WK Series Connector

Push Locking Connection

Features:

- Reliable Quick Connection
- Key Lock structure
- Optional Shielding function
- Up to IP68 rating

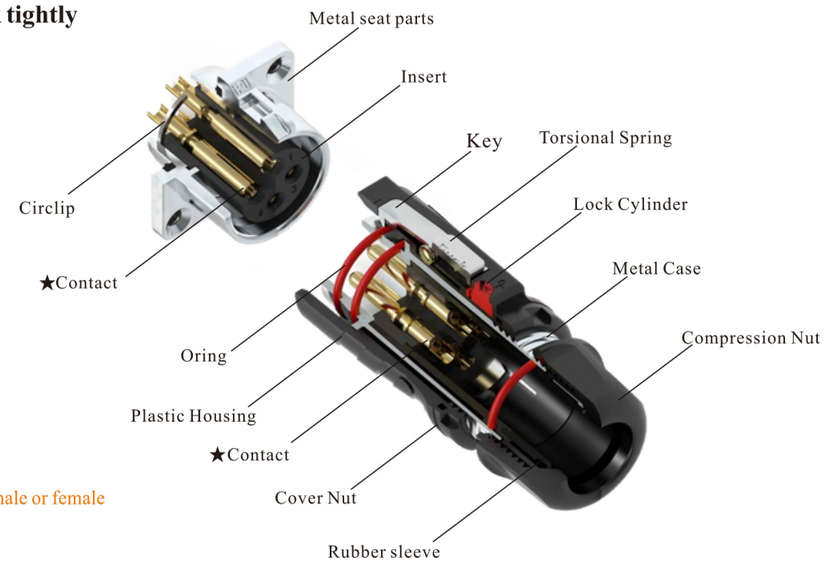
Patented product

- Reliable Quick Connection
  Optional Shielding function

- Key lock structure, requires tool to unplug

- Embedded sealing for Aging Resistant

- **WK16 Series IP68**
- **WK20 Series IP68**
- **Lock the hook tightly**



★ Contact can be male or female

Material and spec

Specifications	WK16	WK20
Coupling	Push lock	
Shell	PPE / Zinc alloy	
Insert material	PPS, PBT max temperature 260 ℃	
Contact material	Brass	
Contact plating	Gold Plating	
Termination	Solder: Ø1mm, Ø1.5mm contact	Solder: Ø1mm, Ø2mm, Ø3mm contact Sccrew: Ø3mm contact Crimp
Key lock	Without	With
IP rating	IP68	IP68
Mating cycle	500	
Temperature range	-40℃~+105℃	
Insulation resistance	2000 MΩ	

