

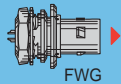
## B Series

B series connectors provide the following main features:

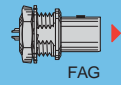
- security of the Push-Pull self-latching system
- solder, crimp or print contacts (straight or elbow)
- multiple key options to avoid cross mating of similar connectors
- 360° screening for full EMC shielding.
- multipole types 2 to 64 contacts
- high packing density for space savings
- keying system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

### Metal housing models (page 12)

#### Fixed plugs

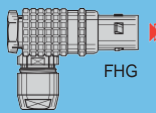


FWG

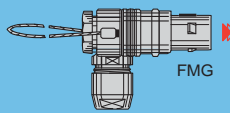


FAG

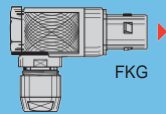
#### Elbow plugs



FHG

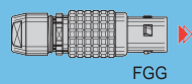


FMG

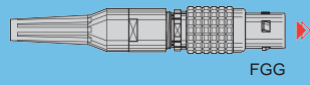


FKG

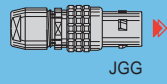
#### Straight plugs



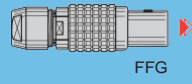
FGG



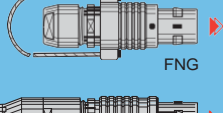
FGG



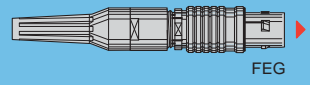
JGG



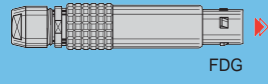
FFG



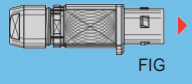
FNG



FEG

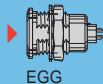


FDG

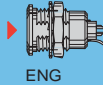


FIG

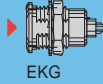
#### Fixed sockets



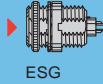
EGG



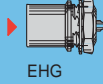
ENG



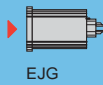
EKG



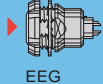
ESG



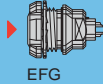
EHG



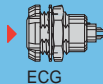
EJG



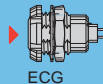
EEG



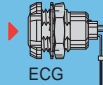
EFG



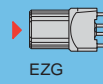
ECG



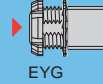
ECG



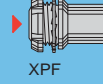
ECG



EZG

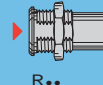


EYG



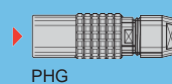
XPF

#### Fixed coupler

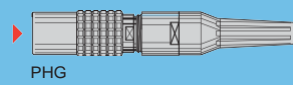


R..

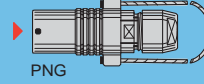
#### Free sockets



PHG

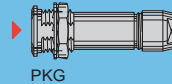


PHG

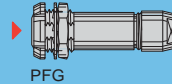


PNG

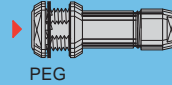
#### Fixed sockets



PKG



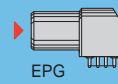
PFG



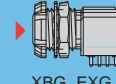
PEG

### Elbow socket models (page 22)

#### Elbow sockets



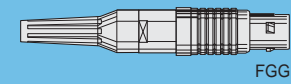
EPG



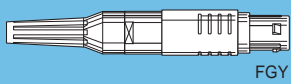
XBG, EXG

### Plastic housing models (page 24)

#### Straight plugs

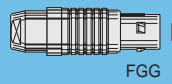


FGG

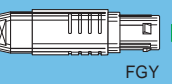


FGY

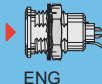
#### Fixed sockets



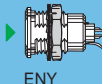
FGG



FGY



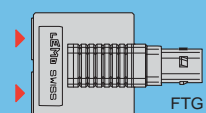
ENG



ENY

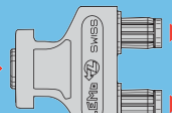
### Bridge models (page 29)

#### Plug with two parallel sockets



FTG

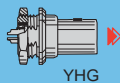
#### Bridge plugs



CFF, CRG

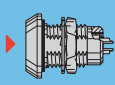
### Watertight or vacuumtight models (page 26)

#### Fixed plug

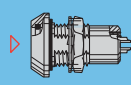


YHG

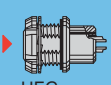
#### Fixed sockets



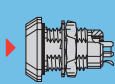
HGG



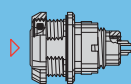
HHG



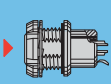
HEG



HNG

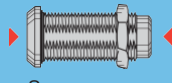


HCG



HMG

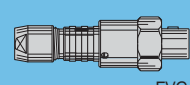
#### Fixed coupler



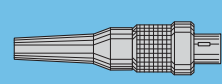
S..

### Threaded-latching models (page 30)

#### Straight plugs

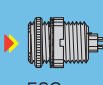


FVG



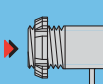
FVB

#### Fixed socket



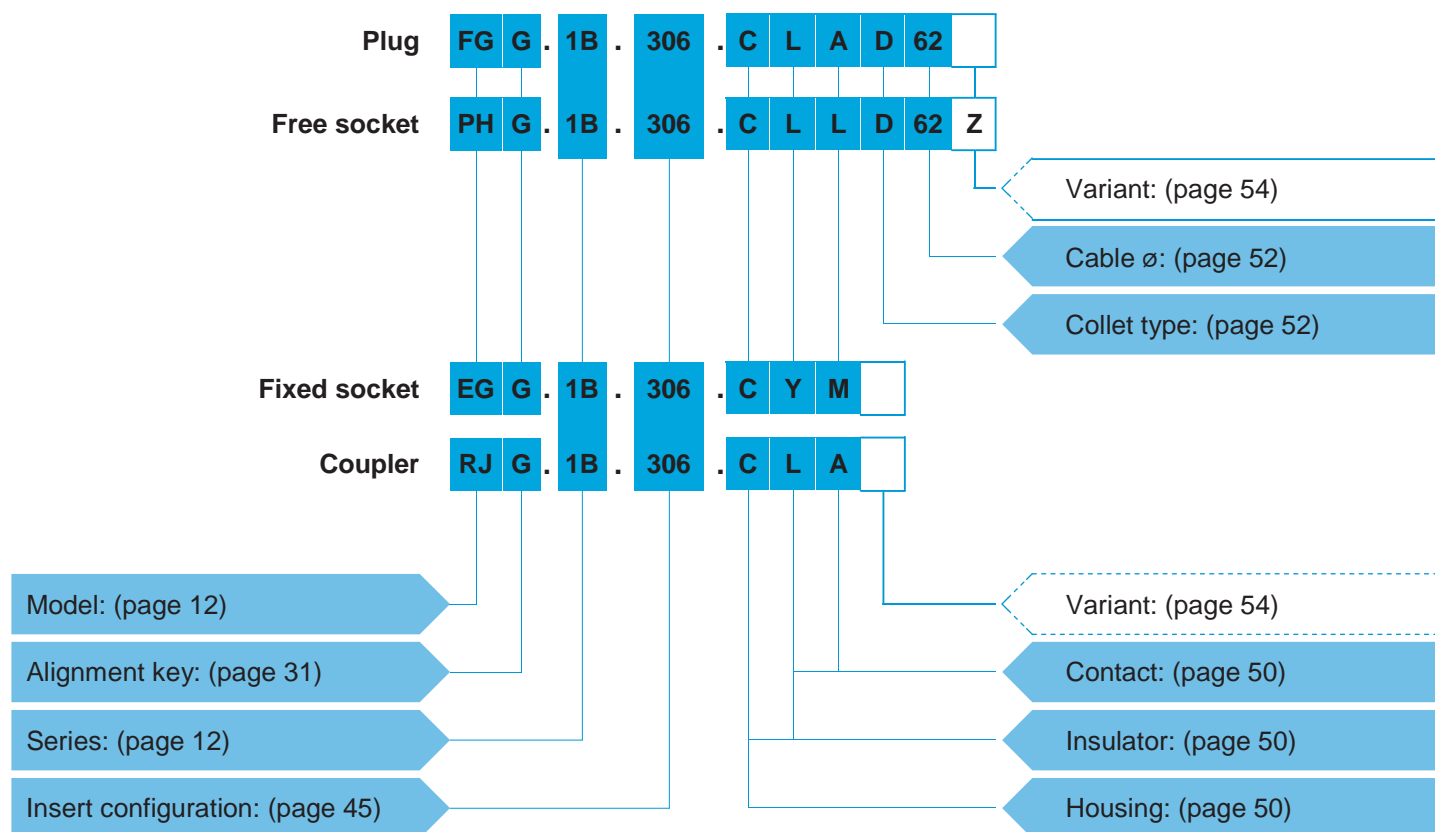
ESG

#### Elbow socket



XRB

## Part Numbering System



## Part Number Example

### Straight plug with cable collet:

**FGG.1B.306.CLAD62** = straight plug with key (G) and cable collet, 1B series, multipole type with 6 contacts, outer shell in chrome-plated brass, PEEK insulator, male solder contacts, D type collet for 6.0 mm diameter cable.

### Free socket:

**PHG.1B.306.CLLD62Z** = free socket with key (G) and cable collet, 1B series, multipole type with 6 contacts, outer shell in chrome-plated brass, PEEK insulator, female solder contacts, D type collet for 6.0 mm diameter cable and nut for fitting a bend relief.

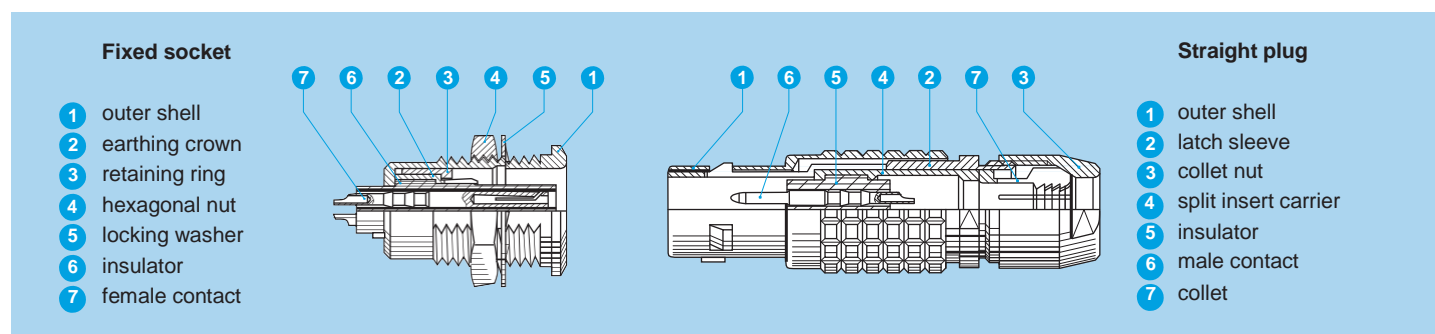
### Fixed socket:

**EGG.1B.306.CYM** = fixed socket, nut fixing, with key (G), 1B series, multipole type with 6 contacts, outer shell in chrome-plated brass, PEEK extended insulator, female crimp contacts.

### Fixed coupler:

**RJG.1B.306.CLA** = straight fixed coupler with keys (J) at the flange end and key (G) at the other end, 1B series, multipole type with 6 contacts, outer shell in chrome-plated brass, PEEK insulator, male-female contacts.

## Part Section Showing Internal Components



## Metal housing models

### Technical Characteristics

#### Mechanical and Climatical

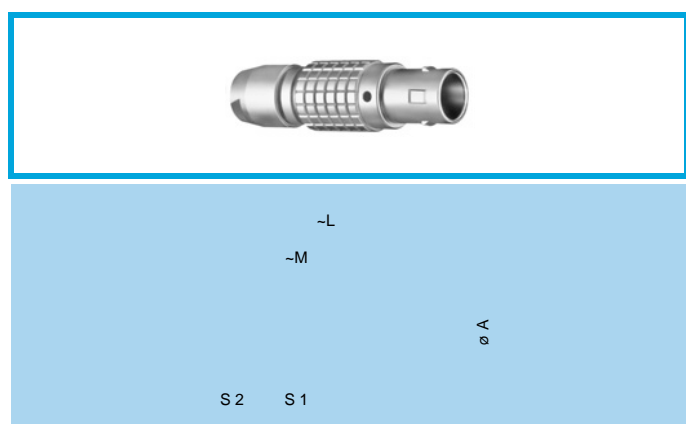
Characteristics	Value	Standard
Endurance	> 5000 cycles	IEC 60512-5 test 9a
Humidity	up to 95% at 60° C	
Temperature range	- 55° C, +250° C	
Resistance to vibration	10-2000 Hz, 15 g	IEC 60512-4 test 6d
Shock resistance	100 g, 6 ms	IEC 60512-4 test 6c
Salt spray corrosion test	> 144h	IEC 60512-6 test 11f
Protection index (mated)	IP50	IEC 60529
Climatical category	55/175/21	IEC 60068-1

#### Electrical

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

#### Note:

the various tests have been carried out with FGG and EGG connector pairs, with chrome-plated brass shell and PEEK insulator. Detailed electrical characteristics, as well as materials and treatment are presented in the chapter Technical Characteristics on page 171.



