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Small & watertight

0T SERIES

IP 68 PUSH-PULL CONNECTORS



LEMO

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0T series

0T series connectors have been specifically designed for outdoor applications. They include an inner sleeve and seals to prevent penetration of solids or liquids.This series is watertight when mated to give a protection index of IP68 as per IEC 60529 standard and have the following main features:

- IP68 mated
- Push-Pull self-latching system
- Mechanical key (FGG) with multiple keys to avoid cross-mating
- High packing density for space savings
- 360° shielding for full EMC shielding
- Compatible with existing 0B sockets
- Same mounting hole as 0B sockets
- Black-chrome plated brass and plastic outershell available
- Multipole types 2 to 9 contacts
- For cables 1.0 up to 5.0 mm
- Solder, crimp or print contacts

Technical Characteristics

Mechanical and Climatical	Value	Standard
Endurance	> 5000 cycles	IEC 60512-5 test 9a
Humidity	up to 95% at 60° C	–
Temperature range	-55° C, +200° C	–
Resistance to vibration	10-2000 Hz, 15 g	IEC 60512-4 test 6d
Shock resistance	100 g, 6 ms	IEC 60512-4 test 6c
Salt spray corrosion test	> 144h	IEC 60512-6 test 11f
Protection index (mated)	IP68	IEC 60529
Latching retention force	> 150 N	–

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

Material and Treatments

Outershell and collet nut		Latch sleeve/earthing crown		Other metallic components	
Material	Surf. treat.	Material	Surf. treat.	Material	Surf. treat.
Brass	Chrome	Brass/Bronze	Nickel	Brass	Nickel
Brass	Black chrome	Brass/Bronze	Nickel	Brass	Nickel
POM	–	Brass/Bronze	Nickel	Brass	Nickel

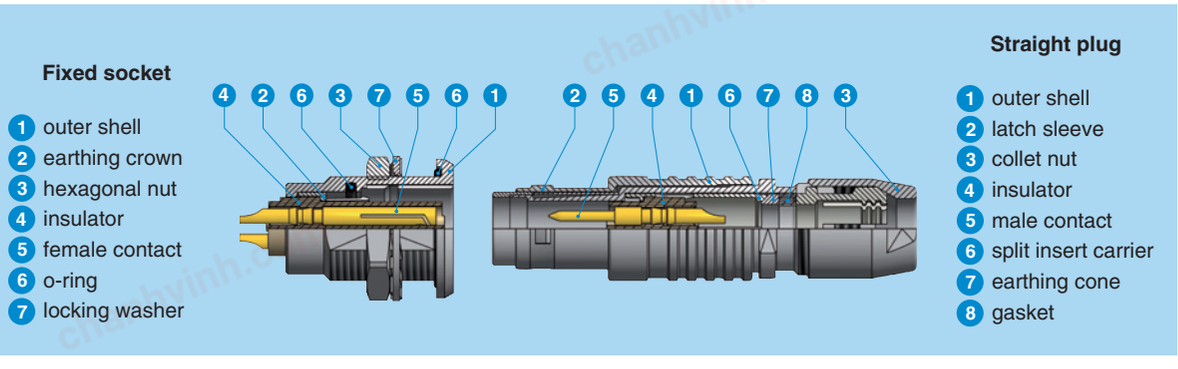
Contacts

Material	Contact type
Brass (UNS C 34500)	Male contact
Bronze (UNS C 54400)	Female contact

Insulators

Material	Contact type
PEEK	Crimp, solder or print

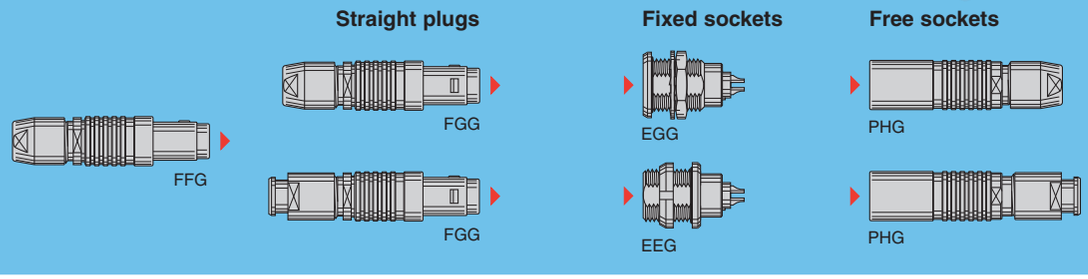
Part Section Showing Internal Components



