

PRECISION PUSH-PULL SELF-LATCHING CONNECTOR

Push-Pull self-latching system



Connect to put the new realm of technique

WEIPU was established in 1996, specialize in R&D and manufacturing the industrial connectors , we are the member of “ National Electrical Appliances Standardization Technical Committees ” and one of the members to draft the national standard for industrial connectors GB/T11918.



Factory premises

Workshop building



ISO 9001

ISO/TS 22163

IATF16949

B Series Connector

Standard of the Push-Pull self-latching system

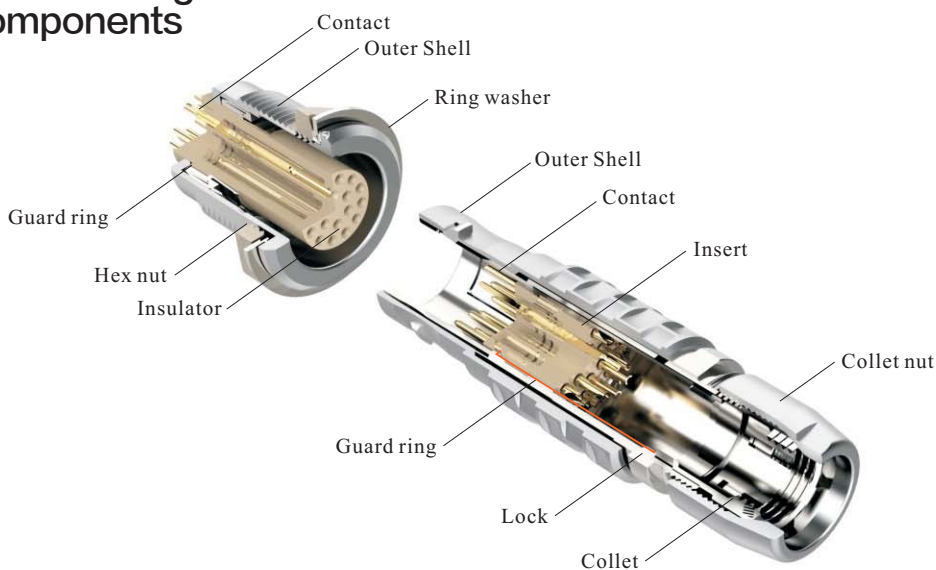
—keying system

Technical Parameter:

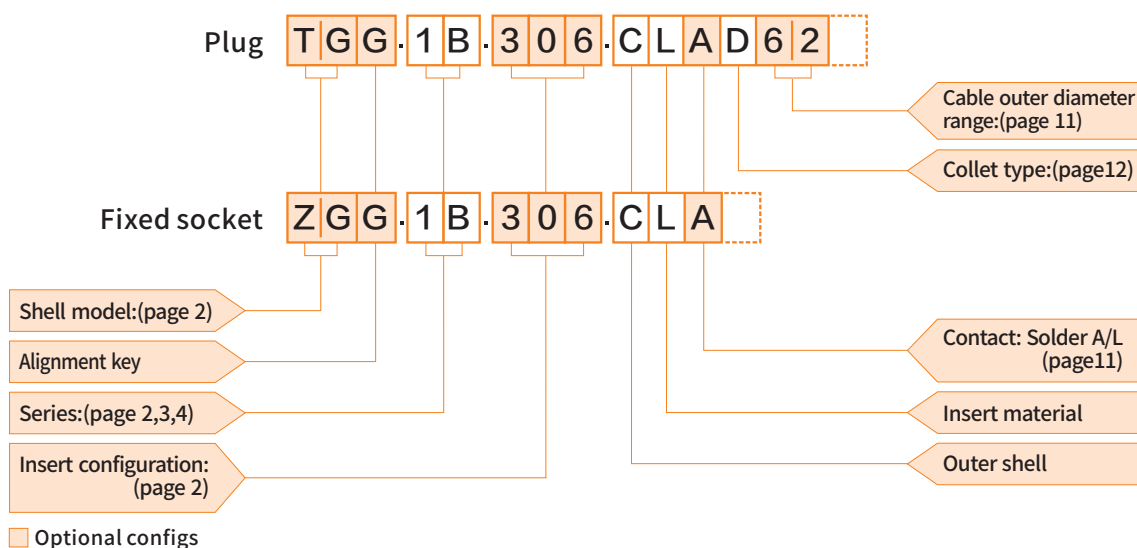
Temperature range: -55°C~+200°C
 Mating cycle: >5000
 Insert material: PEEK
 Insulator: Brass with gold plating
 Shell material: outer shell in chrome-plated brass
 Insulation resistance: $\geq 100M\Omega$
 IP rating: IP50
 Shielding efficiency: at 10MHz >75dB/at 1GHz >40dB
 Salt spray test: 144hrs



Part Section Showing Internal Components



Part Numbering System



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, PEEK insulator, male solder contacts, D type collet for 5.2mm-6.2mm diameter cable.