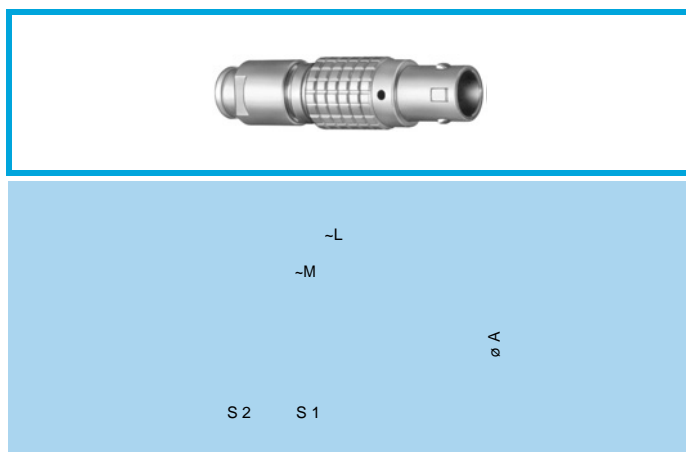
#### FGG Straight plug, key (G) or keys (A...M and R), cable collet

Reference		Dimensions (mm)				
Model	Series	A	L	M	S1	S2
FGG	00 <sup>1)</sup>	6.4	28.5	20.5	5.5	5
FGG	0B	9.5	36.0	26.0	8.0	7
FGG	1B	12.0	43.0	32.0	10.0	9
FGG	2B	15.0	50.0	38.0	13.0	12
FGG	3B	18.0	58.0	43.0	15.0	14
FGG	4B	25.0	75.0	57.0	21.0	20
FGG	5B	35.0	103.0	78.0	31.0	30

**M1**

Cable assembly (page 161)

Note: <sup>1)</sup> the surface design of the 00 series is different.



#### FGG Straight plug, key (G) or keys (A...M), cable collet and nut for fitting a bend relief <sup>2)</sup>

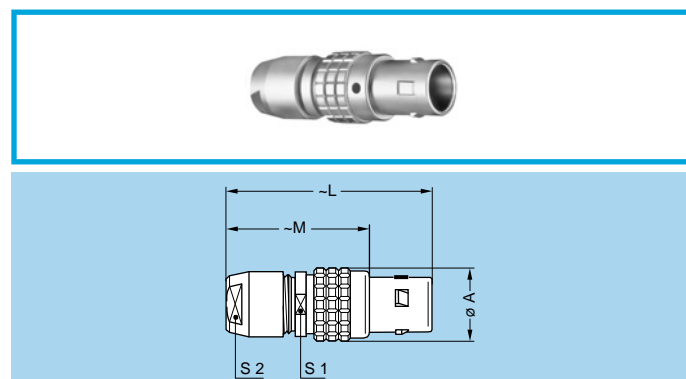
Reference		Dimensions (mm)				
Model	Series	A	L	M	S1	S2
FGG	00 <sup>1)</sup>	6.4	28.7	20.7	5.5	6
FGG	0B	9.5	35.0	25.0	8.0	7
FGG	1B	12.0	42.0	31.0	10.0	9
FGG	2B	15.0	49.0	37.0	13.0	12
FGG	3B	18.0	56.5	41.5	15.0	15
FGG	4B	25.0	71.0	53.0	21.0	20

**M1**

Cable assembly (page 161)

Note: <sup>1)</sup> the surface design of the 00 series is different.  
<sup>2)</sup> to order, add a «Z» at the end of the reference.

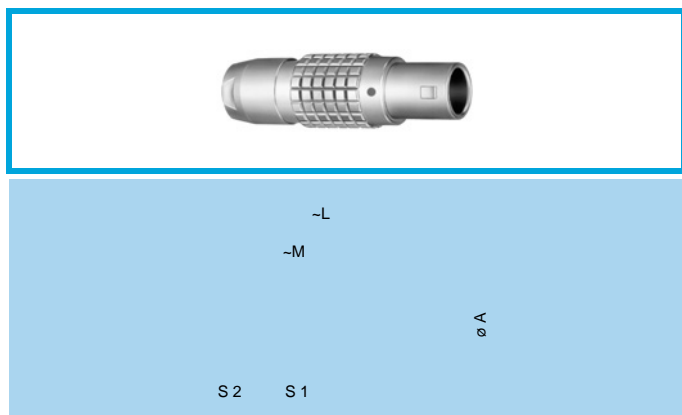
The bend relief must be ordered separately (see page 141).



#### JGG Straight plug, short version, key (G), cable collet

Reference		Dimensions (mm)				
Model	Series	A	L	M	S1	S2
JGG	0B	9.5	32.0	22.0	8.0	7

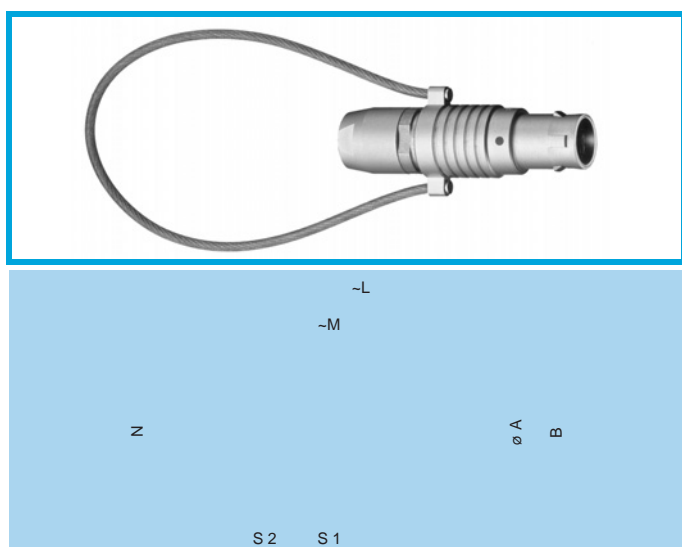
**M4** Cable assembly (page 161)



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

Reference		Dimensions (mm)				
Model	Series	A	L	M	S1	S2
FFG	0B	9.5	36	26	8	7
FFG	1B	12.0	43	32	10	9
FFG	2B	15.0	50	38	13	12
FFG	3B	18.0	58	43	15	14
FFG	4B	25.0	75	57	21	20

**M1** Cable assembly (page 161)

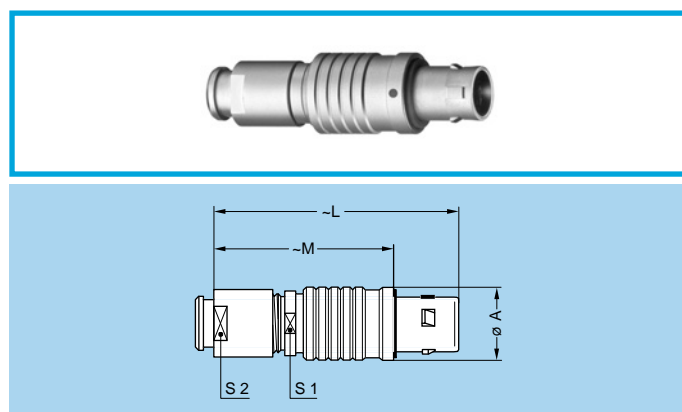


### FNG Straight plug, key (G) or keys (A...M and R), cable collet and lanyard release

Reference		Dimensions (mm)							
Model	Series	A	B	L	M	N	S1	S2	
FNG	0B	9.5	15.5	36.0	26.0	140	8	7	
FNG	1B	12.0	18.0	43.0	32.0	140	10	9	
FNG	2B	15.0	21.0	49.0	37.0	160	13	12	
FNG	3B	18.0	25.0	58.0	43.0	190	15	14	
FNG	4B	25.0	32.0	75.0	57.0	230	21	20	
FNG	5B	35.0	42.0	103.0	78.0	300	31	30	

**M1** Cable assembly (page 161)

**Note:** cable material: stainless steel with Polyamide sheath.

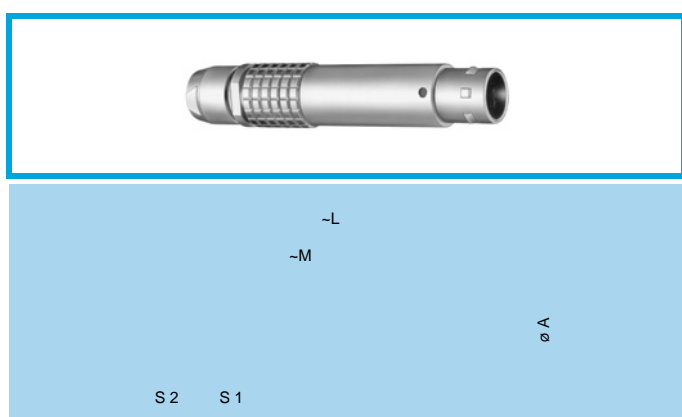


### FEG Straight plug, key (G) or keys (A...L), cable collet, front seal and nut for fitting a bend relief <sup>1)</sup> (IP 54 protection index when mated)

Reference		Dimensions (mm)				
Model	Series	A	L	M	S1	S2
FEG	0B	11.0	35.0	25.0	8	7
FEG	1B	13.5	42.0	33.0	10	9
FEG	2B	16.5	48.0	36.0	13	12
FEG	3B	19.0	56.5	41.5	15	15

**M1** Cable assembly (page 161)

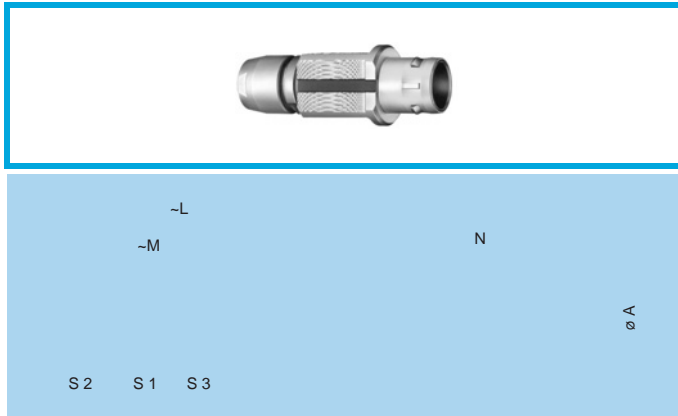
**Note:** <sup>1)</sup> to order, add a «Z» at the end of the reference. The bend relief must be ordered separately (see page 141).



### FDG Straight plug, long version, key (G) or keys (A...L), cable collet

Reference		Dimensions (mm)				
Model	Series	A	L	M	S1	S2
FDG	1B	12	68	57	10	9
FDG	2B	15	79	67	13	12

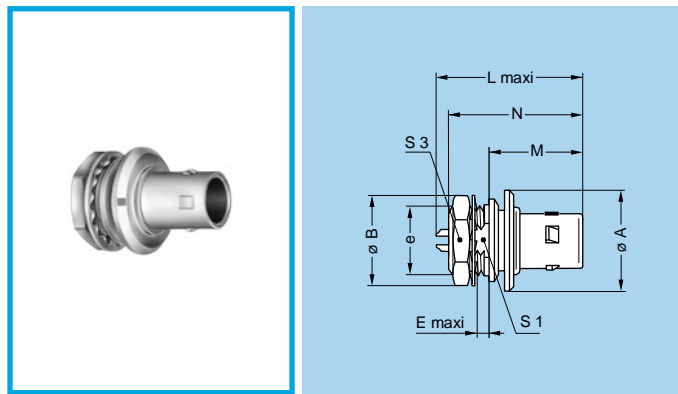
**M2** Cable assembly (page 162)



**FIG** Straight plug for remote handling, key (G) or keys (A...L and R), special alignment mark, knurled handling surface, cable collet

Reference		Dimensions (mm)						
Model	Series	A	L	M	N	S1	S2	S3
FIG	2B	20	49	37	17.5	13	12	15
FIG	3B	22	58	43	21.5	15	14	18
FIG	4B	30	75	57	28.5	21	20	25
FIG	5B	40	103	78	41.0	31	30	35

**M1** Cable assembly (page 161)

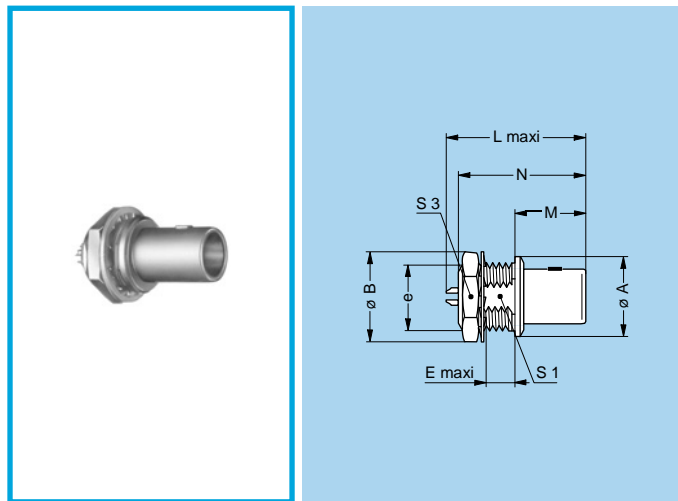


**FWG** Fixed plug, nut fixing, key (G) or keys (A...L)

Reference		Dimensions (mm)								
Model	Series	A	B	e	E	L	M	N <sup>1)</sup>	S1	S3
FWG	0B	14.0	12.4	M9x0.6	1.8	22.5	14.5	19.5	8.2	11
FWG	1B	18.0	15.8	M12x1.0	2.9	24.9	17.0	24.8	10.5	14
FWG	2B	19.5	19.2	M15x1.0	4.1	28.6	18.0	27.3	13.5	17
FWG	3B	25.0	25.0	M18x1.0	4.2	32.1	23.0	31.5	16.5	22

**P9** Panel cut-out (page 152)

**Note:** <sup>1)</sup> maximum length with crimp contacts

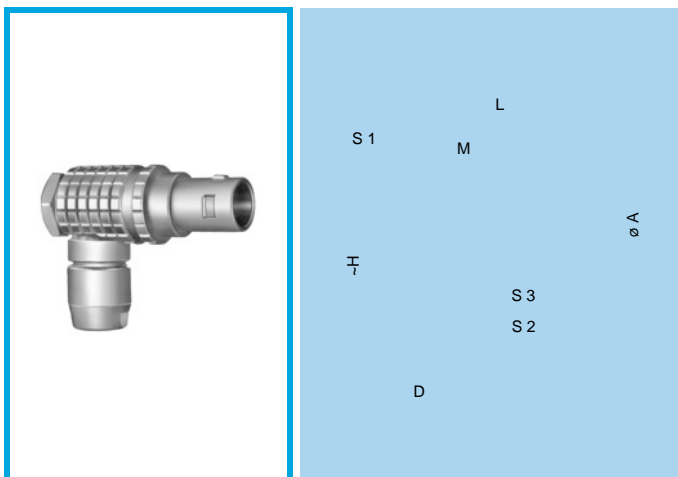


**FAG** Fixed plug, non-latching, nut fixing, key (G) or keys (A...M and R)

Reference		Dimensions (mm)								
Model	Series	A	B	e	E	L	M	N <sup>1)</sup>	S1	S3
FAG	00	8	10.2	M7x0.5	2.9	18.1	9.0	15.0	6.3	9
FAG	0B	10	12.4	M9x0.6	4.2	20.8	11.5	18.9	8.2	11
FAG	1B	14	15.8	M12x1.0	5.4	25.2	12.5	21.6	10.5	14
FAG	2B	18	19.2	M15x1.0	6.0	28.7	13.8	23.9	13.5	17
FAG	3B	22	25.0	M18x1.0	5.8	32.1	17.0	30.2	16.5	22
FAG	4B	29	34.0	M25x1.0	6.8	37.1	20.5	34.7	23.5	30
FAG	5B	40	40.0	M35x1.0	6.8	47.1	28.0	42.8	33.5	—

**P1** Panel cut-out (page 152)

**Note:** <sup>1)</sup> maximum length with crimp contacts. The 5B series is delivered without locking washer or tapered washer and with a round nut.



