

HIGH-PRECISION PUSH-PULL SELF-LATCHING CONNECTOR

Keying system



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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

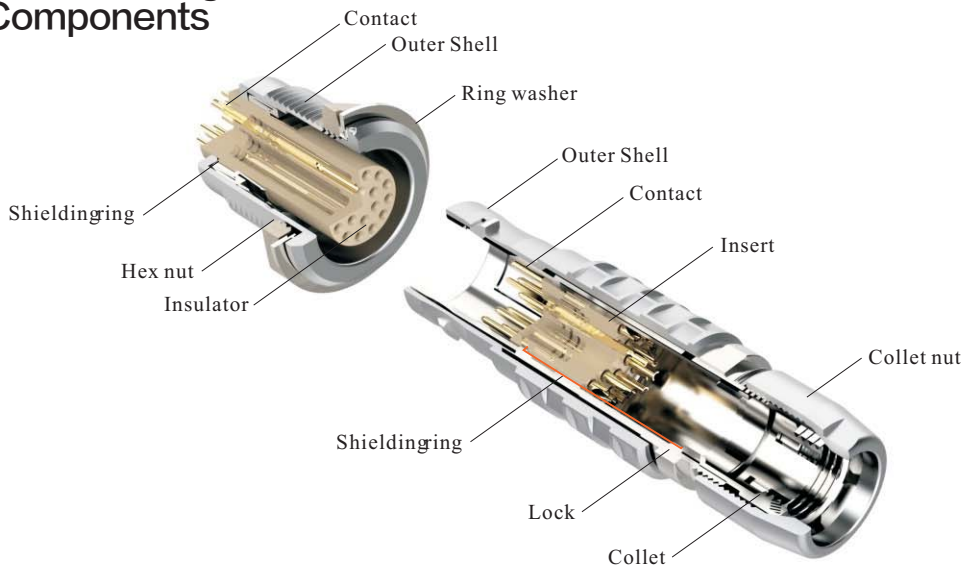
— keying system

Technical Parameter:

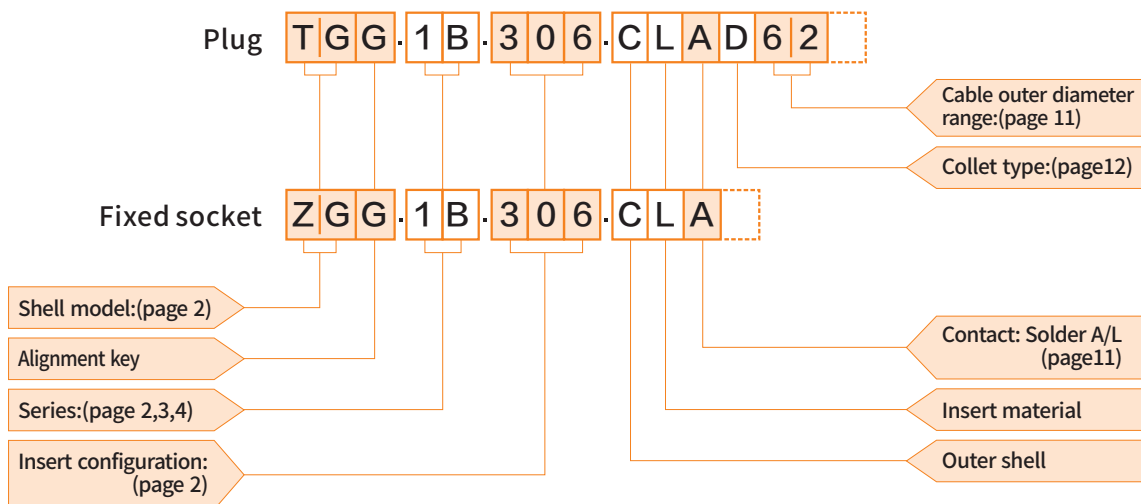
Temperature range: -55°C~+250°C
 Mating cycle: >5000
 Insert material: PEEK
 Insulator: Brass with gold plating
 Shell material: outer shell in chrome-plated brass
 Insulation resistance: $\geq 100M\Omega$
 IP rating: IP50
 Shielding efficiency: at 10MHz >75dB/at 1GHz >40dB
 Salt spray test: 144hrs



Part Section Showing Internal Components



Part Numbering System



Optional configs

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.