ZGG.1B.306.CLA = fixed socket, nut fixing, with key (G), 1B series, multipole type with 6 contacts, outer shell in chrome-plated brass, PEEK extended insulator, female crimp contacts.



1B Series Insert configuration

Male solder contacts		Female solder contacts		Insert configuration	Reference	Contact		Contact type			Test voltage (kV rms)				Rated current (A)	
Male crimp contacts		Female crimp contacts				Plug	Fixed socket	Number of contact	Cable mm	Solder	Crimp	PCB	Solder			Crimp
						302	2	1.3	●	●	●	1.50	1.35	1.70	1.45	15.0
						303	3	1.3	●	●	●	1.30	1.55	1.60	1.85	12.0
<p>TGG Straight plug, key(G), cable collet</p>						304	4	0.9	●	●	●	1.35	1.45	1.70	1.80	10.0
						305	5	0.9	●	●	●	1.25	1.15	1.30	1.55	9.0
						306	6	0.7	●	●	●	1.05	1.20	1.35	1.45	7.0
<p>ZGG Fixed socket, nut fixing, key(G)</p>						307	7	0.7	●	●	●	0.95	1.05	1.45	1.45	7.0
						308	8	0.7	●	●	●	0.95	1.15	1.30	1.30	5.0
						310	10	0.5	●	● ¹⁾	●	0.90	1.50	1.20	1.80	2.5
						314	14	0.5	●	● ¹⁾	●	0.80	1.20	0.95	1.60	2.0
<p>Fixed socket with two nuts, key(G)</p>						316	16	0.5	●	● ¹⁾	●	0.80	1.25	0.95	1.60	1.5
<p>Note: Panel cut-out, nut fixing torque, (page 13)</p>																

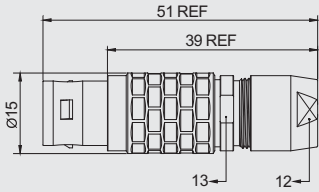
- First choice alternative
- In development

Note: ¹⁾ for male contacts

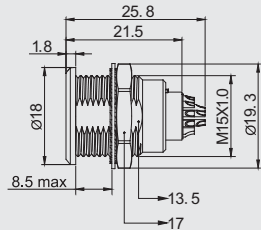


2B Series Insert configuration

Male solder contacts		Female solder contacts		Insert configuration		Reference	Contact		Contact type			Test voltage (kV rms)				Rated current (A)
Male crimp contacts		Female crimp contacts		Plug	Fixed socket		Number of contact	Cable mm	Solder	Crimp	PCB	Solder		Crimp		
												Contact	Contact	Contact	Contact	
						302	2	2.0	●	●	●	2.10	/	2.10	/	30.0
						303	3	1.6	●	●	●	2.40	/	2.40	/	17.0
						304	4	1.3	●	●	●	1.85	/	1.85	/	15.0
						305	5	1.3	●	●	●	1.75	/	1.75	/	14.0
						306	6	1.3	●	●	●	1.35	/	1.35	/	12.0
						307	7	1.3	●	●	●	1.75	/	1.75	/	11.0
						308	8	0.9	●	●	●	1.50	/	1.50	/	10.0
						310	10	0.9	●	●	●	1.45	/	1.45	/	8.0
						312	12	0.7	●	●	●	1.25	/	1.25	/	7.0
						314	14	0.7	●	●	●	1.15	/	1.55	/	6.5
						316	16	0.7	●	●	●	1.50	/	1.50	/	6.0
						318	18	0.7	●	●	●	0.85	/	1.45	/	5.5
						319	19	0.7	●	●	●	1.40	/	1.40	/	5.0
						326	26	0.5	●	●	●	1.00	/	1.00	/	2.0
						332	32	0.5	●	●	●	0.7	/	0.7	/	1.5



TGG
Straight plug, key(G), cable collet



ZGG
Fixed socket, nut fixing, key(G)

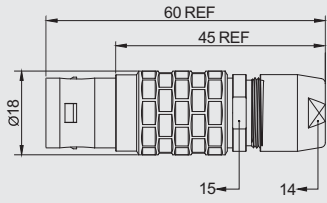
Note: Panel cut-out, nut fixing torque, (page 13)

