

Shenzhen Forman Precision Industry Co., Ltd.

Push-Pull Connector

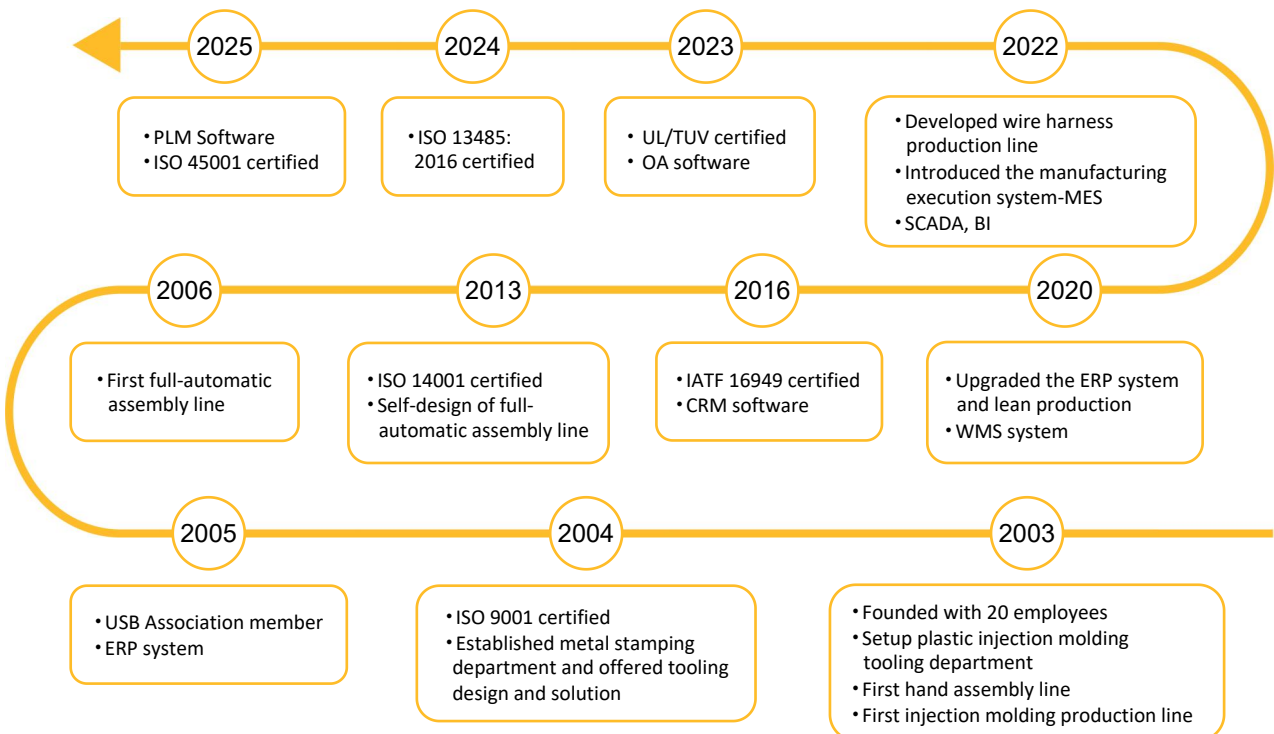


Company Profile >>>

Shenzhen Forman Precision Industry Co., LTD is a leading and experienced manufacturing vendor, dedicated to the development of metal and plastic parts. For over 20 years, we have specialized in the design and production of connectors and cable assemblies. Our market spans the automotive, new energy, industrial automation, and medical devices sectors.

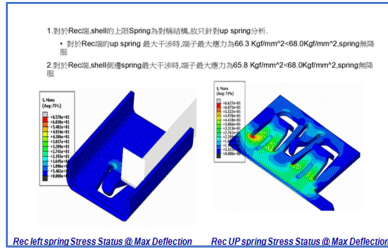
We are certified by ISO 9001, ISO 14001, ISO 45001, IATF 16949, and ISO 13485, and we are also a member of the USB Association, with UL and TUV certifications.

Our goal is to provide a unique service experience and add value for our customers through end-to-end management. We take pride in our reputation for being fast, flexible, and customer-focused.

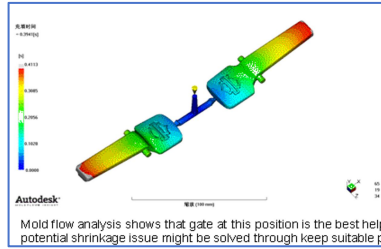


Our Advantages

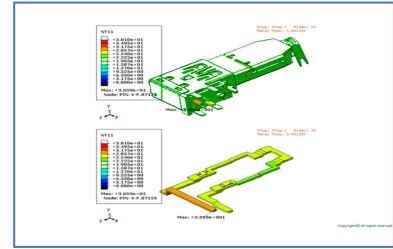
The Experienced R&D Team and CAE Software Support



Simulation Result - Stress Status@ Shell Spring



Mold Flow Simulation Test



Current Rating Simulation Test

The Modernization One-stop Production Process



Wire EDM Center



Mould Workshop



Die-sinker EDM Center



Stamping Workshop



Plastic Injection Workshop



Wire Harness Workshop



Dust-free Workshop



Automatic Assembly Workshop



CCD Imaging Analysis



Electrometric Measurement



Automatic Packing

We Strictly Implement The Process of Product Quality



Keyence Tester



X-Ray Plating Thickness Tester



X-Ray Scenograph



Halogen Testing Machine



Constant Temperature & Humidity Tester



Thermal Shock Test Chamber

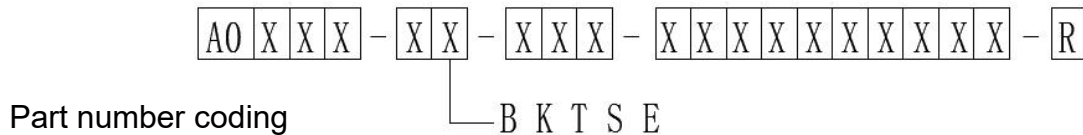
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Wire Gauge Table	38
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3 Steps to Select the Right Connector

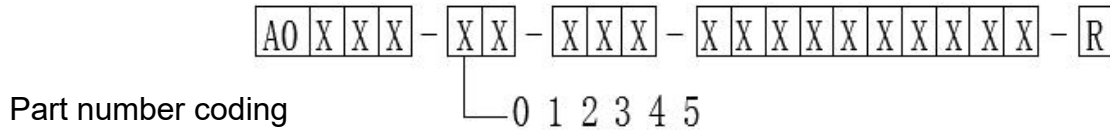
Step 1: Select connector series

Choose the appropriate connector series based on environmental parameters. Environmental parameters refer to factors that may affect your equipment or cables, such as indoor or outdoor conditions, temperature range, and protection requirements for the connector and equipment.



Step 2: Select connector size

1. Select the most suitable pin diameter according to the cross-sectional area of the cable conductor (mm²) or wire gauge (AWG). The optimal pin diameter may vary depending on the pin type—such as solder, crimp, or PCB mount.
2. Determine the corresponding connector size and pin configuration based on the selected pin diameter.



Step 3: Complete the part number

	Model	Series	Insert configuration	Housing material	Insulator material	Contact	gold plating thickness	Collet
B Series	22	22	14	5	5	6	6	42
K Series	32	32	14	5	5	6	6	43

Note: Figures in the above table refer to the catalogue pages.

Housings (B, K and T Series)

Ref.	Outer shell and collet nut		Latch sleeve + earthing crown		Other metallic components		Remarks
	Material	Surf. treatment	Material	Surf. treatment	Material	Surf. treatment	
C	Brass	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	-	brass/bronze	nickel	brass	nickel	
T	Stainless steel	-	stainless steel	-	brass	nickel	
U	Stainless steel	-	stainless steel	-	stainless steel	-	
L	Aluminium alloy	anodized	brass/bronze	nickel	brass	nickel	
X	Aluminium alloy	nickel anthracite	brass/bronze	nickel	brass	nickel	
G	PEEK	-	brass/bronze	nickel	brass	nickel	
P	PSU	-	brass/bronze	nickel	brass	nickel	
R	PPSU	-	brass/bronze	nickel	brass	nickel	
H	PPS/brass	-/nickel	brass/bronze	nickel	brass	nickel	
P	PA.6	-	brass/bronze	nickel	brass	nickel	

Insulators (B, K and T Series)

Ref.	Material	Contact type	Remarks
Y	PEEK	Crimp	extended design, with contacts that recess into insulator
L	PEEK	Solder or print	

Contacts (B, K and T Series)

Soldering characteristics

- no need to order specific tools, a simple soldering iron is sufficient
- ideal for very small and fragile conductors
- contacts with solder cups to allow the solder to flow

Crimping characteristics

- practical, quick contact fixing outside the insulator
- possible use at high temperature
- need to order specific tools
- no risk of heating the insulator during the conductor/contact fixing
- high tensile strength
- totally lead-free solution

Contact (B, K and T Series)

Contact type	Reference		Contact		Conductor					
					Solid		AWG		Section (mm²)	
	Male	Female	øA(MM)	øB(MM)	AWG(max)	Section (Max)	min	max	min	max
Solder	A	L	0.5	0.4	28.0	0.09	-	30.0	-	0.05
			0.5	0.45	28.0	0.09	-	28.0	-	0.09
			0.7	0.8	22.0	0.34	-	22.0	-	0.34
			0.9	0.8	22.0	0.34	-	22.0	-	0.34
			1.3	1.0	20.0	0.5	-	20.0	-	0.5
			1.6	1.4	16.0	1.0	-	18.0	-	1.0
			2.0	1.8	14.0	1.5	-	16.0	-	1.5
			3.0	2.7	10.0	4.0	-	12.0	-	4.0
Crimp	C	M	0.5	0.45	-	-	32.0	28.0	0.035	0.09
	C	M	0.7	0.8	-	-	26.0	22.0	0.14	0.34
	B	P	0.7	0.45	-	-	32.0	28.0	0.035	0.09
	C	M	0.9	1.1	-	-	24.0	20.0	0.25	0.50
	B	P	0.9	0.8	-	-	26.0	22.0	0.14	0.34
	G	U	0.9	0.45	-	-	32.0	28.0	0.035	0.09
	C	M	1.3	1.4	-	-	20.0	18.0	0.50	1.00
	B	P	1.3	1.1	-	-	24.0	20.0	0.25	0.50
	G	U	1.3	0.8	-	-	26.0	22.0	0.14	0.34
	C	M	1.6	1.9	-	-	18.0	14.0	1.00	1.50
	B	P	1.6	1.4	-	-	22.0	18.0	0.34	1.00
	C	M	2.0	2.4	-	-	16.0	12.0	1.50	2.50
	B	P	2.0	1.9	-	-	18.0	14.0	1.00	1.50
	C	M	3.0	2.9	-	-	14.0	10.0	2.50	4.00
Print	D	N	-							
Print (elbow)	W	V	-							

Contact (B, K and T Series)

No.	Surf. treatment	No.	Surf. treatment
1	Gold flash	7	AU=30u"
2	AU=2u"	9	Ni
3	AU=3u"	B	Ag
4	AU=10u"	C	Zn
5	AU=5u"	0	No
6	AU=15u"	A	Sn

Step 1: Select Connector Series

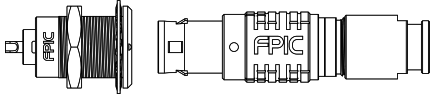
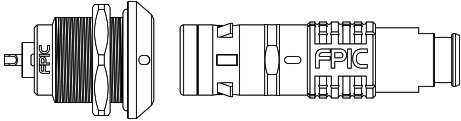
Single-Core and Multi-Core Connectors

Standard Keyed Series (B Series)

This type of connector features a standard keying system that increases pin density and prevents mismatching. Different keying options help avoid cross-mating between similar connectors. Using crimp contacts further reduces cable assembly time. This series includes multi-core connectors ranging from 0B to 3B.

Waterproof Keyed Series (K Series)

This series is characterized by its waterproof performance when mated and assembled with cables. It includes the 0K–3K series, which has the same pin configurations as the 0B–3B series.

		
Series	B Series	K Series
Environment	indoor	outdoor or harsh environment
Ingress protection	IP50	IP66-IP68
Temperature range	-55~250°C	-55~200°C
Latching	Push-Pull self-latching	
Shell sizes	8 metal and 4 plastic	6 metal
Insulator type	Multipole	
Contact type	Solder, crimp or print	
Features	13 keyways	9 keyways
Page	19-28	29-34

Note: Mated connectors. Refer to the protection rating codes on page 6.

Step 1: Select Connector Series

Definition of Ingress Protection (IP code)

IEC 60529 outlines an international classification system for the sealing effectiveness of enclosures of electrical equipment against the intrusion into the equipment of foreign bodies (i.e. tools, dust, fingers) and moisture.

This classification system utilizes the letters «IP» (Ingress Protection) followed by two

Degrees of protection - First dig

The first digit of the IP code indicates the degree to which persons are protected against contact with moving parts and the degree that equipment is protected against solid foreign bodies intruding into an enclosure.

Degrees of protection - Second digit

The second digit indicates the degree of protection of the equipment inside the enclosure against the harmful entry of various forms of moisture (e.g. dripping, spraying, sub- mersion, etc.)

Code	1st Digit
0	No special protection
1	Protection from a large part of the body such as hand or from solid objects greater than 50 mm in diameter
2	Protection against objects not greater than 80 mm in length and 12 mm in diameter
3	Protection from entry by tools, wires, etc., with a diameter or thickness greater than 2.5 mm
4	Protection from entry by solid objects with a diameter or thickness greater than 1.0 mm
5	Protection from the amount of dust that would interfere with the operation of the equipment
6	Dust-tight
7	-
8	-

Code	2nd Digit
0	No special protection
1	Protection from vertically dripping water
2	Protection from dripping water when tilted up to 15°
3	Protection from sprayed water
4	Protection from splashed water
5	Protection from water projected from a nozzle
6	Protection against heavy seas, or powerful jets of water
7	Protection against temporary immersion
8	Protection against complete continuous submersion in water

Step 2: Select Connector Size

Selecting the Correct Connector Size and Pin Configuration

The key to selecting the correct connector size (0 to 6) is determining the pin diameter ($\varnothing A$).

Based on the number of pins and the rated operating current, you can identify all suitable pin diameters ($\varnothing A$).

The table below shows the pin diameters ($\varnothing A$) or solder cup diameters ($\varnothing C$).

