

# HIGH PRESSURE CONNECTORS W SERIES



## Precision modular connectors to suit your application

Since its creation in Switzerland in 1946 the LEMO Group has been recognized as a global leader of circular Push-Pull connectors and connector solutions. Today LEMO and its affiliated companies, REDEL and COELVER, are active in more than 80 countries with the help of over 40 subsidiaries and distributors.

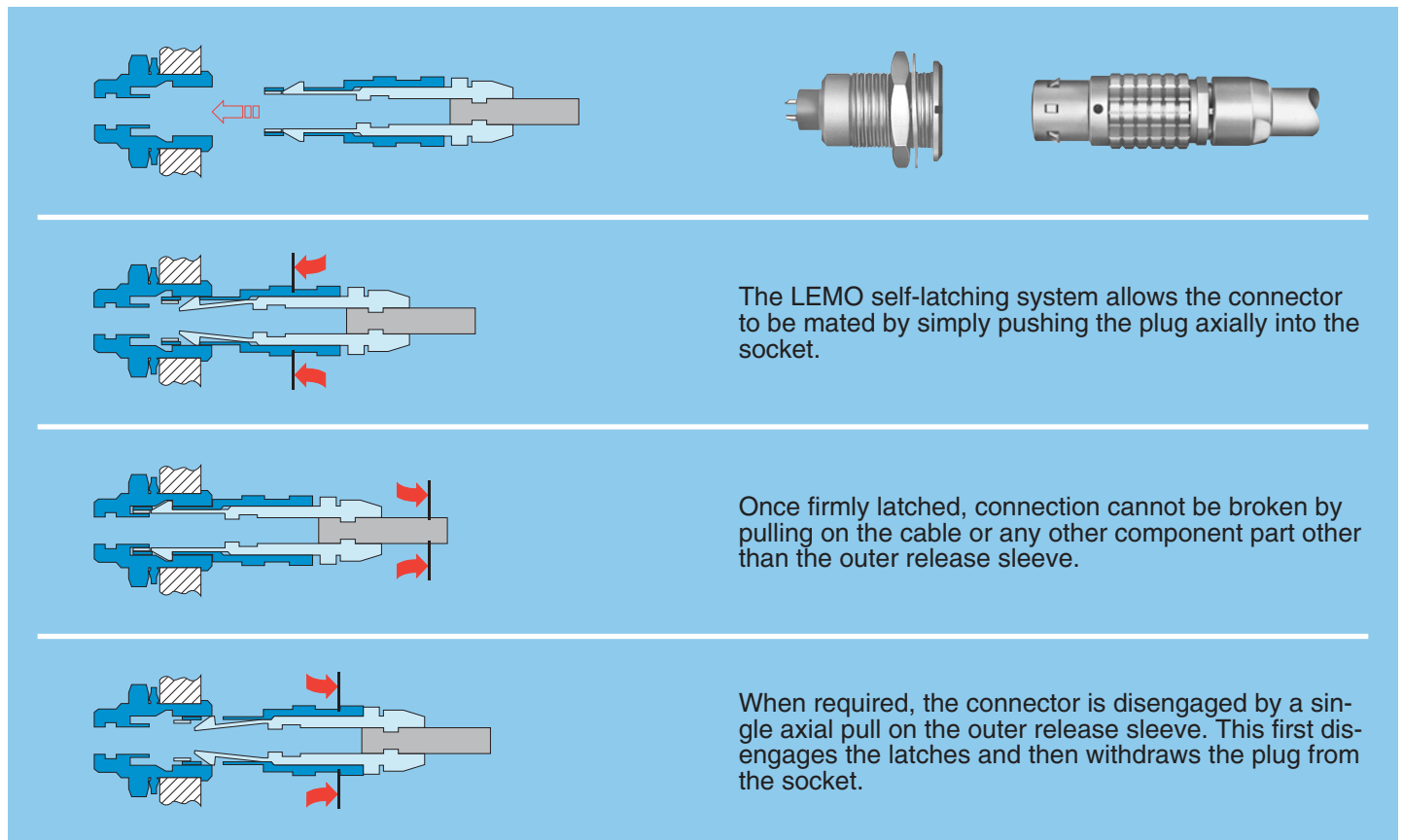
### Over 50'000 connectors

The modular design of the LEMO range provides over 50'000 connectors from miniature  $\varnothing$  3 mm to  $\varnothing$  50 mm, capable of handling cable diameters up to 30 mm and for up to 114 contacts.

This vast portfolio enables you to select the ideal connector configuration to suit almost any specific requirement in most markets, including medical devices, test and measurement instruments, machinery, audio video broadcast, telecommunications and military.

### LEMO's Push-Pull Self-Latching Connection System (not shown in this catalogue)



This self-latching system is renowned worldwide for its easy and quick mating and unmating features. It provides absolute security against vibration, shock or pull on the cable, and facilitates operation in a very limited space.



### UL Recognition

LEMO connectors are recognized by the Underwriters Laboratories (UL). The approval of the complete system (LEMO connector, cable and your equipment) will be easier because LEMO connectors are approved.

### CE marking

CE marking  means that the appliance or equipment bearing it complies with the protection requirements of one or several European safety directives. CE marking  applies to complete products or equipment, **but not to electromechanical components, such as connectors.**

### RoHS

LEMO connector specifications exceed the requirements of the RoHS directives (2002/95/EC) of the European Parliament and the latest amendments. This directive specifies the restrictions of the use of hazardous substances in electrical and electronic equipment marketed in Europe. LEMO guarantees that its connectors are free of mercury, cadmium, lead, hexavalent chromium and polybromide biphenyl (PBB), polybromide diphenyl ether (PBDE), or DecaBDE.

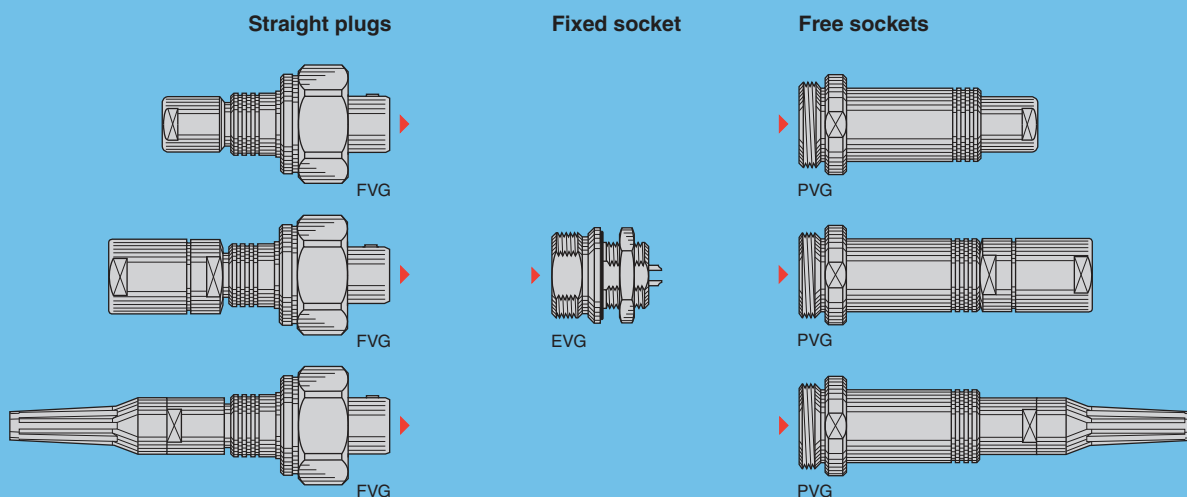
# W Series

W Series connectors have been developed for utilisation where protection must be guaranteed under high pressures of liquids. The basic elements, insulators, contacts and clamping system are from the B series. The push-pull latching system has been replaced by a screw coupling system with watertightness maintained by compression of an O-ring in FPM (Viton®) according to the triangular shaped cavity principle. There are multiple application possibilities ranging from nuclear physics to the petroleum industry. After cable assembly, the rear part must be covered by an adhesive heatshrink boot in order to ensure watertightness on the cable side. W series connectors provide the following main features:

- multipole types from 2 to 64 contacts
- fibre optic or mixed types available upon request
- solder or crimp contacts
- keying system («G» key standard) for connector alignment
- multiple key options to avoid cross mating of similar connectors
- 360° screening for full EMC shielding
- rugged housing for extreme working conditions.

