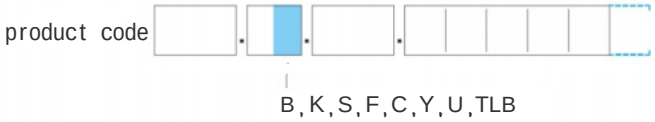
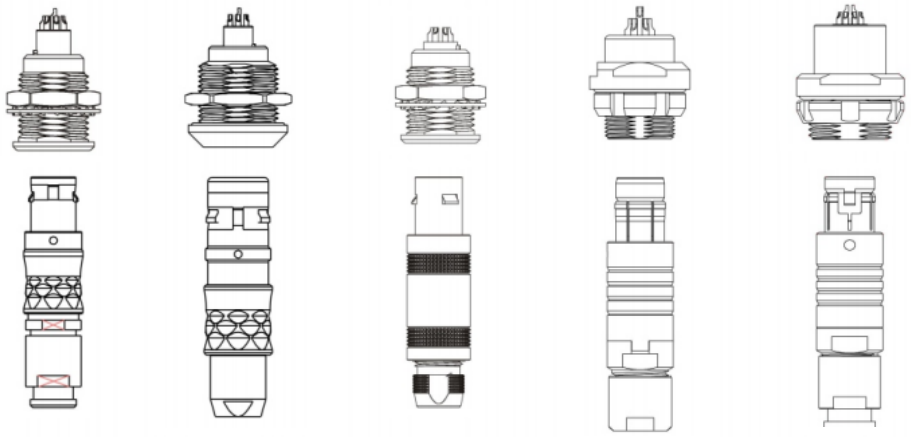
Step 1: Select the correct series of connectors

Select the appropriate HangLong connector series based on environmental parameters. Environmental parameters refer to factors affecting your equipment or cables, such as indoor/outdoor conditions, tempe rature, and protection requirements for connectors and devices.





Series	B series	K series	S series	F series	C series
Environment	Indoor	Harsh outdoor environment	Indoor	Outdoor or harsh environment	
Levels of protection 1)	IP 50	IP 68	IP 50	IP68	
Levels of protection 2)	IP50-IP68 vacuum seal	IP68	IP68	IP68	
Temperature range	During silicone potting –55°C~+125℃, applying epoxy resin adhesive –20°C~+125℃, no glue is applied (PPS insulator) –55°C~+125°C				
Lock	Plug-in self-locking				
Size series	00B~4B	0K~4K	00S~2S	0F~3F	0C~3C
Insulator type	Multi-core		Single core or multi-core (staircase insulator)		
Core type	Welding, PCB straight needle (board connection), PCB bent needle				
Characteristics	7 positioning pins	5 positioning pins	Staircase Insulator	3 positioning plates	5 positioning pins

Standard positioning pin positioning series (B , C , K , Y、U、TLB)

These series connectors are characterized by their use of positioning pins, which enhance pin density and prevent misalignment. Different positioning pin selections help avoid confusion between similar connectors.

Half-round locating pin (positioning sheet) Series F

The characteristic of these series connectors is that they are waterproof when the connector is inserted and formed with the cable. OF-3F series (the F series is composed entirely of metal semi-circular positioning plates).

Step insulated positioning series (S)

The hallmark of this connector series is its multi-core design featuring a stepped insulation structure, where both the plug and socket share identical insulation. The lineup includes the 0S-2S series, 00 single-core series, and coaxial variants.

Definition of access protection (IP code)

Electrical equipment is classified by the sealing protection level of its shell to avoid foreign objects (such as tools, dust, fingers) and humid gas entering its shell. The classification is expressed as the letter IP (Ingress Protection) followed by two digits.

For example: **IP 50 = IP 5 0**

IP alphabetic code
The first digit
The second number

Protection level — First digit

The first digit of the IP code indicates the degree of protection against human contact with moving parts and against solid foreign matter entering the equipment housing.

Code	The meaning of the first number
0	No special protection
1	Prevents larger body parts (such as hands) or solid objects larger than 50mm from entering
2	Prevent objects larger than 12mm in diameter but not exceeding 80mm in length from entering
3	Prevent tools, wires and other objects with diameter or thickness greater than 2.5mm from entering
4	Prevent solid material with a diameter or thickness great er than 1.0 mm from entering
5	Prevent dust accumulation from affecting equipment ope ration
6	Fully dustproof
7	-
8	-

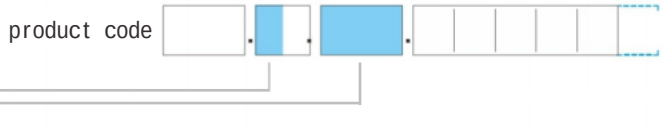
Protection level — The second number

The second number indicates the degree of protection against w ater entering the equipment housing in various forms (eg, drippin g, spraying, soaking, etc)

Code	The second meaning of the number
0	No special protection
1	Prevent water from dripping vertically
2	Prevent water from being dropped at an angle of no more than 15°
3	Prevent water from entering the spray
4	Prevent water splashing
5	Prevent water from entering the jet
6	Prevent the entry of violent waves or strong spray
7	Prevent water from entering during temporary flooding
8	Prevent water from entering during a complete, continuo us flooding process

Step 2: Select the correct size of connector

Select the most appropriate pin core diameter according to the cross-sectional area (mm²) or wire size (AWG) of the cable core wire (the most appropriate pin core diameter varies depending on different pin core types such as welding, crimping or printed board connection).



Shell Size	Pin Arrangement	Number of needle cores	ΦA (mm)	Soldering needle core		Rated current(A)
				Needle-Test voltage	Outer Shell-Test Voltage	
00	302	2	0.5	1.00	0.95	5.0
	303	3	0.5	0.80	0.95	3.0
	304	4	0.5	0.80	0.65	2.0
00 0K 0C 0M 0W	302	2	0.9	1.30	1.05	10.0[1]
	303	3	0.9	1.20	0.90	8.0[1]
	304	4	0.7	0.85	0.70	7.0[1]
	305	5	0.7	1.00	0.70	6.5[1]
	306	6	0.5	0.85	0.65	2.5
	307	7	0.5	0.80	0.70	2.5
	309	9	0.5	0.60	0.50	2.0
1B 1K 1C 1M 1W	302	2	1.3	1.50	1.35	15.0[2]
	303	3	1.3	1.30	1.55	12.0
	304	4	0.9	1.35	1.45	10.0[1]
	305	5	0.9	1.25	1.15	9.0[1]
	306	6	0.7	1.05	1.20	7.0[1]
	307	7	0.7	0.95	1.05	7.0[1]
	308	8	0.7	0.95	1.15	5.0
	310	10	0.5	0.90	1.50	2.5
	312	12	0.5	0.75	1.50	2.0
	314	14	0.5	0.75	1.20	2.0
	316	16	0.5	0.75	1.25	1.5

Shell Size	Pin Arrangement	Number of needle cores	ΦA (mm)	Soldering needle core		Rated current(A)
				Needle-Test voltage	Outer Shell-Test Voltage	
2B 2K 2C 2M 2W	302	2	2.0	2.10	1.75	30.0[2]
	303	3	1.6	2.40	1.85	17.0[2]
	304	4	1.3	1.85	1.85	15.0[2]
	305	5	1.3	1.75	1.60	14.0[2]
	306	6	1.3	1.35	1.45	12.0
	307	7	1.3	1.75	1.60	11.0
	308	8	0.9	1.50	1.25	10.0[1]
	310	10	0.9	1.45	1.30	8.0[1]
	312	12	0.7	1.25	1.35	7.0[1]
	314	14	0.7	1.15	1.35	6.5[1]
	316	16	0.7	0.95	1.25	6.0
	318	18	0.7	0.85	1.20	5.5
	319	19	0.7	0.95	1.25	5.0
	326	26	0.5	0.95	1.30	2.0

Shell Size	Pin Arrangement	Number of needle cores	ØA (mm)	Soldering needle core		Rated current(A)
				Needle-Test voltage	Outer Shell-Test Voltage	
3B 3K 3C 3M 3W	302	2	3.0	2.10	1.55	35.0
	303	3	2.0	1.90	1.50	25.0
	304	4	2.0	1.45	1.25	19.0
	305	5	1.6	1.90	1.25	19.0
	306	6	1.6	1.60	1.15	17.0
	307	7	1.6	1.70	1.25	15.0
	308	8	1.3	1.65	1.15	13.0
	309	8 9	1.3 2.0	1.35 1.35	1.05 1.05	6.0 15.0
	310	10	1.3	1.25	0.90	12.0
	312	12	0.9	1.45	1.00	9.0
	314	14	0.9	1.20	1.20	9.0[2)]
	316	16	0.9	1.20	0.85	8.0
	318	18	0.9	1.20	1.05	7.0
	320	20	0.7	1.00	0.90	6.0
	322	22	0.7	1.00	0.90	5.5
	324	24	0.7	0.95	0.80	4.0
	326	26	0.7	0.95	0.70	4.0
	330	30	0.7	0.80	0.70	3.5

Shell Size	Pin Arrangement	Number of needle cores	ØA (mm)	Soldering needle core		Rated current(A)
				Needle-Test voltage	Outer Shell-Test Voltage	
4B 4K 4C 4M 4W	304	4	3.0	2.10	1.50	30.0
	306	6	2.0	2.00	1.75	24.0
	307	7	2.0	2.00	1.80	20.0
	310	10	1.6	1.85	1.30	17.0
	312	12	1.3	1.45	1.60	12.0
	316	16	0.9	1.35	1.50	10.0
	320	20	0.9	1.35	1.00	8.0
	324	24	0.9	1.20	1.45	7.0
	330	30	0.9	0.95	0.85	5.0
	340	40	0.7	0.90	0.90	2.0
	348	48	0.7	0.70	0.70	1.5

Check the compatibility with the cable

Check that the size of the connector you choose is compatible with the outer diameter of your cable.

Series	Cable outer diameter range (mm) Wire clamp	
	MIN	MAX
00B	2. 1	2. 6
0B	2. 1	5. 0
1B	2. 6	7. 0
2B	3. 1	9. 7
3B	4. 1	11. 7
4B	5. 1	16. 0
0K	2. 6	5. 0
1K	4. 1	7. 0
2K	6. 1	10. 5

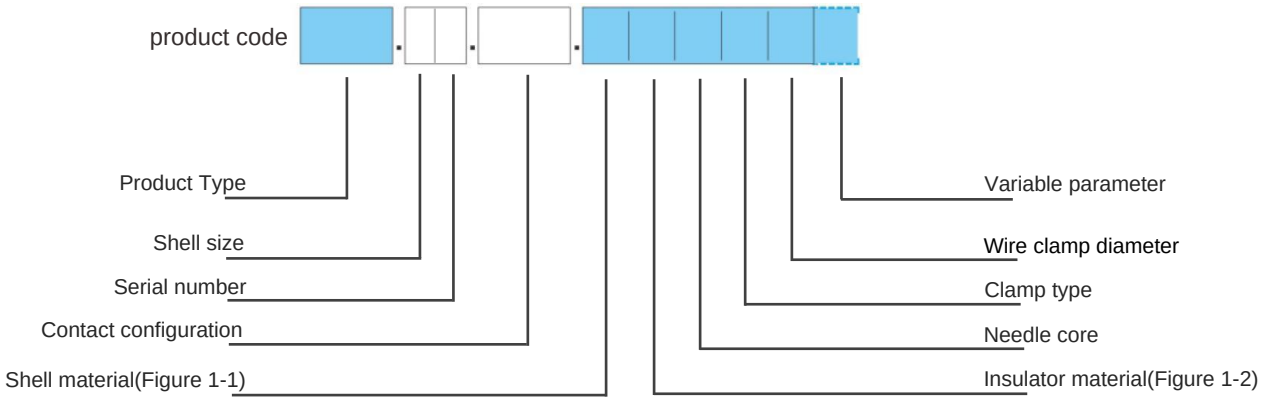
Series	Cable outer diameter range (mm) Wire clamp	
	MIN	MAX
0F	3. 5	5. 0
1F	3. 1	7. 0
AF	4. 5	8. 5
2F	4. 1	9. 7
3F	4. 5	11. 5

Series	Cable outer diameter range (mm) Wire clamp	
	MIN	MAX
00[2)]	1. 3	4. 4
0S	1. 3	6. 2
1S	1. 2	8. 7

Series	Cable outer diameter range (mm) Wire clamp	
	MIN	MAX
0C	2. 1	5. 0
1C	2. 6	7. 0
2C	3. 1	9. 7

Step 3: Determine the complete product number

Now that you've identified the connector series and pin configuration, you can complete the full product number using the table below.



Shell material

Serial number	Shell and tail cover		Locking sleeve + grounding ring		Other metal components		Remarks
	Materials	Surface treatment	Materials	Surface treatment	Materials	Surface treatment	
C	Brass	Bright Chrome	Brass/Bronze	Nickel	Brass	Nickel	
N	Brass	Nickel	Brass/Bronze	Nickel	Brass	Nickel	
K	Brass	Black Chrome	Brass/Bronze	Nickel	Brass	Nickel	
S	Stainless steel 304	Passivation	Brass/Bronze	-	Brass	Nickel	
L	Stainless steel 316L	Passivation	Stainless steel 316L	-	Stainless steel 316L	-	
T	Brass	Pearl Nickel	Brass/Bronze	Nickel	Brass	Nickel	
G	Brass	Gunmetal (brown-black)	Brass/Bronze	Nickel	Brass	Nickel	
F	Brass	High-phosphorus electroless nickel	Brass/Bronze	Nickel	Brass	Nickel	
X	Aluminum alloy	High-phosphorus electroless nickel	Brass/Bronze	Nickel	Brass	Nickel	
Y	Brass	Golden yellow	Brass/Bronze	Nickel	Brass	Nickel	
XK	Aluminum alloy	Black Chrome	Brass/Bronze	Nickel	Brass	Nickel	
XC	Brass	Bright Chrome	Brass/Bronze	Nickel	Brass	Nickel	

(1-1)

Remarks:

Brass

Most connectors have brass casings that meet the requirements of most military or civilian applications. The brass casing has a unique nickel-chromium protective layer on the white surface, which is effective against industrial waste, salt spray, and most corrosive agents.

In addition, we also have electroplating nickel, nickel-gold plating, nickel-black chromium plating and other options, applied in specific environment anticorrosive layer.

Aluminum alloy

Aluminum alloy housing connectors are suitable for use in aviation, aerospace industry, portable mobile devices, etc.

In addition to high mechanical lightness and excellent corrosion resistance, aluminum alloy can also be protected by anodic electroplating on its surface, with a variety of colors to choose from.

Stainless steel

For harsh environments, the surface coating is prone to damage, so we recommend using stainless steel materials such as AISI316L and AISI 1304.

For special fields such as nuclear industry, it is recommended to use AIS1304 stainless steel, which can prevent radiation and resist nitric acid corrosion.

For medical and marine applications, AISI316L stainless steel is recommended. This unprocessed material exhibits exceptional corrosion resistance.

Insulator material

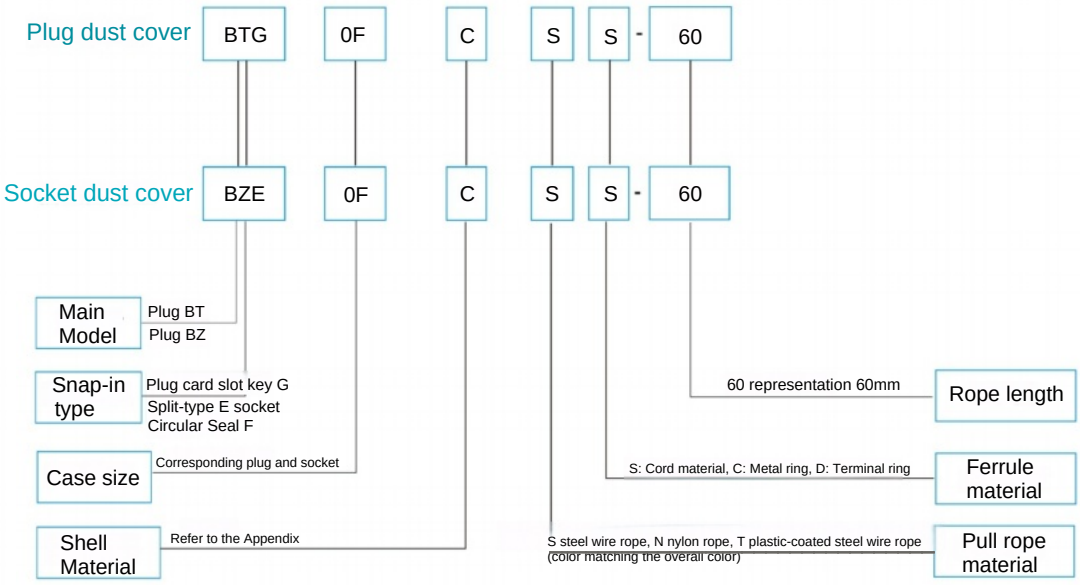
Serial number	Materials	Needle core type	Remarks
T	Teflon	Welding and PCB connection	
L I K	PPS I PEEK	Welding and PCB connection	

(1-2)

Case (Series B and K)

Serial number	Shell and tail cover		Elastic lock sleeve + grounding ring		Other metal components	
	Materials	Surface treatment	Materials	Surface treatment	Materials	Surface treatment
C	Brass	Pearl Nickel	Brass/Bronze	Nickel	Bronze	Nickel
N	Brass	Nickel	Brass/Bronze	Nickel	Bronze	Nickel
K	Brass	Black Chrome	Brass/Bronze	Nickel	Bronze	Nickel
S	Stainless steel	—	Brass/Bronze	Nickel	Bronze	Nickel
T	Stainless steel	—	Stainless steel	Nickel	Bronze	Nickel
U	Stainless steel	—	Stainless steel	Nickel	Stainless steel	Nickel
L	Aluminum alloy	Anode plating	Brass/Bronze	Nickel	Bronze	Nickel
X	Aluminum alloy	Black nickel	Brass/Bronze	Nickel	Bronze	Nickel
	Note: The K series elastic lock sleeve is electroplated with chromium on the surface					

Dust cover numbering rules



product CODE EXAMPLES

Straight plug with wire clamp:

TGG. 1B. 306. CLAD62= Vertical plug with positioning pin (G) and wire clamp, 1B series, multi-core type, 6-core, chrome-plated brass housing, PPS insulator

Welded male pin core, suitable for D-type wire clamp of 6.2mm outer diameter electrical cable

Floating socket:

DHG.1B.306.CLD62Z= Floating socket with positioning pin (G), wire clamp, 1B series, multi-core type, 6-core, chrome-plated brass housing, PPS insulation

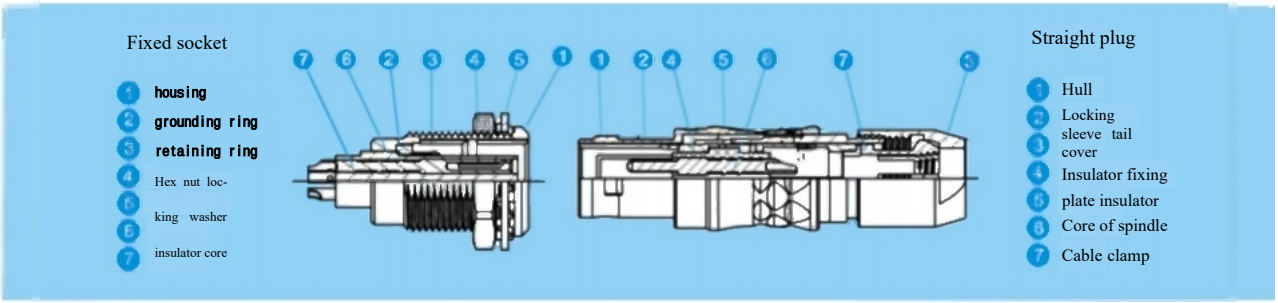
Body, welding-type female needle core, suitable for D-type wire clamp with outer diameter 6.2mm and sheathed model tail cover

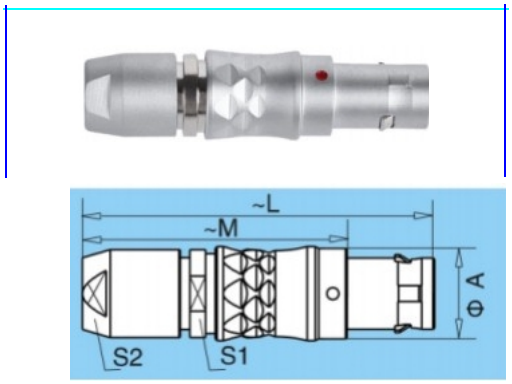
Fixed sockets:

ZGG.1B.306.CL= Fixed socket with nut fastening and positioning pin (G), 1B series, multi-core type, 6-core, chrome-plated brass housing, PPS insulator

Welded female needle core

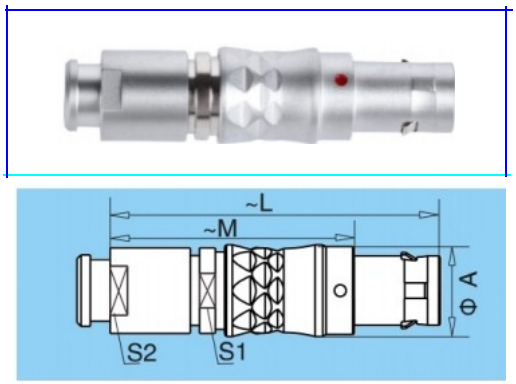
Product cross section





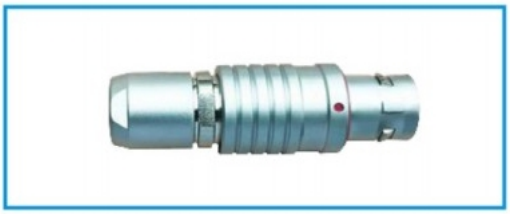
TGG straight plug, positioning pin (G) or positioning pin (A...M and R) cable clamp

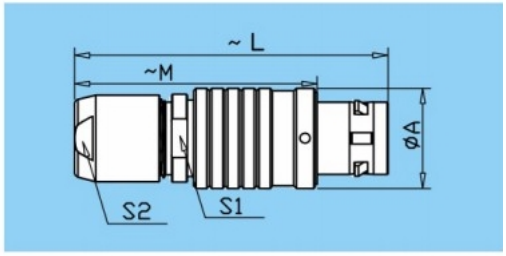
Project		Size				
Series	Model	A	L	M	S1	S2
00B	TGG	6.4	28.5	20.5	5.5	5.0
0B	TGG	9.5	36.0	26.0	8.0	8.0
1B	TGG	12.0	43.0	32.0	10.0	9.0
2B	TGG	15.0	50.0	38.0	13.0	12.0
3B	TGG	18.0	58.0	43.0	16.0	14.0
4B	TGG	25.0	75.0	57.0	21.0	20.0



TGG straight plug, positioning pin (G) or positioning pin (AM and R), cable clamp, and sheathed tail cover

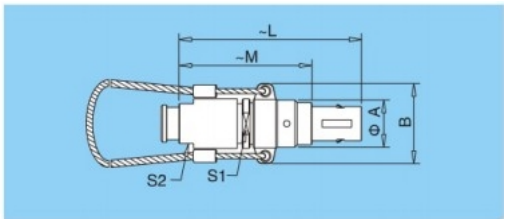
Project		Size				
Series	Model	A	L	M	S1	S2
00B	TGG	6.4	36.5	28.5	5.5	6.0
0B	TGG	9.5	35.5	25.0	8.0	8.0
1B	TGG	12.0	42.0	31.0	10.0	9.0
2B	TGG	15.0	49.0	37.0	13.0	13.0
3B	TGG	18.0	56.5	42.0	16.0	15.0
4B	TGG	25.0	71.0	53.0	21.0	20.0





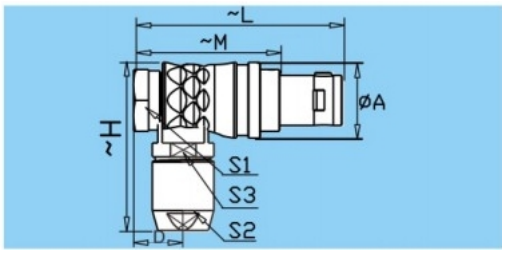
TEG straight plug, positioning pin (G) or positioning pin (A...M and R) cable clamp fixed front seal and sheathed tail cover (IP65 protection rating when plugged in)

Project		Size				
Series	Model	A	L	M	S1	S2
0B	TEG	11.0	35.0	25.0	8	7
1B	TEG	13.5	42.0	33.0	10	9
2B	TEG	16.5	48.0	36.0	13	12
3B	TEG	19.0	56.0	41.5	15	15



TNG straight plug, positioning pin (G) or positioning pin (A...M and R), cable clamp and sheathed tail cover (and release pull cord)

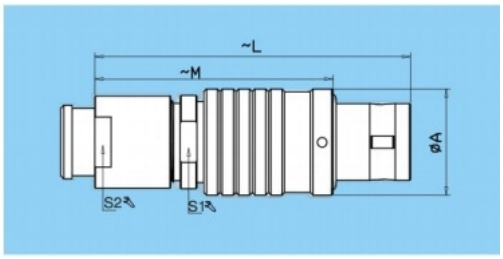
Project		Size					
Series	Model	A	B	L	M	S1	S2
0B	TNG	9.5	15.5	36.0	26.0	8	7
1B	TNG	12.0	18.0	43.0	32.0	10	9
2B	TNG	15.0	21.0	49.0	37.0	13	12
3B	TNG	18.0	25.0	58.0	43.0	15	14



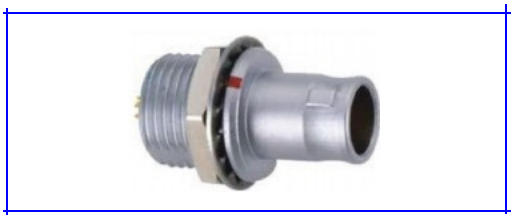
THG 90° bend plug, positioning pin (G) or positioning pin (A....M and R), cable clamp fixing and sheathed tail cover

Project		Size							
Series	Model	A	D	H	L	M	S1	S2	S3
0B	THG	11.0	6.5	26.0	31.6	21.6	10	7	8.0
1B	THG	13.5	8.0	30.5	36.0	25.0	11	9	10.0
2B	THG	16.5	9.0	34.0	41.5	29.5	14	12	13.0
3B	THG	19.0	10.0	37.0	50.0	35.0	17	14	15.0

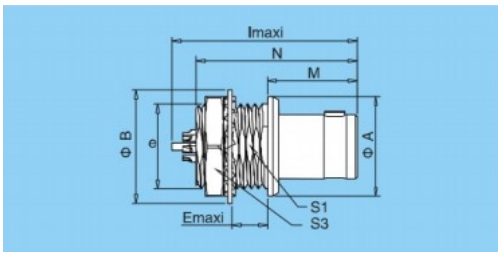
TF G straight plug, no locking device, positioning pin (G) or positioning pin (A....M), cable wire clamp



Project		Size				
Series	Model	A	L	M	S1	S2
0B	TFG	9.5	36	26	8.0	7.0
1B	TFG	12.0	43	32	10.0	9.0
2B	TFG	15.0	50	38	13.0	12.0
3B	TFG	18.0	58	43	15	14

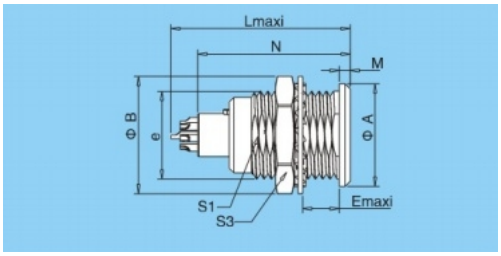


TAG fixed plug, no locking device, nut fastened, positioning pin (G) or positioning pin (A.....M and R)