Number of contacts	Insert configuration	Series					
							
		0B-0K	1B-1K	2B-2K	3B-3K	4B-4K	5B-5K
2	302	0.9	1.3	2.0	3.0	-	6.0
3	303	0.9	1.3	1.6	2.0	-	-
4	304	0.7	0.9	1.3	2.0	3.0	4.0
5	305	0.7	0.9	1.3	1.6	-	-
6	306	0.5	0.7	1.3	1.6	2.0	-
7	307	0.5	0.7	1.3	1.6	2.0	-
8	308	-	0.7	0.9	1.3	-	-
9	309	0.5	-	-	1.3/2.0	-	-
10	310	-	0.5	0.9	1.3	1.6	3.0
12	312	0.5	-	0.7	0.9	1.3	-
13	313	0.9	-	-	-	-	-
14	314	-	0.5	0.7	0.9	-	2.0
16	316	-	0.5	0.7	0.9	0.9	2.0
18	318	-	-	0.7	0.9	-	-
19	319	-	-	0.7	-	-	-
20	320	-	-	-	0.7	0.9	1.6
22	322	-	-	-	0.7	-	-
24	324	-	-	-	0.7	0.9	-
26	326	-	-	0.5	0.7	-	-
30	330	-	-	-	0.7	-	-

Selecting the Correct Connector Size and Pin Configuration

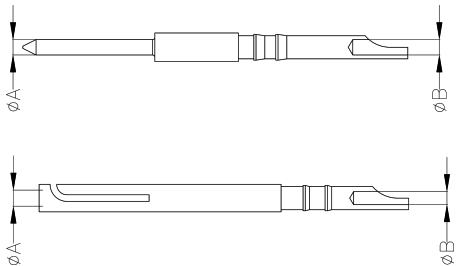
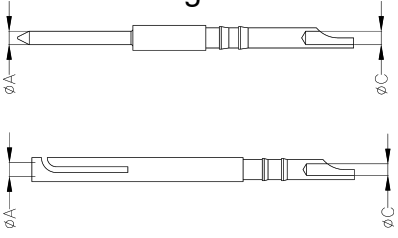
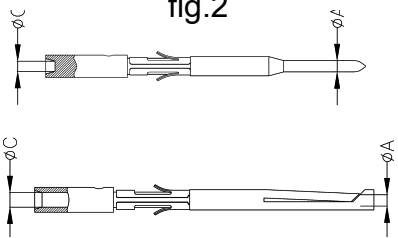
The key to selecting the correct connector size (0 to 6) is determining the pin diameter ($\varnothing A$).

Based on the number of pins and the rated operating current, you can identify all pin diameters ($\varnothing A$) that meet the requirements.

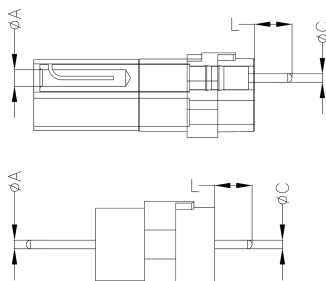
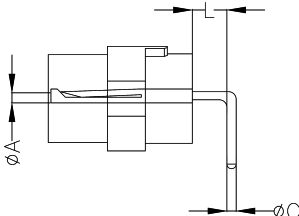
The table below shows the pin diameters ($\varnothing A$) or solder cup diameters ($\varnothing C$).

Number of contacts	Insert configuration	Series					
							
		0B-0K	1B-1K	2B-2K	3B-3K	4B-4K	5B-5K
32	332	-	-	0.5	0.7	0.9	1.5
36	336	-	-	-	-	-	-
40	340	-	-	-	-	-	-
44	344	-	-	-	-	0.7	1.3
48	348	-	-	-	-	-	-
50	350	-	-	-	-	0.7	1.3
54	354	-	-	-	-	-	0.9
60	360	-	-	-	-	-	0.9
62	362	-	-	-	-	-	-
64	364	-	-	-	-	-	-
72	372	-	-	-	-	-	0.9
100	100	-	-	-	-	-	-

Confirm the specifications of the conductor and terminal — check whether the pin diameter ($\varnothing A$), solder hole diameter ($\varnothing B$), and wire size are compatible with terminal $\varnothing B$ dimensions.

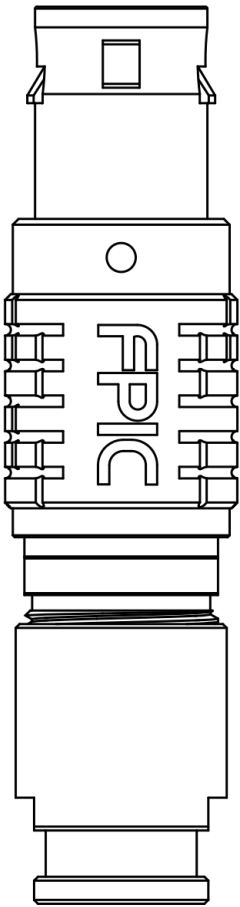
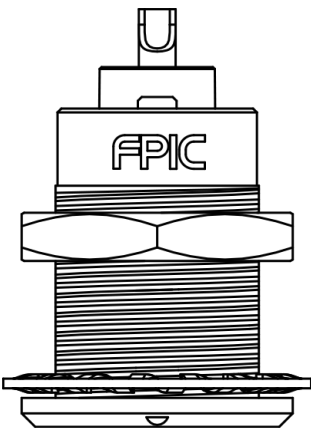
Contact type	Contact			Conductor					
	A $\varnothing A$ (mm)	B $\varnothing C$ (mm)	Form per fig	Solid		Stranded			
				AWG Max	MM ² Max	AWG		MM ²	
						Max	Min	Max	Min
Solder 	0.35	0.4	-	28	0.09	-	30	-	0.05
	0.5	0.4	-	28	0.09	-	30	-	0.05
	0.5	0.45	-	28	0.09	-	28	-	0.09
	0.7	0.6	-	24	0.25	-	26	-	0.14
	0.7	0.8	-	22	0.34	-	22	-	0.34
	0.9	0.8	-	22	0.34	-	22	-	0.34
	1.3	1.0	-	20	0.5	-	20	-	0.5
	1.6	1.4	-	16	1.0	-	18	-	1.0
	2.0	1.8	-	14	1.5	-	16	-	1.5
	3.0	2.7	-	10	4.0	-	12	-	4.0
	4.0	3.7	-	10	6.0	-	10	-	6.0
	5.0	5.2	-	-	-	-	8.0	-	10.0
	6.0	5.2	-	-	-	-	8.0	-	10.0
	8.0	7.0	-	-	-	-	4.0	-	21.0
	12.0	11.5	-	-	-	-	0.0	-	50.0
Crimp fig.1  fig.2 	0.5	0.45	1	-	-	32	28	0.035	0.09
	0.7	0.8	1	-	-	26	22	0.14	0.34
	0.7	0.45	2	-	-	32	28	0.035	0.09
	0.9	1.1	1	-	-	24	20	0.25	0.5
	0.9	0.8	2	-	-	26	22	0.14	0.34
	0.9	0.45	2	-	-	32	28	0.035	0.09
	1.3	1.4	1	-	-	20	18	0.5	1.0
	1.3	1.1	2	-	-	24	20	0.25	0.5
	1.3	0.8	2	-	-	26	22	0.14	0.34
	1.6	1.9	1	-	-	18	14	1.0	1.5
	1.6	1.4	2	-	-	22	18	0.34	1.0
	2.0	2.4	1	-	-	16	12	1.5	2.5
	2.0	1.9	2	-	-	18	14	1.0	1.5
	3.0	3.2	1	-	-	14	10	2.5	4.0
	4.0	4.0	1	-	-	12	10	4.0	6.0

Confirm the specifications of the conductor and terminal — check whether the pin diameter ($\varnothing A$), solder hole diameter ($\varnothing B$), and wire size are compatible with terminal $\varnothing B$ dimensions.

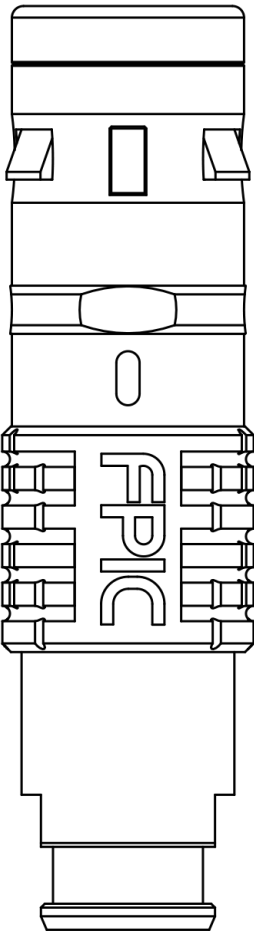
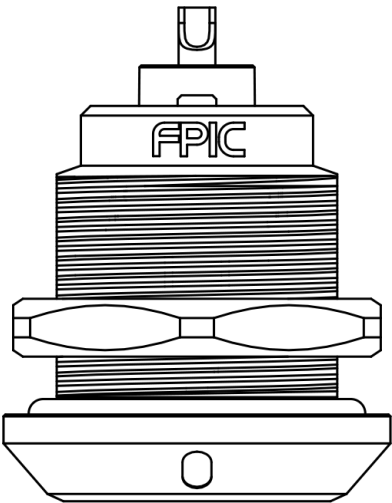
Contact type	Contact			Conductor					
	A øA (mm)	B øC (mm)	Form per fig	Solid		Stranded			
				AWG Max	MM² Max	AWG		MM²	
						Max	Min	Max	Min
PCB mount 	Dimensions L and C — refer to the PCB drilling parameters section.								
Right-angle PCB mount 	Dimensions L and C — refer to the PCB drilling parameters section.								

Verify if the selected connector size fits to your cable diameter

Series	Cable Outer Diameter Range			
	Cable Clamp		Matching Cable Clamp	
	Min	Max	Min	Max
0B	1.4	5.6	1.4	5.2
1B	2.2	7.6	2.2	7.2
2B	1.4	9.9	1.4	9.2
3B	4.2	11.9	4.2	11.0
4B	4.9	16.0	4.9	15.0
5B	9.6	25.0	9.6	15.5
0K	1.0	5.0	1.0	5.5
1K	1.3	7.6	1.3	7.2
2K	1.3	9.9	1.3	9.2
3K	2.6	11.9	2.6	11.0
4K	4.6	16.0	4.6	15.0
5K	9.6	23.5	-	-

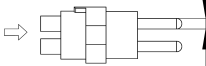
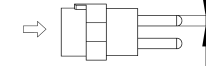
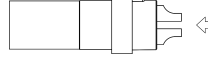
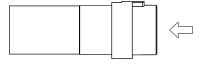
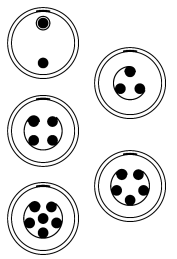
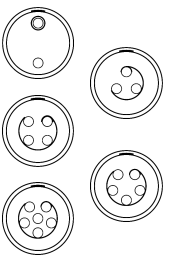
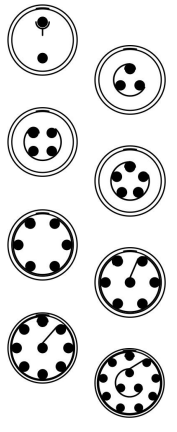
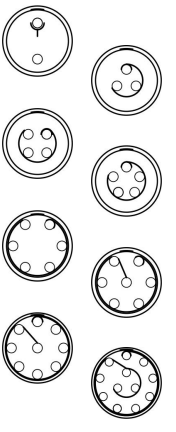
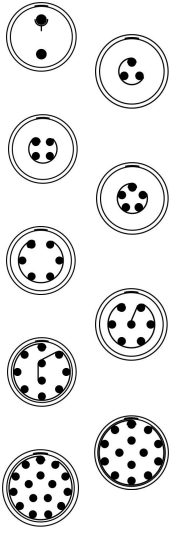
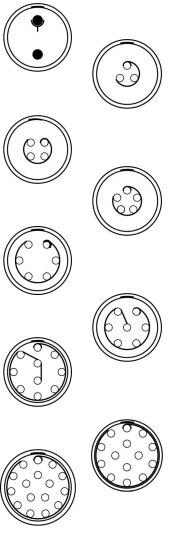


B Series

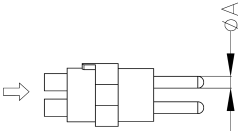
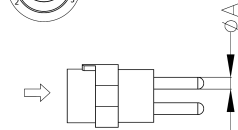
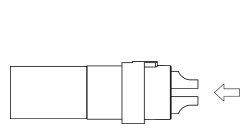
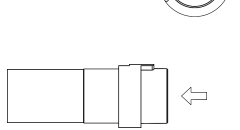
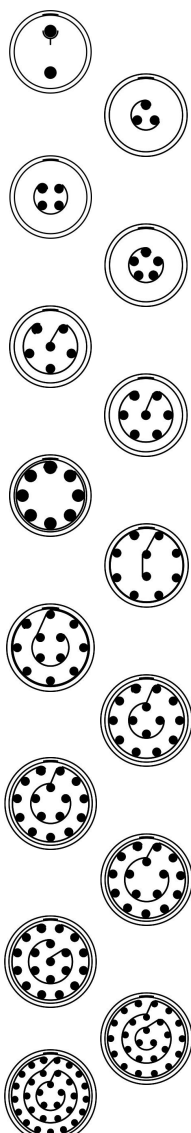
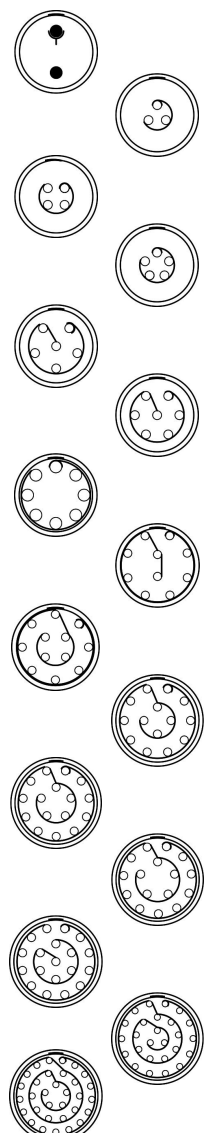


K Series

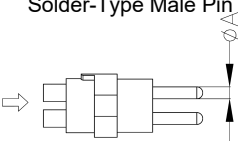
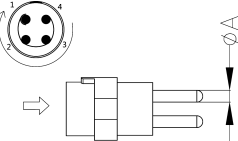
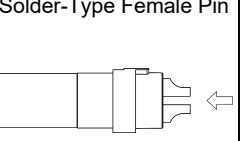
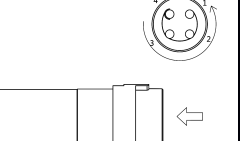
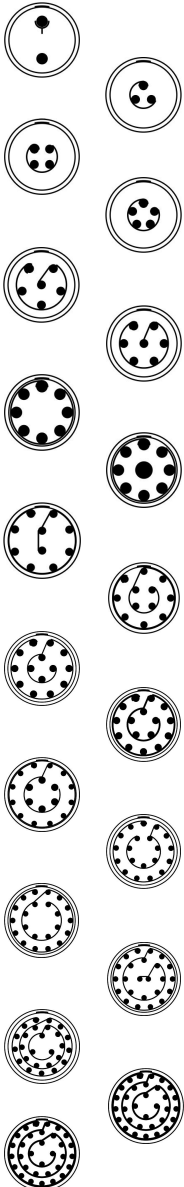
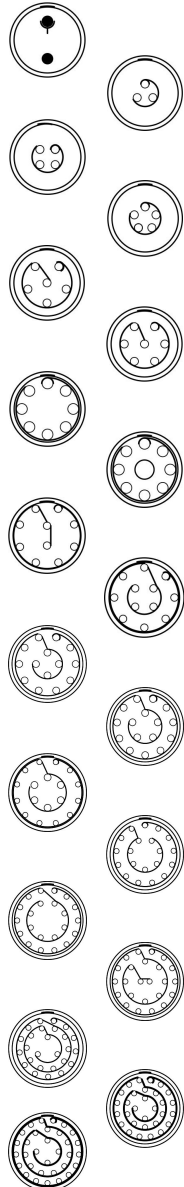
Multipole