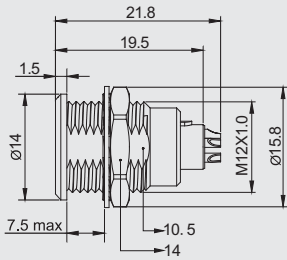
ZGG.1B.306.CLA = fixed socket, nut fixing, with key (G), 1B series, multipole type with 6 contacts, outer shell in chrome-plated brass, PEEK extended insulator, female crimp contacts.

1 B CL

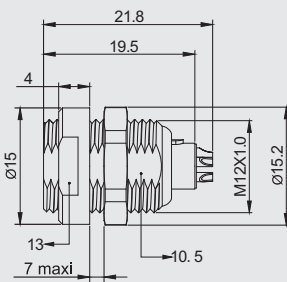
1B Series Insert configuration

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
				↑ Contact	↑ Contact Housing								↑ Contact	↑ Contact Housing		
						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
						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
						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
						316	16	0.5	●	● ¹⁾	●	0.80	1.25	0.95	1.60	1.5

TGG
Straight plug, key(G), cable collet



ZGG
Fixed socket, nut fixing, key(G)



Fixed socket with two nuts, key(G)

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

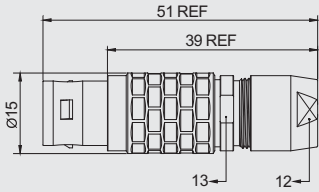
- First choice alternative
- In development

Note: ¹⁾ for male contacts

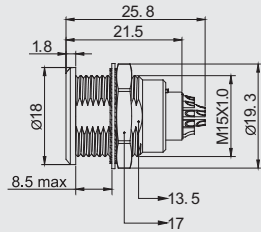


2B Series Insert configuration

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 CL

3B Series Insert configuration

Male solder contacts	Female solder contacts	Insert configuration		Reference	Contact		Contact type			Test voltage (kVrms)				Rated current (A)
		Plug	Fixed socket		Number of contact	Cable mm	Solder	Crimp	PCB	Solder		Crimp		
										Contact ↑ Contact ↓	Contact ↑ Housing ↓	Contact ↑ Contact ↓	Contact ↑ Housing ↓	
<p>TGG Straight plug, key(G), cable collet</p>														
<p>ZGG Fixed socket, nut fixing, key(G)</p>														
<p>Note: Panel cut-out, nut fixing torque, (page 13)</p>														
				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	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

- First choice alternative
- In development

W Series Connector

Threaded coupling watertightness connectors

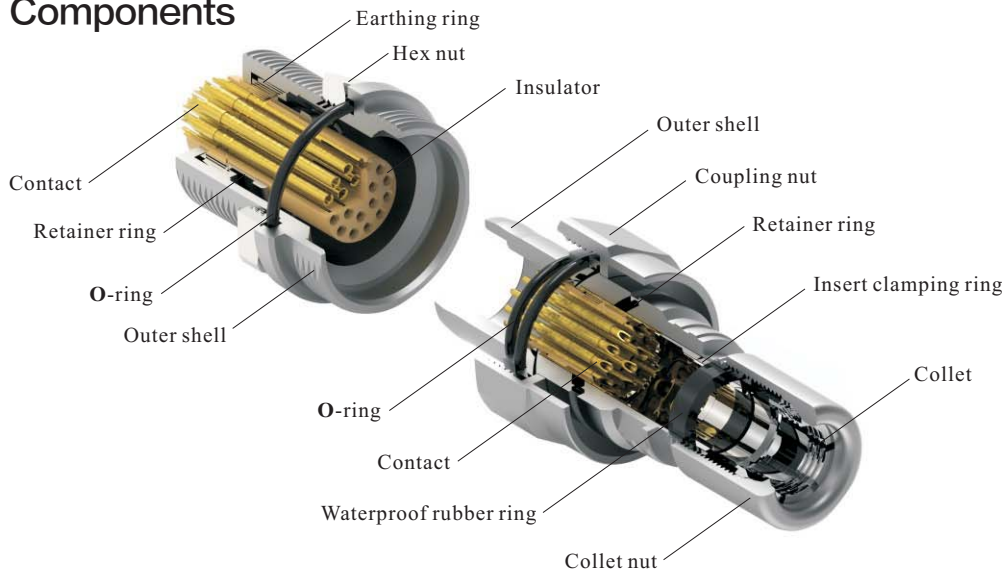
Alignment key, working pressure that can exceed 30 bars in mated conditions

Technical Parameter:

