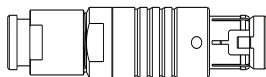


## C SERIES (Outdoor, Multipole Mechanical Coding)

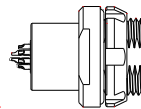


### C SERIES Metal housing models



TGG

Straight Plug



MEG

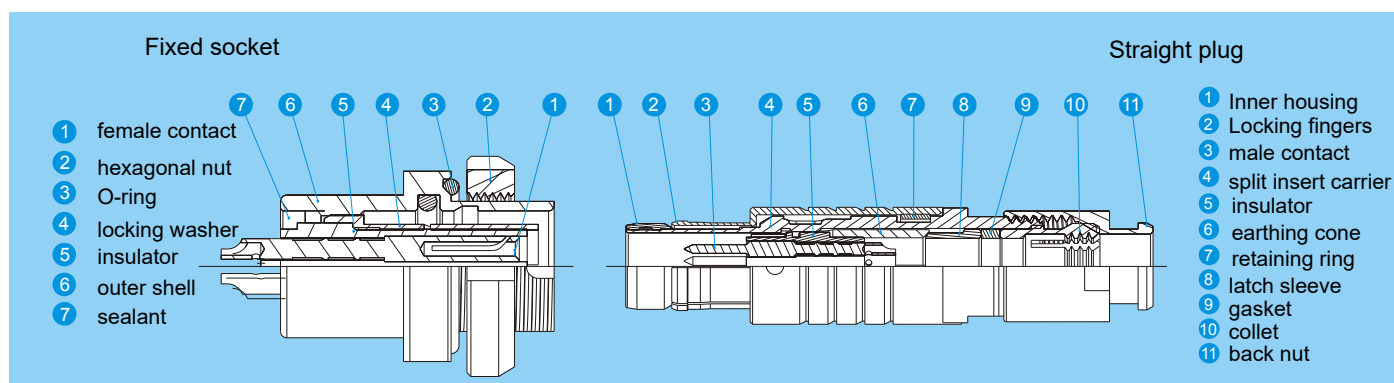
Fixed Socket



DHG

Fixed Socket

## Part Section Showing Internal Components



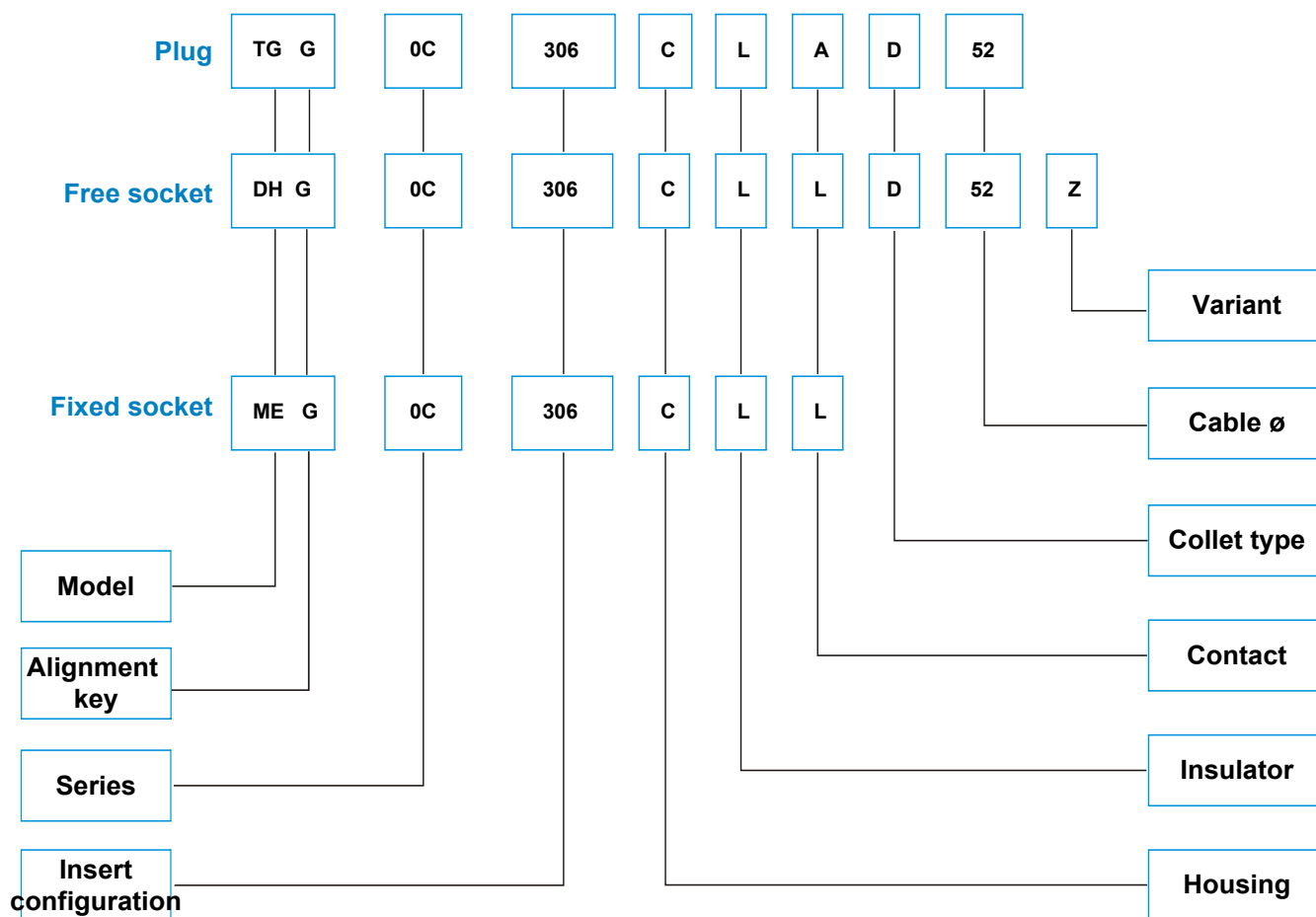
### C series connectors have main features as follows:

- security of the Push-Pull self-latching system
- multipole types 1 to 19 contacts
- Easy mating, can be blind-mated (guiding mechanism ensures precise alignment)
- high packing density for space savings
- solder, print (straight or elbow) contacts
- keying system («G» key standard for connector alignment)
- multiple key options to avoid cross mating of similar connectors
- 360° screening for full EMC shielding

### C Series Connectors Technical Characteristics:

- Endurance: > 5000 cycles
- Humidity: up to 95% at 60° C
- Temperature range: - 45° C, + 125° C
- Resistance to vibrations: 10-2000 Hz, 15g