	  Solder-Type Male Pin Crimp-Type Male Pin	  Solder-Type Female Pin Crimp-Type Female Pin	Number	Number of Pins	ØA (mm)	Pin Type				Solder Pin		Crimp Pin		Rated Current (A)
						Solder Pin	Crimp Pin	Straight Male PCB Pin	Right-Angle Male PCB Pin	Test Voltage (KV rms) Pin-to-Pin	Test Voltage (KV rms) Pin-to-Shell	Test Voltage (KV rms) Pin-to-Pin	Test Voltage (KV rms) Pin-to-Shell	
00 TT			302	2	0.5	●	●	●	●	1.00	0.95	1.15	1.20	3.5
			303	3	0.5	●	●	●	●	0.80	0.95	1.35	1.10	3.0
			304	4	0.5	●	●	●	●	0.80	0.65	1.05	1.05	2.0
			305	5	0.35	●	-	●	-	0.70	1.00	-	-	1.7
			306	6	0.35	●	-	-	-	0.60	0.75	-	-	1.5
0B OK OT			302	2	0.9	●	●	●	●	1.00	1.05	1.45	1.20	10.0
			303	3	0.9	●	●	●	●	1.20	0.90	1.70	1.60	8.0
			304	4	0.7	●	●	●	●	0.85	0.70	1.35	1.10	7.0
			305	5	0.7	●	●	●	●	1.00	0.70	1.25	1.20	6.5
			306	6	0.5	●	●	●	●	0.85	0.65	1.40	1.20	2.5
			307	7	0.5	●	●	●	●	0.80	0.70	1.40	1.20	2.5
			309	9	0.5	●	●	●	●	0.60	0.50	1.00	0.85	2.0
			312	12	0.35	●	-	●	-	0.80	1.00	-	-	1.5
1B 1K 1T			302	2	1.3	●	●	●	●	1.50	1.35	1.70	1.45	15.0
			303	3	1.3	●	●	●	●	1.30	1.55	1.60	1.85	12.0
			304	4	0.9	●	●	●	●	1.35	1.45	1.70	1.80	10.0
			305	5	0.9	●	●	●	●	1.25	1.15	1.30	1.55	9.0
			306	6	0.7	●	●	●	●	1.05	1.20	1.35	1.45	7.0
			307	7	0.7	●	●	●	●	0.95	1.05	1.45	1.45	7.0
			308	8	0.7	●	●	●	●	0.95	1.15	1.30	1.30	5.
			310	10	0.5	●	●	●	●	0.90	1.50	1.20	1.80	2.5
			314	14	0.5	●	●	●	●	0.80	1.20	0.95	1.60	2.0
			316	16	0.5	●	●	●	●	0.80	1.25	0.95	1.60	1.5

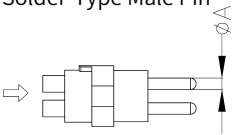
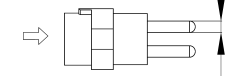
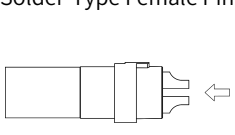
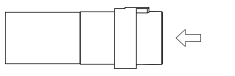
Multipole

	 Solder-Type Male Pin  Crimp-Type Male Pin	 Solder-Type Female Pin  Crimp-Type Female Pin	Number	Number of Pins	ØA (mm)	Pin Type				Solder Pin		Crimp Pin		Rated Current (A)
						Solder Pin	Crimp Pin	Straight Male PCB Pin	Right-Angle Male PCB Pin	Test Voltage (KV rms) Pin-to-Pin	Test Voltage (KV rms) Pin-to-Shell	Test Voltage (KV rms) Pin-to-Pin	Test Voltage (KV rms) Pin-to-Shell	
2B 2K 2T			302	2	2.0	●	●	●	●	2.10	1.75	2.85	2.70	25.0
			303	3	1.6	●	●	●	●	2.40	1.85	1.90	1.90	17.0
			304	4	1.3	●	●	●	●	1.85	1.85	2.20	2.20	15.0
			305	5	1.3	●	●	●	●	1.75	1.60	2.15	2.15	14.0
			306	6	1.3	●	●	●	●	1.35	1.45	2.00	2.35	12.0
			307	7	1.3	●	●	●	●	1.75	1.60	1.95	2.15	11.0
			308	8	0.9	●	●	●	●	1.50	1.25	1.95	1.95	10.0
			310	10	0.9	●	●	●	●	1.45	1.30	1.80	2.10	8.0
			312	12	0.7	●	●	●	●	1.25	1.35	1.65	2.00	7.0
			314	14	0.7	●	●	●	●	1.15	1.35	1.55	1.95	6.5
			316	16	0.7	●	●	●	●	0.95	1.25	1.55	1.75	6.0
			318	18	0.7	●	●	●	●	0.85	1.20	1.45	2.10	5.5
			319	19	0.7	●	●	●	●	0.95	1.25	1.55	1.65	5.0
			326	26	0.5	●	-	●	●	0.95	1.30	-	-	2.0
			332	32	0.5	●	-	●	●	0.80	1.20	-	-	1.5

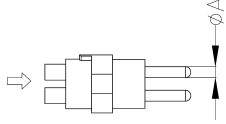
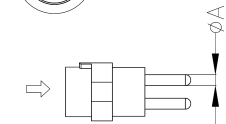
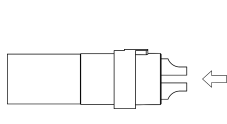
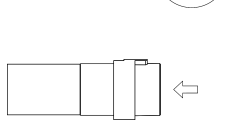
Multipole

	 Solder-Type Male Pin  Crimp-Type Male Pin	 Solder-Type Female Pin  Crimp-Type Female Pin	Number	Number of Pins	ØA (mm)	Pin Type				Solder Pin		Crimp Pin		Rated Current (A)
						Solder Pin	Crimp Pin	Straight Male PCB Pin	Right-Angle Male PCB Pin	Test Voltage (KV rms) Pin-to-Pin	Test Voltage (KV rms) Pin-to-Shell	Test Voltage (KV rms) Pin-to-Pin	Test Voltage (KV rms) Pin-to-Shell	
3B 3K 3T			302	2	3.0	●	●	●	-	2.10	1.55	2.30	1.80	35.0
			303	3	2.0	●	●	●	●	1.90	1.50	3.20	2.65	25.0
			304	4	2.0	●	●	●	●	1.45	1.25	2.50	2.20	19.0
			305	5	1.6	●	●	●	●	1.90	1.25	2.40	1.75	19.0
			306	6	1.6	●	●	●	●	1.60	1.15	1.90	1.80	17.0
			307	7	1.6	●	●	●	●	1.70	1.25	2.00	2.05	15.0
			308	8	1.3	●	●	●	●	1.65	1.15	1.85	1.75	13.0
			309	8 1	1.3 2.0	●	●	●	-	1.35 1.35	1.05 1.05	1.10 1.10	1.05 1.05	8.0 15.0
			310	10	1.3	●	●	●	●	1.25	0.90	1.50	1.80	12.0
			312	12	0.9	●	●	●	●	1.45	1.00	1.85	1.85	9.0
			314	14	0.9	●	●	●	●	1.20	1.20	1.80	1.65	9.0
			316	16	0.9	●	●	●	●	1.20	0.85	1.80	1.50	8.0
			318	18	0.9	●	●	●	●	1.20	1.05	1.85	1.60	7.0
			320	20	0.7	●	●	●	●	1.00	0.90	1.35	1.55	6.0
			322	22	0.7	●	●	●	●	1.00	0.90	1.70	1.45	5.5
			324	24	0.7	●	●	●	●	0.95	0.80	1.35	1.35	4.0
			326	26	0.7	●	●	●	●	0.95	0.70	1.50	1.30	4.0
			330	30	0.7	●	●	●	●	0.80	0.70	1.35	1.20	3.5
			332	32	0.7	●	●	●	●	0.75	0.70	-	-	3.0

Multipole

	Solder-Type Male Pin   Crimp-Type Male Pin 	Solder-Type Female Pin   Crimp-Type Female Pin 	Number	Number of Pins	øA (mm)	Pin Type				Solder Pin		Crimp Pin		Rated Current (A)
						Solder Pin	Crimp Pin	Straight Male PCB Pin	Right-Angle Male PCB Pin	Test Voltage (KV rms) Pin-to-Pin	Test Voltage (KV rms) Pin-to-Shell	Test Voltage (KV rms) Pin-to-Pin	Test Voltage (KV rms) Pin-to-Shell	
4B 4K			304	4	3.0	●	●	●	2.10	1.50	1.80	1.20	30.0	5.00
			306	6	2.0	●	●	●	2.00	1.75	2.75	2.40	24.0	1.50
			307	7	2.0	●	●	●	2.00	1.80	1.50	1.35	20.0	25.0
			310	10	1.6	●	●	●	1.85	1.30	1.90	1.95	17.0	17.0
			312	12	1.3	●	●	●	1.45	1.60	1.90	1.85	12.0	15.0
			316	16	0.9	●	●	●	1.35	1.50	2.30	2.10	10.0	14.0
			320	20	0.9	●	●	●	1.35	1.00	1.05	0.95	8.0	12.0
			324	24	0.9	●	●	●	1.20	1.45	1.80	2.05	7.0	11.0
			330	30	0.9	●	●	●	0.95	0.85	1.75	1.45	5.0	10.0
			340	40	0.7	●	●	●	0.90	0.90	1.30	1.30	2.0	8.0
			348	48	0.7	●	●	●	0.70	0.70	1.00	1.00	1.5	7.0

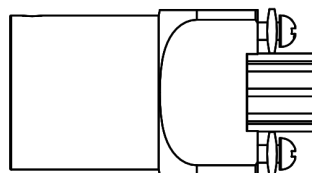
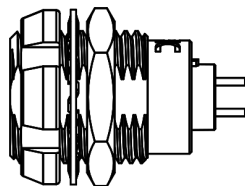
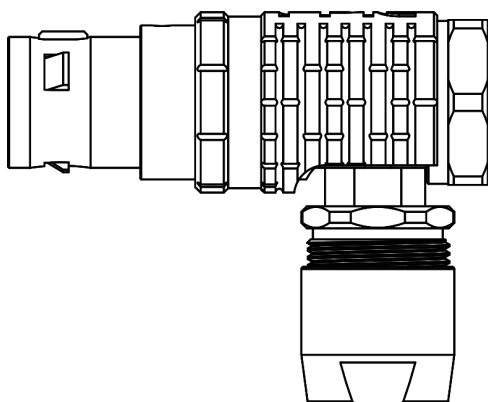
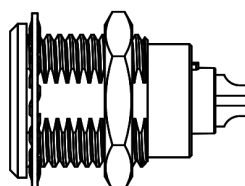
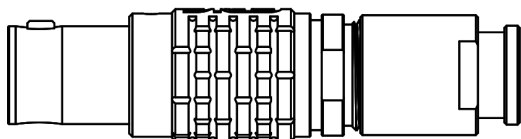
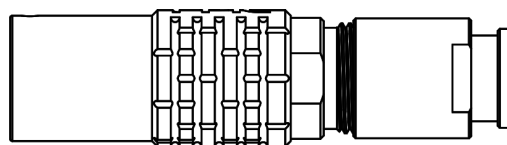
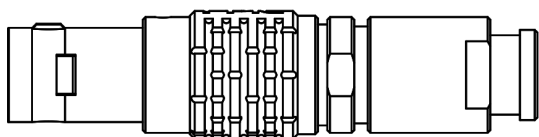
Multipole

	Solder-Type Male Pin  Crimp-Type Male Pin 	Solder-Type Female Pin  Crimp-Type Female Pin 	Number	Number of Pins	øA (mm)	Pin Type				Solder Pin		Crimp Pin		Rated Current (A)
						Solder Pin	Crimp Pin	Straight Male PCB Pin	Right-Angle Male PCB Pin	Test Voltage (KV rms) Pin-to-Pin	Test Voltage (KV rms) Pin-to-Shell	Test Voltage (KV rms) Pin-to-Pin	Test Voltage (KV rms) Pin-to-Shell	
5B 5K 5T			302	2	6.0	●	-	-	3.60	2.95	-	-	50.0	35.0
			304	4	4.0	●	●	●	2.95	2.65	3.20	2.40	35.0	25.0
			310	10	3.0	●	●	●	2.35	2.30	2.65	3.20	20.0	19.0
			314	14	2.0	●	●	●	2.10	2.00	2.85	2.95	18.0	19.0
			316	16	2.0	●	●	●	1.85	1.95	2.45	3.05	12.0	17.0
			320	20	1.6	●	●	●	1.90	1.70	2.20	2.40	10.0	15.0
			330	30	1.3	●	●	●	1.45	1.60	2.05	2.45	8.0	13.0
			340	40	1.3	●	●	●	1.30	1.45	2.00	1.95	7.0	6.0 15.0
			348	48	1.3	●	●	●	1.20	1.10	2.00	1.55	6.0	12.0
			350	50	0.9	●	●	●	1.30	1.60	1.20	1.45	6.0	9.0
			354	54	0.9	●	●	●	1.15	1.55	2.00	2.10	5.0	9.0
			364	64	0.9	●	●	●	1.30	1.55	1.35	1.85	3.0	8.0