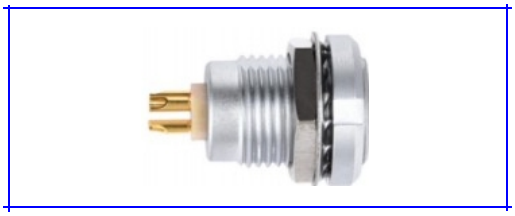


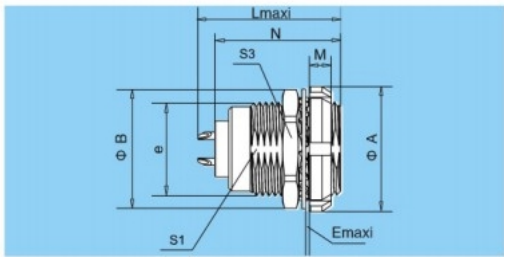
Project		Size								
Series	Model	A	B	e	E	L	M	N	S1	S3
0B	TAG	10	12.4	M9x0.5	4.2	20.8	11.2	18.9	8.2	11
1B	TAG	14	15.8	M12x1.0	5.4	25.2	12.5	21.6	10.5	14
2B	TAG	18	19.2	M15x1.0	6.0	28.7	13.8	23.9	13.5	17
3B	TAG	22	25.0	M18x1.0	5.8	32.1	17.0	30.2	16.5	22

ZGG fixed socket, nut secured, positioning pin (G) or positioning pin (A.....M and R) (fixed inside the chassis)



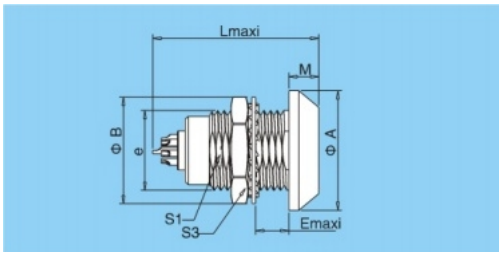
Project		Size								
Series	Model	A	B	e	E	L	M	N	S1	S3
00B	ZGG	8	10.3	M7x0.5	6.0	16.2	1.0	13.7	6.3	9
0B	ZGG	10	12.4	M9x0.5	7.0	20.7	1.2	19.1	8.2	11
1B	ZGG	14	15.8	M12x1.0	7.5	23.0	1.5	21.1	10.5	14
2B	ZGG	18	19.2	M15x1.0	8.5	26.8	1.8	23	13.5	17
3B	ZGG	22	25.0	M18x1.0	11.5	31.7	1.8	25	16.5	21
4B	ZGG	28	34.0	M25x1.0	12.0	32.5	2.5	295	23.5	30





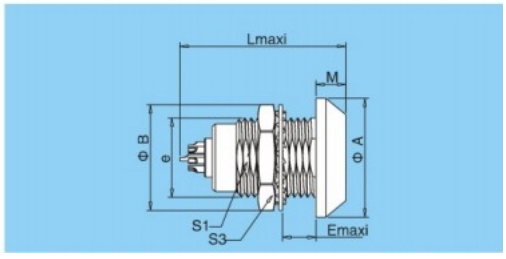
ZCG fixed socket with two nuts, positioning pin (G) or positioning pin (A...M and R) (rear panel installation) (fixed outside the chassis)

Project		Size								
Series	Model	A	B	e	E	L	M	N	S1	S3
0B	ZCG	12	12.4	M9×0.5	5.5	19.2	2.5	16.5	8.2	11
1B	ZCG	16	15.8	M12x1.0	6.0	22.3	3.5	18.8	10.5	14
2B	ZCG	20	19.2	M15x1.0	6.5	23.4	3.5	20.9	13.5	17
3B	ZCG	24	25.0	M18x1.0	9.0	30.7	4.5	25	16.5	22



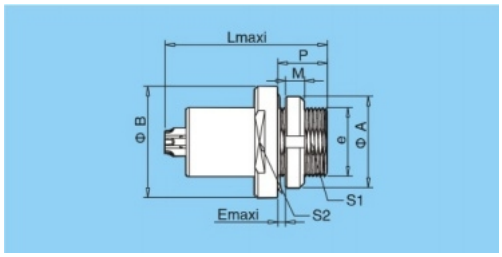
MGG fixed socket, nut secured, positioning pin (G) or positioning pin (A M and R), water-tight or vacuum-sealed (IP68)

Project		Size							
Series	Model	A	B	e	E	L	M	S1	S3
0B	MGG	13	12.4	M9x0.6	7.0	22.1	3.0	8.2	11
1B	MGG	18	15.8	M12x1.0	7.0	23.2	4.5	10.5	14
2B	MGG	20	19.2	M15x1.0	8.0	24.3	4.0	13.5	17
3B	MGG	25	25.0	M18x1.0	11.5	36.1	4.0	16.5	22



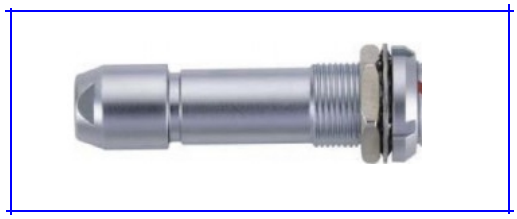
MHG fixed socket, nut secured, positioning pin (G) or positioning pin (A...M and R) watertight or vacuum-sealed (waterproof when inserted)

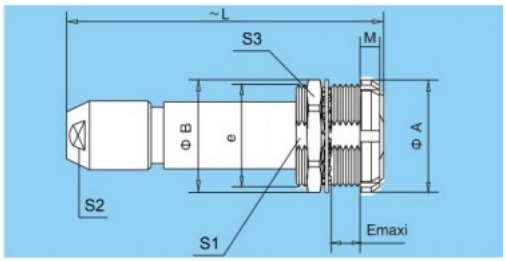
Project		Size							
Series	Model	A	B	e	E	L	M	S1	S3
0B	MHG	13	12.4	M9x0.5	7.0	23.2	4.8	8.2	11
1B	MHG	18	15.8	M12x1.0	7.0	30.3	5.2	10.5	14
2B	MHG	22	19.2	M15x1.0	8.0	35.6	6.0	13.5	17



MEG fixed socket, nut secured, positioning pin (G) or positioning pin (A.. M and R) with water-tight or vacuum-sealed (rear panel installation) IP68

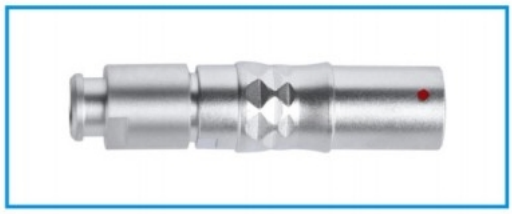
Project		Size								
Series	Model	A	B	e	E	L	M	P	S1	S3
0B	MEG	12	13	M9x0.6	5.5	19.3	2.5	9.0	8.2	
1B	MEG	16	18	M12x1.0	5.5	26.6	3.5	11.0	10.5	
2B	MEG	20	20	M15x1.0	5.5	31.6	3.5	9.6	13.5	15

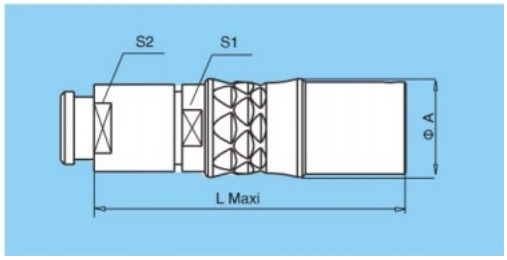




DFG fixed socket, nut fastened, positioning pin (G) or positioning pin (A. ..M and R) cable clamp

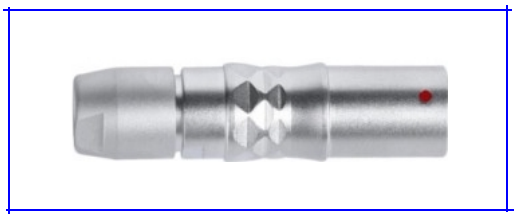
Project		Size								
Series	Model	A	B	e	E	L	M	S1	S2	S3
0B	DFG	12	12.4	M9x0.5	5.0	35.5	2.5	8.2	7	11
1B	DFG	16	15.8	M12x1.0	5.0	40.5	3.5	10.5	9	14
2B	DFG	20	19.2	M15x1.0	6.5	47.5	3.5	13.5	12	17
3B	DFG	24	25.0	M18x1.0	9.0	56	4.5	16.5	14	22

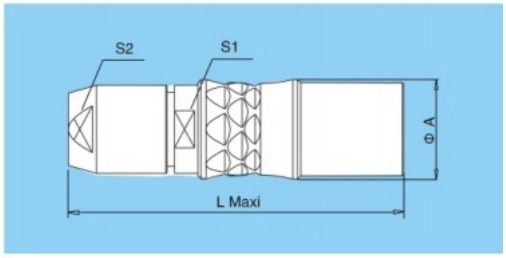




DHG floating socket, positioning pin (G) or positioning pin (A...M and R), cable clamp (and sheathed tail cover)

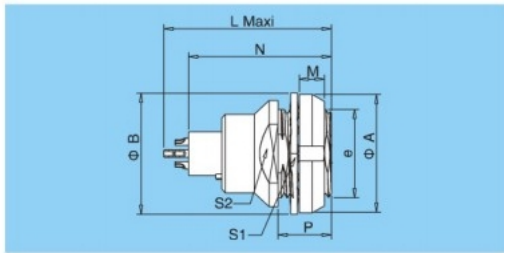
Project		Size			
Series	Model	A	L	S1	S2
00B	DHG	6.8	34	5.5	6
0B	DHG	9.5	35.5	8.0	7
1B	DHG	12	42	10.0	9
2B	DHG	15	47.0	13.0	12
3B	DHG	19.0	56.0	15.0	14





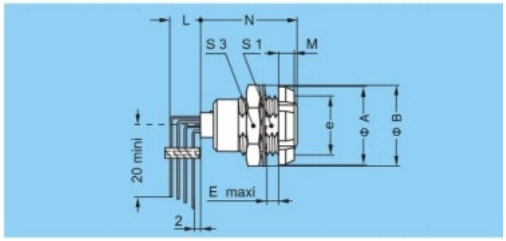
DHG floating socket, positioning pin (G) or positioning pin (A...M and R), cable clamp

Project		Size			
Series	Model	A	L	S1	S2
0B	DHG	9.5	35.5	8.0	7.0
1B	DHG	12	40.5	10.0	9.0
2B	DHG	15	47.0	13.0	12.0
3B	DHG	19	56.0	15.0	15.0



ZEG fixed socket, nut secured, positioning pin (G) or positioning pin (A. M and R) (rear panel installation) (fixed outside the chassis)

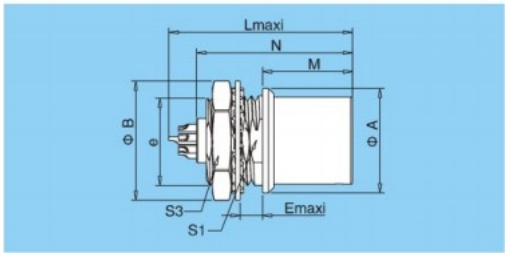
Project		Size								
Series	Model	A	B	e	E	L	M	N1)	P	S1	S2
0B	ZEG	12	12.5	M9x0.5	2.4	20.7	2.5	19.1	6.3	8.2	9.0
1B	ZEG	16	16.0	M12x1.0	6.5	23.0	3.5	21.1	11.0	10.5	13.0
2B	ZEG	20	20.0	M15x1.0	3.0	26.7	3.5	24.6	9.0	13.5	15.0
3B	ZEG	24	25.0	M18x1.0	5.0	30.7	4.5	28.1	12.0	16.5	20.0



ZCG fixed socket with two nuts and positioning pin (G) or positioning pin (A.....F), suitable for 90° bent pin cores on printed circuit boards (rear panel installation)

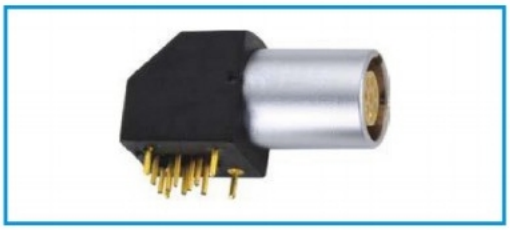
Project		Size							
Series	Model	A	B	e	E	M	N max	S1	S3
0B	ZCG	12	12.4	M9x0.5	2.4	2.5	18.3	8.2	11
1B	ZCG	16	15.8	M12x1.0	6.0	3.5	20.3	10.5	14
2B	ZCG	20	19.2	M15x1.0	6.5	3.5	22.3	13.5	17
3B	ZCG	24	25.0	M18x1.0	9.0	4.5	25.8	16.5	22

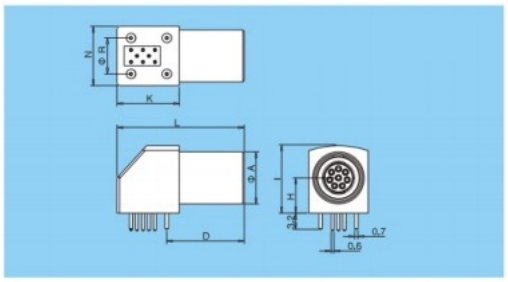
Note: The length of L depends on the number of needle cores, as specified in the PCB board drilling parameters on page 64.



ZHG fixed socket, nut secured, positioning pin (G) or positioning pin (A...M and R), protruding housing

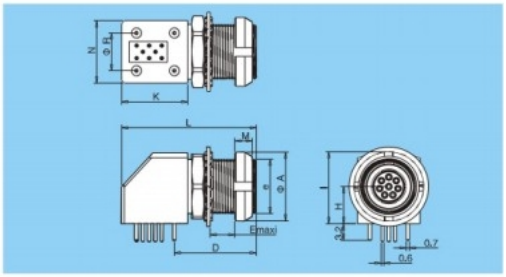
Project		size								
Series	Model	A	B	e	E	M	L	N	S1	S3
0B	ZHG	10	12.4	M9x0.5	2	12.5	19.5	19.1	8.2	11
1B	ZHG	14	15.8	M12x1.0	4	12	21.7	21.1	10.5	14
2B	ZHG	18	19.2	M15x1.0	5.1	12.5	22.7	24.6	13.5	17
3B	ZHG	22	25	M18x1.0	7.1	13.5	30.7	30.3	16.5	22





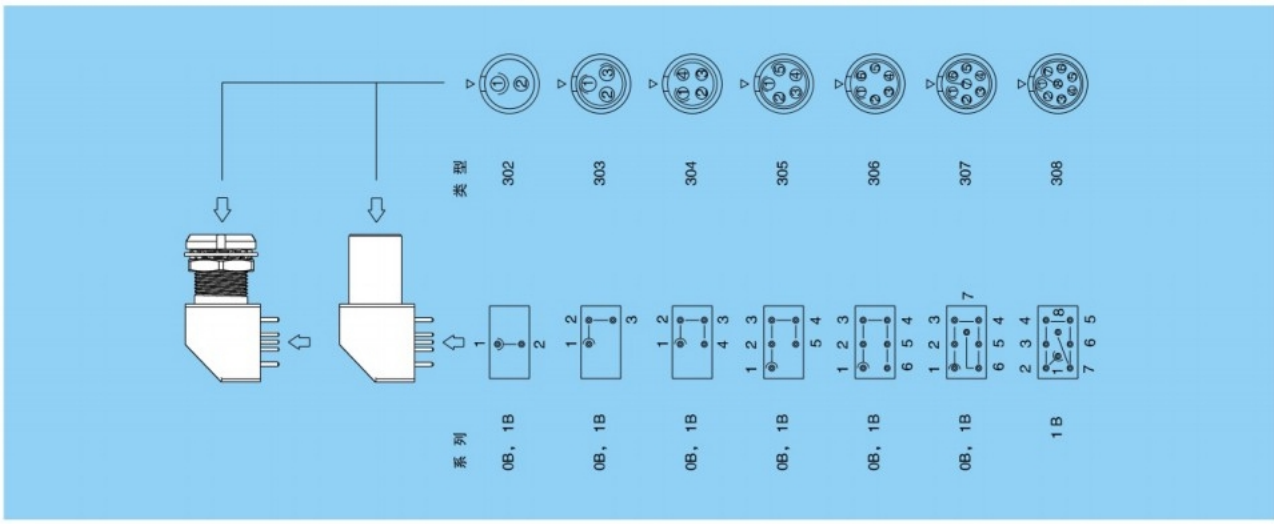
ZPG socket for printed circuit board 90° bend socket, locating pin (G) or locating pin (A...F) (soldered or screw fixed)

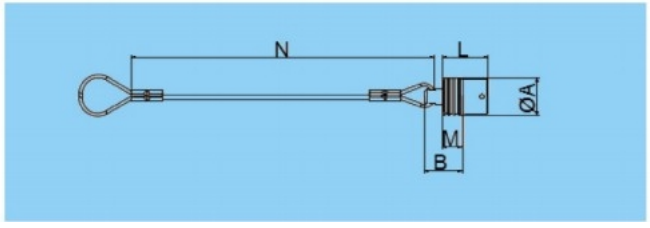
Number	Size							
	A	D	H	I	K	L	N	R
ZPG. 0B. 302. HLN ZPG. 0B. 303. HLN ZPG. 0B. 304. HLN ZPG. 0B. 305. HLN ZPG. 0B. 306. HLN ZPG. 0B. 307. HLN ZPG. 0B. 309. HLN	9.0	14.6	6.7	12.7	13.3	25.0	11.7	7.62
ZPG. 1B. 302. HLN ZPG. 1B. 303. HLN ZPG. 1B. 304. HLN ZPG. 1B. 305. HLN ZPG. 1B. 306. HLN ZPG. 1B. 307. HLN ZPG. 1B. 308. HLN	11.0	16.6	7.5	14.0	13.3	27.0	12.6	7.62



ZXG socket for printed circuit board 90° bend socket with two nuts, positioning pin (G) or positioning pin (AF) (welded or screw fixed)

Number	Size												
	A	B	D	e	E	H	I	K	L	M	N	R	S3
ZXG. 0B. 302. HLN ZXG. 0B. 303. HLN ZXG. 0B. 304. HLN ZXG. 0B. 305. HLN ZXG. 0B. 306. HLN ZXG. 0B. 307. HLN ZXG. 0B. 309. HLN	12	12.4	14.6	M9x0.5	6.0	6.7	12.7	13.3	25.0	2.5	11.7	7.62	11
ZXG. 1B. 302. HLN ZXG. 1B. 303. HLN ZXG. 1B. 304. HLN ZXG. 1B. 305. HLN ZXG. 1B. 306. HLN ZXG. 1B. 307. HLN ZXG. 1B. 308. HLN	14	15.0	16.6	M11x0.5	7.5	7.5	14.0	13.3	27.0	3.5	12.6	7.62	13





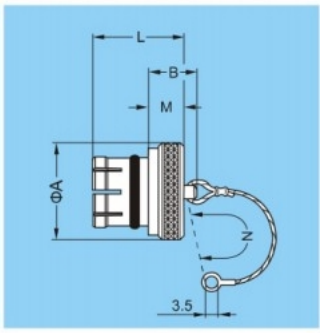
BTG B,S Series Plug Dust Cover

Shell material: chrome-plated brass Hanging cord material: Stainless steel (S)/Nylon cord (N)

O-ring: silicone rubber Maximum operating temperature: 135°C

Water resistance rating: IP50

Identification of product	Series	Size (mm)				
		A	B	L	M	N
BTG. 0B. CSS-085	0B-0S	9.5	9.5	12	4.5	85
BTG. 1B. CSS-085	1B-1S	12	11	13	5	85
BTG. 2B. CSS-085	2B-2S	15	12	14	6	85
BTG. 3B. CSS-120	3B-3S	15.5	14	15.3	8	120



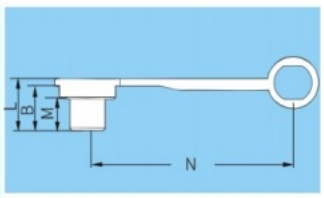
BZF **B/S Series Socket Dust Cover**

Shell material: chrome-plated brass Hanging cord material: Stainless steel (S)/Nylon cord (N)

O-ring: silicone rubber Maximum operating temperature: 135°C

Water resistance rating: IP50

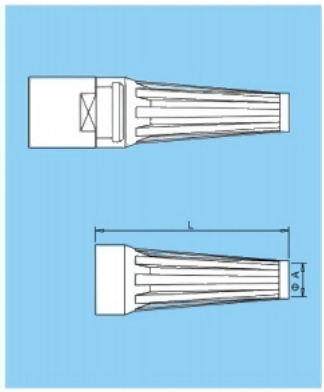
Identification of product	Series	Size (mm)				
		A	B	L	M	N
BZF. 0B. CSS-085	oS-0B	10	9.5	10.5	4.5	85
BZF. 1B. CSS-085	1S-1B	11	11	12.5	5	85
BZF. 2B. CSS-085	2S-2B	18	12	14	6	85
BZF. 3B. CSS-120	3S-3B	22	14	18	8	120



QM **B Series Socket Dust Cover**

Identification of product	Series	Size (mm)				
		A	B	L	M	N
QM. 0B. 100-PCSG	0B	13.5	9	10.5	6.5	36.5
QM. 1B. 100-PCSG	1B	16.5	10.5	12	7.5	42

sheath



G M ● **Sheath (Polyurethane)**

The sheath is made of polyurethane material, abbreviated as PU in English. Due to the presence of strongly polar urethane groups in PU, it is insoluble in non-polar groups and exhibits excellent oil resistance, toughness, wear resistance, aging resistance, and adhesion. It can be installed on the plugs and sockets of our products to serve as a protective cable.

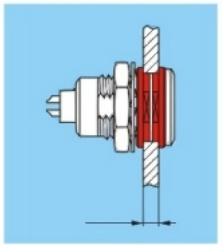
Temperature range in dry air environment: -40°C to +80°C

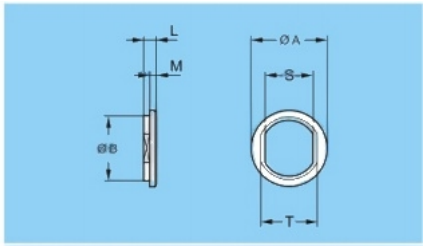
Series	identification of product	Size (mm)			
		Sheath		Cable diameter	
		A	L	max.	Min
oo	GMA. 00. 028. DG	2.8	22	3.1	2.8
0B oS	GMA. 0B. 030. DG	3.0	24	3.4	3.0
	GMA. 0B. 040. DG	4.0	24	4.4	4.0
	GMA. 0B. 045. DG	4.5	24	5.2	4.5
	GMA. 0B. 052. DG	5.2	24	5.6	4.5
1B 1S	GMA. 1B. 040. DG	4.0	30	4.4	4.0
	GMA. 1B. 045. DG	4.5	30	4.9	4.5
	GMA. 1B. 054. DG	5.4	30	6.0	5.4
	GMA. 1B. 065. DG	6.5	30	7.0	6.5
2B	GMA. 2B. 050. DG	5.0	36	5.5	5.0
	GMA. 2B. 060. DG	6.0	36	6.5	6.0
	GMA. 2B. 070. DG	7.0	36	7.7	7.0
	GMA. 2B. 080. DG	7.8	36	8.8	7.8

Number	Pigment	Number	Pigment
A	Blue	N	Black
B	White	R	Red
G	Gray	S	Orange
J	Yellow	V	Green
M	Brown		

G R A Insulation Gasket (Color Ring)

Insulating washers can be added to the plugs or sockets installed on the panel.

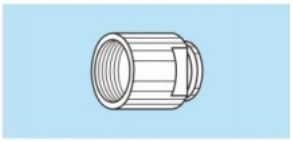




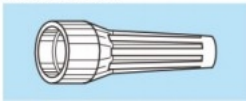
Identification of product	Series	Size (mm)						
		A	B	E	L	M	S	T
GRA. 00. 269. GG	00	10. 0	8. 8	4. 5	1. 8	1. 0	6. 4	8. 0
GRA. 0B. 269. GG	0S-0B	12. 0	10. 8	6. 0	1. 8	1. 0	8. 3	9. 9
GRA. 1B. 269. GG	1S-1B	16. 0	13. 8	6. 5	1. 8	1. 0	10. 6	12. 2
GRA. 2B. 269. GG	2S-2B	21. 1	17. 9	7. 3	2. 3	1. 3	13. 6	16. 2

Number	Pigment	Number	Pigment
A	Blue	N	Black
B	White	R	Red
G	Gray	S	Orange
J	Yellow	V	Green
M	Brown		

Suitable for B-series sheaths and adapter clamps



Additional order required

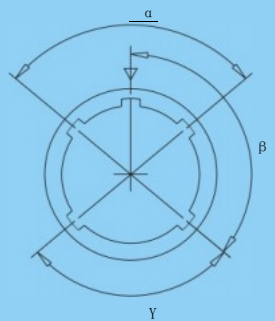


	Number	Tail-hood		Additional order required
		Type	Code	
00	Z	D	17 to 35	GMA. 00. ⋯ • . ″ GMB. 00. ⋯. ″
0B	Z	D	21 to 52	GMA. 0B. ⋯ • . ″
1B	Z	M	27 and 31	GMA. 1B. ⋯. ″
		D	42 to 72	GMA. 1B. ⋯. ″
2B	Z	M	21 and 31	GMA. 0B. ⋯. ″
		D	42	GMA. 2B. ⋯. ″
		D	52 to 92	GMA. 2B. ⋯. ″
3B	Z	M	52	GMA. 1B. ⋯. ″
		D	62 to 11	GMA. 3B. ⋯. ″
4B	Z	M	62 and 72	GMA. 2B. ⋯. ″
		M	82 and 92	GMA. 4B. ⋯. ″
		D	10 to 15	GMA. 4B. ⋯. ″

Dowel

The housing model of B and C series connectors consists of three letters, with the last letter indicating the positioning pin location and the type of pin core (male or female).

