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# MULTIPOLE CONNECTORS XB SERIES



## **XB is a new size to complete the B Series connector range**

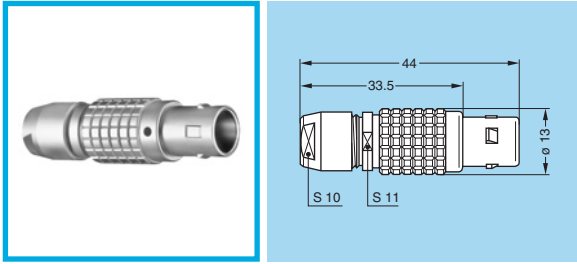
LEMO B Series connectors are now available with a new connector size. The XB Series can accommodate 12 or 22 electrical contacts. This connector is an intermediate connector size between the well known 1B and 2B Series. The market need for a compact connector resulted in this new high contact density product.

### **Features**

endurance: over 5000 mating cycles  
temperature range: -55°C to + 250°C  
protection index: IP 50 (when mated)  
360° screening for full EMC shielding  
high packing density for space savings



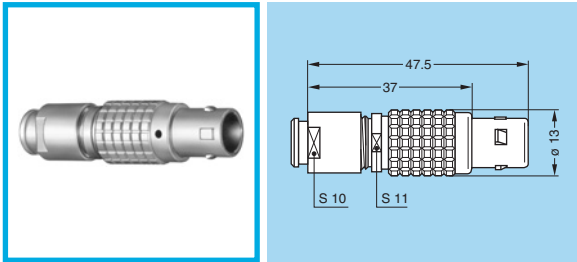
## Models



### FGG Straight plug, key (G) or keys (A and E), cable collet

Part Number	Number of contacts
FGG.XB.312.CLAD••	12
FGG.XB.322.CLAD••	22

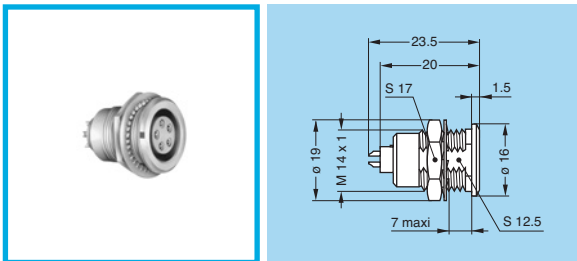
**Note:** Replace by •• collet size reference (see table).



### FGG Straight plug, key (G) or keys (A and E), cable collet and nut for fitting a bend relief

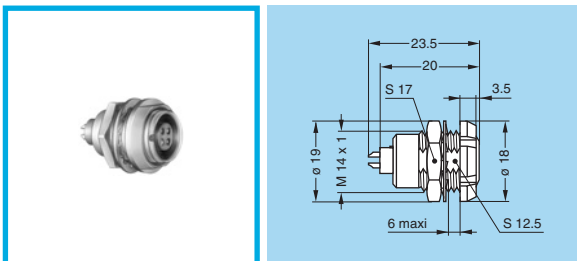
Part Number	Number of contacts
FGG.XB.312.CLAD••Z	12
FGG.XB.322.CLAD••Z	22

**Note:** Replace by •• collet size reference (see table). The bend relief must be ordered separately.



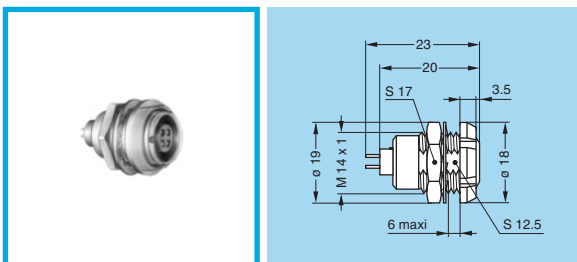
### EGG Fixed socket, key (G) or keys (A and E), nut fixing

Part Number	Number of contacts
EGG.XB.312.CLL	12
EGG.XB.322.CLL	22



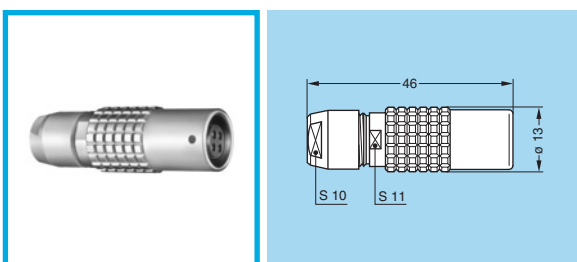
### ECG Fixed socket with two nuts, key (G) or keys (A and E) (back panel mounting)

Part Number	Number of contacts
ECG.XB.312.CLL	12
ECG.XB.322.CLL	22



### ECG Fixed socket with two nuts, key (G) or keys (A and E) and straight contact for printed circuit (back panel mounting)

Part Number	Number of contacts
ECG.XB.312.CLN	12
ECG.XB.322.CLN	22



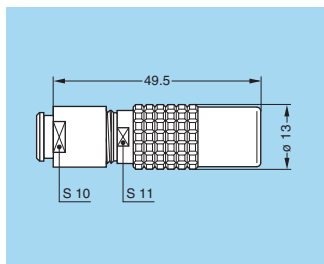
### PHG Free socket, key (G) or keys (A and E), cable collet