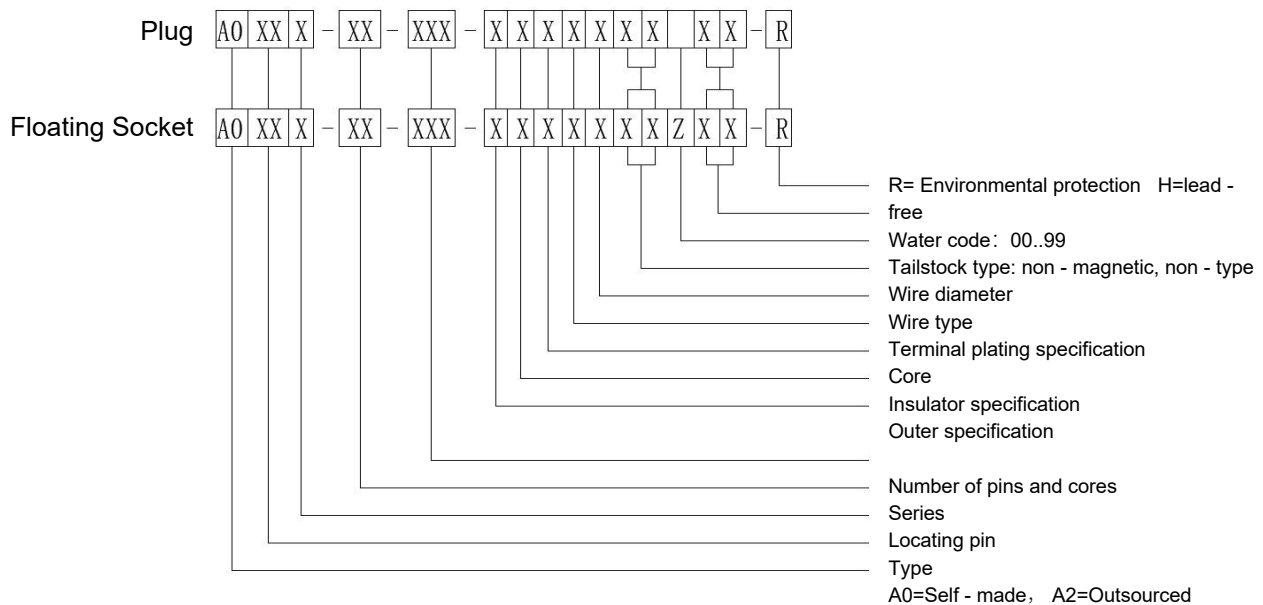
B Series

B series connectors provide the following main features:

- security of the Push-Pull self-latching system
- solder, crimp or print contacts (straight or elbow)
- 360° screening for full EMC shielding.
- multiple key options to avoid cross mating of similar connectors
- multipole types 2 to 64 contacts
- keying system («G» key standard)

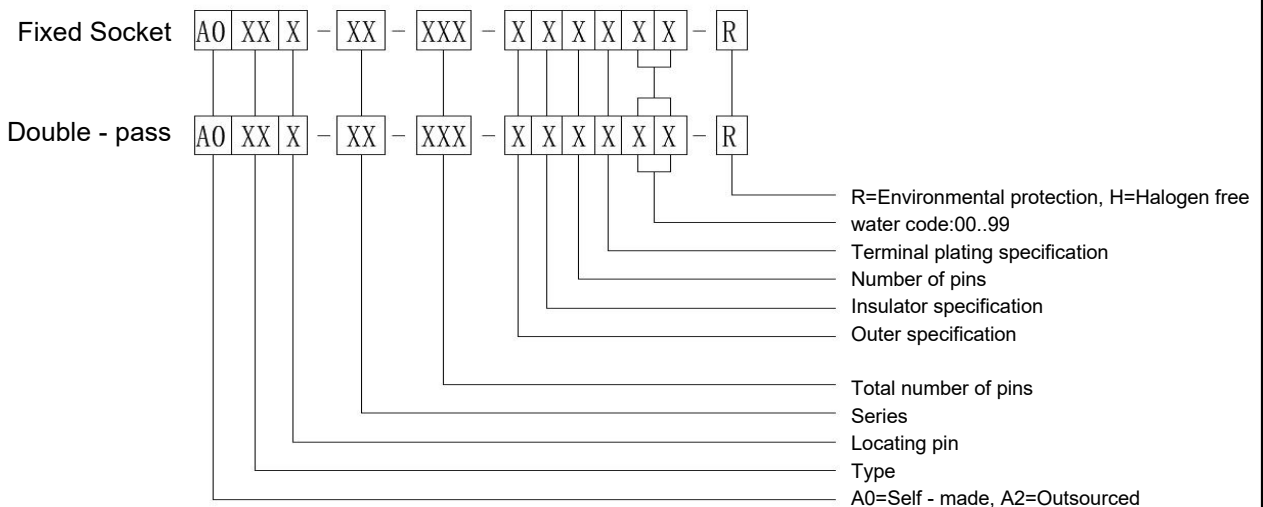


Part Numbering System



Example: Plug: A0DUG - 2B - 308 - CLL4D62Z00: Self - made (A0), straight - type plug (DU), locating pin (G), - 2B series, 8 - core, brass - plated shell, PEEK insulator, soldering - type male pin, terminal gold - plated 10U", wire type D, outgoing wire with 6.0mm, with protective sleeve - type tailstock, water code 00, meeting environmental protection requirements.

Floating socket: A0UGG - 2B - 308 - CLA4D6200: Self - made (A0), floating socket (UG), locating pin (G), - 2B series, 8 - core, brass - plated shell, PEEK insulator, soldering - type female pin, terminal gold - plated 10U", wire type D, outgoing wire with 6.0mm, without protective sleeve - type tailstock, water code 00, meeting environmental protection requirements.



Example: Fixed socket: A0WFG - 2B - 306 - CLL400: Self - made (A0), fixed socket (WF), locating pin (G), - 2B series, 6 - core, brass - plated shell, PEEK insulator, soldering - type female pin, terminal gold - plated 10U", water code 00, meeting environmental protection requirements.

Straight - type fixed double - pass: A0EHG - 2B - 306 - CLA400: Self - made (A0), straight - type fixed double - pass (EH), locating pin (G), - 2B series, 6 - core, brass - plated shell, PEEK insulator, soldering - type male pin, terminal gold - plated 10U", water code 00, meeting environmental protection requirements.

Metal Housing Models (B Size)

Technical Characteristics

Mechanical and Climatical

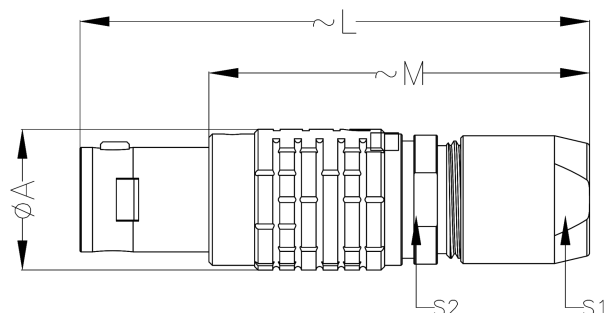
Characteristics	Value	Standard
Endurance	> 5000 cycles	IEC 60512-5 test 9a
Humidity	up to 95% at 60°C	
Temperature range	-55°C, + 250°C	
Resistance to vibrations	10-2000 Hz, 15g	IEC 60512-4 test 6d
Shock resistance	100 g, 6 ms	IEC 60512-4 test 6c
Salt spray corrosion test	> 1000h	IEC 60512-6 test 11f
Protection index (mated)	IP50	IEC 60529

Electrical

Characteristics		Value	Standard
Shielding efficiency	at 10 MHz	> 75 dB	IEC 60169-1-3
	at 1 GHz	> 40 dB	IEC 60169-1-3

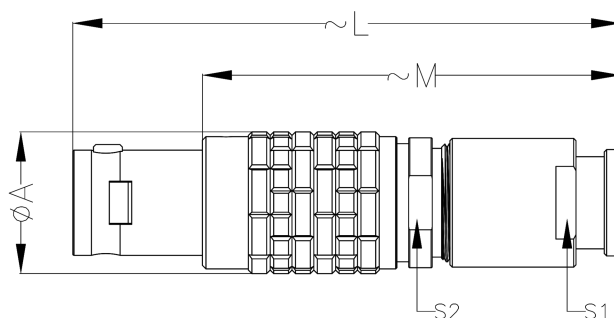
The various tests have been carried out with DFG and WDG connector,pairs, with chrome-plated brass shell and PEEK insulator.

DFG Straight plug, key (G) or keys (A...M and R), cable collet



Reference		Dimensions (mm)				
Model	Series	A	L	M	S1	S2
DF	0B	9.5	36	26	8	7
DF	1B	12	43	32	10	9
DF	2B	15	50	38	13	12
DF	3B	18	58	43	15	14

DFG Straight plug, key (G) or keys (A...M), cable collet and nut for fitting a bend relief

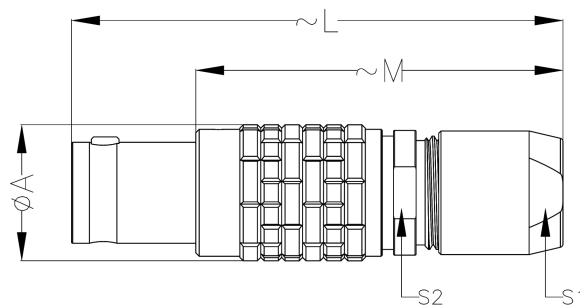


Reference		Dimensions (mm)				
Model	Series	A	L	M	S1	S2
DF	0B	9.5	36	26	8	7
DF	1B	12	43	32	10	9
DF	2B	15	50	38	13	12
DF	3B	18	58	43	15	14

* Ed: Add "Z" before the model serial number

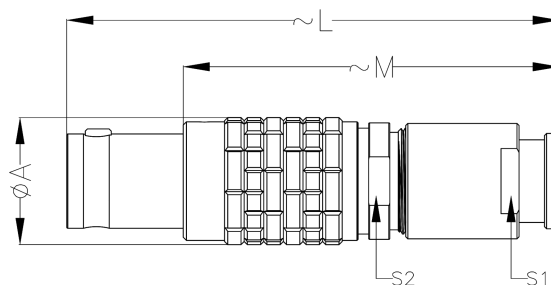
* If a sheath is needed, please specify separately

DDG Straight plug, non-latching, key (G) or keys (A...M), cable collet



Reference		Dimensions (mm)				
Model	Series	A	L	M	S1	S2
DD	0B	9.5	36	26	8	7
DD	1B	12	43	32	10	9
DD	2B	15	50	38	13	12
DD	3B	18	58	43	15	14

DDG Straight plug, non-latching, key (G) or keys (A...M), cable collet and nut for fitting a bend relief

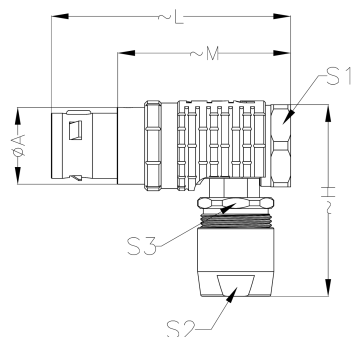


Reference		Dimensions (mm)				
Model	Series	A	L	M	S1	S2
DD	0B	9.5	36	26	8	7
DD	1B	12	43	32	10	9
DD	2B	15	50	38	13	12
DD	3B	18	58	43	15	14

* Ed: Add "Z" before the model serial number

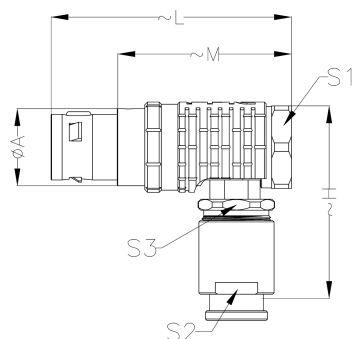
* If a sheath is needed, please specify separately

DUG Elbow (90°) plug, key (G) or keys (A...M and R), cable colle



Reference		Dimensions (mm)				
Model	Series	A	H	L	M	S1
DU	0B	10.5	23	30	20	8.0
DU	1B	13.5	27.0	38.0	30.0	12.0
DU	2B	16.5	30.0	43.5	35.5	15.0
DU	3B	21.5	37.0	50.0	35.0	17.0

DUG Straight plug, locator Key (G,A....M or R,cable clamp, sheaer-type nuts)

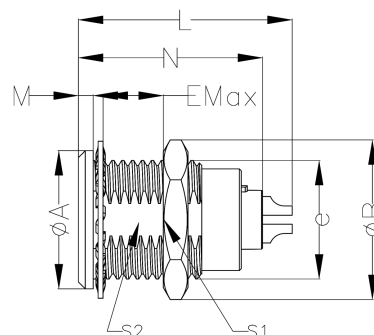
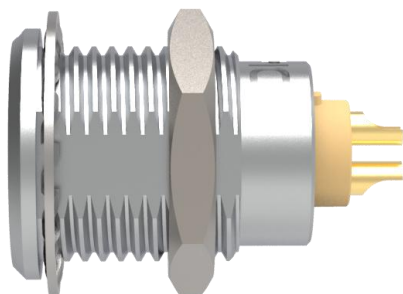


Reference		Dimensions (mm)				
Model	Series	A	H	L	M	S1
DU	0B	10.5	23	30	20	8.0
DU	1B	13.5	27.0	38.0	30.0	12.0
DU	2B	16.5	30.0	43.5	35.5	15.0
DU	3B	21.5	37.0	50.0	35.0	17.0

* Ed: Add "Z" before the model serial number

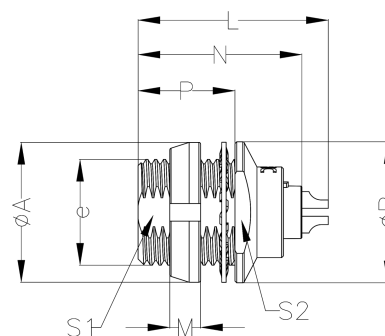
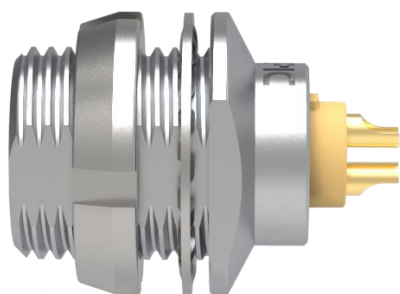
* If a sheath is needed, please specify separately

WFG Fixed socket, nut fixing, key (G) or keys (A...M and R)



Reference		Dimensions (mm)								
Model	Series	A	B	e	E	L	M	N	S1	S2
WF	0B	10	12.4	M9*0.6	7.0	20.7	1.2	19.1	8.2	11
WF	1B	14	15.8	M12*1.0	7.5	23.0	1.5	21.1	10.5	14
WF	2B	18	19.2	M15*1.0	8.5	26.7	1.8	24.6	13.5	17
WF	3B	22	25.0	M18*1.0	11.5	30.7	2.0	28.1	16.5	22

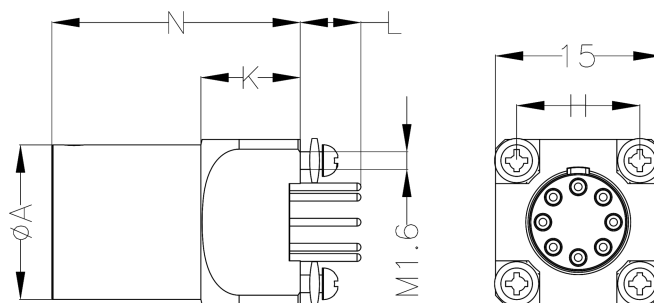
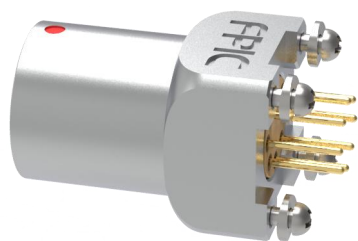
WWG Fixed socket, nut fixing, key (G) or keys (A...M and R)



Reference		Dimensions (mm)									
Model	Series	A	B	e	E	L	M	N	P	S1	S2
WF	0B	12	12.5	M9*0.6	2.4	20.7	2.5	19.1	6.3	8.2	9.0
WF	1B	16	16.0	M12*1.0	6.5	23.0	3.5	21.1	11.0	10.5	13.0
WF	2B	20	20.0	M15*1.0	4.3	26.7	3.5	24.6	9.0	13.5	15.0
WF	3B	24	25.0	M18*1.0	6.1	30.7	4.5	28.1	12.0	16.5	20.0

* See panel cutout dimensions on page 33.

