



Push Pull Self-Locking Connector Manufacturer

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RENHOTEC GROUP CO., LTD

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B series 05–16

Description: Push pull self locking, IP50, Omni-directional shielding, a variety of positioning pins, multi-color recognition.

Characteristics: Multi-contact (2-32 contacts), mixed loading needle contact, electrical mixing, photoelectric mixing, high pressure, single/multi-coaxial, single/multi-gas path, vacuum seal.

Series: 00B, 06, 1B, 2B, 3B, 3.5B, 4B.

Size: M7, M9, M12, M15, M18, M20.

More...



K series 17–23

Description: Push pull self locking, IP66/IP68, waterproof, Omni-directional shielding, a variety of positioning pins, multi-color recognition.

Characteristics: Multi-contact (2-32 contacts), mixed loading needle contact, electrical mixing, photoelectric mixing, high pressure, single/multi-coaxial, single/multi-gas path, vacuum seal.

Series: 0K, 1K, 2K, 3K, 4K, 5K.

Size: M14, M16, M20, M24, M30, M45.

More...



S series 24–29

Description: Push pull self locking, IP50, Omni-directional shielding, half moon type insulation contact positioning, multi-color recognition.

Characteristics: Single contact, multi-contact, mixed loading needle contact, photoelectric mixed loading, high voltage, single/multi-coaxial.

Series: 00S, 0S, 1S, 2S, 3S.

Size: M7, M9, M12, M15, M18.

More...



F series 30–35

Description: Push pull self locking, IP66/IP68, waterproof, Omni-directional shielding, a variety of positioning pins, multi-color recognition.

Characteristics: Multi-contact (2-32 contacts), mixed loading needle contact, photoelectric mixing, high pressure, vacuum seal.

Series: 0F, 1F, 1.5F, 2F, 3F.

Size: M9, M14, M16, M18.

More...



P series 36–46

Description: Push pull self locking, IP50, a variety of positioning pins, multi-color recognition.

Characteristics: Multi-contact (2-32 contacts), mixed loading needle contact, electrical mixing, photoelectric mixing, single/multi-gas path.

Series: 0P, 1P, 2P.

Size: M10, M14, M17.

More...



W series 47–50

Description: Screw coupling system, IP68, underwater, Omni-directional shielding, a variety of positioning pins, multi-color recognition.

Characteristics: Multi-contact (2-32 contacts), mixed loading needle contact, electrical mixing, photoelectric mixing, single/multi-gas path.

Series: 0W, 1W, 2W, 3W.

Size: M12, M14, M16, M20.

More...



T series 51–54

Description: Push pull self locking, IP68/68, waterproof, Omni-directional shielding, a variety of positioning pins, multi-color recognition.

Characteristics: Multi-contact (2-32 contacts), mixed loading needle contact, electrical mixing, photoelectric mixing, high pressure, vacuum seal.

Series: 0T, 1T, 2T, 3T.

Size: M9, M12, M15, M18.

More...



HR10A series 55–60

Description: Push-pull Self-latching-IP50, Screw coupling-IP65-68, Omni-directional shielding.

Characteristics: Multi-contact, Mini.

Series: NO1, NO.2, NO.3.

Size: M8, M11, M14.

More...



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Fixed socket with straight print contact.
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Fixed socket with elbow print contact.



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Cables are fixed into push pull connectors with cable collet systems.
Suitable for B.K.S.P.T.W.F series plugs



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Plug/Socket caps:Dust,Waterproof.
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Bend relief:Different colors can be distinguished.



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Assembly sequence instruction of plug outer shell,insulator earthing cone o-ring collet and collet nut.



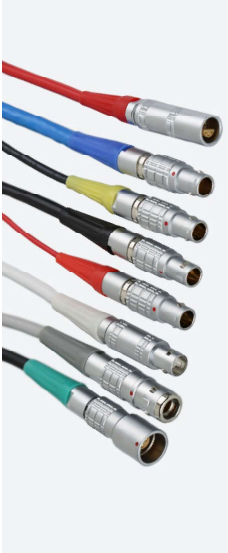
Single contact coaxial connector 80

Protection index (mated) IP 50
The connection method Push-pull Self-latching
Contact single contact



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Cable harness cable customization processing scheme:
adapter line, power line, DB9, DB15, DB25, DC, DNC, SMA, crocodile clip, cable customization, a multi-point cable production.
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Testing and production equipment 85–86

