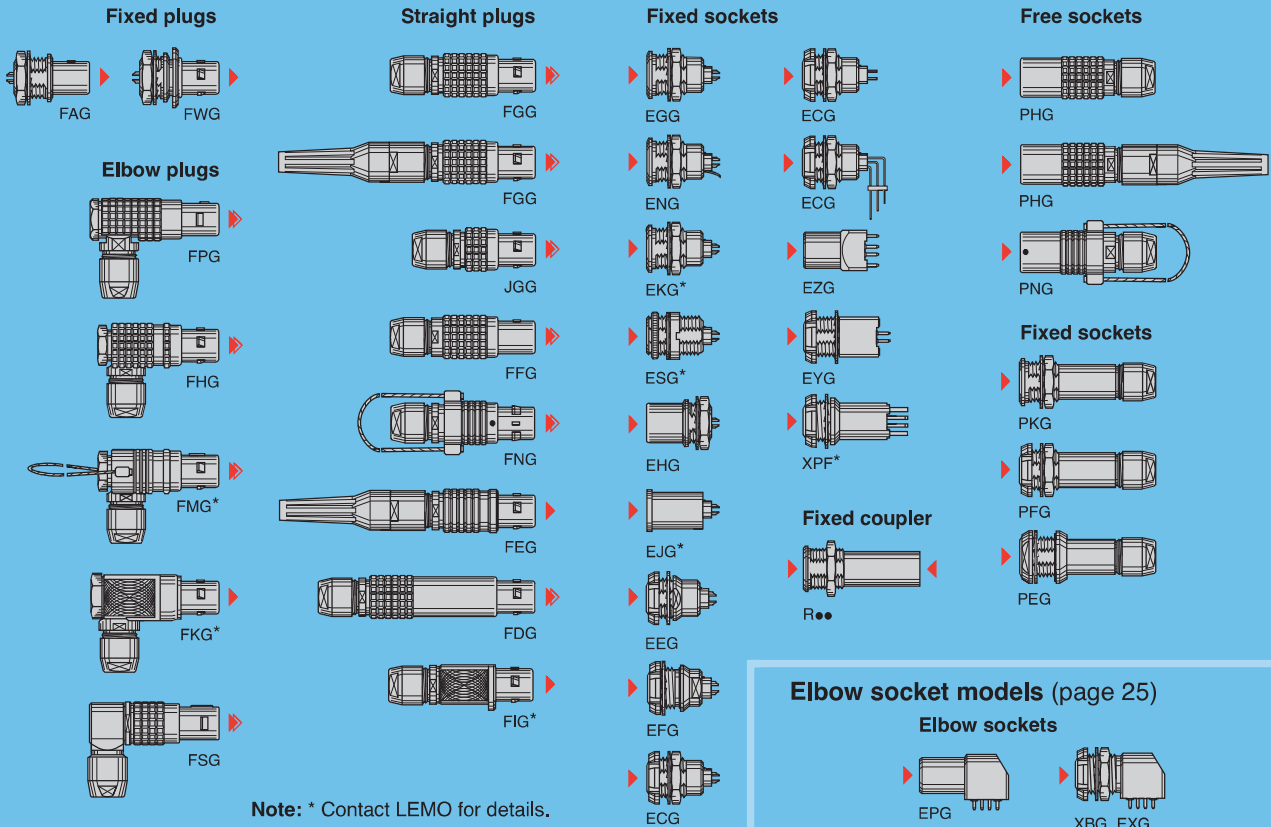


# B Series

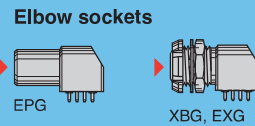
B series connectors provide the following main features:

- 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.
- multiple types 2 to 64 contacts
- high packing density for space savings
- keying system («G» key standard) for connector alignment

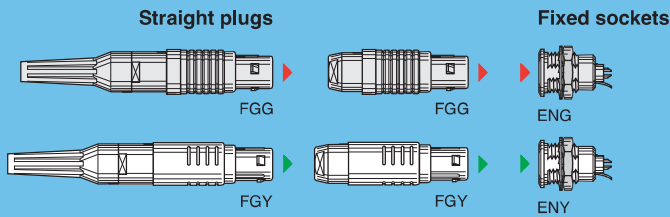
## Metal housing models (page 14)



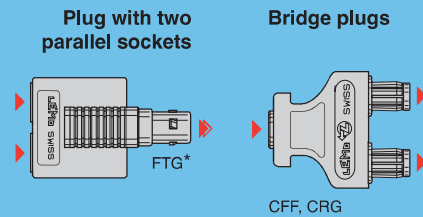
## Elbow socket models (page 25)



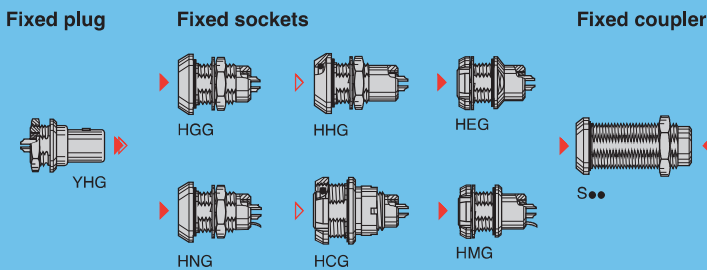
## Plastic housing models (page 28)



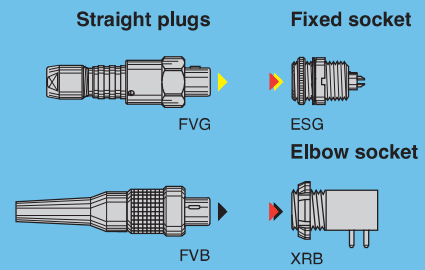
## Bridge models (page 34)



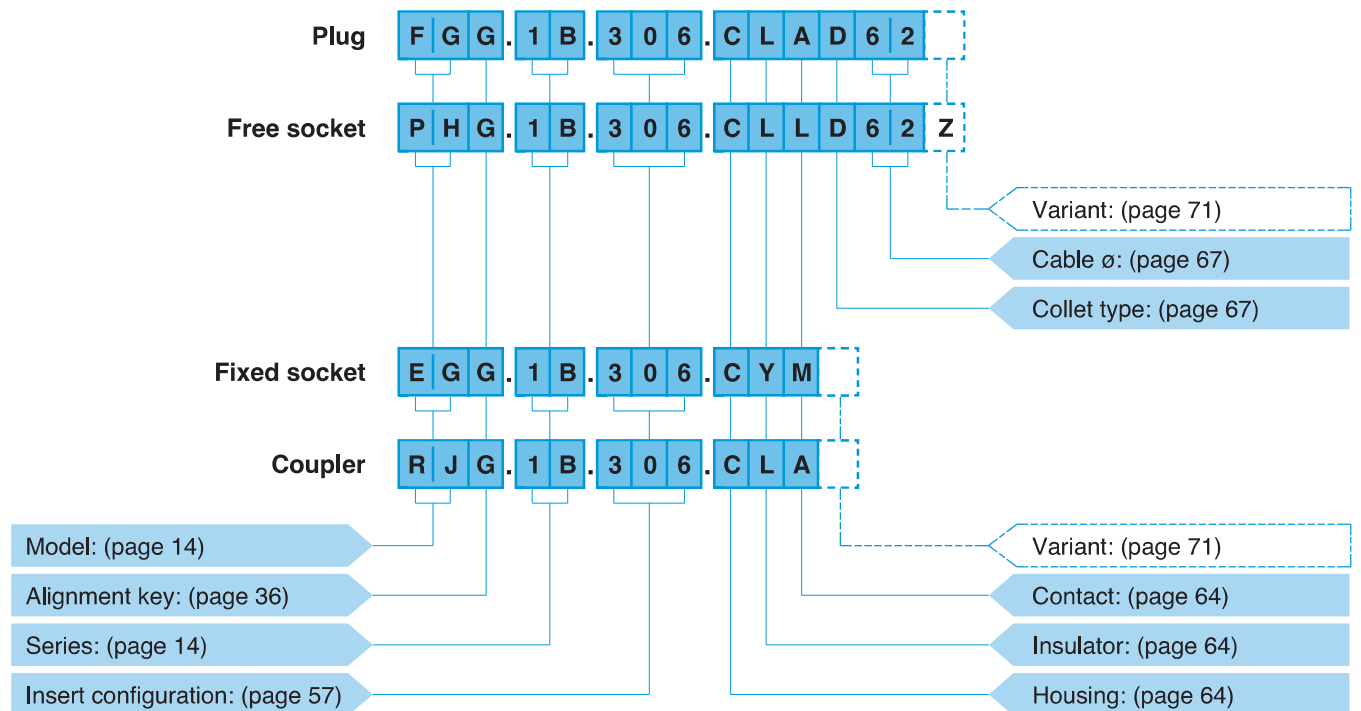
## Watertight or vacuumtight models (page 30)