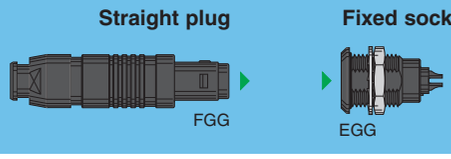
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Interconnections

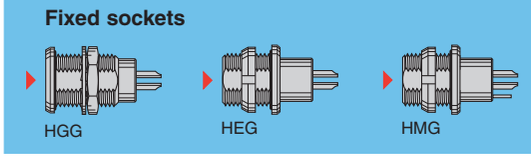
Metal housing models



Plastic housing models

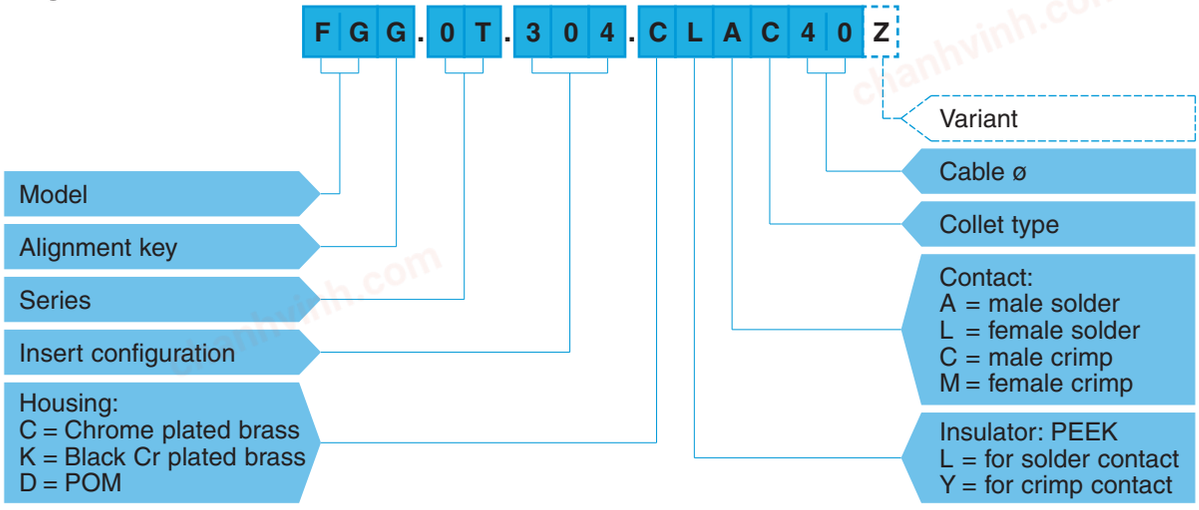


Watertight or vacuumtight models



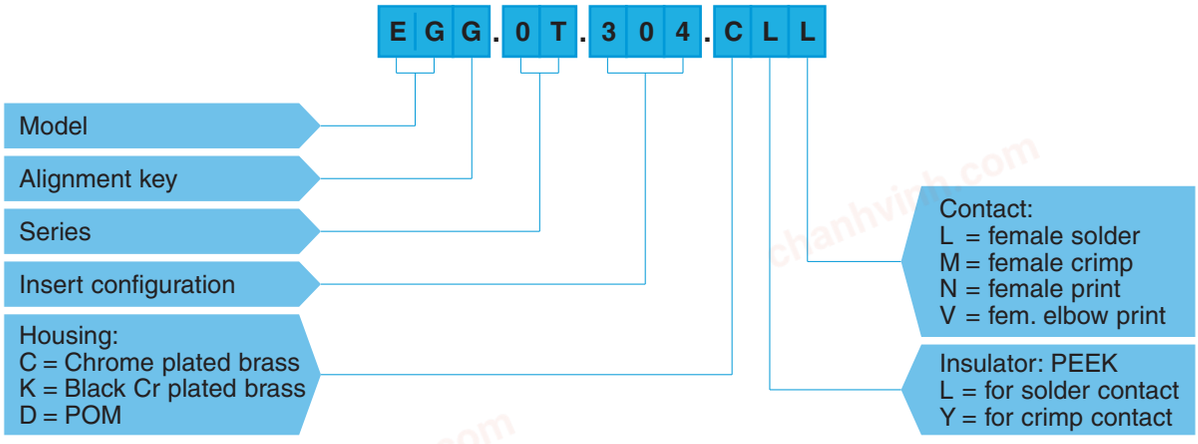
Part Numbering System

Plug and free socket



FGG.0T.304.CLAC40Z = Straight plug with key (G) and cable collet for bend relief, 0T series, multipole type with 4 contacts, outer shell in chrome-plated