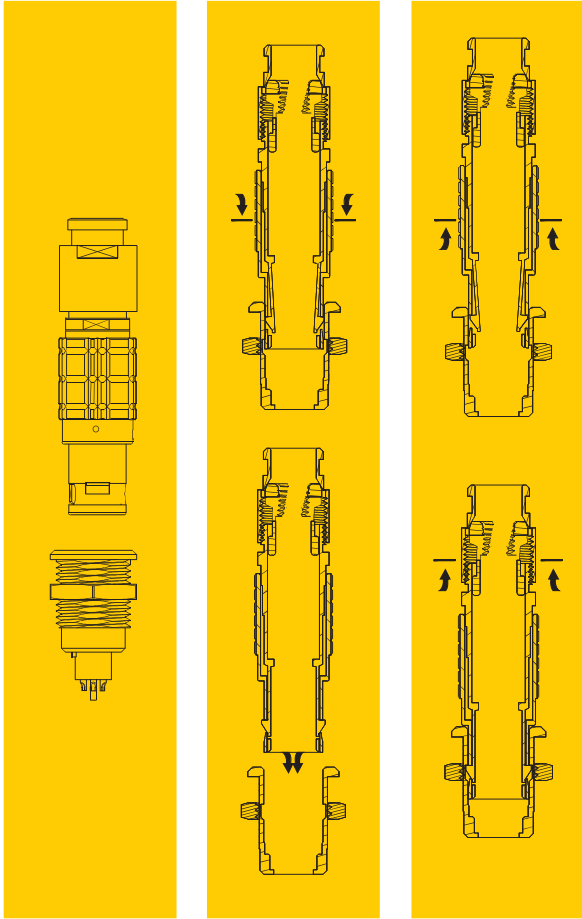
CNC,
wire harness testing machine,
injection molding machine,
tensile tester,
stripping machine,
winding machine, etc



B series

B series metal connector technical characteristics:

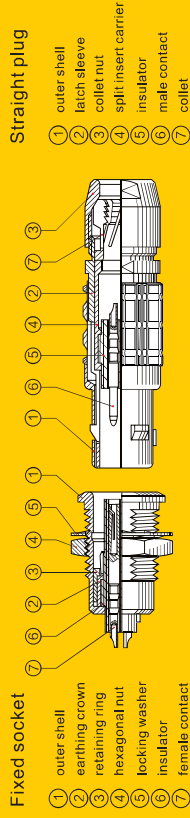
- Mechanical and Climatical.
- Endurance:> 5000 cycles.
- Humidity:up to 95% at 60°C.
- Temperature range:-55°C. + 250°C.
- Resistance to vibrations:10-2000 Hz, 15g.
- Shock resistance:100g. 6ms.
- Salt spray corrosion test:>48h.
- Protection index (mated):IP 50.



Straight plug with cable collet:

- TGG, 1B, 306, CLAD62 = Straight plug with key (G) and cable collet, 1B series, multipole type with 6 contacts, outer shell in chrome-plated brass, PPS insulator, male solder contacts, D type collet for 6.0mm diameter cable.
- DHG, 1B, 306, CLLD62Z = Free socket, with key (G), with cable collet, 1B series, multipole type with 6 contacts, outer shell in chrome-plated brass, PPS insulator, female solder contacts, D type collet for 6.0mm diameter cable.
- ZGG, 1B, 306, CLL = Fixed socket, nut fixing, with key (G), 1B series, multipole type with 6 contacts, outer shell in chrome-plated brass, PPS extended insulator, female solder contacts.

Part Section Showing Internal Components



TGG Straight plug

Key (G) or keys (A...M and R), cable collet

Reference	Series	Model	A	L	M	C
00B	TGG		6.4	29.0	8.0	5.0
0B	TGG		9.5	36.0	10.0	7.0
1B	TGG		12.0	43.8	11.0	8.9
2B	TGG		15.0	51.0	12.0	12.0
3B	TGG		17.8	61.2	15.0	15.0
4B	TGG		25.0	75.0	18.0	20.0

TGG Straight plug

Key (G) or keys (A...M and R), cable collet and nut for fitting a bend relief

Reference	Series	Model	A	L	M	C
00B	TGG		6.4	36.0	8.0	5.0
0B	TGG		9.5	39.0	10.0	7.0
1B	TGG		12.0	47.0	11.0	8.9
2B	TGG		15.0	55.5	12.0	12.0
3B	TGG		17.8	64.0	15.0	15.0