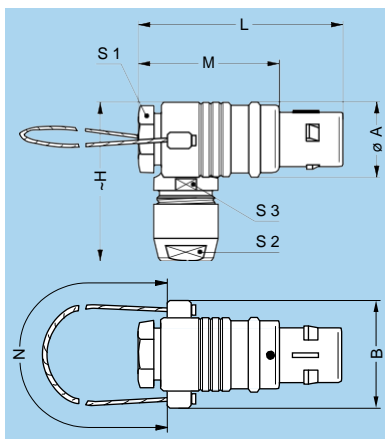
**FHG** Elbow (90°) plug, key (G) or keys (A...M and R), cable collet

Reference		Dimensions (mm)							
Model	Series	A	D	H	L	M	S1	S2	S3
FHG	00 <sup>1)</sup>	7.7	5.2	18.0	24.5	16.5	7	5	5.5
FHG	0B	11.0	6.5	26.0	30.0	21.6	10	7	8.0
FHG	1B	13.5	8.0	30.5	36.0	25.0	11	9	10.0
FHG	2B	16.5	9.0	34.0	41.5	29.5	14	12	13.0
FHG	3B	19.0	10.0	37.0	50.0	35.0	17	14	15.0
FHG	4B	26.0	15.0	52.0	67.0	49.0	22	20	21.0
FHG	5B	36.0	21.0	74.0	90.0	65.0	32	30	31.0

**M3** Cable assembly (page 161)

**Note:** <sup>1)</sup> the surface design of the 00 series is different.



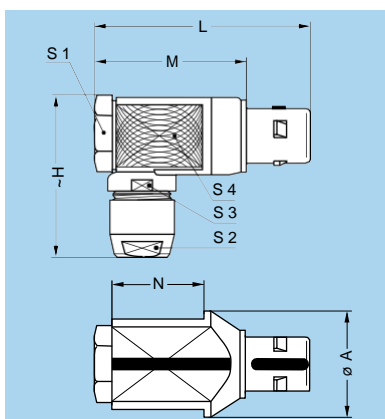


### FMG Elbow (90°) plug, key (G) or keys (A...M), cable collet and lanyard release, long key <sup>1)</sup>

Reference		Dimensions (mm)									
Model	Series	A	B	H	L	M	N	S1	S2	S3	
FMG	0B	11	17	26	31.6	21.6	140	10	7	8	
FMG	3B	19	26	39	50.0	35.0	190	17	14	15	

**M3** Cable assembly (page 161)

**Note:** <sup>1)</sup> long key: only in 0B series and with key (G).  
Cable material: stainless steel with Polyamide sheath.

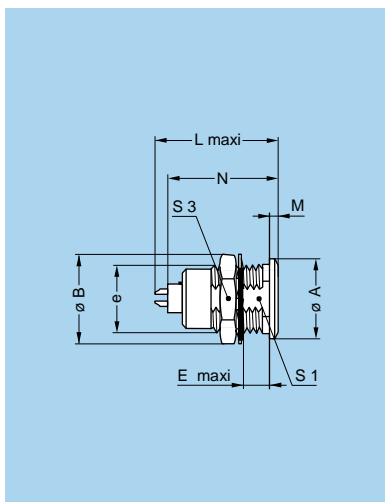


### FKG Elbow (90°) plug for remote handling, key (G) or keys (A...L), special alignment mark, knurled handling surface, cable collet

Reference		Dimensions (mm)									
Model	Series	A	H	L	M	N	S1	S2	S3	S4	
FKG	3B	25	37.0	50.0	35.0	21.0	17	14	15	21	
FKG	4B	32	52.0	67.0	49.0	28.5	22	20	21	26	
FKG	5B	46	74.2	89.5	64.5	40.0	32	30	31	38	

**M3** Cable assembly (page 161)

**Note:** dimension D is the same as for the FHG model.

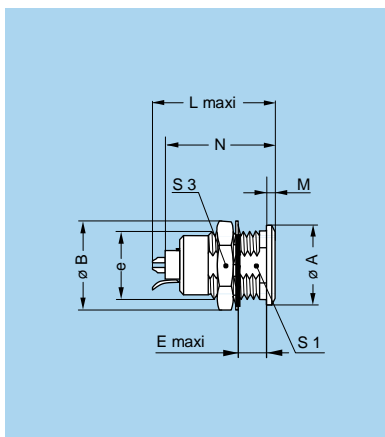


### EGG Fixed socket, nut fixing, key (G) or keys (A...M and R)

Reference		Dimensions (mm)									
Model	Series	A	B	e	E	L	M	N <sup>1)</sup>	S1	S3	
EGG	00	8	10.2	M7x0.5	6.0	15.5	1.0	13.7	6.3	9	
EGG	0B	10	12.4	M9x0.6	7.0	20.7	1.2	19.1	8.2	11	
EGG	1B	14	15.8	M12x1.0	7.5	23.0	1.5	21.1	10.5	14	
EGG	2B	18	19.2	M15x1.0	8.5	26.7	1.8	24.6	13.5	17	
EGG	3B	22	25.0	M18x1.0	11.5	30.7	2.0	28.1	16.5	22	
EGG	4B	28	34.0	M25x1.0	12.0	35.7	2.5	34.1	23.5	30	
EGG	5B	40	40.0	M35x1.0	11.0	43.5	3.0	39.6	33.5	—	

**P1** Panel cut-out (page 152)

**Note:** <sup>1)</sup> maximum length with crimp contacts.  
The 5B series is delivered with a tapered washer and a round nut.

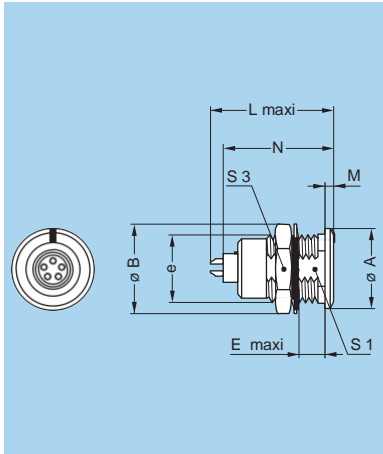


### ENG Fixed socket with earthing tag, nut fixing, key (G) or keys (A...M)

Reference		Dimensions (mm)									
Model	Series	A	B	e	E	L	M	N <sup>1)</sup>	S1	S3	
ENG	0B	10	12.4	M9x0.6	7.0	20.7	1.2	19.1	8.2	11	
ENG	1B <sup>2)</sup>	14	15.8	M12x1.0	7.5	23.0	1.5	21.1	10.5	14	
ENG	2B	18	19.2	M15x1.0	8.5	26.7	1.8	24.6	13.5	17	
ENG	3B	22	25.0	M18x1.0	11.5	30.7	2.0	28.1	16.5	22	
ENG	4B	28	34.0	M25x1.0	12.0	35.7	2.5	34.1	23.5	30	

**P1** Panel cut-out (page 152)

**Note:** <sup>1)</sup> maximum length with crimp contacts.  
<sup>2)</sup> for the 1B series the earthing tag is on the same side of the key.

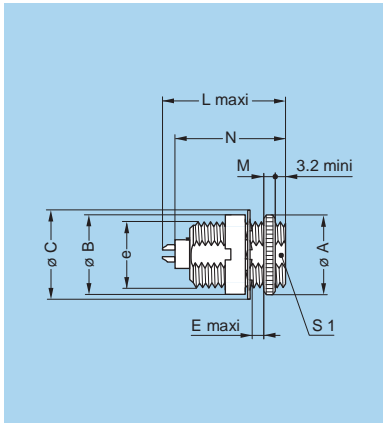


### EKG Fixed socket, nut fixing, key (G) or keys (A...L and R), special alignment mark on the front

Reference		Dimensions (mm)								
Model	Series	A	B	e	E	L	M	N <sup>1)</sup>	S1	S3
EKG	2B	18	19.2	M15x1.0	8.5	26.7	1.8	24.6	13.5	17
EKG	3B	22	25.0	M18x1.0	11.5	30.7	2.0	28.1	16.5	22
EKG	4B	28	34.0	M25x1.0	12.0	35.7	2.5	34.1	23.5	30
EKG	5B	40	40.0	M35x1.0	11.0	43.5	3.0	39.6	33.5	—

**P1** Panel cut-out (page 152)

**Note:** <sup>1)</sup> maximum length with crimp contacts.  
The 5B series is delivered with a tapered washer and a round nut.



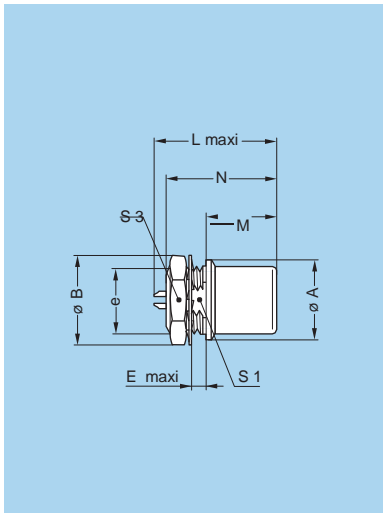
### ESG Fixed socket with two round nuts, key (G) or keys (A...L), long threaded shell (back panel mounting)

Reference		Dimensions (mm)								
Model	Series	A	B	C	e	E	L	M	N <sup>1)</sup>	S1
ESG	00	9	9	9.5	M7x0.5	3.2	15.5	2	13.7	—
ESG	1B	14	14	16.0	M12x1.0	8.0	23.0	2	21.1	10.5

**P1** Panel cut-out 1B series (page 152)

**P2** Panel cut-out 00 series (page 152)

**Note:** <sup>1)</sup> maximum length with crimp contacts.

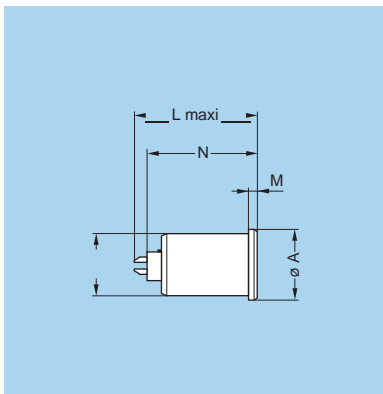


### EHG Fixed socket, nut fixing, key (G) or keys (A...M and R), and protruding shell

Reference		Dimensions (mm)								
Model	Series	A	B	e	E	L	M	N <sup>1)</sup>	S1	S3
EHG	00	8.0	10.2	M7x0.5	2.0	15.5	8.5	13.7	6.3	9
EHG	0B	10.0	12.4	M9x0.6	2.0	19.5	12.5	19.1	8.2	11
EHG	1B	14.0	15.8	M12x1.0	4.0	21.7	12.0	21.1	10.5	14
EHG	2B	18.0	19.2	M15x1.0	5.1	22.7	12.5	24.6	13.5	17
EHG	3B	22.0	25.0	M18x1.0	7.1	30.7	13.5	30.3	16.5	22
EHG	5B	40.0	40.0	M35x1.0	2.5	43.5	28.0	38.5	33.5	—

**P1** Panel cut-out (page 152)

**Note:** <sup>1)</sup> maximum length with crimp contacts.  
The 5B series is delivered without locking washer or tapered washer and with a round nut.