brass, PEEK insulator, male solder contacts, C type collet for 4.0 mm diameter cable and nut for fitting a bend relief.

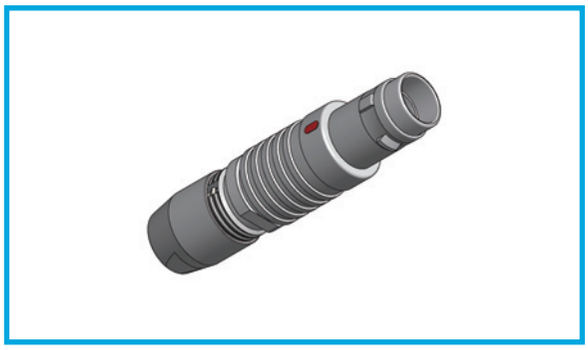
Fixed socket

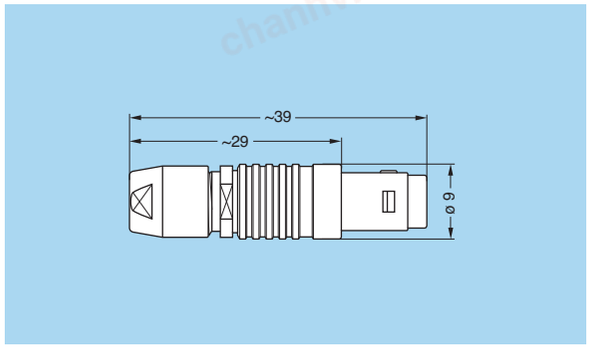


EGG.0T.304.CLL = fixed socket, nut fixing, with key (G), 0T series, multipole type with 4 contacts, outer shell in chrome-plated brass, PEEK insulator, female solder contacts.

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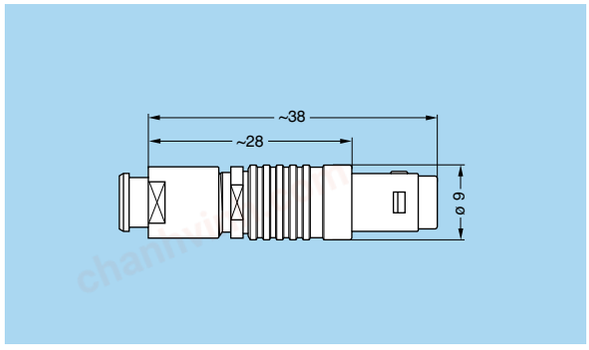
FGG Straight plug, cable collet