TWG Fixed plug

Nut fixing, key (G) or keys (A...M and R)

Reference	Series	Model	A	B	e	E	L	M	N	S1	S3
0B	TWG		13.8	12.4	M9×0.6	2.0	25.3	17.4	22.4	7.8	11.0
1B	TWG		18.0	15.8	M12×1.0	3.0	24.9	17.0	24.8	10.5	14.0
2B	TWG		19.5	19.2	M15×1.0	5.2	28.6	18.0	27.3	13.5	17.0

TNG Straight plug

Key (G) or keys (A...M and R), cable collet and lanyard release

Reference	Series	Model	A	B	L	M	N	S1	S2
0B	TNG		9.5	15.5	36.0	26.0	140	9.0	8.0
1B	TNG		12.0	18.0	43.0	32.0	140	10.0	9.0
2B	TNG		15.0	21.0	49.0	37.0	160	13.0	12.0
3B	TNG		18.0	25.0	58.0	43.0	190	15.0	14.0

THG Elbow (90°) plug

Key (G) or keys (A...M and R), cable collet

Reference	Series	Model	A	D	H	L	M	S1	S2	S3
00B	THG		7.0	5.5	20.0	25.0	17.0	7.0	6.0	5.5
0B	THG		11.0	7.0	31.6	32.0	21.6	10.0	7.0	8.0
1B	THG		13.5	9.5	30.5	38.5	27.2	11.0	9.0	10.0
2B	THG		16.5	10.0	41.5	36.0	32.0	12.0	12.0	13.0
3B	THG		19.0	10.0	50.0	43.0	35.0	15.0	14.0	15.0

TSG Anglissimo right angle plug

Key (G) or keys (A...M and R), cable collet

Reference		Dimensions (mm)						
Series	Model	A	H	L	M	S1	S2	
0B	TSG	10.0	24.6	30.3	20.3	7.5	8.9	
	3B	TSG	19.0	28.0	50.0	35.0	14.0	16

TAG Fixed plug

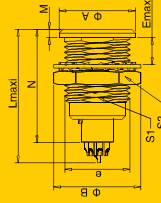
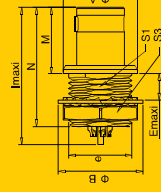
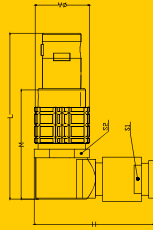
Non-latching, nut fixing, key (G) or keys (A...M and R)

Reference		Dimensions (mm)								
Series	Model	A	B	e	E	L	M	N1	S1	
0B	TAG	10.0	12.4	M9x0.6	4.2	20.8	11.2	18.9	8.2	
	1B	TAG	14.0	15.8	M12x1.0	5.4	25.2	12.5	21.6	
2B	TAG	18.0	19.2	M15x1.0	6.0	28.7	13.8	23.9	10.5	
	3B	TAG	22.0	25.0	M18x1.0	5.8	32.1	17.0	30.2	

ZGG Fixed socket

Nut fixing, key (G) or keys (A...M and R)

Reference		Dimensions (mm)								
Series	Model	A	B	e	E	L	M	N1	S1	S3
00B	ZGG	8.0	10.2	M7x0.5	6.0	15.5	1.0	13.7	6.3	9.0
	0B	ZGG	10.0	12.4	M9x0.6	7.0	20.7	1.2	19.1	8.2
1B	ZGG	14.0	15.8	M12x1.0	7.5	23.0	1.5	21.1	10.5	14.0
	2B	ZGG	18.0	19.2	M15x1.0	8.5	26.7	1.8	24.6	13.5
3B	ZGG	22.0	25.0	M18x1.0	11.5	30.7	2.0	28.1	16.5	22.0
	4B	ZGG	28.0	34.0	M25x1.0	12.0	35.7	2.5	34.1	23.5



ZCG Fixed socket with two nuts

Key (G) or keys (A...F and R) and straight contact for printed circuit(back panel mounting)

Reference		Dimensions (mm)								
Series	Model	A	B	e	E	L	M	N1	S1	S3
0B	ZCG	12.0	12.4	M9x0.6	5.5	20.7	2.5	19.1	8.2	11.0
	1B	ZCG	16.0	15.8	M12x1.0	6.0	23.0	3.5	21.1	10.5
2B	ZCG	20.0	19.2	M15x1.0	6.5	26.7	3.5	24.6	13.5	17.0
	3B	ZCG	24.0	25.0	M18x1.0	9.0	30.7	4.5	28.1	16.5