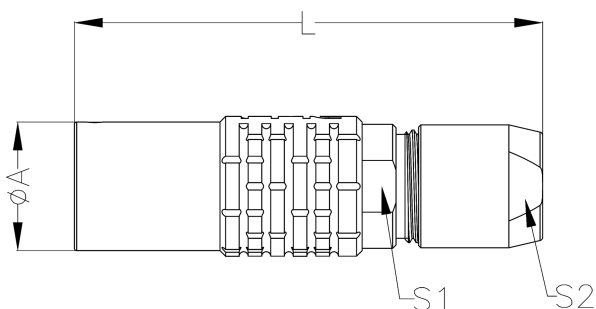
WCG Straight socket for printed circuit, key (G) or keys (A...F)



Reference		Dimensions (mm)				
Model	Series	A	B	H	K	N
WC	0B	9.0	10.0	7.62	8.0	15.0
WZ	1B	11.0	12.0	7.62	8.0	19.0
WZ	2B	14.0	15.0	10.16	9.0	22.5

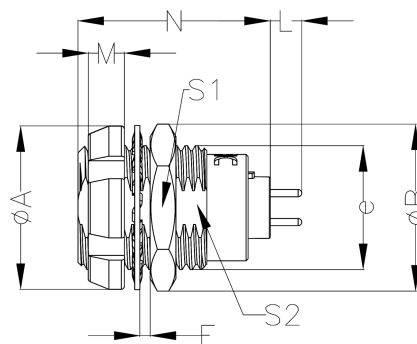
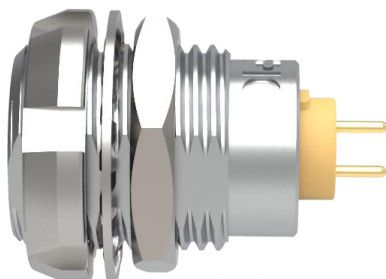
* Ed: Dimension "L" — see page 37.

UGG Free socket, key (G) or keys (A...M and R), cable collet



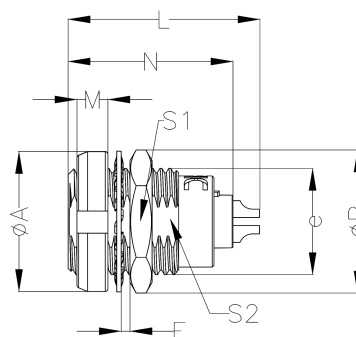
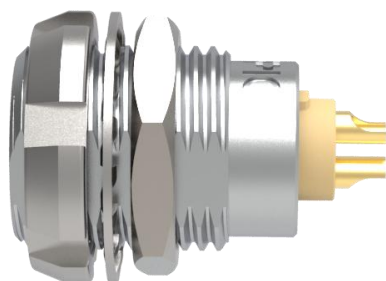
Reference		Dimensions (mm)			
Model	Series	A	L	S1	S2
UG	0B	9.5	35.5	8.0	7.0
UG	1B	12.5	40.5	10.0	9.0
UG	2B	16.5	47.0	13.0	12.0
UG	3B	19.0	56.0	15.0	14.0

WZG Fixed socket with two nuts, key (G) or keys (A...M and R)



Reference		Dimensions (mm)								
Model	Series	A	B	e	E	L	M	N	S1	S2
WZ	0B	12.0	12.4	M9*0.6	5.5	20.7	2.5	19.1	8.2	11.0
WZ	1B	16.0	15.8	M12*1.0	6.0	23.0	3.5	21.1	10.5	14.0
WZ	2B	20.0	19.2	M15*1.0	6.5	26.7	3.5	24.6	13.5	17.0
WZ	3B	24.0	25.0	M18*1.0	9.0	30.7	4.5	28.1	16.5	22.0

WZG Fixed socket with two nuts, key (G) or keys (A...F and R) and straight contact for printed circuit



Reference		Dimensions (mm)							
Model	Series	A	B	e	E	M	N	S1	S2
WZ	0B	12.0	12.4	M9*0.6	5.5	2.5	16.1	8.2	11.0
WZ	1B	16.0	15.8	M12*1.0	6.0	3.5	19.8	10.5	14.0
WZ	2B	20.0	19.2	M15*1.0	6.5	3.5	21.8	13.5	17.0
WZ	3B	24.0	25.0	M18*1.0	9.0	4.5	25.8	16.5	22.0

* Ed: Dimension "L" — see page 37.

* See panel cutout dimensions on page 33.

Alignment Key (B series)

Combination of Keying Pin and Polarization Pin

The shell model of B Series connectors consists of three letters, with the last letter indicating the keying pin position and pin type (male or female).

Front View of Socket	No.	Positioning Pin Quantity	Angle	Series			No.	Positioning Pin Quantity	Angle	Series					Pin Type		Note
				00	0B	1B				XB	2B	30	4B	5B	Plug	Socket	
	G	1	-	0°	0°	0	G	1	-	0°	0°	0°	0°	0°	Male	Female	●
	A	2	α	30°	30°	30	A	2	α	30°	30°	30°	30°	30°	Male	Female	●
	B	2	α	60°	60°	60	B	2	α	-	45°	45°	45°	45°	Male	Female	●
	C	2	α	-	90°	90	C	2	α	-	60°	60°	60°	60°	Male	Female	●
	D	2	β	-	135°	135	D	2	γ	-	95°	95°	95°	95°	Male	Female	●
	E	2	β	-	145°	145	E	2	β	120°	120°	120°	120°	120°	Male	Female	●
	F	2	β	-	155°	155	F	2	β	-	145°	145°	145°	145°	Male	Female	●
	J	2	γ	45°	45°	45	J	2	α	-	37.5°	37.5°	37.5°	37.5°	Male	Female	●
	K	2	γ	-	70°	70	K	2	α	-	52.5°	52.5°	52.5°	52.5°	Male	Female	●
	L	2	γ	-	80°	80	L	2	γ	-	70°	70°	70°	70°	Male	Female	●
	M	3	δ	-	110°	-	M	2	-	-	-	-	-	-	Male	Female	●
	Y	3	-	-	-	-	Y	3	β	-	112.5°	126°	112.5°	-	Male	Female	●
		-	-	-	-	-		3	γ	-	100°	102°	147.5°	-	Male	Female	●

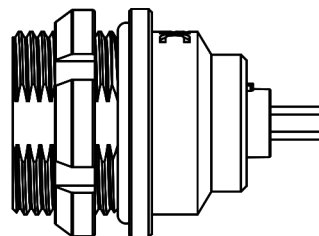
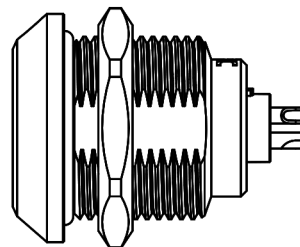
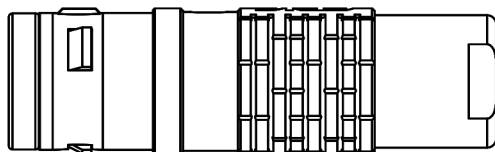
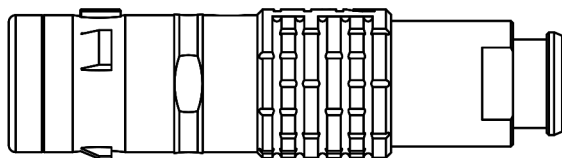
Front View of Socket	No.	Positioning Pin Quantity	Angle	Series			No.	Positioning Pin Quantity	Angle	Series					Pin Type		Note
				00	0B	1B				XB	2B	30	4B	5B	Plug	Socket	
	R	5	α	-	-	-	R	5	α	-	-	-	-	95°	Male	Female	●
		5	β	-	-	-		5	β	-	-	-	-	115°	Male	Female	●
		5	γ	-	-	-		5	γ	-	-	-	-	20°	Male	Female	●
		5	δ	-	-	-		5	δ	-	-	-	-	30°	Male	Female	●

K Series

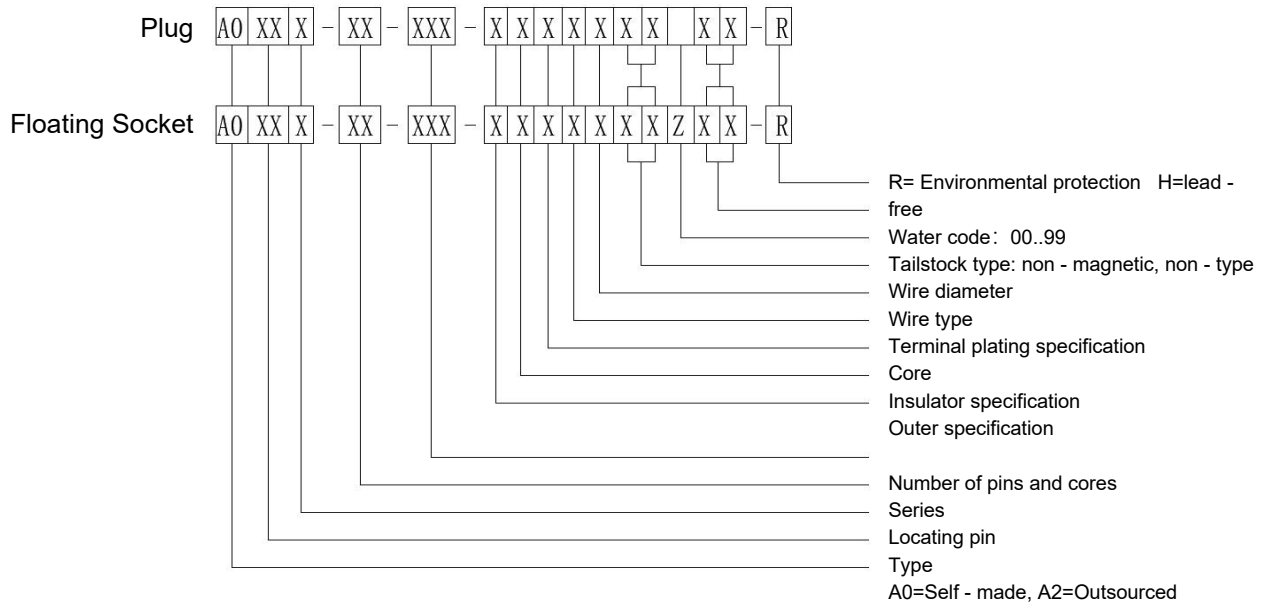
K series connectors have been specifically designed for outdoor applications. They include an inner sleeve and two seals to prevent penetration of solids or liquids into the housing formed by the plug, free socket, fixed socket or coupler. All models (except FXI model) of this series are watertight when mated to give a protection index of IP68 as per IEC 60529 standard (in mated condition) when correctly assembled to an appropriate cable (IP66 otherwise).

K series connectors have the same insulators as the B series and have the following main features:

- security of the Push-Pull latching system
- multipole types 2 to 64 contacts
- keying system («G» key standard) for connector alignment
- 360° screening for full EMC shielding
- rugged housing for extreme working conditions
- watertight connection (IP 68/IP 66)
- solder, crimp or print (straight or elbow) contacts
- multiple key options to avoid cross mating of similar connectors
- high packing density for space savings

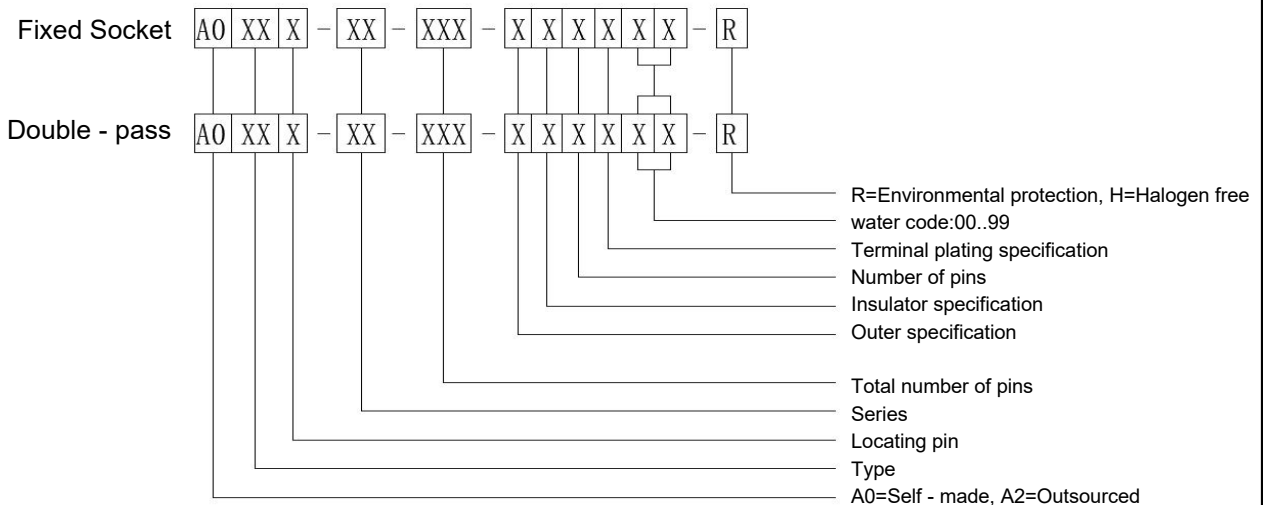


Part Numbering System



Example: Plug: A0DUG - 2B - 308 - CLL4D62Z00: Self - made (A0), straight - type plug (DU), locating pin (G), - 2B series, 8 - core, brass - plated shell, PEEK insulator, soldering - type male pin, terminal gold - plated 10U", wire type D, outgoing wire with 6.0mm, with protective sleeve - type tailstock, water code 00, meeting environmental protection requirements.

Floating socket: A0UGG - 2B - 308 - CLA4D6200: Self - made (A0), floating socket (UG), locating pin (G), - 2B series, 8 - core, brass - plated shell, PEEK insulator, soldering - type female pin, terminal gold - plated 10U", wire type D, outgoing wire with 6.0mm, without protective sleeve - type tailstock, water code 00, meeting environmental protection requirements.