- Shock resistance: 100 g, 6 ms
- Salt spray corrosion test: > 48h
- Protection index (mated): IP 68/IP 66

## C Series Part Numbering System:



### part number example

#### straight plug with cable collet:

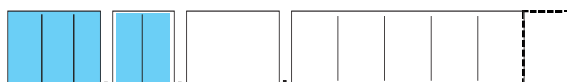
**TGG.0C.306.CLAD52** = straight plug with key (G) and cable collet, 0C series, multipole type with 6 contacts, outer shell in chrome-plated brass, PPS insulator, male solder contacts, D type collet for 5.2 mm diameter cable.

#### Free socket:

**DHG.0C.306.CLLD52Z** = free socket with key (G) and cable collet, 0C series, multipole type with 6 contacts, outer shell in chrome-plated brass, PPS insulator, female solder contacts, D type collet for 5.2 mm diameter cable and nut for fitting a bend relief.

#### fixed socket:

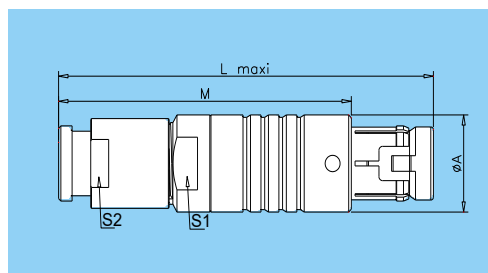
**MEG.0C.306.CLL** = fixed socket, nut fixing, with key (G), 0C series, multipole type with 6 contacts, outer shell in chrome-plated brass, PPS insulator, female solder contacts.