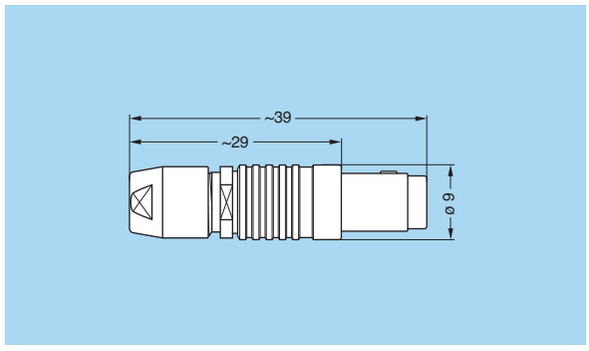
FGG Straight plug, cable collet and nut for fitting a bend relief



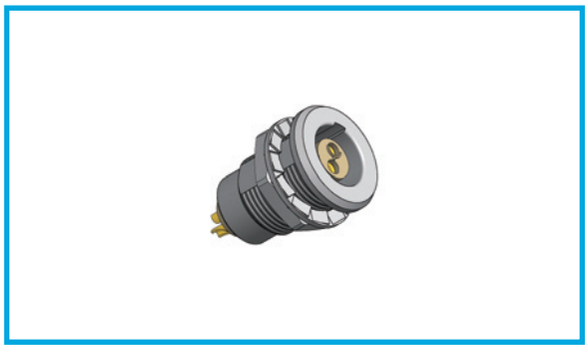


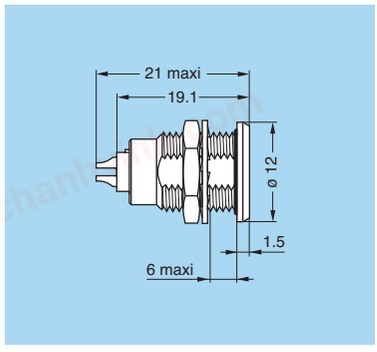
FFG Straight plug, non latching, cable collet

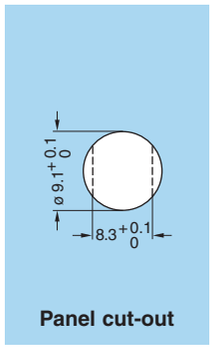




EGG Fixed socket, nut fixing



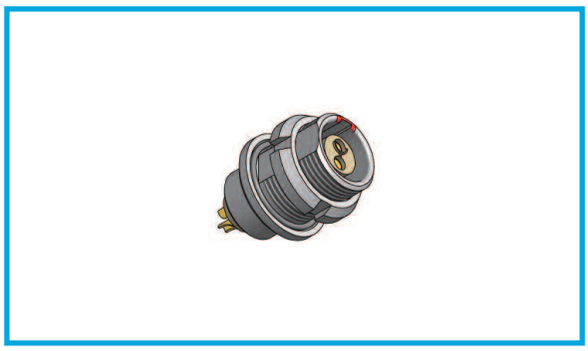


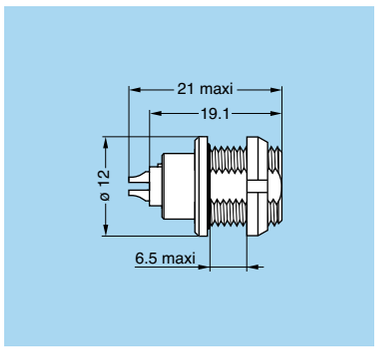


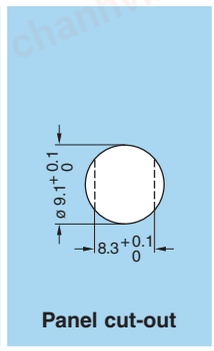
Panel cut-out

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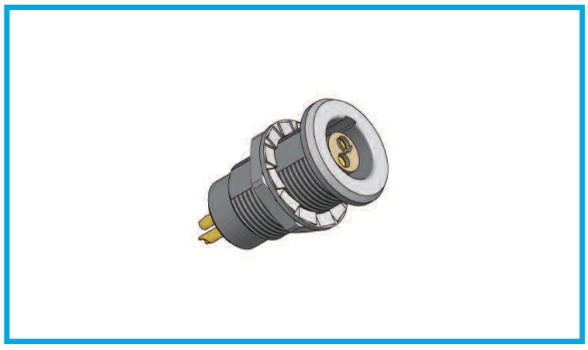
EEG Fixed socket, nut fixing, back panel mounting