Part Number	Number of contacts
PHG.XB.312.CLLD••	12
PHG.XB.322.CLLD••	22

**Note:** Replace by •• collet size reference (see table).

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





### PHG Free socket, key (G) or keys (A and E), cable collet and nut for fitting a bend relief

Part Number	Number of contacts
PHG.XB.312.CLLD••Z	12
PHG.XB.322.CLLD••Z	22

**Note:** Replace by •• collet size reference (see table). The bend relief must be ordered separately.

### Insert configuration and electrical characteristics

Reference	Number of contacts	ø A (mm)	Contact type		Solder contact		Rated current (A)
			Solder	Print (straight)	Test voltage (kV rms) Contact-contact	Test voltage (kV rms) Contact-shell	
312	12	0.7	●	●	1.35	1.65	5.00
322	22	0.5	●	●	0.50	0.90	1.50

### D type collets for XB series

Reference	Type	Collet ø		Cable ø		Nut for fitting a bend relief	Bend relief
		ø A	ø B	max.	min.		
D 52	52	5.2	7.2	5.0	4.4	FFM.1B.131.LC	GMA.1B.045.DG
D 62	62	6.2	7.2	6.0	5.4		GMA.1B.054.DG
D 72	72	7.2	7.2	7.0	6.4		GMA.1B.065.DG
D 82	82	8.2	7.2	8.0	7.4	-	-

### Contacts (solder type)

Reference	Contact		Conductor			
	ø A (mm)	ø C (mm)	Solid		Stranded	
			AWG max.	Section (mm <sup>2</sup> ) max.	AWG max.	Section (mm <sup>2</sup> ) max.
312	0.7	0.80	22	0.34	22 <sup>1)</sup>	0.34
322	0.5	0.45	28	0.09	28	0.09

**Note:** 1) for a given AWG, the diameter of some stranded conductor designs is larger than the solder cup diameter. Make sure that the maximum conductor diameter is smaller than ø C.

### Alignment Key and Polarized Keying System

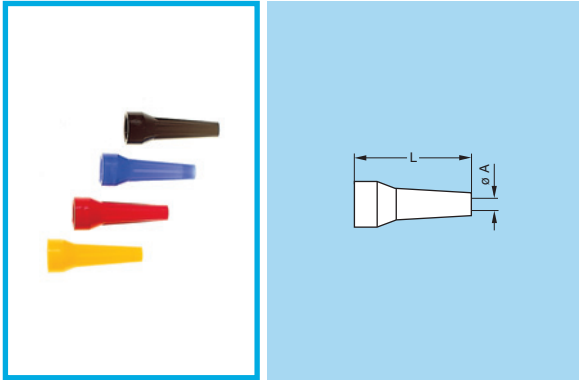
XB series connector model part numbers are composed of three letters. The LAST LETTER indicates the key position.

Reference	Nb of keys	Angles	Series XB	Contact type		Note
				Plug	Socket	
G	1		0°	male	female	●
A	2	α	30°	male	female	●
E	2	β	120°	male	female	○

● First choice alternative  
○ Special order alternative



## Accessories



### GMA Bend relief for FGG and PHG models with nut for fitting a bend relief

Part Number	Dimensions (mm)			
	Bend relief		Cable $\phi$	
	A	L	max.	min.
GMA.1B.040.DG	4.0	30	4.4	4.0
GMA.1B.045.DG	4.5	30	4.9	4.5
GMA.1B.054.DG	5.4	30	6.0	5.4
GMA.1B.065.DG	6.5	30	7.0	6.5

Ref.	Colour
A	blue
B	white
G	grey

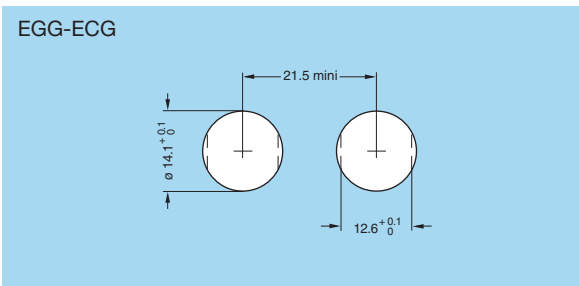
Ref.	Colour
J	yellow
M	brown
N	black

Ref.	Colour
R	red
S	orange
V	green

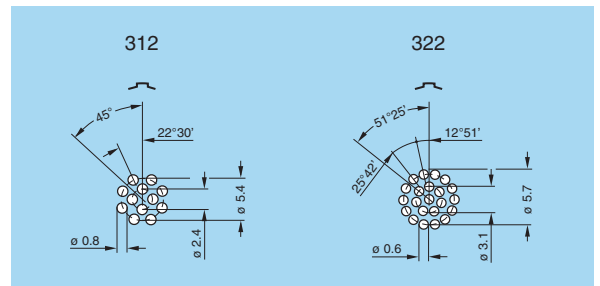
**Note:**  
Material: Polyurethane elastomer  
Temperature range in dry atmosphere: -40°C +80°C

**Note:** The last letter «G» of the part number indicates the colour grey of the bend relief. For others colour, refer to the above table and replace letter «G» by the letter of the colour required.

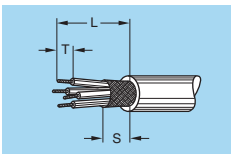
## Panel cut-out



## PCB drilling pattern



## Cable stripping lengths



Connector Type	Connector $\phi$ contact (mm)	Cable stripping lengths (mm)		
		Solder		
		L	S	T
312	0.7	16.5	7.5	3.5
322	0.5	17.5	8.0	4.0

## Mounting nut torque

Torque (Nm)
5.0

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

Refer to B series catalog for general characteristics

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