HIGH PRESSURE CONNECTORS V SERIES

LEMO

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.

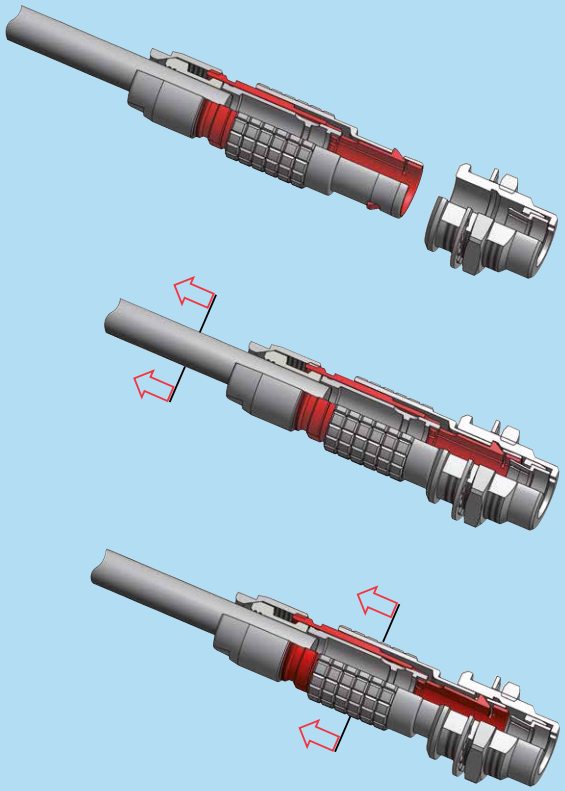
Over 75000 connectors

The modular design of the LEMO range provides over 75000 connectors from miniature ø 3 mm to ø 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.



The LEMO self-latching system allows the connector to be mated by simply pushing the plug axially into the socket.

Once firmly latched, connection cannot be broken by pulling on the cable or any other component part other than the outer release sleeve.

When required, the connector is disengaged by a single axial pull on the outer release sleeve.
This first disengages the latches and then withdraws the plug from the socket.

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 recognized.

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

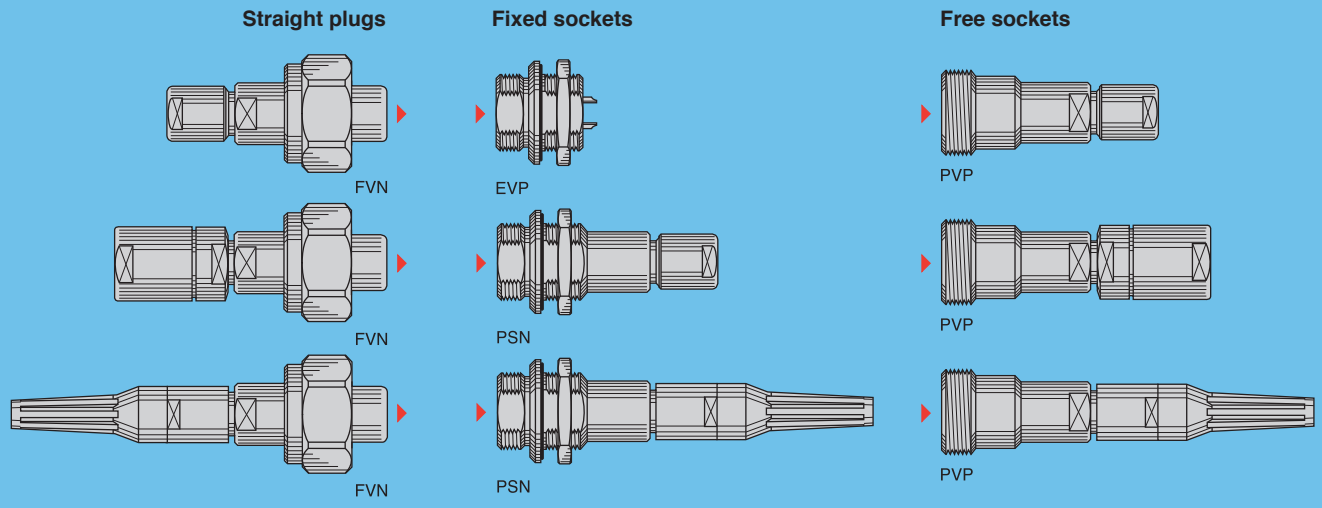
LEMO connector specifications conforms the requirements of the RoHS directive (2011/65/EU) of the European Parliament and the latest amendments. This directive specifies the restrictions of the use of hazardous substances in electrical and electronic equipment marketed in Europe.

V Series

V 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 S and E 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, from nuclear physics to the petroleum industry. After cable assembly the rear part must be covered with an adhesive heatshrink boot in order to ensure watertightness on the cable side. V series connectors provide the following main features:
– unipole and multipole type
– coaxial, triaxial or mixed type available upon request
– polarisation by stepped insert (half moon)
– 360° screening for full EMC shielding
– rugged housing for extreme working conditions.

