

## K Series

K series connectors have been specifically designed for outdoor applications.

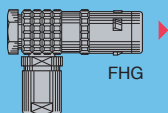
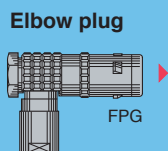
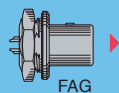
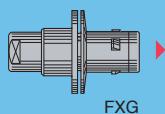
They include an inner sleeve and two seals to prevent penetration of solids or liquids into the housing formed by the plug, free socket, fixed socket or coupler. All models of this series are watertight when mated to give a protection index of IP68 as per IEC 60529 standard (in mated condition) when correctly assembled to an appropriate cable (IP66 otherwise).

K series connectors have the same insulators as the B series and have the following main features:

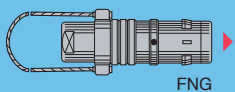
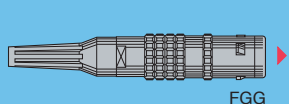
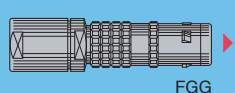
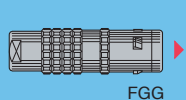
- security of the Push-Pull latching system
- multipole types 2 to 64 contacts
- keying system («G» key standard) for connector alignment
- 360° screening for full EMC shielding
- rugged housing for extreme working conditions.
- watertight connection (IP 68/IP 66)
- solder, crimp or print (straight or elbow) contacts
- multiple key options to avoid cross mating of similar connectors
- high packing density for space savings

### Metal housing models (page 39)

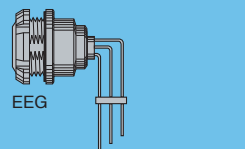
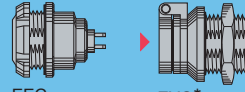
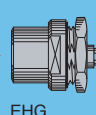
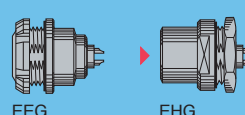
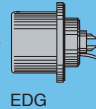
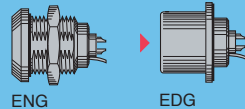
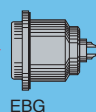
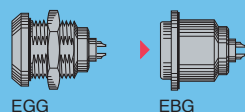
#### Fixed plugs



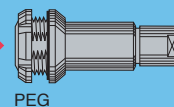
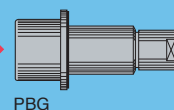
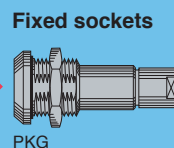
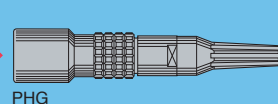
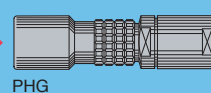
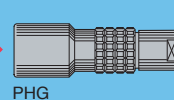
#### Straight plugs



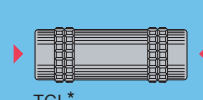
#### Fixed sockets



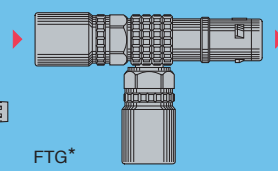
#### Free sockets



#### Free coupler

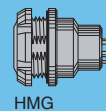
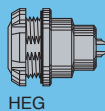
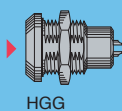


