WS28
D	M18X1	M22X1	M26X1	M30X1
L	80	90	97	104
Adapter size	PG7	PG11	PG11	PG16
Hose size	1/4"	3/8"	3/8"	1/2"



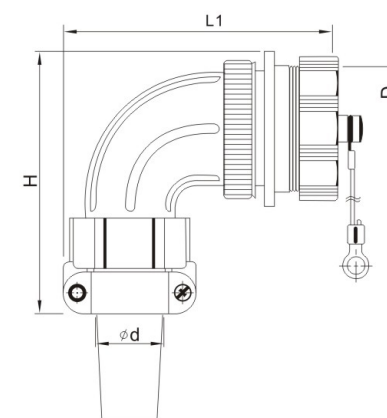
Dimension (mm)	WS32	WS40	WS48	WS55
D	M35X1.5	M44X1.5	M52X1.5	M59X1.5
L	126.7	134	141	160
Adapter size	PG21	PG29	I: PG29 II: PG36	PG36
Hose size	3/4"	1"	I: 1" II: 1 1/4"	1 1/4"

● In-line receptacle with angled back shell for metal-hose: ZR



Dimension (mm)		WS20	WS24	WS28	WS32	WS40	WS48	WS55
D	—	M22X1	M26X1	M30X1	M35X1.5	M44X1.5	M52X1.5	M59X1.5
L	—	60	60	63	81	88	96	107
H	—	48	51	52	58	70	82	90
Hose size	—	3/8"	3/8"	1/2"	3/4"	1"	1"	1 1/4"

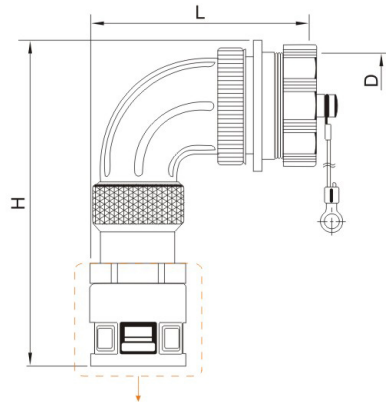
● In-line receptacle with angled back shell and PVC sleeve: ZS



Dimension (mm)		WS20	WS24	WS28	WS32	WS40	WS48	WS55
D	—	M22X1	M26X1	M30X1	M35X1.5	M44X1.5	M52X1.5	M59X1.5
L	—	60.6	60.4	64.7	82	89.2	96	114.2
H	—	54.4	56.8	64	72	83.3	94.5	112.3
ϕd max	—	13	13	17	19	23	23	31



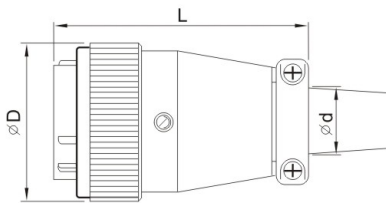
● In-line receptacle with angled back shell for plastic-hose: ZC



Dimension (mm)		WS20	WS24	WS28	WS32	WS40	WS48	WS55
D		M22X1	M26X1	M30X1	M35X1.5	M44X1.5	M52X1.5	M59X1.5
L		60	60	65	82	90	95	110
H		88	88	98	110	120	135	140
Adapter size		PG11	PG11	PG16	PG21	PG29	PG29	PG36
Hose size		3/8"	3/8"	1/2"	3/4"	1"	1"	1 1/4"

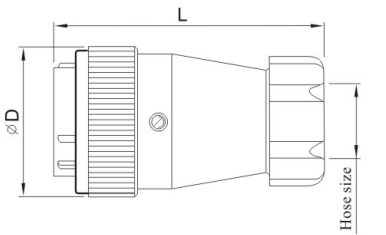
Optional plastic hose adapter

● Plug with PVC sleeve: TQ



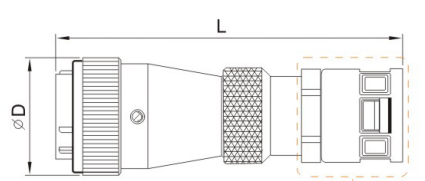
Dimension (mm)	WS16	WS20	WS24	WS28	WS32	WS40	WS48	WS55
∅D	21.5	26.4	29.8	34	39.3	49.3	57.2	64.5
L	44.8	49.5	53.5	56	70	75.5	85.5	97
∅d max	10	11.6	12.4	16	19.5	24	24	30

● Plug for metal-hose: TP



Dimension (mm)	WS16	WS20	WS24	WS28	WS32	WS40	WS48	WS55
∅D1	21.5	26.4	29.8	34	39.3	49.3	57.2	64.5
L	48	57	58	61	74	82	90	100
Hose size	1/4"	3/8"	3/8"	1/2"	3/4"	1"	I: 1" II: 1 1/4"	1 1/4"

● Plug for plastic-hose: TD

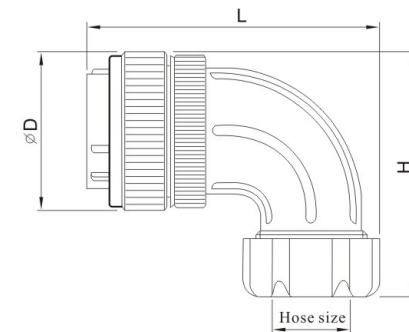


Dimension (mm)	WS16	WS20	WS24	WS28	WS32	WS40	WS48	WS55
∅D	21.5	26.4	29.8	34	39.3	49.3	57.2	64.5
L	80	93	96	107	120	132	138	150
Adapter size	PG7	PG11	PG11	PG16	PG21	PG29	I: PG29 II: PG36	PG36
Hose size	1/4"	3/8"	3/8"	1/2"	3/4"	1"	I: 1" II: 1 1/4"	1 1/4"

Optional plastic hose adapter

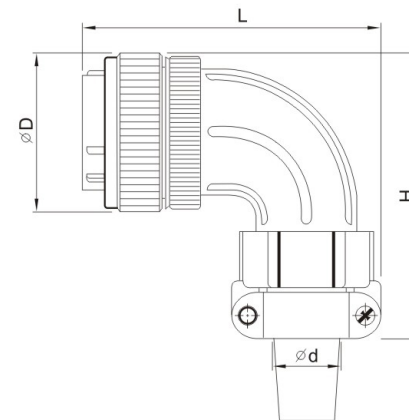


● Plug with angled back shell for metal-hose: TR



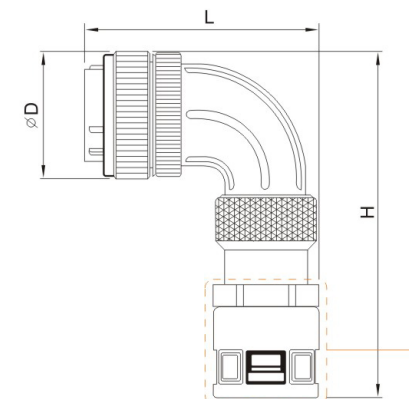
Dimension (mm)		WS20	WS24	WS28	WS32	WS40	WS48	WS55
∅D		25.6	30	33.8	38.2	46.2	55.8	63
H		48	51	52	58	70	82	90
L		60	60	63	81	88	96	107
Hose size		3/8"	3/8"	1/2"	3/4"	1"	1"	1 1/4"

● Plug with angled back shell with PVC sleeve: TS



Dimension (mm)		WS20	WS24	WS28	WS32	WS40	WS48	WS55
∅D		25.6	30	33.8	38.2	46.2	55.8	63
H		53	57	61	66	78	91	100
L		60	61	64	80	88	96	107
∅d max		11.6	12.4	15.7	19.5	24	24	30

● Plug with right angle back shell for plastic-hose: TC

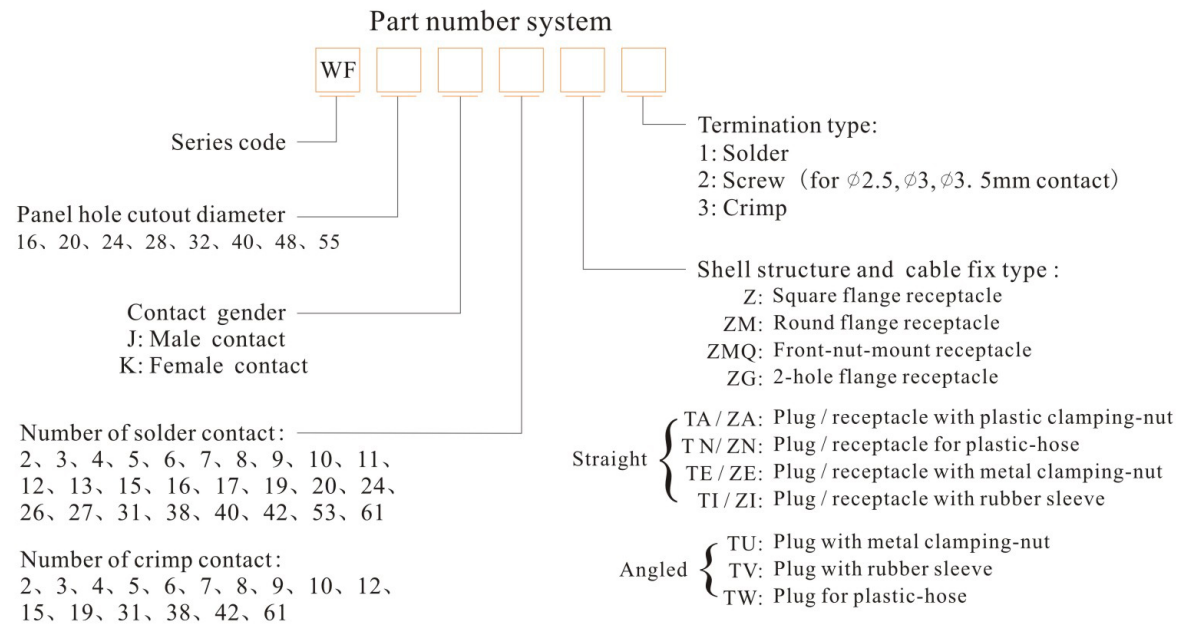


Dimension (mm)		WS20	WS24	WS28	WS32	WS40	WS48	WS55
∅D		25.6	30	33.8	38.2	46.2	55.8	63
H		60	62	65	82	88	96	107
L		70	88	95	105	130	130	146
Adapter size		PG11	PG11	PG16	PG21	PG29	PG29	PG36
Hose size		3/8"	3/8"	1/2"	3/4"	1"	1"	1 1/4"

Optional plastic hose adapter



● **WF Series**



● **Remarks:** The rated current decreases according to the number of contacts, more contacts, less rated current.