- First choice alternative
- In development

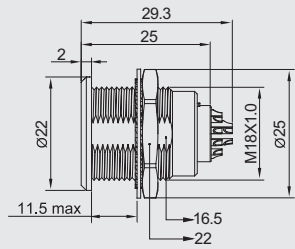
3 B C L

3B Series Insert configuration

Male solder contacts		Female solder contacts		Insert configuration		Reference	Contact		Contact type			Test voltage (kVrms)				Rated current (A)
Male crimp contacts		Female crimp contacts		Plug	Fixed socket		Number of contact	Cable mm	Solder	Crimp	PCB	Solder		Crimp		
												Contact	Contact	Contact	Contact	
						302	2	3.0	●	●	●	2.10	1.55	2.30	1.80	35.0
						303	3	2.0	●	●	●	1.90	1.50	3.20	2.65	25.0
						304	4	2.0	●	●	●	1.45	1.25	2.50	2.20	19.0
						305	5	1.6	●	●	●	1.90	1.25	2.40	1.75	19.0
						306	6	1.6	●	●	●	1.60	1.15	1.90	1.80	17.0
						307	7	1.6	●	●	●	1.70	1.25	2.00	2.05	15.0
						308	8	1.3	●	●	●	1.65	1.15	1.85	1.75	13.0
						309	8 1	1.3 2.0	●	●	●	1.35 1.35	1.05 1.05	1.10 1.10	1.05 1.05	6.0 15.0
						310	10	1.3	●	●	●	1.25	0.90	1.50	1.80	12.0
						312	12	0.9	●	●	●	1.45	1.00	1.65	1.85	9.0
						314	14	0.9	●	●	●	1.20	1.20	1.80	1.65	9.0
						316	16	0.9	●	●	●	1.20	0.85	1.80	1.50	8.0
						318	18	0.9	●	●	●	1.20	1.05	1.85	1.60	7.0
						320	20	0.7	●	●	●	1.00	0.90	1.35	1.55	6.0
						322	22	0.7	●	●	●	1.00	0.90	1.70	1.45	5.5
						324	24	0.7	●	●	●	0.95	0.80	1.35	1.35	4.0
						326	26	0.7	●	●	●	0.95	0.70	1.50	1.30	4.0
						330	30	0.7	●	●	●	0.80	0.70	1.35	1.20	3.5



TGG
Straight plug, key(G), cable collet



ZGG
Fixed socket, nut fixing, key(G)

Note: Panel cut-out, nut fixing torque, (page 13)

- First choice alternative
- In development

W Series Connector

Screw coupling watertightness connectors

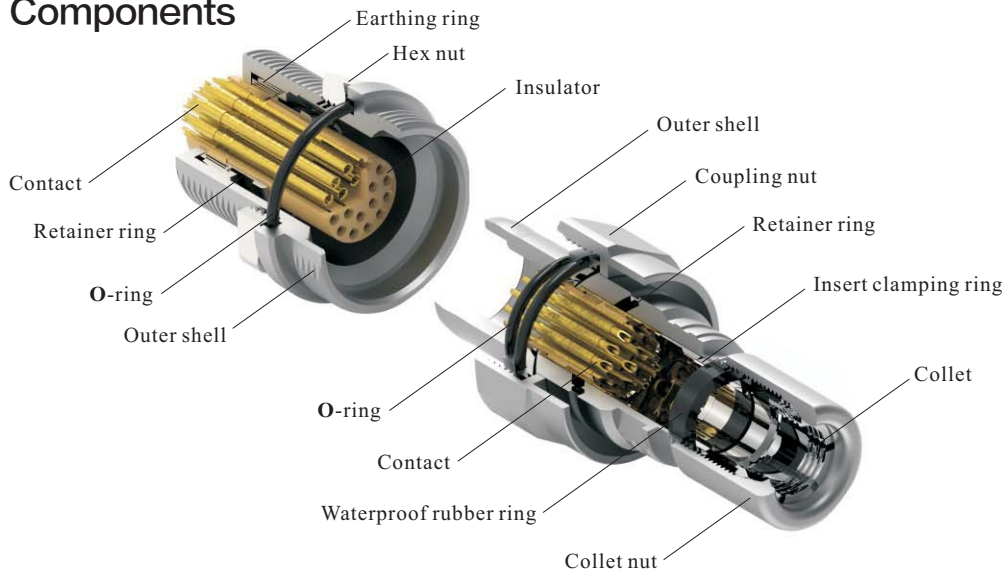
Alignment key, working pressure that can exceed 30 bars in mated conditions

Technical Parameter:

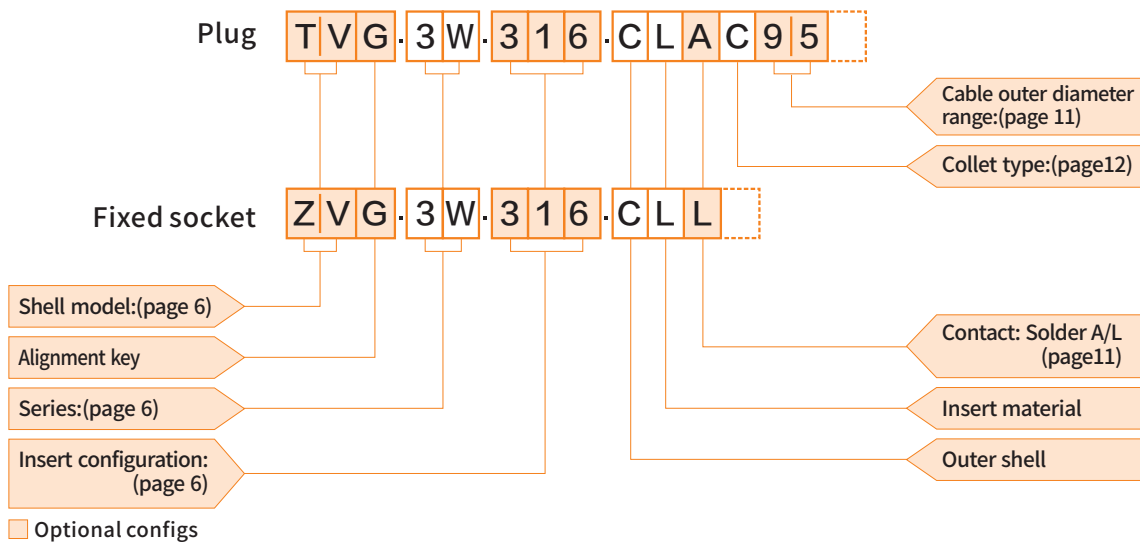
Temperature range: -20°C~+200°C
 Mating cycle: >1000
 Insert material: PEEK
 Insulator: Brass with gold plating
 Shell material: outer shell in chrome-plated brass
 Insulation resistance: $\geq 100M\Omega$
 IP rating: IP68
 Shielding efficiency: at 10MHz >95dB/at 1GHz >80dB
 Salt spray test: 144hrs
 Resistance to hydrostatic pressure (mated): ~30bars



Part Section Showing Internal Components



Part Numbering System



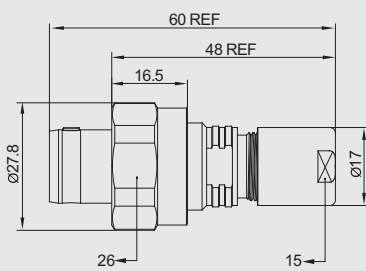
TVG.3W.316.CLAD95 = straight plug with key (G) and cable collet, 3W series, multipole type with 16 contacts, outer shell in chrome-plated brass, PEEK insulator, male solder contacts, C type collet for 9.1mm-9.5mm diameter cable.

ZVG.3W.316.CLA = fixed socket, nut fixing, with key (G), 3W series, multipole type with 16 contacts, outer shell in chrome-plated brass, PEEK extended insulator, female crimp contacts.

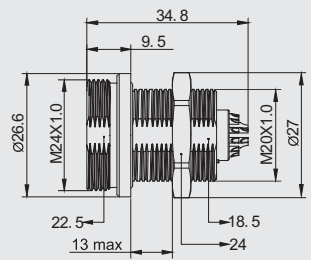
3W CL

3W Series Insert configuration

Male solder contacts		Female solder contacts		Insert configuration		Reference	Contact		Contact type			Test voltage (kVrms)				Rated current (A)
Male crimp contacts		Female crimp contacts		Plug	Fixed socket		Number of contact	Cable mm	Solder	Crimp	PCB	Solder		Crimp		
											Contact ↑	Contact ↓	Contact ↑	Contact ↓		
											Contact Housing	Contact Housing	Contact Housing	Contact Housing		
				302	2	3.0	●	●	●	2.10	1.55	2.30	1.80	35.0		
				303	3	2.0	●	●	●	1.90	1.50	3.20	2.65	25.0		
				304	4	2.0	●	●	●	1.45	1.25	2.50	2.20	19.0		
				305	5	1.6	●	●	●	1.90	1.25	2.40	1.75	19.0		
				306	6	1.6	●	●	●	1.60	1.15	1.90	1.80	17.0		
				307	7	1.6	●	●	●	1.70	1.25	2.00	2.05	15.0		
				308	8	1.3	●	●	●	1.65	1.15	1.85	1.75	13.0		
				309	8	1.3	●	●	●	1.35	1.05	1.10	1.05	6.0		
				309	1	2.0	●	●	●	1.35	1.05	1.10	1.05	15.0		
				310	10	1.3	●	●	●	1.25	0.90	1.50	1.80	12.0		
				312	12	0.9	●	●	●	1.45	1.00	1.65	1.85	9.0		
				314	14	0.9	●	●	●	1.20	1.20	1.80	1.65	9.0		
				316	16	0.9	●	●	●	1.20	0.85	1.80	1.50	8.0		
				318	18	0.9	●	●	●	1.20	1.05	1.85	1.60	7.0		
				320	20	0.7	●	●	●	1.00	0.90	1.35	1.55	6.0		
				322	22	0.7	●	●	●	1.00	0.90	1.70	1.45	5.5		
				324	24	0.7	●	●	●	0.95	0.80	1.35	1.35	4.0		
				326	26	0.7	●	●	●	0.95	0.70	1.50	1.30	4.0		
				330	30	0.7	●	●	●	0.80	0.70	1.35	1.20	3.5		