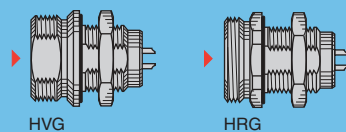
## Interconnections

### Models (page 3)

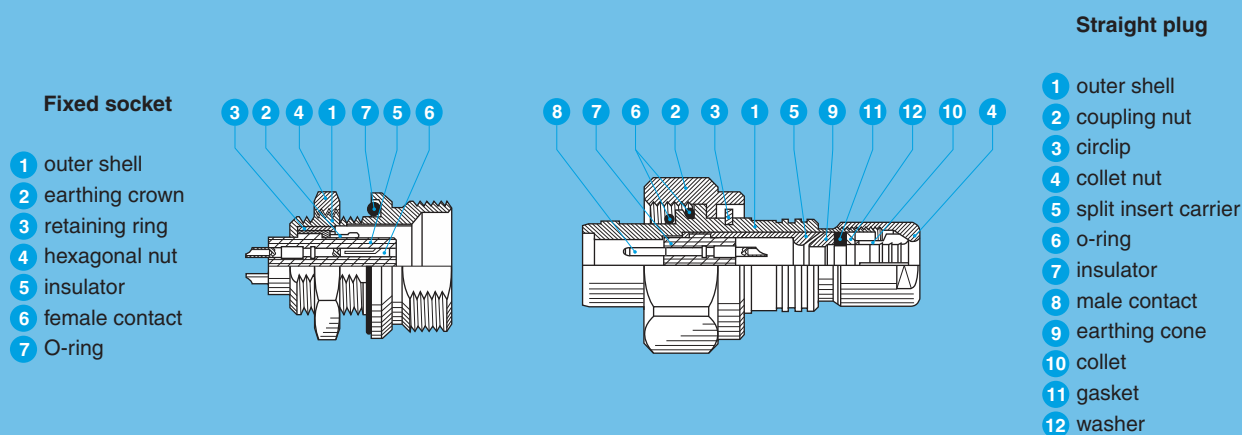


### Vacuumtight models (page 6)

#### Fixed sockets

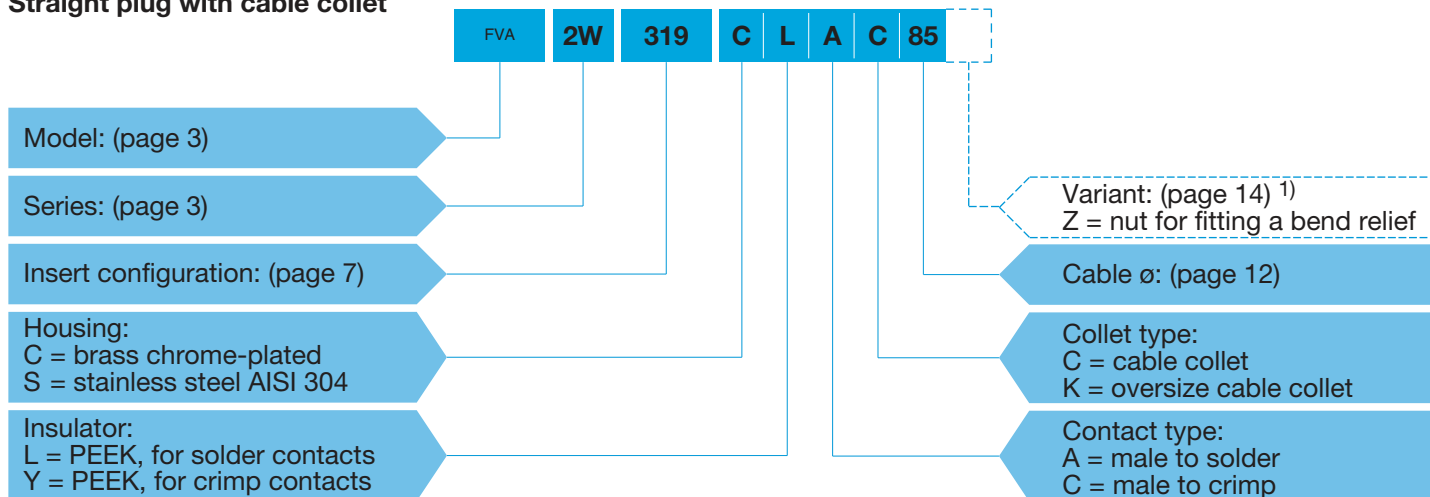


## Part Section Showing Internal Components



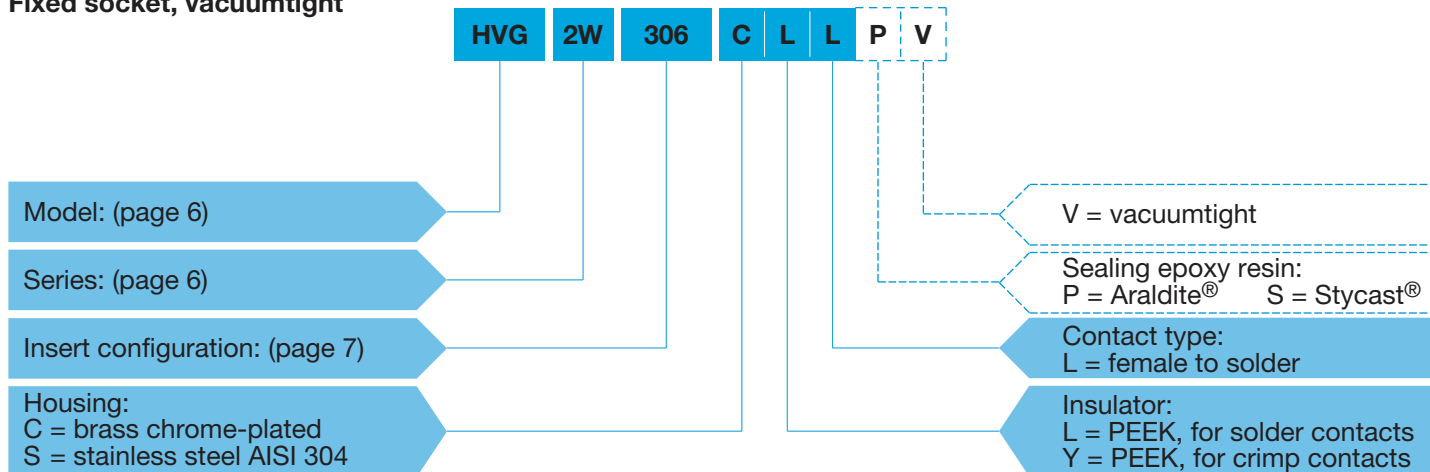
## Part Number Example

### Straight plug with cable collet



**FVA.2W.319.CLAC85** = straight plug with key (A), 2W series, multipole type with 19 contacts, outer shell in chrome-plated brass, PEEK insulator, male solder contacts, C type collet for 8.5 mm diameter cable.