ZCG Fixed socket with two nuts

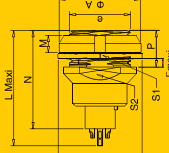
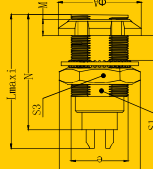
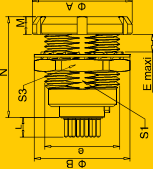
Key (G) or keys (A...M and R) (back panel mounting)

Reference		Dimensions (mm)								
Series	Model	A	B	e	E	L	M	N1	S1	S3
0B	ZCG	12.0	12.4	M9x0.6	5.5	20.7	2.5	19.1	8.2	11.0
	1B	ZCG	16.0	15.8	M12x1.0	6.0	23.0	3.5	21.1	10.5
2B	ZCG	20.0	19.2	M15x1.0	6.5	26.7	3.5	24.6	13.5	17.0
	3B	ZCG	24.0	25.0	M18x1.0	9.0	30.7	4.5	28.1	16.5

ZEG Fixed socket

Nut fixing, key (G) or keys (A...M and R) (back panel mounting)

Reference		Dimensions (mm)								
Series	Model	A	B	e	E	L	M	N1	P	S1
0B	ZEG	12.0	12.5	M9X0.6	2.4	20.7	2.5	19.1	6.3	8.2
	1B	ZEG	16.0	16.0	M12x1.0	6.5	23.0	3.5	21.1	11.0
2B	ZEG	20.0	20.0	M15x1.0	3.0	26.7	3.5	24.6	9.0	13.5
	3B	ZEG	24.0	25.0	M18x1.0	5.0	30.7	4.5	28.1	12.0



ZCG Fixed socket with two nuts

Key (G) or keys (A...F) with elbow (90°) contact for printed circuit(back panel mounting)

Reference		Dimensions (mm)							
Series	Model	A	B	ø	E	II	N	S1	S3
0B	ZCG	12.0	12.4	M9x0.6	5.0	2.5	19.1	8.2	11.0
1B	ZCG	16.0	15.8	M12x1.0	6.0	3.5	21.1	10.5	14.0
2B	ZCG	20.0	19.2	M15x1.0	6.5	3.5	24.6	13.5	17.0
3B	ZCG	24.0	25.0	M18x1.0	9.0	4.5	28.1	16.5	22.0

MGG Fixed socket

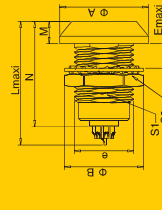
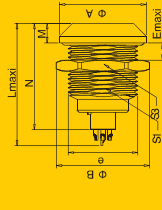
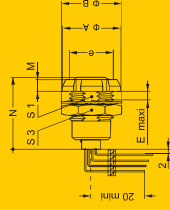
Nut fixing, key (G) or keys (A...M and R), watertight or vacuumtight

Reference		Dimensions (mm)							
Series	Model	A	B	ø	E	L	M	S1	S3
0B	MGG	13.0	12.4	M9x0.6	7.0	20.2	3.0	8.2	11.0
1B	MGG	18.0	15.8	M12x1.0	7.0	26.6	4.5	10.5	14.0
2B	MGG	20.0	19.2	M15x1.0	8.0	31.6	4.0	13.5	17.0

MHG Fixed socket

Nut fixing, key (G) or keys (A...M), watertight or vacuumtight (watertight when mated)

Reference	Dimensions (mm)								
Series	Model	A	B	ø	E	L	M	S1	S3
0B	MHG	13.0	12.4	M9x0.6	7.0	23.2	4.8	8.2	11.0
1B	MHG	18.0	15.8	M12x1.0	7.0	30.3	5.2	10.5	14.0
2B	MHG	22.0	19.2	M15x1.0	8.0	35.6	6.0	13.5	17.0



MEG Fixed socket

Nut fixing, key (G) or keys (A...M and R), watertight or vacuumtight

Reference		Dimensions (mm)								
Series	Model	A	B	ø	E	L	M	P	S1	S2
0B	MEG	12	13	M9x0.6	5.5	20.2	2.5	9.0	8.2	10
1B	MEG	16	18	M12x1.0	5.5	26.6	3.5	11.0	10.5	14
2B	MEG	20	20	M15x1.0	5.5	31.6	3.5	9.6	13.5	15