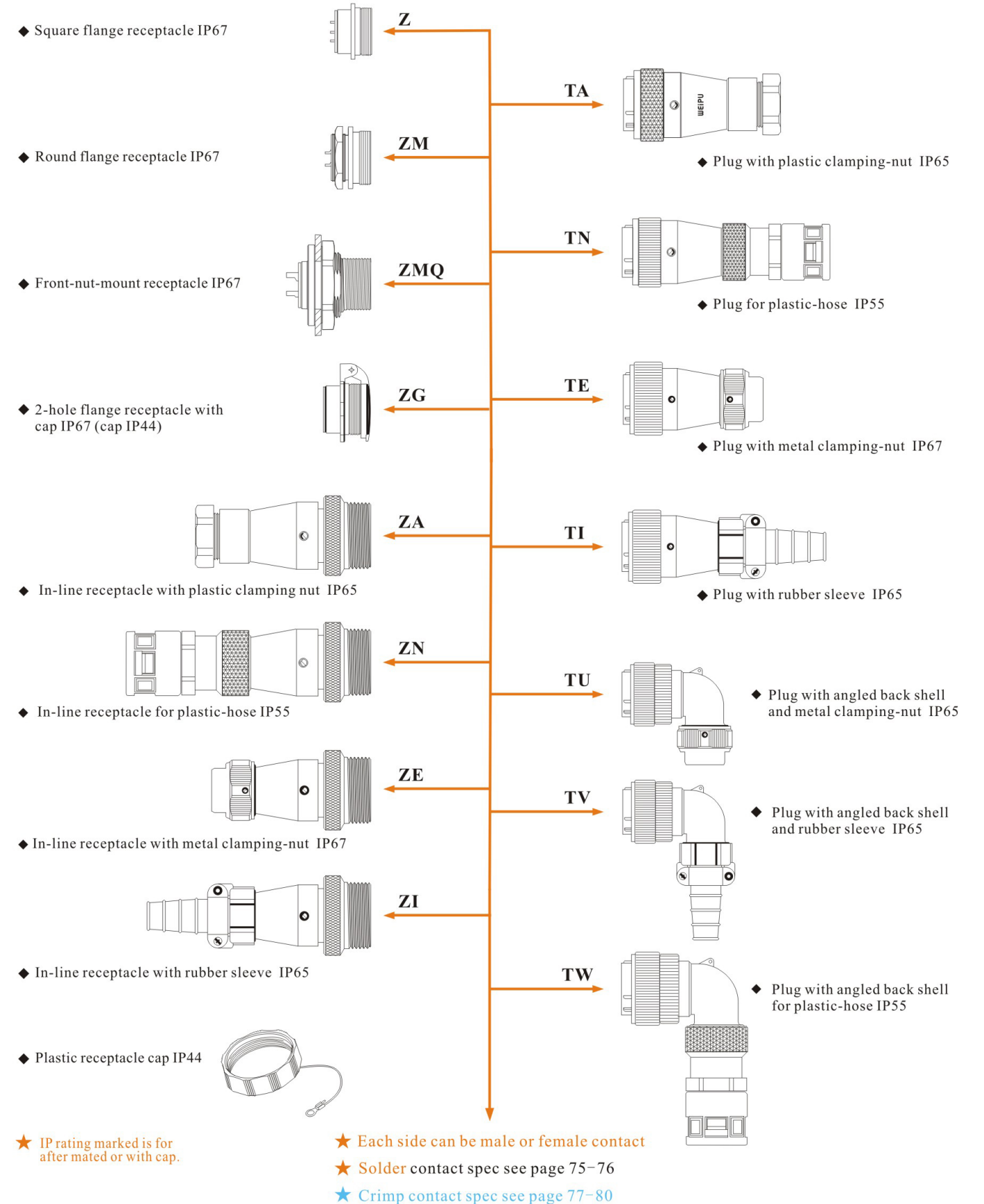
Number of contact	1-3	4-10	11-20	21-30	31-40	41-50	51-61
Rated current decrease rate (%)	0	10	20	30	40	50	60

Material and spec

Coupling	Threaded
Shell material	Zinc alloy with chrome plating
Insert material	PPS, max temperature 260 °C
Contact material	Brass with gold plating
Termination	Solder: $\phi 1, 1.5, 2.5, 3.5, 5.5$ mm contact Screw: $\phi 2.5, 3, 3.5$ mm contact Crimp: $\phi 1, 1.5, 2.5, 3.5$ mm contact
Mating cycle	500
Temperature range	-40°C~+85°C

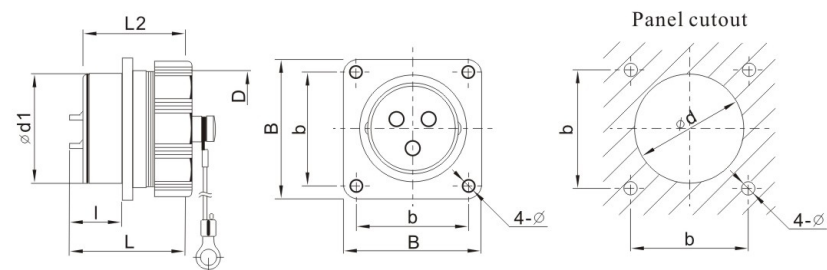
- ★ Each side can be male or female contact
- ★ Solder contact spec see page 75-76
- ★ Crimp contact spec see page 77-80

WF Series Mating diagram



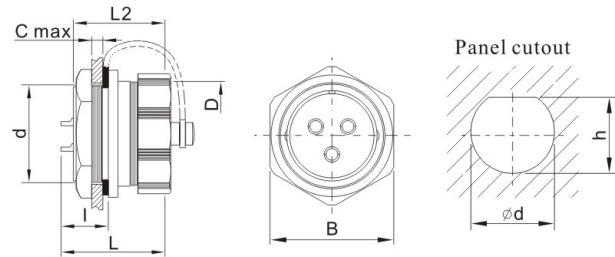


● Square flange receptacle: Z IP67

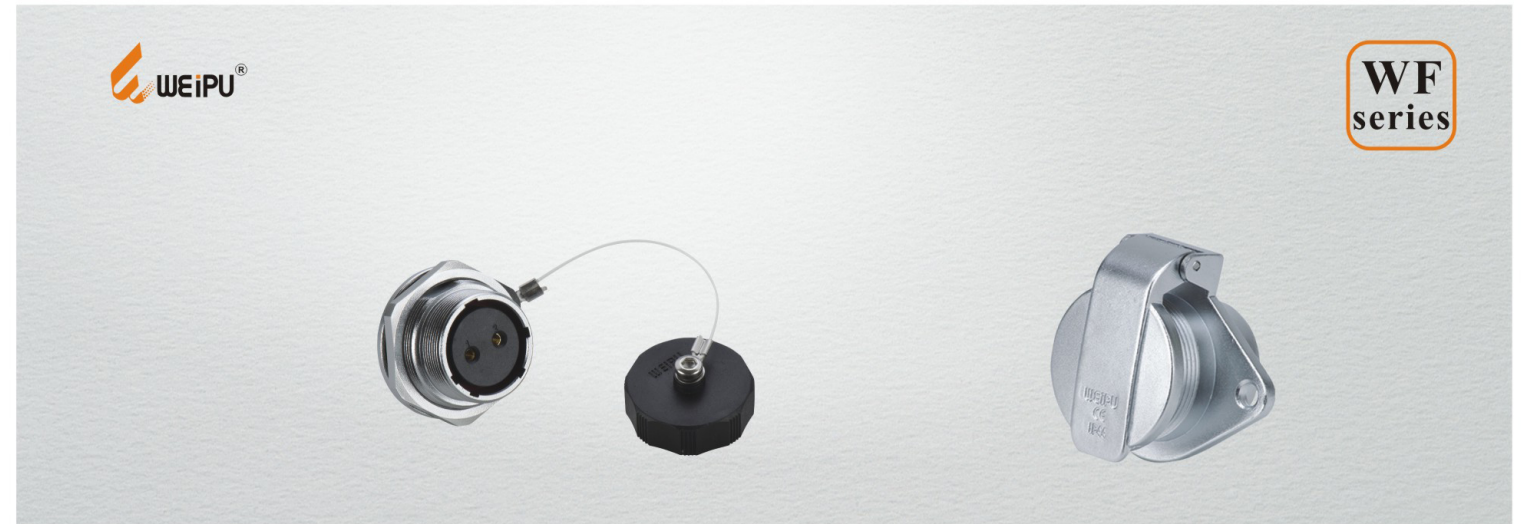


Dimension (mm)	WF16	WF20	WF24	WF28	WF32	WF40	WF48	WF55
∅d1	15.8	19.8	23.8	27.8	31.8	41.8	47.8	54.8
D	M18X1	M22X1	M26X1	M30X1	M35X1.5	M44X1.5	M52X1.5	M59X1.5
l	13	14	15	15	18.6	20.5	20.5	20.5
L	26	28	28	28	38.2	39.7	39.7	39.7
L2	21.6	23	23	23	34	34	34	34
b	20	22	26	30	32	40	48	52
B	26	29	32	36	42	50	58	64
∅d	16.5	20.5	24.5	28.5	32.5	40.5	48.5	55.5
∅	3.2	3.2	3.2	3.2	3.5	4.5	4.5	4.5