TVG
Straight plug, key(G), cable collet



ZVG
Fixed socket, nut fixing, key(G)

Note: Panel cut-out, nut fixing torque, (page 13)

- First choice alternative
- In development

P Series Connector

Medical self-locking plastic connectors

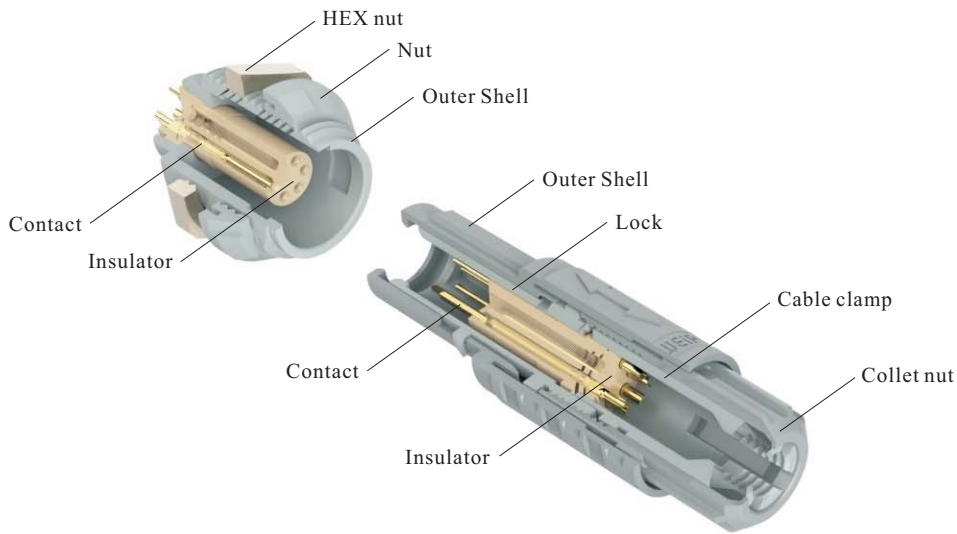
—keying system

Technical Parameter :

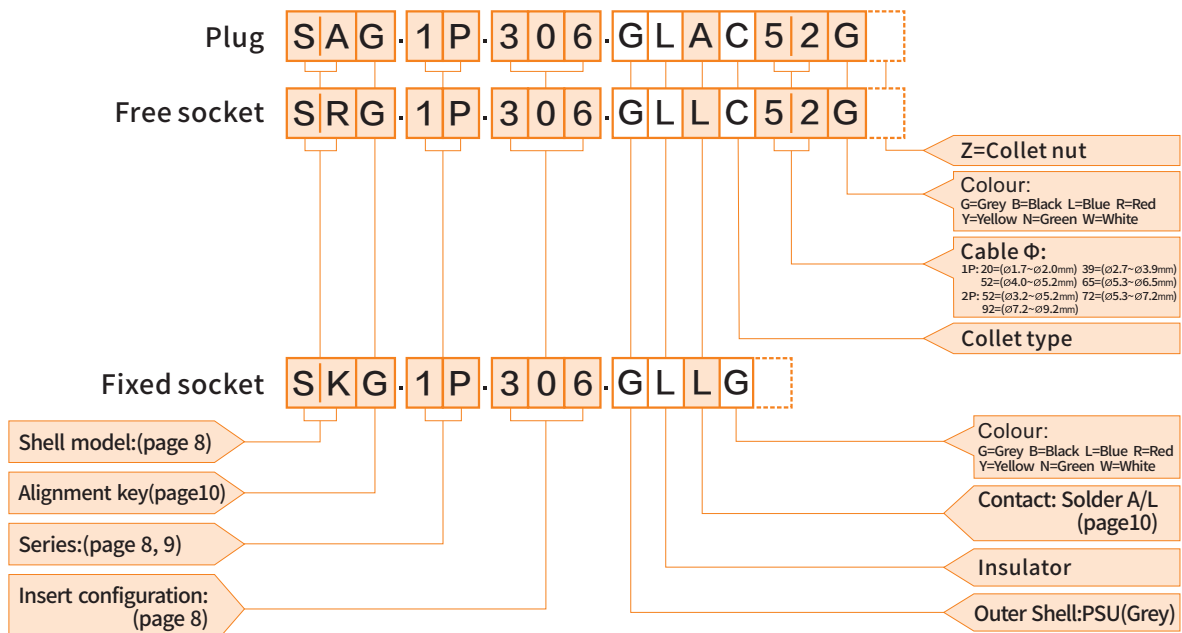
Temperature range: -50°C~+200°C
 Mating cycle: >1000
 Insert material: PEEK
 Insulator: Brass with gold plating
 Shell material: PSU
 Insulation resistance: ≥100MΩ
 IP rating: IP50
 Collet cut: PSU



Part Section Showing Internal Components



Part Numbering System



Optional configs

SAG.1P.306.GLAC52 = straight plug with key (G), 1P series, multipole type with 6 contacts, grey PSU outershell, PEEK insulator, male solder contacts, C type collet for 4.0mm-5.2mm diameter cable, and grey PSU Rear-nut.