## Threaded-latching models (page 35)



## Part Numbering System



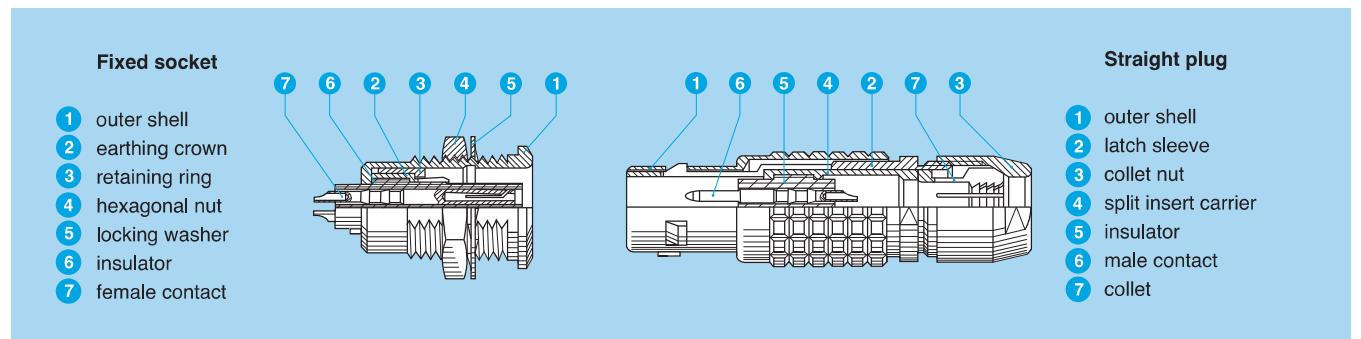
**FGG.1B.306.CLAD62** = straight plug with key (G) and cable collet, 1B series, multipole type with 6 contacts, outer shell in chrome-plated brass, PEEK insulator, male solder contacts, D type collet for 6.0 mm diameter cable.

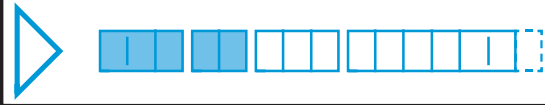
**PHG.1B.306.CLLD62Z** = free socket with key (G) and cable collet, 1B series, multipole type with 6 contacts, outer shell in chrome-plated brass, PEEK insulator, female solder contacts, D type collet for 6.0 mm diameter cable and nut for fitting a bend relief.

**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.

**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 <sup>1)</sup>	> 5000 cycles	IEC 60512-5 test 9a
Humidity	up to 95% at 60° C	
Temperature range	- 55° C, + 250° C	
Resistance to vibrations	10-2000 Hz, 15g	IEC 60512-4 test 6d
Shock resistance	100 g, 6 ms	IEC 60512-4 test 6c
Salt spray corrosion test <sup>2)</sup>	> 1000h	IEC 60512-6 test 11f
Protection index (mated)	IP 50	IEC 60529
Climatical category	55/175/21	IEC 60068-1

#### Electrical

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

#### Note:

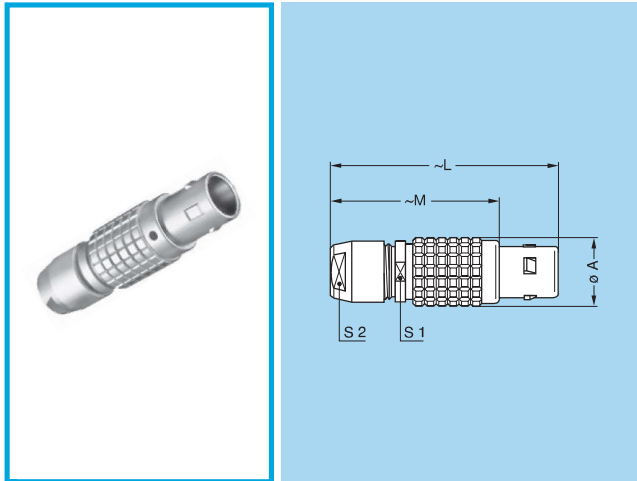
the various tests have been carried out with FGG and EGG connector pairs, with chrome-plated brass shell and PEEK insulator.

Detailed electrical characteristics, as well as materials and treatment are presented in the chapter Technical Characteristics on page 182.

<sup>1)</sup> see page 189, contact resistance after mating cycles. See page 185, mechanical endurance latching force.

<sup>2)</sup> for chrome plated product («C» material code).

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

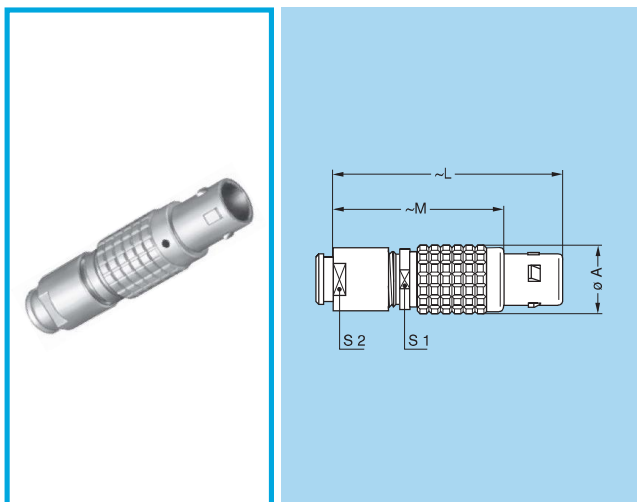


Reference		Dimensions (mm)				
Model	Series	A	L	M	S1	S2
FGG	00 <sup>1)</sup>	6.4	28.5	20.5	5.5	5
FGG	0B	9.5	36.0	26.0	8.0	7
FGG	1B	12.0	43.0	32.0	10.0	9
FGG	XB	13.0	44.0	33.5	11.0	10
FGG	2B	15.0	50.0	38.0	13.0	12
FGG	3B	18.0	58.0	43.0	15.0	14
FGG	4B	25.0	75.0	57.0	21.0	20
FGG	5B	35.0	103.0	78.0	31.0	30

**M1** Cable assembly (page 169)

**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	XB	13.0	47.5	37.0	11.0	10
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

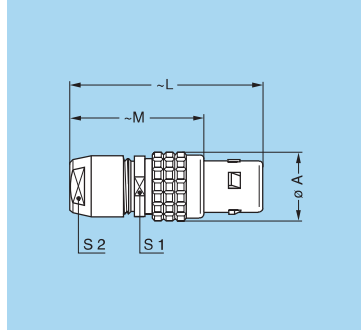
**M1** Cable assembly (page 169)

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

**Note:** <sup>2)</sup> to order, add a «Z» at the end of the reference. The bend relief must be ordered separately (see page 145).