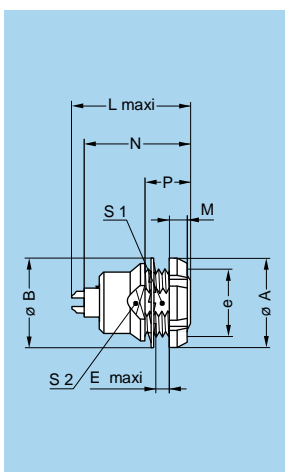
### EJG Fixed socket, press or adhesive fit, key (G) or keys (A...M)

Reference		Dimensions (mm)					
Model	Series	A	B	L	M	N <sup>1)</sup>	
EJG	0B	9.2	8.35	20.7	1.5	19.1	
EJG	1B	12.5	11.20	23.0	1.5	21.1	
EJG	2B	16.5	14.00	26.7	1.5	24.6	

**P5** Panel cut-out (page 152)

**Note:** <sup>1)</sup> maximum length with crimp contacts.



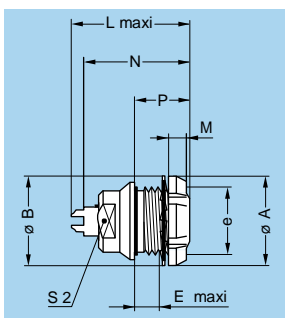


### EEG Fixed socket, nut fixing, key (G) or keys (A...M and R) (back panel mounting)

Reference		Dimensions (mm)									
Model	Series	A	B	e	E	L	M	N <sup>1)</sup>	P	S1	S2
EEG	00	10	9.5	M7x0.5	2.3	15.5	2.5	13.7	6.0	6.3	7.5
EEG	0B	12	12.5	M9x0.6	2.4	20.7	2.5	19.1	6.3	8.2	9.0
EEG	1B	16	16.0	M12x1.0	6.5	23.0	3.5	21.1	11.0	10.5	13.0
EEG	2B	20	20.0	M15x1.0	3.0	26.7	3.5	24.6	9.0	13.5	15.0
EEG	3B	24	25.0	M18x1.0	5.0	30.7	4.5	28.1	12.0	16.5	20.0
EEG	5B	41	40.0	M35x1.0	13.5	43.5	5.0	39.6	19.5	33.5	38.0

**P1** Panel cut-out (page 152)

**Note:** <sup>1)</sup> maximum length with crimp contacts. The 3B and 5B series are delivered with a conical nut. The 5B series is delivered without locking washer or tapered washer.

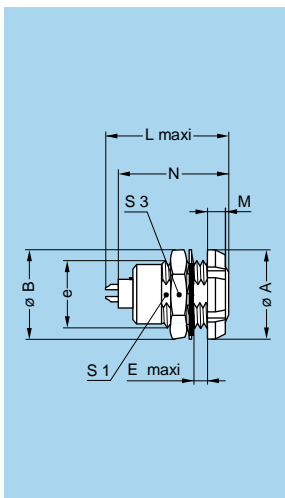


### EFG Fixed socket, nut fixing, key (G) or keys (A...M), with two flats on the shell and O-ring (back panel mounting)

Reference		Dimensions (mm)								
Model	Series	A	B	e	E	L	M	N <sup>1)</sup>	P	S2
EFG	0B	12	12.5	M9x0.6	5.5	20.7	2.5	19.1	9	8

**P2** Panel cut-out (page 152)

**Note:** <sup>1)</sup> maximum length with crimp contacts.

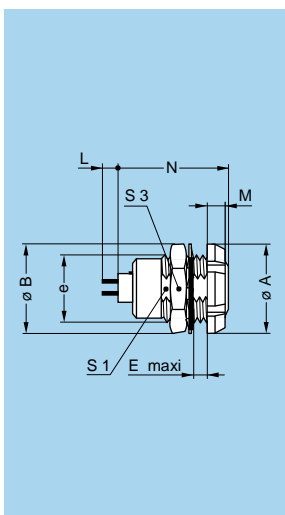


### ECG Fixed socket with two nuts, key (G) or keys (A...M and R) (back panel mounting)

Reference		Dimensions (mm)								
Model	Series	A	B	e	E	L	M	N <sup>1)</sup>	S1	S3
ECG	00	10	10.2	M7x0.5	4.3	13.7	2.5	13.7	6.3	9
ECG	0B	12	12.4	M9x0.6	5.5	20.7	2.5	19.1	8.2	11
ECG	1B	16	15.8	M12x1.0	6.0	23.0	3.5	21.1	10.5	14
ECG	2B	20	19.2	M15x1.0	6.5	26.7	3.5	24.6	13.5	17
ECG	3B	24	25.0	M18x1.0	9.0	30.7	4.5	28.1	16.5	22
ECG	4B	30	34.0	M25x1.0	10.0	35.7	4.5	32.6	23.5	30
ECG	5B	41	40.0	M35x1.0	9.0	43.5	5.0	39.6	33.5	–

**P1** Panel cut-out (page 152)

**Note:** <sup>1)</sup> maximum length with crimp contacts. The 3B, 4B and 5B series are delivered with a conical nut. The 5B series is delivered with a tapered washer and a round nut.



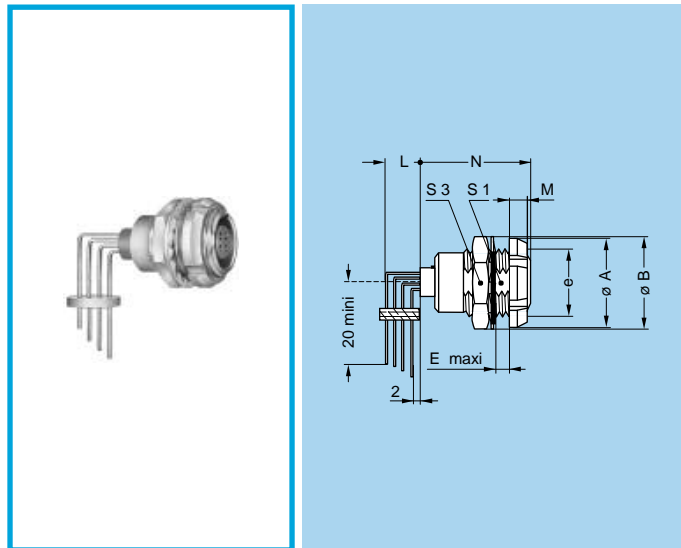
### ECG Fixed socket with two nuts, key (G) or keys (A...F and R) and straight contact for printed circuit (back panel mounting)

Reference		Dimensions (mm)							
Model	Series	A	B	e	E	M	N	S1	S3
ECG	00	10	10.2	M7x0.5	4.3	2.5	13.7	6.3	9
ECG	0B	12	12.4	M9x0.6	5.5	2.5	16.1	8.2	11
ECG	1B	16	15.8	M12x1.0	6.0	3.5	19.8	10.5	14
ECG	2B	20	19.2	M15x1.0	6.5	3.5	21.8	13.5	17
ECG	3B	24	25.0	M18x1.0	9.0	4.5	25.8	16.5	22
ECG	4B	30	34.0	M25x1.0	10.0	4.5	29.8	23.5	30
ECG	5B	41	40.0	M35x1.0	9.0	5.0	36.8	33.5	—

**P1**  
Panel cut-out  
(page 152)

**P15**  
PCB drilling pattern  
(page 154)

**Note:** this contact type is available for E●● socket models fitted with female contacts. Length «L» depends on the number of contacts, see table on page 156. The 5B series is delivered with a tapered washer and a round nut. The 3B, 4B and 5B series are delivered with a conical nut.



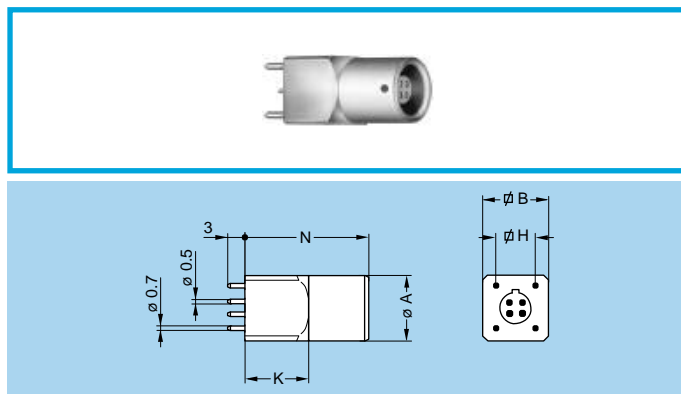
### ECG Fixed socket with two nuts, key (G) or keys (A...F) with elbow (90°) contact for printed circuit (back panel mounting)

Reference		Dimensions (mm)							
Model	Series	A	B	e	E	M	N <sub>max</sub>	S1	S3
ECG	0B	12	12.4	M9x0.6	5.5	2.5	18.3	8.2	11
ECG	1B	16	15.8	M12x1.0	6.0	3.5	20.3	10.5	14
ECG	2B	20	19.2	M15x1.0	6.5	3.5	22.3	13.5	17
ECG	3B	24	25.0	M18x1.0	9.0	4.5	25.8	16.5	22

**P1** Panel cut-out (page 152)

**P17** PCB drilling pattern (page 157)

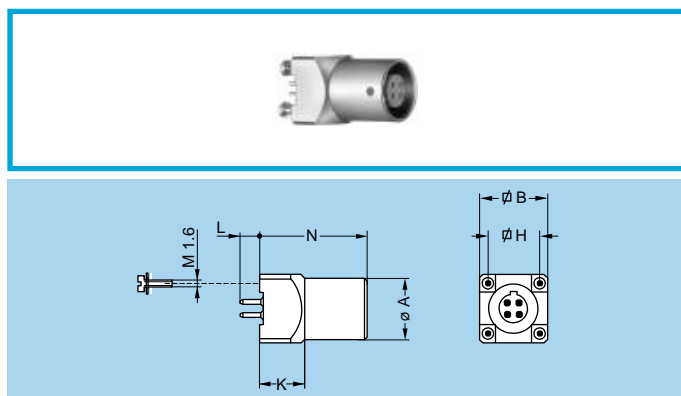
**Note:** this female contact type is available for all back panel mounting socket models. Length «L» depends on the number of contacts, see PCB drilling pattern on page 157.  
For male contacts, sockets are available upon request, with J, K or L keys. The 3B series is delivered with a conical nut.



### EZG Straight socket for printed circuit, key (G) or keys (A, B)

Reference		Dimensions (mm)				
Model	Series	A	B	H	K	N
EZG	00	6.8	7	5.08	7	14

**P15**+**P16** PCB drilling pattern (pages 154 and 156)

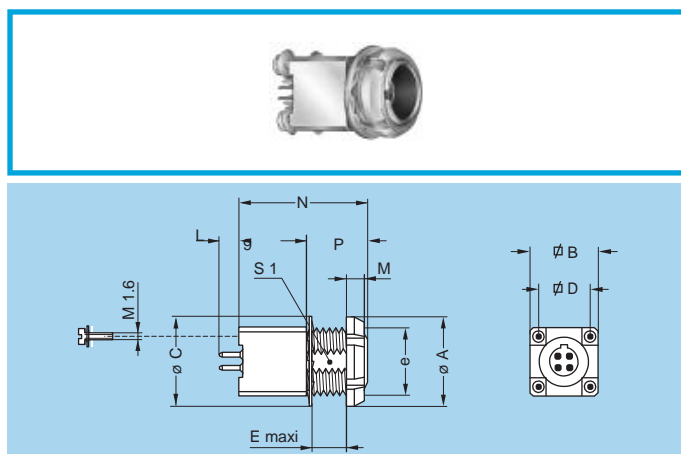


### EZG Straight socket for printed circuit, key (G) or keys (A...F)

Reference		Dimensions (mm)				
Model	Series	A	B	H	K	N
EZG	0B	9	10	7.62	8	15.0
EZG	1B	11	12	7.62	8	19.0
EZG	2B	14	15	10.16	9	22.5

**P15**+**P16** PCB drilling pattern (pages 154 and 156)

**Note:**  
Length «L» depends on the number of contacts, see table on page 156.



### EYG Fixed socket for printed circuit, nut fixing, key (G) or keys (A...F) (back panel mounting)

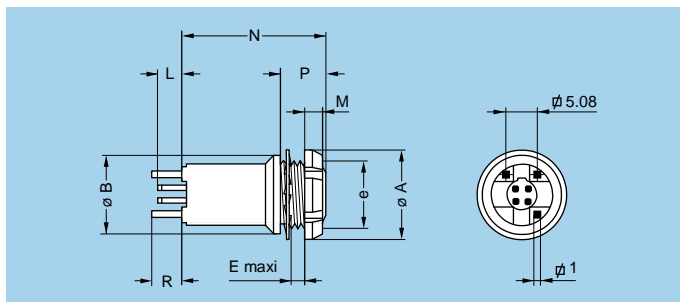
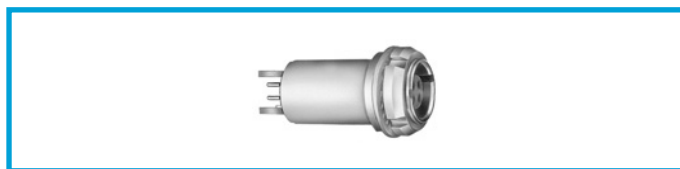
Reference		Dimensions (mm)									
Model	Series	A	B	C	D	e	E	M	N	P	S1
EYG	0B	12	10	12.5	7.62	M9x0.6	2.6	2.5	15.0	6.0	8.2
EYG	1B	14	12	16.0	7.62	M11x0.5	5.0	3.5	19.0	10.0	—
EYG	2B	20	15	19.5	10.16	M15x1.0	7.5	3.5	22.5	13.5	13.5

**P1** Panel cut-out 0B and 2B series (page 152)

**P10** Panel cut-out 1B series (page 152)

**P15**+**P16** PCB drilling pattern (pages 154 and 156)

**Note:** Length «L» depends on the number of contacts, see page 156.



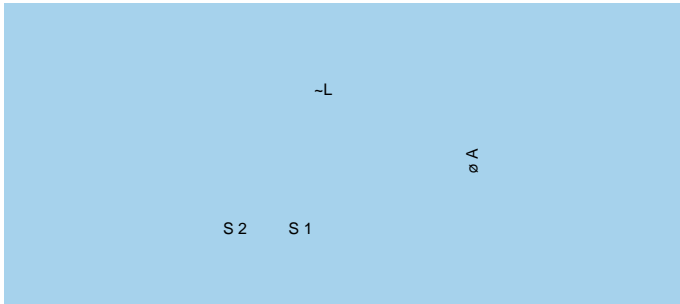
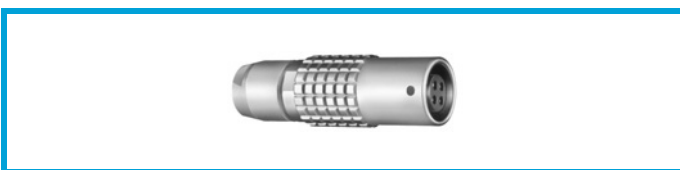
## XPF Fixed socket, nut fixing, long shell, keys (F) for printed circuit (back panel mounting)