### Fixed socket, vacuumtight



**HVG.2W.306.CLLPV** = fixed socket, nut fixing, key (G), 2W series, multipole type with 6 contacts, outer shell in chrome-plated brass, PEEK insulator, female solder contacts, potted with Araldite® epoxy resin, vacuumtight.

**Note:** <sup>1)</sup> The «Variant» position in the reference is used to specify either the presence of a collet for fitting the bend relief. For models with collet nut for fitting the bend relief, a «Z» should be indicated and a bend relief can be ordered separately. An order for a connector with bend relief should thus include two part numbers.

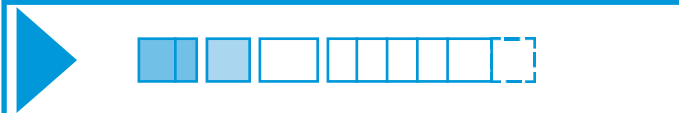


## Alignment Key and Polarized Keying System

W 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 	Model	Nb of keys	Angles	Series	Contact type		Note
				0W-5W	Plug	Socket	
	G	1		0°	male	female	●
	A	2	$\alpha$	30°	male	female	●
	B	2		45°	male	female	●
	L	2	$\gamma$	75°	female	male	○

● Available  
○ On request



## Models

### Technical Characteristics

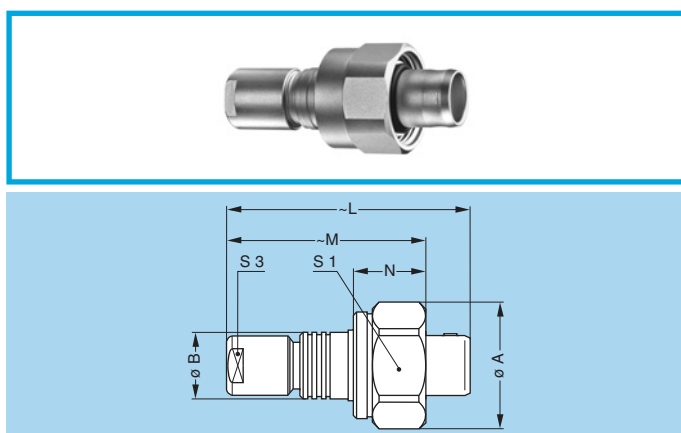
#### Mechanical and Climatical

Characteristics	Value	Standard
Endurance	> 1000 cycles	IEC 60512-5 test 9a
Temperature range	-20° C, +200° C	
Salt spray corrosion test	> 144h	IEC 60512-6 test 11f
Protection index (mated)	> IP 68	IEC 60529
Resistance to hydrostatic pressure (mated)	~ 30 bars <sup>1)</sup>	IEC 60512-7 test 14d
Climatical category	20/200/21	IEC 60068-1

#### Electrical

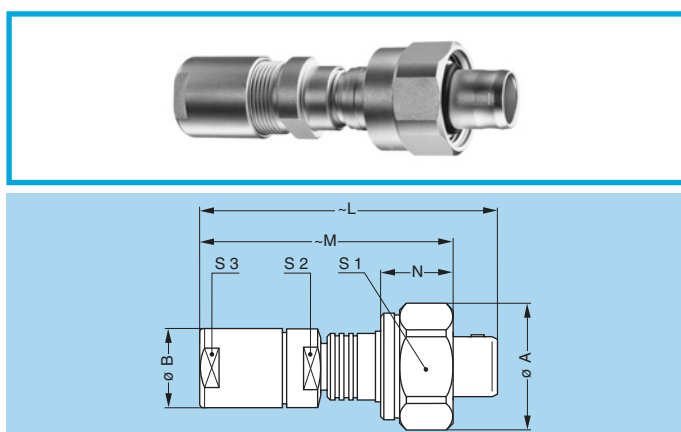
Characteristics	Value	Standard
Shielding efficiency	at 10 MHz	> 95 dB
	at 1 GHz	> 80 dB
		IEC 60169-1-3

**Note:** <sup>1)</sup> in order to perform correctly and withstand the pressure, cable assembly shall be made according to instruction we recommend. See page 16.



#### FVG Straight plug, key (G) or keys (A, B or L), cable collet

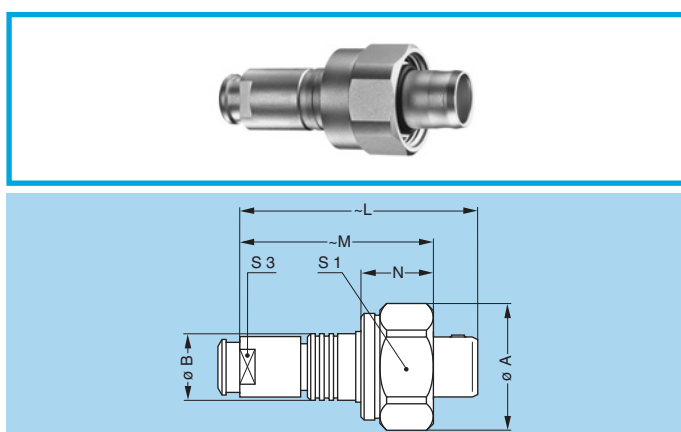
Reference		Dimensions (mm)						
Model	Series	A	B	L	M	N	S1	S3
FVG	0W	17.2	8.9	35.5	30.8	13.5	16	8
FVG	1W	19.3	11.0	43.7	35.5	14.0	18	9
FVG	2W	23.5	14.0	52.5	43.0	15.5	22	12
FVG	3W	27.8	17.0	61.5	48.0	16.5	26	15
FVG	4W	34.3	22.0	71.5	57.5	17.5	32	19
FVG	5W	50.0	34.0	100.0	83.0	21.0	47	30



#### FVG Straight plug, key (G) or keys (A, B or L), oversized cable collet <sup>1)</sup>

Reference		Dimensions (mm)							
Model	Series	A	B	L	M	N	S1	S2	S3
FVG	1W	19.3	14.5	56.5	48.3	14.0	18	12	12
FVG	2W	23.5	17.0	68.5	56.0	15.5	22	15	15
FVG	3W	27.8	22.0	80.5	67.0	16.5	26	19	19
FVG	4W	34.3	36.0	105.5	91.5	17.5	32	30	32

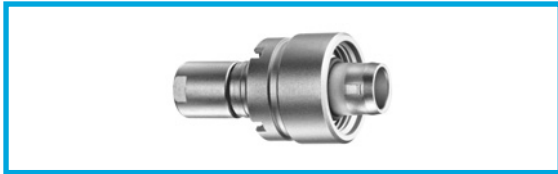
**Note:** <sup>1)</sup> correspond to K type of collet, the fitting of oversized collets onto this model allows them to be fitted to the cables that can be accommodated by the next housing size up (see page 12).