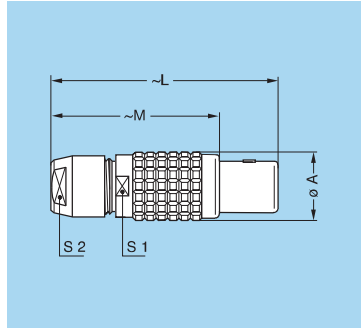
### JGG Straight plug, short version, key (G), cable collet



Reference		Dimensions (mm)				
Model	Series	A	L	M	S1	S2
<b>JGG</b>	<b>0B</b>	9.5	32	22	8	7

**M4** Cable assembly (page 171)

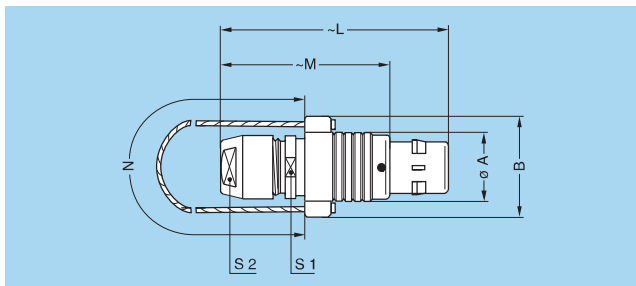
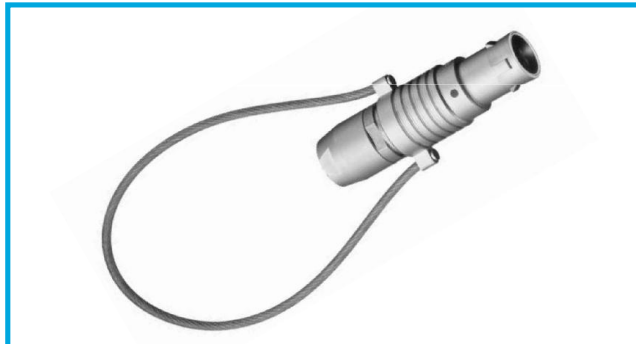
### FFG Straight plug, non-latching, key (G) or keys (A...M), cable collet



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

**M1** Cable assembly (page 169)

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



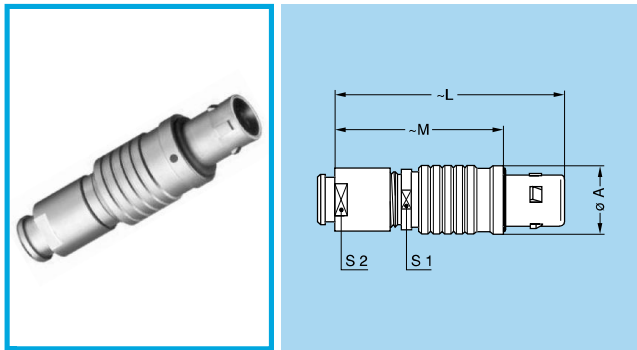
Reference		Dimensions (mm)						
Model	Series	A	B	L	M	N	S1	S2
<b>FNG</b>	<b>0B</b>	9.5	15.5	36.0	26.0	140	8	7
<b>FNG</b>	<b>1B</b>	12.0	18.0	43.0	32.0	140	10	9
<b>FNG</b>	<b>2B</b>	15.0	21.0	49.0	37.0	160	13	12
<b>FNG</b>	<b>3B</b>	18.0	25.0	58.0	43.0	190	15	14
<b>FNG</b>	<b>4B</b>	25.0	32.0	75.0	57.0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

**M1** Cable assembly (page 169)

**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 1)**  
(IP 54 protection index when mated)

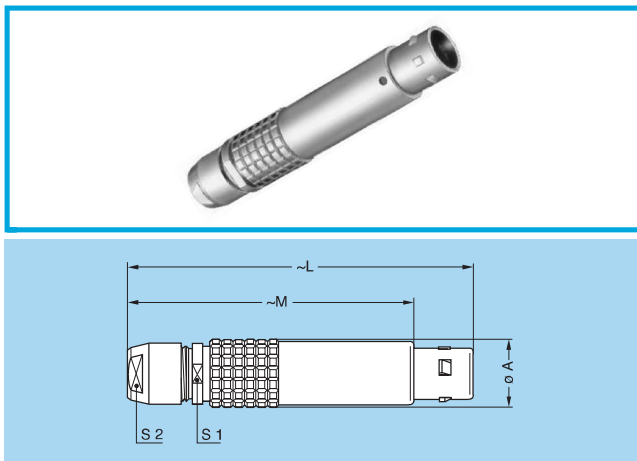


Reference		Dimensions (mm)				
Model	Series	A	L	M	S1	S2
<b>FEG</b>	<b>0B</b>	11.0	35.0	25.0	8	7
<b>FEG</b>	<b>1B</b>	13.5	42.0	33.0	10	9
<b>FEG</b>	<b>2B</b>	16.5	48.0	36.0	13	12
<b>FEG</b>	<b>3B</b>	19.0	56.5	41.5	15	15

**M1** Cable assembly (page 169)

**Note:** 1) to order, add a «Z» at the end of the reference. The bend relief must be ordered separately (see page 145).

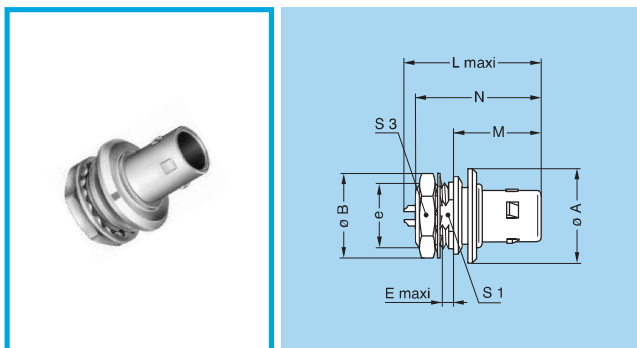
**FDG Straight plug, long version, key (G) or keys (A...L), cable collet**



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

**M2** Cable assembly (page 171)

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



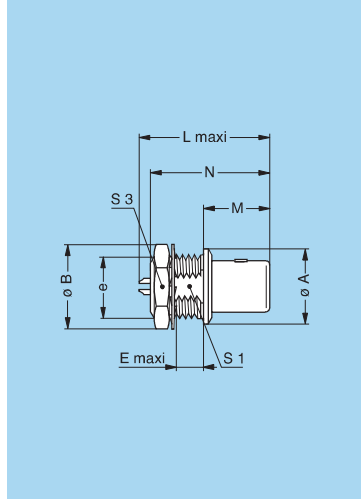
Reference		Dimensions (mm)								
Model	Series	A	B	e	E	L	M	N <sup>1)</sup>	S1	S3
<b>FWG</b>	<b>0B</b>	14.0	12.4	M9x0.6	1.8	22.5	14.5	19.5	8.2	11
<b>FWG</b>	<b>1B</b>	18.0	15.8	M12x1.0	2.9	24.9	17.0	24.8	10.5	14
<b>FWG</b>	<b>2B</b>	19.5	19.2	M15x1.0	4.1	28.6	18.0	27.3	13.5	17
<b>FWG</b>	<b>3B</b>	25.0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

**P9** Panel cut-out (page 157)

**Note:** 1) maximum length with crimp contacts



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



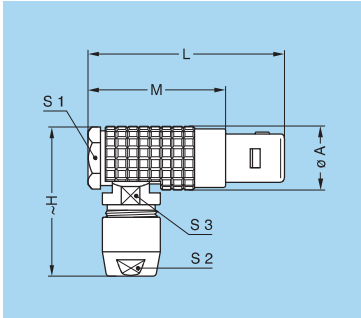
Reference		Dimensions (mm)								
Model	Series	A	B	e	E	L	M	N <sup>1)</sup>	S1	S3
FAG	00	8	10.2	M7x0.5	2.9	18.1	9.0	15.0	6.3	9
FAG	0B	10	12.4	M9x0.6	4.2	20.8	11.5	18.9	8.2	11
FAG	1B	14	15.8	M12x1.0	5.4	25.2	12.5	21.6	10.5	14
FAG	2B	18	19.2	M15x1.0	6.0	28.7	13.8	23.9	13.5	17
FAG	3B	22	25.0	M18x1.0	5.8	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 157)

**Note:** The 5B series is delivered without locking washer or tapered washer and with a round nut.

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

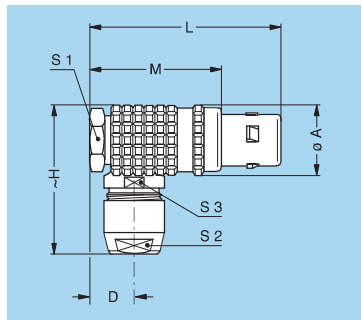
### FPG Elbow (90°) plug, key (G) or keys (A...M and R), cable collet