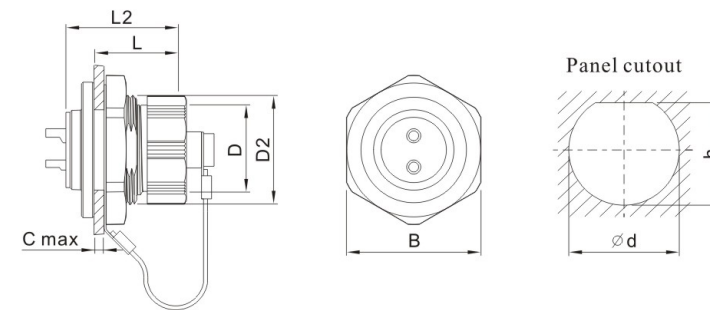
● Round flange receptacle: ZM IP67



Dimension (mm)	WF16	WF20	WF24	WF28
d	M16X1	M20X1	M24X1	M28X1
D	M18X1	M22X1	M26X1	M30X1
C	5	5	5	5
l	13	14	15	15
L	26	28	28	28
L2	22	23	23	23
B	21.2	25.5	29.2	33.3
∅d	15.7	19.7	23.7	27.7
h	15.3	19.3	23.1	26.9

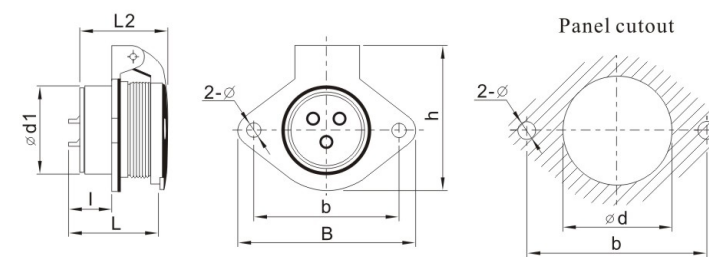


● Front-nut-mount receptacle: ZMQ IP67



Dimension (mm)	WF16	WF20	WF24	WF28
D	M18X1	M22X1	M26X1	M30X1
D2	M22X1	M26X1	M30X1	M34X1
L	16	17	17	17
L2	21.6	23	23	23
C	5	5	5	5
B	26.8	30.8	34.8	38.8
∅d	22	26	30	34
h	20.4	24.4	28.4	32.4

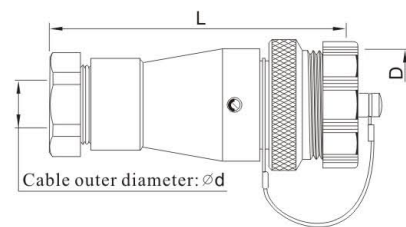
● 2-hole flange receptacle with cap: ZG IP67 (cap IP44)



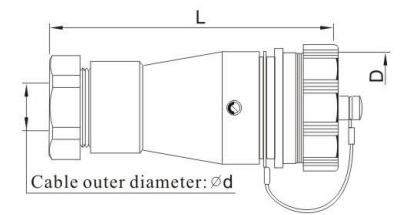
Dimension (mm)	WF16	WF20	WF24	WF28	WF32	WF40	WF48	WF55
∅d1	15.8	19.8	23.8	27.8	31.8	39.8	47.8	54.8
∅d	16.5	20.5	24.5	28.5	32.5	40.5	48.5	55.5
l	13	14	15	15	18.1	20.5	20.5	20.5
L	30	32.3	32.3	32.3	42.2	42.2	42.2	43.2
L2	22	23	23	23	34	34	34	34
b	30	35	40	45	55	65	80	85
B	38	44	50	55	67	77	92	98
h	32.5	36.5	40.5	45.5	52.5	63.5	74.5	80
∅	3.5	4.5	4.5	4.5	5.5	5.5	5.5	6.5



● In-line receptacle with plastic clamping-nut: ZA IP65

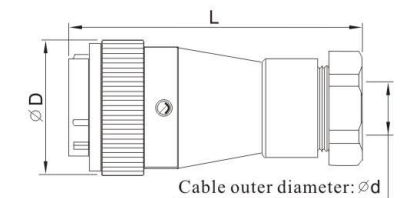


Dimension (mm)	WF16	WF20	WF24	WF28
D	M18X1	M22X1	M26X1	M30X1
L	53	65	68	74.5
$\varnothing d$	4.5-7	5-12	5-12	6.5-15.5



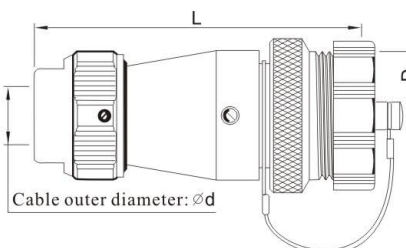
Dimension (mm)	WF32	WF40	WF48	WF55
D	M35X1.5	M44X1.5	M52X1.5	M59X1.5
L	92	109	116	110
$\varnothing d$	8.5-19.5	11.5-24.5	11.5-24.5	15-31

● Plug with plastic clamping-nut: TA IP65

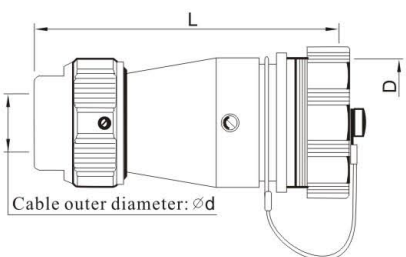


Dimension (mm)	WF16	WF20	WF24	WF28	WF32	WF40	WF48	WF55
$\varnothing D$	21	25.6	30	34.2	38.2	46.2	55.8	63
L	54	65	68	73	90	101	102	107
$\varnothing d$	4.5-7	5-12	5-12	6.5-15.5	8.5-19.5	11.5-24.5	11.5-24.5	15-31

● In-line receptacle with metal clamping-nut: ZE IP67



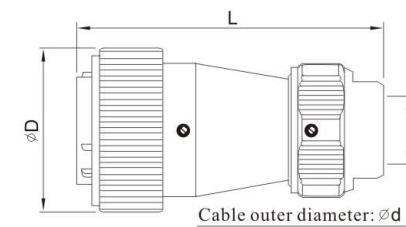
Dimension (mm)	WF16	WF20	WF24	WF28
D	M18X1	M22X1	M26X1	M30X1
L	55	63	66.5	70
$\varnothing d$	5-6.5	9-10.5	9-10.5	10.5-12.5



Dimension (mm)	WF32	WF40	WF48	WF55
D	M35X1.5	M44X1.5	M52X1.5	M59X1.5
L	90.4	103.6	108	131.6
$\varnothing d$	15.5-17	18-20	I:18-20 II:24.5-26	24.5-26

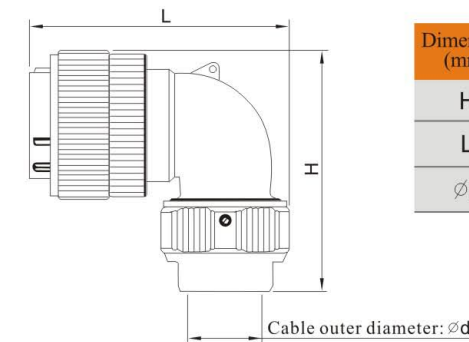


● Plug with metal clamping-nut: TE IP67



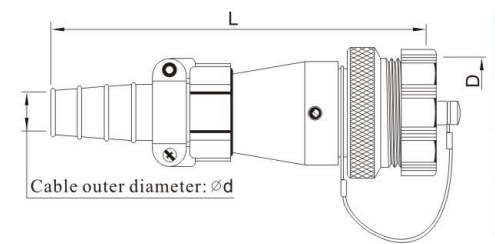
Dimension (mm)	WF16	WF20	WF24	WF28	WF32	WF40	WF48	WF55
$\varnothing D$	21.5	26.4	29.8	34	39.3	49.3	57.2	64.5
L	52.6	61.3	67.3	67.4	88	102.9	107.7	131.6
$\varnothing d$	5-6.5	9-10.5	9-10.5	10.5-12.5	15.5-17	18-20	I:18-20 II:24.5-26	24.5-26