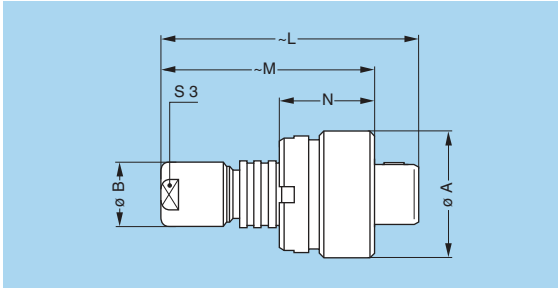
#### FVG Straight plug, key (G) or keys (A, B or L), cable collet and nut for fitting a bend relief <sup>1)</sup>

Reference		Dimensions (mm)						
Model	Series	A	B	L	M	N	S1	S3
FVG	0W	17.2	8.9	35.5	30.8	13.5	16	7
FVG	1W	19.3	11.0	43.7	35.5	14.0	18	9
FVG	2W	23.5	14.0	52.5	43.0	15.5	22	12
FVG	3W	27.8	17.0	60.5	46.9	16.5	26	15
FVG	4W	34.3	22.0	71.5	57.5	17.5	32	19

**Note:** <sup>1)</sup> to order, add a «Z» at the end of the reference. The bend relief must be ordered separately (see pages 141 and 142 of the unipole/multipole catalog).

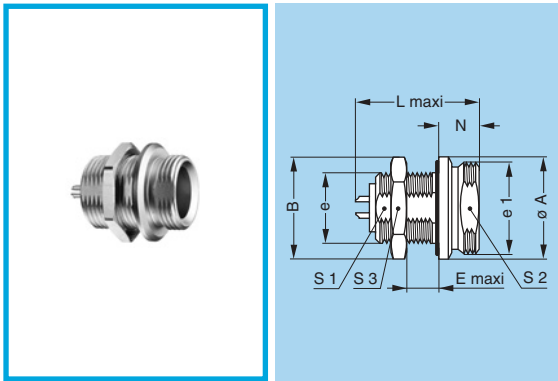


### FVG Straight plug, key (G) or keys (A, B or L), cable collet with special coupling nut <sup>1)</sup>



Reference		Dimensions (mm)					
Model	Series	A	B	L	M	N	S3
FVG	0W	17	8.9	35.0	29.8	13.5	8

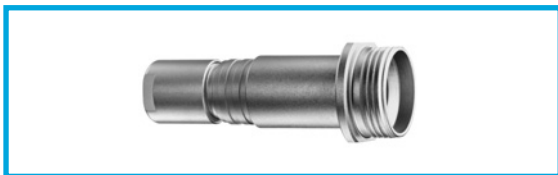
**Note:** <sup>1)</sup> to order, add a «Y» at the end of the reference.



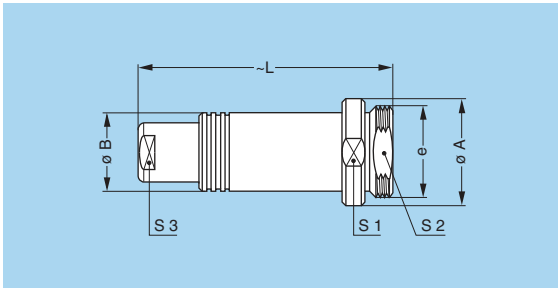
### EVG Fixed socket, nut fixing, key (G) or keys (A, B or L),

Reference		Dimensions (mm)									
Model	Series	A	B	e	e1	E	L	N	S1	S2	S3
EVG	0W	16.2	16.0	M12x1.0	M14x1.0	4.0	21.7	8.0	10.5	12.5	14
EVG	1W	18.3	19.5	M14x1.0	M16x1.0	8.0	27.0	8.0	12.5	14.5	17
EVG	2W	22.5	21.8	M16x1.0	M20x1.0	9.0	30.7	9.0	14.5	18.5	19
EVG	3W	26.6	27.0	M20x1.0	M24x1.0	13.0	36.2	9.5	18.5	22.5	24
EVG	4W	32.8	34.2	M24x1.0	M30x1.0	15.0	40.2	9.5	22.5	28.5	30
EVG	5W	48.0	53.0	M38x1.5	M45x1.5	18.0	47.5	12.5	35.5	42.5	46

Panel cut-out (page 16)



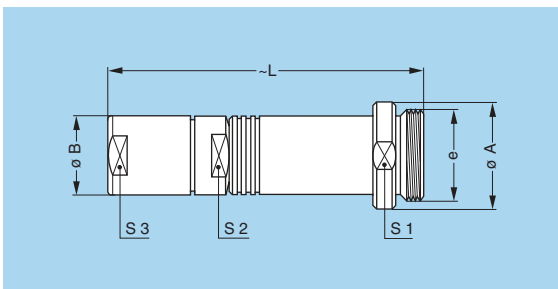
### PVG Free socket, key (G) or keys (A, B or L), cable collet



Reference		Dimensions (mm)						
Model	Series	A	B	e	L	S1	S2	S3
PVG	0W	16.2	8.9	M14x1.0	34.0	14	13.5	8
PVG	1W	18.3	11.0	M16x1.0	45.0	16	14.5	9
PVG	2W	22.5	14.0	M20x1.0	54.0	20	18.5	12
PVG	3W	26.6	17.0	M24x1.0	65.0	24	22.5	15
PVG	4W	32.8	22.0	M30x1.0	75.5	30	28.5	19
PVG	5W	48.0	34.0	M45x1.5	103.0	45	42.5	30

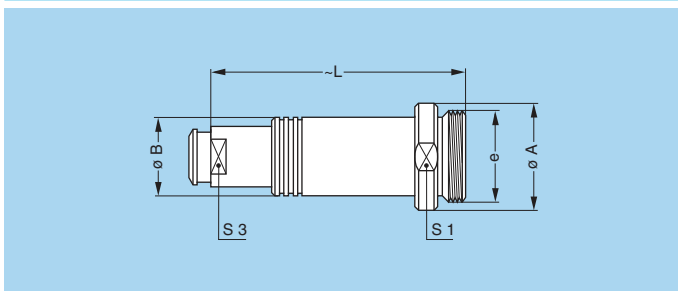
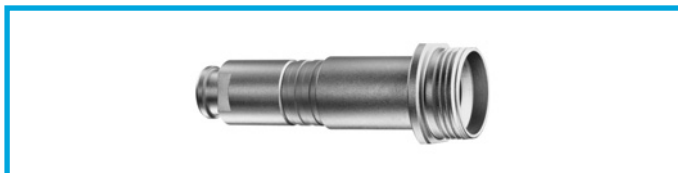


### PVG Free socket, key (G) or keys (A, B or L), oversized cable collet <sup>1)</sup>



Reference		Dimensions (mm)						
Model	Series	A	B	e	L	S1	S2	S3
PVG	1W	18.3	11.0	M16x1.0	58.0	16	12	12
PVG	2W	22.5	14.0	M20x1.0	67.0	20	15	15
PVG	3W	26.6	17.0	M24x1.0	84.0	24	19	19
PVG	4W	32.8	22.0	M30x1.0	109.5	30	30	32

**Note:** <sup>1)</sup> correspond to K type of collet, the fitting of oversized collets onto this model allows them to be fitted to the cables that can be accommodated by the next housing size up (see page 12).



**PVG Free socket, key (G) or keys (A, B or L), cable collet and nut for fitting a bend relief <sup>1)</sup>**

Reference		Dimensions (mm)					
Model	Series	A	B	e	L	S1	S3
PVG	0W	16.2	8.9	M14x1.0	34.0	14	7
PVG	1W	18.3	11.0	M16x1.0	45.0	16	9
PVG	2W	22.5	14.0	M20x1.0	54.0	20	12
PVG	3W	26.6	17.0	M24x1.0	64.0	24	15
PVG	4W	32.8	22.0	M30x1.0	75.5	30	19

**Note:** <sup>1)</sup> to order, add a «Z» at the end of the reference.  
The bend relief must be ordered separately (see pages 141 and 142 of the unipole/multipole catalog).