Reference		Dimensions (mm)						
Model	Series	A	H	L	M	S1	S2	S3
FPG	00	7.5	18	24.5	16.5	6.5	5	5.3
FPG	0B	9.5	23	30.0	20.0	8.0	7	8.0
FPG	1B	12.0	29	36.0	25.0	11.0	9	10.0
FPG	2B	15.0	35	41.5	29.5	13.5	12	13.0

**M3** Cable assembly (page 169)

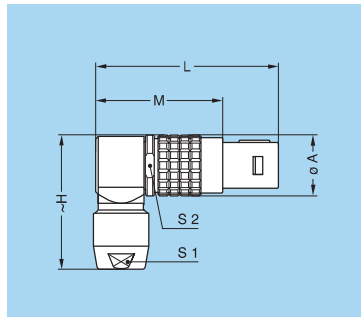
### FHG Elbow (90°) plug, key (G) or keys (A...M and R), cable collet



Reference		Dimensions (mm)							
Model	Series	A	D	H	L	M	S1	S2	S3
FHG	3B	19	10	37	50	35	17	14	15
FHG	4B	26	15	52	67	49	22	20	21
FHG	5B	36	21	74	90	65	32	30	31

**M3** Cable assembly (page 169)

### FSG Anglissimo right angle plug, key (G) or keys (A...M), cable collet

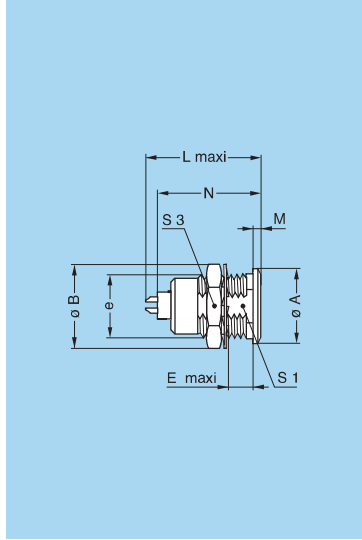


Reference		Dimensions (mm)					
Model	Series	A	H	L	M	S1	S2
FSG	00	8.0	18.1	24.8	16.8	5	7
FSG	0B	10.0	22.4	30.3	20.3	7	9
FSG	1B	12.0	26.4	36.5	25.5	9	11
FSG	2B	16.5	34.5	44.0	32.0	12	15

**M5** Cable assembly (page 170)



**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	XB	16	19.0	M14x1.0	7.0	23.5	1.5	20.0	12.5	17
EGG	2B <sup>2)</sup>	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	—

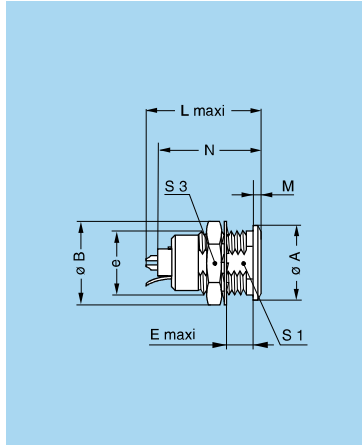
**P1** Panel cut-out (page 157)

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

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

<sup>2)</sup> EGG.2B.304.CLL and EGG.2B.307.CLL are UL 508A under file E119802.

**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	00	8	10.2	M7x0.5	6.0	15.5	1.0	13.7	6.3	9
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

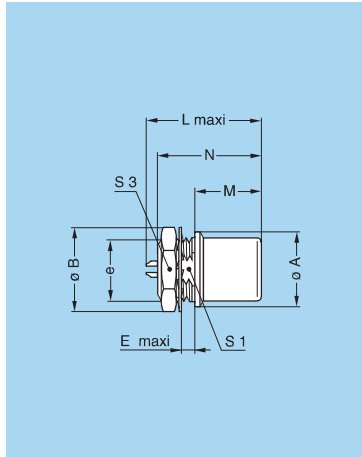
**P1** Panel cut-out (page 157)

**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.

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

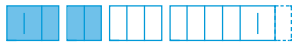


Reference		Dimensions (mm)								
Model	Series	A	B	e	E	L	M	N <sup>1)</sup>	S1	S3
EHG	00	8	10.2	M7x0.5	2.0	15.5	8.5	13.7	6.3	9
EHG	0B	10	12.4	M9x0.6	2.0	19.5	12.5	19.1	8.2	11
EHG	1B	14	15.8	M12x1.0	4.0	21.7	12.0	21.1	10.5	14
EHG	2B	18	19.2	M15x1.0	5.1	22.7	12.5	24.6	13.5	17
EHG	3B	22	25.0	M18x1.0	7.1	30.7	13.5	30.3	16.5	22
EHG	5B	40	40.0	M35x1.0	2.5	43.5	28.0	38.5	33.5	—

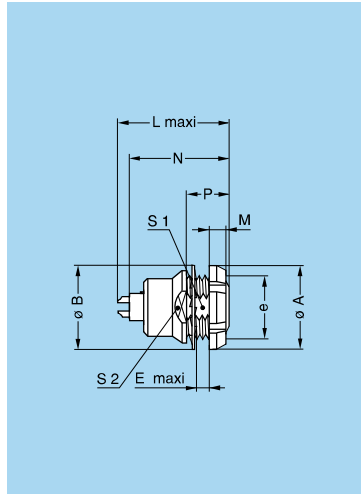
**P1** Panel cut-out (page 157)

**Note:** The 5B series is delivered without locking washer or tapered washer and with a round nut.

**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)



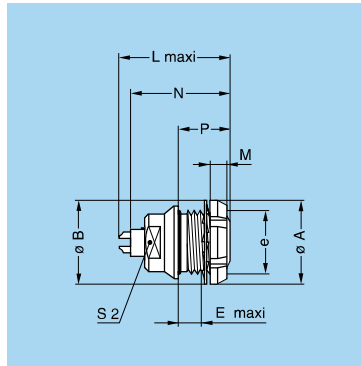
Reference		Dimensions (mm)									
Model	Series	A	B	e	E	L	M	N <sup>1)</sup>	P	S1	S2
EEG	00	10	9.5	M7x0.5	2.3	15.5	2.5	13.7	6.0	6.3	7.5
EEG	0B	12	12.5	M9x0.6	2.4	20.7	2.5	19.1	6.3	8.2	9.0
EEG	1B	16	16.0	M12x1.0	6.5	23.0	3.5	21.1	11.0	10.5	13.0
EEG	2B	20	20.0	M15x1.0	4.3	26.7	3.5	24.6	9.0	13.5	15.0
EEG	3B	24	25.0	M18x1.0	6.1	30.7	4.5	28.1	12.0	16.5	20.0
EEG	4B	30	32.1	M25x1.0	10.6	35.7	4.5	34.1	16.5	23.5	26.0
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 157)

**Note:** The 3B, 4B and 5B series are delivered with a conical nut. The 5B series is delivered without locking washer or tapered washer.