#### T-plug with sockets (90°)

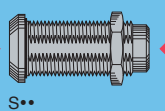


### Watertight or vacuumtight models (page 47)

#### Fixed sockets

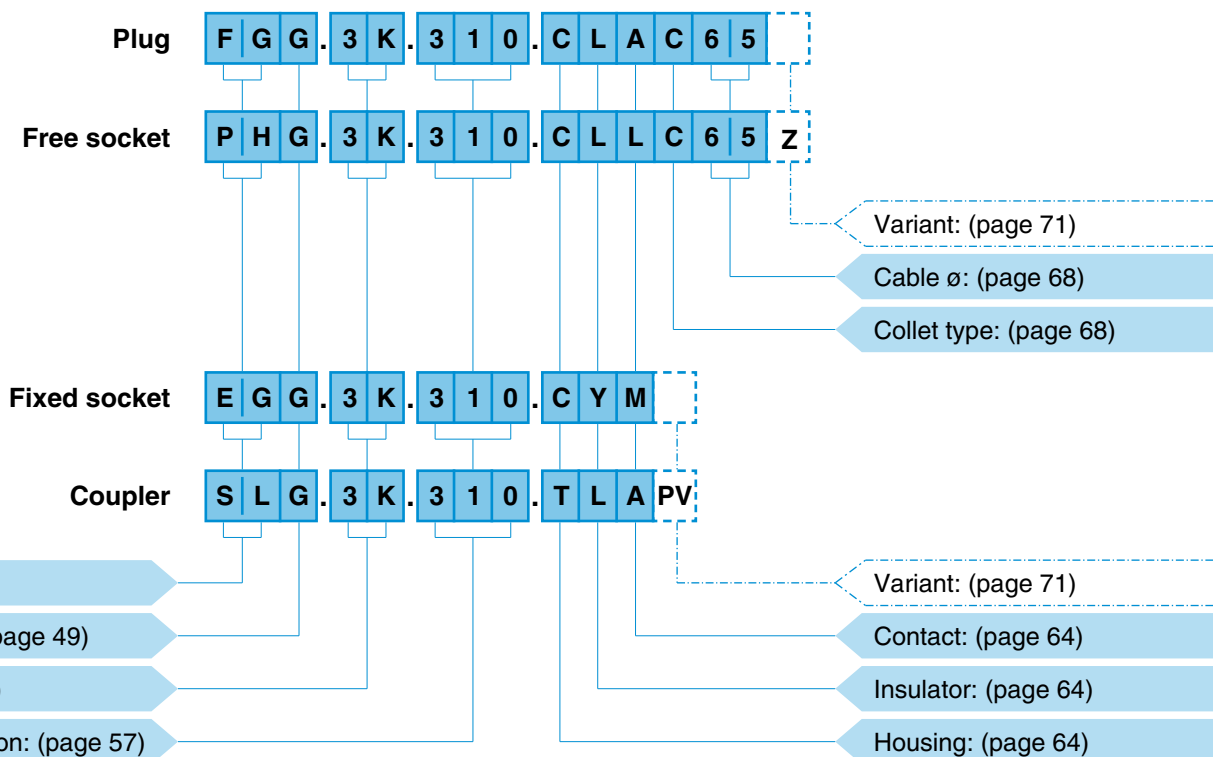


#### Fixed coupler



**Note:** \* Contact LEMO for details.

## Part Numbering System



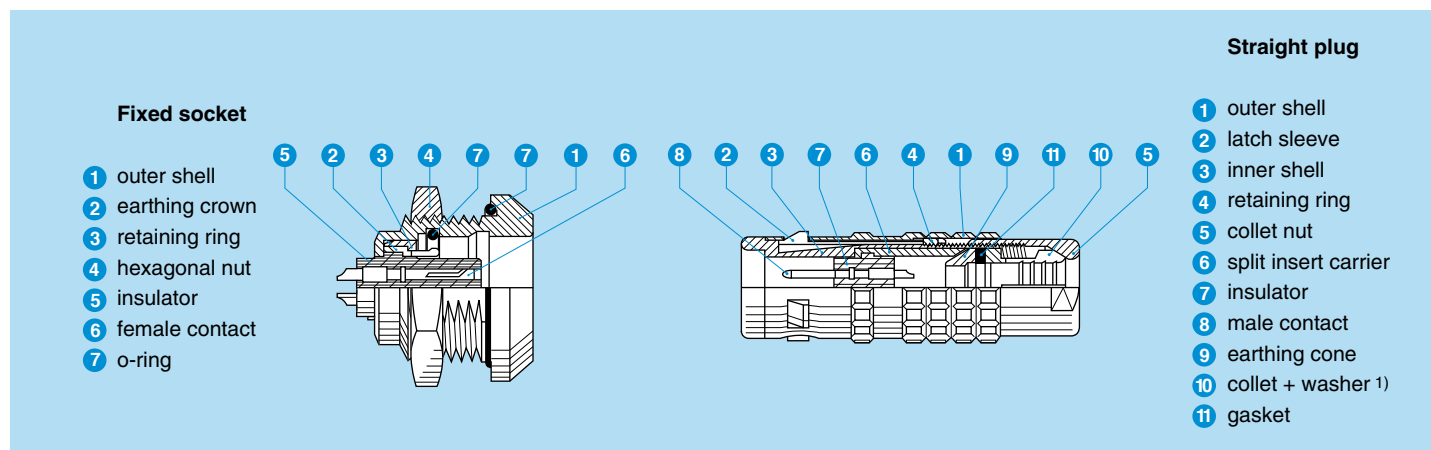
**FGG.3K.310.CLAC65** = straight plug with key (G) and cable collet, 3K series, multipole type with 10 contacts, outer shell in chrome-plated brass, PEEK insulator, male solder contacts, C type collet for 6.5 mm diameter cable.

**PHG.3K.310.CLLC65Z** = free socket with key (G) and cable collet, 3K series, multipole type with 10 contacts, outer shell in chrome-plated brass, PEEK insulator, female solder contacts, C type collet for 6.5 mm diameter cable and nut for fitting a bend relief.

**EGG.3K.310.CYM** = fixed socket, nut fixing, with key (G), 3K series, multipole type with 10 contacts, outer shell in chrome-plated brass, PEEK extended insulator, female crimp contacts.

**SLG.3K.310.TLAPV** = fixed coupler, nut fixing, keys (L) on the flange end and key (G) at the other end, 3K series, multipole type with 10 contacts, outer shell in stainless steel, PEEK insulator, male-female contacts, vacuumtight.

## Part Section Showing Internal Components



**Note:** <sup>1)</sup> depending on models.



## 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 <sup>2)</sup>	- 55° C, + 200° 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>4)</sup>	> 1000h	IEC 60512-6 test 11f
Protection index (mated) <sup>3)</sup>	IP 68/IP 66	IEC 60529
Climatical category	50/175/21	IEC 60068-1

#### Electrical

Characteristics	Value	Standard
Shielding efficiency	at 10 MHz	> 95 dB
	at 1 GHz	> 80 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, PEEK insulator and silicone O-ring. Detailed electrical characteristics, as well as materials and treatment are presented in the chapter Technical Characteristics on page 182.

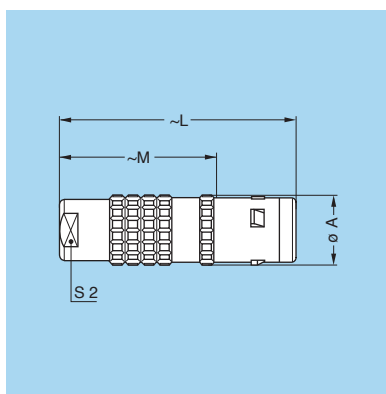
<sup>1)</sup> see page 189, contact resistance after mating cycles. See page 185, mechanical endurance latching force.

<sup>2)</sup> minimum operating temperature is -20°C for sockets fitted with an FPM (Viton®) O-ring.

<sup>3)</sup> IP68 achieved providing that the cable is perfectly circular and that assembly process ensures a high integrity seal.

<sup>4)</sup> for chrome plated product («C» material code).

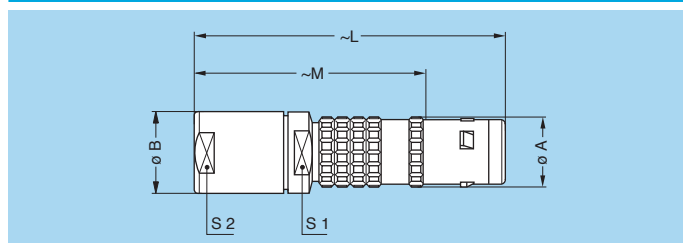
### FGG Straight plug, key (G) or keys (A to F, L and R), cable collet



Reference		Dimensions (mm)			
Model	Series	A	L	M	S2
FGG	0K	11	34	23.0	8
FGG	1K	13	42	28.0	9
FGG	2K	16	52	36.0	12
FGG	3K	19	61	41.0	15
FGG	4K	25	71	50.5	19
FGG	5K	38	92	67.0	30