## Vacuumtight models

HRG and HVG socket 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 made in a vacuumtight version. They 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 and we are offering 2 different resins:

- a) Epoxy Araldite®, for general purpose use, identify with letter «P»
- b) Epoxy Stycast®, for oil and petrol industry, identify with the letter «S».

Part number example:

Vacuumtight socket potted with Araldite® epoxy: HVG.0W.304.CLLPV

Vacuumtight socket potted with Stycast® epoxy: HVG.0W.304.CLLSV

## Technical Characteristics

### Mechanical and Climatical

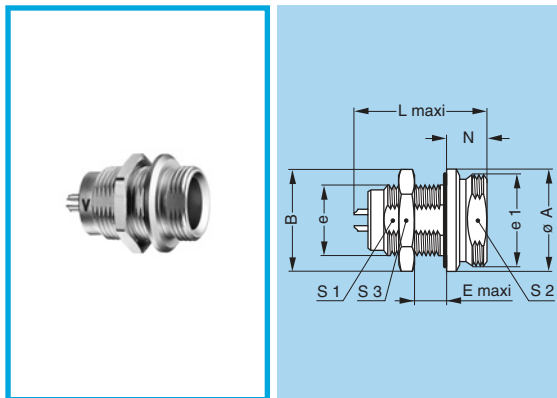
Characteristics	Value	Standard
Endurance	> 1000 cycles	IEC 60512-5 test 9a
Humidity	up to 95% at 60° C	
Temperature range (0W-1W)	-20° C/+100° C	
Temperature range (2W to 5W)	-20° C/+80° C	
Salt spray corrosion test	> 144h	IEC 60512-6 test 11f
Climatical category	20/80/21	IEC 60068-1
Leakage rate (He) <sup>1)</sup>	< 10 <sup>-7</sup> mbar.l.s <sup>-1</sup>	IEC 60512-7 test 14b

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

IEC 60512-7 test 14d

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

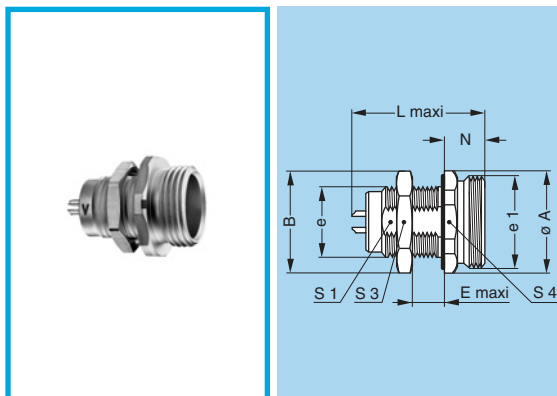
<sup>2)</sup> this value corresponds to the maximum allowed pressure difference for the assembled socket if used in the unmated condition.



### HVG Fixed socket, nut fixing, key (G) or keys (A, B or L), vacuumtight

Reference		Dimensions (mm)									
Model	Series	A	B	e	e1	E	L	N	S1	S2	S3
HVG	0W	16.2	16.0	M12x1.0	M14x1.0	5.5	21.7	8.0	10.5	12.5	14
HVG	1W	18.3	19.5	M14x1.0	M16x1.0	11.5	27.0	8.0	12.5	14.5	17
HVG	2W	22.5	21.8	M16x1.0	M20x1.0	12.0	30.7	9.0	14.5	18.5	19
HVG	3W	26.6	27.5	M20x1.0	M24x1.0	17.5	36.2	9.5	18.5	22.5	24
HVG	4W	32.8	34.2	M24x1.0	M30x1.0	20.0	48.2	9.5	22.5	28.5	30
HVG	5W	48.0	53.0	M38x1.5	M45x1.5	22.0	55.6	12.5	35.5	42.5	46

Panel cut-out (page 16)



### HRG Fixed socket, nut fixing, key (G) or keys (A, B or L), hexagonal flange, vacuumtight

Reference		Dimensions (mm)									
Model	Series	A	B	e	e1	E	L	N	S1	S3	S4
HRG	0W	18	16	M12x1.0	M14x1.0	5.5	21.7	8	10.5	14	17

Panel cut-out (page 16)



# Insert configuration

Other like fibre optic of mixed are available, please consult us.

## Multipole

	Male solder contacts Female solder contacts		Reference	Number of contacts	ø A (mm)	Contact type				Solder contact		Crimp contact		Rated current (A) <sup>1)</sup>
	Solder	Crimp				Print (straight)	Print (elbow)	Test voltage (kV rms) <sup>1)</sup> Contact-contact	Test voltage (kV rms) <sup>1)</sup> Contact-shell	Test voltage (kV rms) <sup>1)</sup> Contact-contact	Test voltage (kV rms) <sup>1)</sup> Contact-shell			
<b>0W</b>			302	2	0.9	●	●	●	●	1.30	1.05	1.45	1.20	10.0 <sup>2)</sup>
			303	3	0.9	●	●	●	●	1.20	0.90	1.70	1.60	8.0 <sup>2)</sup>
			304	4	0.7	●	●	●	●	0.85	0.70	1.35	1.10	7.0 <sup>2)</sup>
			305	5	0.7	●	●	●	●	1.00	0.70	1.25	1.20	6.5 <sup>2)</sup>
			306	6	0.5	●	○ <sup>4)</sup>	●	●	0.85	0.65	1.40	1.20	2.5
			307	7	0.5	●	○ <sup>4)</sup>	●	●	0.80	0.70	1.40	1.20	2.5
			309	9	0.5	●	○ <sup>4)</sup>	●	○	0.60	0.50	1.00	0.85	2.0
<b>1W</b>			302	2	1.3	●	●	●	●	1.50	1.35	1.70	1.45	15.0 <sup>3)</sup>
			303	3	1.3	●	●	●	●	1.30	1.55	1.60	1.85	12.0
			304	4	0.9	●	●	●	●	1.35	1.45	1.70	1.80	10.0 <sup>2)</sup>
			305	5	0.9	●	●	●	●	1.25	1.15	1.30	1.55	9.0 <sup>2)</sup>
			306	6	0.7	●	●	●	●	1.05	1.20	1.35	1.45	7.0 <sup>2)</sup>
			307	7	0.7	●	●	●	●	0.95	1.05	1.45	1.45	7.0 <sup>2)</sup>
			308	8	0.7	●	●	●	●	0.95	1.15	1.30	1.30	5.0
			310	10	0.5	●	○ <sup>4)</sup>	●	●	0.90	1.50	1.20	1.80	2.5
			314	14	0.5	●	○ <sup>4)</sup>	●	●	0.80	1.20	0.95	1.60	2.0
			316	16	0.5	●	○ <sup>4)</sup>	●	○	0.80	1.25	0.95	1.60	1.5

● First choice alternative   ○ Special order alternative

**Note:** 1) see calculation method, caution and suggested standard.  
 2) rated current = 6A for socket with elbow (90°) contact for printed circuit.  
 3) rated current = 12A for socket with elbow (90°) contact for printed circuit.  
 4) available only for connectors fitted with male contacts.