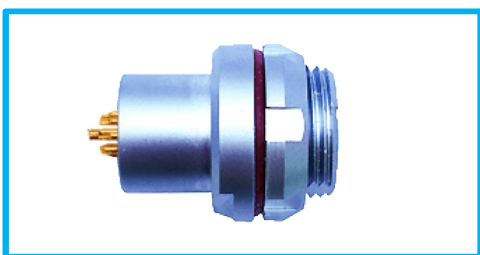
## Metal Housing Models



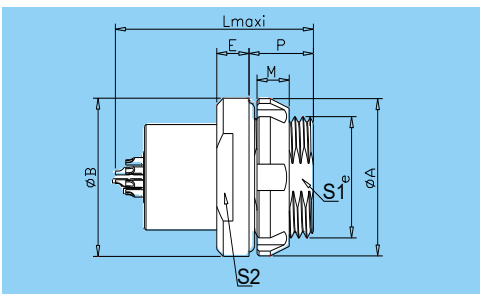
**TGG** Straight plug, key (G) or keys (A , B... ),cable collet and nut for fitting a bend relief



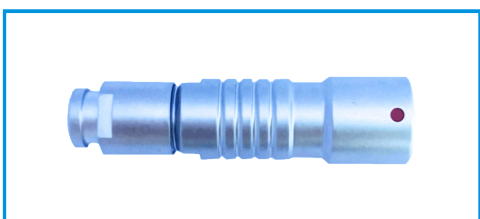
Reference		Dimensions (mm)				
Series	Model	A	L	M	S	S1
0C	TGG	9.4	37	28	8	7
1C	TGG	12	47	35	10	10
2C	TGG	15	50	38	13	12
3C	TGG	18	61	40	16	15



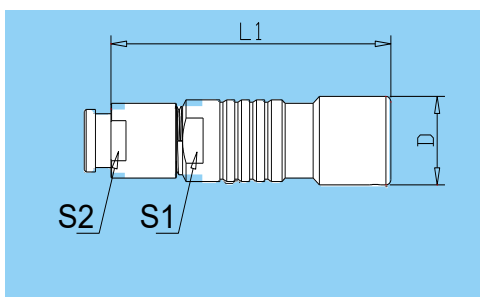
**MEG** Fixed socket, nut fixing, key (G) or keys (A, B...), watertight or vacuumtight



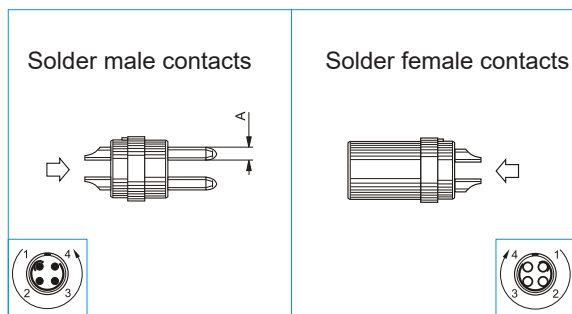
Reference		Dimensions (mm)								
Series	Model	A	B	e	L	E	M	P	S1	S2
0C	MEG	14	14.5	M9x0.5	21	3	3	6.5	8.2	12
1C	MEG	16	18	M14*1.0	26	4	4	8	12	15
2C	MEG	22	21	M16*1.0	29	4	4	7	14.8	18
3C	MEG	25	26	M20*1.0	33	4	3.5	8	18	22



**DHG** Free socket, key (G) or keys (A, B...),



Reference		Dimensions (mm)			
Series	Model	A	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