Interconnections

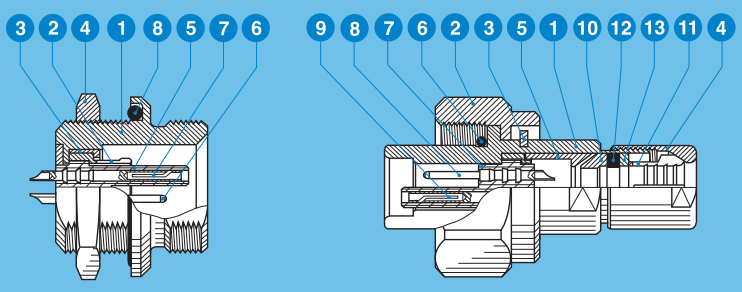
Models (page 3)



Part Section Showing Internal Components (multipole)

Fixed socket

1. outer shell
2. earthing crown
3. retaining ring
4. hexagonal nut
5. insulator
6. male contact
7. female contact
8. O-ring

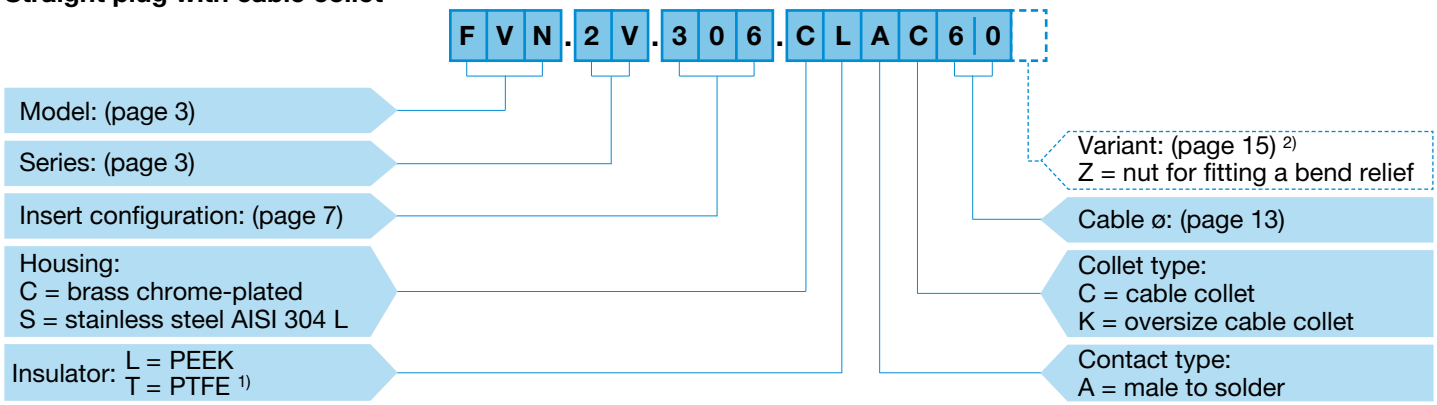


Straight plug

1. outer shell
2. coupling nut
3. circlip
4. collet nut
5. centre-piece
6. o-ring
7. insulator
8. male contact
9. female contact
10. earthing cone
11. collet
12. gasket
13. washer

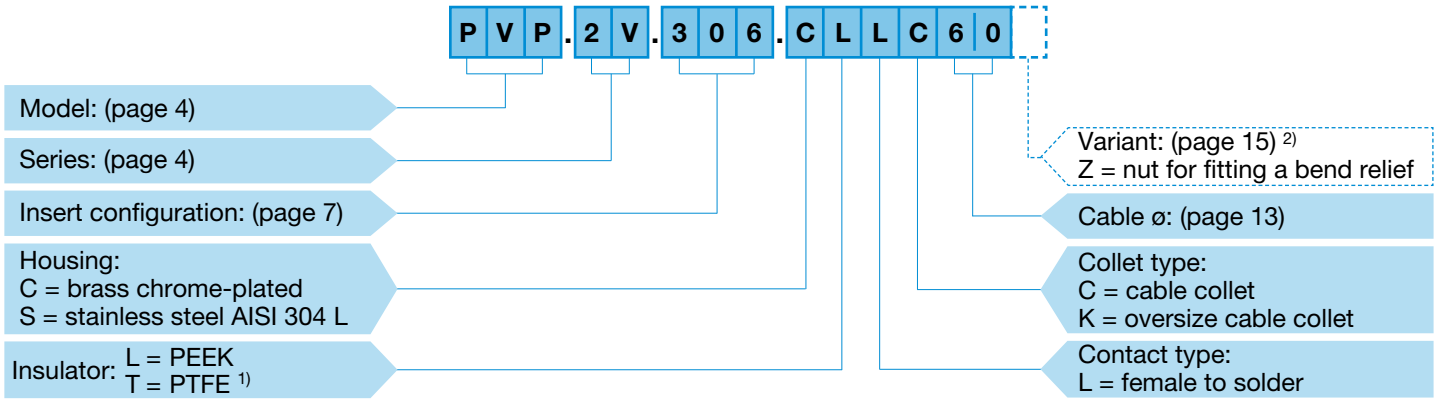
Part Number Example

Straight plug with cable collet



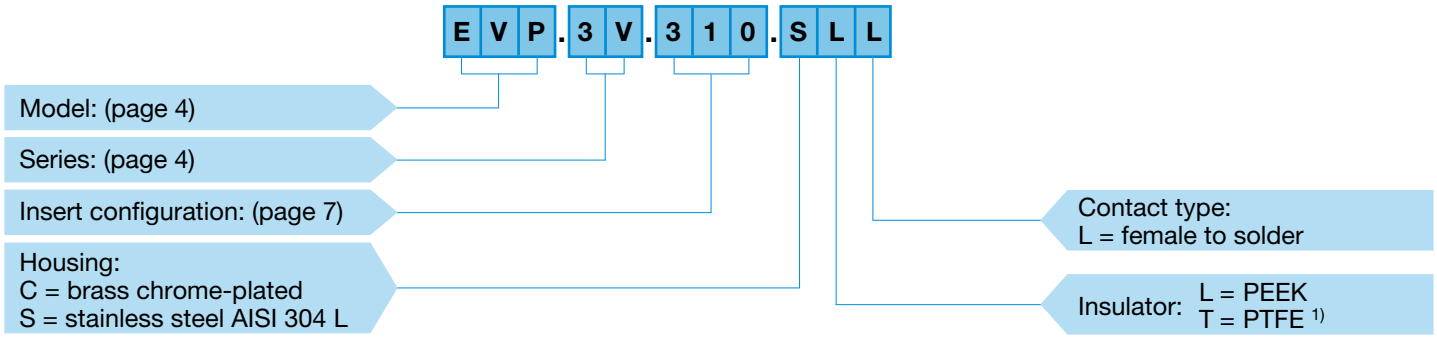
FVN.2V.306.CLAC60 = straight plug with cable collet, 2V series, multipole type with 6 contacts, outer shell in chrome-plated brass, PEEK insulator, male solder contacts, C type collet for 6 mm diameter cable.