WK Series

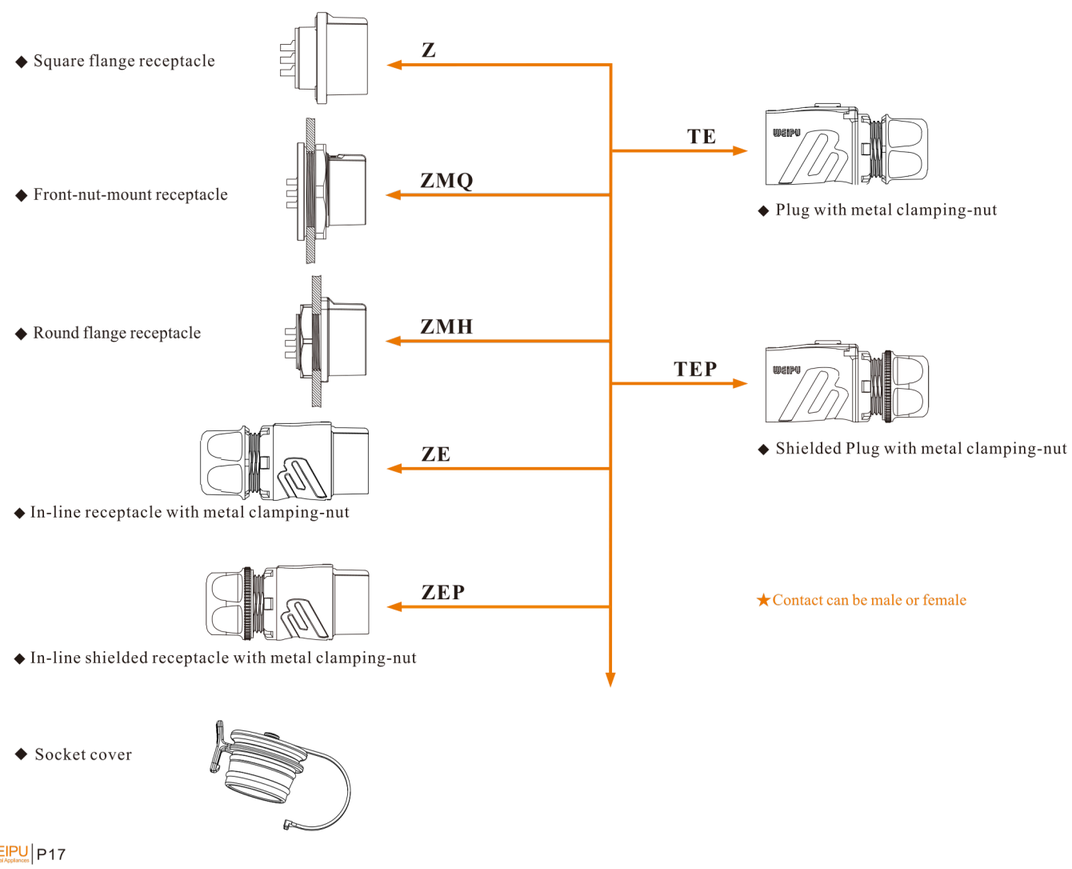
Part number system

WK [ ] [ ] [ ] [ ] [ ] [ ]

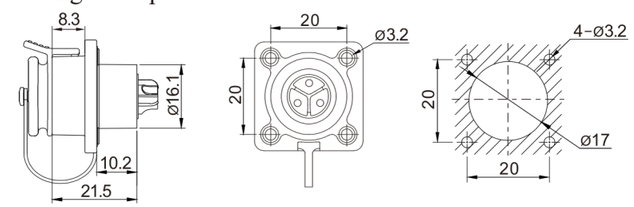
- Series code
- Panel cutout diameter: 16, 20
- Contact gender: J: Male contact; K: Female contact
- Number of solder contact: 2, 3, 4, 5, 6, 7, 8, 9, 12, 15
- Number of crimp contact: 1, 2, 3, 4, 5, 7, 8
- Shell structure and cable fix type:
  - Z: Square flange receptacle
  - ZE: In-line receptacle with plastic clamping-nut
  - TE: Plug with plastic clamping-nut
  - ZEP: In-line shielded receptacle with metal clamping-nut
  - TEP: Shielded Plug with metal clamping-nut
- Termination type:
  - 1: Solder
  - 2: Screw M3
  - 3: Crimp
- Cable outer diameter range: I: 7-10.5mm, II: 10-14mm

★Contact can be male or female

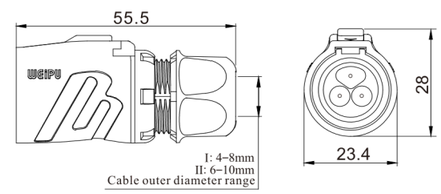
WK Series Mating diagram



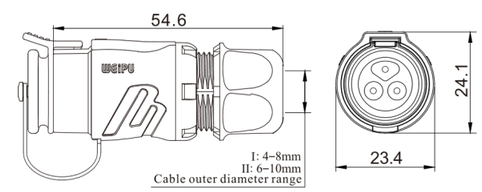
● Square flange receptacle: Z



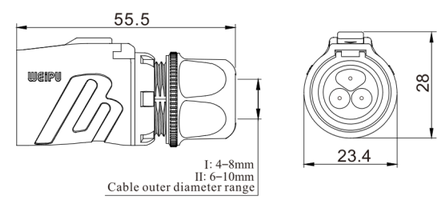
● Plug with plastic clamping-nut: TE



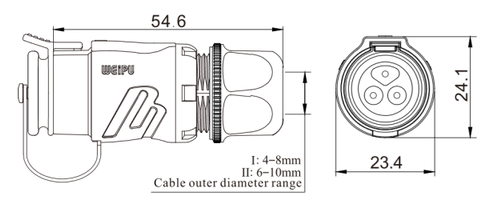
● In-line receptacle with plastic clamping-nut: ZE