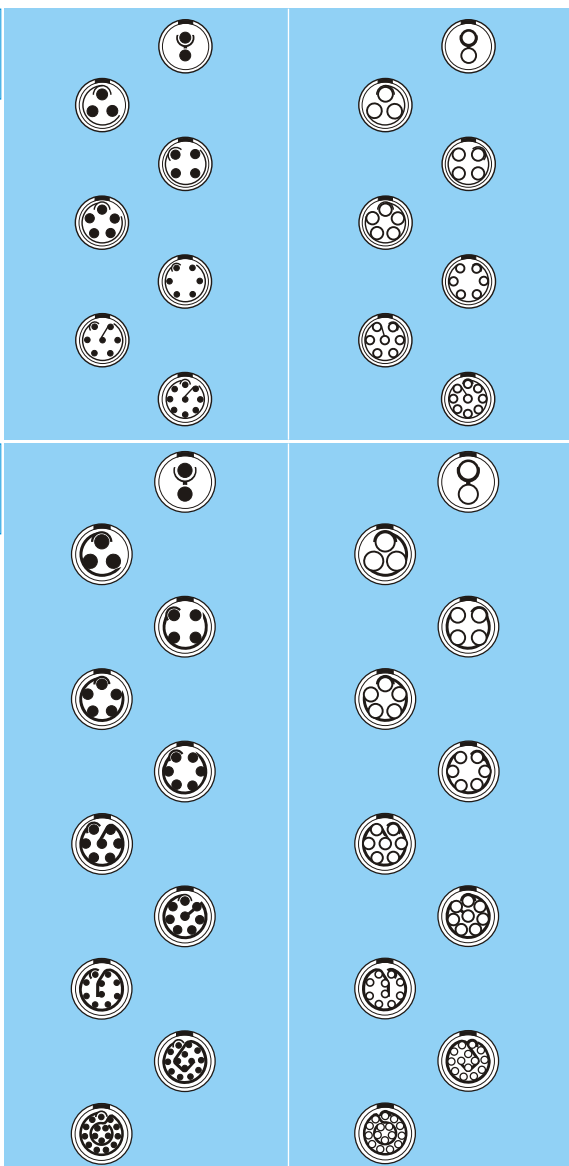
Reference	Multipole(contacts)	$\Phi A$ (mm)	Contact Type			Solder contact		Rated current (A)
			solder	Print (straight)	Print (elbow)	Test voltage (kV rms) Contact-contact	Test voltage (kV rms) Contact-shell	

302	2	0.9	●	●	○	1.30	1.05	10.0 <sub>1)</sub>
303	3	0.9	●	●	○	1.20	0.90	8.0 <sub>1)</sub>
304	4	0.7	●	●	○	0.85	0.70	7.0 <sub>1)</sub>
305	5	0.7	●	●	○	1.00	0.70	6.5 <sub>1)</sub>
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	15.0 <sub>2)</sub>
303	3	1.3	●	●	○	1.30	1.55	12.0
304	4	0.9	●	●	○	1.35	1.45	10.0 <sub>1)</sub>
305	5	0.9	●	●	○	1.25	1.15	9.0 <sub>1)</sub>
306	6	0.7	●	●	○	1.05	1.20	7.0 <sub>1)</sub>
307	7	0.7	●	●	○	0.95	1.05	7.0 <sub>1)</sub>
308	8	0.7	●	●	○	0.95	1.15	5.0
310	10	0.5	●	●	○	0.90	1.50	2.5
314	14	0.5	●	●	○	0.80	1.20	2.0
316	16	0.5	●	●	○	0.80	1.25	1.5

**Note** : 1) rated current = 6A for socket with elbow (90°) contact for printed circuit.  
2) rated current = 12A for socket with elbow (90°) contact for printed circuit.  
3) available only for connectors fitted with male contacts.