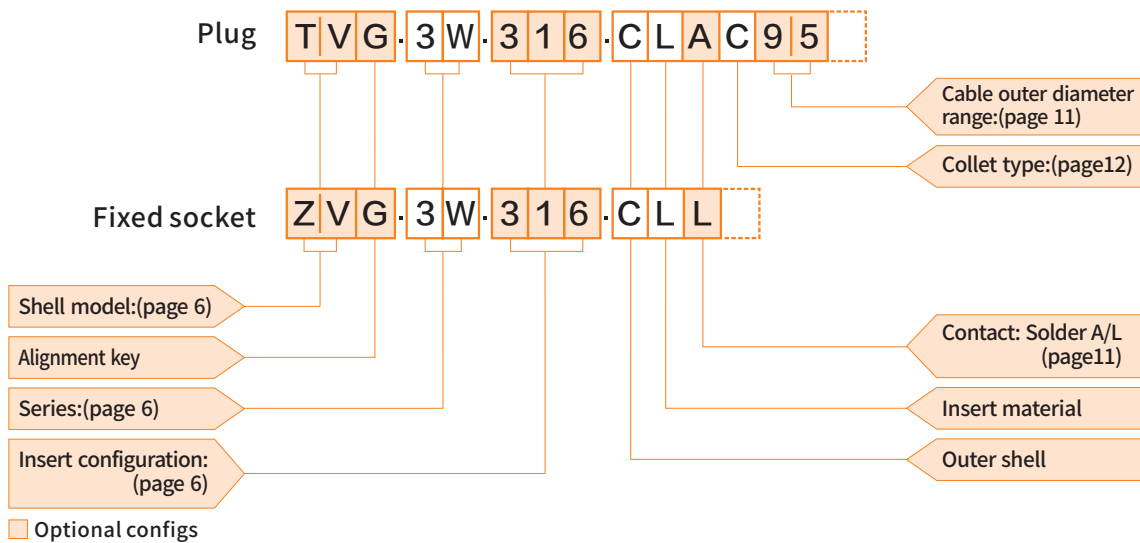
Temperature range: -20°C~+200°C
 Mating cycle: >1000
 Insert material: PEEK
 Insulator: Brass with gold plating
 Shell material: outer shell in chrome-plated brass
 Insulation resistance: $\geq 100M\Omega$
 IP rating: IP68
 Shielding efficiency: at 10MHz >95dB/at 1GHz >80dB
 Salt spray test: 144hrs
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

Male solder contacts	Female solder contacts	Insert configuration		Reference	Contact		Contact type			Test voltage (kVrms)				Rated current (A)
		Plug	Fixed socket		Number of contact	Cable mm	Solder	Crimp	PCB	Solder		Crimp		
										Contact ↑	Contact ↓	Contact ↑	Contact ↓	
<p>TVG Straight plug, key(G), cable collet</p>														
<p>ZVG Fixed socket, nut fixing, key(G)</p>														
<p>Note: Panel cut-out, nut fixing torque, (page 13)</p>														
				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
				310	10	1.3	●	●	●	1.35	1.05	1.10	1.05	15.0
				312	12	0.9	●	●	●	1.25	0.90	1.50	1.80	12.0
				314	14	0.9	●	●	●	1.45	1.00	1.65	1.85	9.0
				316	16	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

- First choice alternative
- In development

P Series Connector

Medical push-pull self-latching plastic connectors

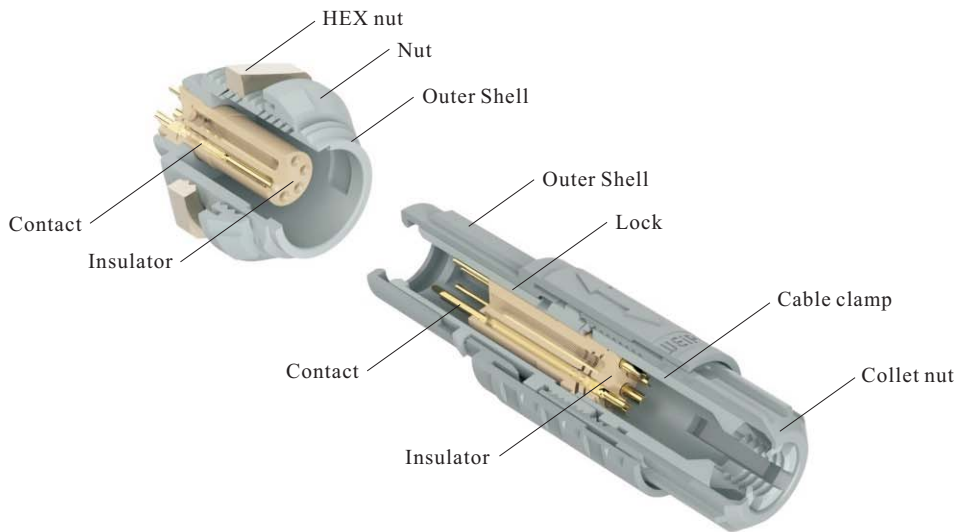
—keying system

Technical Parameter:

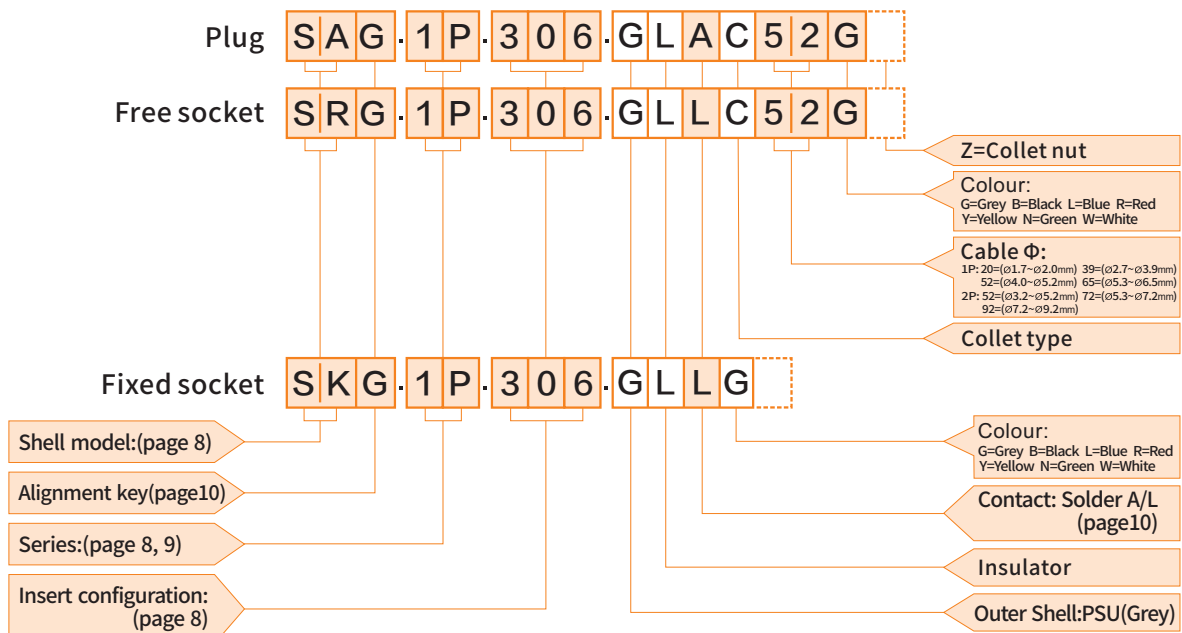
Temperature range: -50°C~+150°C
 Mating cycle: >1000
 Insert material: PEEK
 Insulator: Brass with gold plating
 Shell material: PSU
 Insulation resistance: ≥100MΩ
 IP rating: IP50
 Collet cut: PSU



Part Section Showing Internal Components



Part Numbering System



Optional configs

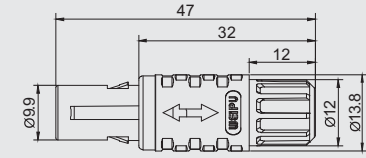
SAG.1P.306.GLAC52 = straight plug with key (G), 1P series, multipole type with 6 contacts, grey PSU outershell, PEEK insulator, male solder contacts, C type collet for 4.0mm-5.2mm diameter cable, and grey PSU Rear-nut.

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.