**M1** Cable assembly (page 172)

### FGG Straight plug, key (G) or keys (A to F, L and R), cable collet and oversize cable collet <sup>1)</sup>

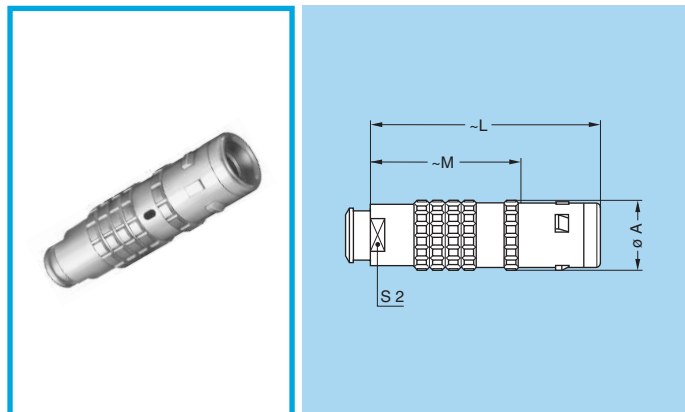


Reference		Dimensions (mm)					
Model	Series	A	B	L	M	S1	S2
FGG	1K	13	14.5	60.0	46	12	12
FGG	2K	16	17.0	68.0	52	15	15
FGG	3K	19	22.0	85.0	65	19	19
FGG	4K	25	36.0	119.5	99	30	32

**M2** Cable assembly (page 173)

**Note:** <sup>1)</sup> correspond to K type of collet, the fitting of oversize collets onto this model allows them to be fitted to the cables that can be accommodated by the next housing size up (see page 68).

## FGG Straight plug, key (G) or keys (A to F, L and R), cable collet and nut for fitting a bend relief <sup>1)</sup>

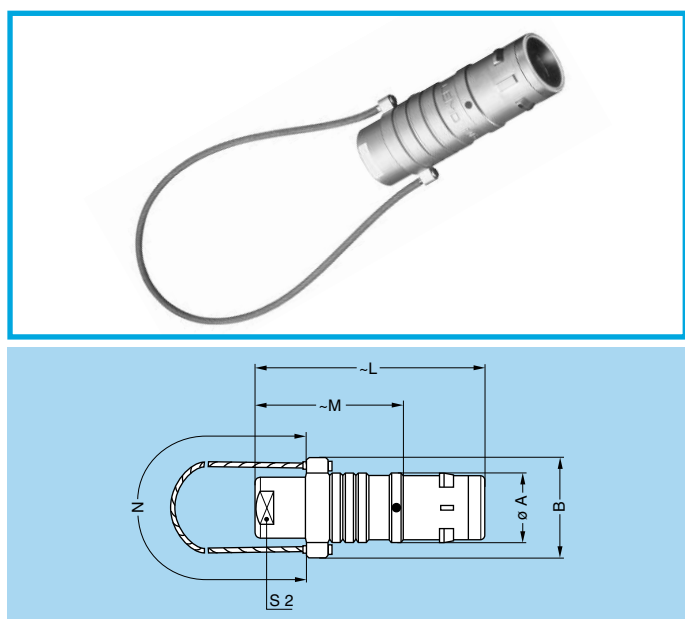


Reference		Dimensions (mm)			
Model	Series	A	L	M	S2
FGG	0K	11	34	23.0	7
FGG	1K	13	42	28.0	9
FGG	2K	16	52	36.0	12
FGG	3K	19	60	40.0	15
FGG	4K	25	71	50.5	19

**M1** Cable assembly (page 172)

**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).

## FNG Straight plug, key (G) or keys (A to F and L), cable collet and lanyard release

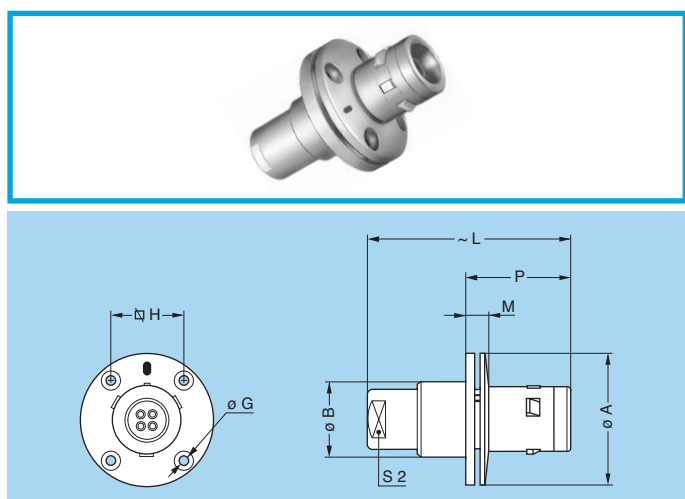


Reference		Dimensions (mm)					
Model	Series	A	B	L	M	N	S2
FNG	2K	16	22	52	36.0	160	12
FNG	4K	25	32	71	50.5	230	19

**M1** Cable assembly (page 172)

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

## FXG Fixed plug with round flange, key (G) or keys (A to F, L and R) and screw fixing



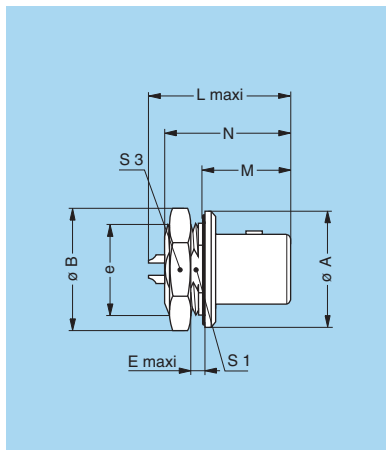
Reference		Dimensions (mm)							
Model	Series	A	B	G	H	L	M	P	S2
FXG	3K	38	22.5	3.4	20.6	61	10.0	30.0	15
FXG	4K	47	28.5	3.4	27.0	71	11.0	32.0	19
FXG	5K	65	42.5	4.4	38.0	100	12.5	38.5	30

**P6** Panel cut-out (page 159)

**Note:** this model does not include an O-ring behind the flange, it allows the device on which it is fitted to reach only IP50 protection index.  
It does not have a cable collet.