Free socket with cable collet



PVP.2V.306.CLLC60 = free socket with cable collet, 2V series, multipole type with 6 contacts, outer shell in chrome-plated brass, PEEK insulator, female solder contacts, C type collet for 6 mm diameter cable.

Fixed socket



EVP.3V.310.SLL = fixed socket, nut fixing, 3V series, multipole type with 10 contacts, outer shell in stainless steel, PEEK insulator, female solder contacts.

Note: 1) PTFE insulator for unipole type only.
2) The «Variant» position in the reference is used to specify either the presence of a collet nut 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.

Models

Technical Characteristics

Mechanical and Climatical

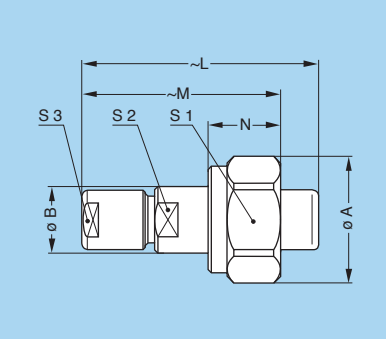
Characteristics	Value	Standard
Endurance	> 1000 cycles	IEC 60512-5 test 9a
Temperature range	-20° C, +200° C	
Salt spray corrosion test [2]	> 1000 h	IEC 60512-6 test 11f
Protection index (mated)	> IP 68	IEC 60529
Resistance to hydrostatic pressure (mated)	~ 30 bars [1]	IEC 60512-7 test 14d
Climatical category	20/200/21	IEC 60068-1

Electrical

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

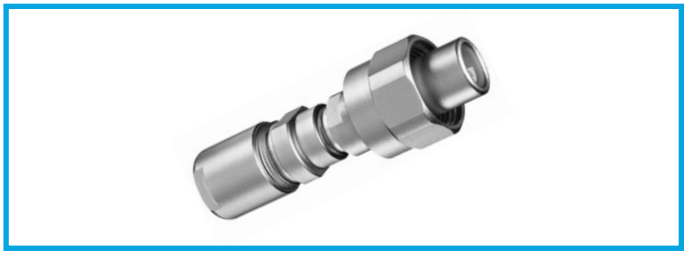
Note:
[1] in order to perform correctly and withstand the pressure, cable assembly shall be made according to instruction we recommand. See page 18.
[2] for chrome plated product (« C» material code).

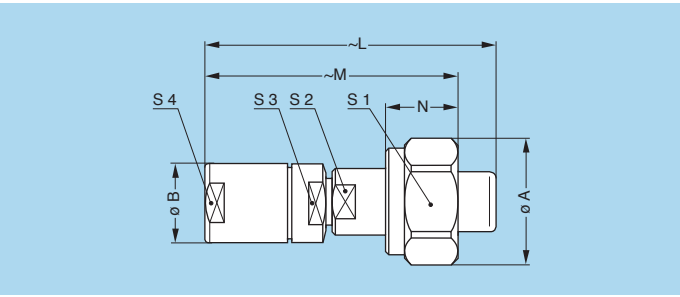
FVN Straight plug with cable collet



Reference		Dimensions (mm)							
Model	Series	A	B	L	M	N	S1	S2	S3
FVN	**0V**	17.2	10	34.0	29	13.5	16	9	8
FVN	**1V**	19.3	12	43.0	35	14.0	18	10	9
FVN	**2V**	23.5	16	52.5	42	15.5	22	14	12
FVN	**3V**	27.8	18	61.0	47	16.5	26	16	15
FVN	**4V**	34.3	24	71.0	57	17.5	32	22	19
FVN	**5V**	50.0	38	94.0	78	21.0	47	34	30

FVN Straight plug with oversize cable collet [1]

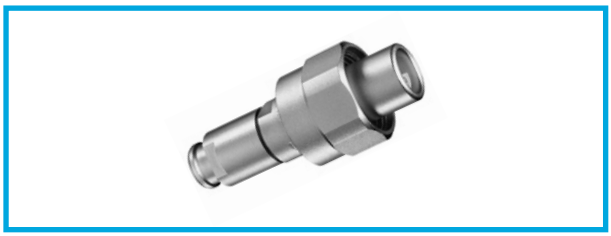


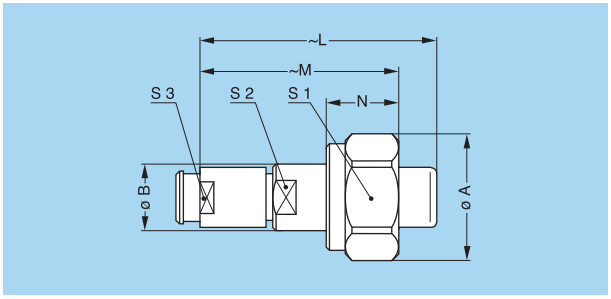


Reference		Dimensions (mm)								
Model	Series	A	B	L	M	N	S1	S2	S3	S4
FVN	**1V**	19.3	14.5	55	47	14.0	18	10	12	12
FVN	**2V**	23.5	17.0	65	55	15.5	22	14	15	15
FVN	**3V**	27.8	22.0	80	66	16.5	26	16	19	19
FVN	**4V**	34.3	36.0	105	91	17.5	32	22	30	32

Note: [1] 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 13).