# Multipole

	Male solder contacts		Female solder contacts		Reference	Number of contacts	ø A (mm)	Contact type				Solder contact		Crimp contact		Rated current (A) <sup>1)</sup>
	Male crimp contacts		Female crimp contacts					Solder	Crimp	Print (straight)	Print (elbow)	Test voltage (kV rms) <sup>1)</sup> Contact-contact	Test voltage (kV rms) <sup>1)</sup> Contact-shell	Test voltage (kV rms) <sup>1)</sup> Contact-contact	Test voltage (kV rms) <sup>1)</sup> Contact-shell	
<b>2W</b>					302	2	2.0	●	●	●	●	2.10	1.75	2.85	2.70	30.0 <sup>3)</sup>
					303	3	1.6	●	●	●	●	2.40	1.85	1.90	1.90	17.0 <sup>3)</sup>
					304	4	1.3	●	●	●	●	1.85	1.85	2.20	2.20	15.0 <sup>3)</sup>
					305	5	1.3	●	●	●	●	1.75	1.60	2.15	2.15	14.0 <sup>3)</sup>
					306	6	1.3	●	●	●	●	1.35	1.45	2.00	2.35	12.0
					307	7	1.3	●	●	●	●	1.75	1.60	1.95	2.15	11.0
					308	8	0.9	●	●	●	●	1.50	1.25	1.95	1.95	10.0 <sup>2)</sup>
					310	10	0.9	●	●	●	●	1.45	1.30	1.80	2.10	8.0 <sup>2)</sup>
					312	12	0.7	●	●	●	●	1.25	1.35	1.65	2.00	7.0 <sup>2)</sup>
					314	14	0.7	●	●	●	●	1.15	1.35	1.55	1.95	6.5 <sup>2)</sup>
					316	16	0.7	●	●	●	●	0.95	1.25	1.55	1.75	6.0
					318	18	0.7	●	●	●	●	0.85	1.20	1.45	2.10	5.5
					319	19	0.7	●	●	●	●	0.95	1.25	1.55	1.65	5.0
					326	26	0.5	●	—	●	○	0.95	1.30	1.20	1.80	2.0
					332	32	0.5	●	—	●	○	0.80	1.2	0.95	1.60	1.5

● First choice alternative ○ Special order alternative

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

2) rated current = 6A for socket with elbow (90°) contact for printed circuit.

3) rated current = 12A for socket with elbow (90°) contact for printed circuit.



# Multipole

	Male solder contacts		Female solder contacts		Reference	Number of contacts	ø A (mm)	Contact type				Solder contact		Crimp contact		Rated current (A) <sup>1)</sup>
	Male crimp contacts		Female crimp contacts					Solder	Crimp	Print (straight)	Print (elbow)	Test voltage (kV rms) <sup>1)</sup> Contact-contact	Test voltage (kV rms) <sup>1)</sup> Contact-shell	Test voltage (kV rms) <sup>1)</sup> Contact-contact	Test voltage (kV rms) <sup>1)</sup> Contact-shell	
<b>3W</b>					302	2	3.0	●	●	○	–	2.10	1.55	2.30	1.80	35.0
					303	3	2.0	●	●	●	○	1.90	1.50	3.20	2.65	25.0
					304	4	2.0	●	●	●	○	1.45	1.25	2.50	2.20	19.0
					305	5	1.6	●	●	●	○	1.90	1.25	2.40	1.75	19.0
					306	6	1.6	●	●	●	○	1.60	1.15	1.90	1.80	17.0
					307	7	1.6	●	●	●	○	1.70	1.25	2.00	2.05	15.0
					308	8	1.3	●	●	●	●	1.65	1.15	1.85	1.75	13.0
					309	8 1	1.3 2.0	●	●	●	–	1.35 1.35	1.05 1.05	1.10 1.05	1.05 1.05	6.0 15.0
					310	10	1.3	●	●	●	○	1.25	0.90	1.50	1.80	12.0
					312	12	0.9	●	●	●	●	1.45	1.00	1.65	1.85	9.0
					314	14	0.9	●	●	●	●	1.20	1.20	1.80	1.65	9.0 <sup>2)</sup>
					316	16	0.9	●	●	●	●	1.20	0.85	1.80	1.50	8.0
					318	18	0.9	●	●	●	●	1.20	1.05	1.85	1.60	7.0
					320	20	0.7	●	●	●	●	1.00	0.90	1.35	1.55	6.0
					322	22	0.7	●	●	●	○	1.00	0.90	1.70	1.45	5.5
					324	24	0.7	●	●	●	●	0.95	0.80	1.35	1.35	4.0
					326	26	0.7	●	●	●	○	0.95	0.70	1.50	1.30	4.0
					330	30	0.7	●	●	●	●	0.80	0.70	1.35	1.20	3.5

● First choice alternative ○ Special order alternative

Note: <sup>1)</sup> see calculation method, caution and suggested standard.  
<sup>2)</sup> rated current = 6A for socket with elbow (90°) contact for printed circuit.

# Multipole

4W

	Male solder contacts		Female solder contacts		Reference	Number of contacts	ø A (mm)	Contact type			Solder contact		Crimp contact		Rated current (A) <sup>1)</sup>
	Male crimp contacts		Female crimp contacts					Solder	Crimp	Print (straight)	Test voltage (kV rms) <sup>1)</sup> Contact-contact	Test voltage (kV rms) <sup>1)</sup> Contact-shell	Test voltage (kV rms) <sup>1)</sup> Contact-contact	Test voltage (kV rms) <sup>1)</sup> Contact-shell	
					304	4	3.0	●	●	○	2.10	1.50	1.80	1.20	30.0
					306	6	2.0	●	●	○	2.00	1.75	2.75	2.40	24.0
					307	7	2.0	●	●	○	2.00	1.80	1.50	1.35	20.0
					310	10	1.6	●	●	○	1.85	1.30	1.90	1.95	17.0
					312	12	1.3	●	●	○	1.45	1.60	1.90	1.85	12.0
					316	16	0.9	●	●	●	1.35	1.50	2.30	2.10	10.0
					320	20	0.9	●	●	●	1.35	1.00	1.05	0.95	8.0
					324	24	0.9	●	●	●	1.20	1.45	1.80	2.05	7.0
					330	30	0.9	●	●	●	0.95	0.85	1.75	1.45	5.0
					340	40	0.7	●	●	●	0.90	0.90	1.30	1.30	2.0
					348	48	0.7	●	●	●	0.70	0.70	1.00	1.00	1.5

● First choice alternative   ○ Special order alternative   **Note:** <sup>1)</sup> see calculation method, caution and suggested standard.



# Multipole

	Male solder contacts		Female solder contacts		Reference	Number of contacts	ø A (mm)	Contact type			Solder contact		Crimp contact		Rated current (A) <sup>1)</sup>
	Male crimp contacts		Female crimp contacts					Solder	Crimp	Print (straight)	Test voltage (kV rms) <sup>1)</sup> Contact-contact	Test voltage (kV rms) <sup>1)</sup> Contact-shell	Test voltage (kV rms) <sup>1)</sup> Contact-contact	Test voltage (kV rms) <sup>1)</sup> Contact-shell	
<b>5W</b>					302	2	6.0	●	-	-	3.60	2.95	-	-	50.0
					304	4	4.0	●	●	○	2.95	2.65	3.20	2.40	35.0
					310	10	3.0	●	●	○	2.35	2.30	2.65	3.20	20.0
					314	14	2.0	●	●	○	2.10	2.00	2.85	2.95	18.0
					316	16	2.0	●	●	○	1.85	1.95	2.45	3.05	12.0
					320	20	1.6	●	●	○	1.90	1.70	2.20	2.40	10.0
					330	30	1.3	●	●	○	1.45	1.60	2.05	2.45	8.0
					340	40	1.3	●	●	○	1.30	1.45	2.00	1.95	7.0
					348	48	1.3	●	●	○	1.20	1.10	2.00	1.55	6.0
					350	50	0.9	●	●	●	1.30	1.60	1.20	1.45	6.0
					354	54	0.9	●	●	●	1.15	1.55	2.00	2.10	5.0
					364	64	0.9	●	●	●	1.30	1.55	1.35	1.85	3.0

● First choice alternative ○ Special order alternative

Note: <sup>1)</sup> see calculation method, caution and suggested standard .