## FAG Fixed plug, nut fixing, non-latching, key (G) or keys (A to F, L and R)



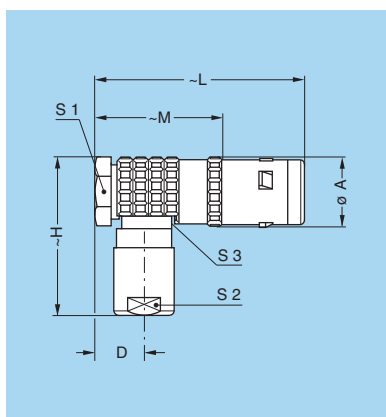
Reference		Dimensions (mm)								
Model	Series	A	B	e	E	L	M	N <sup>1)</sup>	S1	S3
FAG	1K	20	21.5	M16x1.0	2.3	22.6	16.0	22.5	14.5	19
FAG	2K	25	27.0	M20x1.0	4.5	33.6	18.0	28.3	18.5	24
FAG	3K	31	34.0	M24x1.0	4.0	34.3	22.5	33.8	22.5	30
FAG	4K	37	40.5	M30x1.0	4.0	35.3	23.0	36.3	28.5	36
FAG	5K	55	54.0	M45x1.5	4.0	43.5	28.5	42.3	42.5	—

**P1** Panel cut-out (page 159)

**Note:** The 1K series is delivered with a locking washer.  
The 5K series is delivered with a round nut.

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

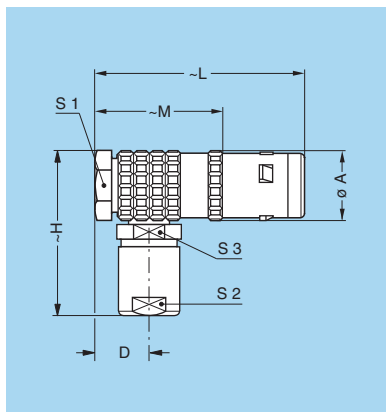
## FPG Elbow (90°) plug, key (G) or keys (A to F, L and R), cable collet



Reference		Dimensions (mm)							
Model	Series	A	D	H	L	M	S1	S2	S3
FPG	0K	11	7.3	25	36	25	9	8	8
FPG	1K	13	8.7	33	42	28	11	9	10
FPG	2K	16	10.2	40	51	35	14	12	13

**M3** Cable assembly (page 172)

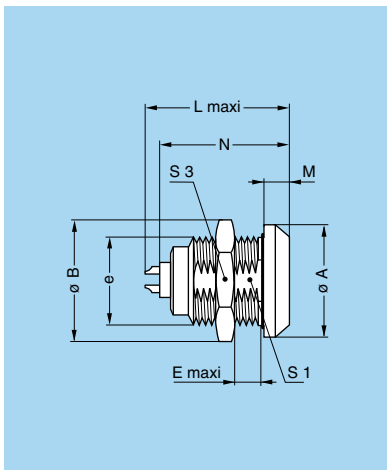
## FHG Elbow (90°) plug, key (G) or keys (A to F, L and R), cable collet



Reference		Dimensions (mm)							
Model	Series	A	D	H	L	M	S1	S2	S3
FHG	3K	21.0	11.5	47	60	40.0	18	15	15
FHG	4K	27.5	15.5	57	72	51.5	24	19	20

**M3** Cable assembly (page 172)

## EGG Fixed socket, nut fixing, key (G) or keys (A to F, L and R)



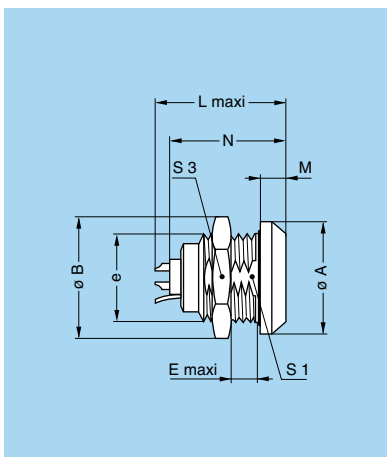
Reference		Dimensions (mm)								
Model	Series	A	B	e	E	L	M	N <sup>1)</sup>	S1	S3
EGG	0K	18	19.2	M14x1.0	6	21.7	4.0	20.1	12.5	17
EGG	1K	20	21.5	M16x1.0	9	27.0	4.5	25.1	14.5	19
EGG	2K	25	27.0	M20x1.0	9	30.7	5.0	28.6	18.5	24
EGG	3K	31	34.0	M24x1.0	11	36.2	6.0	33.6	22.5	30
EGG	4K	37	40.5	M30x1.0	9	40.2	6.5	38.6	28.5	36
EGG	5K	55	54.0	M45x1.5	10	47.5	9.0	43.6	42.5	—

**P1** Panel cut-out (page 159)

**Note:** The 5K series is delivered with a round nut.

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

## ENG Fixed socket, nut fixing, key (G) or keys (A to F, L and R) and earthing tag

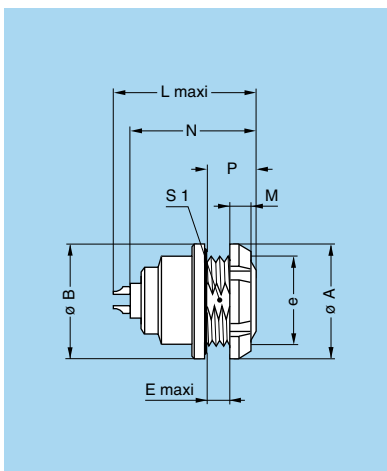


Reference		Dimensions (mm)								
Model	Series	A	B	e	E	L	M	N <sup>1)</sup>	S1	S3
ENG	3K	31	34	M24x1.0	11.3	36.2	6	33.6	22.5	30

**P1** Panel cut-out (page 159)

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

## EEG Fixed socket, nut fixing, key (G) or keys (A to F, L and R) (back panel mounting)



Reference		Dimensions (mm)								
Model	Series	A	B	e	E	L	M	N <sup>1)</sup>	P	S1
EEG	0K	18.0	18	M14x1.0	3.4	21.7	3.5	20.1	7.0	12.5
EEG	1K	20.0	20	M16x1.0	6.2	27.0	3.5	25.1	10.0	14.5
EEG	2K	25.0	25	M20x1.0	5.0	30.7	3.5	28.6	10.0	18.5
EEG	3K	30.0	31	M24x1.0	7.5	36.2	4.5	33.6	12.0	22.5
EEG	4K	41.5	37	M30x1.0	6.0	40.2	7.0	38.6	13.5	28.5