● Shielded Plug with metal clamping-nut: TEP



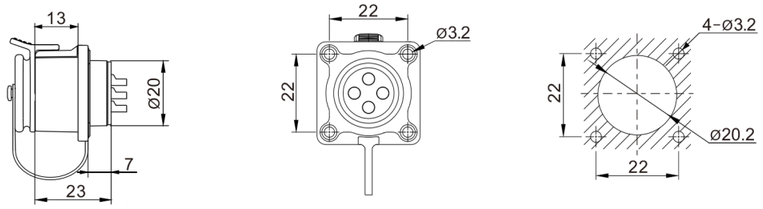
● In-line shielded receptacle with metal clamping-nut: ZEP



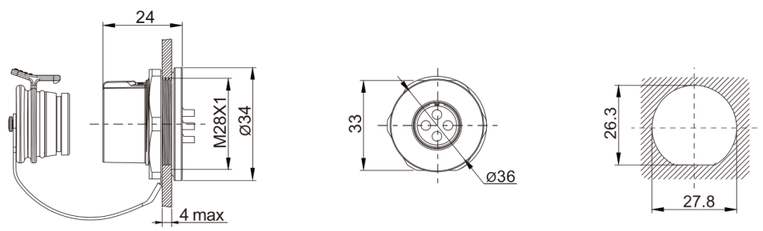
Solder contact spec

WK16	2	3	4	5	7	8	9
Male contact face view							
Rated current (A)	10	10	10	5	5	5	5
Contact diameter(mm)	ø1.5X2	ø1.5X3	ø1.5X4	ø1X5	ø1X7	ø1X8	ø1X9
Rated voltage (AC.V)	400	400	400	250	250	250	250
Test voltage(AC.V) 1 min	1500	1500	1500	1500	1500	1500	1500
Contact resistance (mΩ)	2.5	2.5	2.5	5	5	5	5
Wire size (mm²/AWG)	≤1.5/16	≤1.5/16	≤1.5/16	≤0.75/20	≤0.75/20	≤0.75/20	≤0.75/20

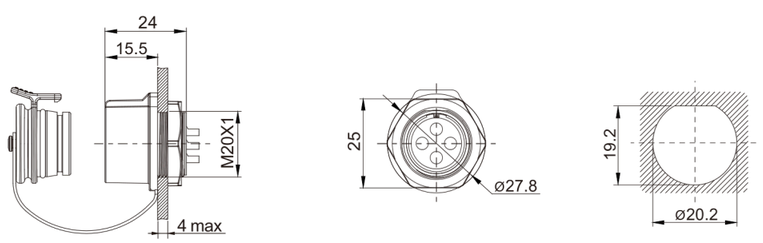
Square flange receptacle: Z



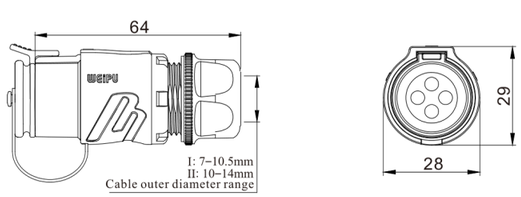
Front-nut-mount receptacle: ZMQ



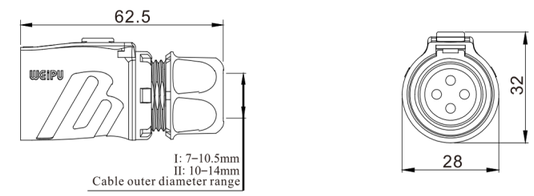
Round flange receptacle: ZMH



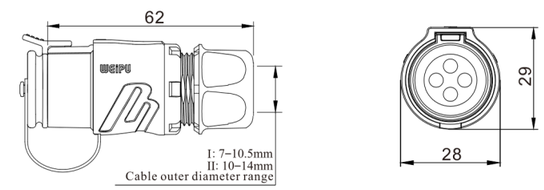
In-line shielded receptacle with metal clamping-nut: ZEP