Reference		Dimensions (mm)							
Model	Series	A	B	e	E	M	N	P	R
XPF	0B	12	11	M9x0.6	1.5	2.5	19	5	4

**P2** Panel cut-out (page 152)

**P15** + **P16** PCB drilling pattern (pages 154 and 156)

**Note:**  
Length «L» depends on the number of contacts, see table on page 156.

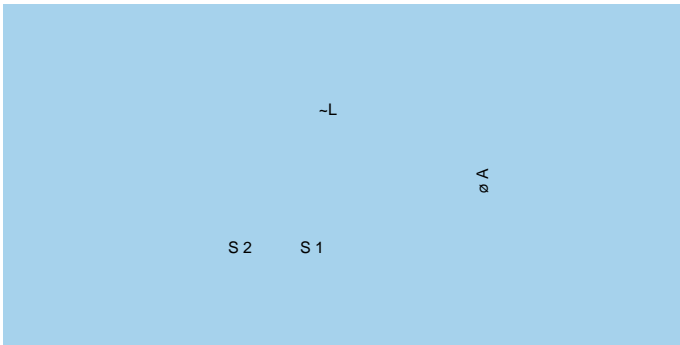
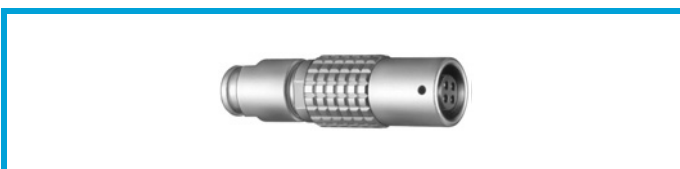


## PHG Free socket, key (G) or keys (A...M and R), cable collet

Reference		Dimensions (mm)			
Model	Series	A	L	S1	S2
PHG	00 <sup>1)</sup>	6.8	26.0	5.5	5
PHG	0B	9.5	35.5	8.0	7
PHG	1B	12.5	40.5	10.0	9
PHG	2B	16.5	47.0	13.0	12
PHG	3B	19.0	56.0	15.0	14
PHG	4B	26.0	73.0	21.0	20
PHG	5B	36.0	99.0	31.0	30

**M1** Cable assembly (page 161)

**Note:** <sup>1)</sup> the surface design of the 00 series is different.



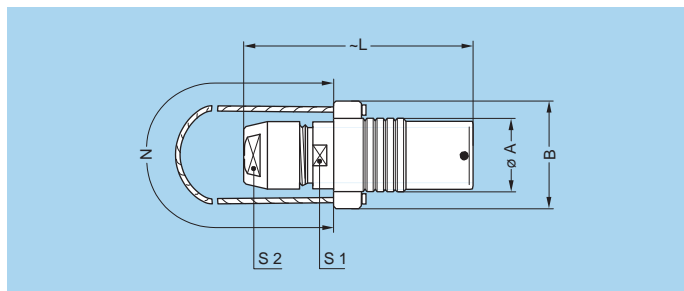
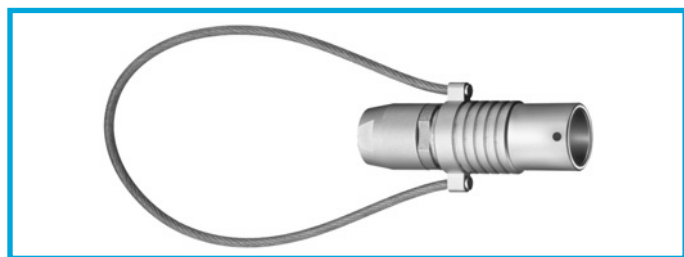
## PHG Free socket, key (G) or keys (A...M), cable collet and nut for fitting a bend relief <sup>2)</sup>

Reference		Dimensions (mm)			
Model	Series	A	L	S1	S2
PHG	00 <sup>1)</sup>	6.8	34.0	5.5	6
PHG	0B	9.5	34.5	8.0	7
PHG	1B	12.5	39.5	10.0	9
PHG	2B	16.5	46.0	13.0	12
PHG	3B	19.0	54.5	15.0	15
PHG	4B	26.0	69.0	21.0	20

**M1** Cable assembly (page 161)

**Note:** <sup>1)</sup> the surface design of the 00 series is different.  
<sup>2)</sup> to order, add a «Z» at the end of the reference.

The bend relief must be ordered separately (see page 141).

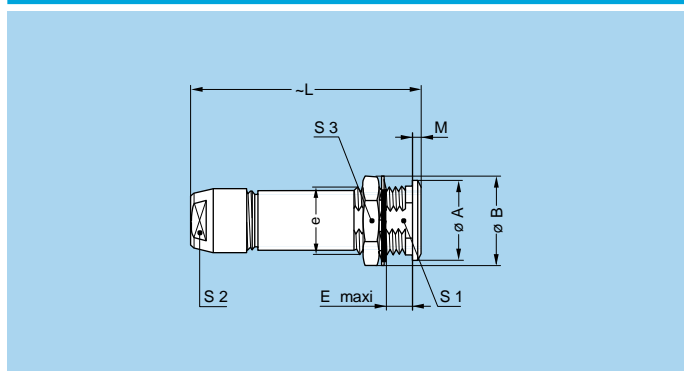
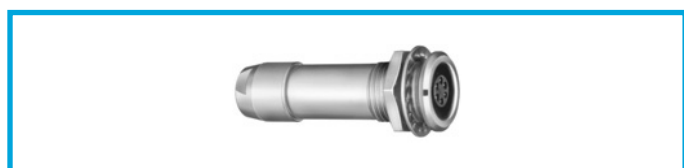


## PNG Free socket, nut fixing, key (G) or keys (A...L and R), cable collet with lanyard release

Reference		Dimensions (mm)					
Model	Series	A	B	L	N	S1	S2
PNG	1B	12.4	18.4	40.5	140	10	9
PNG	2B	16.5	22.5	47.0	160	13	12
PNG	3B	19.0	26.0	56.0	190	15	14
PNG	4B	26.0	33.0	73.0	230	21	20
PNG	5B	36.0	43.0	99.0	300	31	30

**M1** Cable assembly (page 161)

**Note:** cable material: stainless steel with Polyamide sheath



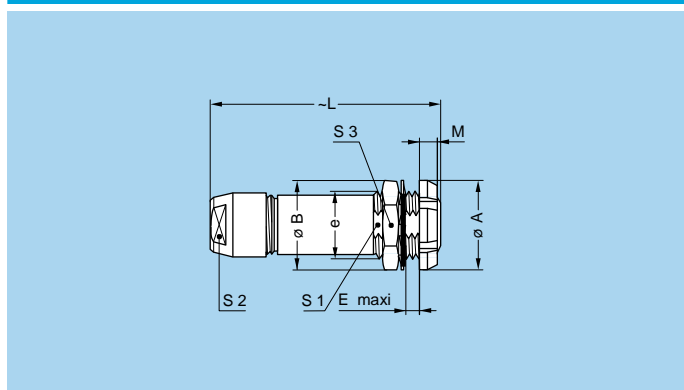
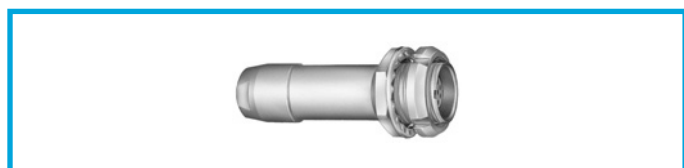
## PKG Fixed socket, nut fixing, key (G) or keys (A...M and R), cable collet

Reference		Dimensions (mm)								
Model	Series	A	B	e	E	L	M	S1	S2	S3
PKG	00	8	10.2	M7x0.5	6.5	26.0	1.0	6.3	5	9
PKG	0B	10	12.4	M9x0.6	7.0	35.5	1.2	8.2	7	11
PKG	1B	14	15.8	M12x1.0	7.5	40.5	1.5	10.5	9	14
PKG	2B	18	19.2	M15x1.0	8.5	47.0	1.8	13.5	12	17
PKG	3B	22	25.0	M18x1.0	11.5	56.0	2.0	16.5	14	22
PKG	4B	28	34.0	M25x1.0	12.0	73.0	2.5	23.5	20	30
PKG	5B	40	40.0	M35x1.0	11.0	99.0	3.0	33.5	30	—

**P1** Panel cut-out (page 152)

**M1** Cable assembly (page 161)

**Note:** the 5B series is delivered with a tapered washer and a round nut.



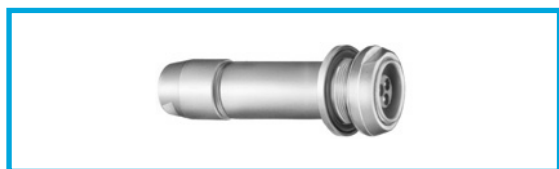
## PFG Fixed socket, with two nuts, key (G) or keys (A...M and R), cable collet (back panel mounting)

Reference		Dimensions (mm)								
Model	Series	A	B	e	E	L	M	S1	S2	S3
PFG	00	10	10.2	M7x0.5	5.3	26.0	2.5	6.3	5	9
PFG	0B	12	12.4	M9x0.6	5.0	35.5	2.5	8.2	7	11
PFG	1B	16	15.8	M12x1.0	5.0	40.5	3.5	10.5	9	14
PFG	2B	20	19.2	M15x1.0	6.5	47.0	3.5	13.5	12	17
PFG	3B	24	25.0	M18x1.0	9.0	56.0	4.5	16.5	14	22
PFG	4B	30	34.0	M25x1.0	11.0	73.0	4.5	23.5	20	30
PFG	5B	41	40.0	M35x1.0	10.0	99.0	5.0	33.5	30	—

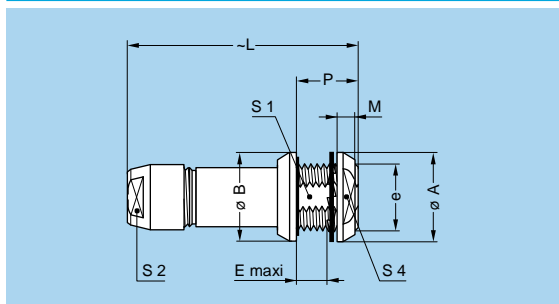
**P1** Panel cut-out (page 152)

**M1** Cable assembly (page 161)

**Note:** the 3B, 4B and 5B series are delivered with a conical nut. The 5B series is delivered with a tapered washer and a round nut.



## PEG Fixed socket, nut fixing, key (G) or keys (A...L), cable collet (back panel mounting)



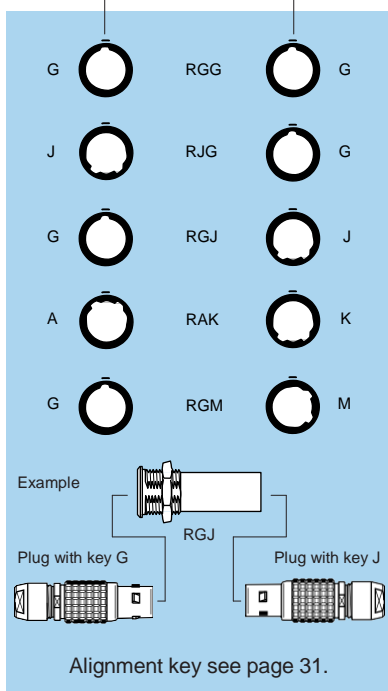
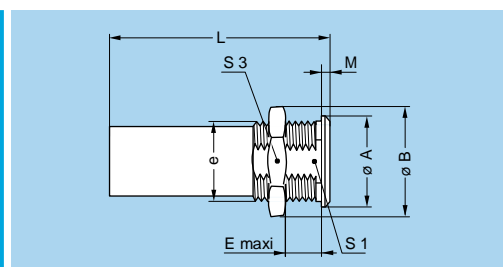
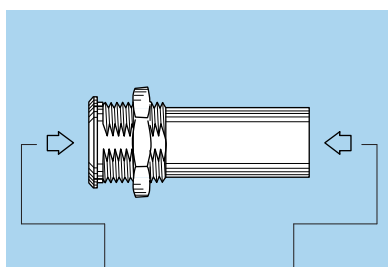
Reference		Dimensions (mm)									
Model	Series	A	B	e	E	L	M	S1	S2	S4	P
PEG	3B	24	25	M18x1.0	5.0	56	4.5	16.5	14	20	12
PEG	4B	32	34	M25x1.0	12.5	73	5.0	23.5	20	27	20

**P1** Panel cut-out (page 152)

**M1** Cable assembly (page 161)

**Note:** the 4B series has an o-ring on the flange.

## R Fixed coupler, nut fixing, key (G) or keys (A and J) at the flange end and keys (J, K or M) at the other end



Reference		Contacts	Dimensions (mm)							
Model	Series	Type	A	B	e	E	L	M	S1	S3
RGG <sup>1)</sup>	0B	female – female	12	13.8	M10x0.75	8.0	34	2.0	9.0	12
RGG <sup>2)</sup>	0B	female – female	12	13.8	M10x0.75	8.0	43	2.0	9.0	12
RJG	0B	male – female	12	13.8	M10x0.75	8.0	34	2.0	9.0	12
RGJ		female – male								
RAK		female – male								
RGM		female – male								
RGG <sup>3)</sup>	1B	female – female	16	19.2	M14x1.00	8.5	47	2.5	12.5	17
RJG	1B	male – female	16	19.2	M14x1.00	8.5	39	2.5	12.5	17
RGJ		female – male								
RJG	2B	male – female	20	21.5	M16x1.00	12.0	44	4.0	15.0	19
RGJ		female – male								
RGJ	3B	female – male	25	27.0	M20x1.00	32.0	53	4.0	18.5	24
RGJ	4B	female – male	34	34.0	M25x1.00	50.0	65	4.0	23.5	30

**P4** Panel cut-out (page 152)

### Note:

<sup>1)</sup> only available with two contacts.