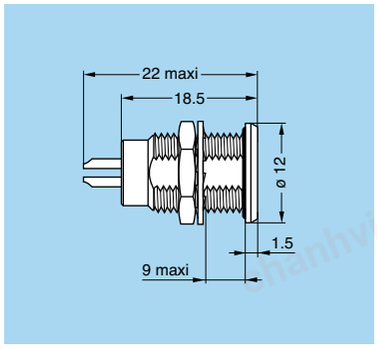


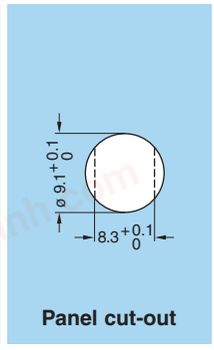




HGG Fixed socket, nut fixing, watertight or vacuumtight



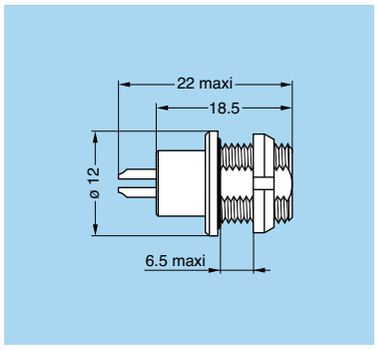


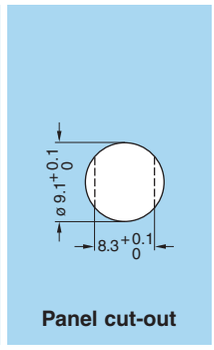


Note: temperature range -20°C / +100°C

HEG Fixed socket, nut fixing, watertight or vacuumtight, back panel mounting



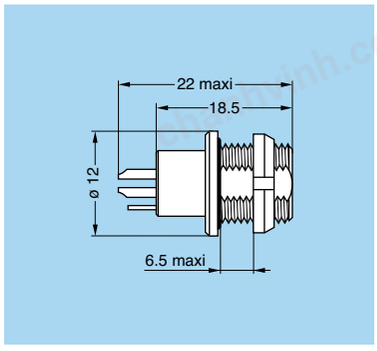


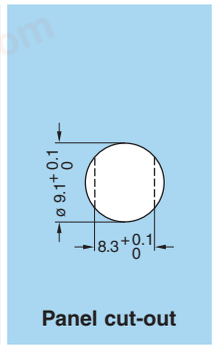


Note: temperature range -20°C / +100°C

HMG Fixed socket, nut fixing, watertight or vacuumtight, back panel mounting