FVN Straight plug, cable collet and nut for fitting a bend relief [1)]

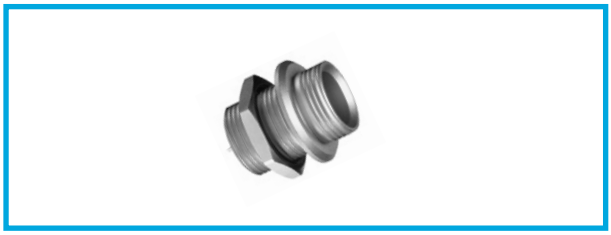


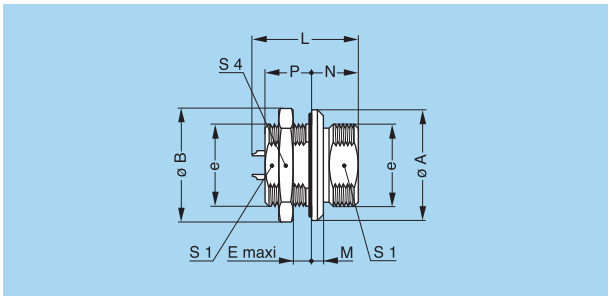


Reference		Dimensions (mm)							
Model	Series	A	B	L	M	N	S1	S2	S3
FVN	**0V**	17.2	10	34	29	13.5	16	9	7
FVN	**1V**	19.3	12	43	35	14.0	18	10	9
FVN	**2V**	23.5	16	52	42	15.5	22	14	12
FVN	**3V**	27.8	18	60	47	16.5	26	16	15
FVN	**4V**	34.3	24	71	57	17.5	32	22	19

Note: [1)] 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).

EVP Fixed socket, nut fixing



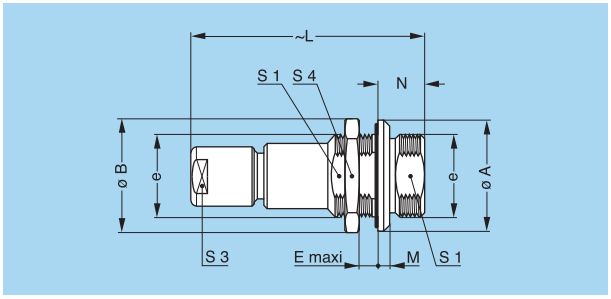


Reference		Dimensions (mm)									
Model	Series	A	B	e	E	L	M	N	P	S1	S4
EVP	**0V**	19	19.2	M14x1.0	5.5	19.0	2.0	8.0	8.0	12.5	17
EVP	**1V**	21	21.5	M16x1.0	10.5	26.0	2.0	8.0	13.5	14.5	19
EVP	**2V**	26	27.0	M20x1.0	11.0	29.0	2.5	9.0	15.0	18.5	24
EVP	**3V**	31	34.0	M24x1.0	15.0	34.5	3.0	9.5	20.0	22.5	30
EVP	**4V**	38	40.5	M30x1.0	14.5	35.0	3.5	10.0	21.5	28.5	36
EVP	**5V**	55	54.0	M45x1.5	15.5	44.5	4.5	12.5	24.5	42.5	–

Panel cut-out (page 15)

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

PSN Fixed socket, cable collet, nut fixing

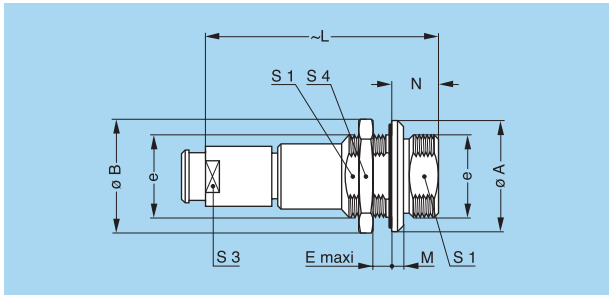


Reference		Dimensions (mm)									
Model	Series	A	B	e	E	L	M	N	S1	S3	S4
PSN	**0V**	19	19.2	M14x1.0	5.5	34.0	2.0	8.0	12.5	8	17
PSN	**1V**	21	21.5	M16x1.0	10.5	46.0	2.0	8.0	14.5	9	19
PSN	**2V**	26	27.0	M20x1.0	11.0	54.0	2.5	9.0	18.5	12	24
PSN	**3V**	31	34.0	M24x1.0	15.0	65.0	3.0	9.5	22.5	15	30
PSN	**4V**	38	40.5	M30x1.0	14.5	75.5	3.5	10.0	28.5	19	36
PSN	**5V**	56	54.0	M45x1.5	15.5	95.0	4.5	12.5	42.5	30	–

Panel cut-out (page 15)

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

PSN Fixed socket, cable collet, nut fixing and nut for fitting a bend relief [1)]