<sup>2)</sup> only available with three and four contacts.

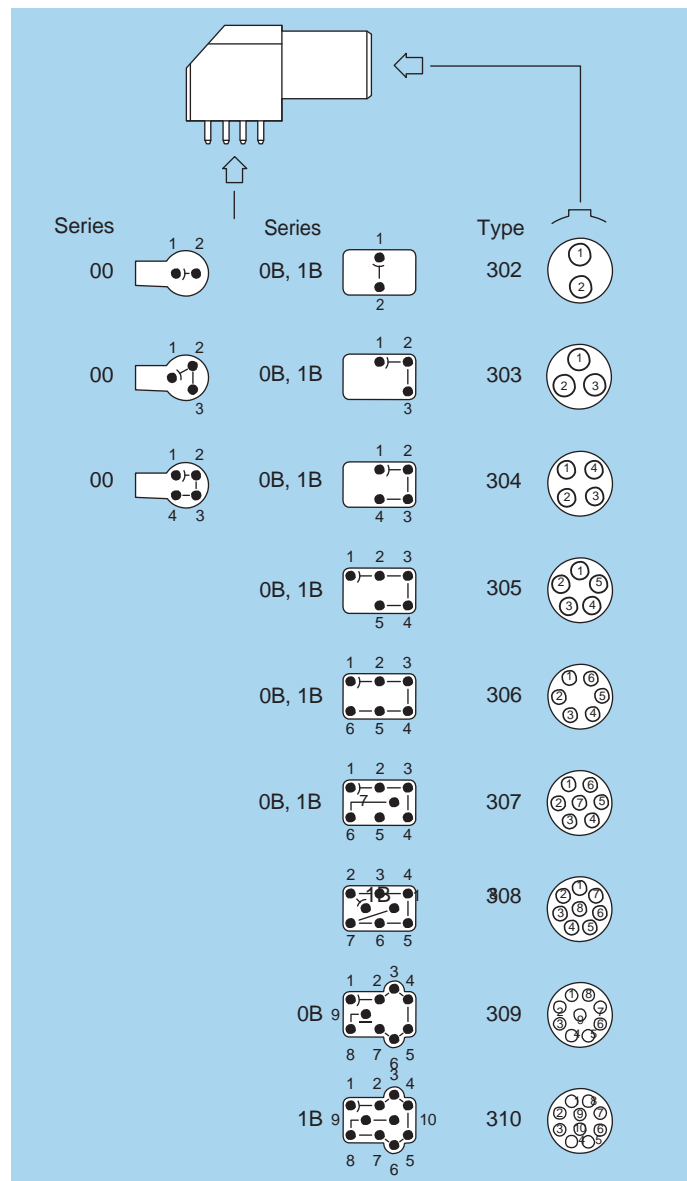
<sup>3)</sup> only available with three contacts.

For this fixed coupler, the first contact type mentioned is always the one at the flange end. On request, these couplers can be produced in other series, with other keys.

## Elbow socket models

### Technical Characteristics

#### Types



#### Materials and Treatment

Component	Material	Surface treat. (µm)		
		Cu	Ni	Au
Housing	PPS	–	–	–
	Brass	0.5	3	–
Metallic parts	Brass	0.5	3	–
Earthing crown	Bronze	0.5	3	–
Insulator	PEEK	–	–	–
Female contact	Bronze	0.5	3	1.5

#### Note:

The surface treatment standards are as follows:

– Nickel: FS QQ-N-290A. – Gold: ISO 27874

#### Electrical

Model	Series	Types	Test voltage (kV rms) <sup>1)</sup> Contact-contact	Test voltage (kV rms) <sup>1)</sup> Contact-shell	Rated current (A) <sup>1)</sup>
EPG-XBG	00	302-303-304	1.00	1.00	2.0
EPG-EXG	0B	302	1.45	1.20	4.5
EPG-EXG	0B	303	1.70	1.60	4.5
EPG-EXG	0B	304	1.30	1.10	4.5
EPG-EXG	0B	305	1.25	1.20	4.5
EPG-EXG	0B	306	1.25	1.20	2.5
EPG-EXG	0B	307	1.00	1.00	2.0
EPG-EXG	0B	309	1.00	1.10	1.5
EPG-EXG	1B	302	1.70	1.45	4.5
EPG-EXG	1B	303	1.60	1.85	4.5
EPG-EXG	1B	304	1.70	1.80	4.5
EPG-EXG	1B	305	1.30	1.55	4.5
EPG-EXG	1B	306	1.35	1.45	4.5
EPG-EXG	1B	307	1.45	1.45	2.0
EPG-EXG	1B	308	1.30	1.30	2.0
EPG-EXG	1B	310	1.00	1.00	1.5
EPG	1B	314	1.00	1.30	1.0

#### Note:

<sup>1)</sup> see calculation method, caution and suggested standard on page 178.

#### EPG Elbow (90°) socket for printed circuit, key (G) or keys (A...F) (solder or screw fixing)

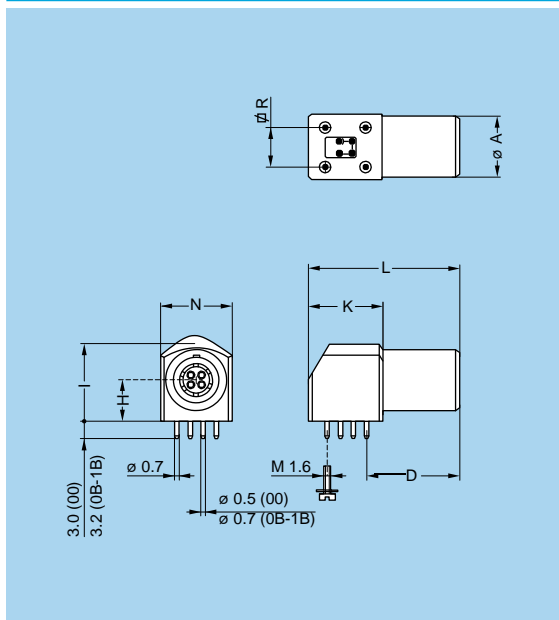
Reference	Dimensions (mm)						
	A	D	H	I	K	L	N
EPG.1B.314.NLN	11	21	7.7	14.3	19	36	15.4

**P20** PCB drilling pattern (page 158)

**Note:** to replace the 4 ground pins by 4 screws (M1.6) add an «S» to the end of the part number. (e.g.: EPG.1B.314.NLNS)



**EPG Elbow (90°) socket for printed circuit, key (G) or keys (A...F) (solder or screw fixing)**



Reference	Dimensions (mm)							
	A	D	H	I	K	L	N	R
EPG.00.302.HLN								
EPG.00.303.HLN	6.8	11.5	3.5	7.0	8.7	19	7.1	5.08
EPG.00.304.HLN								
EPG.0B.302.HLN								
EPG.0B.303.HLN								
EPG.0B.304.HLN								
EPG.0B.305.HLN	9.0	14.6	6.7	12.6	13.3	25	11.7	7.62
EPG.0B.306.HLN								
EPG.0B.307.HLN								
EPG.0B.309.HLN								
EPG.1B.302.HLN								
EPG.1B.303.HLN								
EPG.1B.304.HLN								
EPG.1B.305.HLN	11.0	16.6	7.5	14.0	13.3	27	12.6	7.62
EPG.1B.306.HLN								
EPG.1B.307.HLN								
EPG.1B.308.HLN								
EPG.1B.310.HLN								

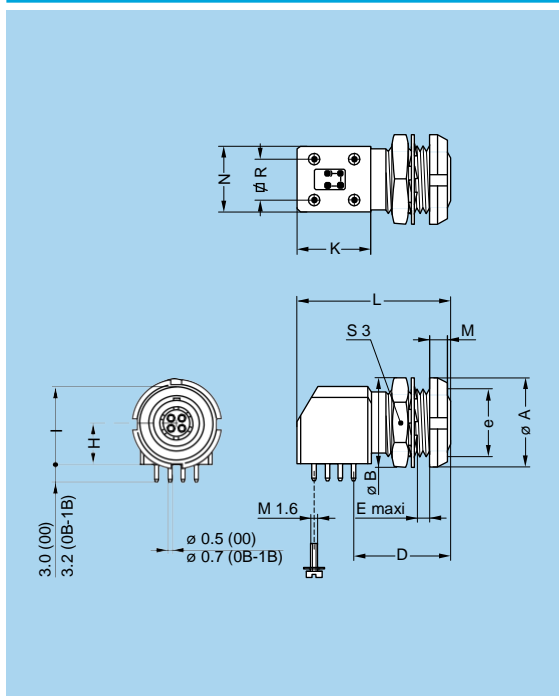
**P18** PCB drilling pattern 00 series (page 158)

**P19** PCB drilling pattern 0B, 1B series (page 158)

**Note:** In the 0B and 1B series, it is possible to replace the 4 ground pins by 4 screws (M1.6) add an «S» to the end of the part number. (e.g.: EPG.0B.307.HLNS)



**EXG Elbow (90°) socket for printed circuit with two nuts, key (G) or keys (A...F) (solder or screw fixing) (back panel mounting)**



**XBG Elbow (90°) socket fixing nut for printed circuit, key (G) or keys (A, B) (back panel mounting)**

Reference	Dimensions (mm)												
	A	B	D	e	E	H	I	K	L	M	N	R	S3
XBG.00.302.HLN													
XBG.00.303.HLN	10	10.2	11.5	M7x0.5	2.1	3.5	7.0	8.7	19	2.5	7.1	5.08	9
XBG.00.304.HLN													
EXG.0B.302.HLN													
EXG.0B.303.HLN													
EXG.0B.304.HLN													
EXG.0B.305.HLN	12	12.4	14.6	M9x0.6	6.0	6.7	12.6	13.3	25	2.5	11.7	7.62	11
EXG.0B.306.HLN													
EXG.0B.307.HLN													
EXG.0B.309.HLN													
EXG.1B.302.HLN													
EXG.1B.303.HLN													
EXG.1B.304.HLN													
EXG.1B.305.HLN	14	15.0	16.6	M11x0.5	7.5	7.5	14.0	13.3	27	3.5	12.6	7.62	13
EXG.1B.306.HLN													
EXG.1B.307.HLN													
EXG.1B.308.HLN													
EXG.1B.310.HLN													

**P2** Panel cut-out 00, 0B series (page 152)

**P10** Panel cut-out 1B series (page 152)

**P18** PCB drilling pattern 00 series (page 158)

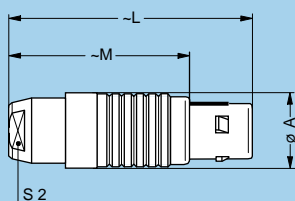
**P19** PCB drilling pattern 0B, 1B series (page 158)

**Note:** In the 0B and 1B series, it is possible to replace the 4 ground pins by 4 screws (M1.6) add an «S» to the end of the part number. (e.g.: EXG.0B.307.HLNS).

## Technical Characteristics

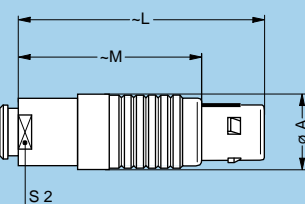
## Mechanical and Climatical

**Note:** <sup>1)</sup> Steam sterilization



Reference		Dimensions (mm)			
Model	Series	A	L	M	S2
FGG	1B	13.5	43.0	32.0	10
FGG	3B	19.0	62.0	47.0	15
FGG	4B	26.0	78.5	60.5	20

**M1** Cable assembly (page 161)

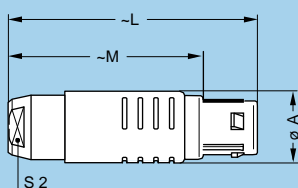


Reference		Dimensions (mm)				Note on availability
Model	Series	A	L	M	S2	
FGG	1B	13.5	42.2	31.2	10	for all collet type
FGG	4B	26.0	83.2	65.2	20	only from collet M82 and up

**M1** Cable assembly (page 161)

**Note:** <sup>1)</sup> to order, add a «Z» at the end of the reference.

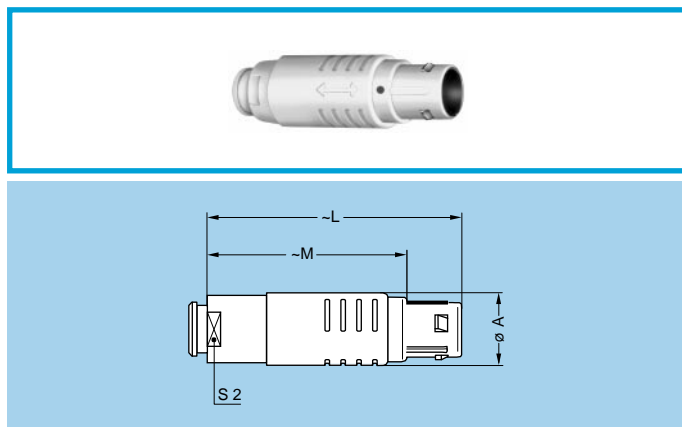
The bend relief must be ordered separately (see page 141).