● Plug with angled back shell and metal clamping-nut: TU IP65

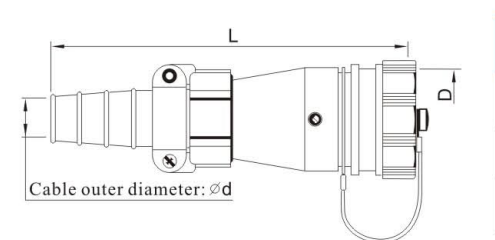


Dimension (mm)	WF16	WF20	WF24	WF28	WF32	WF40	WF48	WF55
H	43.2	50.3	54	56.7	74.6	80	98	105.2
L	47.5	55	58.3	72	82.5	91.5	98.5	109.2
$\varnothing d$	5-6.5	9-10.5	9-10.5	10.5-12.5	15.5-17	18-20	24.5-26	24.5-26

● In-line receptacle with rubber sleeve: ZI IP65



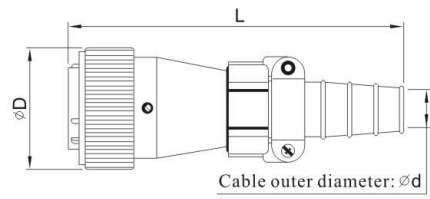
Dimension (mm)	WF16	WF20	WF24	WF28
D	M18X1	M22X1	M26X1	M30X1
L	73.5	90	93.5	104
$\varnothing d$	7-8	8-10.5	8-10.5	11.5-13.6



Dimension (mm)	WF32	WF40	WF48	WF55
D	M35X1.5	M44X1.5	M52X1.5	M59X1.5
L	118.6	130.2	137	210.5
$\varnothing d$	13-15.6	15.5-18.8	I:15.5-18.8 II:24-28	24-28

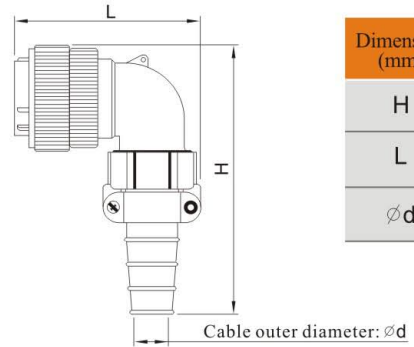


● Plug with rubber sleeve: TI IP65



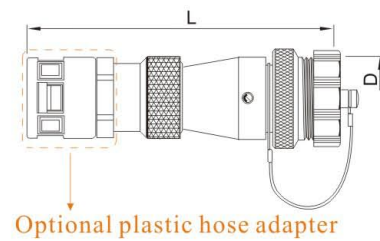
Dimension (mm)	WF16	WF20	WF24	WF28	WF32	WF40	WF48	WF55
∅D	21.5	26.4	29.8	34	39.3	49.3	57.2	64.5
L	72.3	86.9	92.5	100.6	118.3	130.4	137.2	161.1
∅d	7-8	8-10.5	8-10.5	11.5-13.6	13-15.6	15.5-18.8	I: 15.5-18.8 II: 24-28	24-28

● Plug with angled back shell and rubber sleeve: TV IP65



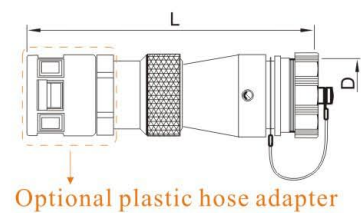
Dimension (mm)	WF16	WF20	WF24	WF28	WF32	WF40	WF48	WF55
H	60	80	80	93	107	118	127	140
L	45.5	53	56.3	70	80.5	89.5	98	107.2
∅d	7-8	8-10.5	8-10.5	11.5-13.6	13-15.6	15.5-18.8	24-28	24-28

● In-line receptacle for plastic-hose: ZN IP55



Optional plastic hose adapter

Dimension (mm)	WF16	WF20	WF24	WF28
D	M18X1	M22X1	M26X1	M30X1
L	80	90	97	104
Adapter size	PG7	PG11	PG11	PG16
Hose size	1/4"	3/8"	3/8"	1/2"

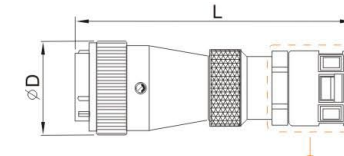


Optional plastic hose adapter

Dimension (mm)	WF32	WF40	WF48	WF55
D	M35X1.5	M44X1.5	M52X1.5	M59X1.5
L	126.7	134	141	160
Adapter size	PG21	PG29	I: PG29 II: PG36	PG36
Hose size	3/4"	1"	I: 1" II: 1 1/4"	1 1/4"



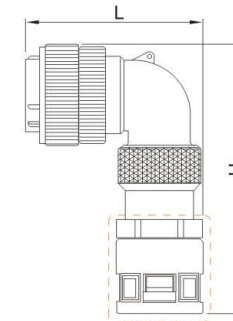
● Plug for plastic-hose: TN IP55



Optional plastic hose adapter

Dimension (mm)	WF16	WF20	WF24	WF28	WF32	WF40	WF48	WF55
∅D	21.5	26.8	29.8	34	39.3	49.3	57.2	64.5
L	80	93	96	107	120	132	138	150
Adapter size	PG7	PG11	PG11	PG16	PG21	PG29	I: PG29 II: PG36	PG36
Hose size	1/4"	3/8"	3/8"	1/2"	3/4"	1"	I: 1" II: 1 1/4"	1 1/4"

● Plug with angled back shell for plastic-hose: TW IP55



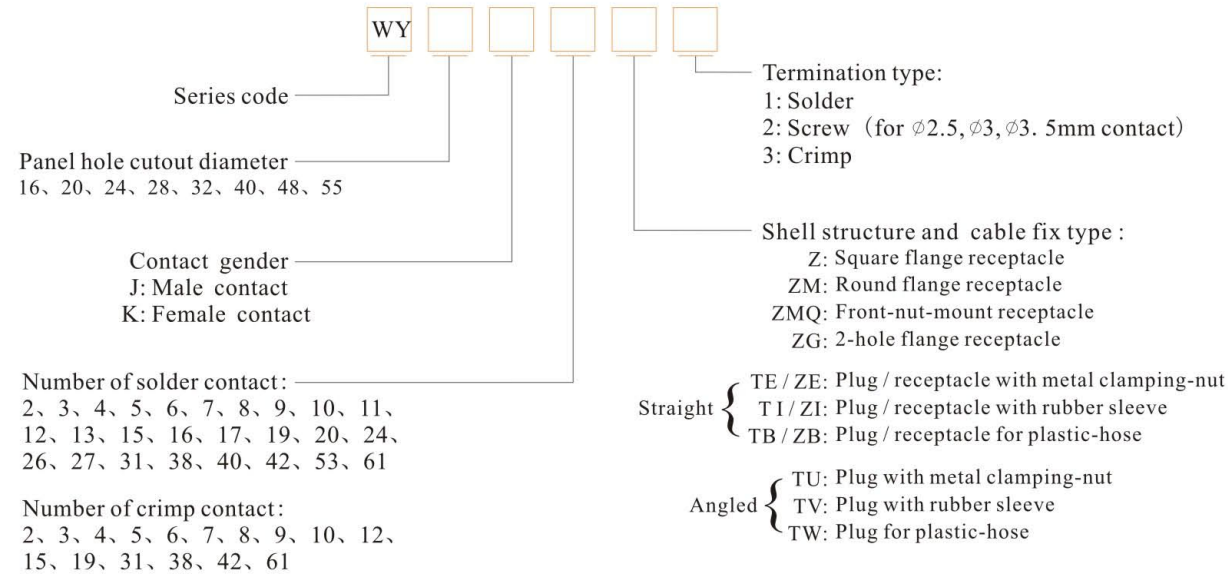
Optional plastic hose adapter

Dimension (mm)	WF16	WF20	WF24	WF28	WF32	WF40	WF48	WF55
H	58	78	78	91	105	120	125	132
L	46.5	54	57.3	71	81.5	90.5	98	108
Adapter size	PG7	PG11	PG11	PG16	PG21	PG29	PG29	PG36
Hose size	1/4"	3/8"	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/4"



● **WY Series**

Part number system



● **Remarks:** The rated current decreases according to the number of contacts, more contacts, less rated current.