0C

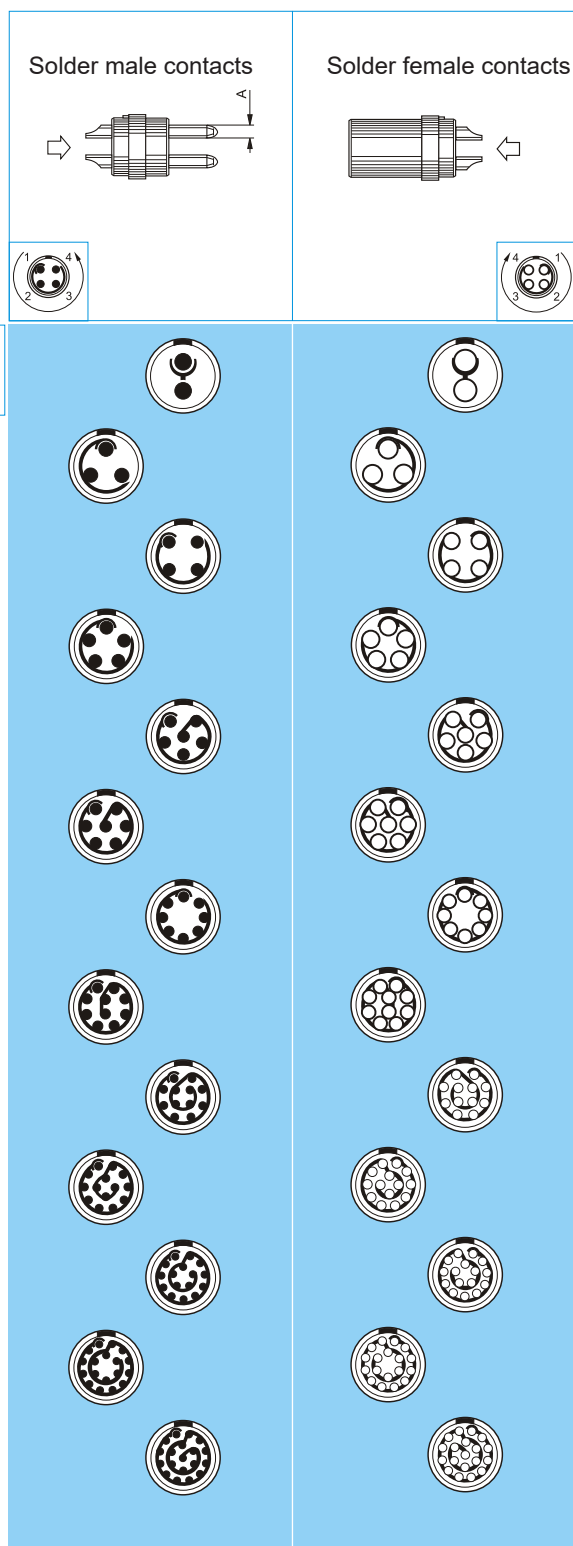
1C



- First choice alternative
- Special order alternative



2C



Reference	Multipole(contacts)	$\Phi A$ (mm)	Contact Type			Solder contact		Rated current (A)
			Solder	Print (straight)	Print (elbow)	Test voltage (kV rms) Contact-contact	Test voltage (kV rms) Contact-shell	
302	2	2.0	●	●	○	2.10	1.75	30.0 <sub>2)</sub>
303	3	1.6	●	●	○	2.40	1.85	17.0 <sub>2)</sub>
304	4	1.3	●	●	○	1.85	1.85	15.0 <sub>2)</sub>
305	5	1.3	●	●	○	1.75	1.60	14.0 <sub>2)</sub>
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 <sub>1)</sub>
310	10	0.9	●	●	○	1.45	1.30	8.0 <sub>1)</sub>
312	12	0.7	●	●	○	1.25	1.35	7.0 <sub>1)</sub>
314	14	0.7	●	●	○	1.15	1.35	6.5 <sub>1)</sub>
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

- First choice alternative
- special order alternative

**Note** : 1) rated current = 6A for socket with elbow (90°) contact for printed circuit.  
2) rated current = 12A for socket with elbow (90°) contact for printed circuit.



Ref.	Outer shell and collet nut		Latch sleeve + earthing crown		Other metallic components		Note
	Material	Surf. treatment	Material	Surf. treatment	Material	Surf. treatment	
C	Brass	chrome	brass/bronze	nickel	Brass	nickel	
N	Brass	chrome	brass/bronze	nickel	Brass	nickel	
H	Brass	black chrome	brass/bronze	nickel	Brass	nickel	
S	Stainless steel 304	anodized	brass/bronze	-	Brass	nickel	
L	Stainless steel 316L	anodized	Stainless steel 316L	-	Stainless steel 316L	-	
T	Brass	satin nickel	brass/bronze	nickel	Brass	nickel	
G	Brass	brown and black	brass/bronze	nickel	Brass	nickel	
F	Brass	High phosphorus chemical nickel	brass/bronze	nickel	Brass	nickel	
Z	Aluminium alloy	High phosphorus chemical nickel	brass/bronze	nickel	Brass	nickel	
Y	Brass	golden yellow	brass/bronze	nickel	Brass	nickel	

### Note:

#### Brass

Connectors are mostly brass case, which can meet most military or civil application requirements. The white surface of brass shell has nickel-chromium protective layer, which has remarkable effect in resisting industrial waste, salt spray and most corrosives.