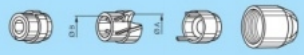
Endoscopy



Key number	Number of keys	Angle	Series 0B-0C	Series 1B-1C	Number of keys	Angle	Series 2B-2C	Series 3B-3C	Needle type: Core of spindle	Needle type: Mother spindle
G	1		0°	0°	1		0°	0°	Core of spindle	Mother spindle
A	2	a	30°	30°	2	a	30°	30°	Core of spindle	Mother spindle
B	2		60°	60°	2		45°	45°	Core of spindle	Mother spindle
C	2		90°	90°	2		60°	60°	Core of spindle	Mother spindle
D	2	β	135°	135°	2	X	95°	95°	Core of spindle	Mother spindle
E	2		145°	145°	2	β	120°	120°	Core of spindle	Mother spindle
F	2		155°	155°	2		145°	145°	Core of spindle	Mother spindle
J	2	Y	45°	45°	2	a	37. 5°	37. 5°	Mother spindle	Core of spindle

Type D and Type M wire clamps for Series B

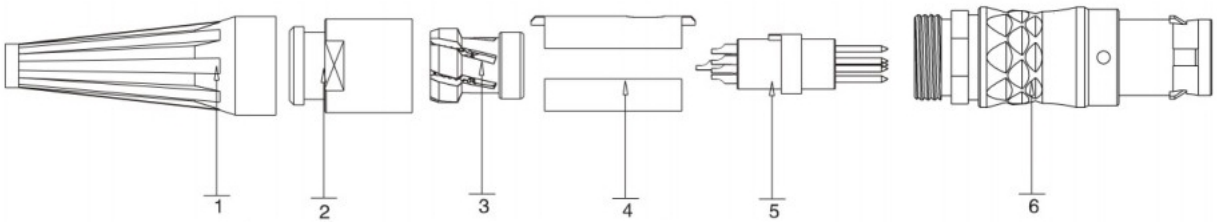
D mould 

M mould 

	Number		Cable cl-amp		Cable		Pour
	Type	Code	0A	0B	Crest value	Least value	
00	D	22	2.2		2.2	1.4	
	D	27	2.7	-	2.7	>2.2	
	D	35	3.5	2.8	3.5	>2.7	
0B	D	21	2.1		2.2	1.4	
	D	31	3.1	-	3.2	>2.2	
	D	42	4.2	-	4.2	>3.2	
	D	52	5.2	4.7	5.2	>4.2	
	D	56	5.6	4.7	5.6	>5.2	1)
1B	M	27	2.7		2.7	>2.2	
	M	31	3.1	-	3.1	>2.7	
	D	42	4.2		4.2	2.5	
	D	52	5.2		5.2	>4.2	
	D	62	6.2	-	6.2	>5.2	
	D	72	7.2	6.7	7.2	>6.2	
	D	76	7.6	6.7	7.5	7.1	1)
2B	M	21	2.1		2.2	1.4	
	M	31	3.1	-	3.2	>2.2	
	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	9.7	9.1	1)

	Number		Cable clamp		Cable		Pour
	Type	Code	0A	0B	Crest value	Least value	
3B	M	52	5.2		5.0	4.1	
	D	62	6.2		6.2	4.9	
	D	72	7.2		7.7	>6.2	
	D	82	8.2		8.0	7.1	
	D	92	9.2	-	9.2	>7.7	
	D	10	10.2		10.7	>9.2	
	D	11	11.2	10.2	11.0	10.1	
	D	12	11.9	10.2	11.7	11.1	1)
4B	M	62	6.2		6.0	5.1	
	M	72	7.2		7.0	6.1	
	M	82	8.2		8.0	7.1	
	M	92	9.2	8.6	9.0	8.1	
	D	10	10.8	-	10.5	9.1	
	D	12	12.3		12.0	10.6	
	D	13	13.8	12.5	13.5	12.1	
	D	15	15.3	12.5	15.0	13.6	
	D	16	16.3	12.5	16.0	15.1	1)

Assembly INSTRUCTIONS FOR THE HEAD OF THE B SERIES CONNE-CTOR



1. The cable is threaded through the sheath ①, the tail nut ②, and the cable clamp ③, and then soldered onto the insulator assembly ⑤ in that order.
2. Attach the two-piece insulator clamp ④ to the welded insulator assembly ⑤, ensuring the window on the clamp ④ aligns with the protrusion on the assembly ⑤.
3. Install the cable clamp ③ at the appropriate position on the cable, ensuring the protrusion on the clamp ③ aligns with the groove on the insulator clamp ring ④.
4. Insert the insulator assembly ⑤, insulator retaining ring ④, and cable clamp ③ into the plug assembly sequentially, ensuring the protrusion on the insulator retaining ring ④ aligns with the notch in the plug assembly ⑥.
5. Tighten the tail nut ② onto the plug assembly ⑥.
6. The sheath ① is fitted onto the corresponding step of the tail nut ②.

the K Series connectors are designed for outdoor use

All models in this series are waterproof when plugged in, and can achieve IP68 protection when properly assembled with the corresponding cables. It shares the same insulator as the B series, with the following key features:

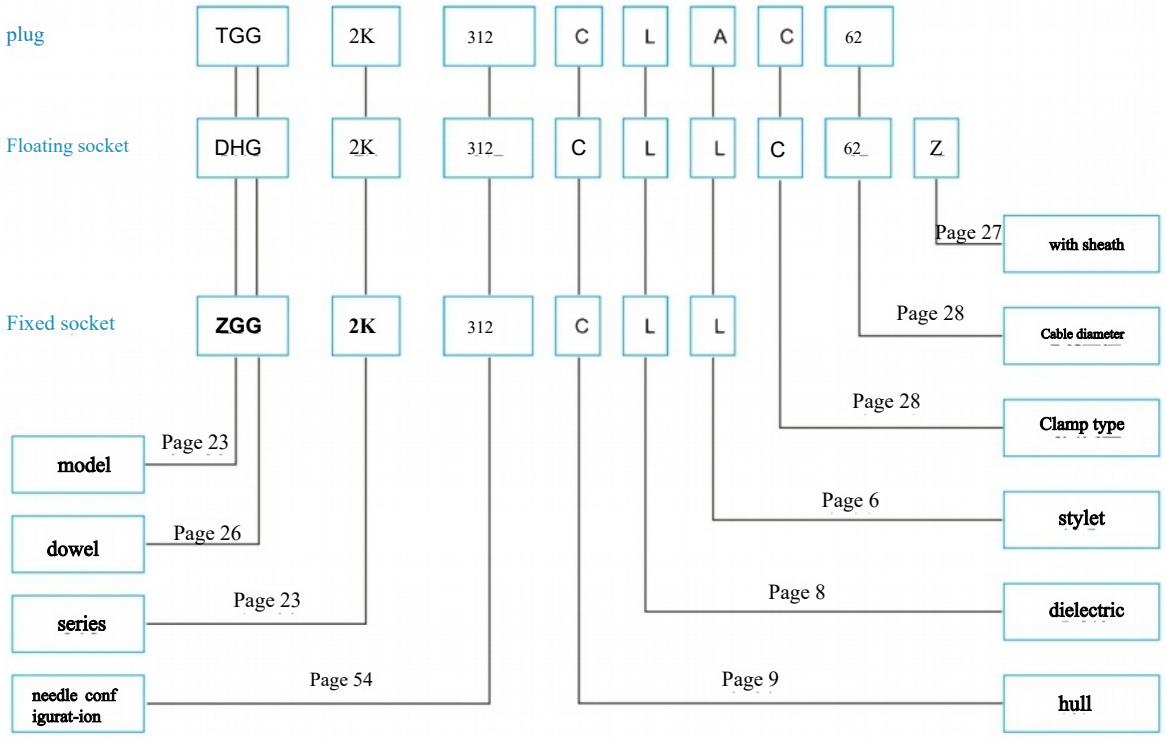
- Fast push-pull self-locking system;
- The rugged housing design is engineered for extreme working conditions
- 360° shielding delivers comprehensive EMC protection (electromagnetic interference resistance)
- The positioning pin system (using <G> standard positioning pins) is used for connector alignment
- multicore type 2-4 0 core
- Waterproof connection (IP68/IP67)
- Welding, crimping, and PCB pin headers (straight or bent)
- Multiple positioning pin options prevent misalignment between similar connectors
- High-density installation, space-saving.

K Series Connector Technical Features

Mechanical properties and environmental factors:

- Insertion and removal times:>5000
- Humidity: At 60°C, the maximum humidity reaches 95%.
- Temperature range: -55°C to +125°C for silicone resin filling, -20°C to +125°C for epoxy resin filling, and-55°C to +125°C for non-gel (PPS insulator) applications.
- Vibration: 10-2000Hz, 15g
- Mechanical impact: 100g.6ms
- Salt spray corrosion test:>96h
- Protection rating: IP68

K Series product numbering rules:



Product CODE EXAMPLES

Straight plug with wire clamp:

TGG.2K.312.CLAC62= Straight plug with positioning pin (G) and wire clamp, 2K series, multi-core type, 12-core, chrome-plated brass housing, PPS insulator, soldered male pin core, suitable for C-type wire clamp of 6.2 mm outer diameter cable

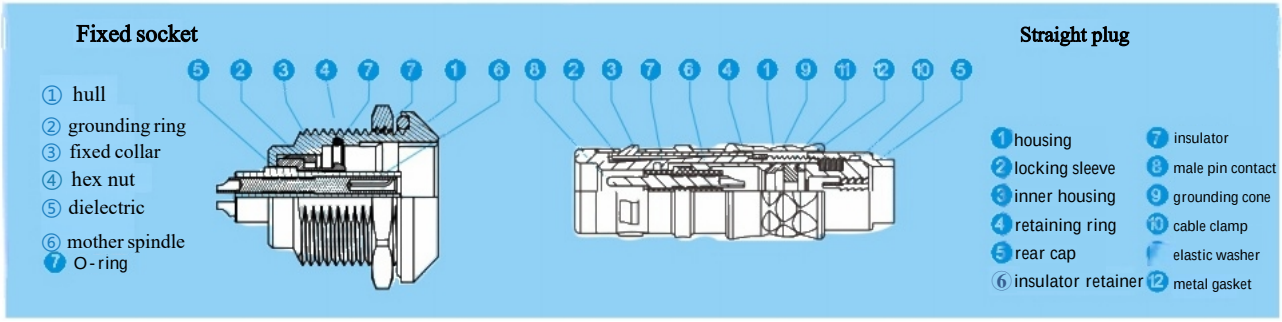
Floating socket:

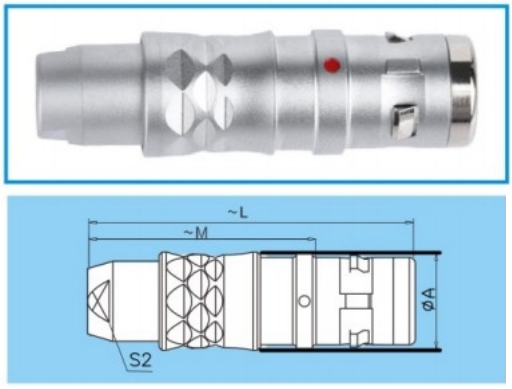
DHG.2K.312.CLLC62Z= Floating socket with positioning pin (G) and wire clamp, 2K series, multi-core type, 12-core, chrome-plated brass housing, PPS insulation Body, welded-type female needle core, suitable for C-type cable clamps with outer diameter 6.2mm, tail cover with sheath model

Fixed sockets:

ZGG.K.312.CLL= Fixed socket with nut fastening and positioning pin (G), 2K series, multi-core type, 12-core, chrome-plated brass housing, PPS insulator welded female needle core

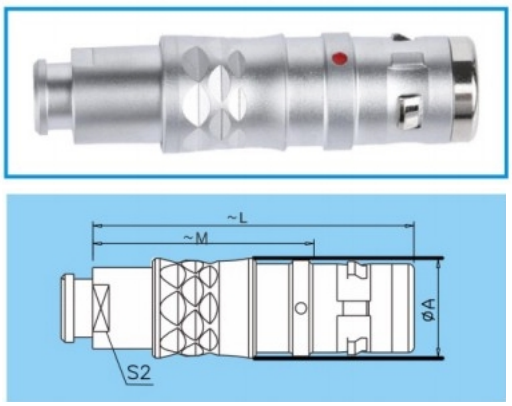
Product Cross Section





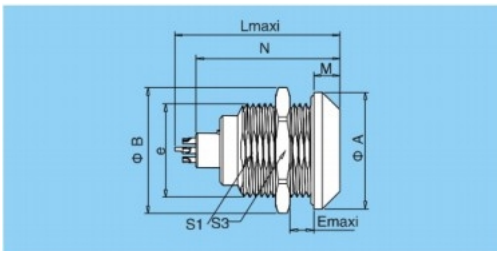
T GG **Straight plug, positioning pin (G) or positioning pin (A, F, L, and R), cable clamp**

Project		Size			
Series	Model	A	L	M	S1
0K	TGG	11	34	23	7
1K	TGG	13	42	28	9
2K	TGG	16	52	36	12
3K	TGG	19	61	41	15



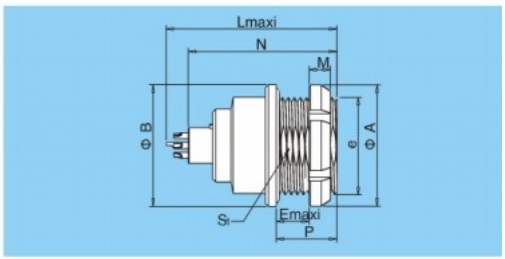
TGG straight plug, positioning pin (G) or positioning pin (A.F, L, and R), cable clamp, and sheathed tail cover

Project		Size			
Series	Model	A	L	M	S2
0K	TGG	11	34	23	8
1K	TGG	13	42	28	9
2K	TGG	16	52	36	13
3K	TGG	19	60	40	15
4K	TGG	25. 5	74	53. 5	20



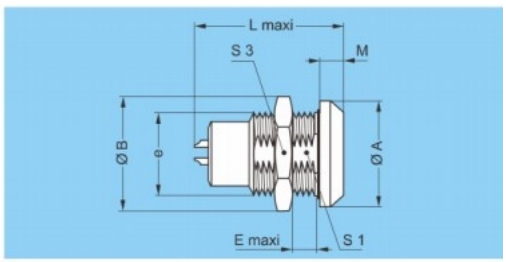
ZGG fixed socket, nut secured, positioning pin (G) or positioning pin (A F, L and R)

Project		Size								
Series	Model	A	B	e	E	L	M	N1	S1	S3
0K	ZGG	18	19.5	M14x1.0	6	20.4	4.0	17.7	12.5	17
1K	ZGG	20	21.5	M16x1.0	9	27.2	4.5	23.2	14.5	19
2K	ZGG	25	27.0	M20x1.0	9	30.7	5.0	28.6	18.5	24
3K	ZGG	31	34.0	M24×1.0	11	362	6.0	33.6	22.5	30



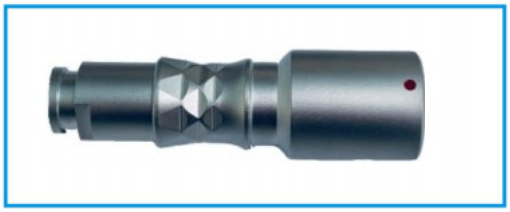
ZEG fixed socket, nut secured, positioning pin (G) or positioning pin (A...F, L and R) (rear panel installation)

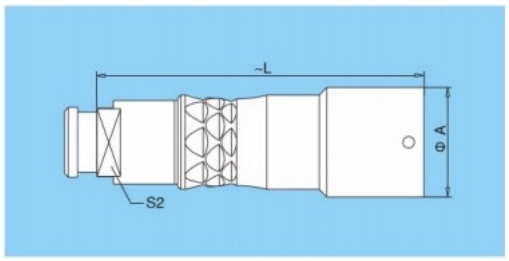
Project		Size								
Series	Model	A	B	e	E	L	M	N	P	S1
0K	ZEG	18	18	M14x1.0	3.4	21.7	3.5	17.6	7	12.5
1K	ZEG	20	20	M16x1.0	7	27.0	3.5	23.2	10	14.5
2K	ZEG	25	25	M20x1.0	5.0	30.7	3	28.6	10	18.5
3K	ZEG	30	31	M24x1.0	7.5	362	4.5	33.6	12	22.5



MGG fixed socket, nut secured, positioning pin (G) or positioning pin (A M.and R), water-tight or vacuum-sealed (IP68)

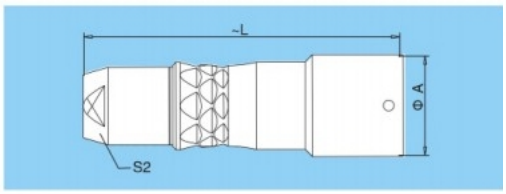
Project		Size							
Series	Model	A	B	e	E	L	M	S1	S3
0K	MGG	18	19.2	M14x1.0	5.5	20	4.0	12.5	17
1K	MGG	20	21.5	M16x1.0	9	30.0	4.5	14.5	24
2K	MGG	25	27.0	M20x1.0	13.0	33.7	5.0	18.5	24
3K	MGG	31	34	M24x1.0	16.0	33.5	6.0	22.5	30





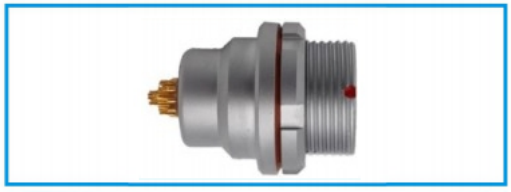
DHG floating socket, positioning pin (G) or positioning pin (A F, L and R), cable clamp and sheathed tail cover

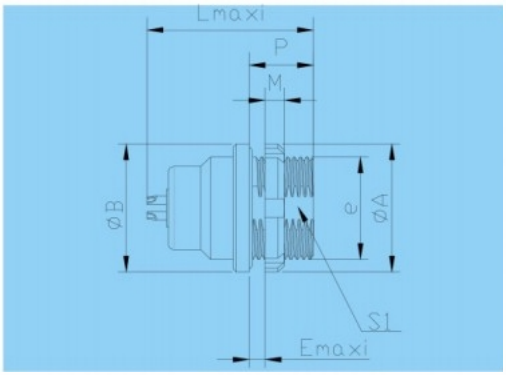
Project		Size		
Series	Model	A	L	S2
0K	DHG	13	34	8
1K	DHG	15	45	9
2K	DHG	19	54	12
3K	DHG	23	64	15



DHG floating socket, positioning pin (G) or positioni. ng.pin (A F, L and R), cable clamp

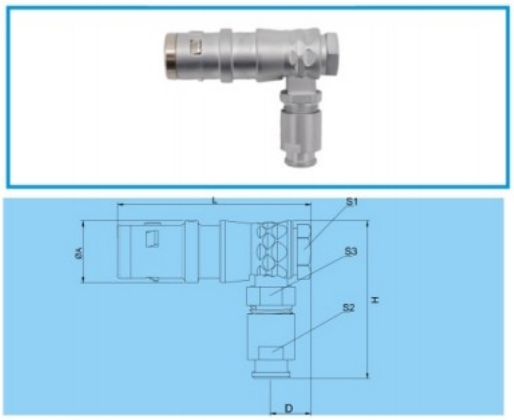
Project		Size		
Series	Model	A	L	S2
0K	DHG	13	34.0	8
1K	DHG	15	42.0	9
2K	DHG	19	52.0	12
3K	DHG	23	65.0	15





MEG fixed socket, nut secured, positioning pin (G) or positioning pin (A...F, L and R), rear panel installation, rear side encapsulation

Project		Size							
Series	Model	A	B	e	E	M	L	P	S1
0K	MEG	18	18	M14x1.0	2.4	3.5	21.7	7	12.5
1K	MEG	20	20	M16x1.0	6.2	3.5	30.0	10	14.5
2K	MEG	25	25	M20x1.0	5.0	3.5	33.7	10	18.5

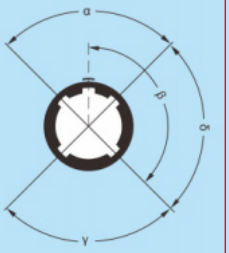


THG 90° bend plug, locating pins (G) and locating pins (A, E,.a. nd R), cable clamp fixing, and sheathed tail cover

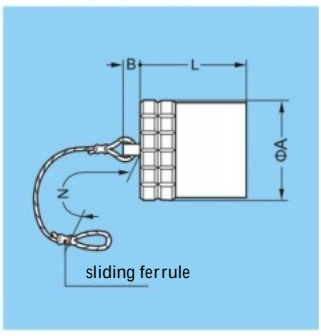
Project		Size						
Series	Model	A	L	H	D	S1	S2	S3
0K	THG	11.5	36	27	7.6	10	8	8
1K	THG	14	43	33	8.8	12	9	10
2K	THG	17.5	51	40	10.5	15	12	13
3K	THG	21	60	47	11.5	18	15	15

Dowel

The model number of K-series connector housings consists of three letters,
with the last letter indicating the position of the locating pin and the type of pin (male or female).

Socket Front View	Number	Location sales quantity	Angle	Series 0K	1K	2K	3K	4K	5K	Stylet Type Plug	Jack
	G	1		0°	0°	0°	0°	0°	0°	Core of spindle	Mother spindle
	A	2	α	30°	30°	30°	30°	30°	30°	Core of spindle	Mother spindle
	B	2		45°	45°	45°	45°	45°	45°	Core of spindle	Mother spindle
	C	2		60°	60°	60°	60°	60°	60°	Core of spindle	Mother spindle
	D	2	Y	95°	95°	95°	95°	95°	95°	Core of spindle	Mother spindle
	E	2	β	120°	120°	120°	120°	120°	120°	Core of spindle	Mother spindle
	F	2		145°	145°	145°	145°	145°	145°	Core of spindle	Mother spindle
	L	2	Y	75°	75°	75°	75°	75°	75°	Mother spindle	Core of spindle

Socket Front View	Number	Number of positioning pins	Angle	Series 0K	1K	2K	3K	4K	5K	Needle type Plug	Jack
	R	5	α	-	-	-	95°		-	Core of spindle	Mother spindle
			β	-	-	-	115°				
			Y		-	-	35°	-	-		
			ō	-	-	-	25°	-			



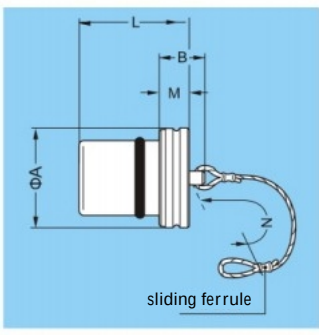
BTG K Series Plug Dust Cover with Positioning Pin (G)

Shell material: chrome-plated brass Hanging cord material: Stainless steel (S) / Nylon cord (N)

O-ring: silicone rubber Maximum operating temperature: 135°C

Water resistance rating: IP65 to IP68

Identification of product	Series	Size (mm)			
		A	B	L	N
BTG. 0K. CSS-085	0K	14	6	12.5	85
BTG. 1K. CSS-085	1K	16	6	15.5	85
BTG. 2K. CSS-085	2K	19	6	17.5	85
BTG. 3K. CSS-120	3K	24	6	23.5	120



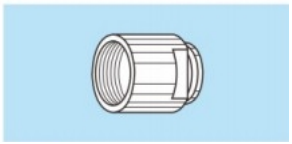
BZFK Series Socket Dust Cover

Shell material: chrome-plated brass; Rope material: stainless steel (S)/nylon rope (N); O-ring: silicone rubber; Maximum operating temperature: 135°C

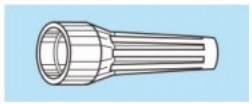
Water resistance rating: IP50

Identification of product	Series	Size (mm)				
		A	B	L	M	N
BZF. 0K. CSS-085	0K	15	10	15	4	85
BZF. 1K. CSS-085	1K	17	12	20	6	85
BZF. 2K. CSS-085	2K	20.5	14	24	8	85
BZF. 3K. CSS-120	3K	24	16	28	10	120

Suitable for K-series sheaths and adapter clamps



Additional order required



	Number	Tail-hood		Additional order required (see page 72)
		Type	Code	
0K	Z	C	10 to 50	GMA. 0B. ···. ″
1K	Z	C	15 to 65	GMA. 1B. ···. ″
		K	70 to 85	GMA. 2B. ···. ″
2K	Z	C	15 to 85	GMA. 2B. ···. ″
		K	90 to 10	GMA. 3B. ···. ″

Note: All dimensions are in millimeters

Type C ①00

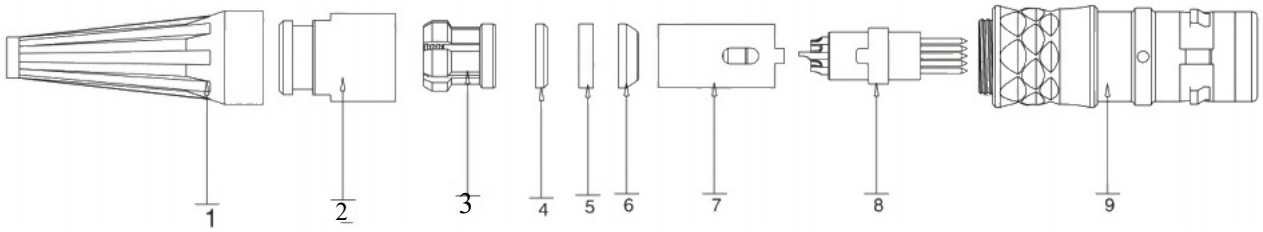
K-type enlargement type ①00

Cable clamp

	Number		Cable clamp		Cable	
	Type	Code	0A	0B	Crest value	Least value
0K	C	10	1.6	-	1.2	1.0
	C	15	1.6		1.5	1.3
	C	20	2.1		2.0	1.6
	C	25	3.1		2.5	2.1
	C	30	3.1	-	3.0	2.6
	C	35	4.2	4.2	3.5	3.1
	C	40	4.2	4.2	4.0	3.6
	C	45	5.2	5.2	4.5	4.1
	C	50	5.2	5.2	5.0	4.6
1K	C	15	1.6		1.5	1.3
	C	20	2.2	-	2.0	1.6
	C	25	3.2		2.5	2.1
	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	6.2	5.5	5.1
	C	60	6.2	6.2	6.0	5.6
	C	65	7.2	6.7	6.5	6.1
	K	70	7.2		7.0	6.6
	K	75	8.2	8.2	7.5	7.1
	K	80	8.2	8.2	8.0	7.6
	K	85	9.2	8.6	8.5	8.1
2K	C	15	2.2		1.5	1.3
	C	20	2.2	-	2.0	1.6
	C	25	3.2	-	2.5	2.1
	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	8.2	7.5	7.1
	C	80	8.2	8.2	8.0	7.6
	C	85	9.2	8.6	8.5	8.1
	K	90	9.2	-	9.0	8.6
	K	95	10.2	10.2	9.5	9.1
	K	10	10.2	10.2	10.0	9.6
	K	11	11.2	10.6	10.5	10.1
3K	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

	Number		Cable clamp		Cable	
	Type	Code	0A	0B	Crest value	Least value
3K	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	11.2	10.6	10.5	10.1
	K	11	12.3		12.0	10.6
	K	12	13.8	13.8	12.8	12.1
	K	13	13.8	13.8	13.5	12.9
	K	14	15.3	15.3	14.0	13.6
	K	15	15.3	15.3	15.0	14.1
4K	C	50	6.3		5.0	4.6
	C	55	6.3		5.5	5.1
	C	60	6.3		6.0	5.6
	C	65	7.3		6.5	6.1
	C	70	7.3	-	7.0	6.6
	C	75	8.3	-	7.5	7.1
	C	80	8.3	-	8.0	7.6
	C	85	9.3		8.5	8.1
	C	90	9.3		9.0	8.6
	C	95	10.8		9.5	9.1
	C	10	10.8		10.5	9.6
	C	11	12.3		12.0	10.6
	C	12	13.8	13.8	12.8	12.1
	C	13	13.8	13.8	13.5	12.9
	C	14	15.3	15.3	14.0	13.6
	C	15	15.3	15.3	15.0	14.1
	K	16	17.8		16.5	15.6
	K	17	17.8		17.5	16.6
	K	18	19.8	-	18.5	17.6
	K	19	19.8	-	19.5	18.6
	K	20	21.8		20.5	19.6
	K	21	21.8		21.5	20.6
	K	22	23.8	23.8	22.5	21.6
	K	23	23.8	23.8	23.5	22.6

Assembly Instructions for K Series Connector Plugs



1. Insert the cable sequentially through the sheath ①, tail nut ②, cable clamp ③, V-shaped gasket ④, cable sealing ring ⑤, and shielding wire compression ring ⑥, then solder them onto the corresponding pins of the insulator assembly ⑦ in the specified order.

2. Mount the insulator clamp ⑦ onto the insulator assembly ⑧, ensuring the protrusion of the clamp ⑦ aligns with the notch of the assembly ⑧. Then, position the shielding wire clamp ⑥, cable sealing ring ⑤, V-shaped gasket ④, and cable clamp ③ in sequence, making sure the cable's intact outer sheath is fully inserted into the shielding wire clamp ⑥.

3. Insert the assembled insulator component ⑧ into the plug component ⑨, ensuring the notch on the insulator retaining ring ⑦ aligns with the protrusion in the plug component ⑨.

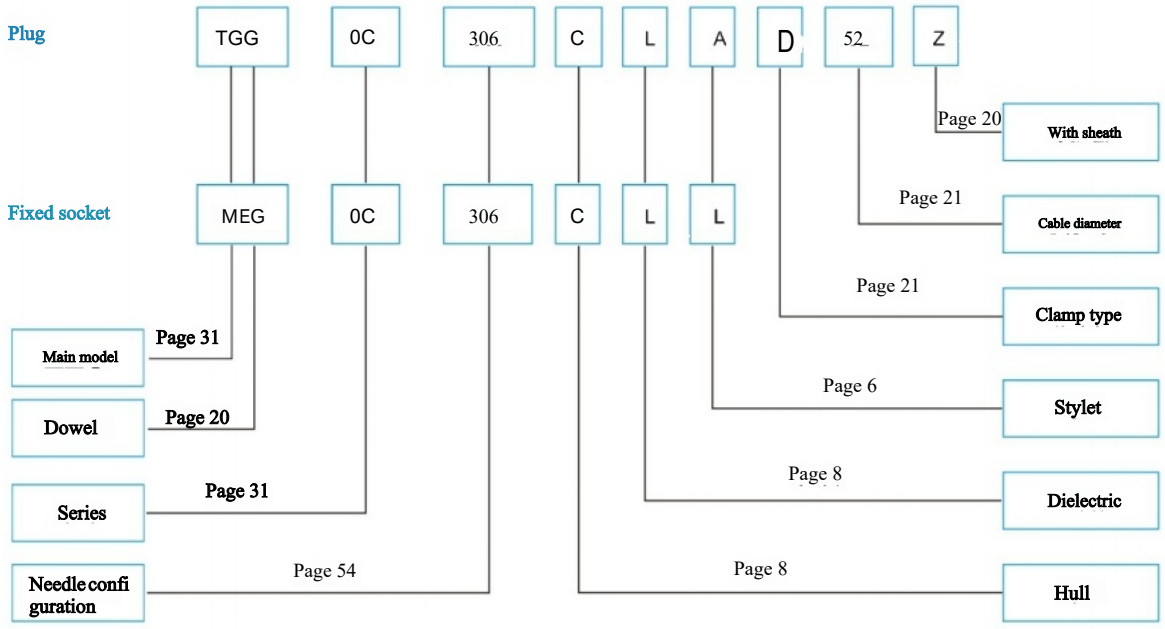
4. Tighten the rear nut ② onto the plug assembly ⑨.