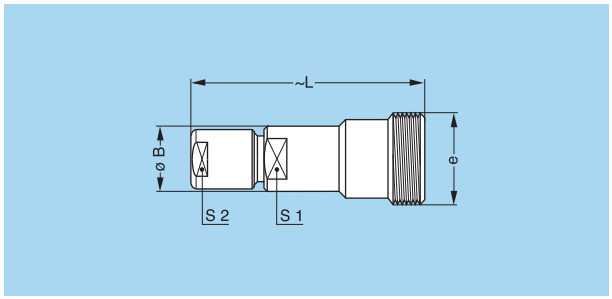


Reference		Dimensions (mm)									
Model	Series	A	B	e	E	L	M	N	S1	S3	S4
PSN	**0V**	19	19.2	M14x1.0	5.5	34.0	2.0	8.0	12.5	7	17
PSN	**1V**	21	21.5	M16x1.0	10.5	46.0	2.0	8.0	14.5	9	19
PSN	**2V**	26	27.0	M20x1.0	11.0	54.0	2.5	9.0	18.5	12	24
PSN	**3V**	31	34.0	M24x1.0	15.0	64.0	3.0	9.5	22.5	15	30
PSN	**4V**	38	40.5	M30x1.0	14.5	75.5	3.5	10.0	28.5	19	36

Panel cut-out (page 15)

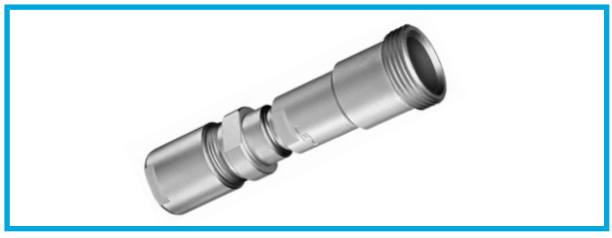
Note: [1)] to order, add a «Z» at the end of the reference. The bend relief must be ordered separately (see pages 141 and 142 of the unipole/multipole catalog).

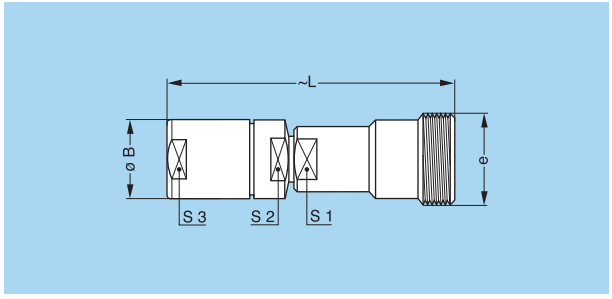
PVP Free socket with cable collet



Reference		Dimensions (mm)				
Model	Series	B	e	L	S1	S2
PVP	**0V**	10	M14x1.0	34.0	9	8
PVP	**1V**	12	M16x1.0	45.0	10	9
PVP	**2V**	16	M20x1.0	54.0	14	12
PVP	**3V**	19	M24x1.0	65.0	16	15
PVP	**4V**	24	M30x1.0	75.5	22	19
PVP	**5V**	38	M45x1.5	95.0	34	30

PVP Free socket with oversize cable collet [1)]

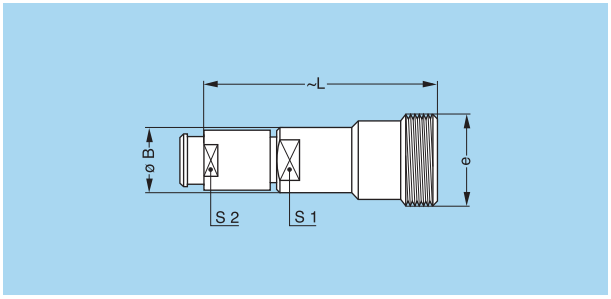




Reference		Dimensions (mm)					
Model	Series	B	e	L	S1	S2	S3
PVP	**1V**	14.5	M16x1.0	58	10	12	12
PVP	**2V**	17.0	M20x1.0	67	14	15	15
PVP	**3V**	22.0	M24x1.0	84	16	19	19
PVP	**4V**	36.0	M30x1.0	109	22	30	32

Note: [1)] 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 13).

PVP Free socket, cable collet and nut for fitting a bend relief [1)]

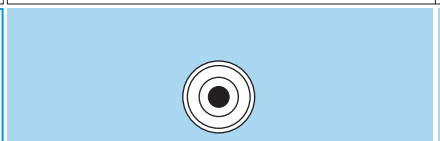
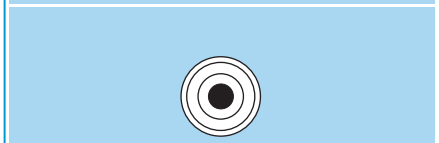
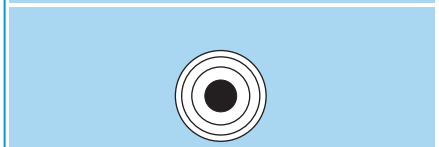
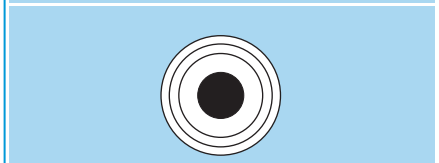
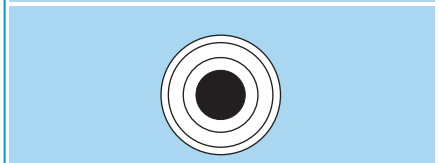
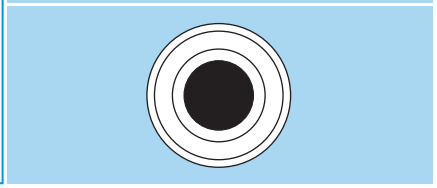


Reference		Dimensions (mm)				
Model	Series	B	e	L	S1	S2
PVP	**0V**	10	M14x1.0	34.0	9	7
PVP	**1V**	12	M16x1.0	46.0	10	9
PVP	**2V**	16	M20x1.0	54.0	14	12
PVP	**3V**	19	M24x1.0	64.0	16	15
PVP	**4V**	24	M30x1.0	75.5	22	19

Note: [1)] 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).