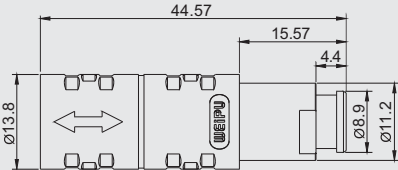
1P Series Insert configuration



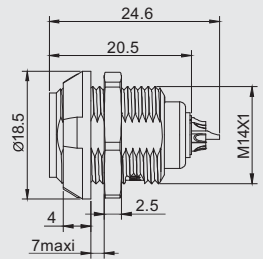
Male solder contacts	Female solder contacts	Insert configuration	Insert configuration	Contact		Contact type			Test voltage (kV rms)				Rated current (A)	
				Number of contact	Cable mm	Solder	Crimp	PCB	Solder		Crimp			
									Contact ↑ Contact ↓	Contact ↑ Housing ↓	Contact ↑ Contact ↓	Contact ↑ Housing ↓		
				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



SAG
Straight plug, key(G), cable collet



SRG
Free socket, key(G), cable collet



SKG
Fixed socket with two nuts, key (G)

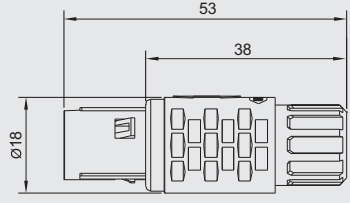
Note: Panel cut-out, nut fixing torque, (page 13)

- First choice alternative
- In development

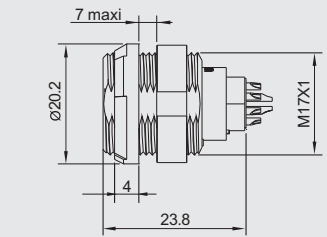
1P Series Insert configuration



Male solder contacts		Female solder contacts		Insert configuration	Contact		Contact type			Test voltage (kVrms)				Rated current (A)
Male crimp contacts		Female crimp contacts			Insert configuration	Number of contact	Cable mm	Solder	Crimp	PCB	Solder		Crimp	
Plug	Fixed socket	↑ Contact	↑ Contact Housing	↑ Contact							↑ Contact Housing			
		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



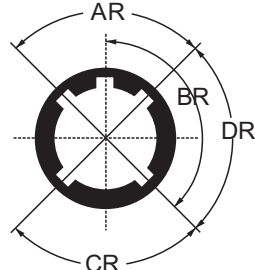
SKB
Fixed socket with two nuts, key (B)

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.	No of keys	Series			Contact type		Note		
		Angles	1B	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.	No 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

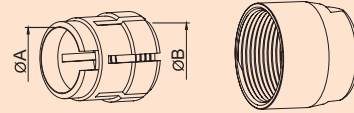
Ref.(1P)	G	A	B	C	Ref.(2P)	B	C	D
Front view of a socket								
No of keys	1	2	2	2	3	3	3	

- First choice alternative
- In development

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)

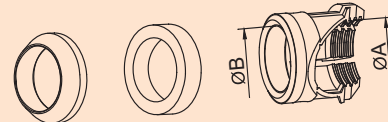
Note: all dimensions are in millimetres.

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)

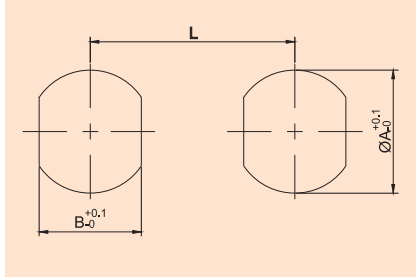


C type collets for W series



	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



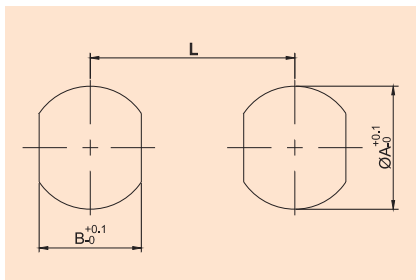
B series

Series	ØA	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



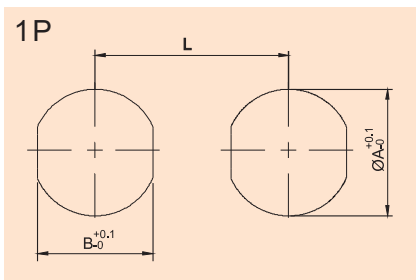
W series

Series	ØA	B	L
3W	20.2	18.6	30.0

Mounting nut torque

Series	Torque (Nm)
3W	12

1N=0.102kg



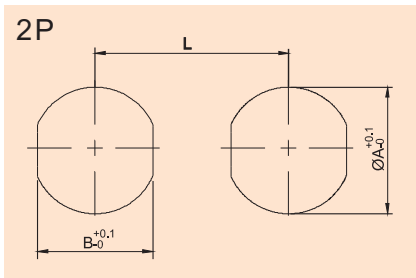
P series

Series	ØA	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



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