5. Attach the sheath ① to the rear nut ②.

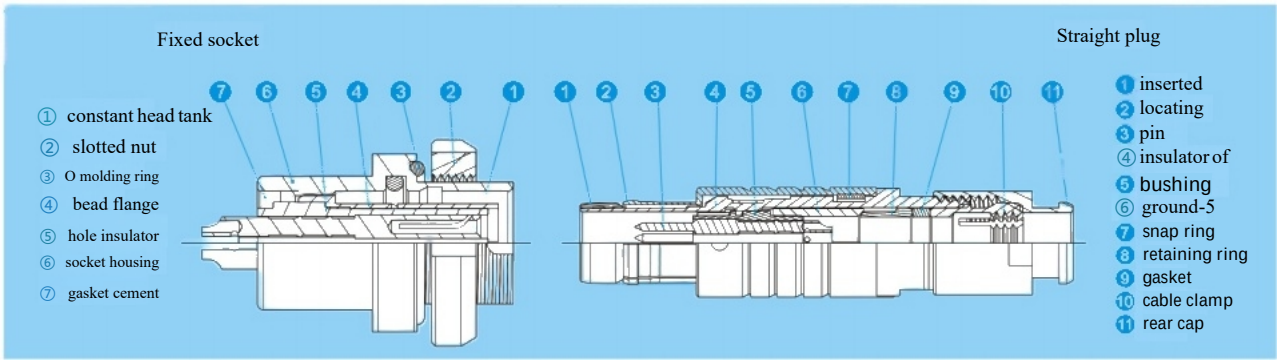
key features of the C Series connectors

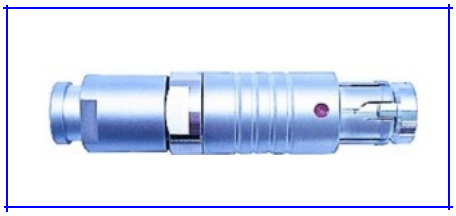
- Fast push-pull self-locking system;
- The safe split-lap push-pull self-locking system;
- Multi-core type 1-19 cores;
- welding and printed circuit board pin core;
- High-density installation, saving space;
- Positioning pin system, where G is the standard positioning pin used for connector alignment
- 360-degree shielding delivers comprehensive EMC protection.
- Multiple locating pin options can prevent the misinsertion of similar connectors.
- Water resistance rating: IP68
- Salt spray corrosion test:>96h

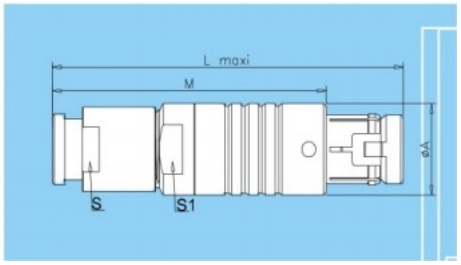
C Series Product Numbering Rule



Product cross section

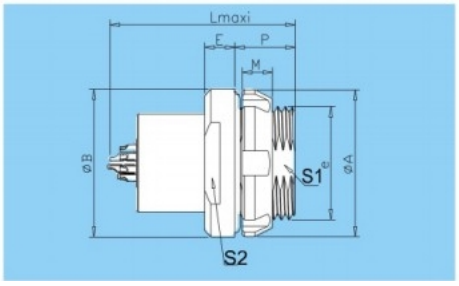






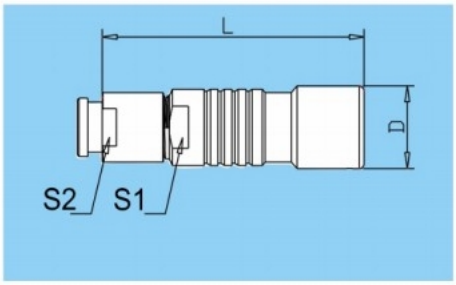
T GG Straight plug, locating pin (A) or locating pin (A, B,) tail cap or cable clamp

Project		Size				
Series	Model	A	L	M	S	S1
0C	TGG	9.4	37	28	8	7
1C	TGG	12	46	35	10	10
2C	TGG	15	50	38	13	12
3C	TGG	18	61	40	16	15



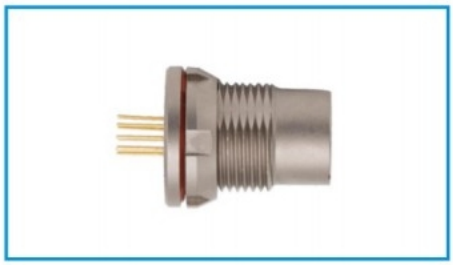
MEG fixed socket, nut secured, positioning pin (G) or positioning pin (A, B). . . .water-sealed or vacuum-sealed

Project		Size								
Series	Model	A	B	e	L	E	M	P	S1	S2
0C	MEG	14	14.5	M9x0.5	20.3	3.5	3	6.5	8.2	12
1C	MEG	16	18	M14*1.0	23.6	3.5	3	6.5	12	15
2C	MEG	22	21	M16*1.0	29	4	4	7	14.8	18
3C	MEG	25	26	M20*1.0	33	4	3.5	8	18	22

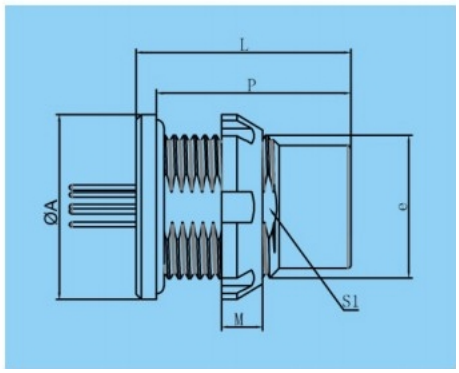


DHG floating socket, with positioning pin (G) or positioning pins (A, B,...)

Project		Size			
Series	Model	D	L	S1	S2
0C	DHG	9.5	35.5	8.0	7.0
1C	DHG	12.5	40.5	10.0	9.0
2C	DHG	16.5	47.0	13.0	12.0
3C	DHG	19.0	56.0	15.0	15.0

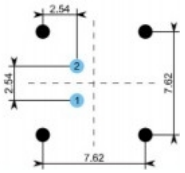
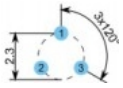
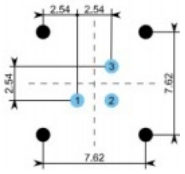
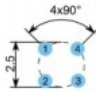
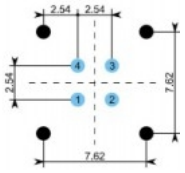
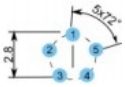
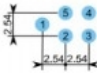
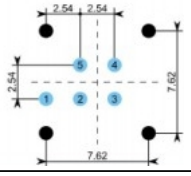
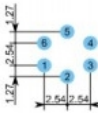
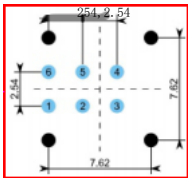
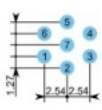
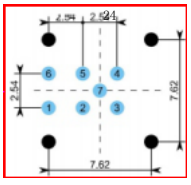


HEG convex tail external nut fixing socket, external nut fixing (rear panel installation), multi-key positioning anti-misinsertion, IP68 waterproof rating



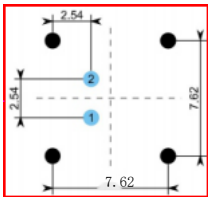
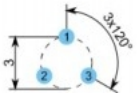
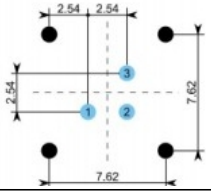
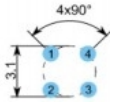
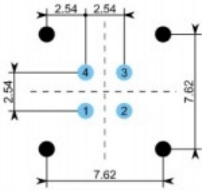
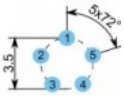
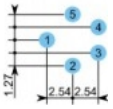
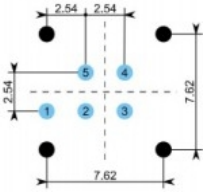
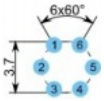
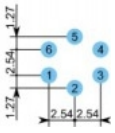
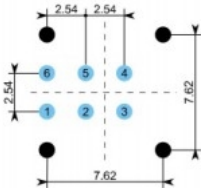
Project		Size					
Series	Model	A	e	M	L	P	S1
1C	HEG	18	M14x1	4	21	19	12.5

0-PCB board hole pattern

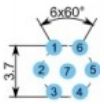
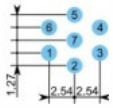
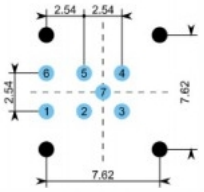
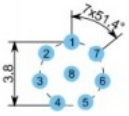
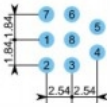
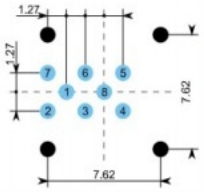
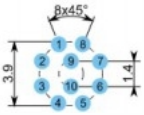
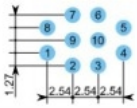
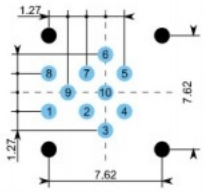
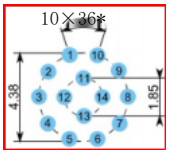
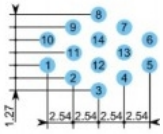
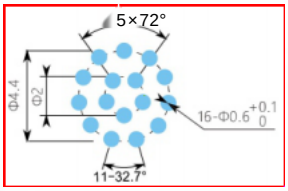
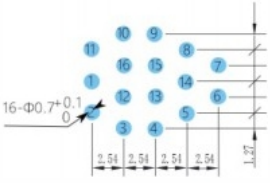
Number of threads	PCB straight	PCB curved	GF/GG PCB bending
			 
2	Dil:0.8mm 	Dil:0.7mm 	Drill-contact:0.8mm Drill-mounting:0.8mm 
3	Dril:0.8mm 	Dril:0.7mm 	Drill-contact:0.8mm Dill-mounting:0.8mm 
4	Drl:0.6mm 	Drl:0.7mm 	Drill-contact:0.8mm Dril-rmounting:0.8mm 
5	Dril:0.6mm 	Dil:0.7mm 	Drill-contact:0.8mm Dill-mounting:0.8mm 
6	Dri:0.6mm 	Dil:0.7mm 	Drill-cantact:0.8mm Drill-mounting:0.8mm 
7	Dril:0.6mm 	Dil:0.7mm 	Drill-contact:0.8mm Drill-mounting:D.8mm 

>>> PCB hole pattern for B, K, and C series

Hole pattern of No.1 PCB

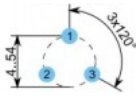
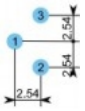
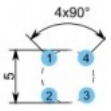
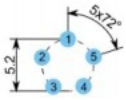
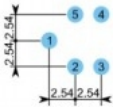
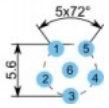
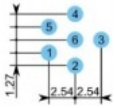
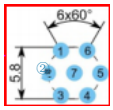
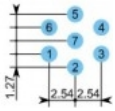
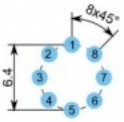
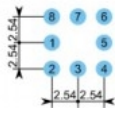
Number of threads	PCB straight	PCB curved	Z P G / Z X G P C B bend
			 
2	Dril:0.8mm 	Dril:0.9mm 	Drill-contact:0.8mm Drill-mounting:0.8mm 
3	Dril:0.8mm 	Dil:0.9mm 	Drill-contact:0.8mm Drill-mounting:0.8mm 
4	Dril:0.6mm 	Dri:0.7mm 	Drill-contact:0.8mm Drill-mounting:0.8mm 
5	Dril:0.8mm 	Dri1:0.7mm 	Drill-contact:0.8mm Dril-mounting:0.8mm 
6	Dri:0.6mm 	Dril:0.7mm 	Dril-contact:0.8mm Dril-mounting:0.8mm 

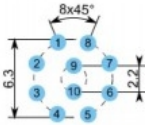
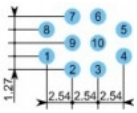
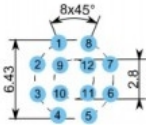
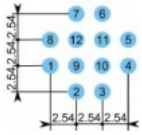
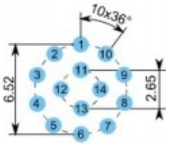
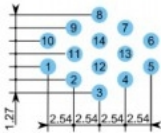
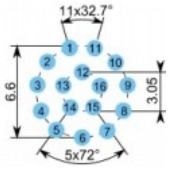
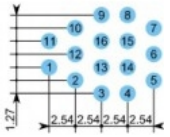
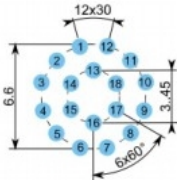
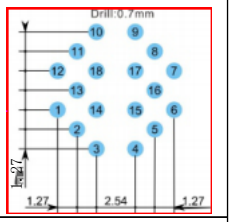
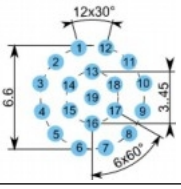
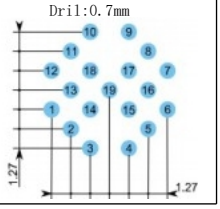
Hole pattern of No.1 PCB

Number of threads	PCB straight	PCB curved	PG/ZX G P CB Bend
			 
7	Dril:0.6mm 	Dril:0.7mm 	Drill-contact:0.8mm Drill-mounting:0.8mm 
8	Dril:0.6mm 	Dril:0.7mm 	Drill-contact:0.8mm Drill-mounting:0.8mm 
10	Di:0.6mm 	Dril:0.7mm 	Drill-contact:0.8mm Drill-mounting:0.8mm 
14	Dril:0.6mm 	Dril:0.7mm 	
16			

>>>B, K, C series PCB hole pattern

Hole pattern for PCB No.2

Number of thre-ads	PCB straight	PCB curved
		
3	Dril:0.8mm Bohung 0.8mm 	Dril:0.9mm 
4	Dril:0.8mm 	Dri:0.9mm 
5	Dril:0.8mm 	Dri:0.9mm 
6	Dril:0.8mm 	Drill:0.9mm 
7	Drill:0.8mm 	Dril:0.7mm 
8	Dril:0.8mm 	Dril:0.9mm 

Number of thr-eads	PCB straight	PCB curved
		
10	Dril:0.8mm 	Dil:0.7mm 
12	Dril:0.6mm 	Dril:0.7mm 
14	Dril:0.6mm 	Dril:0.7mm 
16	Dril:0.6mm 	Dril:0.7mm 
18	Dr:0.6mm 	
19	Dri:0.6mm 	Dril:0.7mm 

Technical characteristics handle

Charact-eristic	Parame-ter	Standard
Insertion and re-moval count	3000 times	IEC 60512-5 test 9a
Temperature (when joining)	When filling with silicone-55℃-+125℃. When filling with epoxy resin-20℃-+125℃. No filling (PPS insulator) -55℃-+125℃	-
Vibration resistance	10-2000Hz, 15g	IEC 60512-4 test 6d
Impact resistance	Satisfied	EIA-364-27
Salt spray corrosion test 2)	Authent-icate	IEC 60512-6 test11
Protection level (2m,1	IP68	IEC 60529
Meet the requirements of the cannon vibration test	Satisfied	MIL STD-810-E
Lightning test	Satisfied	EIA-364-75
Accelerated speed	Satisfied	MIL STD-1344(2011-1)

Materials and Their Sur-faces

Characteri-stic	Parameter	Surface preparation
Shell, tail cover	Aluminum alloy (AA 6262A)	Nickel (5μm)
Grounding ring	Bronze (UNS C 54400)	Gold (1.5 μm)
Anti-rotation bevel gear	PEEK polyether bottle ketone resin ink	
Dielectric	PEEK	-
Stylet	Brass/bronze nickel	(3μm) + gold (1.5μm)
Bed down the livestock	FPM+FVMQ	-
Seal	Epoxy resin	

1) smoke black.2) recommended chrome-plated brass housing.

Product Number Rules

TG A . 1M .307 X L A

model

Positioning pin (color-coded)
A=Blue (standard)
P=Yellow
U= green
S= Red (reverse rotation)
=Color (Reverse Rot-ation) series: 0M to 2M

needle type
L= fused stamen
A= Welded male pin core N=PCB board-mounted female pin core D= PCB board-mounted male pin core

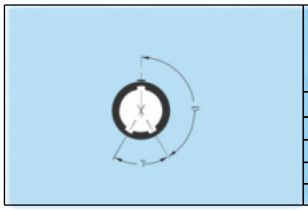
needle configurat-ion

Product number example

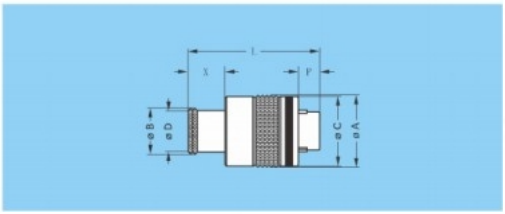
TGA.1M.307.XLA = Straight-jaw plug, positioning pin (A), 1M series, 7 soldered male pin cores

positioning pin and polarity positioning pin system

The model numbers of M-series connectors consist of three letters.
The last letter indicates the position of the locating pin and the corresponding type of pin core. Straight plugs with A, P, and U-type locating pins are equipped with male pin cores, while those with S-type locating pins are equipped with female pin cores.



Model	Positioning quantity	Series 0M to 2M Angle β	Angle Y	Color coding	Pin type (electrical) Plug	Jack
• A	3	165°	30°	Blue	Core of spindle	Mother spindle
P		150°	60°	Yellow		
U		130°	100°	Green		
S		155°	50°	Red	Mother spindle	Core of spindle
T		135°	90°	Orange		

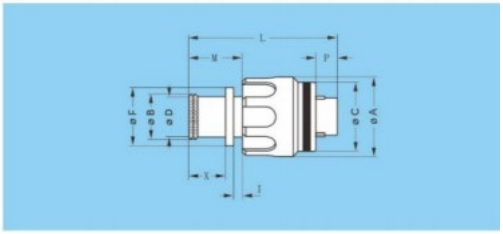


TG straight plug, locating pin (A) or locating pin (P and U), with segmented anti-slip ring

Project		Size							Weight
Series	Model	A	B	C	D	L	P	X	
0M	TG	13.1	8.8	12.7	8.0	27.3	4.0	6.7	4.3
1M	TG	14.6	10.5	14.2	9.7	24.1	4.0	6.7	5.6
2M	TG	17.6	14.0	17.2	13.0	24.5	4.0	7.1	8.5

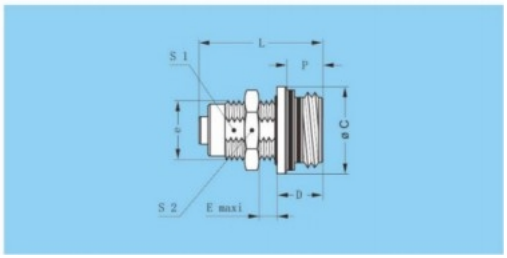
>>M series

TM straight plug, locating pin (A) or locating pin (P and U), with slotted anti-slip ring, rear injection-molded card slot



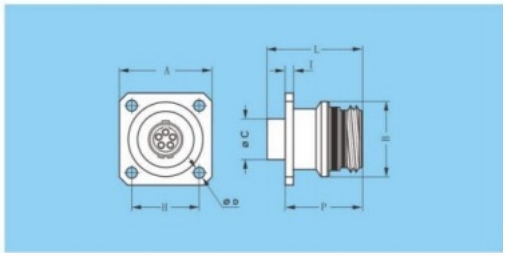
Project		Size									Weight
Series	Model	A	B	C	D	F	1	L	M	P	X	
0M	TM	14.4	8.8	12.7	8.0	10.7	1.5	27.1	9.7	4.0	6.7	4.4
1M	TM	15.9	10.5	14.2	9.7	12.4	1.5	27.1	9.7	4.0	6.7	5.8
2M	TM	18.9	14.0	17.2	3.0	5.5	1.52	27.5	10.1	4.0	7.1	7.4

ZG fixed socket, nut fixed, locating pin (A), locating pin (P and U)



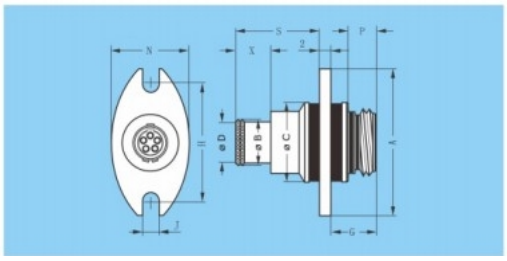
Project		Size								Weight
Series	Model	C	D	e	E	L	P	S1	S2	
0M	ZG	12.7	6.8	M9XD6	5.0	18.9	15.3	8.2	11.0	2.7
1M	ZG	14.2	6.8	M1X10	4.5	18.1	15.3	9.5	13.0	3.3
2M	ZG	17.2	6.8	M14X10	4.5	18.1	15.3	12.5	17.0	4.5

ZD fixed socket with square flange locating pin (A) or locating pin (P and U)



Project		Size								Weight
Series	Model	A	B	C	d	H	1	L	P	
0M	ZD	16.0	12.7	4.7	2.7	11.0	1.5	18.5	14.3	3.7
1M	ZD	18.4	14.2	6.0	3.3	12.9	1.5	18.5	14.3	4.8
2M	ZD	20.6	17.2	9.0	3.3	15.1	1.5	18.5	14.3	7.7

ZB fixed socket, non-seismic flange locating pin (A) or locating pin (P and U), 2 screw holes for fixing

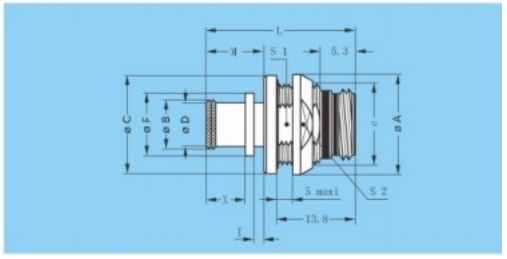


Project		Size										
Series	Model	A	B	C	D	G	H	J	N	P	S	X
0M	ZB	27.0	8.8	14.5	8.0	8.3	21.4	3.3	16.0	5.3	15.3	6.7
1M	ZB	29.0	10.5	16.5	9.7	8.3	23.4	3.3	18.0	5.3	15.3	6.7
2M	ZB	32.0	14.0	19.5	13.0	8.3	26.4	3.3	21.0	5.3	15.7	7.1

ZE fixed socket, nut fixed, locating pin (A), locating pin (P and U)tail end injection seal (back panel installation)

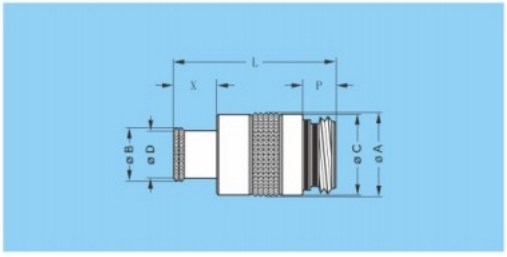
Note: The size matches the TG model.

This model is only suitable for connectors with rear injection sealing.



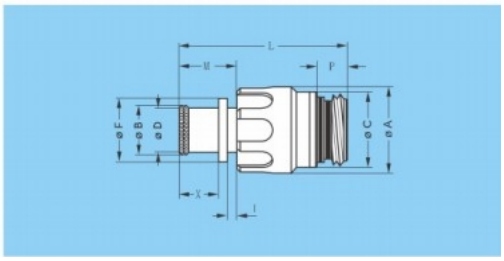
Project		Size										
Series	Model	A	B	C	D	e	F	L	M	S1	S2	X
0M	ZE	17	8.8	16.8	8.0	M13X075	10.7	25.6	9.7	11.5	14	6.7
1M	ZE	18	10.5	17.8	9.7	M4X1.0	12.4	25.6	9.7	12.5	16	6.7
2M	ZE	21	14.0	20.8	13.0	M17X1.0	15.5	25.6	10.1	15.5	18	7.1

DM floating socket, positioning pin (A) or positioning pin (P and U), with groove anti-slip ring, tail injection-molded card slot



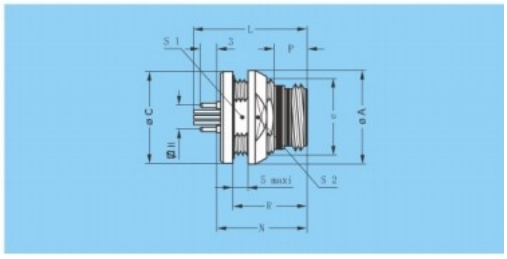
Project		Size						
Series	Model	A	B	C	D	L	P	X
0M	DM	13.1	8.8	12.7	8.0	25.6	5.3	6.7
1M	DM	14.6	10.5	14.2	9.7	25.6	5.3	6.7
2M	DM	17.6	14.0	17.2	13.0	26.0	5.3	7.1

DH Floating socket, positioning pin (A) or positioning pin (P and U), with a slotted anti-slip ring and tail injection-molded slot



Project		Size									
Series	Model	A	B	C	D	F	I	L	M	P	X
0M	DH	14.4	8.8	12.7	8.0	10.7	1.5	28.6	9.7	5.3	6.7
1M	DH	15.9	10.5	14.2	9.7	12.4	1.5	28.6	9.7	5.3	6.7
2M	DH	18.9	14.0	17.2	13.0	15.5	1.5	29.0	10.1	5.3	7.1

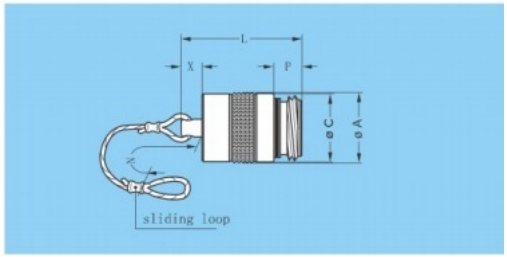
HE fixed socket, nut fixed, positioning pin (A), positioning pin (P and U) for printed circuit board, waterproof (rear panel installation)



Project		Size									
Series	Model	A	C	e	H	L	N	P	R	S1	S2
0M	HE	17.0	17.0	M13X075	5.08	20.8	16.8	5.3	13.8	11.5	14.0
1M	HE	18.0	17.8	M4XL0	07.62	20.8	16.8	5.3	13.8	12.5	16.0
2M	HE	21.0	20.8	M7KL.00	8.89	20.8	16.8	5.3	13.8	15.5	18.0

plug seal cover

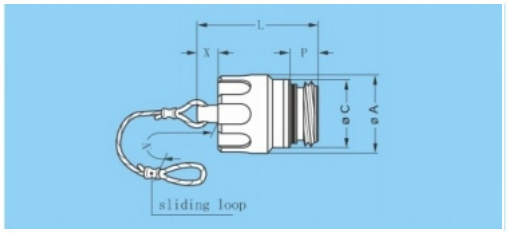
Note: This type of sealing cap is compatible with connectors of any positioning method.



Project	Size					
Identification of product	A	C	L	N	P	X
BMF.0M.100.XAV	13.1	12.7	24.6	85.0	5.3	6.0
BMF.1M.100.XAV	14.6	14.2	24.6	85.0	5.3	6.0
BMF.2M.100.XAV	17.6	17.2	24.6	85.0	5.3	6.0

BGF plug seal cover

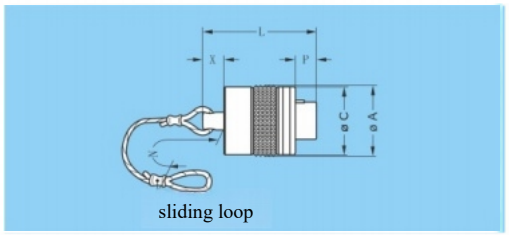
Note: This type of sealing cap is compatible with connectors of any positioning method.