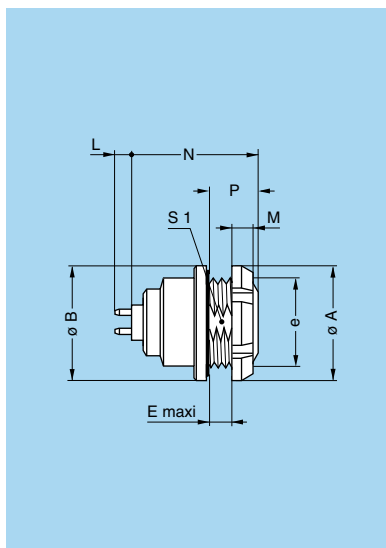
**P1** Panel cut-out (page 159)

**Note:** The 3K and 4K series are delivered with a conical nut.

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



## EEG Fixed socket, nut fixing, key (G) or keys (A to F and R) with straight print contacts for printed circuit (back panel mounting)



Reference		Dimensions (mm)							
Model	Series	A	B	e	E	M	N	P	S1
EEG	0K	18.0	18	M14x1.0	3.4	3.5	17.6	7.0	12.5
EEG	1K	20.0	20	M16x1.0	6.2	3.5	23.8	10.0	14.5
EEG	2K	25.0	25	M20x1.0	5.0	3.5	25.8	10.0	18.5
EEG	3K	30.0	31	M24x1.0	7.5	4.5	31.3	12.0	22.5
EEG	4K	41.5	37	M30x1.0	6.0	7.0	34.3	13.5	28.5

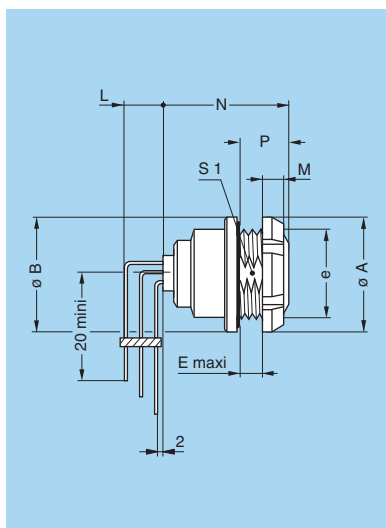
**P1** Panel cut-out (page 159)

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

**Note:** The 3K and 4K series are delivered with a conical nut.

**Note:** this contact type is available for E● socket models fitted with female contact.  
Length «L» depends on the number of contacts, see table page 163.

## EEG Fixed socket, nut fixing, key (G) or keys (A to F and R) with elbow (90°) contacts for printed circuit (back panel mounting)



Reference		Dimensions (mm)							
Model	Series	A	B	e	E	M	N	P	S1
EEG	0K	18	18	M14x1.0	3.4	3.5	19.3	7	12.5
EEG	1K	20	20	M16x1.0	6.2	3.5	24.3	10	14.5
EEG	2K	25	25	M20x1.0	5.0	3.5	26.6	10	18.5
EEG	3K	30	31	M24x1.0	7.5	4.5	31.3	12	22.5

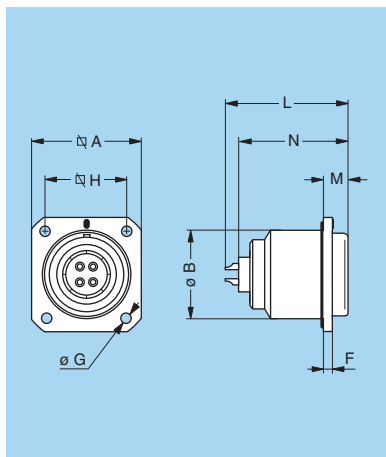
**P1** Panel cut-out (page 159)

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

**Note:** length «L» depends on the number of contacts, see PCB drilling pattern page 164.

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

## EBG Fixed socket with square flange, key (G) or keys (A to F, L and R) and screw fixing

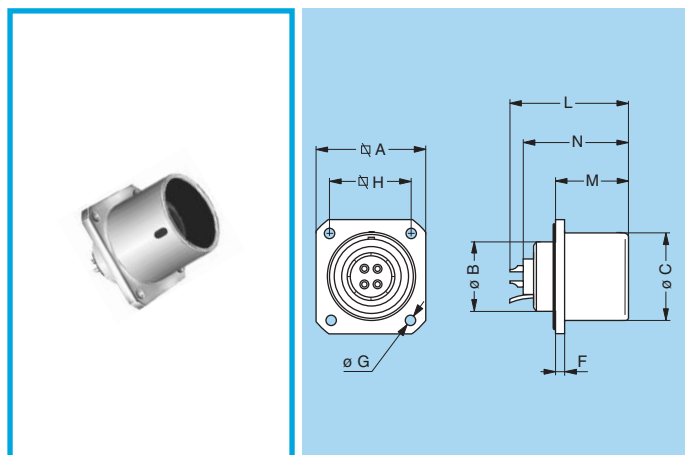


Reference		Dimensions (mm)							
Model	Series	A	B	F	G	H	L	M	N <sup>1)</sup>
EBG	3K	29	23	3	3.4	23	36.2	6.0	32.6
EBG	4K	37	30	3	3.4	29	40.2	6.5	36.6
EBG	5K	54	45	4	4.4	44	47.5	8.0	42.1

**P7** Panel cut-out (page 159)

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

## EDG Fixed socket with square flange, key (G) or keys (A to F, L and R), protruding shell and earthing tag, screw fixing