ZEG Fixed socket

Nut fixing, key (G) or keys (A...F) with elbow (90°) contact for printed circuit

Reference	Dimensions (mm)									
Series	Model	A	B	ø	E	L	M	N(1)	P	S1
0B	ZEG	12	12.5	M9x0.6	2.4	20.7	2.5	19.1	6.3	8.2
1B	ZEG	16	16.0	M12x1.0	6.5	23.0	3.5	21.1	11.0	10.5
2B	ZEG	20	20.0	M15x1.0	3.0	26.7	3.5	24.6	9.0	13.5
3B	ZEG	24	25.0	M18x1.0	5.0	30.7	4.5	28.1	12.0	16.5

DHG Free socket

Key (G) or keys (A...M and R), cable collet and nut for fitting a bend relief

Reference	Dimensions (mm)				
Series	Model	A	L	S1	S2
00B	DHG	6.8	27.0	5.5	6
	DHG	9.5	35.5	8.0	7
0B	DHG	12.5	40.5	10.0	9
	DHG	16.5	47.0	13.0	12
2B	DHG	18.0	56.0	16.0	14
	DHG	19.0	60.0	17.0	15

DHG Free socket

Key (G) or keys (A...M and R), cable collet

Reference	Dimensions (mm)				
Series	Model	A	B	L	S2
00B	DHG	6,8	27,5	5,5	6
	0B	DHG	9,5	35,5	8,0
1B	DHG	12,5	40,5	10,0	9
	2B	DHG	16,0	47,0	13,0
3B	DHG	18,0	60,0	16,0	14

ZZG Straight socket for printed circuit

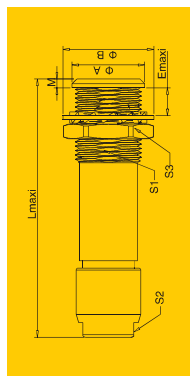
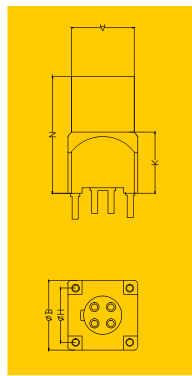
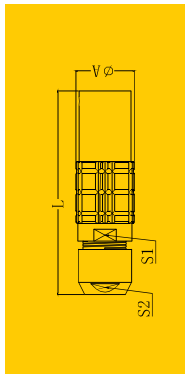
Key (G) or keys (A...M and R)

Reference	Dimensions (mm)				
Series	Model	A	B	H	K
0B	ZZG	9	10	7,62	8
	1B	ZZG	11	11,8	7,7

DFG Fixed socket

With two nuts, key (G) or keys (A...M and R), cable collet (back panel mounting)

Reference	Dimensions (mm)									
Series	Model	A	B	e	E	L	M	S1	S2	S3
0B	DFG	10	12,4	M9x0,6	7,0	35,5	1,2	8,2	7	11
	1B	DFG	14	15,8	M12x1,0	7,5	40,5	1,5	10,5	9
2B	DFG	18	19,2	M15x1,0	8,5	47	1,8	13,5	12	17
	3B	DFG	22	25,0	M18x1,0	11,5	56	2,0	16,5	14



ZHG Fixed socket

Nut fixing, key (G) or keys (A...M and R), and protruding shell

Reference	Dimensions (mm)									
Series	Model	A	B	e	E	M	L	N1	S1	S3
0B	ZHG	10	12,4	M9x0,6	2	12,5	19,5	19,1	8,2	11
	1B	ZHG	14	15,8	M12x1,0	4	12,0	21,7	21,1	10,5
2B	ZHG	18	19,2	M15x1,0	5,1	12,5	22,7	24,6	13,5	17
	3B	ZHG	22	25,0	M18x1,0	7,1	13,5	30,7	30,3	16,5