## Collets

### C and K type collets



	Reference		Cable $\varnothing$	
	Type	Code	max.	min.
<b>0W</b>	C	20	2.2	1.4
	C	30	3.2	> 2.2
	C	40	4.2	> 3.2
	C	50	5.2	> 4.2
<b>1W</b>	C	20	2.2	1.4
	C	30	3.2	> 2.2
	C	40	4.2	> 3.2
	C	50	5.2	> 4.2
	C	60	6.2	> 5.2
	C	65	7.2	> 6.2
	K	70	7.2	> 6.2
	K	75	8.2	> 7.2
<b>2W</b>	C	40	4.2	3.0
	C	50	5.2	> 4.2
	C	60	6.2	> 5.2
	C	70	7.2	> 6.2
	C	80	8.2	> 7.2
	C	85	9.2	> 8.2
	K	90	10.2	> 8.7
	K	95	10.2	> 8.7
<b>3W</b>	K	10	10.2	> 8.7
	K	11	11.2	> 10.2
	C	40	4.2	2.7
	C	50	5.7	> 4.2
	C	70	7.2	> 5.7
	C	80	8.7	> 7.2
	C	10	10.2	> 8.7
	C	11	11.2	> 10.2
	K	11	12.0	10.6
	K	12	12.8	12.1
K	13	13.5	12.9	
K	14	14.0	13.6	
K	15	15.0	14.1	

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

	Reference		Cable $\varnothing$	
	Type	Code	max.	min.
<b>4W</b>	C	50	5.0	4.8
	C	55	5.5	5.1
	C	60	6.0	5.6
	C	65	6.5	6.1
	C	70	7.0	6.6
	C	75	7.5	7.1
	C	80	8.0	7.6
	C	85	8.5	8.1
	C	90	9.0	8.6
	C	95	9.5	9.1
	C	10	10.5	9.6
	C	11	12.0	10.6
	C	12	12.8	12.1
<b>5W</b>	C	13	13.5	12.9
	C	14	14.0	13.6
	C	15	15.0	14.1
	K	16	16.5	15.6
	K	17	17.5	16.6
	K	18	18.5	17.6
	K	19	19.5	18.6
	K	20	20.5	19.6
	K	21	21.5	20.6
	K	22	22.5	21.6
	K	23	23.5	22.6
	C	10	10.5	9.6
	C	11	11.5	10.6
C	12	12.5	11.6	
C	13	13.5	12.6	
C	14	14.5	13.6	
C	15	15.5	14.6	
C	16	16.5	15.6	
C	17	17.5	16.6	
C	18	18.5	17.6	
C	19	19.5	18.6	
C	20	20.5	19.6	
C	21	21.5	20.6	
C	22	22.5	21.6	
C	23	23.5	22.6	

## Variant

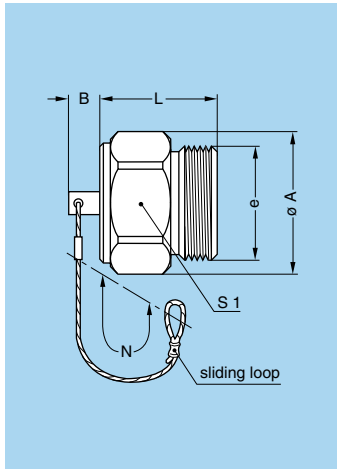
### Bend relief for W series models with collet

				Need to be ordered					Need to be ordered
Ref.	Collet			Need to be ordered separately	Ref.	Collet			Need to be ordered separately
	Type	Code				Type	Code		
0W	Z	C	20 to 50	GMA.0B.●●●.●●	3W	Z	C	40 to 10	GMA.3B.●●●.●●
1W	Z	C	20 to 65	GMA.1B.●●●.●●	Z	K	11 to 15	GMA.4B.●●●.●●	
		K	70 to 85	GMA.2B.●●●.●●					
2W	Z	C	40 to 85	GMA.2B.●●●.●●	4W	Z	C	50 to 15	GMA.4B.●●●.●●
		K	90 to 10	GMA.3B.●●●.●●					

**Note:** <sup>1)</sup> The bend relief must be ordered separately (see pages 141 and 142 of the unipole/multipole catalog). All dimensions are in millimetres.



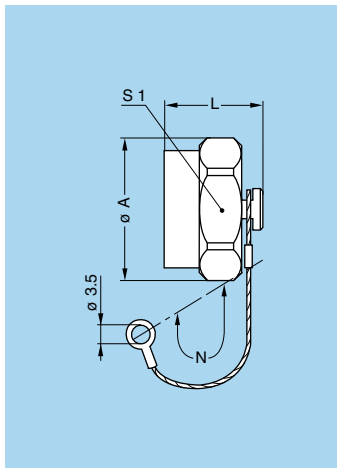
## Accessories



### BFG Plug caps with key (G)

Part number	Series	Dimensions (mm)					
		A	B	e	L	N	S1
BFG.0W.100.●AZ	0W	17.2	6	M14x1.0	12.5	85	16
BFG.1W.100.●AZ	1W	19.3	6	M16x1.0	15.5	85	18
BFG.2W.100.●AZ	2W	23.5	6	M20x1.0	17.5	85	22
BFG.3W.100.●AZ	3W	27.8	6	M24x1.0	22.0	120	26
BFG.4W.100.●AZ	4W	34.3	10	M30x1.0	22.5	120	32
BFG.5W.100.●AZ	5W	50.0	10	M45x1.5	27.0	120	47

- Body material: ● = N, nickel-plated brass (Ni 3µm)  
● = S, stainless steel
- Lanyard material: Stainless steel
- Crimp ferrule material: Nickel-plated brass

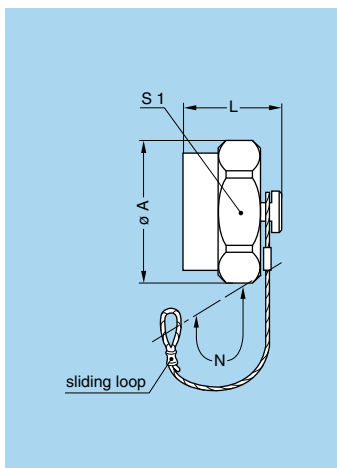


### BRE Blanking caps for fixed sockets

This cap is only IP68 when installed

Part number	Series	Dimensions (mm)			
		A	L	N	S1
BRE.0V.200.●AV	0W	17.2	13.7	85	16
BRE.1V.200.●AV	1W	19.3	13.7	85	18
BRE.2V.200.●AV	2W	23.5	14.7	85	22
BRE.3V.200.●AV	3W	27.8	14.7	120	26
BRE.4V.200.●AV	4W	34.3	14.7	120	32
BRE.5V.200.●AV	5W	50.0	16.2	120	47

- Body material: ● = N, nickel-plated brass (Ni 3µm)  
● = S, stainless steel
- Lanyard material: Stainless steel
- Crimp ferrule material: Nickel-plated brass
- O-ring: FPM (Viton®)