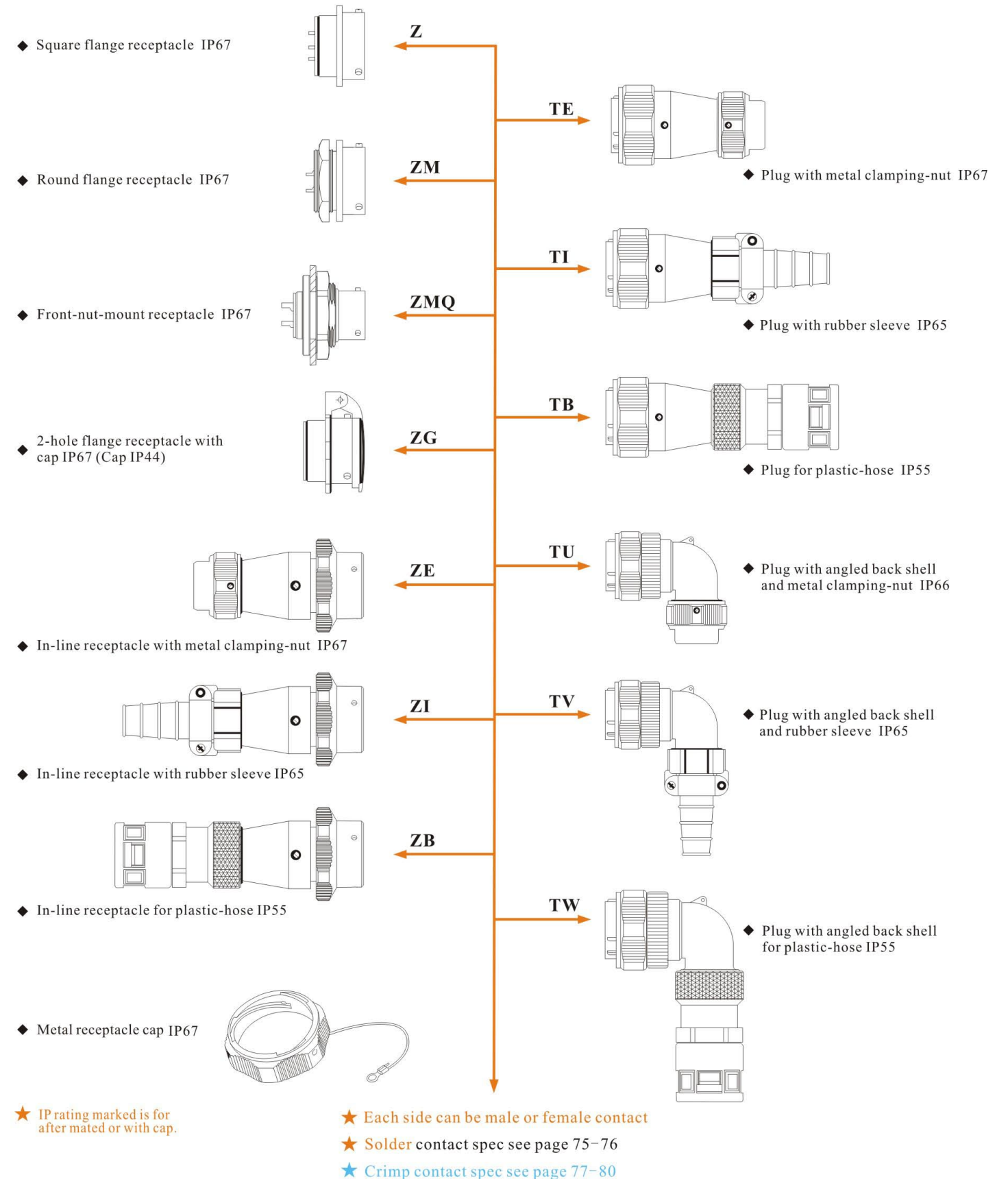
Number of contact	1-3	4-10	11-20	21-30	31-40	41-50	51-61
Rated current decrease rate (%)	0	10	20	30	40	50	60

Material and spec

Coupling	Threaded
Shell material	Zinc alloy with chrome plating
Insert material	PPS, max temperature 260 °C
Contact material	Brass with gold plating
Termination	Solder: $\phi 1, 1.5, 2.5, 3.5, 5.5$ mm contact Screw: $\phi 2.5, 3, 3.5$ mm contact Crimp: $\phi 1, 1.5, 2.5, 3.5$ mm contact
Mating cycle	500
Temperature range	-40°C~+85°C

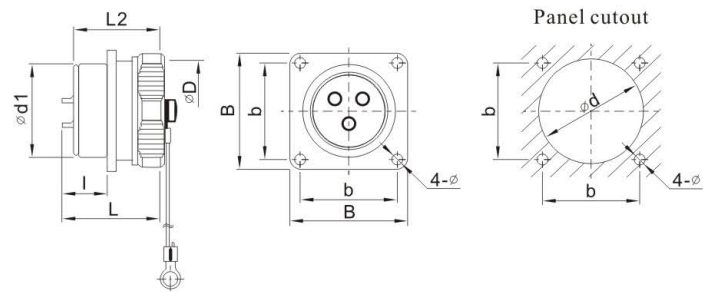
- ★ Each side can be male or female contact
- ★ Solder contact spec see page 75-76
- ★ Crimp contact spec see page 77-80

WY Series Mating diagram



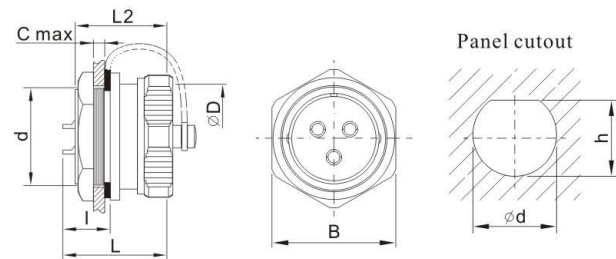


● Square flange receptacle: Z IP67



Dimension (mm)	WY16	WY20	WY24	WY28	WY32	WY40	WY48	WY55
∅d1	15.8	19.8	23.8	27.8	31.8	41.8	47.8	54.8
∅D	18	22	26	30	35	44	52	59
I	13	14	15	15	18.6	20.5	20.5	20.5
L	26	28	28	28	38.2	39.7	39.7	39.7
L2	21.6	23	23	23	34	34	34	34
b	20	22	26	30	32	40	48	52
B	26	29	32	36	42	50	58	64
∅d	16.5	20.5	24.5	28.5	32.5	40.5	48.5	55.5
∅	3.2	3.2	3.2	3.2	3.5	4.5	4.5	4.5

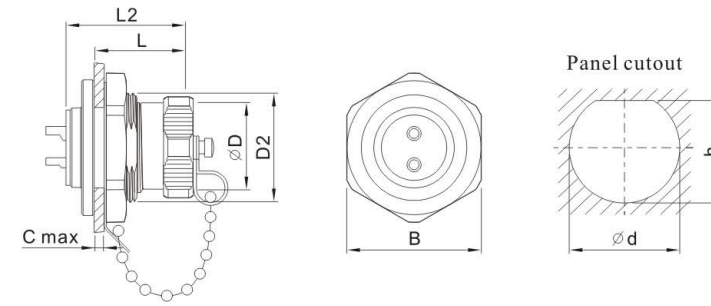
● Round flange receptacle: ZM IP67



Dimension (mm)	WY16	WY20	WY24	WY28
d	M16X1	M20X1	M24X1	M28X1
∅D	18	22	26	30
C	5	5	5	5
I	13	14	15	15
L	26	28	28	28
L2	22	23	23	23
B	21.2	25.5	29.2	33.3
∅d	15.7	19.7	23.7	27.7
h	15.3	19.3	23.1	26.9

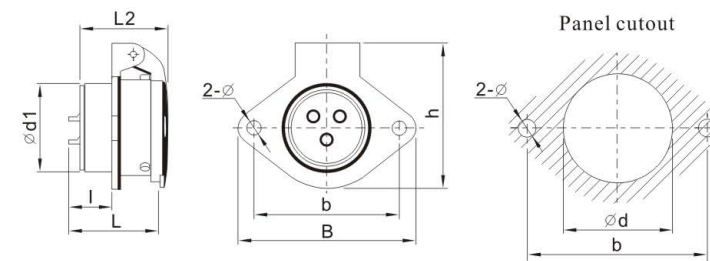


● Front-nut-mount receptacle: ZMQ IP67



Dimension (mm)	WF16	WF20	WF24	WF28
∅D	18	22	26	30
D2	M22X1	M26X1	M30X1	M34X1
L	16	17	17	17
L2	21.6	23	23	23
C	5	5	5	5
B	26.8	30.8	34.8	38.8
∅d	22	26	30	34
h	20.4	24.4	28.4	32.4

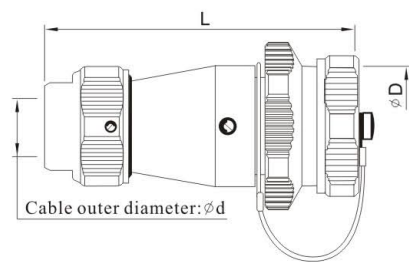
● 2-hole flange receptacle with cap: ZG IP67(Cap IP44)



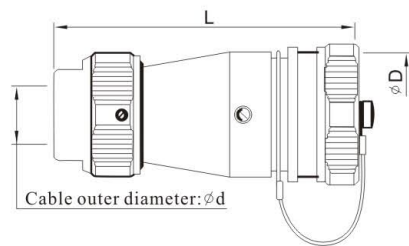
Dimension (mm)	WY16	WY20	WY24	WY28	WY32	WY40	WY48	WY55
∅d1	15.8	19.8	23.8	27.8	31.8	39.8	47.8	54.8
L	30	32.3	32.3	32.3	42.2	42.2	42.2	43.2
L2	22	23	23	23	34	34	34	34
I	13	14	15	15	18.1	20.5	20.5	20.5
b	30	35	40	45	55	65	80	85
B	38	44	50	55	67	77	92	98
∅d	16.5	20.5	24.5	28.5	32.5	40.5	48.5	55.5
h	32.5	36.5	40.5	45.5	52.5	63.5	74.5	80
∅	3.5	4.5	4.5	4.5	5.5	5.5	5.5	6.5