Example: Fixed socket: A0WFG - 2B - 306 - CLL400: Self - made (A0), fixed socket (WF), locating pin (G), - 2B series, 6 - core, brass - plated shell, PEEK insulator, soldering - type female pin, terminal gold - plated 10U", water code 00, meeting environmental protection requirements.

Straight - type fixed double - pass: A0EHG - 2B - 306 - CLA400: Self - made (A0), straight - type fixed double - pass (EH), locating pin (G), - 2B series, 6 - core, brass - plated shell, PEEK insulator, soldering - type male pin, terminal gold - plated 10U", water code 00, meeting environmental protection requirements.

Metal Housing Models (K Size)

Technical Characteristics

Mechanical and Climatical

Characteristics	Value	Standard
Endurance	> 5000 cycles	IEC 60512-5 test 9a
Humidity	up to 95% at 60°C	
Temperature range	-55°C, + 250°C	
Resistance to vibrations	10-2000 Hz, 15g	IEC 60512-4 test 6d
Shock resistance	100 g, 6 ms	IEC 60512-4 test 6c
Salt spray corrosion test	> 1000h	IEC 60512-6 test 11f
Protection index (mated)	IP50	IEC 60529

Electrical

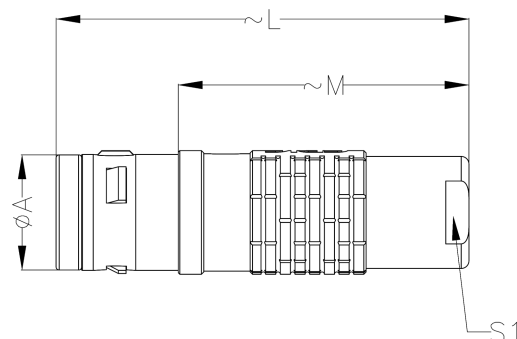
Characteristics		Value	Standard
Shielding efficiency	at 10 MHz	> 75 dB	IEC 60169-1-3
	at 1 GHz	> 40 dB	IEC 60169-1-3

Note:

the various tests have been carried out with DFG and WFG connector,pairs, with chrome-plated brass shell, PEEK insulator and silicone O-ring.

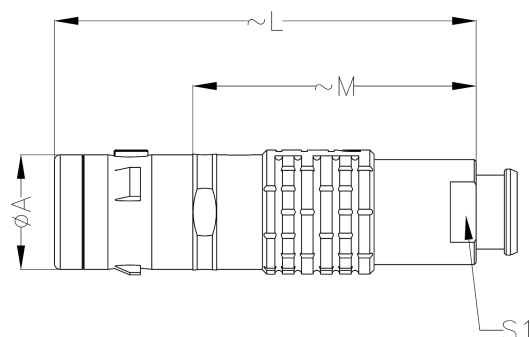
- 1.minimum operating temperature is -20°C for sockets fitted with an FPM,(Viton®) O-ring.
2. IP68 achieved providing that the cable is perfectly circular and that,assembly process

DFG Straight plug, key (G) or keys (A to F, L and R), cable collet



Reference		Dimensions (mm)			
Model	Series	A	L	M	S1
DF	0K	11.0	23.0	23.0	8.0
DF	1K	13.0	28.0	28.0	9.0
DF	2K	16.0	36.0	36.0	12.0
DF	3K	19.0	41.0	40.0	15.0

DFG Straight plug, key (G) or keys (A to F, L and R), cable collet and nut for fitting a bend relief

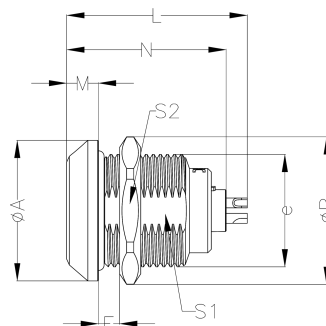
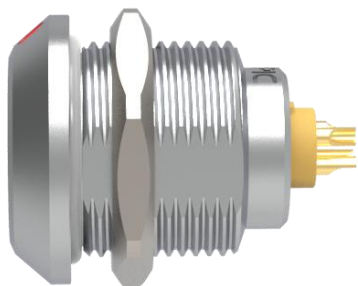


Reference		Dimensions (mm)			
Model	Series	A	L	M	S1
DF	0K	11.0	34.0	23.0	7.0
DF	1K	13.0	42.0	28.0	9.0
DF	2K	16.0	52.0	36.0	12.0
DF	3K	19.0	60.0	40.0	15.0

* Ed: Add "Z" before the model serial number

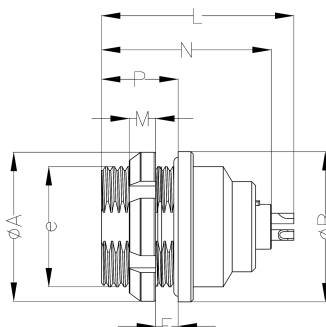
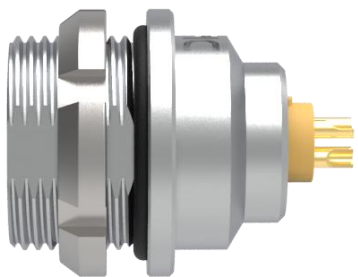
* If a sheath is needed, please specify separately

WFG Fixed socket, nut fixing, key (G) or keys (A to F, L and R)



Reference		Dimensions (mm)								
Model	Series	A	B	e	E	L	M	N	S1	S2
WF	0K	18.0	19.2	M14*1.0	6.0	21.7	4.0	20.1	12.5	17.0
WF	1K	20.0	21.5	M16*1.0	9.0	27.0	4.5	25.1	14.5	19.0
WF	2K	25.0	27.0	M20*1.0	9.0	30.7	5.0	28.6	18.5	24.0
WF	3K	31.0	34.0	M24*1.0	11.0	36.2	6.0	33.6	22.5	30.0

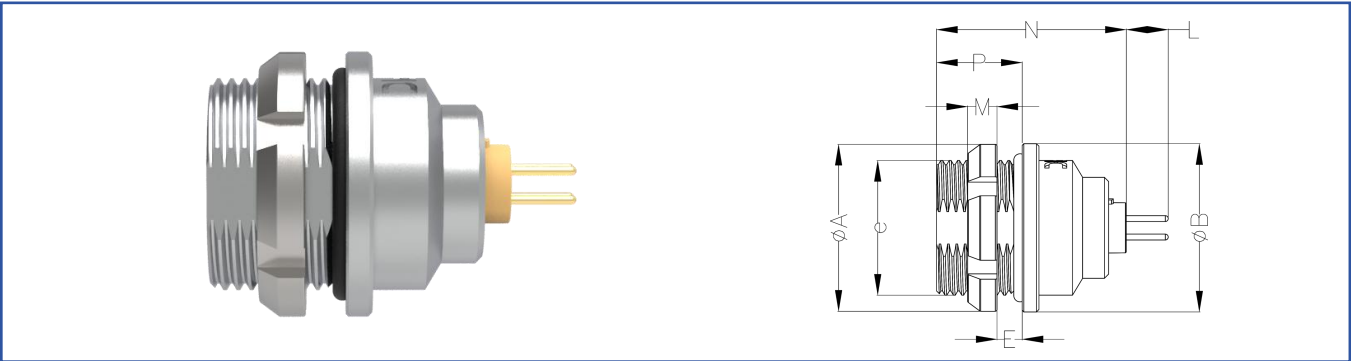
WWG Fixed socket, nut fixing, key (G) or keys (A to F, L and R) (back panel mounting)



Reference		Dimensions (mm)								
Model	Series	A	B	e	E	L	M	N	P	S2
WW	0K	18.0	18.0	M14*1.0	3.4	21.7	3.5	20.1	7.0	12.5
WW	1K	20.0	20.0	M16*1.0	6.2	27.0	3.5	25.1	10.0	14.5
WW	2K	25.0	25.0	M20*1.0	5.0	30.7	3.5	28.6	10.0	18.5
WW	3K	30.0	31.0	M24*1.0	7.5	36.2	4.5	33.6	12.0	22.5

* Ed: See panel cutout dimensions on page 33.

WWG Fixed socket, nut fixing, key (G) or keys (A to F and R) with straight print contacts for printed circuit



Reference		Dimensions (mm)							
Model	Series	A	B	e	E	M	N	P	S2
WW	0K	18.0	18.0	M14*1.0	3.4	3.5	17.6	7.0	12.5
WW	1K	20.0	20.0	M16*1.0	6.2	3.5	23.8	10.0	14.5
WW	2K	25.0	25.0	M20*1.0	5.0	3.5	25.8	10.0	18.5
WW	3K	30.0	31.0	M24*1.0	7.5	4.5	31.3	12.0	22.5

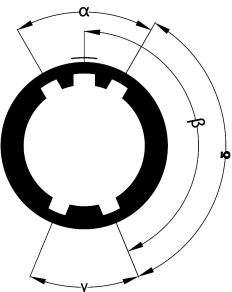
* Ed:“L” dimension — see page 37.

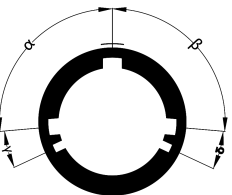
* Panel cutout dimensions — see page 33.

Alignment Key (K series)

Combination of Keying Pin and Polarization Pin

The shell model of the K Series connectors consists of three letters, with the last letter indicating the keying pin position and the pin type (male or female).

Front View of the Socket	No.	Positioning Pin Quantity	Angle	Series						Pin Type		Note
				0K	1K	2K	3K	4K	5K	Plug	Socket	
	G	1	-	0°	0°	0°	0°	0°	0°	Male	Female	●
	A	2	α	30°	30°	30°	30°	30°	30°	Male	Female	●
	B	2	α	45°	45°	45°	45°	45°	45°	Male	Female	●
	C	2	α	60°	60°	60°	60°	60°	60°	Male	Female	●
	D	2	β	95°	95°	95°	95°	95°	95°	Male	Female	●
	E	2	β	120°	120°	120°	120°	120°	120°	Male	Female	●
	F	2	β	145°	145°	145°	145°	145°	145°	Male	Female	●
	J	2	γ	75°	75°	75°	75°	75°	75°	Male	Female	●

Front View of the Socket	No.	Positioning Pin Quantity	Angle	Series						Pin Type		Note
				0K	1K	2K	3K	4K	5K	Plug	Socket	
	R	5	α	-	-	-	95°	-	-	Male	Female	●
		5	β	-	-	-	115°	-	-	Male	Female	●
		5	γ	-	-	-	35°	-	-	Male	Female	●
		5	δ	-	-	-	25°	-	-	Male	Female	●

Notes:

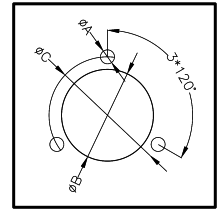
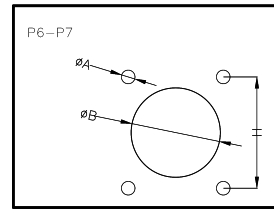
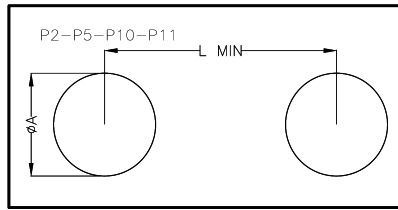
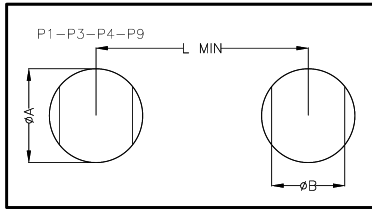
Models S and TGL are not compatible with all keying pin positions.

Model S- — see explanation on page 48.

Please refer to the corresponding pages for these models.

● Standard models — recommended for general selection.

● Special models — choose when specific requirements apply.



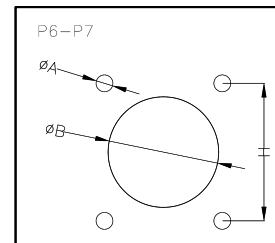
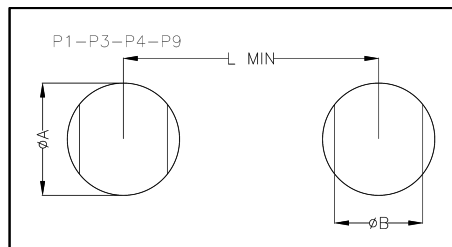
B and T Series

Series	P1			P2		P3			P4			P5		P6			P8			P9			P10	
	ØA	B	L	ØA	L	ØA	B	L	ØA	B	L	ØA	L	ØA	B	H	ØA	B	C	ØA	B	L	ØA	L
00-TT	7.1	6.4	12.5	7.1	11.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7.1	-	12	-	-
0B-0T	9.1	8.3	14.5	9.1	13.5	14.1	12.6	20.1	10.1	9.1	15.0	8.30	10.5	-	-	-	-	-	-	9.1	8.3	15	-	-
1B-1T	12.1	10.6	18.5	-	-	16.1	14.6	22.0	14.1	12.6	21.0	11.17	14.0	-	-	-	-	-	-	12.1	10.6	19	11.1	17
XB	14.1	12.6	21.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2B-2T	15.1	13.6	22.5	-	-	19.2	17.1	28.0	16.1	15.1	23.0	13.95	18.0	-	-	-	-	-	-	15.1	13.6	23	-	-
3B-3T	18.2	16.6	27.0	-	-	-	-	-	20.2	18.6	29.5	-	-	-	-	-	-	-	-	18.2	16.6	27	-	-
4B	25.2	23.8	38.0	-	-	-	-	-	25.2	23.6	36.1	-	-	-	-	-	-	-	-	25.2	23.6	36	-	-
5B	35.2	33.6	44.0	-	-	-	-	-	35.2	33.6	47.1	-	-	3.3	35.2	34	2.8	35.2	47	35.2	33.6	47	-	-

Notes:

1) When using a conical nut (GBB), the opening size is: 00-TT: Ø7.6 mm / 0B-0T: Ø9.6 mm / 1B-1T: Ø12.6 mm / 2B-2T: Ø15.7 mm / 3B-3T: Ø18.8 mm / 4B: Ø26 mm / 5B: Ø36 mm.