Project	Size					
Identification of pr-oduct	A	C	L	N	P	X
BGF. 0M. 100. XAV	14. 4	12. 7	24. 6	85. 0	5. 3	6. 0
BGF. 1M. 100. XAV	15. 9	14. 2	24. 6	85. 0	5. 3	6. 0
BGF. 2M. 100. XAV	18. 9	17. 2	24. 6	85. 0	5. 3	6. 0

BMF Floating Socket Seal Cover

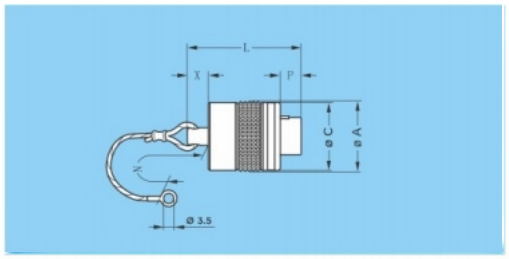
Note: This type of sealing cap is compatible with connectors of any positioning method.



Project	Size					
Identification of pr-oduct	A	C	L	N	P	X
BMF. 0M. 200. XAZ	13. 1	12. 7	23. 4	85. 0	4. 0	6. 0
BMF. 1M. 200. XAZ	14. 6	14. 2	23. 4	85. 0	4. 0	6. 0
BMF. 2M. 200. XAZ	17. 6	17. 2	23. 4	85. 0	4. 0	6. 0

BME fixed socket seal cover

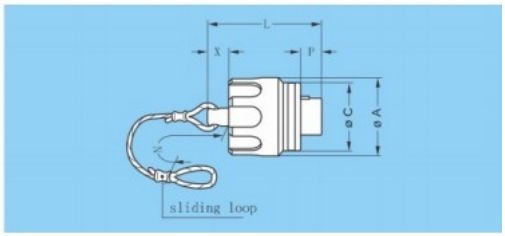
Note: This type of sealing cap is compatible with connectors of any positioning method.



Project	Size					
Identification of pr-oduct	A	C	L	N	P	X
BME. 0M. 200. XAZ	13. 1	12. 7	23. 4	85. 0	4. 0	6. 0
BME. 1M. 200. XAZ	14. 6	14. 2	23. 4	85. 0	4. 0	6. 0
BME. 2M. 200. XAZ	17. 6	17. 2	23. 4	85. 0	4. 0	6. 0

BGF **Floating socket seal cover**

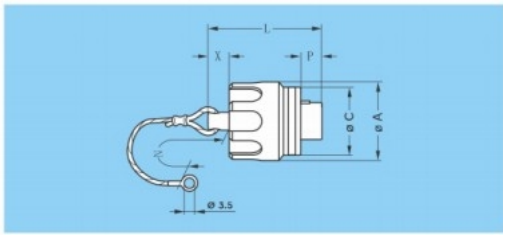
Note: This type of sealing cap is compatible with connectors of any positioning method.



Project	Size					
Identification of product	A	C	L	N	P	X
BGF. 0M. 200. XAZ	14. 4	12. 7	23. 4	85. 0	4. 0	6. 0
BGF. 1M. 200. XAZ	15. 9	14. 2	23. 4	85. 0	4. 0	6. 0
BGF. 2M. 200. XAZ	18. 9	17. 2	23. 4	85. 0	4. 0	6. 0

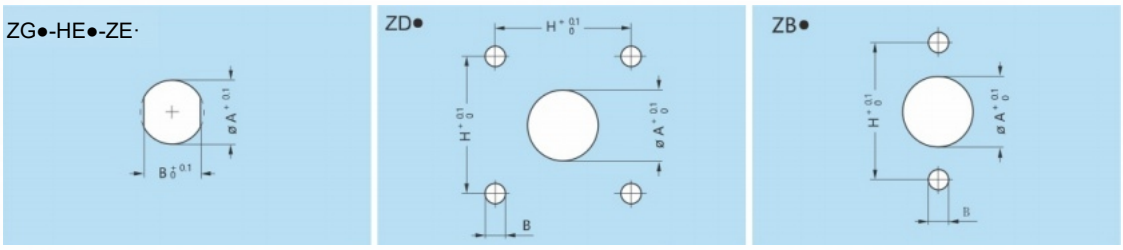
BGE **fixed socket seal cover**

Note: This type of sealing cap is compatible with connectors of any positioning method.



Project	Size					
Identification of product	A	C	L	N	P	X
BGE. 0M. 200. XAZ	14. 4	12. 7	23. 4	85. 0	4. 0	6. 0
BGE. 1M. 200. XAZ	15. 9	14. 2	23. 4	85. 0	4. 0	6. 0
BGE. 2M. 200. XAZ	18. 9	17. 2	23. 4	85. 0	4. 0	6. 0

Panel opening size



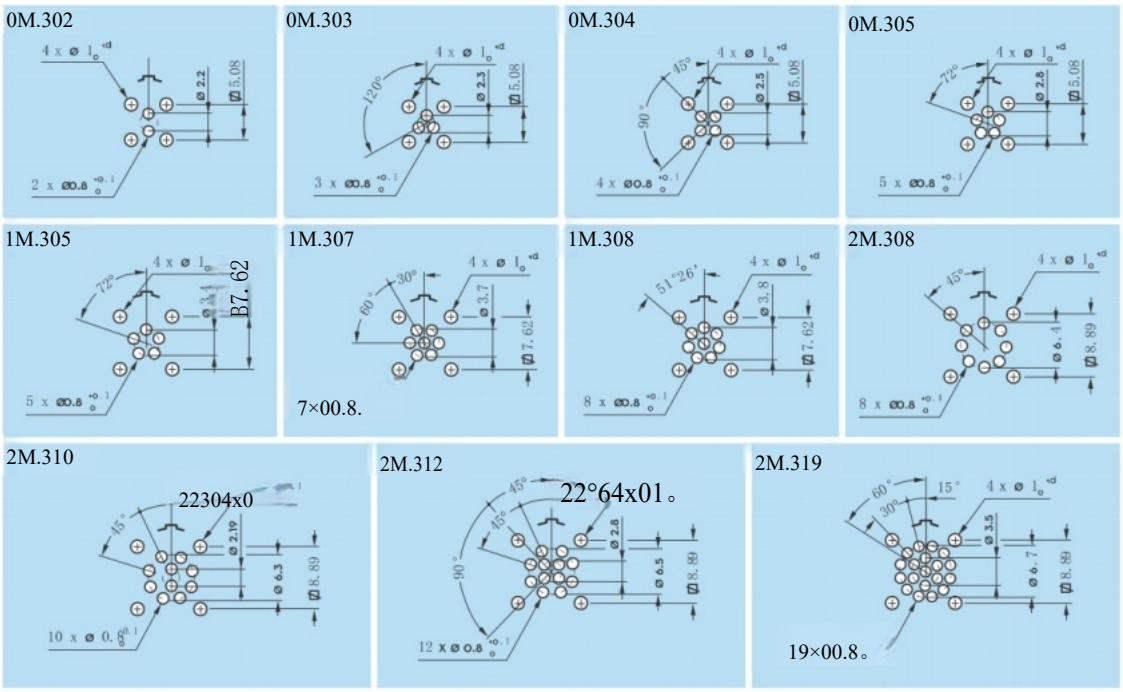
Opening size

Series	Model											
	ZG		HE		ZE		ZD •			ZBo		
	oA	B	0A	B	0 A	B	oA	B	H	oA	B	H□
0M	9. 1	8. 3	13. 1	11. 6	13. 1	11. 6	5. 1	M2. 5	11. 0	14. 8	M3. 0	21. 4
1M	11. 1	9. 6	14.	12.6 Work	14. 1	12. 6	6. 1	M3. 0	12. 9	16. 8	M3. 0	23. 4
2M	14. 1	12. 6	17. 1	15. 6	17. 1	15. 6	9. 1	M3. 0	15. 1	19. 8	M3. 0	26. 4

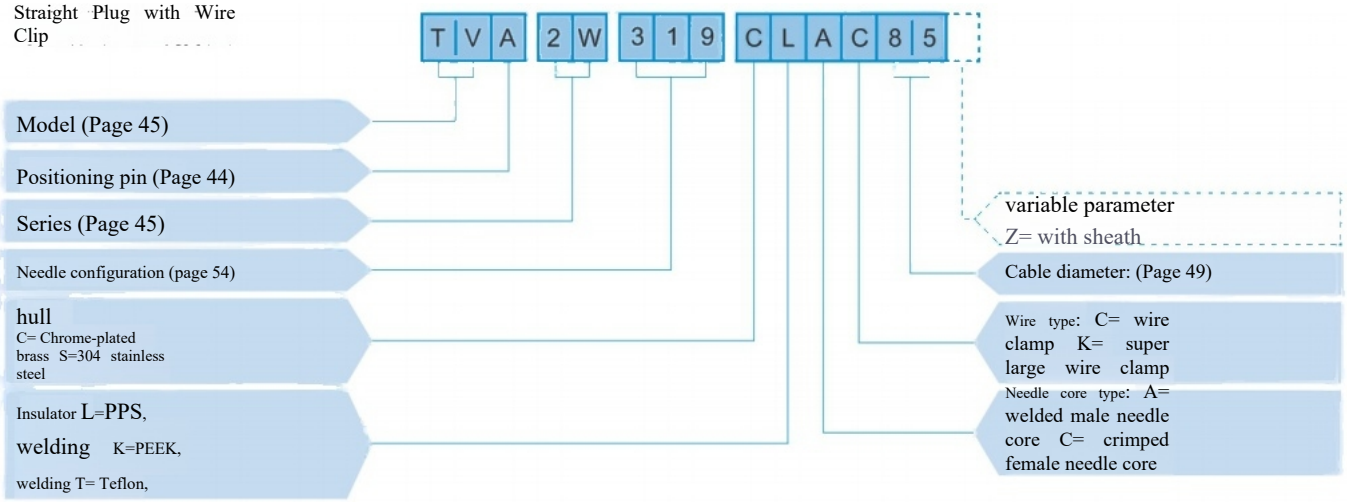
Assembly Torque Panel

Series	Torsion (N.m)
0M	1. 0
1M	1. 5
2M	2. 0

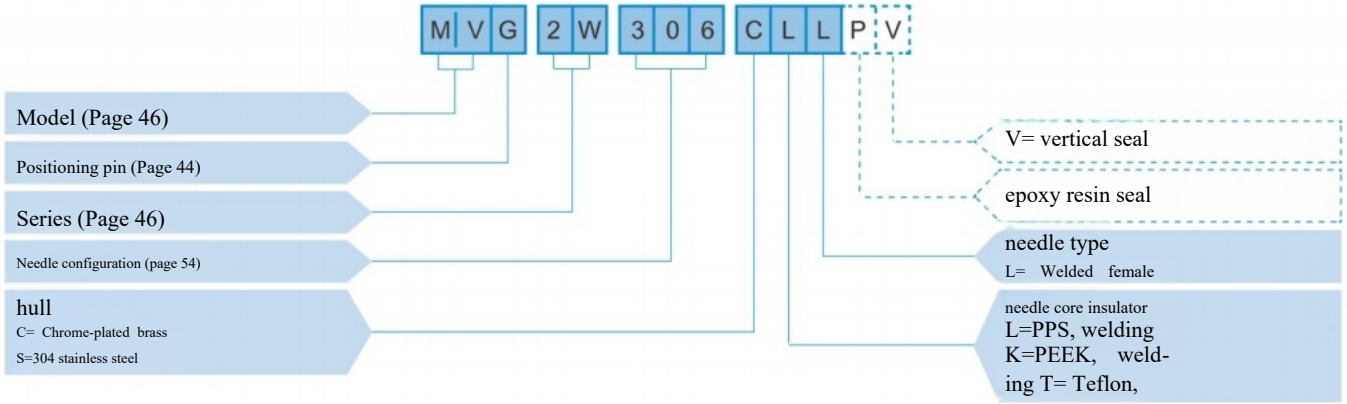
PCB drilling parameters (HE)



Product Number Rule: Straight Plug with Wire Clip



Vacuum Sealed Fixed Socket



dowel

positioning pin and polarity positioning pin combination

The W-series connector housing model consists of 0 characters; the last letter indicates the positioning pin position and the type of pin core (male or female).

Socket Front View	Number	Quantity	Angle	Series	Needle type		Remarks
				0W-5W	Plug	Jack	
	G	1		0°	Gong	Mother	●
	A	2	α	30°	Gong	Mother	●
	B	2	α	45°	Gong	Mother	●
	L	2	Y	75°	Mother	Gong	0

already have

Configurable

Technical characteristics

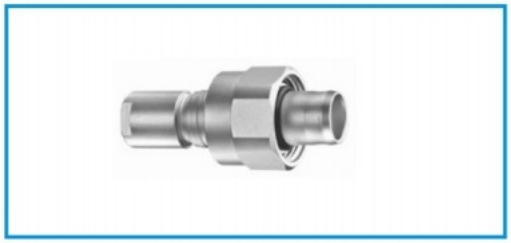
mechanical PERFORMANCE AND ENVI-RONMENTAL FACTORS

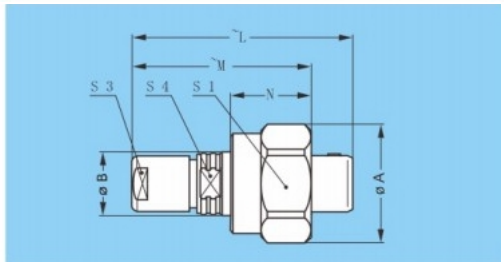
Charact-eristic	Parame-ter	Standard
Insertion and removal count	>1000 times	IEC 60512-5 test 9a
Temperature range	Silica gel pouring temperature: -55℃ to +125℃ The temperature range for resin encapsulation is-20°C to +125°C, while for non-encapsulated PPS insulators it is-55°C to +125°C.	
Salt spray corrosion test	>1000h	IEC 60512-6 test 11f
Protection level (when plugging/unplugging)	>IP68	IEC 60529
Hydrostatic pressure resistance (during insertion and removal)	～30 barsl	IEC 60512-7 test 14d
Environmental experiment	20/200/21	IEC 60068-1

electrical character

Charact-eristic		Parame-ter	Standard
Filtering Effect	at 10 MHz	>95 dB	IEC 60169-1-3
	at 1 GHz	>80 dB	IEC 60169-1-3

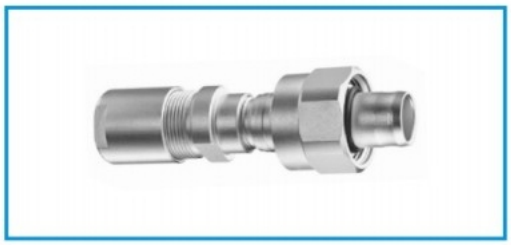
Note: 1. To properly demonstrate and withstand stress, the cable assembly must be manufactured in accordance with our recommended usage and specifications.
2. Chrome-plated products (Material Code C).

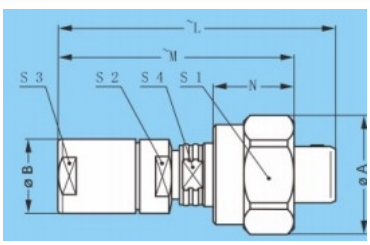




TV G **Straight plug, positioning pin (G) or positioning pin (A, B or L), cable clamp**

Project		Size							
Series	Model	A	B	L	M	N	S1	S3	S4
oW	TVG	17.2	10.0	36.0	30.8	13.5	16	8	8
1W	TVG	19.3	12.0	43.2	35.1	14.0	18	9	10
2W	TVG	23.5	16.0	52.5	43.0	15.5	22	12	13
3W	TVG	27.8	17.0	61.5	48.0	16.5	26	15	-
4W	TVG	34.3	22.0	71.5	57.5	17.5	32	19	-
5W	TVG	50.0	34.0	100.0	83.0	21.0	47	30	-

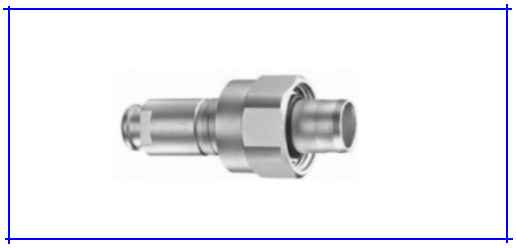


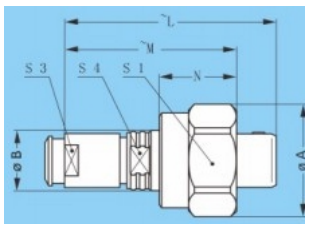


TVG straight plug, locating pin (G) or locating pin (A, B or L), extra large cable clamp

Note: To match the K-type wire clamp, this model's oversized clamp can be installed on cables matching the housing size.

Project		Size								
Series	Model	A	B	L	M	N	S1	S2	S3	S4
1W	TVG	19.3	14.5	56.5	48.3	14.0	18	12	12	10
2W	TVG	23.5	17.0	68.5	56.0	15.5	22	15	15	13
3W	TVG	27.8	22.0	80.5	67.0	16.5	26	19	19	-
4W	TVG	34.3	36.0	105.5	91.5	17.5	32	30	32	-

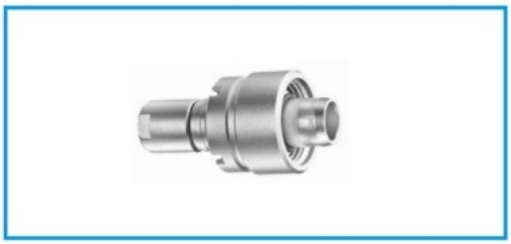


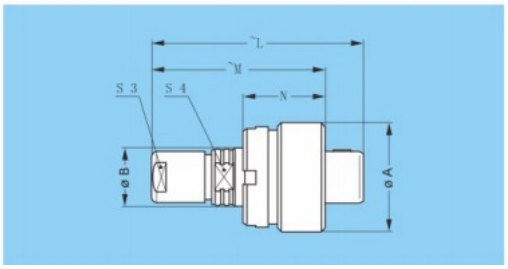


TVG straight-inserted head, with positioning pins (G) or positioning pins (A, B, or L), cable clamps, or tail cover fixation with a protective sleeve

Note: The 'Z' model sheath requires separate purchase when ordering.

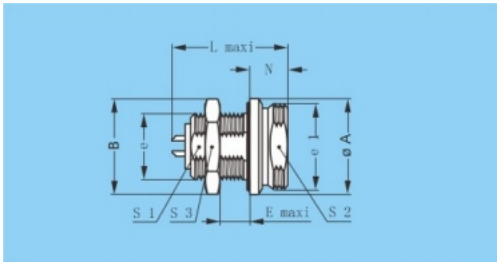
Project		Size							
Series	Model	A	B	L	M	N	S1	S3	S4
0W	TVG	17.2	10.0	36.0	30.8	13.5	16	7	8
1W	TVG	19.3	12.0	43.2	35.1	14.0	18	9	10
2W	TVG	23.5	16.0	52.5	43.0	15.5	22	12	13
3W	TVG	27.8	17.0	60.5	46.9	16.5	26	15	
4W	TVG	34.3	22.0	71.5	57.5	17.5	32	19	-





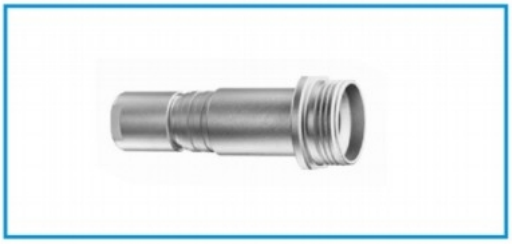
TVG straight-insertion head, positioning pin (G) or positioning pin (A, B, or L), cable clip or wire clip with special connecting nut

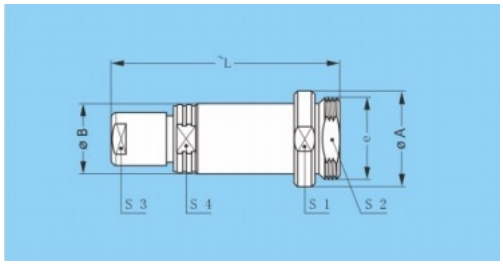
Project		Size						
Series	Model	A	B	L	M	N	S3	S4
0W	TVG	17	8.9	36.0	29.8	13.5	8	8



ZVG fixed socket, nut secured, locating pin (G) or locating pin (A, B, or L)

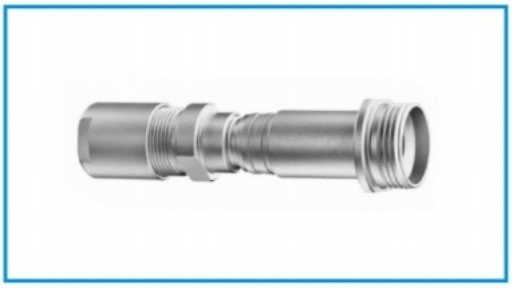
Project		Size									
Series	Model	A	B	e	e1	E	L	N	S1	S2	S3
0W	ZVG	16.2	16.0	MEZXL0	M14X1.0	4.0	21.7	8.0	10.5	12.5	14
1W	ZVG	18.3	19.5	M14KL0	M16X1.0	8.0	27.0	8.0	12.5	14.5	17
2W	ZVG	22.5	21.8	M6X10	M2DX1.0	9.0	30.7	9.0	14.5	18.5	19
3W	ZVG	26.6	27.0	MDKL0	M24X1.0	13.0	36.2	9.5	18.5	22.5	24
4W	ZVG	32.8	34.2	M24X10	M3DX10	15.0	40.2	9.5	22.5	28.5	30
5W	ZVG	48.0	53.0	MBBX15	MSX1.5	18.0	47.5	12.5	35.5	42.5	46





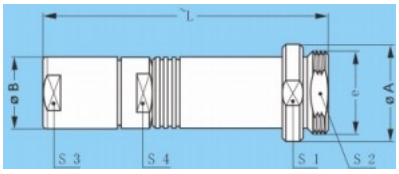
DVG floating plug, locating pin (G) or locating pin (A, B or L), wire clamp

Project		Size							
Series	Model	A	B	e	L	S1	S2	S3	S4
oW	DVG	-	8.9	MM4X10	37.9		13.5	8	8
1W	DVG	18.3	11.0	MY6XL0	45.0	16	14.5	9	-
2W	DVG	22.5	14.0	MDX10	54.0	20	18.5	12	-
3W	DVG	26.6	17.0	M24X10	65.0	24	22.5	15	-
4W	DVG	32.8	22.0	MBOM.0	75.5	30	28.5	19	-
5W	DVG	48.0	34.0	M45X15	103.0	45	42.5	30	-

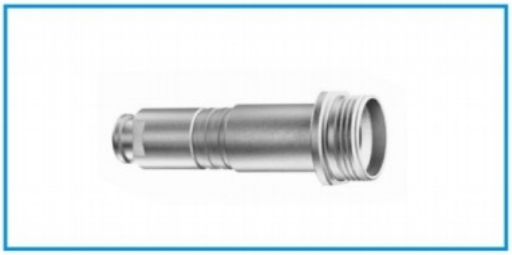


DVG floating plug, locating pin (G) or locating pin (A, B or L), oversized wire clamp

Note: To match the K-type wire clamp, this model's oversized clamp can be installed on cables matching the housing size.

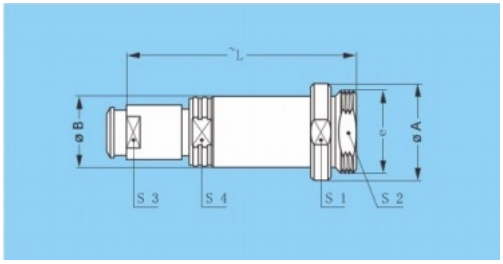


Project		Size							
Series	Model	A	B	e	L	S1	S2	S3	S4
1W	DVG	18.3	14.0	M6X10	58.0	16	14.5	12	12
2W	DVG	22.5	17.0	M2DX10	67.0	20	18.5	15	15
3W	DVG	26.6	22.01	M24X10	84.0	24	22.5	19	19
4W	DVG	32.8	34.0	MBOX10	109.5	30	28.5	32	30

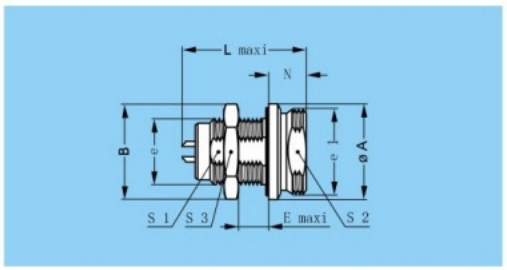


DVG floating plug, positioning pin (G) or positioning pin (A, B or L), wire clamp fixation and sheathed tail cover.

Note: The ordering and addition of the "Z" model sheath require separate determination.