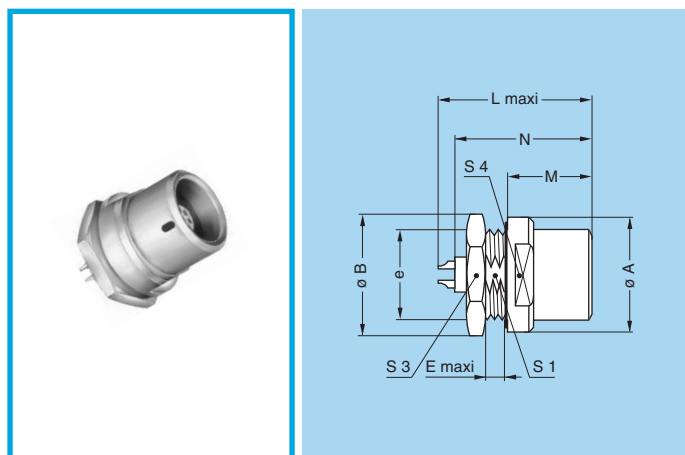


Reference		Dimensions (mm)								
Model	Series	A	B	C	F	G	H	L	M	N <sup>1)</sup>
EDG	3K	29	18	23	3	3.4	23	36.2	22.5	32.6

**P7** Panel cut-out (page 159)

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

## EHG Fixed socket, nut fixing, key (G) or keys (A to F and L), protruding shell

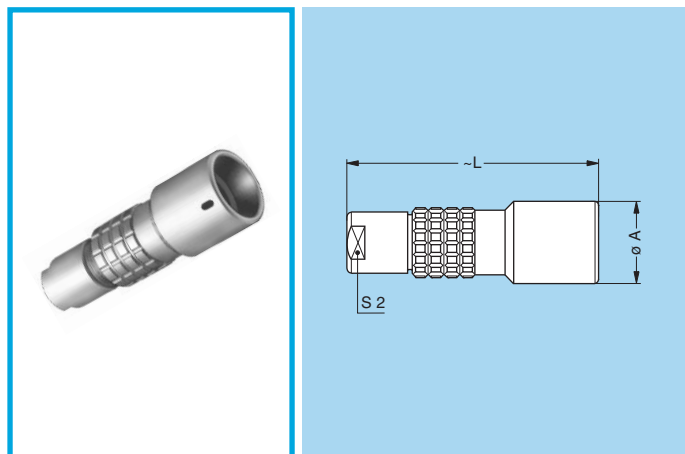


Reference		Dimensions (mm)									
Model	Series	A	B	e	E	L	M	N <sup>1)</sup>	S1	S3	S4
EHG	0K	18	19.2	M14x1.0	1.5	21.7	10.5	20.1	12.5	17	15
EHG	1K	20	21.5	M16x1.0	1.5	27.0	15.5	25.1	14.5	19	17
EHG	2K	25	27.0	M20x1.0	1.5	30.7	17.0	27.1	18.5	24	20

**P1** Panel cut-out (page 159)

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

## PHG Free socket, key (G) or keys (A to F, L and R), cable collet



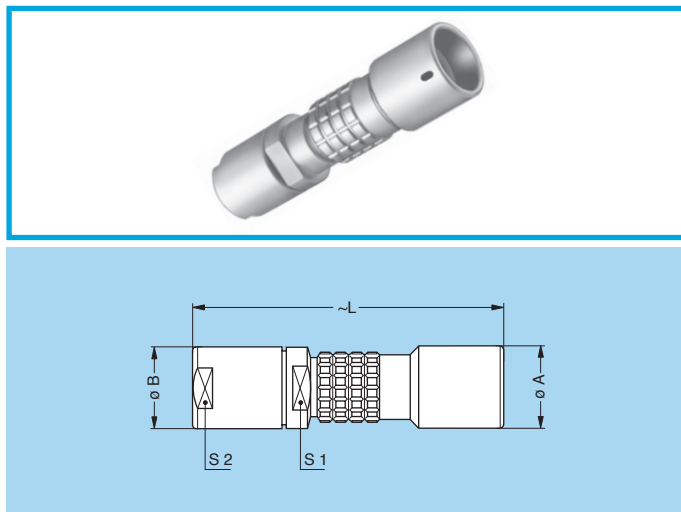
Reference		Dimensions (mm)		
Model	Series	A	L	S2
PHG	0K	13	34.0	8
PHG	1K	15	45.0	9
PHG	2K	19	54.0	12
PHG	3K	23	65.0	15
PHG	4K	29	75.5	19
PHG	5K	42	95.0	30

**M1** Cable assembly (page 172)





## PHG Free socket, key (G) or keys (A to F, L and R), cable collet and oversize cable collet <sup>1)</sup>

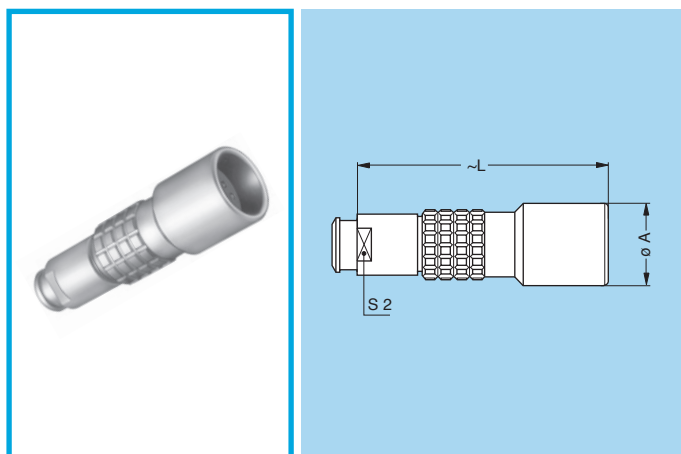


Reference		Dimensions (mm)				
Model	Series	A	B	L	S1	S2
PHG	1K	15	14.5	63	12	12
PHG	2K	19	17.0	70	15	15
PHG	3K	23	22.0	89	19	19
PHG	4K	29	36.0	124	30	32

**M2** Cable assembly (page 173)

**Note:** <sup>1)</sup> correspond to K type of collet, the fitting of oversize collets onto this model allows them to be fitted to the cables that can be accommodated by the next housing size up (see page 68).