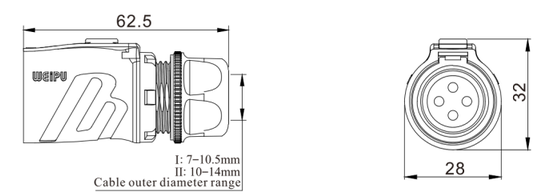
Plug with plastic clamping-nut: TE



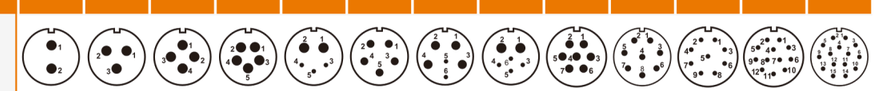
In-line receptacle with plastic clamping-nut: ZE



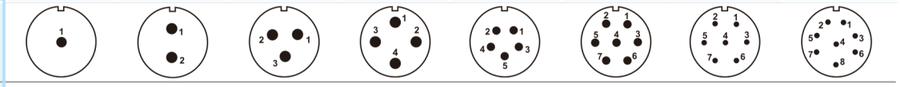
Shielded Plug with metal clamping-nut: TEP



Solder contact spec

WK20	2	3	4	5	5B	5C	6	6B	7	8	9	12	15
Male contact face view													
Rated current (A)	30	30	30	30	30 5	15	25 5	30 5	15	10	5	5	5
Contact diameter (mm)	ø3X2	ø3X3	ø3X4	ø3X5	ø3X2 ø1X3	ø2X5	ø2.5X4 ø1X2	ø3X2 ø1X4	ø2X7	ø1.5X8	ø1X9	ø1X12	ø1X15
Rated voltage (AC.V)	500	500	500	500	500	500	500	500	500	500	400	400	400
Test voltage(AC.V) 1 min	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1200	1200	1200
Contact resistance (mΩ)	1	1	1	1	1 5	2.5	1 5	1 5	2.5	2.5	5	5	5
Wire size for solder (mm² / AWG)	≤4/11	≤4/11	≤4/11	≤4/11	≤4/11 ≤0.75/18	≤2/14	≤4/11 ≤0.75/18	4/11 ≤0.75/18	≤2 / 14	≤2 / 14	≤0.75/18	≤0.75/18	≤0.75/18

Crimp contact spec

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

Crimp contact

5A Crimp contact

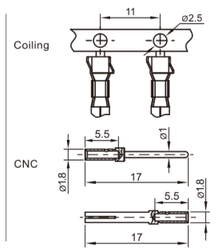
※Contact diameter: Ø1

※Material: Brass with gold plating

※Contact resistance: 5mΩ

Coiling

CNC



5A Male crimp contact

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

Wire size		Stripping length	Male crimp contact p/n	Crimping tool p/n	Removal tool p/n
0.20-0.52mm²	AWG 24-20	5.5mm	Punching YJ1-17-0.52AU-C CNC YJ1-17-0.52AU	CT-P20/28	RT-1.0

5A Female crimp contact

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

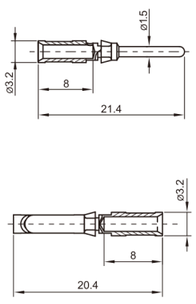
Wire size		Stripping length	Female crimp contact p/n	Crimping tool p/n	Removal tool p/n
0.20-0.52mm²	AWG 24-20	5.5mm	Punching YK1-17-0.52AU-C CNC YK1-17-0.52AU	CTW-0.14/4	RT-1.0