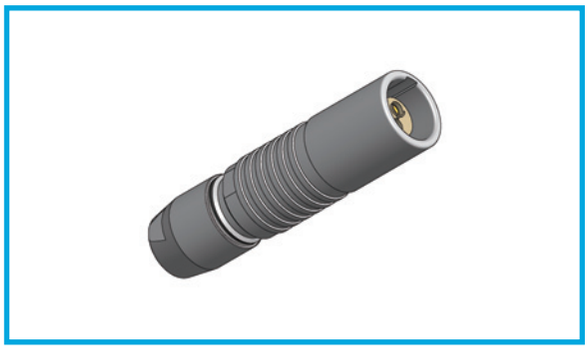


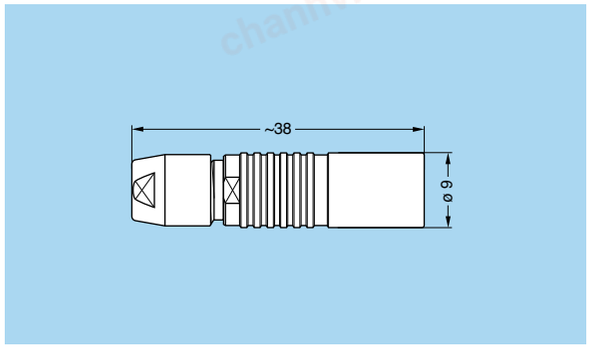


Note: temperature range -20°C / +100°C

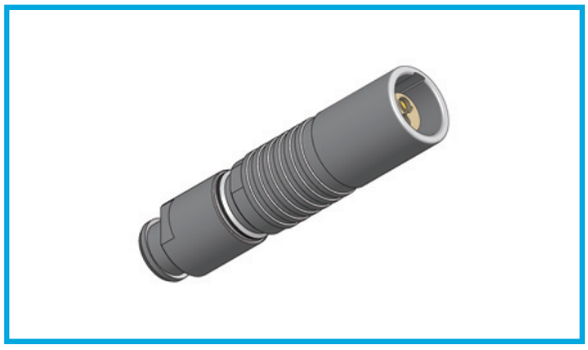
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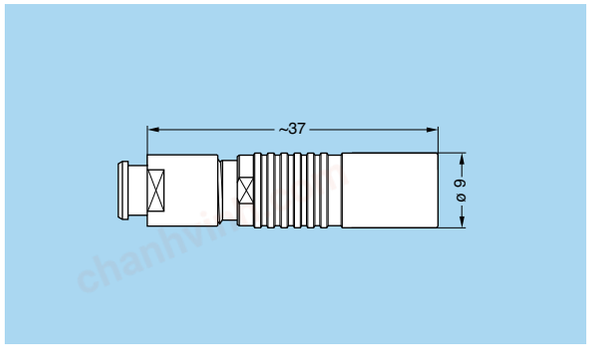
PHG Free socket, cable collet





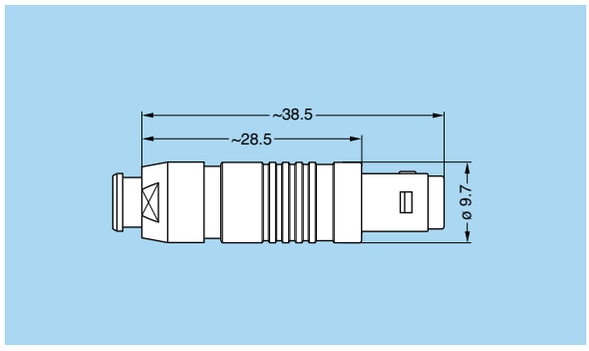
PHG Free socket, cable collet and nut for fitting a bend relief





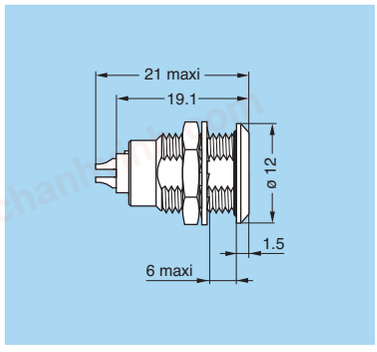
FGG Straight plug, cable collet and nut for fitting a bend relief, POM outer shell