● In-line receptacle with metal clamping-nut: ZE IP67

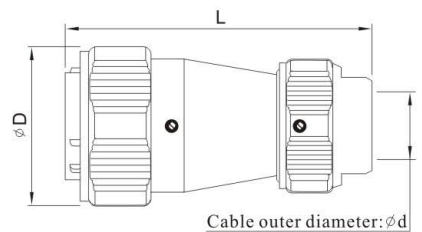


Dimension (mm)	WY16	WY20	WY24	WY28
D	18	22	26	30
L	55	63	66.5	70
φd	5-6.5	9-10.5	9-10.5	10.5-12.5



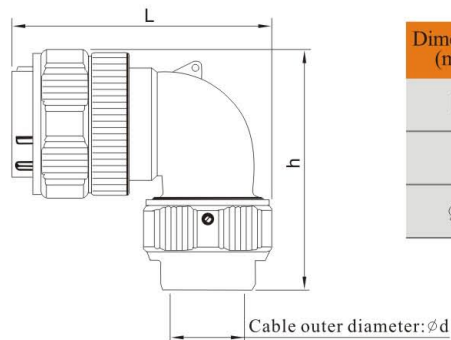
Dimension (mm)	WY32	WY40	WY48	WY55
D	35	44	52	59
L	90.4	103.6	108	131.6
φd	15.5-17	18-20	I:18-20 II:24.5-26	24.5-26

● Plug with metal clamping-nut: TE IP67



Dimension (mm)	WY16	WY20	WY24	WY28	WY32	WY40	WY48	WY55
D	25	30	34	38.5	44.5	54	62	68.5
L	52.6	61.3	67.3	67.4	88	102.9	107.7	131.1
φd	5-6.5	9-10.5	9-10.5	10.5-12.5	15.5-17	18-20	I:18-20 II:24.5-26	24.5-26

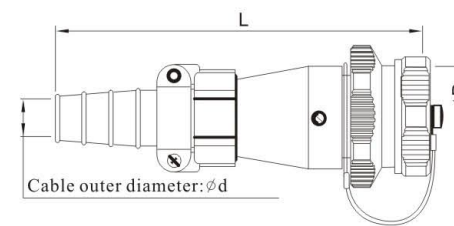
● Plug with angled back shell and metal clamping-nut: TU IP66



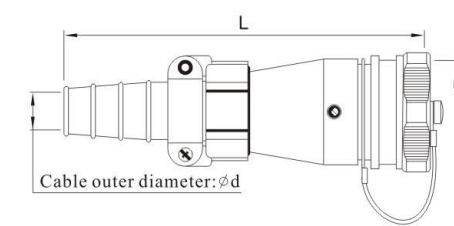
Dimension (mm)	WY16	WY20	WY24	WY28	WY32	WY40	WY48	WY55
h	43.2	53	54	56.7	74.6	80	98	105.2
L	47.5	57.5	58.3	62	82.5	91.5	98.5	109.2
φd	5-6.5	9-10.5	9-10.5	10.5-12.5	15.5-17	18-20	24.5-26	24.5-26



● In-line receptacle with rubber sleeve: ZI IP65

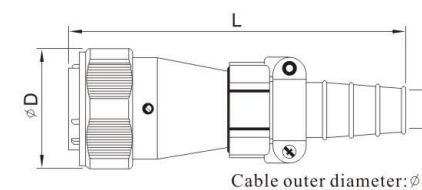


Dimension (mm)	WY16	WY20	WY24	WY28
D	18	22	26	30
L	73	85.7	92	101
φd	7-8	9-10.5	9-10.5	11.5-13.6



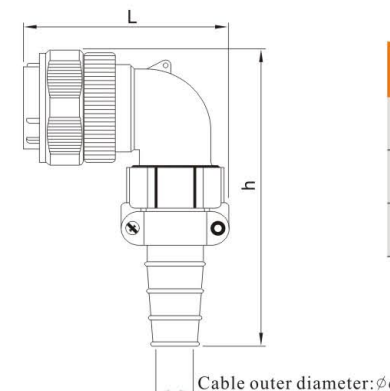
Dimension (mm)	WY32	WY40	WY48	WY55
D	35	44	52	59
L	118.6	130.2	137	210.5
φd	13-15.6	15.5-18.8	I:15.5-18.8 II:24-28	24-28

● Plug with rubber sleeve: TI IP65



Dimension (mm)	WY16	WY20	WY24	WY28	WY32	WY40	WY48	WY55
D	25	30	34	38.5	44.5	54	62	68.5
L	72.3	86.9	92.5	100.6	118.3	130.4	137.2	161.1
φd	7-8	9-10.5	9-10.5	11.5-13.6	13-15.6	15.5-18.8	I:15.5-18.8 II:24-28	24-28

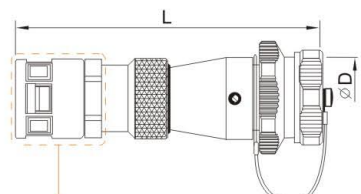
● Plug with angled back shell and rubber sleeve: TV IP65



Dimension (mm)	WY16	WY20	WY24	WY28	WY32	WY40	WY48	WY55
h	60	80	80	93	107	118	127	140
L	45.5	53	56.3	70	80.5	89.5	98	107.2
φd	7-8	9-10.5	9-10.5	11.5-13.6	13-15.6	15.5-18.8	24-28	24-28

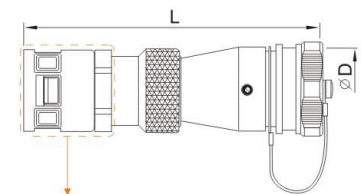


● In-line receptacle for plastic-hose: ZB IP55



Optional plastic hose adapter

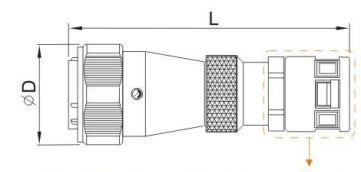
Dimension (mm)	WY16	WY20	WY24	WY28
D	18	22	26	30
L	80	93	96	107
Adapter size	PG7	PG11	PG11	PG16
Hose size	1/4"	3/8"	3/8"	1/2"



Optional plastic hose adapter

Dimension (mm)	WY32	WY40	WY48	WY55
D	35	44	52	59
L	122.9	133.4	138.8	155
Adapter size	PG21	PG29	I: PG29 II: PG36	PG36
Hose size	3/4"	1"	I: 1" II: 1 1/4"	1 1/4"

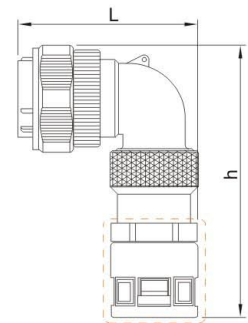
● Plug for plastic-hose: TB IP55



Optional plastic hose adapter

Dimension (mm)	WY16	WY20	WY24	WY28	WY32	WY40	WY48	WY55
D	25	30	34	38.5	44.5	54	62	68.5
L	76.7	90.1	94.6	101.7	119.5	133.4	140	157
Adapter size	PG7	PG11	PG11	PG16	PG21	PG29	I: PG29 II: PG36	PG36
Hose size	1/4"	3/8"	3/8"	1/2"	3/4"	1"	I: 1" II: 1 1/4"	1 1/4"

● Plug with angled back shell for plastic-hose: TW IP55



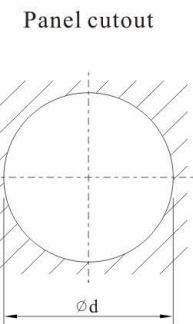
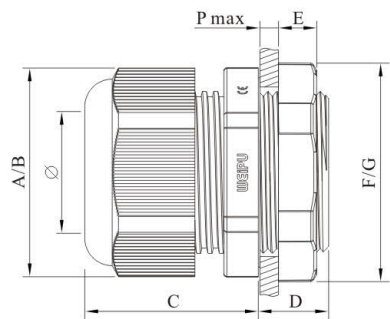
Optional plastic hose adapter

Dimension (mm)	WY16	WY20	WY24	WY28	WY32	WY40	WY48	WY55
h	58	78	78	91	105	120	125	132
L	46.5	54	57.3	71	81.5	90.5	98	108
Adapter size	PG7	PG11	PG11	PG16	PG21	PG29	PG29	PG36
Hose size	1/4"	3/8"	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/4"





● Cable gland



Material Nylon
 Fire resistance V-0
 Seal NBR
 IP rating IP68
 Temperature -25°C $+80^{\circ}\text{C}$
 Color grey(standard)
 black(special order)