2) T: 0/+0.02



K Series

Series	P1			P6			P7		
	ØA	B	L	ØA	B	H	ØA	B	H
0K	14.1	12.6	20.5	-	-	-	-	-	-
1K	16.1	14.6	22.5	-	-	-	-	-	-
2K	20.2	18.6	29.0	-	-	-	-	-	-
3K	24.2	22.6	35.5	3.5	22.6	20.6	3.5	2301	23.0
4K	30.2	28.6	43.0	3.5	28.6	27.0	3.5	30.1	29.0
5K	45.2	42.6	57.0	4.5	42.6	38.0	3=4.5	45.1	44.0

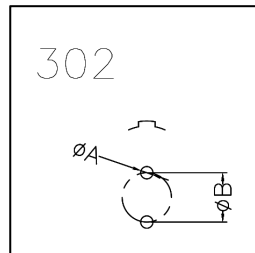
Nut Tightening Torque

Series	Torque (Nm)
0K	5
1K	7
2K	9
3K	12
4K	17
5K	22

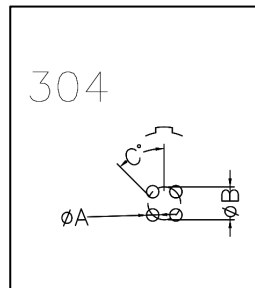
1 N = 0.102 kg

PCB Drilling Parameters

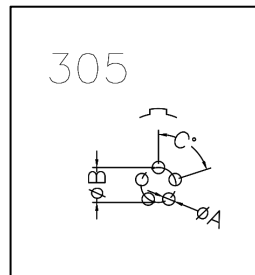
Fixed Sockets with Straight PCB Pins (B, K, T Series)



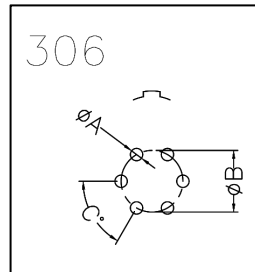
Series	Dimension	
	A	B
00-TT	0.6	1.2
0B-0K-0T	0.8	2.2
1B-1K-1T	0.8	2.8
2B-2K-2T	0.8	4.4



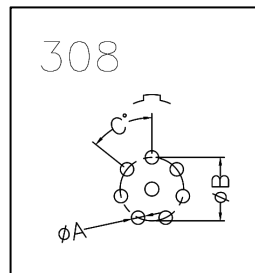
Series	Dimension		
	A	B	C
00-TT	0.6	1.2	45°
0B-0K-0T	0.8	2.2	45°
1B-1K-1T	0.8	2.8	45°
2B-2K-2T	0.8	4.4	45°
3B-3K-3T	0.8	6.2	45°



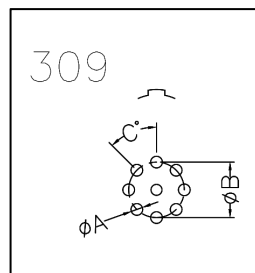
Series	Dimension		
	A	B	C
0B-0K-0T	0.6	2.8	72°
1B-1K-1T	0.8	3.4	72°
2B-2K-2T	0.8	5.2	72°
3B-3K-3T	0.8	6.7	72°



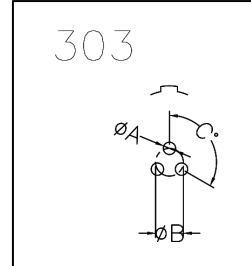
Series	Dimension		
	A	B	C
2B-2K-2T	0.8	5.6	72°
3B-3K-3T	7.1	6.7	72°



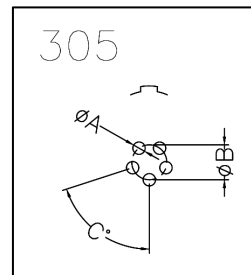
Series	Dimension		
	A	B	C
1B-1K-1T	0.8	3.8	51° 26'



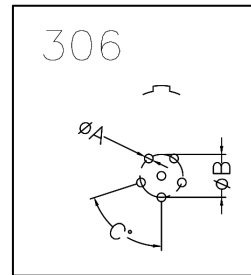
Series	Dimension		
	A	B	C
0B-0K-0T	0.6	3.2	45°
3B-3K-3T	0.8	7.5	45°



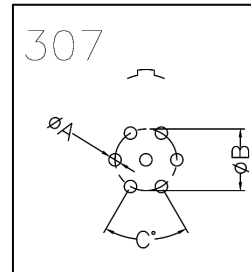
Series	Dimension		
	A	B	C
00-TT	0.6	1.35	120°
0B-0K-0T	0.8	2.30	120°
1B-1K-1T	0.8	3.00	120°
2B-2K-2T	0.8	4.60	120°
3B-3K-3T	0.8	5.60	120°



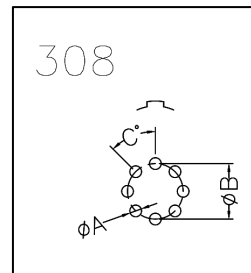
Series	Dimension		
	A	B	C
00-TT	0.6	1.7	72°



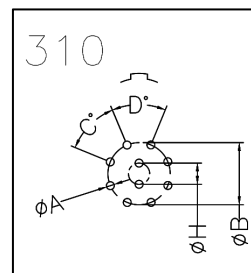
Series	Dimension		
	A	B	C
0B-0K-0T	0.8	3.0	60°
1B-1K-1T	0.8	3.7	60°



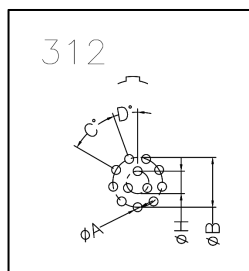
Series	Dimension		
	A	B	C
0B-0K-0T	0.6	3.00	60°
1B-1K-1T	0.8	3.70	60°
2B-2K-2T	0.8	5.80	60°
3B-3K-3T	0.8	7.08	60°



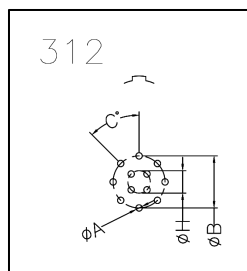
Series	Dimension		
	A	B	C
2B-2K-2T	0.8	6.4	45°
3B-3K-3T	0.8	7.5	45°



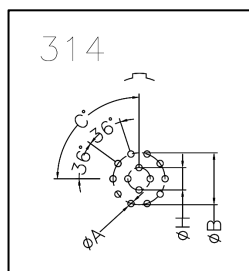
Series	Dimension				
	A	B	C	D	H
1B-1K-1T	0.6	3.95	45°	22°30'	1.40
2B-2K-2T	0.8	6.30	45°	22°30'	2.15
3B-3K-3T	0.8	7.90	45°	22°30'	2.80



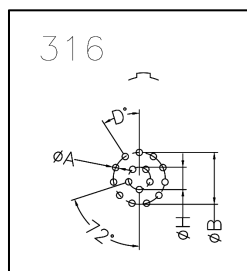
Series	Dimension				
	A	B	C	D	H
00-TT	0.5	3.3	40°	20°	1.25



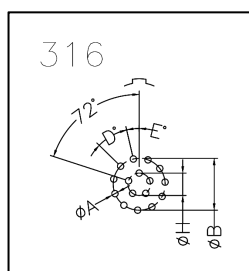
Series	Dimension				
	A	B	C	D	H
2B-2K-2T	0.8	6.50	45°	22°30'	2.80
3B-3K-3T	0.8	8.20	45°	22°30'	3.40



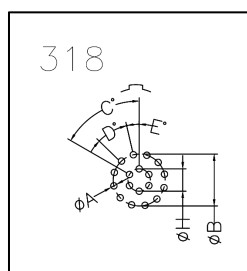
Series	Dimension			
	A	B	C	H
1B-1K-1T	0.8	4.4	90°	1.90
2B-2K-2T	0.8	6.5	90°	2.65
3B-3K-3T	0.8	8.2	90°	3.40



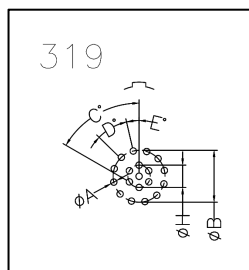
Series	Dimension			
	A	B	C	H
1B-1K-1T	0.6	4.4	32°44'	2.00



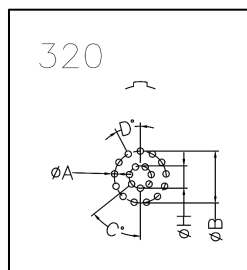
Series	Dimension				
	A	B	D	E	H
2B-2K-2T	0.8	6.4	32°44'	16°22'	3.10
3B-3K-3T	0.8	8.4	32°44'	16°22'	3.86
4B-4K	0.8	10.5	32°44'	16°22'	5.00



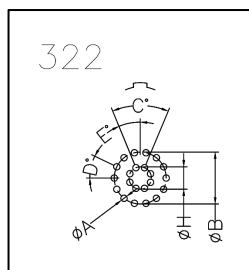
Series	Dimension					
	A	B	C	D	E	H
2B-2K-2T	0.8	6.7	60°	30°	15°	3.50
3B-3K-3T	0.8	8.4	60°	30°	15°	4.34



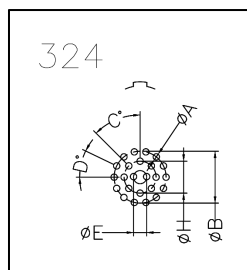
Series	Dimension					
	A	B	C	D	E	H
2B-2K-2T	0.8	6.7	60°	30°	15°	3.5



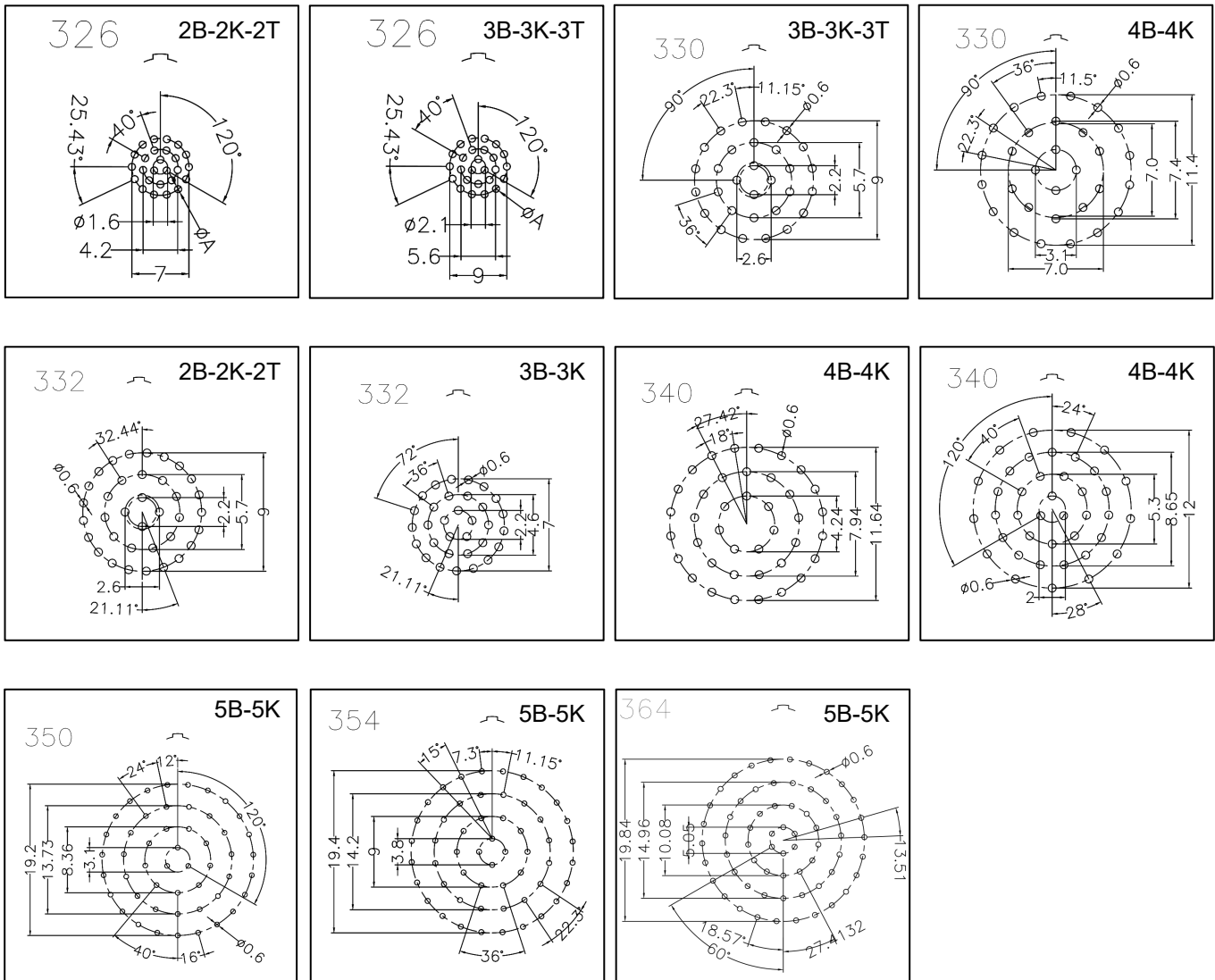
Series	Dimension				
	A	B	C	D	H
3B-3K-3T	0.6	8.62	51°26'	27°42'	4.78
4B-4K	0.6	11.00	51°26'	27°42'	6.00



Series	Dimension				
	A	B	C	D	H
XB	0.6	5.7	25°42'	12°51'	3.1



Series	Dimension				
	A	B	C	D	H
3B-3K-3T	0.6	8.8	45°	25°43'	1.8 5.30
4B-4K	0.6	11.1	45°	25°43'	2.2 6.65



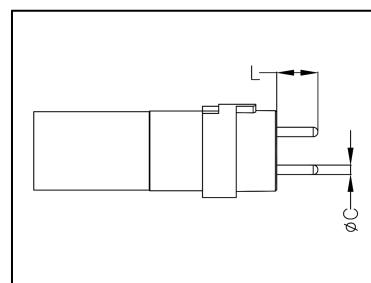
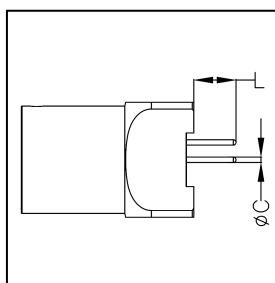
Note: All views are shown from the socket side.