Insert configuration

Unipole

Number of LV contacts	Solder contacts	Reference	Watertight	Contact ø (mm)	Solder	AWG solder (max.)	Test voltage (kV rms)[1]	Test voltage (kV dc)[1]	Rated current (A)[1]
1		**116**	0V	1.6	●[2]	18	1.5	2.1	12
		**120**	1V	2.0	●[2]	16	1.9	2.7	18
		**130**	1V	3.0	●	12	1.5	2.1	25
			2V	3.0	●	12	2.1	3.0	30
		**140**	2V	4.0	●	10	1.7	2.4	40
			3V	4.0	●	10	2.3	3.3	43
		**160**	3V	6.0	●	8	1.7	2.4	65
			4V	6.0	●	8	2.7	3.9	70
		**112**	5V	12.0	●	0	1.5	2.1	230

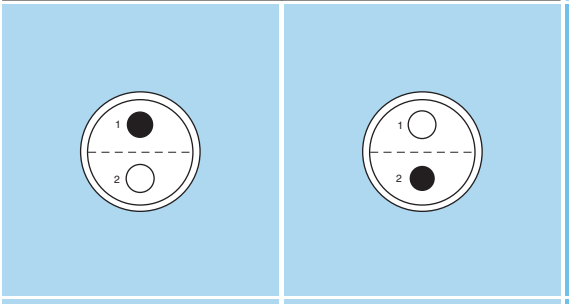
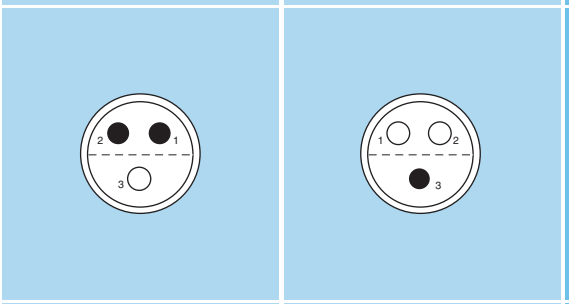
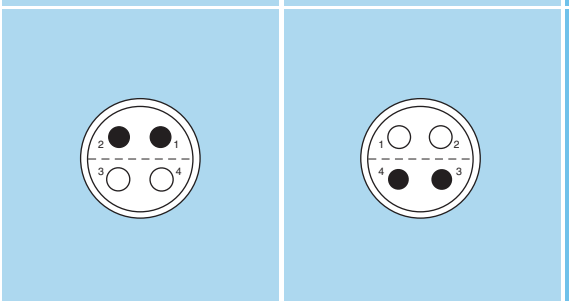
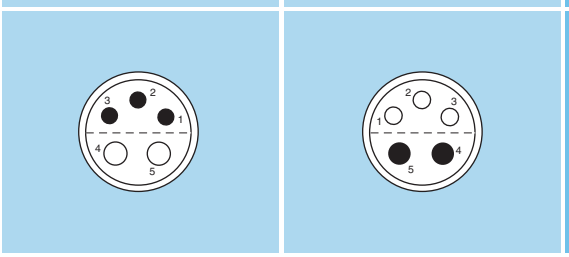
Note: [1] **see calculation method, caution and suggested standard.** [2] also available with inversed contacts: plug = female, socket = male.

● First choice alternative ○ Special order alternative

Coaxial, Triaxial, Mixed

A wide choice of those types is available, please consult us.

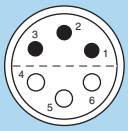
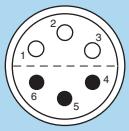
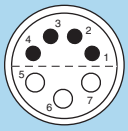
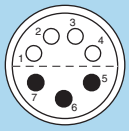
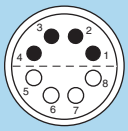
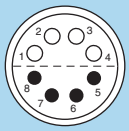
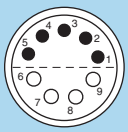
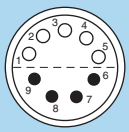
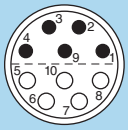
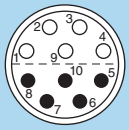
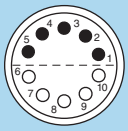
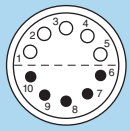
Multipole