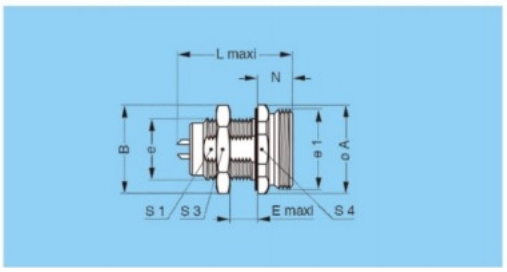


Project		Size							
Series	Model	A	B	e	L	S1	S2	S3	S4
oW	DVG	-	8.9	M4XL0	37.9	-	13.5	7	8
1W	DVG	18.3	11.0	M6X10	45.0	16	14.5	9	
2W	DVG	22.5	14.0	M20X10	54.0	20	18.5	12	
3W	DVG	26.6	17.0	M24X10	64.0	24	22.5	15	-
4W	DVG	32.8	22.0	MOX'0	75.5	30	28.5	19	-



MVG fixed socket, nut fixed, locating pin (G) or locating pin (A, B or L) vacuum sealed type

Project		Size									
Series	Model	A	B	e	e1	E	L	N	S1	S2	S3
oW	MVG	16.2	16.0	MZX1.0	M14X1.0	5.5	24.1	8.0	10.5	12.5	14
1W	MVG	18.3	19.5	M14X1.0	M16X1.0	11.5	30.0	8.0	12.5	14.5	17
2W	MVG	22.5	21.8	M16X1.0	M2DX1.0	14.5	35.8	9.0	14.5	18.5	19
3W	MVG	26.6	27.0	M2DX1.0	M24X1.0	17.5	42.2	9.5	18.5	22.5	24
4W	MVG	32.8	34.2	M24X1.0	MSOX1.0	20.0	48.2	9.5	22.5	28.5	30
5W	MVG	48.0	53.0	MSX1.5	M45X1.5	22.0	55.6	12.5	35.5	42.5	46



MRG fixed socket, nut fixed, locating pin (G) or locating pin (A, B or L) vacuum sealed type

Project		Size									
Series	Model	A	B	e	e1	E	L	N	S1	S2	S3
oW	MRG	18	16	MZK1.0	M4X1.0	5.5	24.1	8.0	10.5	14	17

0W,1W,2W,3W series

	Number		Cable clamp Ø		Cable ø	
	Type	Code	ⓐA	②B	Crest value	Least value
0W	C	101)	1.6		1.2	1.0
	C	151)	1.6	-	1.5	13
	C	201)	2.1		2.0	1.6
	C	25	3.1	-	2.5	2.1
	C	30	3.1	-	3.0	2.6
	C	35	4.2	4.2	3.5	3.1
	C	40	4.2	4.2	4.0	3.6
	C	45	5.2	5.2	4.5	4.1
	K	50	5.2	5.2	5.0	4.6
	K	55	6.2	6.2	5.5	5.1
	K	60	6.2	6.2	6.0	5.6
	K	65	7.2	6.7	6.5	6.1
1W	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	6.2	5.5	5.1
	C	60	6.2	6.2	6.0	5.6
	C	65	7.2	6.7	6.5	6.1
	K	70	7.2	-	7.0	6.6
	K	75	8.2	8.2	7.5	7.1
	K	80	8.2	8.2	8.0	7.6
	K	85	9.2	8.6	8.5	8.1
2W	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	8.2	7.5	7.1

	Number		Cable clamp ø		Cable ø	
	Type	Code	ØA	oB	Crest value	Least value
2W	C	80	8.2	8.2	8.0	7.6
	C	85	9.2	8.6	8.5	8.1
	K	90	9.2		9.0	8.6
	K	95	10.2	10.2	9.5	9.1
	K	10	10.2	10.2	10.0	9.6
	K	11	11.2	10.6	10.5	10.1
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	11.2	10.6	10.5	10.1
	K	11	12.3	-	12.0	10.6
	K	12	13.8	13.8	12.8	12.1
	K	13	13.8	13.8	13.5	12.9
	K	14	15.3	15.3	14.0	13.6
	K	15	15.3	15.3	15.0	14.1

Note: All dimensions are in mm

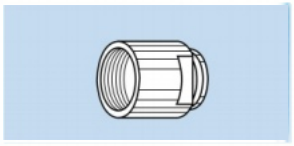
OW, 1W,2W,3W series

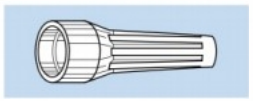
	Number		Cable clamp ø		Cable ø	
	Type	Code	0A	ØB	Crest value	Least value
4W	C	50	6. 3		5. 0	4. 8
	C	55	6. 3	-	5. 5	5. 1
	C	60	6. 3		6. 0	5. 6
	C	65	7. 3	-	6. 5	6. 1
	C	70	7. 3	-	7. 0	6. 6
	C	75	8. 3	-	7. 5	7. 1
	C	80	8. 3	-	8. 0	7. 6
	C	85	9. 3	-	8. 5	8. 1
	C	90	9. 3	-	9. 0	8. 6
	C	95	10. 8		9. 5	9. 1
	C	10	10. 8		10. 5	9. 6
	C	11	12. 3	-	12. 0	10. 6
	C	12	13. 8	13. 8	12. 8	12. 1
	C	13	13. 8	13. 8	13. 5	12. 9
	C	14	15. 3	15. 3	14. 0	13. 6
	C	15	15. 3	15. 3	15. 0	14. 1
	K	16	17. 8	-	16. 5	15. 6
	K	17	17. 8	-	17. 5	16. 6
	K	18	19. 8	-	18. 5	17. 6
	K	19	19. 8	-	19. 5	18. 6
	K	20	21. 8	-	20. 5	19. 6
	K	21	21. 8	-	21. 5	20. 6
	K	22	23. 8	23. 8	22. 5	21. 6
	K	23	23. 8	23. 8	23. 5	22. 6

	Number		Cable clamp Ø		Cable 0	
	Type	Code	øA	øB	Crest value	Least value
5W	C	10	11. 8		10. 5	9. 6
	C	11	11. 8	-	11. 5	10. 6
	C	12	13. 8	-	12. 5	11. 6
	C	13	13. 8		13. 5	12. 6
	C	14	15. 8	-	14. 5	13. 6
	C	15	15. 8	-	15. 5	14. 6
	C	'6	17. 8	-	16. 5	15. 6
	C	17	17. 8	-	17. 5	16. 6
	C	18	19. 8	-	18. 5	17. 6
	C	19	19. 8	-	19. 5	18. 6
	C	20	21. 8	-	20. 5	19. 6
	C	21	21. 8	-	21. 5	20. 6
	C	22	23. 8	23. 8	22. 5	21. 6
	C	23	23. 8	23. 8	23. 5	22. 6

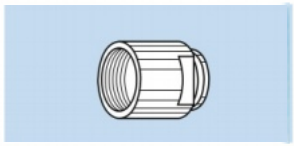
Note: All dimensions are in mm

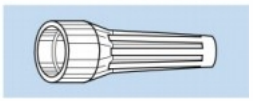
variable parameter





	number	caudal ped-uncle class	Gai encoding	Additional order required
oW	Z	C	30 to 45	GMA. 0B. 0. ○
		K	50	GMA. 1B. 00. ●
1W	Z	C	30 to 65	GMA. 1B. 00. ●
		K	70 to 85	GMA. 2B. 00. ●
2W	Z	C	30 to 85	GMA. 2B. 0. 0
		K	90 to 10	GMA. 3B. . ●

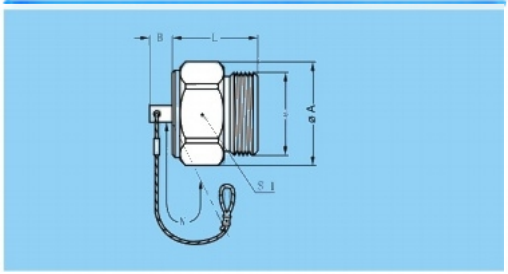




	Number	Tail-hood Type	Tail-hood Code	Additional order requ-ired
3W	Z	C	30 to 10	GMA. 3B. 0. 0
		K	11 to 15	GMA. 4B. 0●0. 0●
4W	Z	C	50 to 15	GMA. 4B. ●0. 0●

*The sheath needs to be purchased separately

appendix

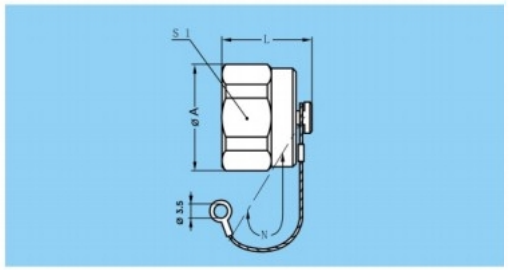


BFG G-located plug dust cover (IP68 and 30 bar hydrostatic pressure resistant)

Tension cord material: Stainless steel; Sleeve material: Yellow steel forged nickel; Dimension tolerance: ±5mm

Main material: N nickel-plated brass (3um); S stainless steel

Project		Size					
Series	Model	A	B	e	L	N	S1
oW	BFG	17.2	6	M4XL.0	12.5	85	16
1W	BFG	19.3	6	Mf8X1.0	15.5	85	18
2W	BFG	23.5	6	MDKLO	17.5	85	22
3W	BFG	27.8	6	M24XLO	22.0	120	26
4W	BFG	34.3	10	MGOM10	22.5	120	32
5W	BFG	50.0	10	M45K1.5	27.0	120	47

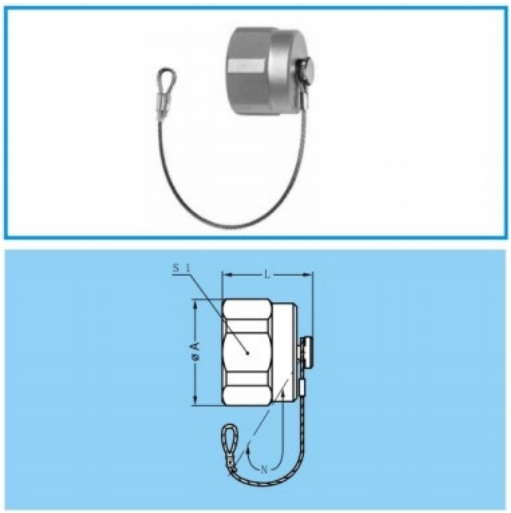


BRE fixed socket dust cover (IP68 after installation)

Tension cord material: Stainless steel; Sleeve material: Yellow steel forged nickel;
Dimension tolerance: ±5mm

Main material: N nickel-plated brass (3um); S stainless steel

Project		Size			
Series	Model	A	L	N	S1
0W	BRE	17.2	13.7	85	16
1W	BRE	19.3	13.7	85	18
2W	BRE	23.5	14.7	85	22
3W	BRE	27.8	14.7	120	26
4W	BRE	34.3	14.7	120	32
5W	BRE	50.0	16.2	120	47

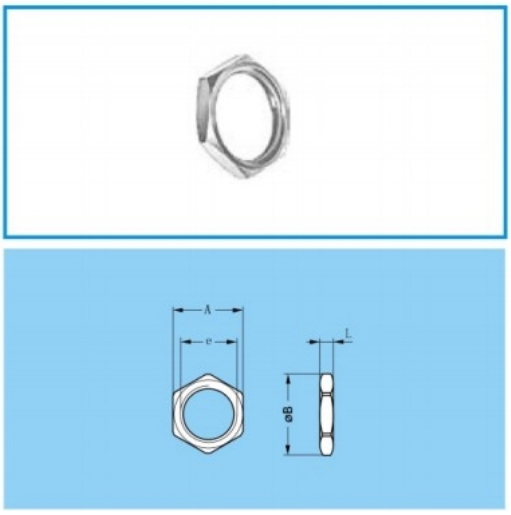


BRF fixed socket dust cover (IP68 after installation)

Tension cord material: Stainless steel; Sleeve material: Yellow steel forged nickel;
Dimension tolerance: ±5 mm

Main material: N nickel-plated brass (3μm); S stainless steel

Project		Size			
Series	Model	A	L	N	S1
oW	BRF	17.2	13.7	85	16
1W	BRF	19.3	13.7	85	18
2W	BRF	23.5	14.7	85	22
3W	BRF	27.8	14.7	120	26
4W	BRF	34.3	14.7	120	32
5W	BRF	50.0	16.2	120	47

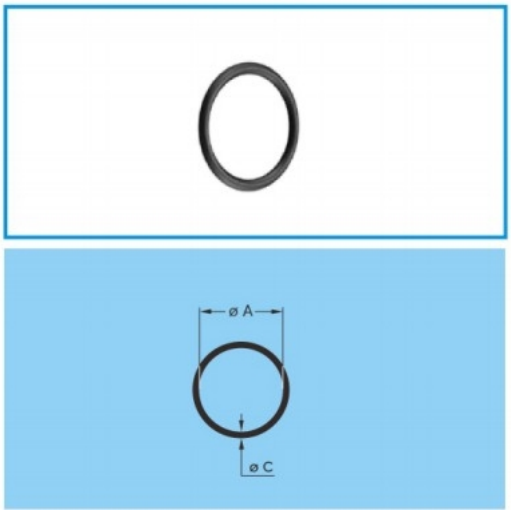


GEA hex nut

Tension cord material: Stainless steel; Sleeve material: Yellow steel forged nickel;
Dimension tolerance: ±5 mm

Main material: N nickel-plated brass (3μm); S stainless steel

Project		Size			
Series	Model	A	B	e	L
OW	GEA	14	15.8	MI2X10	2.5
1W	GEA	17	19.2	M4X10	2.5
2W	GEA	19	21.5	M6X10	3.0
3W	GEA	24	27.0	M20X10	4.0
4W	GEA	30	34.0	M24X10	5.0
5W	GEA	46	53.0	M9K15	8.0

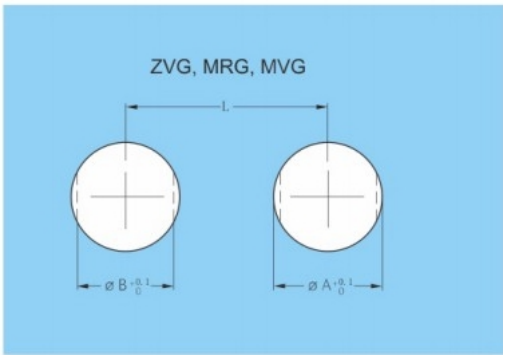


GDA plug 0-ring

Material: FPM (Fluoroplastic Rubber)

Project		Size	
Series	Model	A	C
oW	GDA	7.0	1.00
1W	GDA	9.0	1.25
2W	GDA	12.0	1.50
3W	GDA	15.0	1.50
4W	GDA	19.0	2.00
5W	GDA	31.0	2.50

Panel opening



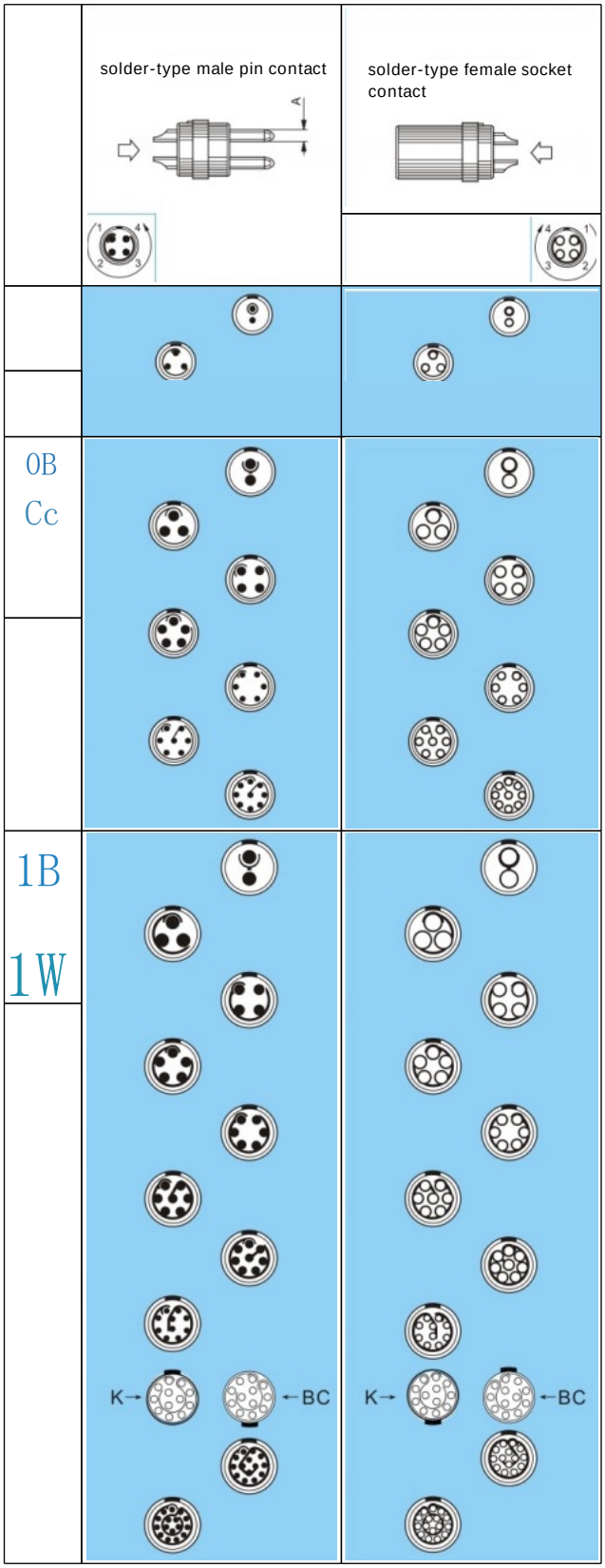
Project	size		
Series	A	B	L
ow	12.1	10.6	19.0
1W	14.1	12.6	21.0
2W	16.1	14.6	25.5
3W	20.2	18.6	30.0
4W	24.2	22.6	37.0
5W	38.2	35.6	53.0

Nut Tightening Torque

Part	Torsion					
	OW	1W	2W	3W	4W	5W
Tail-hood	0.7	0.8	2	3	5	8
Socket nut	5	7	9	12	17	22
Sleeve nut	0.7	0.8	2	3	5	8

1N=0.102 kg

>>>B, K, C, M, W series needle core configurations



Number	Number of needles	ΦA (mm)	Needle type			Welding core		Rated current (A)
			Welding core	Printed circuit board straight pin core	Printed circuit board bending needle core	Test voltage (KV rms)Needle core I	Test voltage (KV rms)Needle core I housing	
302	2	0.5	●	●	●	1.00	0.95	5.0
303	3	0.5	●	●	●	0.80	0.95	3.0
304	4	0.5	●	●	●	0.80	0.65	2.0
302	2	0.9	●	●	●	1.30	1.05	10.01)
303	3	0.9	●	●	●	1.20	0.90	8.01)
304	4	0.7	●	●	●	0.85	0.70	7.01)
305	5	0.7	●	●	●	1.00	0.70	6.51)
306	6	0.5	●	●	●	0.85	0.65	2.5
307	7	0.5	●	●	●	0.80	0.70	2.5
309	9	0.5	●	●	○	0.60	0.50	2.0
302	2	1.3	●	●	●	1.50	1.35	15.02)
303	3	1.3	●	●	●	1.30	1.55	12.0
304	4	0.9	●	●	●	1.35	1.45	10.01)
305	5	0.9	●	●	●	1.25	1.15	9.01)
306	6	0.7	●	●	●	1.05	1.20	7.01)
307	7	0.7	●	●	●	0.95	1.05	7.01)
308	8	0.7	●	●	●	0.95	1.15	5.0
310	10	0.5	●	●	●	0.90	1.50	2.5
312	12	0.5	●	●	●	0.75	1.50	2.0
314	14	0.5	●	●	●	0.75	1.20	2.0
316	16	0.5	●	●	○	0.75	1.25	1.5

● For standard models, prioritize selection

○ Special model, select when special requirements apply

Note: 1) The rated current is 6A when the socket is printed circuit board connected to a 90° bent needle core.

2) The rated current of the socket is 12A when the printed circuit board is connected to the 90 ° bent needle core.

3) Only for connectors with pin cores.

>>> B, K, C, M, W series needle core configurations

Welded male needle core	Welded female needle core	
		8

Number	Number of needles	ΦA (mm)	Needle type			Welding core		Rated current (A)
			Welding core	Printed circuit board straight pin core	Printed circuit board bending needle core	Test voltage (kV rms)Needle core	Test voltage (kV rms)Needle core housing	
302	2	2.0	●	●	●	2.10	1.75	30.02)
303	3	1.6		●	●	2.40	1.85	17.02)
304	4	1.3	●	●	●	1.85	1.85	15.02)
305	5	1.3	●	●	●	1.75	1.60	**14.02)**
306	6	1.3	●	●	●	1.35	1.45	12.0
307	7	1.3	●	●	●	1.75	1.60	11.0
308	8	0.9	●	●	●	1.50	1.25	10.01)
310	10	0.9	●	●	●	1.45	1.30	8.01)
312	12	0.7	●	●	●	1.25	1.35	**7.01)**
314	14	0.7	●	●	●	1.15	1.35	**6.51)**
316	16	0.7	●	●	●	0.95	1.25	**6.0**
318	18	0.7	●	●	●	0.85	1.20	5.5
319	19	0.7	●	●	●	0.95	1.25	5.0
326	26	0.5	●	●	○	0.95	1.30	2.0

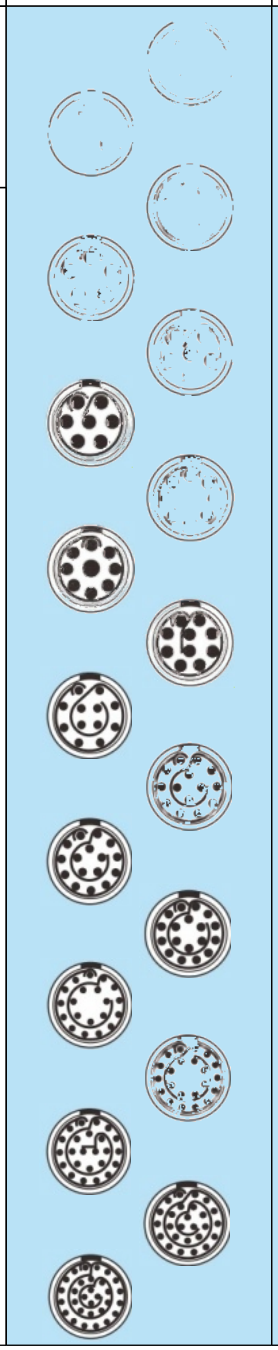
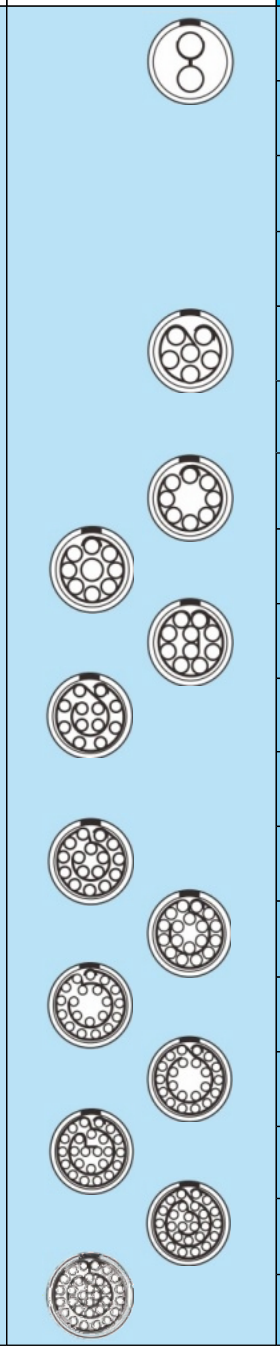
Note: 1) The rated current of the socket is 6A when the printed circuit board is connected to a 90° bent needle core.

2) The rated current of the socket is 12A when the printed circuit board is connected to the 90° bent needle core.

●For standard models, prioritize selection

◎ Special models for specific needs

>>> B, K, C, M, W series needle core configurations

	Welded male needle core / Crimping male pin core	Welded female needle core / Crimped female pin core	Number	Number of needles	Pitch (mm)	Needle type: Welding core	Needle type: [illegible] pin core	Needle type: Printed circuit board bending needle core	Welding core: Test voltage (KV rms) 1) Needle core-Needle core	Welding core: Test voltage (KV rms) 1) Needle core-outer bright	Constant current (A) 1)
3B 3C A			302	2	3.0	●	○	–	2.10	1.55	35.0
			303	3	2.0	●	●	○	1.90	1.50	25.0
			304	4	2.0	●	●	○	1.45	1.25	19.0
			305	5	1.6	●	●	○	1.90	1.25	19.0
			306	6	1.6	●	●	○	1.60	1.15	17.0
			307	7	1.6	●	●	○	1.70	1.25	15.0
			308	8	1.3	●	●	●	1.65	1.15	13.0
			309	8 9	1.3 2.0	●	●	–	1.35 1.35	1.05 1.05	6.0 15.0
			310	10	1.3	●	●	○	1.25	0.90	12.0
			312	12	0.9	●	●	●	1.45	1.00	9.0
			314	14	0.9	●	●	●	1.20	1.20	9.02)
			316	16	0.9	C	●	●	1.20	0.85	8.0
			318	18	0.9	●	●	●	1.20	1.05	7.0
			320	20	0.7	●	●	●	1.00	0.90	6.0
			322	22	0.7	●	●	○	1.00	0.90	5.5
			324	24	0.7	●	●	●	0.95	0.80	4.0
			326	26	0.7	●	●	○	0.95	0.70	4.0
			330	30	0.7	●	●	●	0.80	0.70	3.5

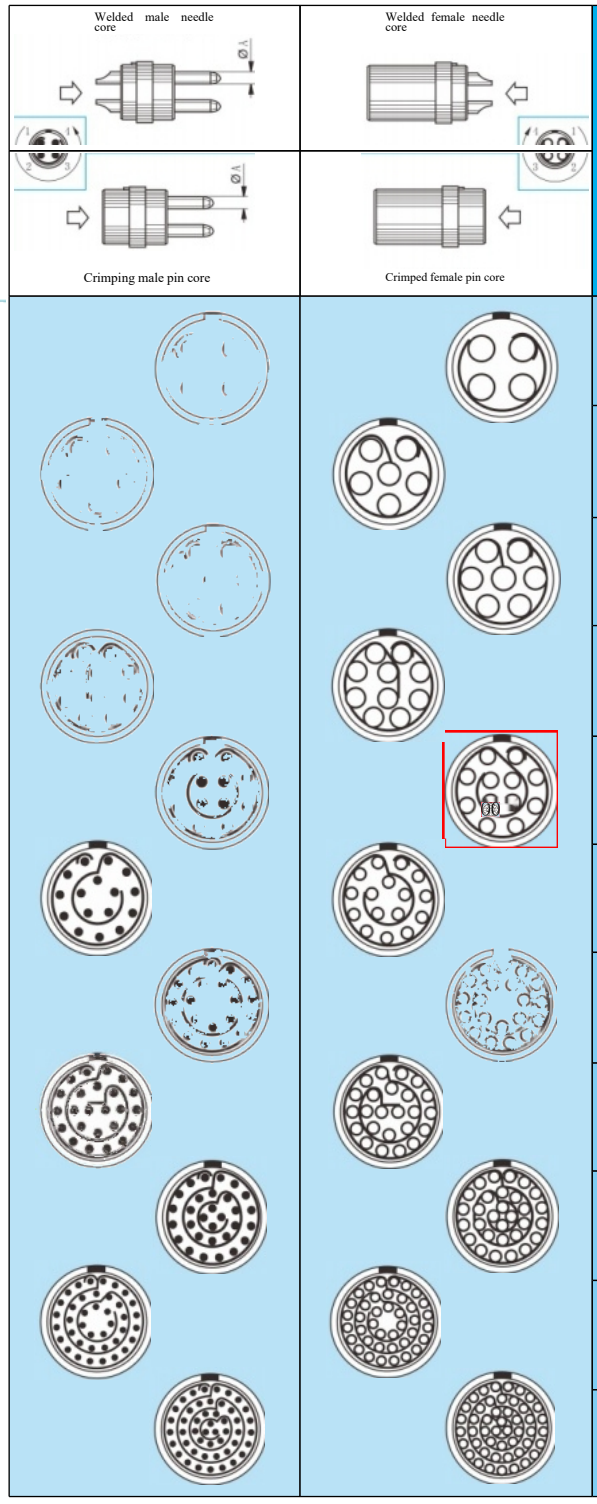
● For standard models, prioritize selection
○ Special models for specific needs

Note: 1) The rated current is 6A when the socket is printed circuit board connected to a 90° bent needle core.

2) The rated current of the socket is 12A when the printed circuit board is connected to the 90° bent needle core.

B, K, C, M, W series needle core configurations

4B
4K
4C
4M
4W



Number	Number of needles	Needle type: Welding core	Needle type: Printed circuit board straight pin core	Welding core: Test voltage (KV rms) core-to-core	Welding core: Needle core-shell	Rated current (A)
304	4	3.0	●	○	2.10	1.50	30.0
306	6	2.0	●	○	2.00	1.75	24.0
307	7	2.0	●	○	2.00	1.80	20.0
310	10	1.6		○	1.85	1.30	17.0
312	12	1.3		○	1.45	1.60	12.0
316	16	0.9			1.35	1.50	10.0
320	20	0.9			1.35	1.00	8.0
324	24	0.9			1.20	1.45	7.0
330	30	0.9			0.95	0.85	5.0
340	40	0.7	●	●	0.90	0.90	2.0
348	48	0.7	●	●	0.70	0.70	1.5

●For standard models, prioritize selection

○ Special model, select when special requirements apply

Note: 1) The rated current of the socket is 6A when the printed circuit board is connected to a 90° bent needle core.

2) The rated current of the socket is 12A when the printed circuit board is connected to the 90° bent needle core.

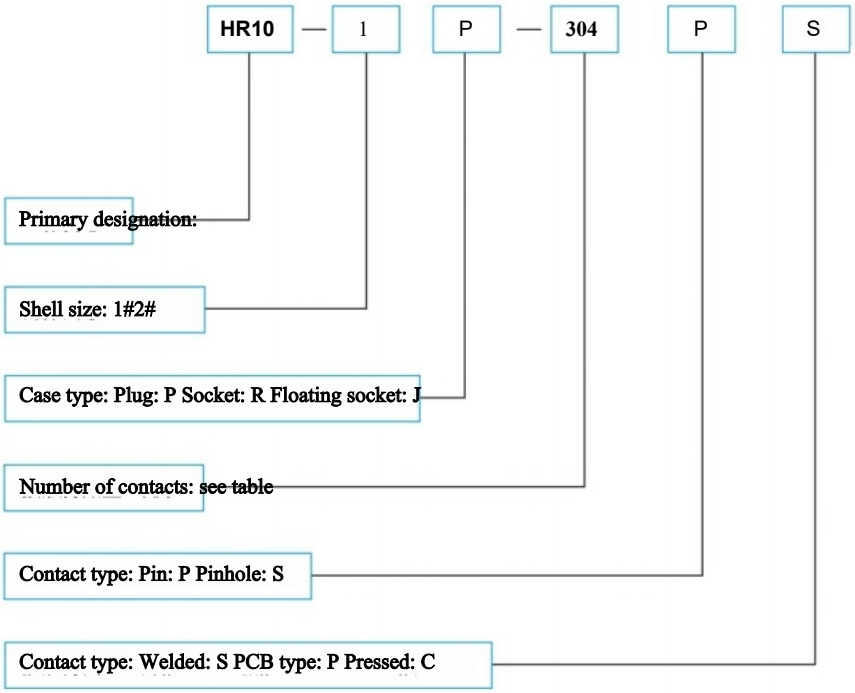
HR10 Series

HR10 miniature push-pull self-locking round electrical connector is widely used in electronics, instrumentation, video processing, medical equipment, etc.