AG PG	A Diagonal	B Parallel	C Max	D	E	F Diagonal	G Parallel	P max	\varnothing Cable outer diameter	$\varnothing d$ Panel cutout	Part number Grey	Part number Black
7	16.5	15.5	19.2	8	5	21	19	3.0	3-6.5	13	PA807G	PA807B
9	21	19.5	21.6	8	5	24	22	3.0	4-8	15.7	PA809G	PA809B
11	24.7	22.7	24.7	8	5	27	24.6	2.5	5-10	19	PA811G	PA811B
13.5	26.5	24	26.6	9	6	30	26.9	3.0	6-12	20.5	PA813G	PA813B
16	30	27.3	28.8	9.8	6.5	33	30.2	3.0	10-14	22.5	PA816G	PA816B
21	36.5	32	28.8	12.1	6.7	38.4	35.8	5.0	13-18	28	PA821G	PA821B
29	47.3	33	31.3	11	7.3	50.5	46.2	3.0	18-25	37.2	PA829G	PA829B
36	59.2	53.2	50	12.8	7.7	65	59	5.0	22-32	47.8	PA836G	PA836B



Solder contact spec

WS16, WF16, WY16	2	3	4	5	7	9	10
Male contact face view							
Rated current (A)	10	10	5	5	5	5	5
Contact diameter (mm)	1.5	1.5	1	1	1	1	1
Rated voltage (AC.V)	500	500	500	500	400	400	400
Test voltage(AC.V) 1 min	1500	1500	1500	1500	1200	1200	1200
Contact resistance (mΩ)	2.5	2.5	5	5	5	5	5
Insulation resistance (MΩ)	2000	2000	2000	2000	2000	2000	2000
Wire size (mm ² / AWG)	≤2/14	≤2/14	≤0.785/18	≤0.785/18	≤0.785/18	≤0.785/18	≤0.785/18

WS20, WF20, WY20	2	3	4	5	6	7	9	12
Male contact face view								
Rated current (A)	25	25	25	10	25 5	10	5	5
Contact diameter (mm)	2.5	2.5	2.5	1.5	∅2.5X4 ∅1X2	1.5	1	1
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)	1	1	1	2.5	1 5	2.5	5	5
Insulation resistance (MΩ)	2000	2000	2000	2000	2000	2000	2000	2000
Wire size (mm ² / AWG)	≤4/11	≤4/11	≤4/11	≤2/14	≤4/11 ≤0.785/18	≤2/14	≤0.785/18	≤0.785/18

WS24, WF24, WY24	2	3	4	9	10	11	12	19
Male contact face view								
Rated current (A)	25	25	25	25 5	10	30 5	10	5
Contact diameter (mm)	2.5	2.5	2.5	∅2.5X4 ∅1X5	1.5	∅3X3 ∅1X8	1.5	1
Rated voltage (AC.V)	500	500	500	500	500	500	500	400
Test voltage(AC.V) 1 min	1500	1500	1500	1500	1500	1500	1500	1200
Contact resistance (mΩ)	1	1	1	1 5	2.5	1 5	2.5	5
Insulation resistance (MΩ)	2000	2000	2000	2000	2000	2000	2000	2000
Wire size (mm ² / AWG)	≤4/11	≤4/11	≤4/11	≤4/11 ≤0.785/18	≤2/14	≤4/11 ≤0.785/18	≤2/14	≤0.785/18

WS28, WF28, WY28	2	3	4	7	8	9	10	10B	12	16	17	20	24	26
Male contact face view														
Rated current (A)	50	50	25	25	25	25 5	25	10	10	10	10	5	5	5
Contact diameter (mm)	3.5	3.5	2.5	2.5	2.5	∅2.5X4 ∅1X5	2.5	1.5	1.5	1.5	1.5	1	1	1
Rated voltage (AC.V)	500	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	1500	1200	1200	1200
Contact resistance (mΩ)	0.5	0.5	1	1	1	1 5	1	2.5	2.5	2.5	2.5	5	5	5
Insulation resistance (MΩ)	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000
Wire size (mm ² / AWG)	≤10/7	≤10/7	≤4/11	≤4/11	≤4/11	≤4/11 ≤0.785/18	≤4/11	≤2/14	≤2/14	≤2/14	≤2/14	≤0.785/18	≤0.785/18	≤0.785/18

Solder contact spec

WS32, WF32, WY32	4	6	8	8B	10	10B	11	12	13	19
Male contact face view										
Rated current (A)	50	50 10	50 10	50 10	25 10	25	25	25	25 10	10
Contact diameter (mm)	3.5	∅3.5X4 ∅1.5X2	∅3.5X3 ∅1.5X5	∅3.5X4 ∅1.5X4	∅2.5X5 ∅1.5X5	2.5	2.5	2.5	∅2.5X4 ∅1.5X9	1.5
Rated voltage (AC.V)	500V	500V	500V	500V	500V	500V	500V	500V	500V	500V
Test voltage(AC.V) 1 min	1500V	1500V	1500V	1500V	1500V	1500V	1500V	1500V	1500V	1500V
Contact resistance (mΩ)	0.5	0.5 2.5	0.5 2.5	0.5 2.5	1 2.5	1	1	1	1 2.5	2.5
Insulation resistance (MΩ)	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000
Wire size (mm ² / AWG)	≤10/7	≤10/7 ≤2/14	≤10/7 ≤2/14	≤10/7 ≤2/14	≤4/11 ≤2/14	≤4/11	≤4/11	≤4/11	≤4/11 ≤2/14	≤2/14

WS40, WF40, WY40	5	9	15	26	31	52
Male contact face view						
Rated current (A)	50	50 25	10	25 10	10	5
Contact diameter (mm)	3.5	∅3.5X4 ∅2.5X5	1.5	∅2.5X4 ∅1.5X22	1.5	1
Rated voltage (AC.V)	500	500	500	500	500	400
Test voltage(AC.V) 1 min	1500	1500	1500	1500	1500	1200
Contact resistance (mΩ)	0.5	0.5 1	2.5	1 2.5	2.5	5
Insulation resistance (MΩ)	2000	2000	2000	2000	2000	2000
Wire size (mm ² / AWG)	≤10/7	≤10/7 ≤4/11	≤2/14	≤4/11 ≤2/14	≤2/14	≤0.785/18

WS48, WF48, WY48	5	7	20	27	38	42
Male contact face view						
Rated current (A)	100	50	25	25 10	25 10	10
Contact diameter (mm)	5.5	3.5	2.5	∅2.5X1 ∅1.5X26	∅2.5X5 ∅1.5X33	1.5
Rated voltage (AC.V)	500	500	500	500	500	500
Test voltage(AC.V) 1 min	1500	1500	1500	1500	1500	1500
Contact resistance (mΩ)	0.3	0.5	1	1 2.5	1 2.5	2.5
Insulation resistance (MΩ)	2000	2000	2000	2000	2000	2000
Wire size (mm ² / AWG)	≤16/5	≤10/7	≤4/11	≤4/11 ≤2/14	≤4/11 ≤2/14	≤2/14

WS55, WF55, WY55	4	7	40	53	61
Male contact face view					
Rated current (A)	200 50	100 50	25 10	25 10	10
Contact diameter (mm)	∅10X3 ∅3.5X1	∅5.5X6 ∅3.5X1	∅2.5X15 ∅1.5X25	∅2.5X5 ∅1.5X48	1.5
Rated voltage (AC.V)	500	500	500	500	500
Test voltage(AC.V) 1 min	1500	1500	1500	1500	1500
Contact resistance (mΩ)	0.2 0.5	0.3 0.5	1 2.5	1 2.5	2.5
Insulation resistance (MΩ)	2000	2000	2000	2000	2000
Wire size (mm ² / AWG)	≤70/(2/0) ≤10/7	≤16/5 ≤10/7	≤4/11 ≤0.785/18	≤4/11 ≤0.785/18	≤2/14

Crimp contact spec

SF16, SA16, SP17, SY17 WS16, WF16, WY16	2	3	4
Male contact face view			
Rated current (A)	10	10	5
Contact diameter (mm)	1.5	1.5	1
Rated voltage (AC.V)	500	500	400
Test voltage(AC.V) 1 min	1500	1500	1200
Contact resistance (mΩ)	2.5	2.5	5
Insulation resistance (MΩ)	2000	2000	2000

SF20, SA20, SP21, SY21 WS20, WF20, WY20, WP20	2	3	4	5	7	7B	8
Male contact face view							
Rated current (A)	25	25	25	10	10	5	5
Contact diameter (mm)	2.5	2.5	2.5	1.5	1.5	1	1
Rated voltage (AC.V)	500	500	500	500	500	400	400
Test voltage(AC.V) 1 min	1500	1500	1500	1500	1500	1200	1200
Contact resistance (mΩ)	1	1	1	2.5	2.5	5	5
Insulation resistance (MΩ)	2000	2000	2000	2000	2000	2000	2000

WS24, WF24, WY24	4	5	9	12
Male contact face view				
Rated current (A)	25	25	10	5
Contact diameter (mm)	2.5	2.5	1.5	1
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

SA28, SP29 WS28, WF28, WY28	7	12	15	19
Male contact face view				
Rated current (A)	25	10	5	5
Contact diameter (mm)	2.5	1.5	1	1
Rated voltage (AC.V)	500	500	400	400
Test voltage(AC.V) 1 min	1500	1500	1200	1200
Contact resistance (mΩ)	1	2.5	5	5
Insulation resistance (MΩ)	2000	2000	2000	2000

Crimp contact spec

WS32, WF32, WY32	4	6	10	15	19
Male contact face view					
Rated current (A)	50	50 10	25	10	10
Contact diameter (mm)	3.5	∅3.5X4 ∅1.5X2	2.5	1.5	1.5
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)	3.5	2.5	1.5
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)	2.5	1.5
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)	2.5	1.5
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