## PHG Free socket, key (G) or keys (A to F, L and R), cable collet and nut for fitting a bend relief <sup>1)</sup>

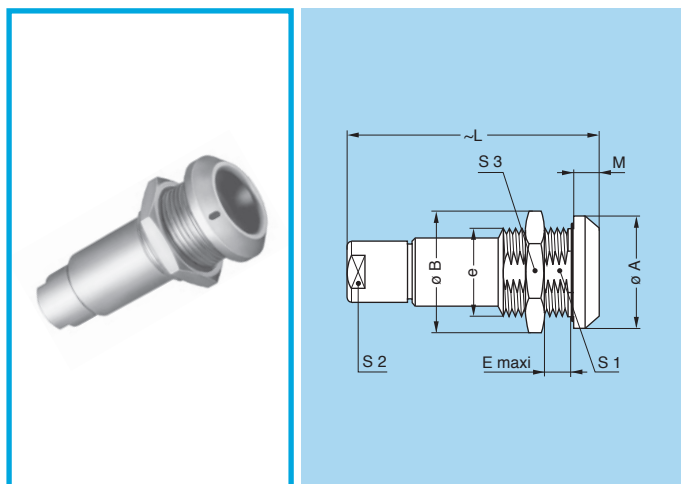


Reference		Dimensions (mm)		
Model	Series	A	L	S2
PHG	0K	13	34.0	7
PHG	1K	15	45.0	9
PHG	2K	19	54.0	12
PHG	3K	23	64.0	15
PHG	4K	29	75.5	19

**M1** Cable assembly (page 172)

**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).

## PKG Fixed socket, nut fixing, key (G) or keys (A to F, L and R), cable collet



Reference		Dimensions (mm)								
Model	Series	A	B	e	E	L	M	S1	S2	S3
PKG	0K	18	19.2	M14x1.0	9.0	35.2	4.0	12.5	8	17
PKG	1K	20	21.5	M16x1.0	9.5	46.2	4.5	14.5	9	19
PKG	2K	25	27.0	M20x1.0	9.0	54.5	5.0	18.5	12	24
PKG	3K	31	34.0	M24x1.0	11.5	65.7	6.0	22.5	15	30
PKG	4K	37	40.5	M30x1.0	9.0	75.5	6.5	28.5	19	36
PKG	5K	55	54.0	M45x1.5	15.0	98.0	9.0	42.5	30	—

**P1** Panel cut-out (page 159)

**M1** Cable assembly (page 172)

**Note:** the 5K series is delivered with a round nut.





## Watertight or vacuumtight models

These 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 <sup>1)</sup>	> 5000 cycles	IEC 60512-5 test 9a
Humidity	up to 95% at 60° C	
Temperature range	0K-1K 2K to 5K	- 20° C/+ 100° C - 20° C/+ 80° C
Salt spray corrosion test <sup>4)</sup>	> 1000h	IEC 60512-6 test 11f
Climatical category	20/80/21	IEC 60068-1
Leakage rate (He) <sup>2)</sup>	< 10 <sup>-7</sup> mbar.l.s <sup>-1</sup>	IEC 60512-7 test 14b

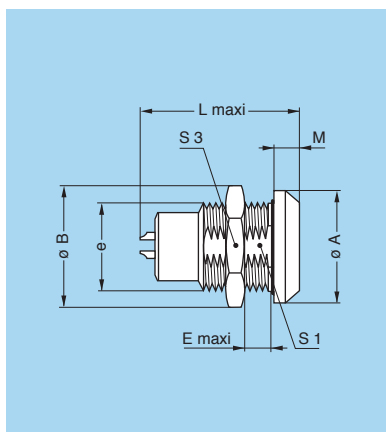
Characteristics	Value	Standard
Maximum operating pressure <sup>3)</sup>	0K	60 bar
	1K	60 bar
	2K	40 bar
	3K	30 bar
	4K	15 bar
	5K	5 bar

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

<sup>2)</sup> only for vacuumtight models. Residual traces of grease used during (He) leak testing are on the o-ring. Please contact us for further details.

<sup>3)</sup> this value corresponds to the maximum allowed pressure difference for the assembled socket. <sup>4)</sup> for chrome plated product («C» material code).

### HGG Fixed socket, nut fixing, key (G) or keys (A to F and L), watertight or vacuumtight

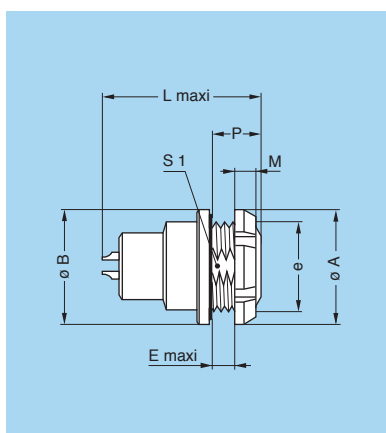


Reference		Dimensions (mm)							
Model	Series	A	B	e	E	L	M	S1	S3
HGG	0K	18	19.2	M14x1.0	5.5	23.0	4.0	12.5	17
HGG	1K	20	21.5	M16x1.0	9.0	30.0	4.5	14.5	19
HGG	2K	25	27.0	M20x1.0	13.0	33.7	5.0	18.5	24
HGG	3K	31	34.0	M24x1.0	16.0	41.7	6.0	22.5	30
HGG	4K	37	40.5	M30x1.0	14.0	49.2	6.5	28.5	36
HGG	5K	55	54.0	M45x1.5	10.0	55.7	9.0	42.5	—

**P1** Panel cut-out (page 159)

**Note:** the 5K series is delivered with a round nut.

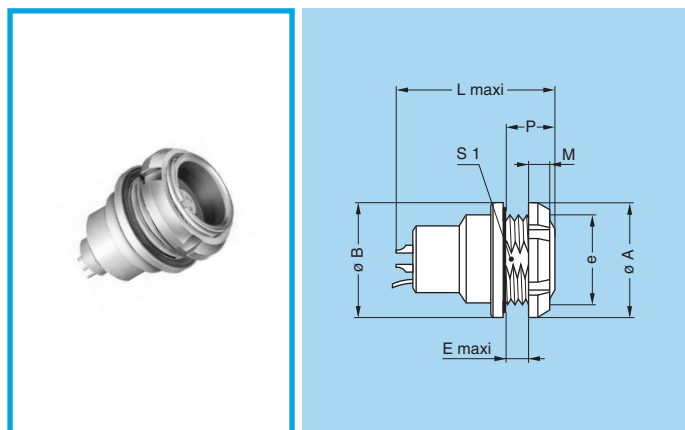
### HEG Fixed socket, nut fixing, key (G) or keys (A to F and L), watertight or vacuumtight (back panel mounting)