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

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

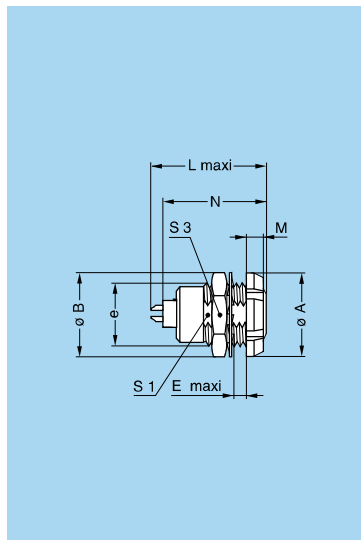


Reference		Dimensions (mm)								
Model	Series	A	B	e	E	L	M	N <sup>1)</sup>	P	S2
EFG	0B	12	12.5	M9x0.6	5.5	20.7	2.5	19.1	9	8

**P2** Panel cut-out (page 157)

**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	XB	18	19.0	M14x1.0	6.0	23.5	3.5	20.0	12.5	17	
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 157)

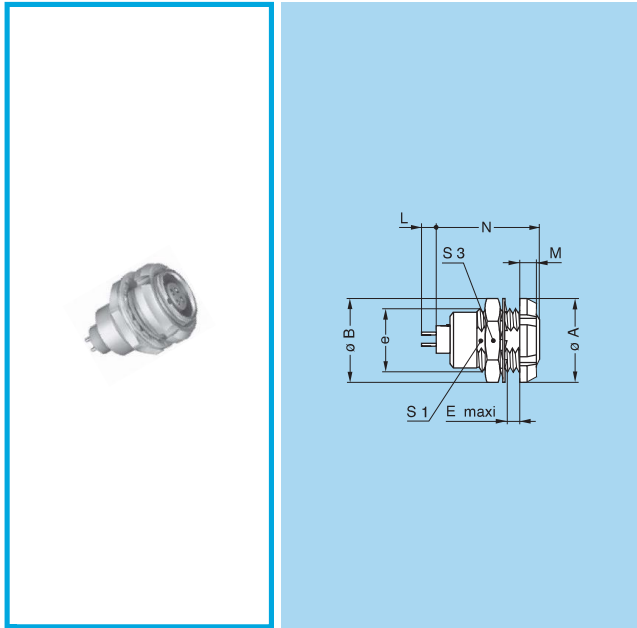
**Note:** The 3B, 4B and 5B series are delivered with a conical nut. The 5B series is delivered with a tapered washer and a round nut.

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





**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	XB	18	19.0	M14x1.0	6.0	3.5	20.0	12.5	17
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	-

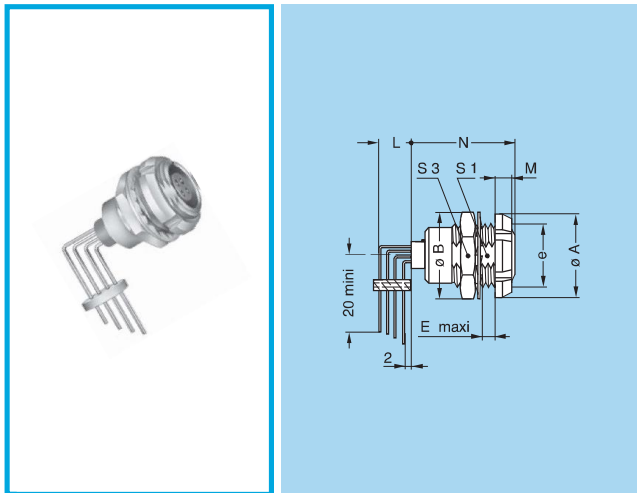
**P1** Panel cut-out (page 157)

**P15** PCB drilling pattern (page 160)

**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.

**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 163.

**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	27.8	16.5	22

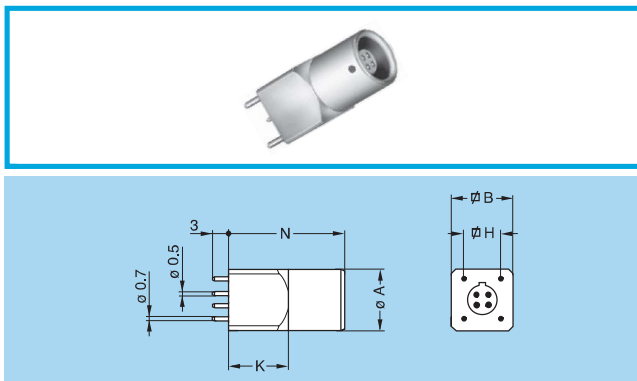
**P1** Panel cut-out (page 157)

**P17** PCB drilling pattern (page 164)

**Note:** The 3B series is delivered with a conical nut.

**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 164. For male contacts, sockets are available upon request, with J, K or L keys.

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

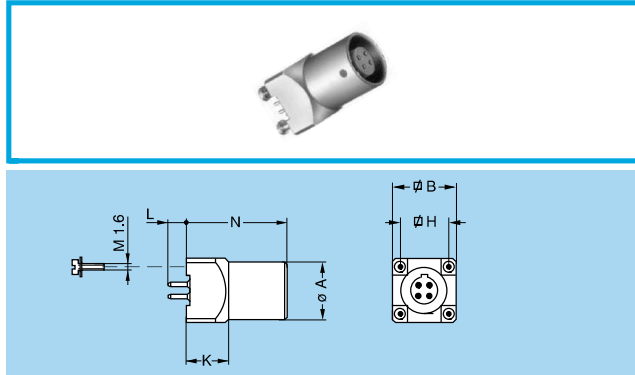


Reference		Dimensions (mm)				
Model	Series	A	B	H	K	N
EZG	00	6.8	7	5.08	7	14

**P15**+**P16** PCB drilling pattern (pages 160 and 163)



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

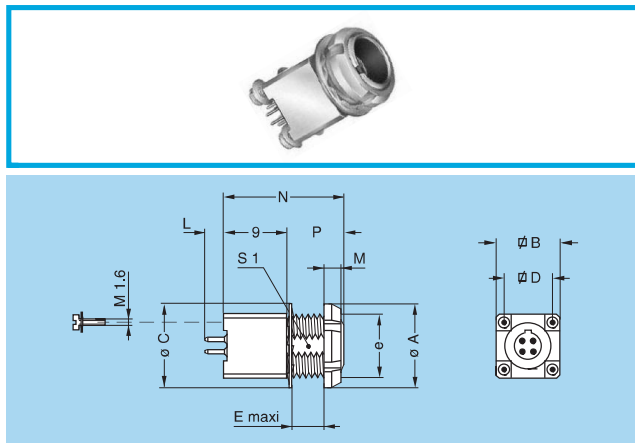


Reference		Dimensions (mm)				
Model	Series	A	B	H	K	N
EZG	0B	9	10	7.62	8	15.0
EZG	1B	11	12	7.62	8	19.0
EZG	2B	14	15	10.16	9	22.5

**P15**+**P16** PCB drilling pattern (pages 160 and 163)

**Note:** Length «L» depends on the number of contacts, see table on page 163.

### 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

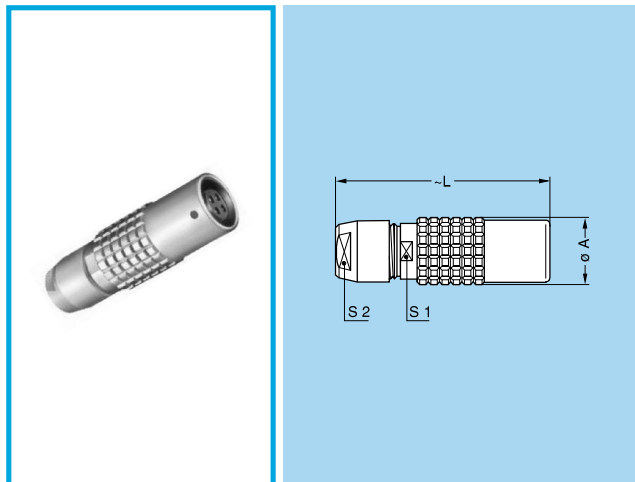
**P1** Panel cut-out 0B and 2B series (page 157)

**P10** Panel cut-out 1B series (page 157)

**P15**+**P16** PCB drilling pattern (pages 160 and 163)

**Note:** Length «L» depends on the number of contacts, see page 163.

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



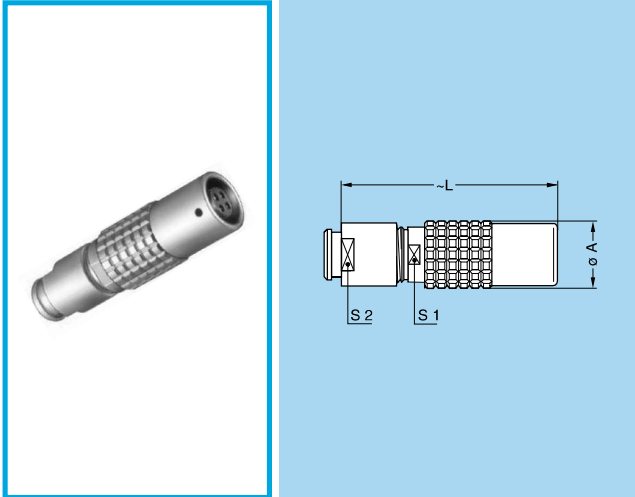
Reference		Dimensions (mm)			
Model	Series	A	L	S1	S2
PHG	00 <sup>1)</sup>	6.8	26.0	5.5	5
PHG	0B	9.5	35.5	8.0	7
PHG	1B	12.5	40.5	10.0	9
PHG	XB	13.0	46.0	11.0	10
PHG	2B	16.5	47.0	13.0	12
PHG	3B	19.0	56.0	15.0	14
PHG	4B	26.0	73.0	21.0	20
PHG	5B	36.0	99.0	31.0	30