SKG.1P.306.GLLG = Free socket with cable collet and alignment key (G), 1P series, multipole type with 6 contacts, PEEK insulator, female solder contacts, and grey PSU front nut.

1P Series Insert configuration



Male solder contacts		Female solder contacts		Insert configuration		Insert configuration		Contact		Contact type			Test voltage (kV rms)				Rated current (A)
Male crimp contacts		Female crimp contacts		Plug	Fixed socket	Insert configuration	Number of contact	Cable mm	Solder	Crimp	PCB	Solder		Crimp			
												Contact ↑	Contact ↓	Contact ↑	Contact ↓		
				Contact ↑	Contact ↓	Contact ↑	Contact ↓	Contact ↑	Contact ↓	Contact ↑	Contact ↓	Contact ↑	Contact ↓				
						302	2	1.3	●	●	●	1.2	/	1.2	/	10.0	
						304	4	0.9	●	●	●	1.2	/	1.2	/	8.0	
						305	5	0.9	●	●	●	1.05	/	1.05	/	7.0	
						306	6	0.7	●	●	●	1.05	/	1.05	/	6.0	
						307	7	0.7	●	●	●	1.05	/	1.05	/	5.0	
						308	8	0.7	●	●	●	1.05	/	1.05	/	5.0	
						309	9	0.5	●	●	●	0.85	/	0.85	/	3.0	
						310	10	0.5	●	●	●	0.85	/	0.85	/	3.0	
						314	14	0.5	●	●	●	0.6	/	0.6	/	2.0	

- First choice alternative
- In development

Note: Panel cut-out, nut fixing torque, (page 13)

1P Series Insert configuration



Male solder contacts		Female solder contacts		Insert configuration		Contact		Contact type			Test voltage (kV rms)				Rated current (A)	
Male crimp contacts		Female crimp contacts		Plug	Fixed socket	Number of contact	Cable mm	Solder	Crimp	PCB	Solder		Crimp			
											Contact ↑	Contact ↓	Contact ↑	Contact ↓		Contact ↑
						302	2	2.0	●	●	●	2.10	/	2.10	/	30.0
						303	3	1.6	●	●	●	2.40	/	2.40	/	17.0
						304	4	1.3	●	●	●	1.85	/	1.85	/	15.0
						305	5	1.3	●	●	●	1.75	/	1.75	/	14.0
						306	6	1.3	●	●	●	1.35	/	1.35	/	12.0
						307	7	1.3	●	●	●	1.75	/	1.75	/	11.0
						308	8	0.9	●	●	●	1.50	/	1.50	/	10.0
						310	10	0.9	●	●	●	1.45	/	1.45	/	8.0
						312	12	0.7	●	●	●	1.25	/	1.25	/	7.0
						316	16	0.7	●	●	●	1.50	/	1.50	/	6.0
						319	19	0.7	●	●	●	1.40	/	1.40	/	5.0
						326	26	0.5	●	●	●	1.00	/	1.00	/	2.0
						332	32	0.5	●	●	●	0.7	/	0.7	/	1.5

→ **SAB**
Straight plug, key(B), cable collet

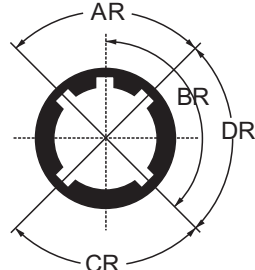
→ **SKB**
Fixed socket with two nuts, key (B)

Note: Panel cut-out, nut fixing torque, (page 13)

- First choice alternative
- In development

Alignment key (B Series)

□ □ □ 1 B □ □ □ C L □ □ □ □ □ □ □



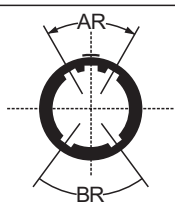
Front view of a socket

Ref.	Nb of keys	Series					Contact type		Note
		Angles	1B	Angles	2B	3B	Plug	Socket	
G	1	-	0°	-	0°	0°	male	female	●
A	2	AR	30°	AR	30°	30°	male	female	●
B	2		60°		45°	45°	male	female	●
C	2		90°		60°	60°	male	female	●
D	2	BR	135°	CR	95°	95°	male	female	○
E	2		145°	BR	120°	120°	male	female	○
F	2		155°		145°	145°	male	female	○
J	2	CR	45°	AR	37.5°	37.5°	female	male	●
K	2		70°		52.5°	52.5°	female	male	○
L	2		80°	CR	70°	70°	female	male	○
M	2	DR	-	-	-	-	female	male	○
Y	3	-	-	BR	112.5°	126°	male	female	●
		-	-	CR	100°	102°			