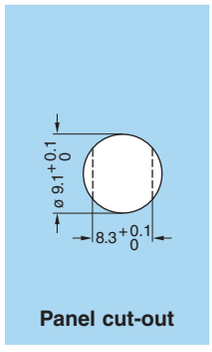




EGG Fixed socket, nut fixing, POM outer shell



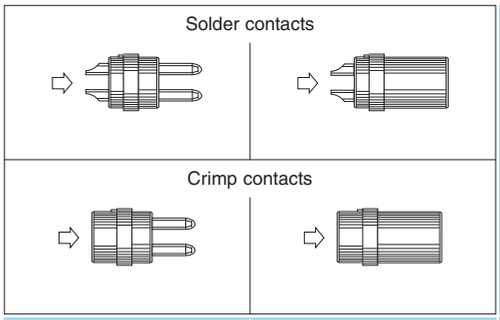


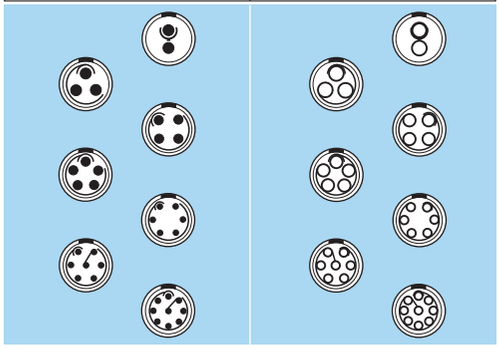


Panel cut-out

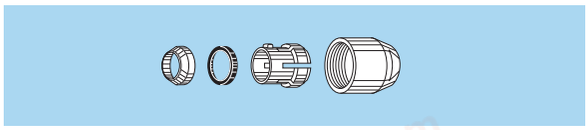
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Insert configurations



Reference	Number of contacts	Contact ø (mm)	Contact type: Solder	Contact type: Crimp	Contact type: Print (straight)	Contact type: Print (elbow)	AWG: Solder (max.)	AWG: Crimp min.	AWG: Crimp max.	Test voltage (kV rms)	Test voltage (kV rms)	Rated current (A)
												
302	2	0.9	●	●	●	●	22	32	20	1.00	1.05	10.0
303	3	0.9	●	●	●	●	22	32	20	1.20	0.90	8.0
304	4	0.7	●	●	●	●	22	32	22	0.85	0.70	7.0
305	5	0.7	●	●	●	●	22	32	22	1.00	0.70	6.5
306	6	0.5	●		●	●	28	32	28	0.85	0.65	2.5
307	7	0.5	●		●	●	28	32	28	0.80	0.70	2.5
309	9	0.5	●		●	●	28	32	28	0.60	0.50	2.0

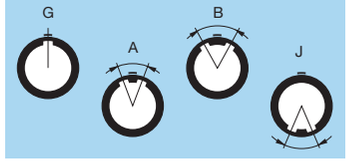
Collets



Type	Cable ø (mm) min.	Cable ø (mm) max.
C10	1.0	1.2
C15	1.3	1.5
C20	1.6	2.0
C25	2.1	2.5
C30	2.6	3.0

Type	Cable ø (mm) min.	Cable ø (mm) max.
C35	3.1	3.5
C40	3.6	4.0
C45	4.1	4.5
C50	4.6	5.0

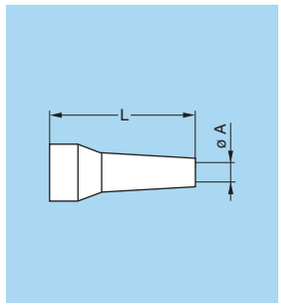
Alignment Key



Key	Contact type: Plug	Contact type: Socket
G	male	female
A	male	female
B	male	female
J	female	male

Bend relief





Part number	Bend relief A	Bend relief L	Cable ø min.	Cable ø max.
GMA.0B.025.DG	2.5	24	2.5	2.9
GMA.0B.030.DG	3.0	24	3.0	3.4
GMA.0B.035.DG	3.5	24	3.5	3.9
GMA.0B.040.DG	4.0	24	4.0	4.4
GMA.0B.045.DG	4.5	24	4.5	5.2

Note: all dimensions are in millimetres.