Reference		Dimensions (mm)			
Model	Series	A	L	M	S2
FGY	2B	16.5	50.5	39.5	13
FGY	3B	19.0	58.0	43.0	15
FGY	4B	26.0	76.2	58.2	20

**M1** Cable assembly (page 161)





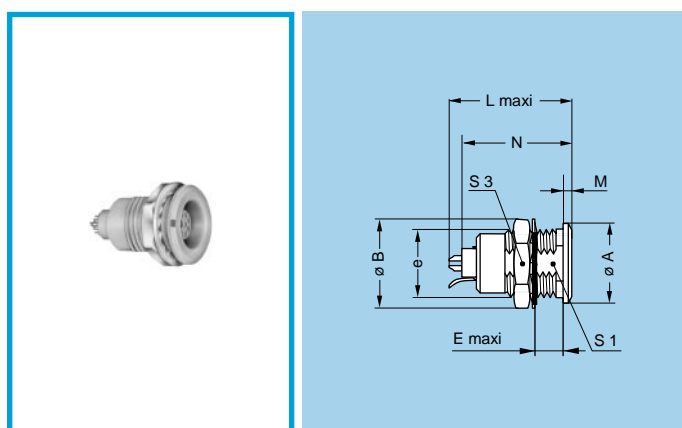
### FGY Straight plug, keys (Y), cable collet and PSU or PPSU outer shell and nut for fitting a bend relief <sup>1)</sup>

Reference		Dimensions (mm)				Note on availability
Model	Series	A	L	M	S2	
FGY	2B	16.5	49.5	38.5	13	only for collet M42 and up
FGY	3B	19.0	56.5	41.5	15	only for collet D62 and up
FGY	4B	26.0	74.4	56.4	20	only for collet M82 and up

**M1** Cable assembly (page 161)

**Note:** <sup>1)</sup> to order, add a «Z» at the end of the reference.

The bend relief must be ordered separately (see page 141).

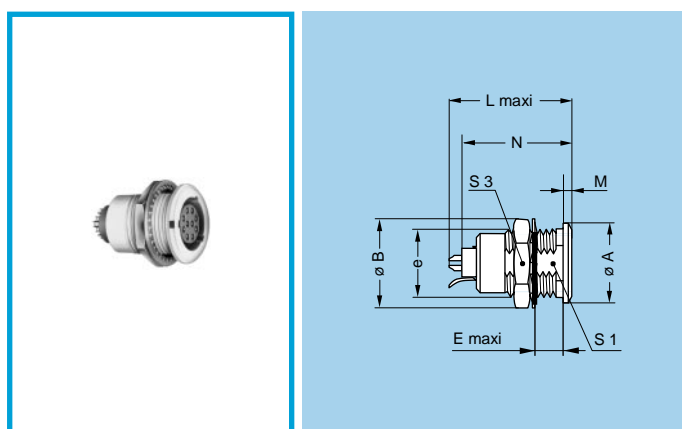


### ENG Fixed socket with earthing tag, nut fixing, key (G or J), PEEK outer shell

Reference		Dimensions (mm)								
Model	Series	A	B	e	E	L	M	N <sup>1)</sup>	S1	S3
ENG	1B	14	15.8	M12x1.0	7.5	23.0	1.5	21.1	10.5	14
ENG	3B	22	25.0	M18x1.0	11.5	30.7	2.0	28.1	16.5	22
ENG	4B	28	34.0	M25x1.0	12.0	35.7	2.5	32.6	23.5	30

**P1** Panel cut-out (page 152)

**Note:** <sup>1)</sup> maximum length with crimp contacts.



### ENY Fixed socket with earthing tag, nut fixing, keys (Y), PSU or PPSU outer shell

Reference		Dimensions (mm)								
Model	Series	A	B	e	E	L	M	N <sup>1)</sup>	S1	S3
ENY	2B	18	19.2	M15x1.0	8.5	26.7	1.8	24.6	13.5	17
ENY	3B	22	25.0	M18x1.0	11.5	30.7	2.0	28.1	16.5	22
ENY	4B	28	34.0	M25x1.0	12.0	35.7	2.5	32.6	23.5	30

**P1** Panel cut-out (page 152)

**Note:** <sup>1)</sup> maximum length with crimp contacts.

**Note:** other models with plastic outer shell are available on request.

## Watertight or vacuumtight models

These plug, socket and coupler models allow the device on which they are fitted to reach a protection index of IP68 as per IEC 60529. They are fully compatible with plugs of the same series and are widely used for portable radios, military, laboratory equipment, aviation, etc.

These models are identified by a letter «P» at the end of the reference.

Most of these models are also available in a vacuumtight version. Such models are identified by an additional letter «V» at the end of the part number (certificate on request).

Epoxy resin is used to seal these models.

### Technical Characteristics

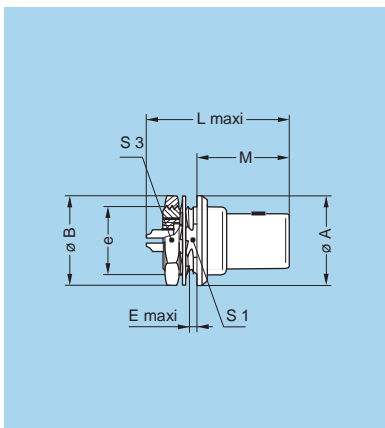
#### Mechanical and Climatical

Characteristics	Value	Standard
Endurance	> 5000 cycles	IEC 60512-5 test 9a
Humidity	up to 95% at 60° C	
Temperature range (00 to 1B)	- 20° C/+100° C	
Temperature range (2B to 5B)	- 20° C/+80° C	
Salt spray corrosion test	> 144h	IEC 60512-6 test 11f
Climatical category	20/80/21	IEC 60068-1
Leakage rate (He) <sup>1)</sup>	< 10 <sup>-7</sup> mbar.l.s <sup>-1</sup>	IEC 60512-7 test 14b

**Note:** <sup>1)</sup> only for vacuumtight models.

Characteristics	Value	Standard
Maximum operating pressure <sup>2)</sup>	00 60 bars	IEC 60512-7 test 14d
	0B 60 bars	
	1B 60 bars	
	2B 40 bars	
	3B 30 bars	
	4B 15 bars	
	5B 5 bars	

**Note:** <sup>2)</sup> this value corresponds to the maximum allowed pressure difference for the assembled socket.

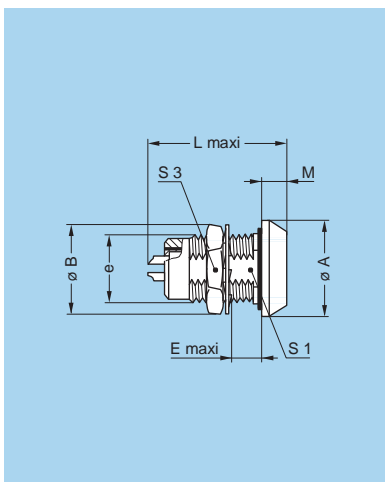


#### YHG Fixed plug, nut fixing, non-latching, key (G) or keys (A...M)

Reference		Dimensions (mm)							
Model	Series	A	B	e	E	L	M	S1	S3
YHG	0B	13.0	12.4	M9x0.6	2.4	24.1	14.2	8.2	11
YHG	1B	16.0	15.8	M12x1.0	3.9	28.0	16.2	10.5	14
YHG	2B	19.0	19.2	M15x1.0	5.5	33.1	17.8	13.5	17
YHG	3B	22.0	25.0	M18x1.0	5.1	38.2	22.2	16.5	22

**P9** Panel cut-out (page 152)

**Note:** this model does not include an O-ring behind the flange, it ensures only IP61 protection index. Consequently, it is not vacuumtight. Watertightness (when mated) is only ensured with HGG and HCG sockets.

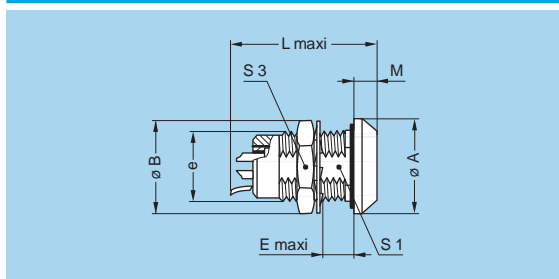


#### HGG Fixed socket, nut fixing, key (G) or keys (A...M and R), watertight or vacuumtight

Reference		Dimensions (mm)							
Model	Series	A	B	e	E	L	M	S1	S3
HGG	00	11	10.2	M7x0.5	8.0	18.0	1.5	—	9
HGG	0B	13	12.4	M9x0.6	7.0	21.5	3.0	8.2	11
HGG	1B	18	15.8	M12x1.0	7.0	26.6	4.5	10.5	14
HGG	2B	20	19.2	M15x1.0	8.0	31.6	4.0	13.5	17
HGG	3B	25	25.0	M18x1.0	11.5	36.1	4.0	16.5	22
HGG	4B	34	34.0	M25x1.0	11.0	43.1	4.0	23.5	30
HGG	5B	45	40.0	M35x1.0	11.0	53.6	5.0	33.5	—

**P9** Panel cut-out (page 152)

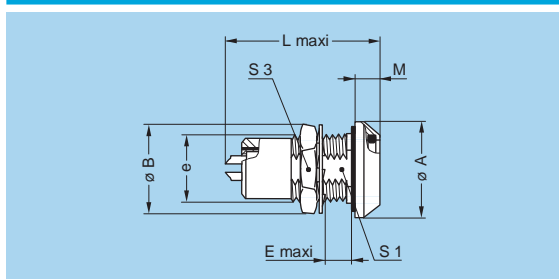
**Note:** the 5B series is delivered with a tapered washer and a round nut.



### HNG Fixed socket, nut fixing, with earthing tag, key (G) or keys (A...M), watertight or vacuumtight

Reference		Dimensions (mm)							
Model	Series	A	B	e	E	L	M	S1	S3
HNG	0B	13	12.4	M9x0.6	7	21.5	3	8.2	11

**P9** Panel cut-out (page 152)

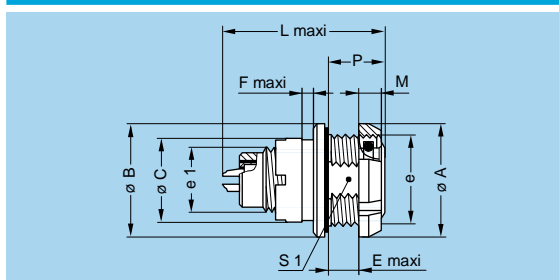


### HHG Fixed socket, nut fixing, key (G) or keys (A...M), watertight or vacuumtight (watertight when mated)

Reference		Dimensions (mm)							
Model	Series	A	B	e	E	L	M	S1	S3
HHG	0B	13	12.4	M9x0.6	7.0	24.5	4.8	8.2	11
HHG	1B	18	15.8	M12x1.0	7.0	30.3	5.2	10.5	14
HHG	2B	22	19.2	M15x1.0	8.0	35.6	6.0	13.5	17
HHG	3B	25	25.0	M18x1.0	11.5	41.3	7.2	16.5	22

**P9** Panel cut-out (page 152)

**Note:** this model ensures watertightness (IP66) in the mating area when mated with FGG or similar plug.

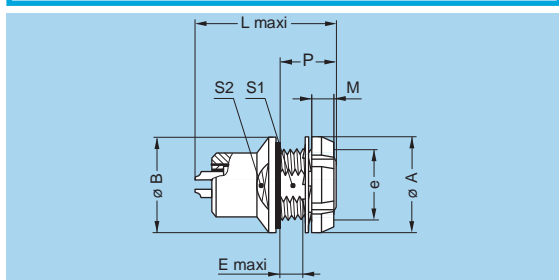


### HCG Fixed socket, nut fixing, key (G) or keys (A...M), watertight or vacuumtight (watertight when mated) (back panel mounting)

Reference		Dimensions (mm)										
Model	Series	A	B	C	e	e1	E	F	L	M	P	S1
HCG	0B	18	18	12.0	M14x1.0	M9x0.6	3.9	1.0	24.5	3.5	7.5	12.5
HCG	1B	20	20	14.5	M16x1.0	M12x1.0	6.2	2.0	30.3	3.5	10.0	14.5
HCG	2B	24	24	17.5	M19x1.0	M14x1.0	6.7	1.5	35.6	3.5	11.3	17.0

**P3** Panel cut-out (page 152)

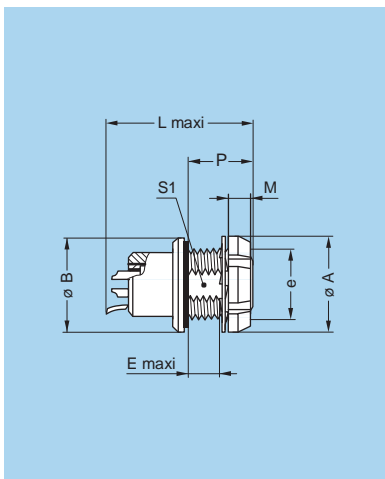
**Note:** this model ensures watertightness (IP66) in the mating area when mated with FGG or similar plug.