- First choice alternative
- Special order alternative

Alignment key (W Series)

□ □ □ 3 W □ □ □ G L □ □ □ □ □ □ □



Front view of a socket

Ref.	Nb of keys	Angles	Series	Contact type		Note
			3W	Plug	Socket	
G	1	-	0°	male	female	●
A	2	AR	30°	male	female	●
B	2		45°	male	female	●
L	2	BR	75°	female	male	○

- First choice alternative
- Special order alternative

Alignment key (P Series)

□ □ □ 1 P □ □ □ G L □ □ □ □ □ □ □

Ref.(1P)	G	A	B	C
Front view of a socket				
Nb of keys	1	2	2	2

Ref.(2P)	B	C	D
Front view of a socket			
Nb of keys	3	3	3

- First choice alternative
- In development

Contacts reference for B&W series plugs, free or fixed sockets



Contact type	Reference		Contact			Conductor				F _r (N)		
	Male	Female	ØA (mm)	ØC (mm)	Form per fig.	Solid		Stranded				
						AWG max.	Section max. (mm ²)	AWG min. max.	Secrion(mm ²) min. max.			
	A	L	0.5	0.40	-	28	0.09	-	30	-	0.05	-
			0.5	0.45	-	28	0.09	-	28	-	0.05	-
			0.7	0.80	-	22	0.34	-	22 ¹⁾	-	0.34	-
			0.9	0.80	-	22	0.50	-	22 ¹⁾	-	0.50	-
			1.3	1.00	-	20	0.50	-	20 ¹⁾	-	0.50	-
			1.6	1.40	-	16	1.00	-	18	-	1.00	-
			2.0	1.80	-	14	1.50	-	16	-	1.50	-

Note: 1) for a given AWG, the diameter of some stranded conductor designs is larger than the solder cup diameter. Make sure that the maximum conductor diameter is smaller than ØC.

Contacts reference for 1P series plugs, free or fixed sockets



Contact type	Reference		Contact			Conductor				F _r (N)		
	Male	Female	ØA (mm)	ØC (mm)	Form per fig.	Solid		Stranded				
						AWG max.	Section max. (mm ²)	AWG min. max.	Secrion(mm ²) min. max.			
	A	L	0.5	0.45	-	28	0.09	-	28	-	0.09	-
			0.7	0.85	-	22	0.34	-	22 ¹⁾	-	0.34	-
			0.9	0.85	-	22	0.34	-	22 ¹⁾	-	0.34	-
			1.3	1.4	-	20	0.50	-	20 ¹⁾	-	0.50	-

Contacts reference for 2P series plugs, free or fixed sockets



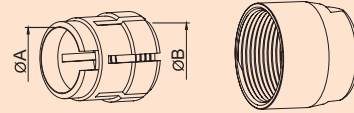
Contact type	Reference		Contact			Conductor				F _r (N)		
	Male	Female	ØA (mm)	ØC (mm)	Form per fig.	Solid		Stranded				
						AWG max.	Section max. (mm ²)	AWG min. max.	Secrion(mm ²) min. max.			
	A	L	0.5	0.45	-	28	0.09	-	28	-	0.09	-
			0.7	0.85	-	22	0.34	-	22 ¹⁾	-	0.34	-
			0.9	0.85	-	22	0.34	-	22 ¹⁾	-	0.34	-
			1.3	1.4	-	20	0.50	-	20 ¹⁾	-	0.50	-
			2.0	1.80	-	14	1.50	-	16	-	1.50	-

Note: 1) for a given AWG, the diameter of some stranded conductor designs is larger than the solder cup diameter. Make sure that the maximum conductor diameter is smaller than ØC.

Collets (B series)



D type collets for B series



	Reference		Collet Φ		Cable Φ		Notes
	Type	Code	ΦA	ΦB	max.	min.	
1B	D	42	4.2	—	4.2	3.1	
	D	52	5.2	—	5.2	> 4.2	
	D	62	6.2	—	6.2	> 5.2	
	D	72	7.2	6.2	7.2	> 6.2	
	D	76	7.6	6.9	7.6	> 7.2	1)
2B	D	42	4.2	—	4.2	> 3.2	
	D	52	5.2	—	5.2	> 4.2	
	D	62	6.2	—	6.2	> 5.2	
	D	72	7.2	—	7.2	> 6.2	
	D	82	8.2	—	8.2	> 7.2	
	D	92	9.2	8.6	9.2	> 8.2	
	D	99	9.9	8.6	9.9	> 9.2	1)
3B	D	62	6.2	—	6.2	4.9	
	D	72	7.2	—	5.7	> 6.2	
	D	92	9.2	—	9.2	> 7.7	
	D	10	10.2	—	10.0	> 9.2	
	D	11	11.0	—	11.0	> 10.1	
	D	12	12.0	10.2	11.9	10.8	1)

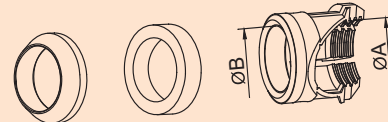
Note: all dimensions are in millimetres.