The features of the product are:

- ●The push-pull self-locking connection allows for quick and easy separation. (Anti-slip design on the housing surface with audible confirmation when locked)
- The ingenious self-locking device ensures the connection is firm and reliable.
- The reasonable five key design has the complete function of anti-blind insertion.
- ●Compact and ingenious structure design.(Can effectively save equipment space,micro-and miniaturized design of equipment)

Product Number Rules:

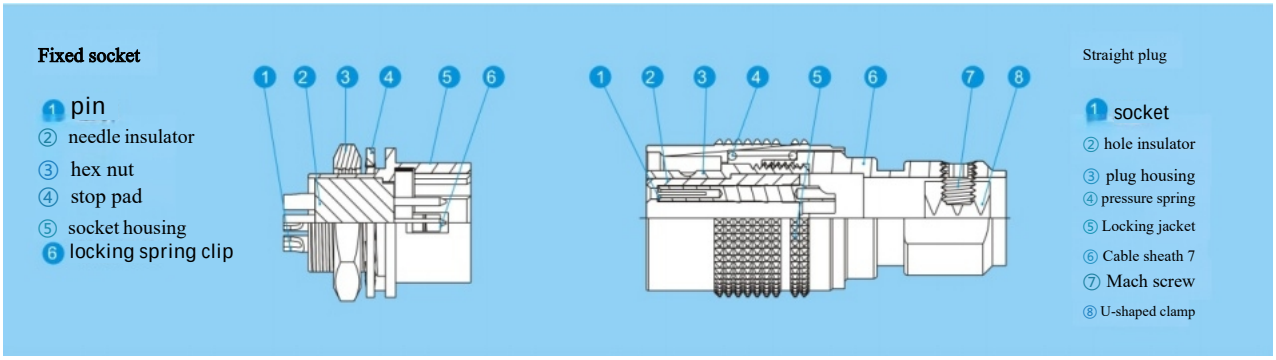


Product number example:

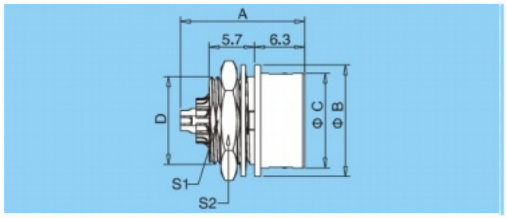
HR10-1P-4PS is a 4-core soldered pin plug with the main designation code 031#.

HR10-1R-4PS is a 4-core soldered pin socket with a main designation code of 031#, designed for fixed-type housing.HR10-1J-4SS= Floating socket with 4-core welded plug, main designation code 031# housing

Product cross section

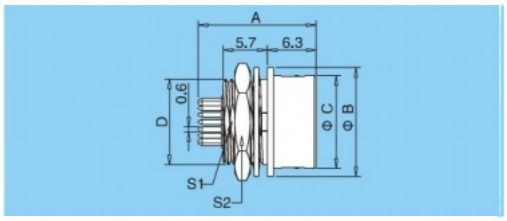


HR10 series welding sockets

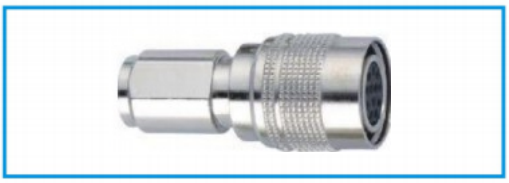


Shell number	A	B	C	D	S1	S2
1#	14	11	8.8	M8*0.5	7.2	10
2#	15.6	14	10.9	M11*0.75	10	13

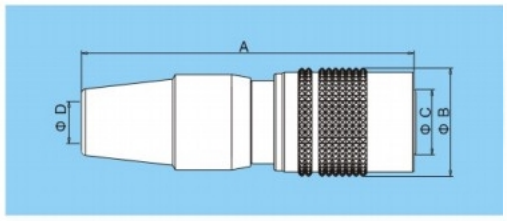
HR10 Series Board Connector



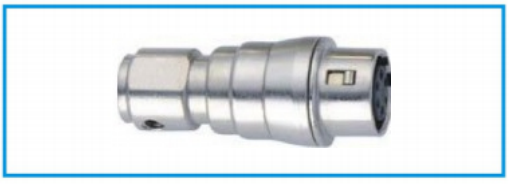
Shell number	A	B	C	D	S1	S2
1#	15.5	11	8.85	M8*0.5	7.2	10
2#	15.5	14	11.9	M11*0.75	10	13



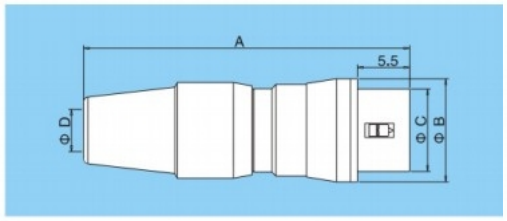
HR10 series plug



Shell number	A	B	C	D
1#	35	11	8.8	6
2#	43	14	10.9	8

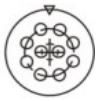
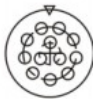


HR10 Series Floating Socket

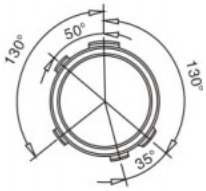


Shell number	A	B	C	D
1#	35	11.5	75	6
2#	43	14.5	9.5	8

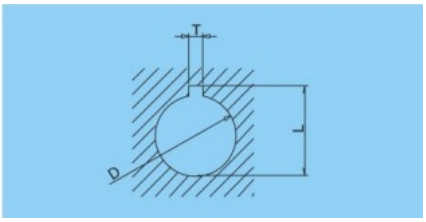
technical parameter

Order number	Performance index	Insulation hole arrangement	
		1# Shell	1# Shell
		 	 
1	Contactor diameter (mm)	0.5	
2	Contact resistance mΩ	10	
3	Operating voltage (KV/DC)	0.3	
	Operating voltage (KV/AC)	0.2	
4	Experimental voltage: KV/DC	0.9	
	Experimental voltage: KV/AC	0.5	
5	Working current A	2	
6	Working temperature 0℃	-50℃~125℃	
7	Mechanical service life (ti-mes)	1000	

key transition

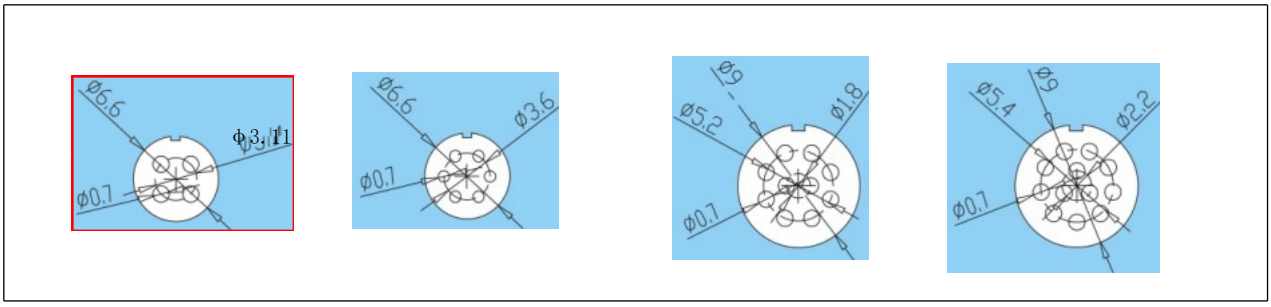
Key position (plug front end)	
Form of contact in plug	Socket/socket
Form of contact in socket	Pin/Pin
Number of contact po-ints	4、6、7、10、12

Panel opening size



Shell number	D	T	L	B
1	8.0	1.6	9.0	7.3
2	11.1	2.5	11.5	11.3

PCB Board Interface Size



The S-Series Connectors Have the Following Key Features

Fast push-pull self-locking system;

Multi-core type 2-6 cores;

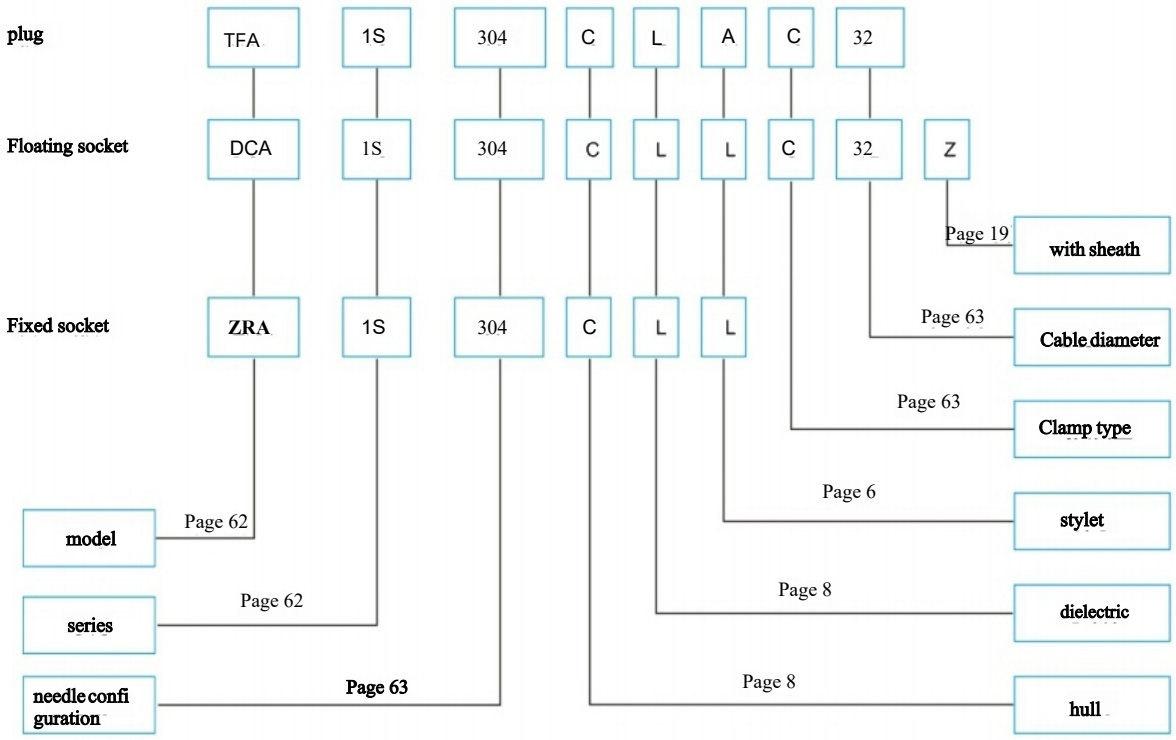
Welding and printed circuit board pins (straight and bent);

High-density installation, saving space;

The stepped (crescent) ferrule is equipped with both male and female ferrules for polarity positioning;

360-degree shielding delivers comprehensive EMC protection.

Product Series Numbering Rules



Product number example

Straight plug with wire clamp:

TFA.1S.304.CLAC32= Straight plug with wire clamp, 1S series, multi-core type, 4-core, brass-chromed housing, PPS insulator, 2 male pins and 2 female pins

Mother needle, welding-type core, suitable for C-type cable clamps with an outer diameter of 3.2mm

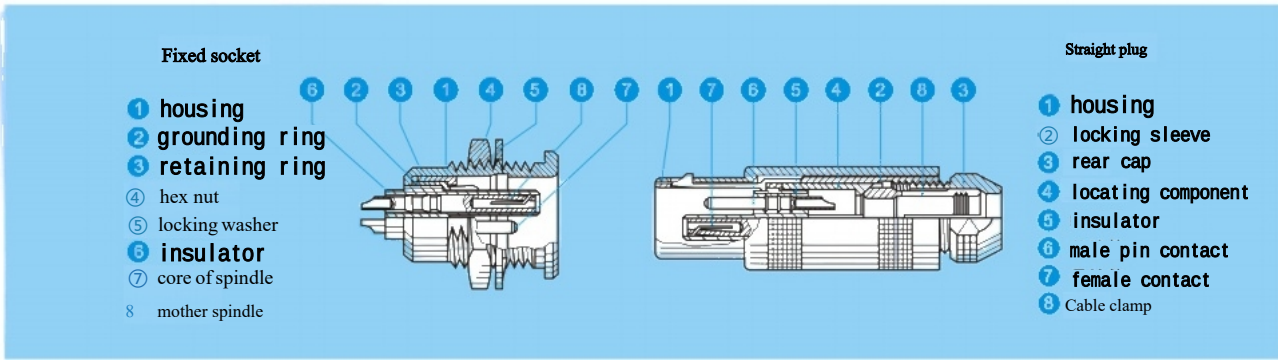
Floating socket:

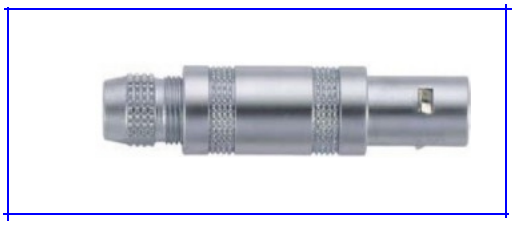
DCA.1S.304.CLLC32Z= Floating socket with wire clamp, 1S series, multi-core type, 4-core, chrome-plated brass housing, PPS insulator, 2 female pins and 2 male needles with welded needle cores, suitable for C-type wire clamps and sheathed tail covers of 3.2mm outer diameter cables

Fixed sockets:

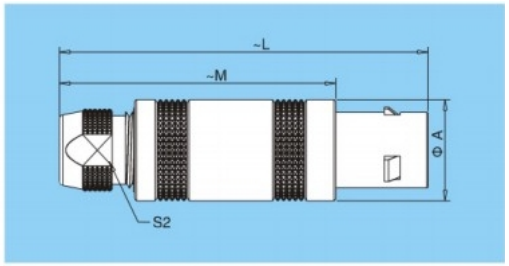
ZRA.1S.304.CLL= Fixed socket, nut-fixed, 1S series, multi-core type, 4-core, chrome-plated brass housing, PPS insulator, 2 female pins and 2 male pins, soldered pin core

product cross section

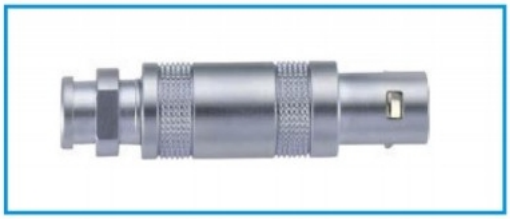




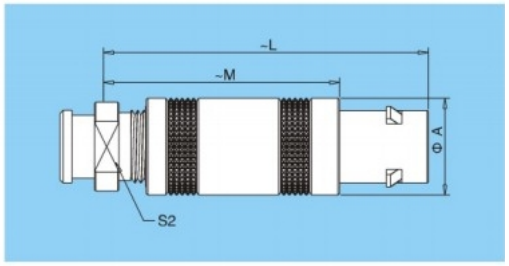
TFA standard plug, cable clamp to secure the cable, internal parts prevent cable rotation



Project		Size			
Series	Model	A	L	M	S2
oS	TFA	8.8	34.5	24.5	6.5
1S	TFA	11.8	42.5	31.5	8.5
2S	TFA	14.8	52.0	40.0	11.0

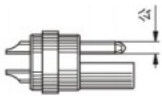


TFA standard plug, cable clamp to fix the cable, internal parts to prevent the cable from rotating, sheath to prevent the cable from bending.

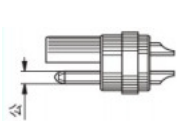


Project		Size			
Series	Model	A	L	M	S2
00	TFA	6.4	26.0	18.0	6
0S	TFA	8.8	34.5	24.5	7
1S	TFA	11.8	42.5	31.5	9
2S	TFA	14.8	52.0	40.0	12

>>> S Series Needle Core Configuration

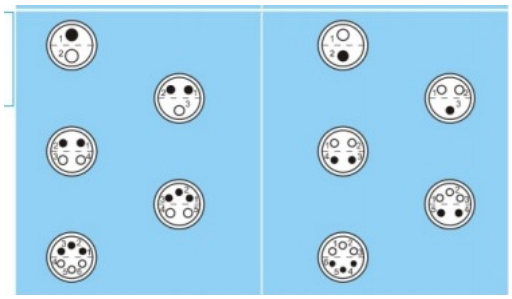


welded male needle core



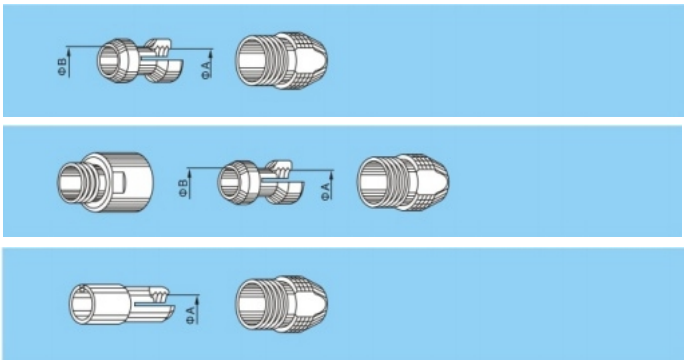
welded female needle core

	number	tie column: standard series	tie column: water PROTECT SERIES	Number of needles	ϕA (mm)	needle type: welding needle core	needle type: Printed board direct pin core	needle type: Printed circuit board bending needle core	Test voltage (KV rms)	Test voltage (KV dc)	rated current (A)
0S	302	oS	0E	2	0.9	●	●	●	1.5	2.1	10
	303	oS	0E	3	0.7	●		●	1.0	1.5	7
	304	0S	0E	4	0.7	●	●	●	1.0	1.5	7
1S	302	1S	1E	2	1.3	●	●	●	1.2	1.8	15
	303	1S	1E	3	0.9	●	●	●	1.2	1.8	10
	304	1S	1E	4	0.9	●	●	●	1.2	1.8	10
	305	1S	1E	2 3	0.9 0.7	●	●	●	1.5 1.5	2.1 2.1	10 7
	306	1S	1E	6	0.7	●	●	●	1.5	2.1	7



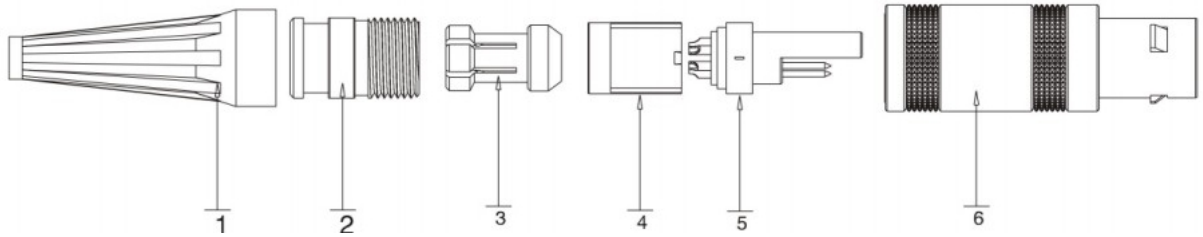
S SERIES LINER

C-type, K-type, and L-type wire clamps for S-series applicati-ons



	Number		Cable clamp		Cable	
	Type	Code	ϕA	ϕB	Crest value	Least value
00	C	27	2.7	-	2.6	2.2
	K	37	3.7	-	3.6	3.0
0S	C	27	2.7	-	2.6	2.2
	C	32	3.2	-	3.1	2.7
	C	42	4.2	3.7	4.1	3.3
	K	47	4.7		4.6	3.8
1S	C	32	3.2	-	3.1	2.6
	C	42	4.2	-	4.1	3.3
	C	47	4.7	-	4.6	3.8
	C	52	5.2		5.1	4.3

Assembly Instructions for S Series Connector Plug



1. The cable is threaded through the tail nut ①, cable clamp ②, and insulator retaining ring ③, then soldered onto the insulator assembly ④ in that order.
2. Mount the insulator retaining ring ③ onto the insulator assembly ④, ensuring the protrusion of the retaining ring aligns with the notch on the assembly. Then, position the cable clamp ② at the desired spot along the cable.
3. The assembled cable clamp ②, insulator retaining ring ③, and insulator assembly ④ are inserted into the plug assembly ⑤.
4. Tighten the tail nut ① into the plug assembly ⑤.

F-Series Connector Product Overview:

The F-series microcircular high-density connectors feature a segmented push-pull structure with self-locking functionality after mating. The internal semi-circular positioning tabs prevent misinsertion and ensure correct insertion/extraction for connectors with identical core counts. Additionally, they support blind insertion, offering convenient and efficient operation.

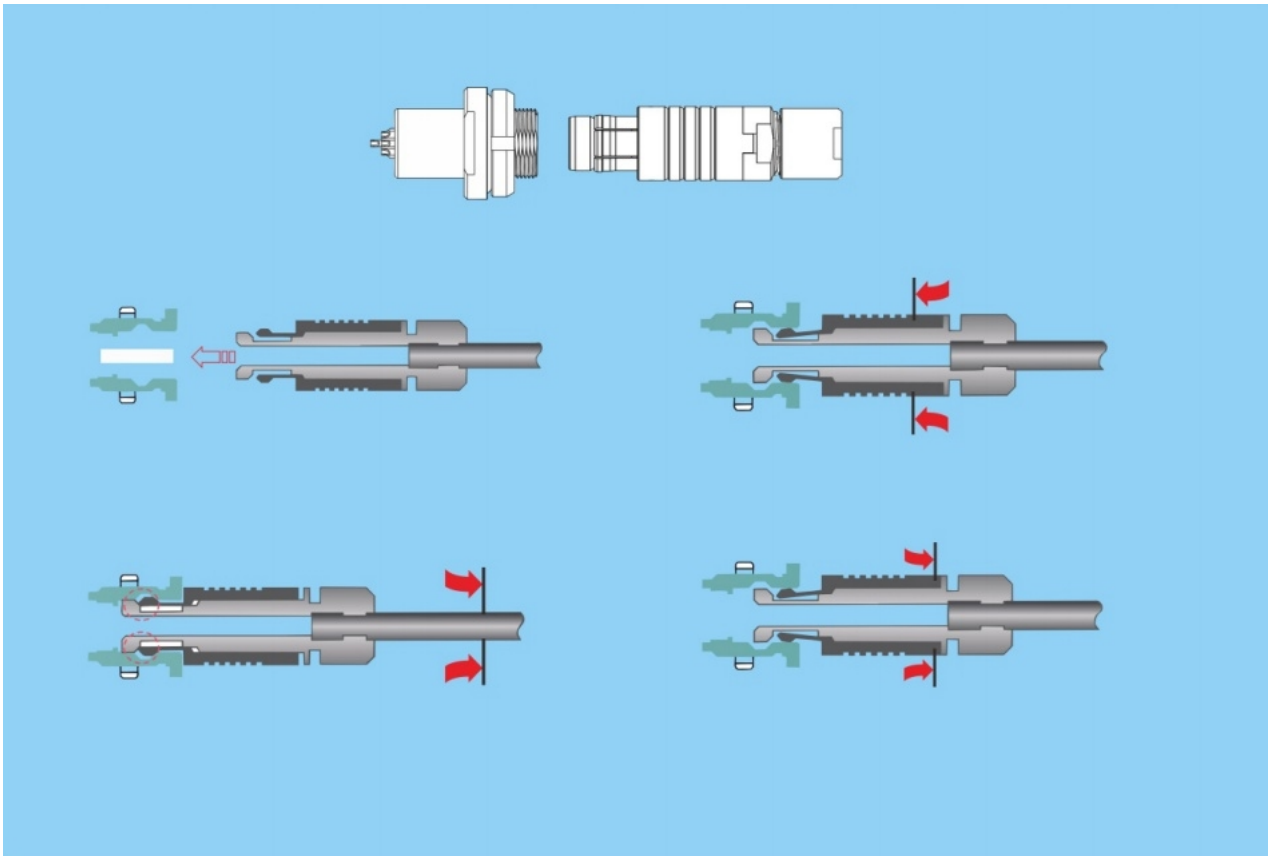
This series of connectors features quick insertion and removal, high density, waterproofing, compact size, blind insertion, and long service life. It is particularly suitable for high-density installations, relatively confined spaces, and environments where rotational mating and separation are difficult. The connectors can be used in harsh outdoor conditions with an IP68 protection rating.

The connector is widely used in military and civilian radio navigation equipment, medical equipment testing equipment, audio equipment, data acquisition, industrial control, aerospace and other occasions of DC and AC circuit electrical connection.

Key features of F-series connectors:

- The safe split-lap push-pull self-locking system;
- Multi-core type 1-40 cores;
- welding and printed board core;
- High-density installation, saving space;
- Internal semi-circular positioning to prevent misinsertion;
- IP68 protection rating, waterproof and sandproof.
- 360-degree shielding delivers comprehensive EMC protection.