**M1** Cable assembly (page 169)

**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>**



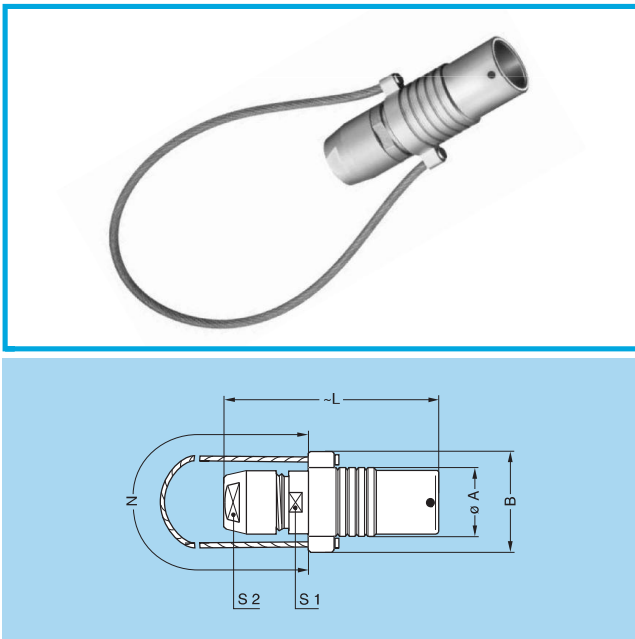
Reference		Dimensions (mm)			
Model	Series	A	L	S1	S2
PHG	00 <sup>1)</sup>	6.8	34.0	5.5	6
PHG	0B	9.5	34.5	8.0	7
PHG	1B	12.5	39.5	10.0	9
PHG	XB	13.0	49.5	11.0	10
PHG	2B	16.5	46.0	13.0	12
PHG	3B	19.0	54.5	15.0	15
PHG	4B	26.0	69.0	21.0	20

**M1** Cable assembly (page 169)

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

**Note:** <sup>2)</sup> to order, add a «Z» at the end of the reference. The bend relief must be ordered separately (see page 145).

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



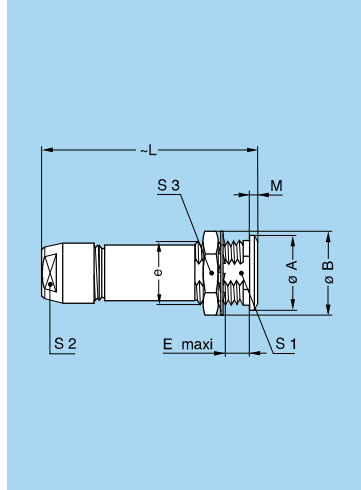
Reference		Dimensions (mm)					
Model	Series	A	B	L	N	S1	S2
PNG	1B	12.4	18.4	40.5	140	10	9
PNG	2B	16.5	22.5	47.0	160	13	12
PNG	3B	19.0	26.0	56.0	190	15	14
PNG	4B	26.0	33.0	73.0	230	21	20
PNG	5B	36.0	43.0	99.0	300	31	30

**M1** Cable assembly (page 169)

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



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



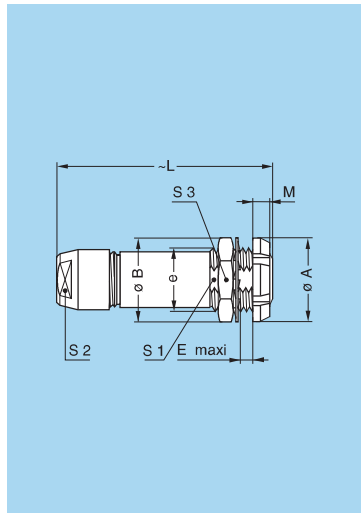
Reference		Dimensions (mm)								
Model	Series	A	B	e	E	L	M	S1	S2	S3
PKG	00	8	10.2	M7x0.5	6.5	26.0	1.0	6.3	5	9
PKG	0B	10	12.4	M9x0.6	7.0	35.5	1.2	8.2	7	11
PKG	1B	14	15.8	M12x1.0	7.5	40.5	1.5	10.5	9	14
PKG	2B	18	19.2	M15x1.0	8.5	47.0	1.8	13.5	12	17
PKG	3B	22	25.0	M18x1.0	11.5	56.0	2.0	16.5	14	22
PKG	4B	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 157)

**M1** Cable assembly (page 169)

**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)



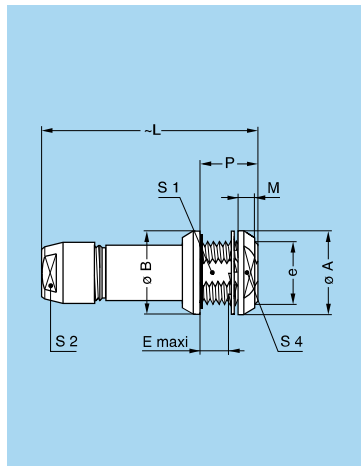
Reference		Dimensions (mm)								
Model	Series	A	B	e	E	L	M	S1	S2	S3
PFG	00	10	10.2	M7x0.5	5.3	26.0	2.5	6.3	5	9
PFG	0B	12	12.4	M9x0.6	5.0	35.5	2.5	8.2	7	11
PFG	1B	16	15.8	M12x1.0	5.0	40.5	3.5	10.5	9	14
PFG	2B	20	19.2	M15x1.0	6.5	47.0	3.5	13.5	12	17
PFG	3B	24	25.0	M18x1.0	9.0	56.0	4.5	16.5	14	22
PFG	4B	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 157)

**M1** Cable assembly (page 169)

**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	P	S1	S2	S4
PEG	3B	24	25	M18x1.0	5.0	56	4.5	12	16.5	14	20
PEG	4B	32	34	M25x1.0	12.5	73	5.0	20	23.5	20	27

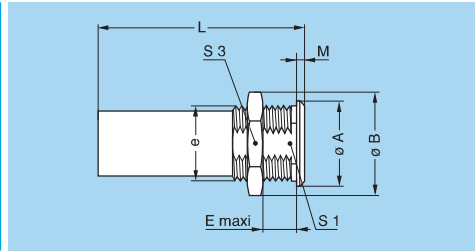
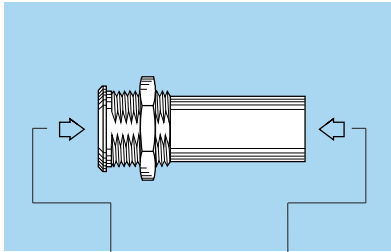
**P1** Panel cut-out (page 157)

**M1** Cable assembly (page 169)

**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



G		RGG		G
J		RJG		G
G		RGJ		J
A		RAK		K
G		RGM		M

Example

Plug with key G      RGJ      Plug with key J

Alignment key see page 36.