Crimp contact

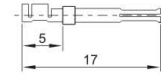
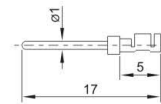
5A Crimp contact

Stamped contact

Contact diameter: $\varnothing 1$

Material: Brass with gold plating

Contact resistance: 5m Ω



5A Male crimp contact

Wire size (mm ² / AWG)	Strip length (mm)	Part number	Crimping tool p/n	Removal tool p/n
0.20-0.52 / 24-20	5.5	YJ1-17-0.52AU	CT-P20/28	RT-1.0

5A Female crimp contact

Wire size (mm ² / AWG)	Strip length (mm)	Part number	Crimping tool p/n	Removal tool p/n
0.20-0.52 / 24-20	5.5	YK1-17-0.52AU	CT-P20/28	RT-1.0

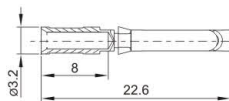
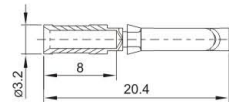
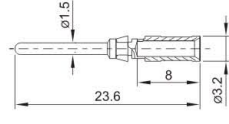
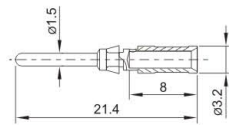
10A Crimp contact

Machined contact

Contact diameter: $\varnothing 1.5$

Material: Brass with gold plating

Contact resistance: 2.5m Ω



10A Male crimp contact

Wire size (mm ² / AWG)	Strip length (mm)	Part number	Crimping tool p/n	Removal tool p/n
0.14-0.37 / 26-22	8	YJ1.5-21.4-0.37AU	CT-0.14/4	RT-1.5
0.5 / 20	8	YJ1.5-21.4-0.5AU	CT-0.14/4	RT-1.5
0.75-1.0 / 18	8	YJ1.5-21.4-1.0AU	CT-0.14/4	RT-1.5
1.5 / 16	8	YJ1.5-21.4-1.5AU	CT-0.14/4	RT-1.5
2.5 / 14	8	YJ1.5-21.4-2.5AU	CT-0.14/4	RT-1.5

10A Male crimp contact

Wire size (mm ² / AWG)	Strip length (mm)	Part number	Crimping tool p/n	Removal tool p/n
0.14-0.37 / 26-22	8	YJ1.5-23.6-0.37AU	CT-0.14/4	RT-1.5
0.5 / 20	8	YJ1.5-23.6-0.5AU	CT-0.14/4	RT-1.5
0.75-1.0 / 18	8	YJ1.5-23.6-1.0AU	CT-0.14/4	RT-1.5
1.5 / 16	8	YJ1.5-23.6-1.5AU	CT-0.14/4	RT-1.5
2.5 / 14	8	YJ1.5-23.6-2.5AU	CT-0.14/4	RT-1.5

10A Female crimp contact

Wire size (mm ² / AWG)	Strip length (mm)	Part number	Crimping tool p/n	Removal tool p/n
0.14-0.37 / 26-22	8	YK1.5-20.4-0.37AU	CT-0.14/4	RT-1.5
0.5 / 20	8	YK1.5-20.4-0.5AU	CT-0.14/4	RT-1.5
0.75-1.0 / 18	8	YK1.5-20.4-1.0AU	CT-0.14/4	RT-1.5
1.5 / 16	8	YK1.5-20.4-1.5AU	CT-0.14/4	RT-1.5
2.5 / 14	8	YK1.5-20.4-2.5AU	CT-0.14/4	RT-1.5

10A Female crimp contact

Wire size (mm ² / AWG)	Strip length (mm)	Part number	Crimping tool p/n	Removal tool p/n
0.14-0.37 / 26-22	8	YK1.5-22.6-0.37AU	CT-0.14/4	RT-1.5
0.5 / 20	8	YK1.5-22.6-0.5AU	CT-0.14/4	RT-1.5
0.75-1.0 / 18	8	YK1.5-22.6-1.0AU	CT-0.14/4	RT-1.5
1.5 / 16	8	YK1.5-22.6-1.5AU	CT-0.14/4	RT-1.5
2.5 / 14	8	YK1.5-22.6-2.5AU	CT-0.14/4	RT-1.5

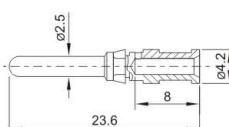
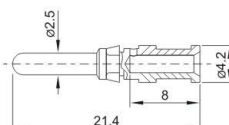
25A Crimp contact

Machined contact

Contact diameter: $\varnothing 2.5$

Material: Brass with gold plating

Contact resistance: 1m Ω



25A Male crimp contact

Wire size (mm ² / AWG)	Strip length (mm)	Part number	Crimping tool p/n	Removal tool p/n
0.75-1.0 / 18	8	YJ2.5-21.4-1.0AU	CT-0.14/4	RT-2.5
1.5 / 16	8	YJ2.5-21.4-1.5AU	CT-0.14/4	RT-2.5
2.5 / 14	8	YJ2.5-21.4-2.5AU	CT-0.14/4	RT-2.5
4.0 / 12	8	YJ2.5-21.4-4.0AU	CT-0.14/4 CT-4/10	RT-2.5

25A Male crimp contact

Wire size (mm ² / AWG)	Strip length (mm)	Part number	Crimping tool p/n	Removal tool p/n
0.75-1.0 / 18	8	YJ2.5-23.6-1.0AU	CT-0.14/4	RT-2.5
1.5 / 16	8	YJ2.5-23.6-1.5AU	CT-0.14/4	RT-2.5
2.5 / 14	8	YJ2.5-23.6-2.5AU	CT-0.14/4	RT-2.5
4.0 / 12	8	YJ2.5-23.6-4.0AU	CT-0.14/4 CT-4/10	RT-2.5

Crimp contact

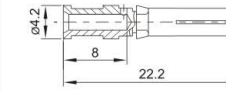
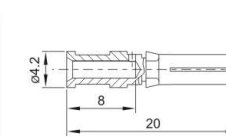
25A Crimp contact

Machined contact

Contact diameter: $\varnothing 2.5$

Material: Brass with gold plating

Contact resistance: 1m Ω



25A Female crimp contact

Wire size (mm ² / AWG)	Strip length (mm)	Part number	Crimping tool p/n	Removal tool p/n
0.75-1.0 / 18	8	YK2.5-20-1.0AU	CT-0.14/4	RT-2.5
1.5 / 16	8	YK2.5-20-1.5AU	CT-0.14/4	RT-2.5
2.5 / 14	8	YK2.5-20-2.5AU	CT-0.14/4	RT-2.5
4.0 / 12	8	YK2.5-20-4.0AU	CT-0.14/4 CT-4/10	RT-2.5

25A Female crimp contact

Wire size (mm ² / AWG)	Strip length (mm)	Part number	Crimping tool p/n	Removal tool p/n
0.75-1.0 / 18	8	YK2.5-22.2-1.0AU	CT-0.14/4	RT-2.5
1.5 / 16	8	YK2.5-22.2-1.5AU	CT-0.14/4	RT-2.5
2.5 / 14	8	YK2.5-22.2-2.5AU	CT-0.14/4	RT-2.5
4.0 / 12	8	YK2.5-22.2-4.0AU	CT-0.14/4 CT-4/10	RT-2.5

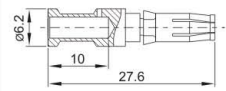
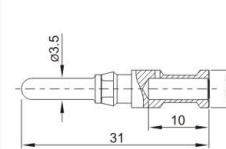
50A Crimp contact

Machined contact

Contact diameter: $\varnothing 3.5$

Material: copper

Contact resistance: 0.5m Ω



50A Male crimp contact

Wire size (mm ² / AWG)	Strip length (mm)	Part number	Crimping tool p/n	Removal tool p/n
1.5 / 16	10	YJ3.5-31-1.5AU	CT-0.14/4	RT-3.5
2.5 / 14	10	YJ3.5-31-2.5AU	CT-0.14/4	RT-3.5
4.0 / 12	10	YJ3.5-31-4.0AU	CT-0.14/4 CT-4/10	RT-3.5
6.0 / 10	10	YJ3.5-31-6.0AU	CT-4/10	RT-3.5
10.0 / 7	10	YJ3.5-31-10.0AU	CT-4/10	RT-3.5

50A Female crimp contact

Wire size (mm ² / AWG)	Strip length (mm)	Part number	Crimping tool p/n	Removal tool p/n
1.5 / 16	10	YK3.5-27.6-1.5AU	CT-0.14/4	RT-3.5
2.5 / 14	10	YK3.5-27.6-2.5AU	CT-0.14/4	RT-3.5
4.0 / 12	10	YK3.5-27.6-4.0AU	CT-0.14/4 CT-4/10	RT-3.5
6.0 / 10	10	YK3.5-27.6-6.0AU	CT-4/10	RT-3.5
10.0 / 7	10	YK3.5-27.6-10.0AU	CT-4/10	RT-3.5

Crimp tool and Removal tool

Crimp tool



Part number	Crimp wire range (mm ² / AWG)
CT-P20/28	0.08-0.52 / 28-20
CT-0.14/4	0.14-4.0 / 26-12
CT-4/10	4.0-10.0 / 12-7

Removal tool



RT-1.0 RT-1.5 RT-2.5 RT-3.5

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