10A Crimp contact

※Contact diameter: Ø1.5

※Material: Brass with gold plating

※Contact resistance: 2.5mΩ



10A Male crimp contact

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

Wire size		Stripping length	Male crimp contact p/n	Crimping tool p/n	Removal tool p/n
0.14-0.37mm²	AWG 26-22	8mm	YJ1.5-21.4-0.37AU	CTW-0.14/4	RT-1.5
0.5mm²	AWG 20	8mm	YJ1.5-21.4-0.5AU	CTW-0.14/4	RT-1.5
0.75-1.0mm²	AWG 18	8mm	YJ1.5-21.4-1.0AU	CTW-0.14/4	RT-1.5
1.5mm²	AWG 16	8mm	YJ1.5-21.4-1.5AU	CTW-0.14/4	RT-1.5
2.5mm²	AWG 14	8mm	YJ1.5-21.4-2.5AU	CTW-0.14/4	RT-1.5

10A Female crimp contact

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

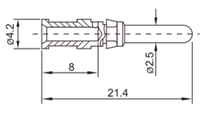
Wire size		Stripping length	Female crimp contact p/n	Crimping tool p/n	Removal tool p/n
0.14-0.37mm²	AWG 26-22	8mm	YK1.5-20.4-0.37AU	CTW-0.14/4	RT-1.5
0.5mm²	AWG 20	8mm	YK1.5-20.4-0.5AU	CTW-0.14/4	RT-1.5
0.75-1.0mm²	AWG 18	8mm	YK1.5-20.4-1.0AU	CTW-0.14/4	RT-1.5
1.5mm²	AWG 16	8mm	YK1.5-20.4-1.5AU	CTW-0.14/4	RT-1.5
2.5mm²	AWG 14	8mm	YK1.5-20.4-2.5AU	CTW-0.14/4	RT-1.5

25A Crimp contact

※Contact diameter: Ø2.5

※Material: Brass with gold plating

※Contact resistance: 1mΩ



25A Male crimp contact

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

Wire size		Stripping length	Male crimp contact p/n	Crimping tool p/n	Removal tool p/n
0.75-1.0mm²	AWG 18	8mm	YJ2.5-21.4-1.0AU	CTW-0.14/4	RT-2.5
1.5mm²	AWG 16	8mm	YJ2.5-21.4-1.5AU	CTW-0.14/4	RT-2.5
2.5mm²	AWG 14	8mm	YJ2.5-21.4-2.5AU	CTW-0.14/4	RT-2.5
4.0mm²	AWG 12	8mm	YJ2.5-21.4-4.0AU	CTW-0.14/4	RT-2.5

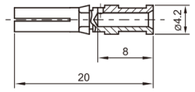
Crimp contact

25A Crimp contact

※Contact diameter: Ø2.5

※Material: Brass with gold plating

※Contact resistance: 1mΩ



25A Female crimp contact

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

Wire size		Stripping length	Female crimp contact p/n	Crimping tool p/n	Removal tool p/n
0.75-1.0mm²	AWG 18	8mm	YK2.5-20-1.0AU	CTW-0.14/4	RT-2.5
1.5mm²	AWG 16	8mm	YK2.5-20-1.5AU	CTW-0.14/4	RT-2.5
2.5mm²	AWG 14	8mm	YK2.5-20-2.5AU	CTW-0.14/4	RT-2.5
4.0mm²	AWG 12	8mm	YK2.5-20-4.0AU	CTW-0.14/4	RT-2.5

Crimp tool

For crimping the male / female contacts

Part number	Crimping wire range
YQK-70	4-70mm² AWG 11-2/0

Crimp tool and Removal tool

Crimp tool

For crimping the male / female contacts

Part number	Crimping wire range
CTW-0.14/4	0.14-4mm² AWG 26-12

Part number	Crimping wire range
CT-4/10	4-10mm² AWG 11-7
CT-0.14/4	0.14-4mm² AWG 26-12

Removal tool

For taking out male / female contacts

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

Screw contact spec

SP21, SY21, WP20, WK20	2	3	4	5
Male contact face view				
Rated current (A)	10	10	10	10
Contact diameter(mm)	ø3×2	ø3×3	ø3×4	ø3×5
Rated voltage (AC.V)	500	500	500	500
Test voltage(AC.V) 1 min	1500	1500	1500	1500
Contact resistance (mΩ)	1	1	1	1
Wire size (mm^2 / AWG)	⩽1.5/15	⩽1.5/15	⩽1.5/15	⩽1.5/15

WK Series