In addition, we also have nickel plating, nickel-gold plating, nickel-black chromium plating and other options for application in specific environments of the anti-corrosion coatings.

#### Aluminium alloy

In the aviation, aerospace industry, portable mobile devices and so on. It is suitable for the connector with aluminium alloy shell.

In addition to its high mechanical lightness and excellent corrosion resistance, the surface of aluminium alloys can be protected by anodic plating, with a variety of colors to choose from.

#### Stainless steel

For the use of harsh environment, the surface coating is easy to be damaged. We recommend the use of stainless steel materials. AISI304 stainless steel and AISI316L stainless steel are usually used.

AISI304 stainless steel is recommended for special fields such as nuclear industry. It can resist radiation and nitric acid corrosion.

AISI316L stainless steel is recommended for medical and shipping industries. It has no surface treatment and strong corrosion resistance.



Ref.	Material	Contact type	Note
T	Teflon	Solder or print	
L	PPS	Solder or print	

## >>> Contacts (C 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

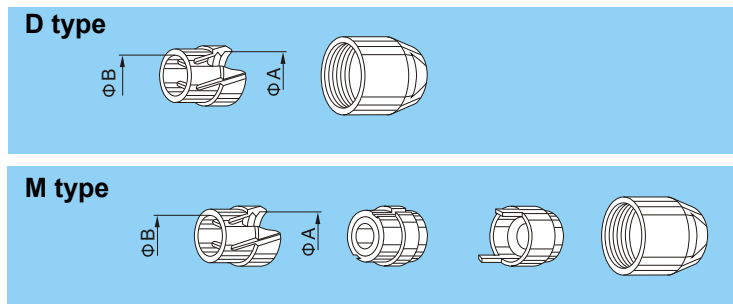
### Contacts reference for plugs, free or fixed sockets

Contact type	Reference		Contact			Conductor					
	Male	Female	Φ A (mm)	Φ C (mm)	Form per fig.	Solid		Stranded			
						AWG min.	Section max. (mm <sup>2</sup> )	AWG		Section (mm <sup>2</sup> )	
								min.	max.	min.	max.
<b>Solder</b> 	A	L	0.5	0.40	-	28	0.09	-	30	-	0.05
			0.5	0.45	-	28	0.09	-	28	-	0.09
			0.7	0.60	-	24	0.25	-	26	-	0.14
			0.7	0.80	-	22	0.34	-	22	-	0.34
			0.9	0.80	-	22	0.34	-	22	-	0.34
			1.3	1.00	-	20	0.50	-	20	-	0.50
			1.6	1.40	-	16	1.00	-	18	-	1.00
			2.0	1.80	-	14	1.50	-	16	-	1.50
			3.0	2.70	-	10	4.00	-	12	-	4.00
			4.0	3.70	-	10	6.00	-	10	-	6.00
<b>Print</b> 	D	N	L dimensions and C are detailed in the section on PCB drilling pattern.								
<b>Print (elbow)</b> 	V	V	L dimensions and C are detailed in the section on PCB drilling pattern.								