Number of LV contacts	Solder contacts / Crimp contacts	Reference	Watertight	Contact ø (mm)	Contact type: Solder	Contact type: Crimp	Contact type: Print (straight)	Contact type: Print (elbow)	AWG: Solder (max.)	AWG: Crimp min.	AWG: Crimp max.	Test voltage (kV rms)[1) 2)]	Test voltage (kV dc)[1) 2)]	Rated current (A)[1)]
2		302	0V	0.9	●	●	●	●	22	32	20	1.1	1.6	10[3)]
			1V	1.3	●	●	●	●	20	26	18	1.2	1.8	15[3)]
			2V	1.6	●	○	○	○	18	22	14	1.7	2.4	20[4)]
			3V	2.0	●		○		16			3.0	4.2	23
			4V	4.0	●		○		10			2.1	3.0	35
			5V	6.0	●				8			3.7	5.2	50
3		303	0V	0.7	●	○	●	●	26	32	22	1.0	1.5	7[3)]
			1V	0.9	●	○	●	●	22	32	20	1.2	1.8	10[3)]
			2V	1.3	●	○	●	○	20	26	18	1.5	2.1	15[4)]
			3V	2.0	●		○		16			1.5	2.1	20
			4V	3.0	●		○		12			2.1	3.0	25
			5V	1x6.0 2x4.0	●				8 10			3.7	5.2	50 35
4		304	0V	0.7	●	●	●	●	26	32	22	1.0	1.5	7 [3)]
			1V	0.9	●	●	●	●	22	32	20	1.2	1.8	10[3)]
			2V	1.3	●	○	●	●	20	26	18	1.7	2.4	15[4)]
			3V	2.0	●		○		16			1.5	2.1	18
			4V	3.0	●		○		12			2.1	3.0	22
			5V	4.0	●				10			3.7	5.2	35
5		305	1V	2x0.9 3x0.7	●	○	●	●	22 26	32	20 22	1.5	2.1	10[3)] 7[3)]
			2V	1.3	●	○	●	●	20	26	18	1.5	2.1	13[4)]
			3V	2x2.0 3x1.3	●		○		16 20			1.5	2.1	18 14
			4V	2x3.0 3x2.0	●		○		12 16			2.1	3.0	22 16
			5V	2x4.0 3x3.0	●				10 12			3.0	4.2	35 25

Note: [1)] **see calculation method, caution and suggested standard.** [2)] lowest measured value; contact to contact or contact to shell.
[3)] rated current = 6A for socket with elbow (90°) contacts for printed circuit. [4)] rated current = 12A for socket with elbow (90°) contacts for printed circuit.

● First choice alternative ○ Special order alternative

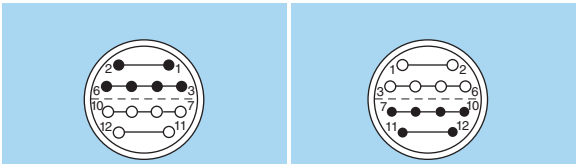
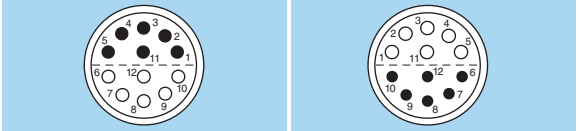
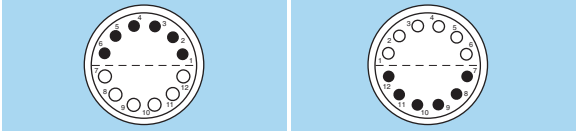
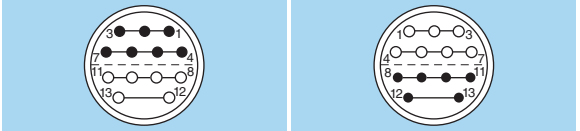
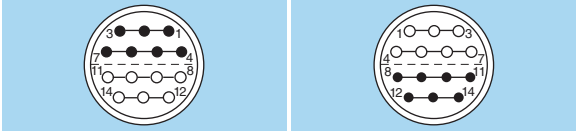
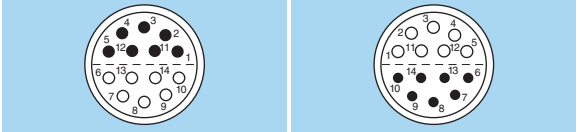
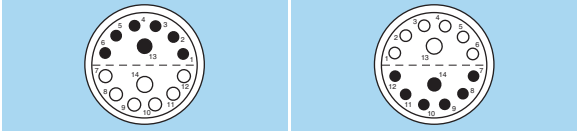
Multipole

Number of LV contacts	Solder contacts / Crimp contacts	Reference	Watertight	Contact ø (mm)	Contact type: Solder	Contact type: Crimp	Contact type: Print (straight)	Contact type: Print (elbow)	AWG: Solder (max.)	AWG: Crimp min.	AWG: Crimp max.	Test voltage (kV rms)[1) 2)]	Test voltage (kV dc)[1) 2)]	Rated current (A)[1)]
6	 	306	0V	0.5	●	○	●	○	28	32	28	0.9	1.3	2.5
			1V	0.7	●	○	●	●	26	32	22	1.2	1.7	7[3)]
			2V	1.3	●	●[4)]	●	●	20	26	18	1.5	2.1	12
			3V	1.3	●		●		20			2.1	3.0	14
			4V	2.0	●		○		16			2.1	3.0	16
			5V	3.0	●				12			3.0	4.2	25
7	 	307												
			2V	3x1.3 4x0.9	●	○	●	●	20 22	26 32	18 20	0.8	1.2	12[3)] 9[3)]
			3V	1.3	●		●		20			1.0	1.5	12
			4V	3x2.0 4x1.3	●		○		16 20			2.1	3.0	16 13
8	 	308												
			2V	0.9	●	○	●	●	22	32	20	0.8	1.2	9[3)]
			3V	1.3	●		●	○	20			1.0	1.5	10
			4V	1.3	●		○		20			2.7	3.9	13
			5V	3.0	●				12			2.1	3.0	22
9	 	309												
			4V	1.3	●		○		20			2.1	3.0	12
10	 	310												
			2V	0.9	●	○	●	●	22	32	20	0.8	1.2	7[3)]
			3V	1.3	●		●	●	20			1.0	1.5	9
10	 	310												
			4V	1.3	●		○		20			2.1	3.0	11
			5V	2.0	●				16			2.1	3.0	18

Note: [1)] **see calculation method, caution and suggested standard.** [2)] lowest measured value; contact to contact or contact to shell.
[3)] rated current = 6A for socket with elbow (90°) contacts for printed circuit. [4)] only for FFL model.