Reference		Contacts Type	Dimensions (mm)							
Model	Series		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	0B	female – male	12	13.8	M10x0.75	8.0	34	2.0	9.0	12
RAK	0B	female – male	12	13.8	M10x0.75	8.0	34	2.0	9.0	12
RGM	0B	female – male	12	13.8	M10x0.75	8.0	34	2.0	9.0	12
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	1B	female – male	16	19.2	M14x1.00	8.5	39	2.5	12.5	17
RJG	2B	male – female	20	21.5	M16x1.00	12.0	44	4.0	15.0	19
RGJ	2B	female – male	20	21.5	M16x1.00	12.0	44	4.0	15.0	19
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 157)

**Note:**

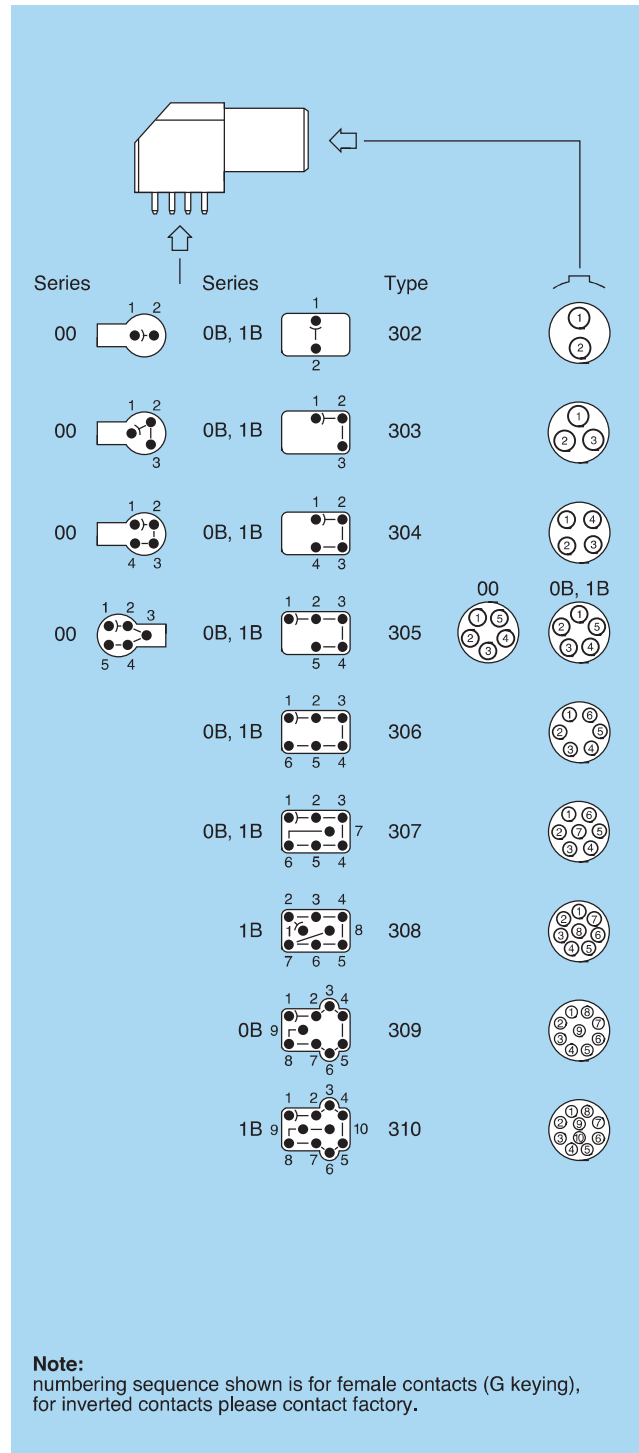
- 1) only available with two contacts.
- 2) RGG.0B only available from 3 till 5 contacts.
- 3) RGG.1B only available till 7 contacts.

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.



## Technical Characteristics

### Types



### Materials and Treatment

Component	Material	Surface Treat. ( $\mu\text{m}$ )		
		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: SAE AMS QQ N 290. - 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	302-303-304-305	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	0.60	0.50	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:**

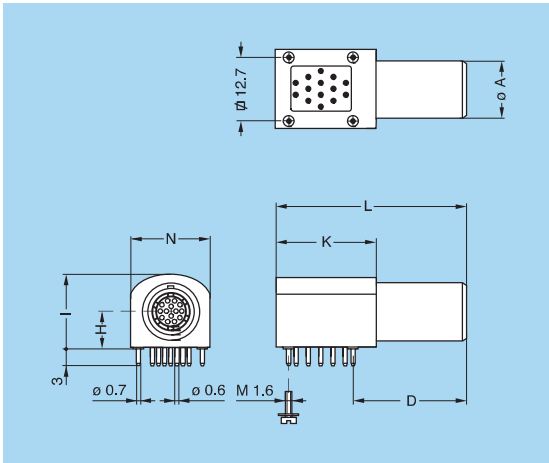
<sup>1)</sup> see calculation method, caution and suggested standard on page 190.

**P18** PCB drilling pattern (page 165)

**P19** PCB drilling pattern (page 165)



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

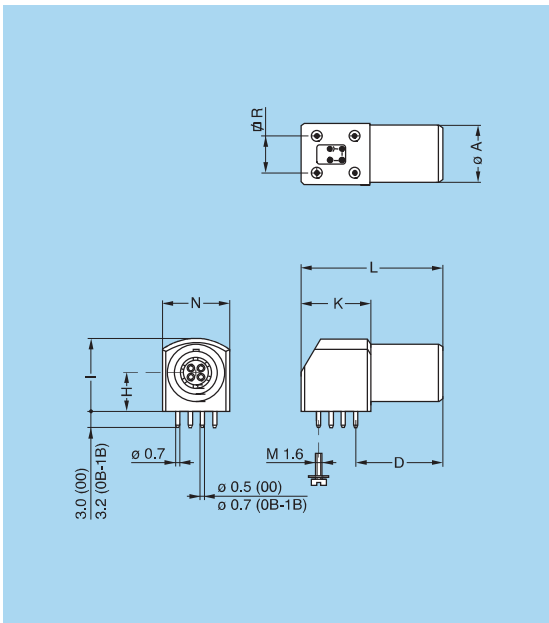


Part number	Dimensions (mm)						
	A	D	H	I	K	L	N
<b>EPG.1B.314.NLN</b>	11	21	7.7	14.3	19	36	15.4

**P20** PCB drilling pattern (page 165)

**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)**



Part number	Dimensions (mm)							
	A	D	H	I	K	L	N	R
<b>EPG.00.302.HLN</b>								
<b>EPG.00.303.HLN</b>	6.8	11.5	3.5	7.0	8.7	19	7.1	5.08
<b>EPG.00.304.HLN</b>								
<b>EPG.00.305.HLN</b>								
<b>EPG.0B.302.HLN</b>								
<b>EPG.0B.303.HLN</b>								
<b>EPG.0B.304.HLN</b>								
<b>EPG.0B.305.HLN</b>	9.0	14.6	6.7	12.6	13.3	25	11.7	7.62
<b>EPG.0B.306.HLN</b>								
<b>EPG.0B.307.HLN</b>								
<b>EPG.0B.309.HLN</b>								
<b>EPG.1B.302.HLN</b>								
<b>EPG.1B.303.HLN</b>								
<b>EPG.1B.304.HLN</b>								
<b>EPG.1B.305.HLN</b>	11.0	16.6	7.5	14.0	13.3	27	12.6	7.62
<b>EPG.1B.306.HLN</b>								
<b>EPG.1B.307.HLN</b>								
<b>EPG.1B.308.HLN</b>								
<b>EPG.1B.310.HLN</b>								

**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)

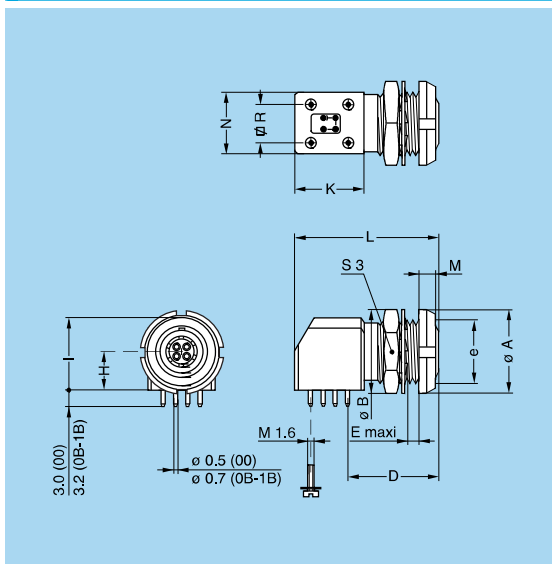
**P18** PCB drilling pattern 00 series (page 165)