Length of Straight PCB-Mount Pin

	Type	Dimension	
		∅C	L
00 TT	302/303/304	0.5	3.0
	302/303	0.7	3.2
	304/305/306/307/309	0.5	3.2
	312	0.4	3.0
0B 0K 0T	302/303/304/305/306/307/308	0.7	3.0
	310/314/316	0.5	4.0
1B 1K 1T	312	0.7	3.0
	322	0.5	3.0
XB	302/303/304/305/306/307 308/310/312/314/316/318/319	0.7	3.0
	326/332	0.5	3.0
2B 2K 2T	303/304/305/306/307/308/309 310/312/314/316/318	0.7	3.0
	320/322/324/326/330/332	0.5	5.0
4B 4K	316/320/324/330/340/348	0.5	5.0
5B 5K	348	0.7	5.0
	350/354/364	0.5	5.0

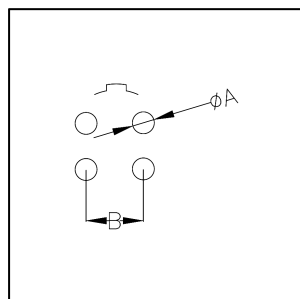
Length of Straight PCB-Mount Pin

	Type	Dimension			
		EZG/EYG		XPF	
		∅C	L	∅C	L
0B	302/303	0.7	4.5	-	-
	304/305	0.5	4.5	0.7	3.0
	306/307/309	0.5	3.0	-	-
1B	302/303/304/305/306/307/308	0.7	3.8	-	-
	310/314/316	0.5	3.8	-	-
2B	302/303/304/305/306/307/308 310/312/314/316/318/319	0.7	5.5	-	-

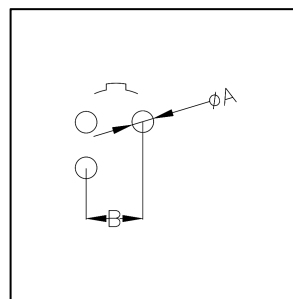


Fixed Sockets for Printed Circuit Boards (B Series)

Opening for Shell Fixation



Series	Dimension	
	A	B
00	0.8 ¹⁾	5.08
0B	1.7 ¹⁾	7.62
1B	1.7 ¹⁾	7.62
2B	1.7 ¹⁾	10.16



Series	Dimension	
	A	B
0B	1.7	5.08

Note: Screw tightening torque: 0.1 Nm

¹⁾Soldered fixation ²⁾Screw fixation

Technical Parameters Table

American Wire Gauge (AWG) Table

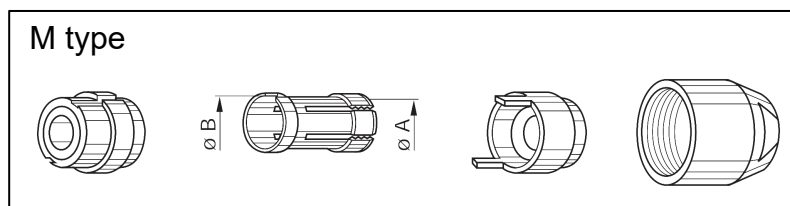
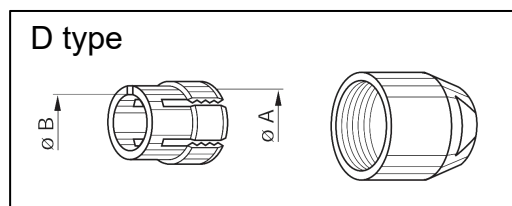
AWG	Structure		Maximum Outer Diameter of Conductor		Conductor Cross-Sectional Area	
	Stranded Conductor Quantity	Conductor AWG	(mm)	(in)	(mm²)	(sq in)
0	259	24	11.277	0.444	52.90	0.0820
1	817	30	9.702	0.382	41.40	0.0641
2	259	26	8.89	0.35	33.20	0.0514
4	133	25	6.9596	0.274	21.5925	0.0335
6	168	27	5.5118	0.217	13.5885	0.0211
8	133	30	4.4450	0.175	8.5127	0.0132
8	133	29	4.3942	0.173	8.6053	0.0133
10	105	30	3.3020	0.13	5.3204	0.0082
10	37	26	2.9210	0.115	4.7397	0.0073
10	1	10	2.6162	0.103	5.2614	0.0082
12	37	28	2.3114	0.091	2.9765	0.0046
12	19	25	2.3622	0.093	3.0847	0.0048
12 ¹⁾	7	20	2.5400	0.10	3.6321	0.0056
12	1	12	2.0828	0.082	3.3081	0.0051
14	41	30	2.0574	0.081	2.0775	0.0032
14	19	27	1.8542	0.073	1.9413	0.0030
14 ¹⁾	7	22	2.0828	0.082	2.2704	0.0035
14	1	14	1.6510	0.065	2.0820	0.0032
16 ¹⁾	65	34	1.5748	0.062	1.3072	0.0020
16	26	30	1.5748	0.062	1.3174	0.0020
16	19	29	1.4986	0.059	1.2293	0.0019
16 ¹⁾	7	24	1.5494	0.061	1.4330	0.0022
16	1	16	1.3208	0.052	1.3076	0.0020
18 ¹⁾	65	36	1.2700	0.05	0.8234	0.0013
18 ¹⁾	42	34	1.2700	0.05	0.8447	0.0013
18	19	30	1.3208	0.052	0.9627	0.0015
18	16	30	1.2954	0.051	0.8107	0.0013
18	7	26	1.2700	0.05	0.8967	0.0014
18	1	18	1.0414	0.041	0.8229	0.0013

AWG	Structure		Maximum Outer Diameter of Conductor		Conductor Cross-Sectional Area	
	Stranded Conductor Quantity	Conductor AWG	(mm)	(in)	(mm²)	(sq in)
20 ¹⁾	42	36	1.0160	0.04	0.5320	8.2x10 ⁻⁴
20	19	32	1.0414	0.041	0.6162	0.0010
20	10	30	1.0160	0.04	0.5067	7.9x10 ⁻⁴
20	7	28	0.9906	0.039	0.5631	8.7x10 ⁻⁴
20	1	20	0.8382	0.033	0.5189	8.0x10 ⁻⁴
22	19	34	0.8382	0.033	0.3821	5.9x10 ⁻⁴
22	7	30	0.7874	0.031	0.3547	5.5x10 ⁻⁴
22	1	22	0.6604	0.026	0.3243	5.0x10 ⁻⁴
24 ¹⁾	42	40	0.6604	0.026	0.2045	3.2x10 ⁻⁴
24	19	36	0.6858	0.027	0.2407	3.7x10 ⁻⁴
24	7	32	0.6350	0.025	0.2270	3.5x10 ⁻⁴
24	1	24	0.5588	0.022	0.2047	3.2x10 ⁻⁴
26	19	38	0.5588	0.022	0.1540	2.4x10 ⁻⁴
26	7	34	0.5080	0.02	0.1408	2.2x10 ⁻⁴
26	1	26	0.4318	0.017	0.1281	2.0x10 ⁻⁴
28 ¹⁾	19	40	0.4318	0.017	0.0925	1.4x10 ⁻⁴
28	7	36	0.4064	0.016	0.0887	1.4x10 ⁻⁴
28	1	28	0.3302	0.013	0.0804	1.2x10 ⁻⁴
30	7	38	0.3302	0.013	0.0568	8.8x10 ⁻⁵
30	1	30	0.2794	0.011	0.0507	7.9x10 ⁻⁵
32	7	40	0.2794	0.011	0.0341	5.3x10 ⁻⁵
32	1	32	0.2286	0.009	0.0324	5.0x10 ⁻⁵
34	1	34	0.1693	0.007	0.0201	3.1x10 ⁻⁵
36	1	36	0.127	0.005	0.0127	2.0x10 ⁻⁵
38	1	38	0.1016	0.004	0.0081	1.3x10 ⁻⁵
40	1	40	0.078	0.003	0.0049	7.5x10 ⁻⁵

Note: 1) not included in the standard.

Collets (B, K and T Series)

D and M type collets for B series



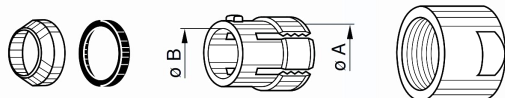
	Reference		Collet ø		Cable ø		Notes
	Type	Code	ØA	ØB	max.	min.	
00	D	22	2.2	-	2.2	1.4	
	D	27	2.7	-	2.7	> 2.2	
	D	35	3.5	2.6	3.5	> 2.7	8) 9)
0B	D	22	2.1	-	2.2	1.4	2)
	D	32	3.2	-	3.2	> 2.2	
	D	42	4.2	-	4.2	> 3.2	
	D	52	5.2	4.7	5.2	> 4.2	8) 9)
	D	56	5.6	4.7	5.6	> 5.2	1) 8) 9)
1B	M	27	2.7	-	2.7	> 2.2	
	M	32	3.1	-	3.1	> 2.7	
	D	42	4.2	-	4.2	3.1	
	D	52	5.2	-	5.2	> 4.2	
	D	62	6.2	-	6.2	> 5.2	9)
	D	72	7.2	6.2	7.2	> 6.2	8) 9)
	D	76	7.6	6.9	7.6	> 7.2	1) 8) 9)
XB	D	52	5.2	7.2	5.0	4.4	
	D	62	6.2	7.2	6.0	5.4	
	D	72	7.2	7.2	7.0	6.4	
	D	82	8.2	7.2	8.0	7.4	1)
2B	M	21	2.1	-	2.2	1.4	3)
	M	32	3.1	-	3.2	> 2.2	3)
	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	9)
	D	92	9.2	8.6	9.2	> 8.2	8) 9)
	D	99	9.9	8.6	9.9	> 9.2	1) 8) 9)

	Reference		Collet ø		Cable ø		Notes
	Type	Code	ØA	ØB	max.	min.	
3B	M	52	5.2	-	5.2	> 4.2	4)
	D	62	6.2	-	6.2	4.9	
	D	72	7.7	-	7.7	> 6.2	
	D	92	9.2	-	9.2	> 7.7	10)
	D	10	10.2	-	10.0	> 9.2	10)
	D	11	11.0	-	11.0	> 10.0	10)
	D	12	12.0	10.2	12.0	> 11.0	1) 8) 10)
	D	12	12.0	10.2	12.0	> 11.0	1) 8) 10)
4B	M	62	6.2	-	6.2	> 5.2	5)
	M	72	7.2	-	7.2	> 6.2	5)
	M	82	8.2	-	8.2	> 7.2	5)
	M	92	9.2	8.6	9.2	> 8.2	6)
	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	10)
	D	15	15.3	12.5	15.0	13.6	7) 10)
	D	16	16.3	12.5	16.0	15.1	1) 10)
	D	11	11.8	-	11.5	9.6	
5B	D	13	13.8	-	13.5	11.6	
	D	15	15.8	-	15.5	13.6	7)
	D	17	17.8	-	17.5	15.6	1)
	D	19	19.8	-	19.5	17.6	1)
	D	21	21.8	-	21.5	19.6	1) 10)
	D	23	23.8	21.8	23.5	21.6	1) 10)
	D	25	25.3	21.8	25.0	23.6	1) 10)

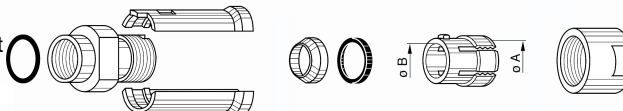
Collets (B, K and T Series)

C and K type collets for K series

D type



K type

 oversize
cable collet


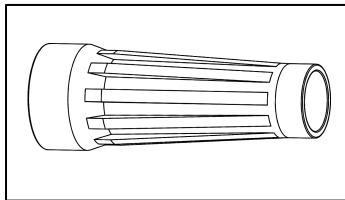
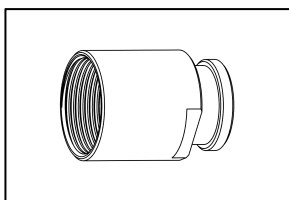
	Reference		Collet Ø		Cable Ø		Notes
	Type	Code	ØA	ØB	max.	min.	
0K	C	10	1.6	-	1.2	1.0	¹⁾
	C	15	1.6	-	1.5	1.3	¹⁾
	C	20	2.1	-	2.0	1.6	¹⁾
	C	25	3.1	-	2.5	2.1	
	C	30	3.1	-	3.0	2.6	
	C	25	4.2	4.2	3.5	3.1	
	C	40	4.2	4.2	4.0	3.6	
	C	45	5.2	5.2	4.5	4.1	
	C	20	5.2	5.2	5.0	4.6	
	C	15	1.6	-	1.5	1.3	
1K	C	20	2.2	-	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	
	C	70	7.2	-	7.0	6.6	³⁾
	C	75	8.2	8.2	7.5	7.1	³⁾
	C	80	8.2	8.2	8.0	7.6	³⁾
	C	85	9.2	8.6	8.5	8.1	³⁾
	C	15	2.2	-	1.5	1.3	
2K	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	

	Reference		Collet Ø		Cable Ø		Notes
	Type	Code	ØA	ØB	max.	min.	
2K	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	⁴⁾
	K	95	10.2	10.2	9.5	9.1	⁴⁾
	K	10	10.2	10.2	10.0	9.6	⁴⁾
	K	11	11.2	10.6	10.5	10.1	⁴⁾
	C	30	3.2	-	3.0	2.6	
	C	35	4.2	-	3.5	3.1	
3K	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	
	C	11	12.3	-	12.0	10.6	⁵⁾
	K	12	13.8	13.8	12.8	12.1	⁵⁾
	K	13	13.8	13.8	13.5	12.9	⁵⁾
	K	14	15.3	15.3	14.0	13.6	⁵⁾
	K	15	15.3	15.3	15.0	14.1	²⁾

Collets (B, K and T Series)

Bend relief for B series models with collet

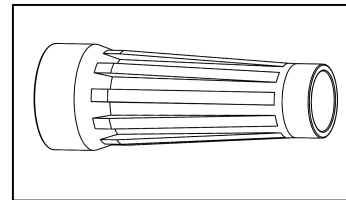
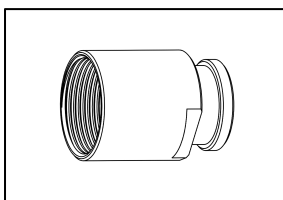
Need to be ordered



	Ref.	Collet		Need to be ordered separately (see pages 145 and 146)
		Type	Code	
00	Z	D	22 to 35	GMA.00.●●●●●● GMB.00.●●●●●●
0B	Z	D	22 to 52	GMA.0B.●●●●●●
1B	Z	M	27 and 31	GMA.1B.●●●●●●
		D	42 to 72	GMA.1B.●●●●●●
XB	Z	D	52 to 72	GMA.1B.●●●●●●
2B	Z	M	21 and 32	GMA.0B.●●●●●●
		D	42 to 92	GMA.2B.●●●●●●
3B	Z	M	52	GMA.1B.●●●●●●
		D	62 to 10	GMA.3B.●●●●●●
4B	Z	M	62 to 82	GMA.2B.●●●●●●
		M	92	GMA.4B.●●●●●●
		D	10 to 15 ¹⁾	GMA.4B.●●●●●●
5B	Z	D	11 to 15 ¹⁾	GMA.4B.●●●●●●

Bend relief for B series models with collet

Need to be ordered



	Ref.	Collet		Need to be ordered separately (see pages 145 and 146)
		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.●●●●●●
3K	Z	C	30 to 10	GMA.3B.●●●●●●
		K	11 to 15 2)	GMA.4B.●●●●●●
4K	Z	C	50 to 15 3)	GMA.4B.●●●●●●
5K	Z	C	10 to 14	GMA.4B.●●●●●●

Colour of the bridge plug shells and connectors shell made of plastic material and aluminium alloys

Ref.	Colour	Bridge plug and plastic shell			Aluminium alloys	
		PSU	PPSU	PA.6	Anodized colour	Anodized colour for bend relief collet nut
A	blue				●	
B	white	●		●		
G	grey	●		●		
J	yellow				●	
M	brown			●		
N	black			●	●	
R	red			●	●	
S	orange			●		
T	natural				●	
V	green			●	●	
L	black					●
X	natural					●
F	cream		●			

Note: other anodizing colours are available for connectors with collet nut for bend relief. Please consult us.



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