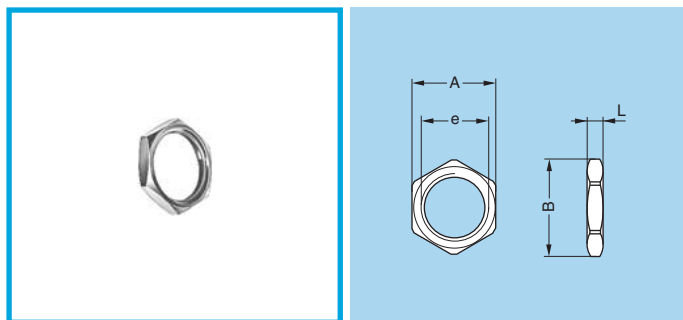


### BRF Blanking caps for free sockets

This cap is only IP68 when installed

Part number	Series	Dimensions (mm)			
		A	L	N	S1
BRF.0V.200.●AV	0W	17.2	13.7	85	16
BRF.1V.200.●AV	1W	19.3	13.7	85	18
BRF.2V.200.●AV	2W	23.5	14.7	85	22
BRF.3V.200.●AV	3W	27.8	14.7	120	26
BRF.4V.200.●AV	4W	34.3	14.7	120	32
BRF.5V.200.●AV	5W	50.0	16.2	120	47

- Body material: ● = N, nickel-plated brass (Ni 3µm)  
● = S, stainless steel
- Lanyard material: Stainless steel
- Crimp ferrule material: Nickel-plated brass
- O-ring: FPM (Viton®)

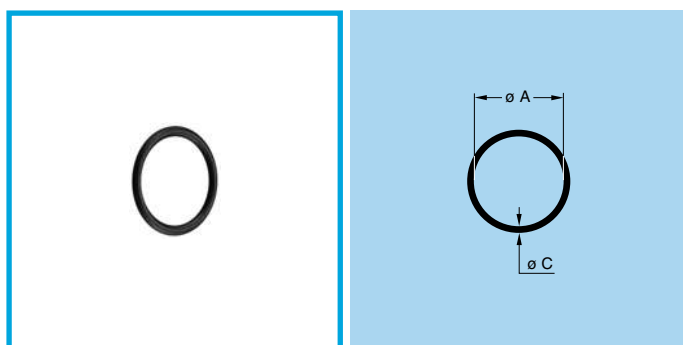


- Material:
  - Nickel-plated brass (3 μm)
  - Stainless steel

### GEA Hexagonal nuts

Part number	Series	Dimensions (mm)			
		A	B	e	L
GEA.1S.240.LN	0W	14	15.8	M12 x 1.00	2.5
GEA.0E.240.LN	1W	17	19.2	M14 x 1.00	2.5
GEA.1E.240.LN	2W	19	21.5	M16 x 1.00	3.0
GEA.2E.240.LN	3W	24	27.0	M20 x 1.00	4.0
GEA.3E.240.LN	4W	30	34.0	M24 x 1.00	5.0
GEA.5W.240.LN	5W	46	53.0	M38 x 1.50	8.0

**Note:** to order this part separately, use the above part numbers. The last letters «LN» of the part number refer to the nut material and treatment. If a nut in stainless steel is desired, replace the last letters of the part number by «AZ».



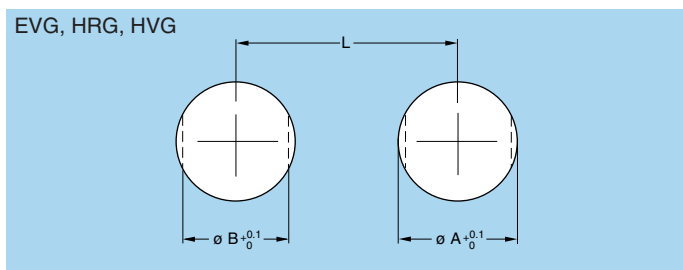
### GDA O-ring for plug

Part number	Series	Dim. (mm)	
		A	C
GDA.99.070.100VK	0W	7.0	1.00
GDA.99.090.125VK	1W	9.0	1.25
GDA.99.120.150VK	2W	12.0	1.50
GDA.99.150.150VK	3W	15.0	1.50
GDA.99.190.200VK	4W	19.0	2.00
GDA.99.310.250VK	5W	31.0	2.50

- Material: FPM (Viton®)

## Panel cut-outs

### Panel Cut-outs



Series	Dimensions (mm)		
	A	B	L
0W	12.1	10.6	19.0
1W	14.1	12.6	21.0
2W	16.1	14.6	25.5
3W	20.2	18.6	30.0
4W	24.2	22.6	37.0
5W	38.2	35.6	53.0

### Mounting nuts torque

Component	Torque (Nm)					
	0W	1W	2W	3W	4W	5W
Collet nut for F●● and P●●	0.7	0.8	2	3	5	8
Mounting hex nut for sockets	5	7	9	12	17	22
Coupling nut	5	7	9	12	17	22

1N = 0.102 kg

## Cable assembly

### Assembly instructions

In order to ensure the sealing of plugs and sockets on the cable side, it is imperatively necessary to complete their assembly by realizing it with an adapted technique. We recommend the fitting of an heatshrink boot with inner melting coating of type ATUM (manufactured by the RAYCHEM company) or similar.

**This heatshrink boot is not provided with the connector. Please consult us.**

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# LEMO complete product range

	B	S	K	E	F	00	01	0A	3T	4A	4M	3K.93C	1D	Y	05	5G	2G	2C	L	H	R	N	03	V	W	U	F	P	D	K/S	01	DIN	
Unipole																																	
Multipole																																	
Coaxial 50 Ω																																	
Coaxial 75 Ω																																	
Multi Coaxial																																	
Mixed Coax + LV																																	
Triaxial 50 Ω																																	
Triaxial 75 Ω																																	
Mixed Triax + LV																																	
Quadrax																																	
High Voltage																																	
Multi High Voltage																																	
Mixed HV + LV																																	
Fibre Optic																																	
Multi Fibre Optic																																	
Mixed FO + LV																																	
Thermocouple																																	
Fluidic																																	
Multi Fluidic																																	
Mixed Fluidic + LV																																	

Most frequently used in darker colour

• included in this catalogue

<b>B Series</b> <small>Keyed</small>	<b>S Series</b>	<b>K Series</b> <small>Keyed</small>	<b>E Series</b>	<b>F Series</b> <small>Keyed</small>	<b>00 Series</b>	<b>01 Series</b>
<b>0A Series</b>	<b>3T Series</b>	<b>4A Series</b>	<b>4M Series</b> <small>Keyed</small>	<b>3K.93C Series</b> <small>Keyed</small>	<b>1D Series</b>	<b>Y Series</b>
<b>05 Series</b>	<b>5G Series</b> <small>Keyed</small>	<b>2G Series</b> <small>Keyed</small>	<b>2C Series</b>	<b>L Series</b> <small>Keyed</small>	<b>H Series</b>	<b>R Series</b> <small>Keyed</small>
<b>N Series</b> <small>Keyed</small>	<b>03 Series</b> <small>Keyed</small>	<b>V Series</b>	<b>W Series</b> <small>Keyed</small>	<b>U Series</b> <small>Keyed</small>	<b>Cable assembly</b>	<b>K/S Series</b> <small>Keyed</small>
<b>REDEL F Series</b>	<b>REDEL P Series</b> <small>Keyed</small>	<b>REDEL D Series</b>	<b>01 Series</b> <small>Keyed</small>	<b>VAA Series</b>	<b>SAA Series</b>	<b>TAA Series</b>

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