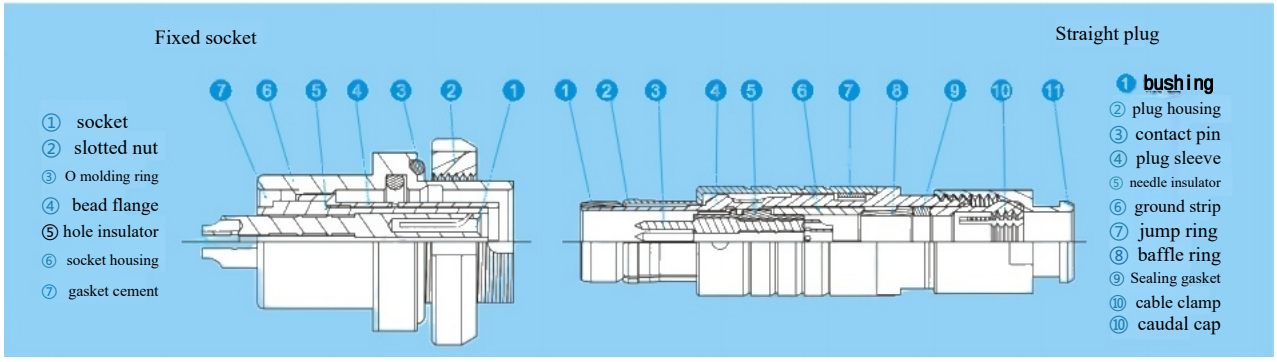
Product shape legend:



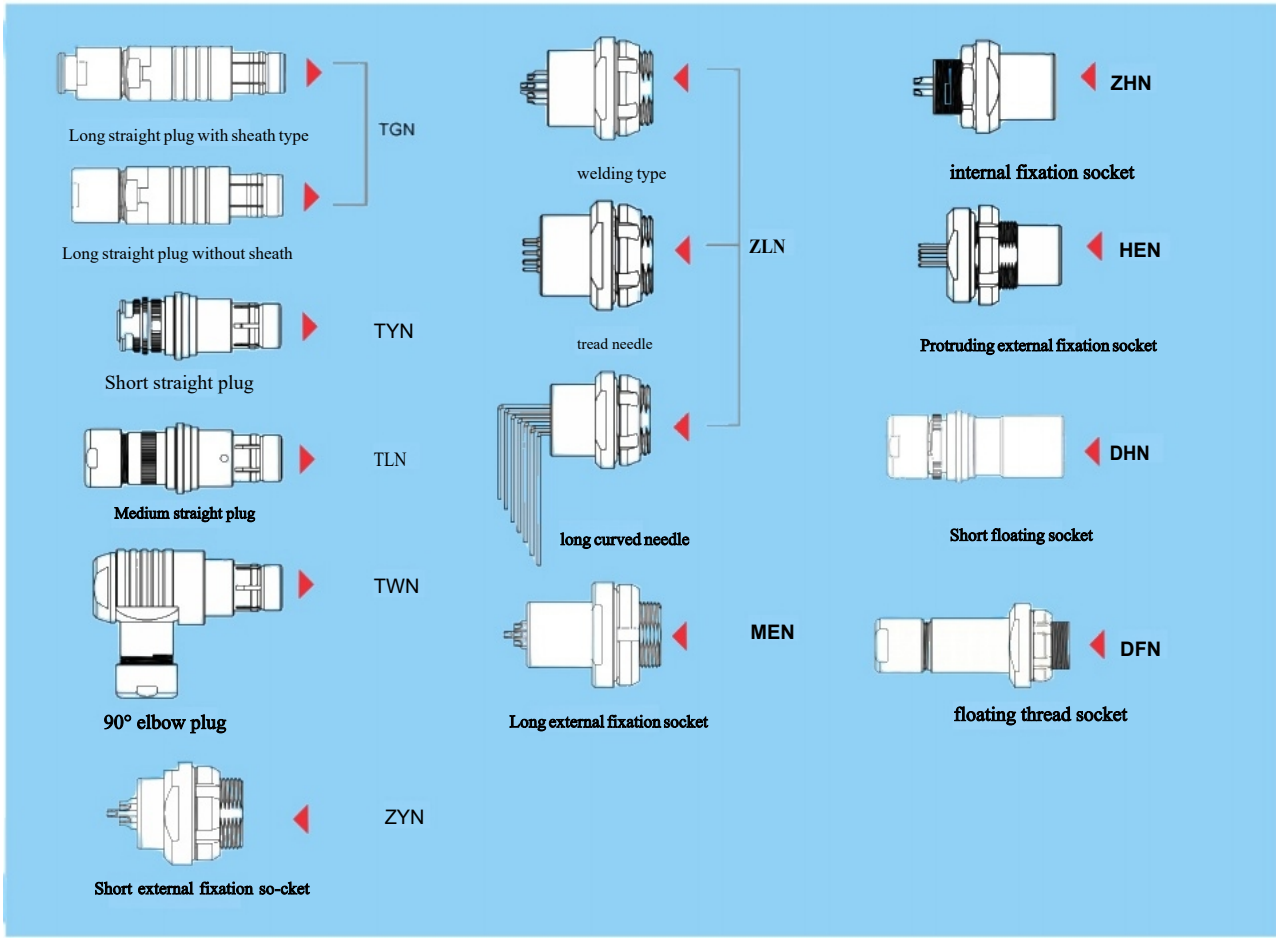
Technical specifications of F-series connectors:

- Mechanical life: 3000 cycles
- Vibration: Frequency 10-20000 Hz, Acceleration 147 m/s², Impulse Duration ≤1 μs
- Impulse: acceleration 490 m/s², transient duration ≤1 μs
- Temperature range: -55°C to +125°C for silicone resin filling, -20°C to +125°C for epoxy resin filling, and-55°C to +125°C for non-gel (PPS insulator) applications.
- Salt spray corrosion test:>96h
- Protection rating: IP68

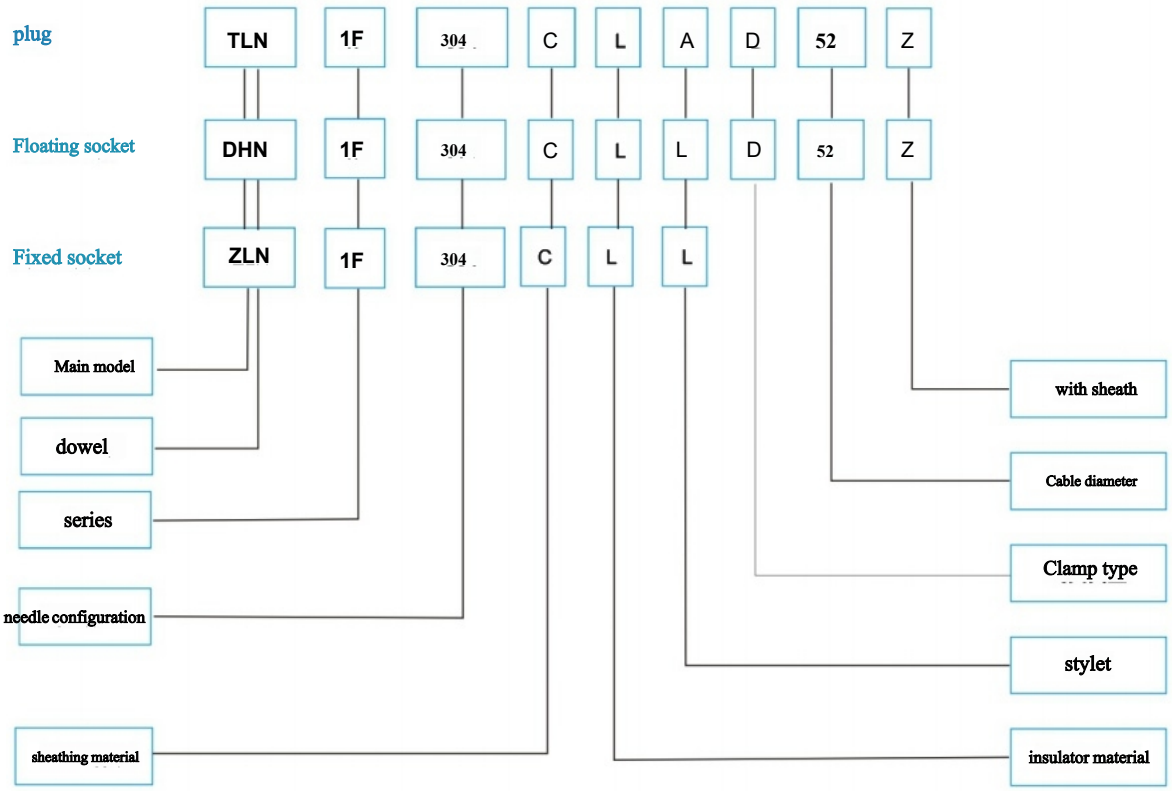
product cross @-@ section



Metallic outer shell type:



F series product coding rules:



Product Code Example

straight-tip clip with wire clip

TGN.0F.306.CLAD52Z straight plug, positioning tab (N), 0F series, positioning key (1), multi-core type, 6-core, chrome-plated brass housing, PPS insulator, soldered male pin core, suitable for D-type wire clamp of 5.2mm cable

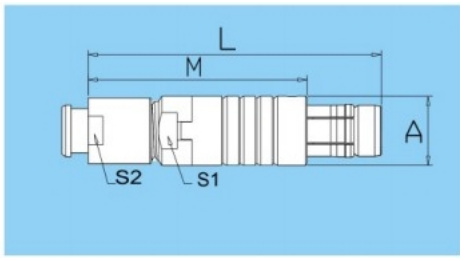
floating insert

DHN.OF.306.CLAD52Z Floating Socket, Positioning Plate (N), OF Series, Positioning Key (1), Multi-core Type, 6-core, Chrome-plated brass housing, PPS insulator, welded D-type wire clamp for 5.2mm cable with pin core

fixed @-@ style insert

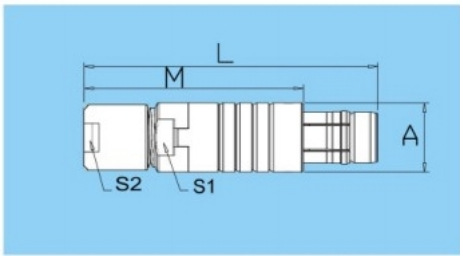
ZLN.0F.306.CLL fixed socket, positioning plate (N), OF series, positioning key (1), multi-core type, 6-core, chrome-plated brass housing, PPS insulator, PCB board connected to female pin core, epoxy resin (P) PCB pin length 30mm

>F series



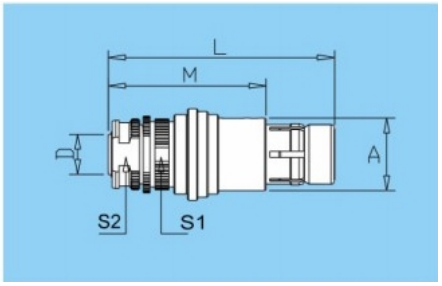
TGN standard long straight plug, cable clamp to secure the cable, internal parts prevent cable rotation Movement, semi-circular metal to prevent accidental insertion (with sheath type)

Project		Size				
Series	Model	A	L	M	S2	S1
0F	TGN	9	36	26	7	7
1F	TGN	12	46	35	10	10
AF	TGN	13	48	38	12	11
2F	TGN	15	50	38	12	13
3F	TGN	18	62	47	15	16



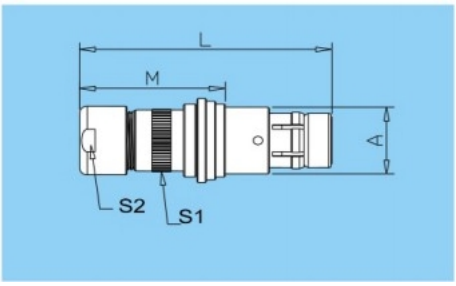
TGN standard long straight plug, cable clamp to secure the cable, internal parts prevent cable rotation, semi-circular metal to prevent accidental insertion. (Without sheath type)

Project		Size				
Series	Model	A	L	M	S2	S1
0F	TGN	9	36	26	7	7
1F	TGN	12	46	35	10	10
AF	TGN	13	48	38	12	11
2F	TGN	15	50	38	12	13
3F	TGN	18	62	47	15	16



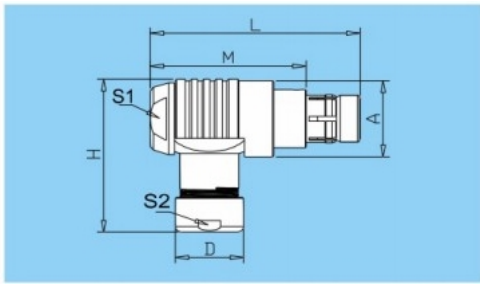
T YN Short straight plug, multi-flap positioning, semi-circular metal to prevent misinsertion, tail external thread embedded connection. (Suitable for injection molding)

Project		Size					
Series	Model	A	L	M	S1	S2	D(max)
0F	TYN	9	30	20	8	7	3.8
1F	TYN	12	33	22	11	10	6
AF	TYN	12.4	33	23	11	10	6.2
2F	TYN	15	38	26	13	12	8
3F	TYN	18	44	29	16	15	10



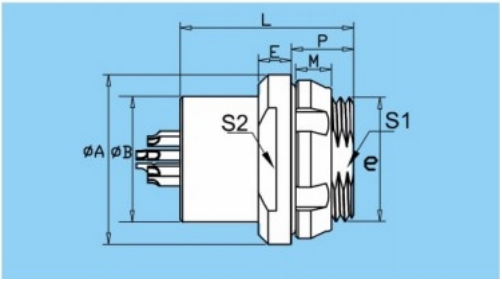
TLN short straight plug, multi-flap positioning, semi-circular metal to prevent misinsertion, internal thread at the tail

Project		Size				
Series	Model	A	L	M	S1	S1
0F	TLN	9	33	20	8	7
1F	TLN	12	37	22	11	10
AF	TLN	12.4	40	23	11	10
2F	TLN	15	46	26	13	12
3F	TLN	18	53	29	16.5	16



TWN 90° bend plug with semi-circular positioning plate for secure positioning, internal structure prevents cable rotation, and semi-circular metal prevents accidental insertion.

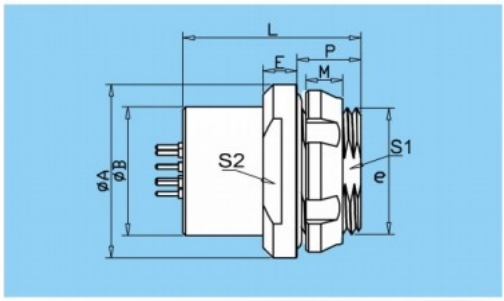
Project		Size					
Series	Model	A	L	M	H	S1	S2
0F	TWN	11.2	33	23	25	8	7
1F	TWN	15	38	27	31	11	10
AF	TWN	17	39	29	33	12	12
2F	TWN	19	45	32	37	14	12
3F	TWN	23	53	38	45	17	15



ZLN Welded socket with external nut fixing structure, metal semicircular plate positioning to prevent misinsertion

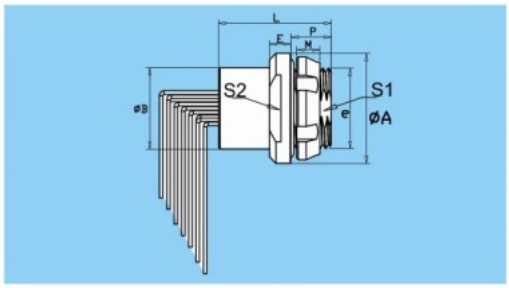
Project		Size								
Series	Model	A	B	e	L	E	M	P	S1	S2
0F	ZLN	13	9.0	M9×0.5	17	3.5	3	6.5	8.2	12
1F	ZLN	18	12	M14*1.0	21	4	4	8	12	15
AF	ZLN	19	14	M14*1.0	19.5	4	4	7	12	15
2F	ZLN	22	16	M16*1.0	21.5	3.7	3.5	8	14.5	18
3F	ZLN	27	21	M20x1.0	26.5	4.5	5	10	18	22

ZL N PCB board socket with external nut fixing structure and metal semicircular positioning to prevent misinsertion



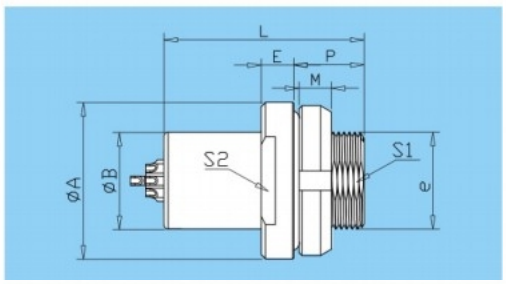
Project		Size								
Series	Model	A	B	e	L	E	M	P	S1	S2
0F	ZLN	13	9.0	M9x0.5	17	3.5	3	6.5	8.2	12
1F	ZLN	18	12	M14*1.0	21	4	4	8	12	15
AF	ZLN	19	14	M14*1.0	19.5	4	4	7	12	15
2F	ZLN	22	16	M16*1.0	21.5	3.7	3.5	8	14.5	18
3F	ZLN	27	21	M20x1.0	26.5	4.5	5	10	18	22

ZLN 90° long bend PCB socket with external nut fixing structure, metal semicircular positioning to prevent misinsertion

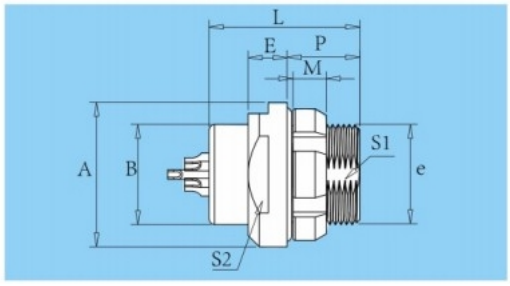


Project		Size								
Series	Model	A	B	e	L	E	M	P	S1	S2
0F	ZLN	13	9.0	M9x0.5	17	3.5	3	6.5	8.2	12
1F	ZLN	18	12	M14*1.0	21	4	4	8	12	15
AF	ZLN	19	14	M14*1.0	19.5	4	4	7	12	15
2F	ZLN	22	16	M16*1.0	21.5	3.7	3.5	8	14.5	18
3F	ZLN	27	21	M20x1.0	26.5	4.5	5	10	18	22

ME N Vacuum-sealed socket with external nut fixing structure, semi-circular metal to prevent accidental insertion

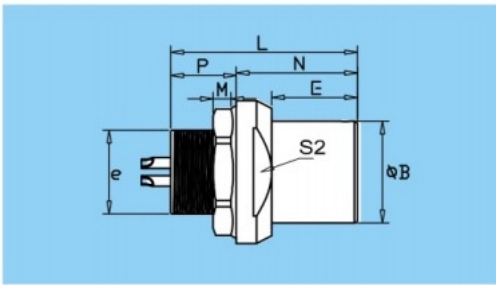


Project		Size								
Series	Model	A	B	e	L	E	M	P	S1	S2
0F	MEN	14.5	9	M9x0.5	18.5	3	3	6.5	8.2	12
1F	MEN	18	14	M14*1.0	22	3	4	9	12.5	15



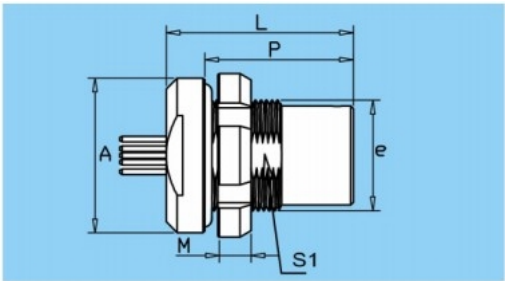
Z YN Vacuum-sealed short socket with external nut fixation and internal semi-circular metal plate positioning to prevent misinsertion, waterproof (IP68)

Project		Size								
Series	Model	A	B	e	E	L	M	P	S1	S2
0F	ZYN	13	9.0	M9x0.5	3.5	13.5	3.0	6.5	8.2	11
1F	ZYN	18	12	M14x1.0	4.0	17	4	6.5	12	15



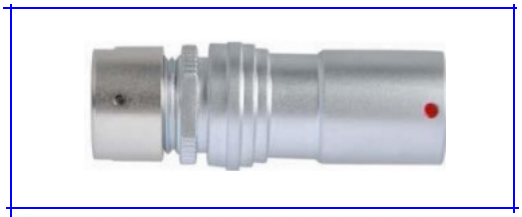
Z HN Protruding rear nut fixing socket, nut fixation (front panel installation), internal semi-circular metal plate positioning to prevent misinsertion, waterproof (IP68)

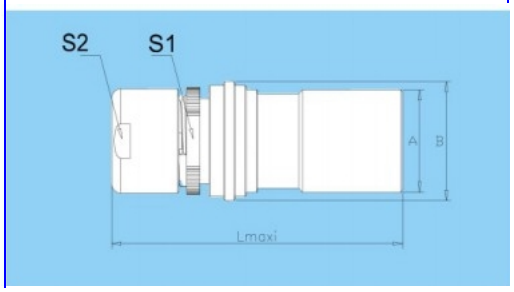
Project		Size							
Series	Model	A	B	e	L	E	M	P	S2
0F	ZHN	14	10	M9×0.5	18.5	3.5	2.0	6.5	11
1F	ZHN	18	14	M14x1.0	21.0	3.5	2.5	6.5	15



HEN Protruding tail external nut fixing socket, external nut fixing (rear panel installation),internal semi-circular metal plate positioning to prevent misinsertion, waterproof (IP68)

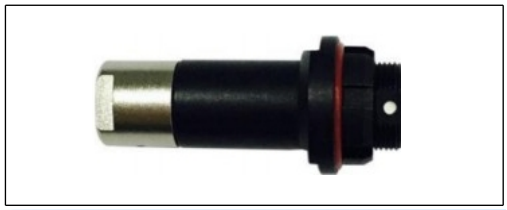
Project		Size					
Series	Model	A	e	L	M	P	S1
0F	HEN!	14	M10x0.5	18	3.0	13.5	9
1F	HEN	18	M14×1.0	21	4.0	19	12.5

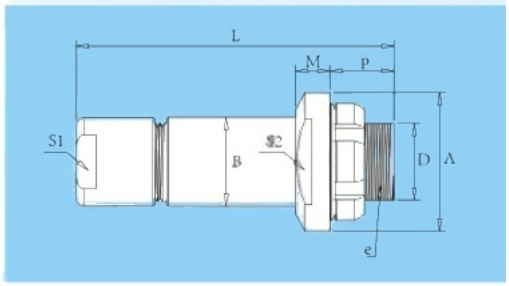




DHN floating socket, semi-circular positioning plate positioning, internal parts prevent cable rotation, semi-circular metal prevent misinsertion.

Project		Size				
Series	Model	A	B	L	S1	S
0F	DHN	10	12	32	8	7
1F	DHN	12.5	14.5	39	11	12
AF	DHN	13.5	15.5	40	11.5	12
2F	DHN	16	18	45.5	14	14
3F	DHN	19	21	51	16.5	11



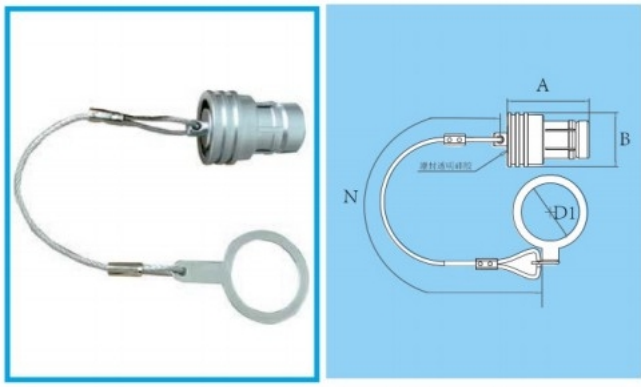


DFN floating socket, semi-circular positioning plate positioning, internal parts prevent cable rotation, semi-circular metal prevent misinsertion.

Project		Size								
Series	Model	A	B	e	P	L	M	D	S1	S2
0F	DFN	14	9.0	M9x0.5	6.5	32	3.5	11	7	7.5

F-series positioning plate

Connector	Key		
	Single positioning plate	Dual-positioning plate 1	Dual-positioning plate 2
Positioning tag code	N	A	B



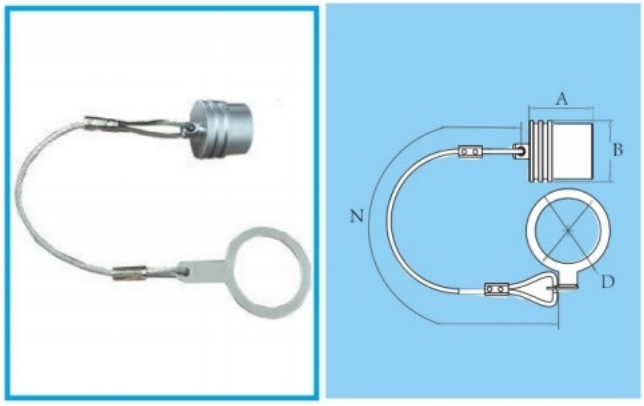
BZE F Series Socket Dust Cover

Shell material: chrome-plated brass Hanging cord material: Stainless steel (S) / Nylon cord (N)

O-ring: silicone rubber Maximum operating temperature: 135°C

Water resistance rating: IP67

Identification of product	Series	Size (mm)			
		A	B	D	N
BZE. 0F. CSS-100	0F	16. 5	9	9	100
BZE. 1F. CSS-100	1F	19. 8	12	14	100
BZE. AF. CSS-100	AF	18. 4	13	14	100
BZE. 2F. CSS-150	2F	21	15	16	150
BZE. 3F. CSS-150	3F	24	18	20	150



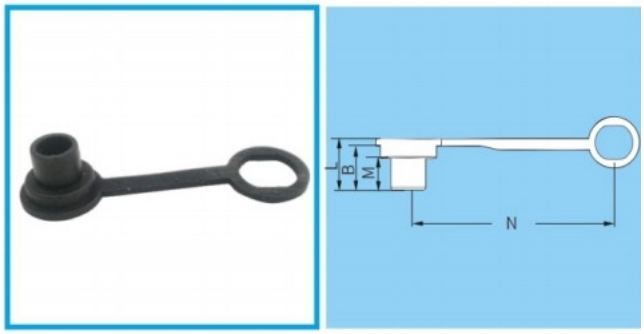
F Series Plug Dust Cover

Shell material: chrome-plated brass Rope material: stainless steel (S) / nylon rope (N)

O-ring: silicone rubber Maximum operating temperature: 135°C

Water resistance rating: IP67

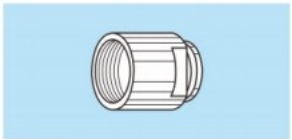
Identification of product	Series	Size (mm)			
		A	B	D	N
BTF. 0F. CSS-100	0F	14. 5	9	9	100
BTF. 1F. CSS-100	1F	21	12	14	100
BTF. AF. CSS-100	AF	20	13	14	100
BTF. 2F. CSS-150	2F	21	15	16	150
BTF. 3F. CSS-150	3F	29	18	20	150



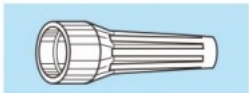
QM F Series Rubber Socket Dust Cover

Identification of product	Series	Size (mm)			
		B	L	M	N
QM. 0F. 100-PCSG	0F	9	10. 5	6. 5	36. 5

Suitable for F-series sheaths and adapter clamps



Additional Order Required

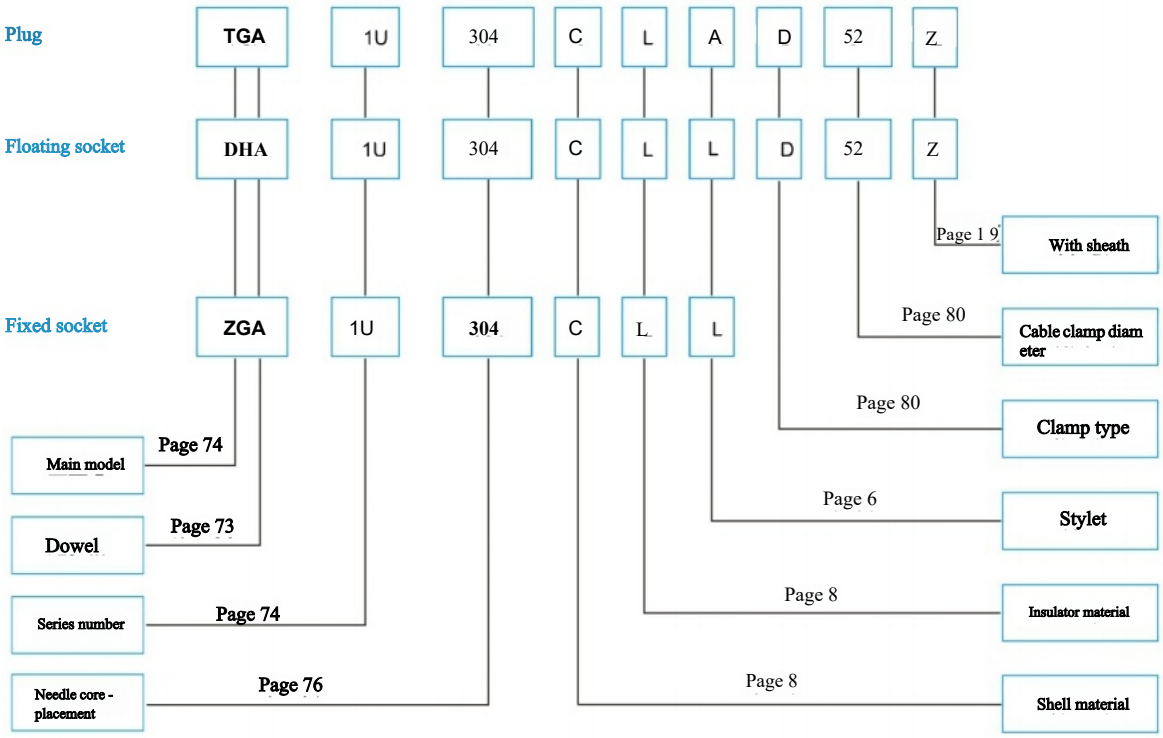


	Number	Tail-hood		Additional order required (see page 72)
		Type	Code	
0F	Z	D	17 to 35	GMA. 00. ⋯ • . ″ GMB. 00. ⋯ • . ″
1F	Z	D	21 to 52	GMA. 0B. ⋯. “
2F	Z	M	21 and 31	GMA. 0B⋯. •
		D	24	GMA. 2B. ⋯. ″
		D	52 to 92	GMA. 2B. ⋯. ″

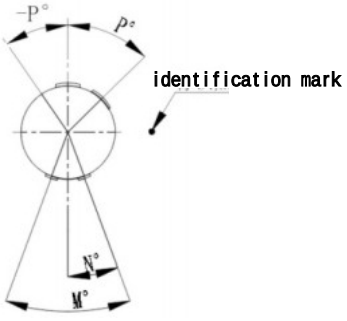
Brief Introduction to the U Series Connectors

The U-series microcircular high-density connectors feature a segmented push-pull design with self-locking functionality after mating. Their multi-key positioning mechanism prevents incorrect insertion of connectors with identical core counts, while the blind-mating capability ensures quick and hassle-free operation. This series excels in rapid insertion, high-density connectivity, waterproof performance, compact size, blind-mating functionality, and extended lifespan. Particularly suitable for high-density installations, confined spaces, and environments where rotational mating is challenging, these connectors withstand harsh outdoor conditions with an IP68 protection rating. Primarily used for low-frequency signal transmission in electronic devices, they offer compact size, user-friendly operation, excellent shielding, superior sealing, multi-key positioning, robust housing, electromagnetic interference resistance, and long service life. Widely adopted in medical equipment, communication systems, computers, and portable communication devices.

U Series Product Numbering Rules



U Series positioning



View direction: socket welding surface

Key number	M°	N°	P°
A	40	20	0
B	60	30	45
C	70	35	-20
D	80	40	0
E	100	50	45