**P19** PCB drilling pattern 0B, 1B series (page 165)



**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)**



**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).

Part number	Dimensions (mm)												
	A	B	D	e	E	H	I	K	L	M	N	R	S3
<b>XBG.00.302.HLN</b>													
<b>XBG.00.303.HLN</b>	10	10.2	11.5	M7x0.5	2.1	3.5	7.0	8.7	19	2.5	7.1	5.08	9
<b>XBG.00.304.HLN</b>													
<b>EXG.0B.302.HLN</b>													
<b>EXG.0B.303.HLN</b>													
<b>EXG.0B.304.HLN</b>													
<b>EXG.0B.305.HLN</b>	12	12.4	14.6	M9x0.6	4.5	6.7	12.6	13.3	25	2.5	11.7	7.62	11
<b>EXG.0B.306.HLN</b>													
<b>EXG.0B.307.HLN</b>													
<b>EXG.0B.309.HLN</b>													
<b>EXG.1B.302.HLN</b>													
<b>EXG.1B.303.HLN</b>													
<b>EXG.1B.304.HLN</b>													
<b>EXG.1B.305.HLN</b>	14	15.0	16.6	M11x0.5	7.5	7.5	14.0	13.3	27	3.5	12.6	7.62	13
<b>EXG.1B.306.HLN</b>													
<b>EXG.1B.307.HLN</b>													
<b>EXG.1B.308.HLN</b>													
<b>EXG.1B.310.HLN</b>													

**P2** Panel cut-out 00, 0B series (page 157)

**P10** Panel cut-out 1B series (page 157)

**P18** PCB drilling pattern 00 series (page 165)

**P19** PCB drilling pattern 0B, 1B series (page 165)



## Plastic housing models

These connectors are particularly recommended for all applications requiring maximum electrical insulation when mated. The design, including a latch sleeve and a metal earthing crown, guarantees EMC screening efficiency to meet most requirements.

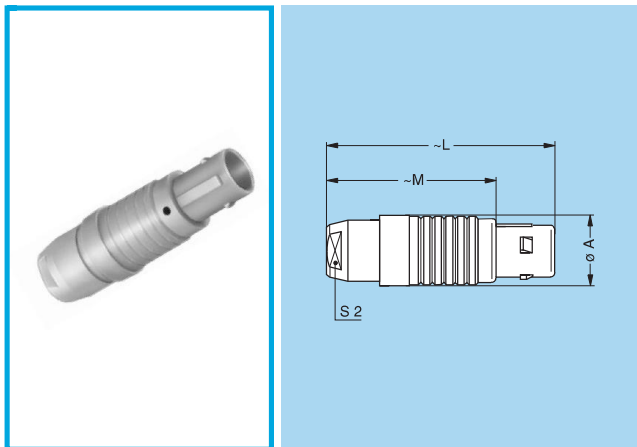
### Technical Characteristics

#### Mechanical and Climatical

Characteristics	Value			Standard
	PEEK	PSU	PPSU	
Colour	natural (beige)	white or grey	cream	–
Endurance <sup>1)</sup>	> 5000 cycles	> 5000 cycles	> 5000 cycles	IEC 60512-5 test 9a
Humidity	up to 95% at 60° C			–
Temperature range	- 50° C/+ 250° C	- 50° C/+ 150° C	- 50° C/+ 180° C	–
Sterilization resistance <sup>2)</sup>	> 200 cycles	~20 cycles	> 100 cycles	IEC 60601-1 § 44.7
Resistance to solvents	very good	limited	good	–

**Note:** <sup>1)</sup> see page 189, contact resistance after mating cycles. See page 185, mechanical endurance latching force. <sup>2)</sup> Steam sterilization.

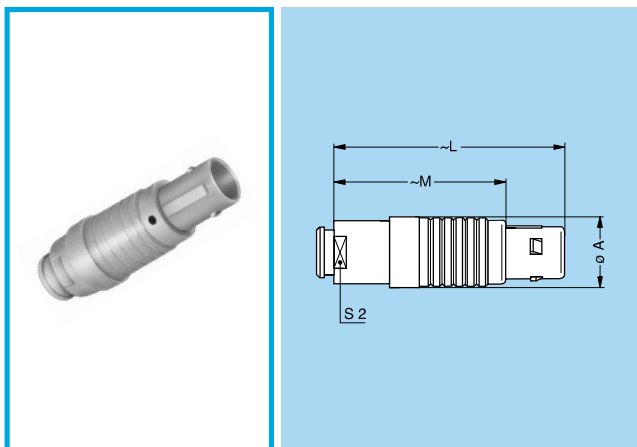
#### FGG Straight plug, key (G or J), cable collet, PEEK outer shell



Reference		Dimensions (mm)			
Model	Series	A	L	M	S2
FGG	0B	11.0	37.4	27.4	8
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 169)

#### FGG Straight plug, key (G or J), cable collet, PEEK outer shell and nut for fitting a bend relief <sup>1)</sup>



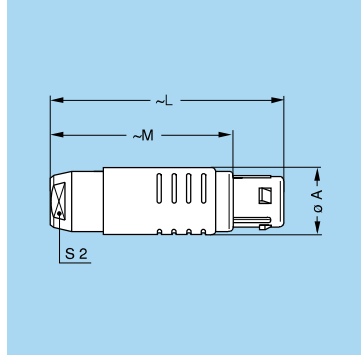
Reference		Dimensions (mm)				Note on availability
Model	Series	A	L	M	S2	
FGG	1B	13.5	42.2	31.2	10	for all collet type
FGG	4B	26.0	83.2	65.2	20	only from collet M82 and up

**M1** Cable assembly (page 169)

**Note:** <sup>1)</sup> to order, add a «Z» at the end of the reference. The bend relief must be ordered separately (see page 145).



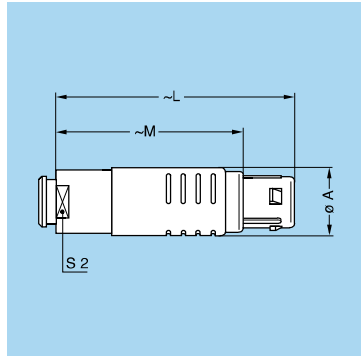
### FGY Straight plug, keys (Y), cable collet and PSU or PPSU outer shell



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 169)

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

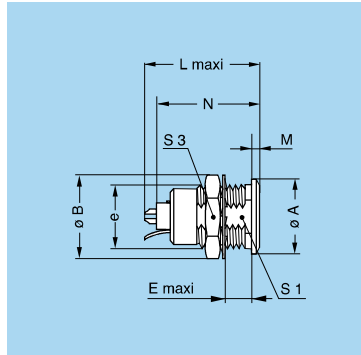


Reference		Dimensions (mm)				Note on availability
Model	Series	A	L	M	S2	
FGY	2B	16.5	49.5	38.5	13	only for collet M42 and up
FGY	3B	19.0	56.5	41.5	15	only for collet D62 and up
FGY	4B	26.0	74.4	56.4	20	only for collet D82 and up

**M1** Cable assembly (page 169)

**Note:** <sup>1)</sup> to order, add a «Z» at the end of the reference. The bend relief must be ordered separately (see page 145).

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

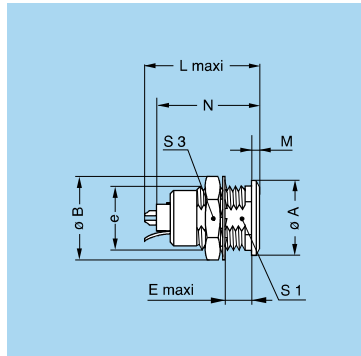


Reference		Dimensions (mm)								
Model	Series	A	B	e	E	L	M	N <sup>1)</sup>	S1	S3
ENG	0B	11	12.5	M9x0.6	6.4	20.7	1.8	16.5	8.2	11
ENG	1B	14	15.8	M12x1.0	7.5	23.0	1.5	21.1	10.5	14
ENG	3B	22	25.0	M18x1.0	11.5	30.7	2.0	28.1	16.5	22
ENG	4B	28	34.0	M25x1.0	12.0	35.7	2.5	32.6	23.5	30

**P1** Panel cut-out (page 157)

**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 157)

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

Other models with plastic outer shell are available on request.