Reference		Dimensions (mm)							
Model	Series	A	B	e	E	L	M	P	S1
HEG	0K	18	18	M14x1.0	3.4	23.0	3.5	7	12.5
HEG	1K	20	20	M16x1.0	6.2	30.0	3.5	10	14.5
HEG	2K	25	25	M20x1.0	5.0	33.7	3.5	10	18.5

**P1** Panel cut-out (page 159)

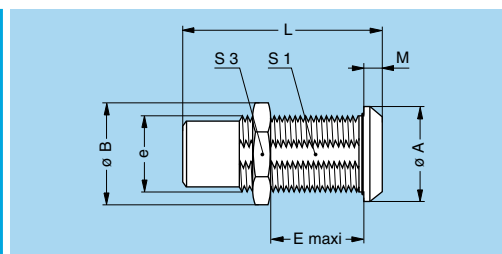
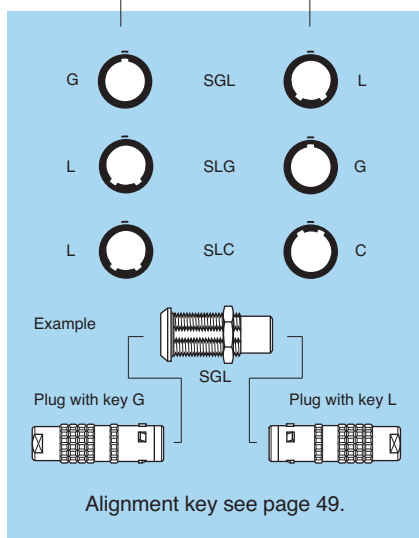
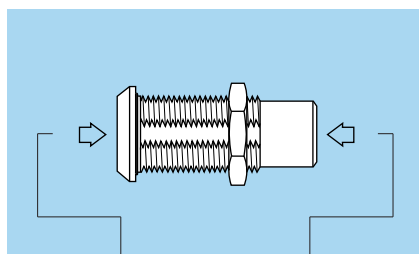
**HMG Fixed socket with earthing tag, nut fixing, key (G) or keys (A to F and L), watertight or vacuumtight (back panel mounting)**



Reference		Dimensions (mm)							
Model	Series	A	B	e	E	L	M	P	S1
<b>HMG</b>	<b>1K</b>	20	20	M16x1.0	6.2	30.0	3.5	10	14.5
<b>HMG</b>	<b>2K</b>	25	25	M20x1.0	5.0	33.7	3.5	10	18.5

**P1** Panel cut-out (page 159)

**S Fixed coupler, nut fixing, key (G) or keys (L) at the flange end, and key (G) or keys (C or L) at the other end, watertight or vacuumtight**



Reference		Contacts	Dimensions (mm)							
Model	Series	Type	A	B	e	E	L	M	S1	S3
<b>SGL</b>	<b>2K</b>	female – male	25	27.0	M20x1.0	25	52.4	5.0	18.5	24
<b>SLG</b>	<b>2K</b>	male – female	25	27.0	M20x1.0	25	52.4	5.0	18.5	24
<b>SLG</b>	<b>3K</b>	male – female	31	34.0	M24x1.0	33	64.0	6.0	22.5	30
<b>SLG</b>	<b>4K</b>	male – female	37	40.5	M30x1.0	48	74.0	6.5	28.5	36
<b>SLC</b>	<b>4K</b>	male – female	37	40.5	M30x1.0	48	74.0	6.5	28.5	36
<b>SLG</b>	<b>5K</b>	male – female	55	54.0	M45x1.5	58	88.0	9.0	42.5	–
<b>SLC</b>	<b>5K</b>	male – female	55	54.0	M45x1.5	58	88.0	9.0	42.5	–

**P1** Panel cut-out (page 159)

**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.

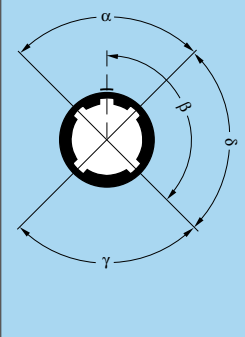
**Note:** The 5K series is delivered with a round nut.

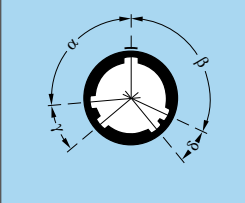


## Alignment Key (K series)

### Alignment Key and Polarized Keying System

K 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	Ref.	Nb of keys	Angles	Series						Contact type		Note
				0K	1K	2K	3K	4K	5K	Plug	Socket	
	<b>G</b>	1	—	0°	0°	0°	0°	0°	0°	male	female	●
	<b>A</b>	2	$\alpha$	30°	30°	30°	30°	30°	30°	male	female	●
	<b>B</b>	2	$\alpha$	45°	45°	45°	45°	45°	45°	male	female	●
	<b>C</b>	2	$\alpha$	60°	60°	60°	60°	60°	60°	male	female	●
	<b>D</b>	2	$\gamma$	95°	95°	95°	95°	95°	95°	male	female	○
	<b>E</b>	2	$\beta$	120°	120°	120°	120°	120°	120°	male	female	○
	<b>F</b>	2	$\beta$	145°	145°	145°	145°	145°	145°	male	female	○
	<b>L</b>	2	$\gamma$	75°	75°	75°	75°	75°	75°	female	male	●

Front view of a socket	Ref.	Nb of keys	Angles	Series						Contact type		Note
				0K	1K	2K	3K	4K	5K	Plug	Socket	
	<b>R</b>	5	$\alpha$	—	—	—	95°	—	—	male	female	●
		5	$\beta$	—	—	—	115°	—	—	male	female	●
		5	$\gamma$	—	—	—	35°	—	—	male	female	●
		5	$\delta$	—	—	—	25°	—	—	male	female	●

**Note:** S●● and TGL models are not available with all the keys. For S●● models see explanation on page 48. Please consult the pages corresponding to these models.

- First choice alternative
- Special order alternative