ZPG Elbow (90°) socket for printed circuit

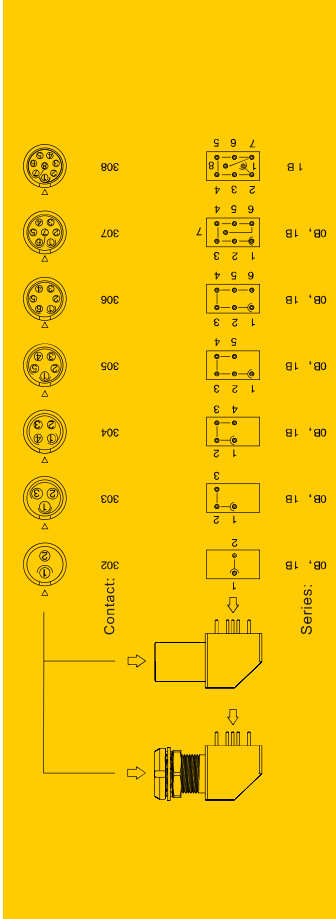
Key (G) or keys (A...F) (solder, screw or harpoon fixing)

Series	Dimensions (mm)									
	A	D	H	I	K	L	N	R		
00B	6,8	11,9	5,4	9,6	9,1	19,25	9,1	5		
	0B	9,0	14,6	6,7	12,7	13,3	25,0	11,7	7,62	
1B	11,0	16,6	7,5	14,0	13,3	27,0	12,6	7,62		
	2B	15,0	17,5	12,75	18	17	32	17	12	

ZXG Elbow (90°) socket for printed circuit with two nuts

Key (G) or keys (A...F) (solder, screw or harpoon fixing)(back panel mounting)

Series	Dimensions (mm)									
	A	B	D	e	E	H	I	K	L	M
00B	10	10,3	11,5	M7x0,5	2,5	5,4	7	9,1	19,32	5,9
	0B	12	12,4	14,6	M9x0,6	6,0	6,7	12,7	13,3	25,0
1B	14	15,0	16,6	M11x0,5	7,5	7,5	14,0	13,3	27,0	13,5
	2B	20	20,0	17,5	M15x1,0	8,0	12,75	18,0	17,0	32,0



Alignment Key and Polarized Keying System

B series connector model part numbers are composed of three letters.
The LAST LETTER indicates the key position and the contact type (male or female).

Front view of a socket		Series		Nb of keys		Ref.		Nb of keys		Angles		Series		Contact type		Note	
Ref.	Nb of keys	00	0B	1B	Ref.	Nb of keys	Angles	2B	3B	4B	5B	Plug	Socket				
G	1	0°	0°	0°	G	1	0°	0°	0°	0°	0°	male	female	●			
A	2	30°	30°	30°	A	2	30°	30°	30°	30°	30°	male	female	●			
B	2	60°	60°	60°	B	2	45°	45°	45°	45°	45°	male	female	●			
C	2	-	90°	90°	C	2	60°	60°	60°	60°	60°	male	female	●			
D	2	-	135°	135°	D	2	95°	95°	95°	95°	95°	male	female	○			
E	2	-	145°	145°	E	2	120°	120°	120°	120°	120°	male	female	○			
F	2	-	155°	155°	F	2	145°	145°	145°	145°	145°	male	female	○			
J	2	45°	45°	45°	J	2	37.5°	37.5°	37.5°	37.5°	37.5°	female	male	●			
K	2	-	70°	70°	K	2	52.5°	52.5°	52.5°	52.5°	52.5°	female	male	○			
L	2	-	80°	80°	L	2	70°	70°	70°	70°	70°	female	male	○			
M	2	δ	-	-	M	2	-	-	-	-	-	female	male	○			
Y	3	-	-	-	Y	3	β	112.5°	126°	112.5°	-	male	female	●			

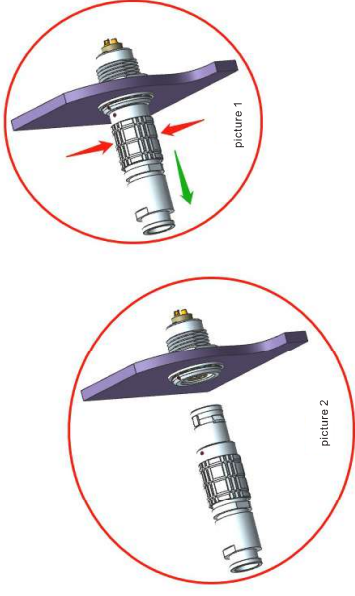
Spanners for hexagonal nuts



An illustrative

B series plug and socket separation instruction

When the plug and socket are plugged in, pinch the plug shell with the pattern with your thumb and forefinger (as indicated by the red arrow in picture 1), and then pull the plug along the end of the plug (as indicated by the green arrow in picture 1) to separate it (as shown in picture 2).
 Note: It is not necessary to twist the plug to separate from the socket.



B series plug decomposition diagram