1) these collets cannot be used for connector models with nut for fitting a bend relief.
No bend relief available for this cable size.

Collets (W series)

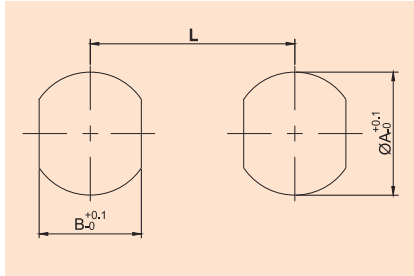


C type collets for W series



	Reference		Collet Φ		Cable Φ		Notes
	Type	Code	ΦA	ΦB	max.	min.	
3W	C	30	3.2	—	3.0	2.6	
	C	35	4.2	—	3.5	3.1	
	C	40	4.2	—	4.0	3.6	
	C	45	5.2	—	4.5	4.1	
	C	50	5.2	—	5.0	4.6	
	C	55	6.2	—	5.5	5.1	
	C	60	6.2	—	6.0	5.6	
	C	65	7.2	—	6.5	6.1	
	C	70	7.2	—	7.0	6.6	
	C	75	8.2	—	7.5	7.1	
	C	80	8.2	—	8.0	7.6	
	C	85	9.2	—	8.5	8.1	
	C	90	9.2	—	9.0	8.6	
	C	95	10.2	10.2	9.5	9.1	
	C	10	10.2	10.2	10.0	9.6	
	C	11	10.6	10.6	10.5	10.1	

Panel cut-outs



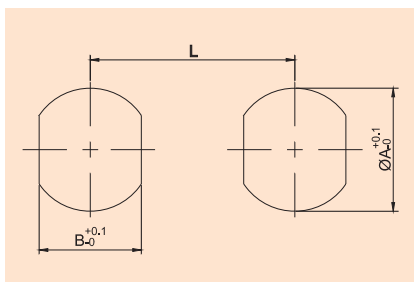
B series

Series	$\varnothing A$	B	L
1B	12.1	10.6	18.5
2B	15.1	13.6	22.5
3B	18.2	16.6	27.0

Mounting nut torque

Series	Torque (Nm)	
	Metal shell	Plastic shell
1B	4.5	0.7
2B	6.0	0.8
3B	9.0	1.0

1N=0.102kg



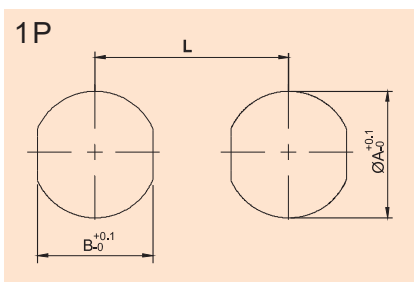
W series

Series	$\varnothing A$	B	L
3W	20.2	18.6	30.0

Mounting nut torque

Series	Torque (Nm)
3W	12

1N=0.102kg



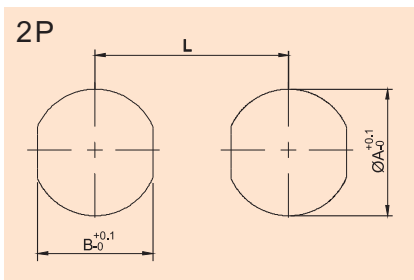
P series

Series	$\varnothing A$	B	L
1P	14	12.6	23.5
2P	17.1	15.6	26

Mounting nut torque

Series	Torque (Nm)
1P	1.5
2P	0.8

1N=0.102kg



Beijing Olympic Stadium(Bird's Nest) project and Beijing Olympic Opening Ceremony
China Import and Export Fair Complex
Guangzhou Baiyun International Convention Center
Lingao, Yangjiang and Taishan Nuclear Power Station
Guangdong Huangpu Power Plant
China Mobile, China Telecom
Nanning international Convention and Exhibition Center
Sinopec Maoming ethylene project
The Three Gorges river closure project
Zhongshan ABB transformer distribution box
Guiyang Grand Theater Project
Shanghai Oriental Art Center project
Beijing/Shanghai/Guangzhu Metro Network Project
Workshop reconstruction project of Changchun No.1 Automobile Factory
Daqing Oilfield project
Lighting system of Tiananmen Square for the 60th anniversary of National Day
Shanghai World Expo project and Lighting system for opening ceremony
Qingdao Grand Theatre
Shanghai GM powertrain workshop
Zhejiang Yourworld International Conference Center
Shanghai Hongqiao Airport Terminal 2
The TMRT 65-m radio telescopes of Shanghai Astronomical Observatory (Tianma Radio Telescope)

MAIN PROJECTS