### HEG Fixed socket, nut fixing, key (G) or keys (A...M), watertight or vacuumtight (back panel mounting)

Reference		Dimensions (mm)								
Model	Series	A	B	e	E	L	M	P	S1	S2
HEG	00	10	11	M7x0.5	2.5	18.2	2.5	6.0	6.3	–
HEG	0B	12	13	M9x0.6	5.5	21.5	2.5	9.0	8.2	–
HEG	1B	16	18	M12x1.0	6.5	26.6	3.5	11.0	10.5	–
HEG	2B	20	20	M15x1.0	5.0	31.6	3.5	9.6	13.5	15

**P9** Panel cut-out (page 152)



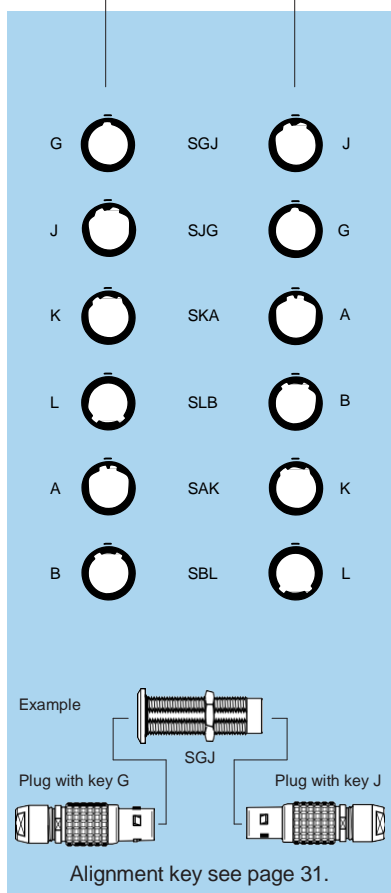
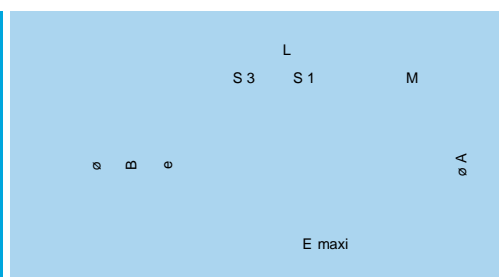
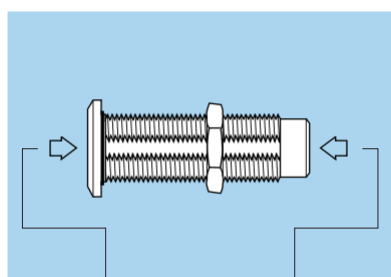
### HMG Fixed socket with earthing tag, nut fixing, key (G) or keys (A...M), watertight or vacuumtight (back panel mounting)

Reference		Dimensions (mm)							
Model	Series	A	B	e	E	L	M	P	S1
HMG	00	10	11	M7x0.5	2.5	18.0	2.5	6.0	6.3
HMG	0B	12	13	M9x0.6	5.5	21.5	2.5	9.0	8.2
HMG	1B	16	18	M12x1.0	5.5	26.6	3.5	11.0	10.5
HMG	2B <sup>1)</sup>	20	20	M15x1.0	5.5	31.6	3.5	9.6	13.5
HMG	3B	24	25	M18x1.0	7.5	36.1	4.5	14.0	16.5

**P9** Panel cut-out (page 152)

**Note:** <sup>1)</sup> the surface design of the 2B series is different.  
The 3B series is delivered with a conical nut.

### S Fixed coupler, nut fixing, key (G) or keys (A, B, J, K and L) at the flange end and key (G) or keys (A, B, J, K and L) at the other end, watertight or vacuumtight



Reference		Contacts	Dimensions (mm)							
Model	Series	Type	A	B	e	E	L	M	S1	S3
SGJ	0B	female – male	14	13.8	M10x0.75	17	34	2.0	9.0	12
SJG		male – female								
SGJ	1B	female – male	17	15.8	M12x1.00	28	39	2.5	10.5	14
SJG		male – female								
SGJ	2B	female – male	20	21.5	M16x1.00	25	44	4.0	15.0	19
SJG		male – female								
SGJ	3B	female – male	25	27.0	M20x1.00	30	53	4.0	18.5	24
SJG		male – female								
SAK		female – male								
SBL		female – male								
SAK	4B	female – male	34	34.0	M25x1.00	50	65	4.0	23.5	30
SBL		female – male								
SGJ		male – female								
SJG		male – female								
SGJ	5B	female – male	45	40.0	M35x1.00	58	80	5.0	33.5	–
SJG		male – female								
SKA		male – female								
SLB		male – female								
SAK		female – male								
SBL		female – male								

**P4** Panel cut-out (page 152)

**P9** Panel cut-out 1B series (page 152)

**Note:** for this fixed coupler, the first contact type mentioned is always the one at the flange end.  
On request these couplers can be produced in other series, with other keys.  
The 5B series is delivered with a round nut.

## Bridge models

### Technical Characteristics

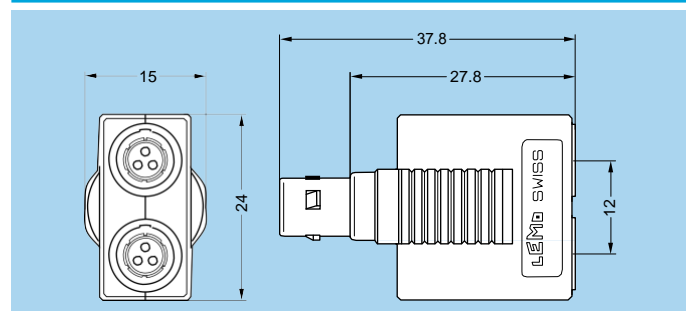
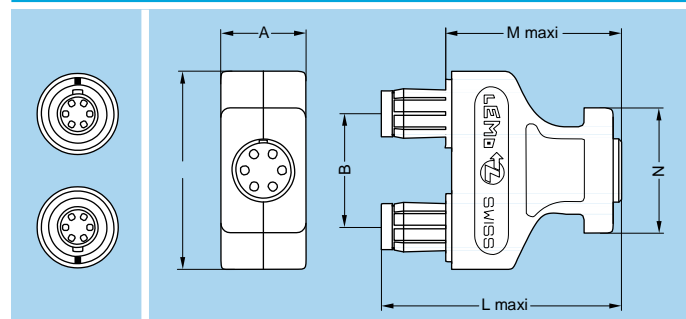
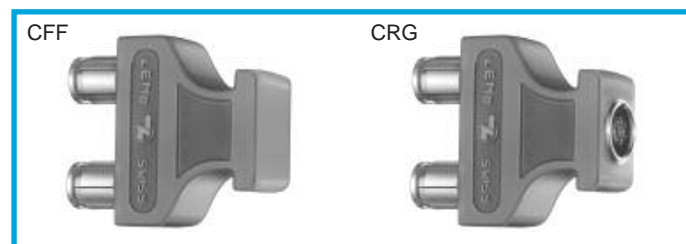
#### Mechanical and Climatical

Characteristics	Value	Standard
Endurance	> 1000 cycles	IEC 60512-5 test 9a
Working temperature	maximum 90° C	

#### Materials and Treatment

Component	Material	Surface treat. (µm)			
		Cu	Ni	Cr	Au
Plastic housing	Polyamide	–			
Metallic parts	Brass	0.5	3	–	–
	Brass	0.5	3	0.3	–
Insulator	PEEK	–			
Male contact	Brass	0.5	3	–	1.0
Female contact	Bronze	0.5	3	–	1.5

**Note:** the surface treatment standards are as follows:  
– Nickel: FS QQ-N-290A, chrome: FS QQ-C-320B, gold: ISO 27874



#### Electrical

Characteristics	Value	Standard
Contact resistance	< 6 mΩ	IEC 60512-2 test 2a

Reference	Series	Audio-Mono	Audio-Stereo	Test voltage (kV rms) <sup>1) 2)</sup>	Rated current (A)
CFF.0B.302.PLCG	0B	●	–	1.05	4
CRG.0B.302.PLEG	0B	●	–	1.05	4
CFF.0B.303.PLCG	0B	●	–	0.80	4
CRG.0B.303.PLEG	0B	●	–	0.80	4
CRG.0B.306.PLEG	0B	–	●	0.40	2
CFF.1B.303.PLCG	1B	●	–	1.25	5
CRG.1B.303.PLEG	1B	●	–	1.25	5
CFF.1B.306.PLCG	1B	–	●	0.80	3
CRG.1B.306.PLEG	1B	–	●	0.80	3

**Note:** the last letter of the part number indicates the colour of the housing. Ex. G (standard) is grey. To obtain another colour, replace this letter by the letter corresponding to the selected colour (see table on page 54).  
1) see calculation method, caution and suggested standard on page 178.  
2) lowest measured value; contact to contact or contact to shell.

#### CFF Bridge plug with two non-latching plugs

#### CRG Bridge plug with two non-latching plugs, and monitoring socket, key (G) or keys (A...M)

Reference		Dimensions (mm)					
Model	Series	A	B	H	L	M	N
CFF-CRG	0B	13.5	14	27.5	37.2	27.2	22.5
CFF-CRG	1B	15.0	20	35.0	42.0	31.0	22.0

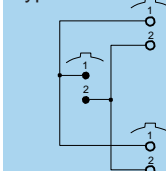
**Note:** in order to provide the user with a coding system, the bridge plug housing, the double panel washers and the bend reliefs are available in nine colours.

#### FTG Straight plug, key (G) and two parallel sockets

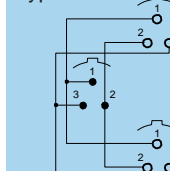
Reference	Number of contacts	Test voltage (kV rms) <sup>1)</sup>	Rated current (A)
FTG.0B.302.PLFG	2	1.05	4
FTG.0B.303.PLFG	3	0.80	4
FTG.0B.304.PLFG	4	0.80	3

**Note:**  
1) see calculation method, caution and suggested standard on page 178.

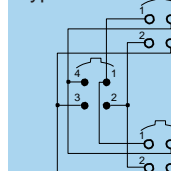
Type 302



Type 303

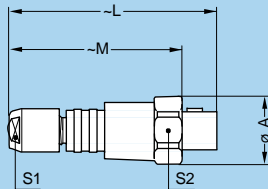


Type 304

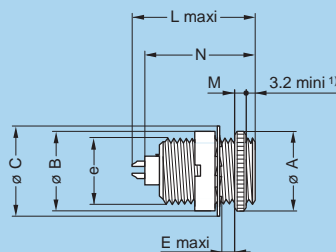




**FVG** Straight plug, key (G) or keys (B), cable collet

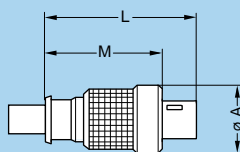


**Note:** to be ordered with nut for fitting a bend relief to obtain the rating IP 64.



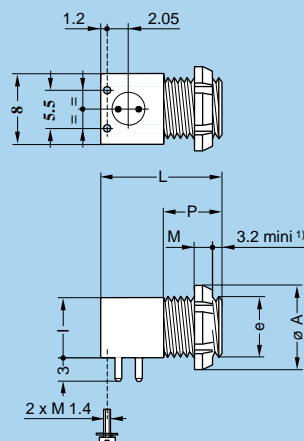
**P2** Panel cut-out (page 152)

**Note:** 1) minimum length of free thread to ensure mating.



**Note:** after assembly the special bend relief GMF.00.018.D● (to be ordered separately) is to be fitted.

**XRB** Elbow (90°) socket for printed circuit, keys (B), short shell with one nut, screw fixing (back panel mounting)



**P2** Panel cut-out (page 152)

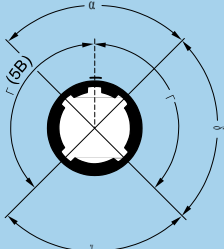
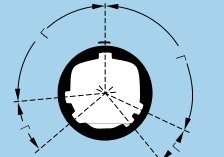
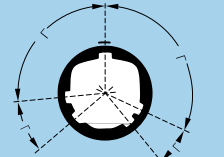
**P18** PCB drilling pattern for contact only (page 158)

**Note:** 1) minimum length of free thread to ensure mating.

# Alignment Key (B series)

## Alignment Key and Polarized Keying System

B series connector model part numbers are composed of three letters. The LAST LETTER indicates the key position and the contact type (male or female).

Front view of a socket	Reference	Nb of keys	Angles	Series			Reference	Nb of keys	Angles	Series				Contact type		Note
				00	0B	1B				2B	3B	4B	5B	Plug	Socket	
	G	1		0°	0°	0°	G	1		0°	0°	0°	0°	male	female	●
	A	2		30°	30°	30°	A	2		30°	30°	30°	30°	male	female	●
	B	2	$\alpha$	60°	60°	60°	B	2	$\alpha$	45°	45°	45°	45°	male	female	●
	C	2		—	90°	90°	C	2		60°	60°	60°	60°	male	female	●
	D	2		—	135°	135°	D	2	$\gamma$	95°	95°	95°	95°	male	female	●
	E	2	$\beta$	—	145°	145°	E	2	$\alpha$	120°	120°	120°	120°	male	female	●
	F	2		—	155°	155°	F	2		145°	145°	145°	145°	male	female	●
	J	2		45°	45°	45°	J	2		37.5°	37.5°	37.5°	37.5°	female	male	●
	K	2	$\gamma$	—	70°	70°	K	2		52.5°	52.5°	52.5°	52.5°	female	male	●
	L	2		—	80°	80°	L	2	$\gamma$	70°	70°	70°	70°	female	male	●
	M	2	$\delta$	—	110°	—	M	2		—	—	—	—	female	male	●
	Y	3		—	—	—	Y	3	$\beta$	112.5°	126°	112.5°	—	male	female	● <sup>1)</sup>
																
Front view of a socket	Reference	Nb of keys	Angles	Series			Reference	Nb of keys	Angles	Series				Contact type		Note
				00	0B	1B				2B	3B	4B	5B	Plug	Socket	
	R	5	$\alpha$	—	—	—	R	5	$\alpha$	—	—	—	95°	male	female	●
			$\beta$	—	—	—			$\beta$	—	—	—	115°			
			$\gamma$	—	—	—			$\gamma$	—	—	—	20°			
			$\delta$	—	—	—			$\delta$	—	—	—	30°			

### Note:

FTG, FGY, ENY models are not available with all the keys. Please consult pages corresponding to these models.

For R●● models see explanation on page 21 and for S●● models see explanation on page 28.

<sup>1)</sup> only FGY and ENY models are available.

- First choice alternative
- Special order alternative