Ref.	Colour
A	blue
B	white
G	grey

Ref.	Colour
J	yellow
M	brown
N	black

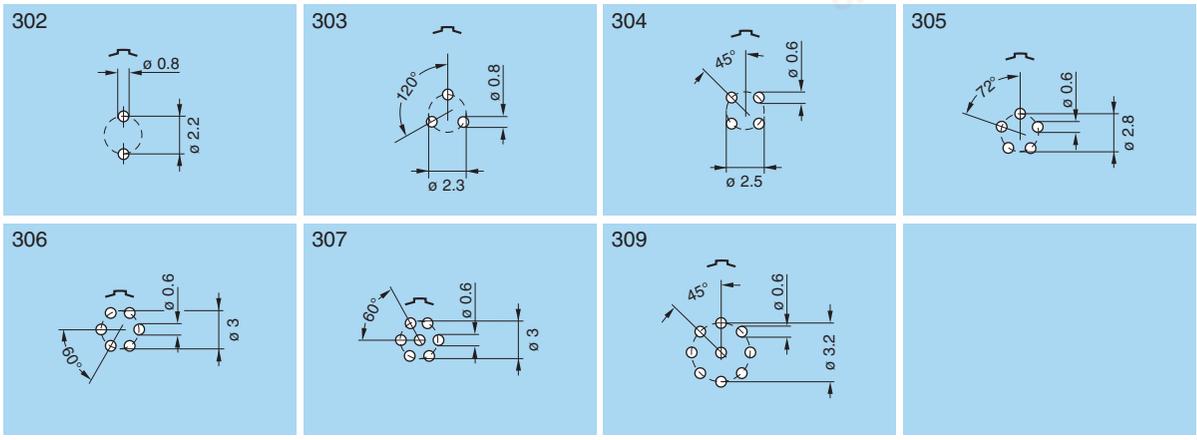
Ref.	Colour
R	red
S	orange
V	green

Note: the last letter «G» of the part number indicates the grey colour of the bend relief. For ordering a bend relief with another colour, see table and replace the letter «G» by the letter of the required colour.

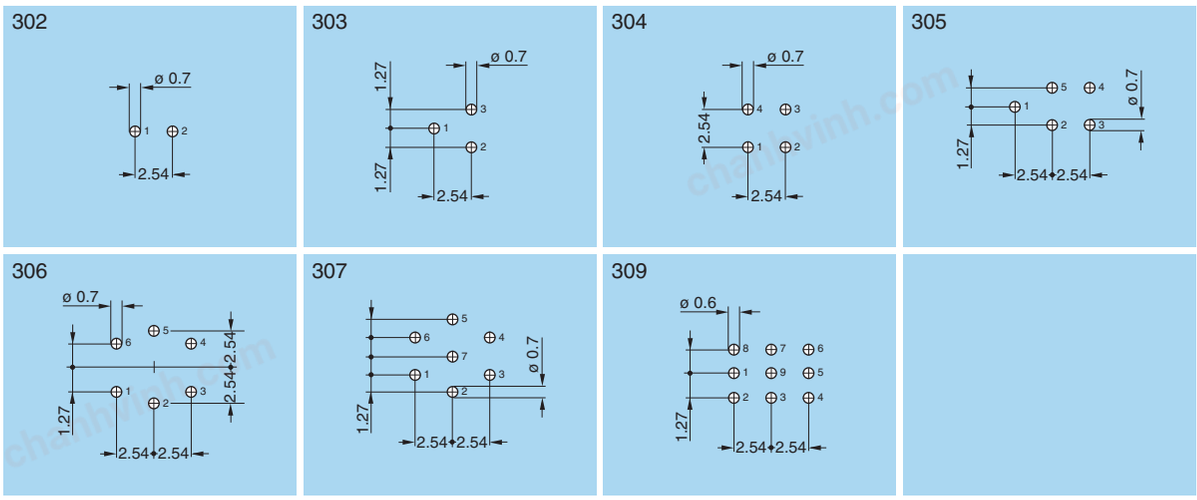
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PCB drilling pattern

Fixed socket with straight print contact



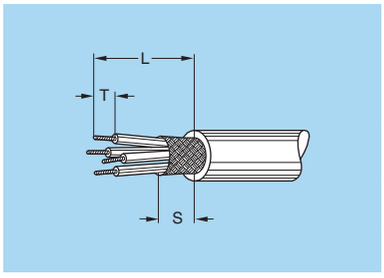
Fixed socket with elbow print contact



Tooling

For crimp contact tooling see 0B series in the unipole/multipole catalogue.

Cable asssembly



Reference	ø contact (mm)	Cable stripping lengths (mm)					
		Solder			Crimp		
		L	S	T	L	S	T
302/303	0.9	14.5	7	3.5	17	7	4
304/305	0.7	14.5	7	3.5	17	7	4
306/307/309	0.5	14.0	7	2.5	18	7	3

LEMO HEADQUARTERS

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