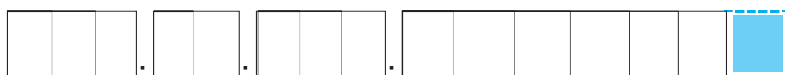


### D and M type collets for C series

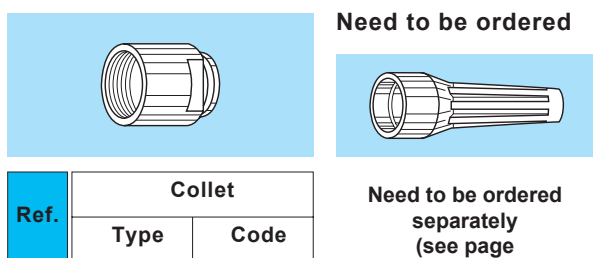


Reference		Collet ø		Cable ø	
Type	Code	ΦA	ΦB	max.	min.
0C	D 32	3.2	–	3.0	2.1
	D 42	4.2	–	4.0	3.1
	D 52	5.2	4.7	5.0	4.1
1C	M 31	3.1	–	3.0	2.6
	D 42	4.2	–	4.0	3.1
	D 52	5.2	–	5.0	4.1
	D 62	6.2	–	6.0	5.1
	D 72	7.2	6.7	7.0	6.1
2C	M 42	4.2	–	4.0	3.1
	D 52	5.2	–	5.0	4.1
	D 62	6.2	–	6.0	5.1
	D 72	7.2	–	7.0	6.1
	D 82	8.2	–	8.0	7.1
	D 92	9.2	8.6	9.0	8.1
	D 99	9.9	8.6	9.7	9.1

## >>> Variant (C series)



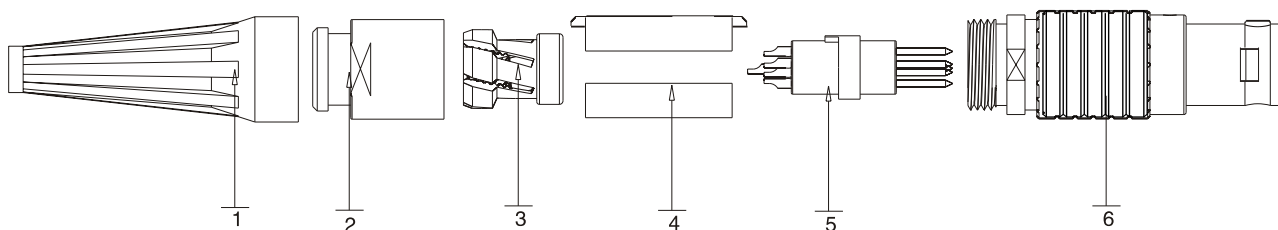
### Bend relief for C series models with collet



0C	Z	D	21 to 52	GMA.0B.... • •
1C	Z	M	27 and 31	GMA.1B.... • •
		D	42 to 72	GMA.1B.... • •
2C	Z	M	21 and 31	GMA.0B.... • •
		D	42	GMA.2B.... • •
		D	52 to 92	GMA.2B.... • •

**Note:** all dimensions are in millimetres.

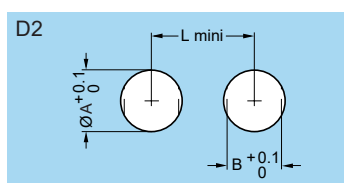
### Plug assembly instructions for C series



1. Pass the cable through the bend relief ①, the collet nut ②, the cable collet ③, and solder to the insulator with contacts ⑤ in order.
2. Attach two pieces of split insert carriers ④ to the welded insulator with contacts ⑤, noting that the window on the split insert carriers ④ corresponds to the protrusion on the insulator with contacts ⑤.
3. Install the cable collet ③ in the proper position of the cable. Note that the protrusion on the cable collet ③ corresponds to the groove on the split insert carriers ④.
4. Push the insulator with contacts ⑤, the split insert carriers ④ and the cable collet ③ into the plug assembly in turn, and note that the protrusions on the split insert carriers ④ are correspondingly inserted into the notches in the plug assembly.
5. Screw the collet nut ② onto the housing subassy ⑥
6. Insert the bend relief ① into the corresponding step of the collet nut ②.

## >>> Panel cut-out: (C series)

### C Series



series	D2		
	ØA	B	L
0C	9.1	8.3	15
1C	12.1	10.6	19
2C	15.1	13.6	23

**Note:** when using the tapered washer a round hole apply 0C: ø 9.6 mm / 1C: ø 12.6 mm / 2C: ø 15.7 mm

#### Cut-out types

Model	Type
MEG	D2