● First choice alternative ○ Special order alternative

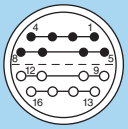
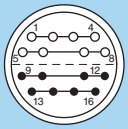
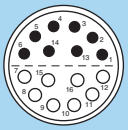
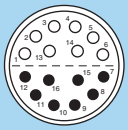
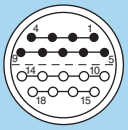
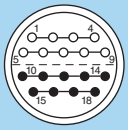
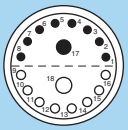
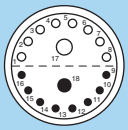
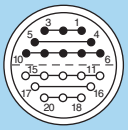
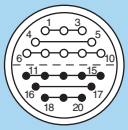
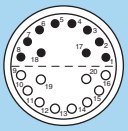
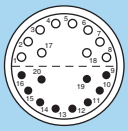
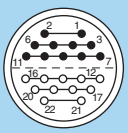
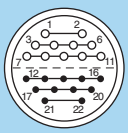
Multipole

Number of LV contacts	Solder contacts / Crimp contacts	Reference	Watertight	Contact ø (mm)	Contact type: Solder	Contact type: Crimp	Contact type: Print (straight)	Contact type: Print (elbow)	AWG: Solder (max.)	AWG: Crimp min.	AWG: Crimp max.	Test voltage (kV rms)[1) 2)]	Test voltage (kV dc)[1) 2)]	Rated current (A)[1)]
12		312	3V	0.9	●		●	●	22			1.5	2.1	8
12		312	4V	1.3	●		○		20			2.1	3.0	9
12		312	5V	2.0	●				16			2.1	3.0	18
13		313	3V	0.9	●		●	○	22			1.5	2.1	8
14		314	3V	0.9	●		●	●	22			1.5	2.1	7
14		314	4V	1.3	●		○		20			2.1	3.0	9
14		314	5V	2X3.0 12X2.0	●				12 16			1.8	2.4	20 15

Note: [1)] **see calculation method, caution and suggested standard.** [2)] lowest measured value; contact to contact or contact to shell.

● First choice alternative ○ Special order alternative

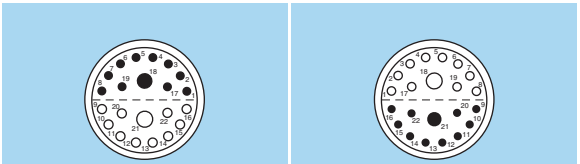
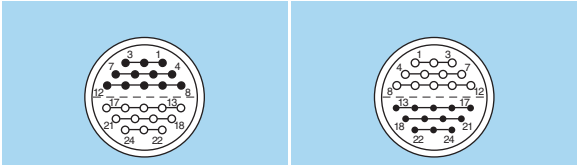
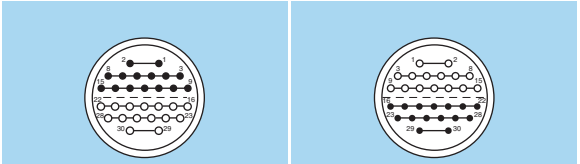
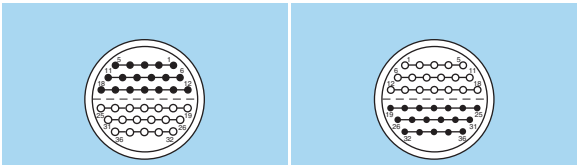
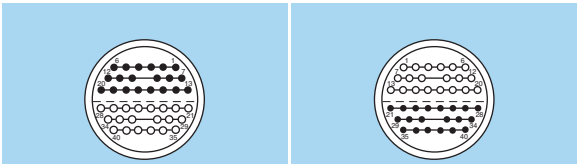
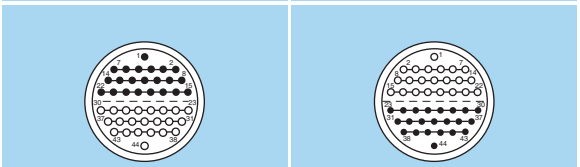
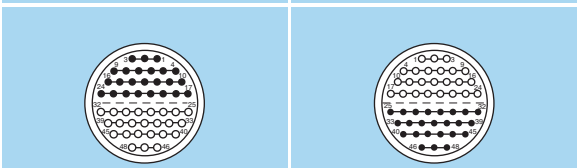
Multipole

Number of LV contacts	Solder contacts	Crimp contacts	Reference	Watertight	Contact ø (mm)	Contact type: Solder	Contact type: Crimp	Contact type: Print (straight)	Contact type: Print (elbow)	AWG: Solder (max.)	AWG: Crimp min.	AWG: Crimp max.	Test voltage (kV rms) [1) 2)]	Test voltage (kV dc) [1) 2)]	Rated current (A) [1)]
16			316	3V	0.9	●		●	●	22			1.0	1.5	7
				4V	0.9	●		○		22			2.1	3.0	7
16			316	5V	2.0	●				16			1.8	2.4	15
18			318	3V	0.9	●		●	○	22			1.0	1.5	6
				4V	0.9	●		○		22			2.1	3.0	7
18			318	5V	2x3.0 16x1.6	●				12 18			1.8	2.4	18 11
20			320	4V		0.9	●		○		22		2.1	3.0	7
20			320	5V		1.6	●				18		1.8	2.4	11
22			322	4V	0.9	●		○		22			2.1	3.0	7

Note: [1)] **see calculation method, caution and suggested standard.** [2)] lowest measured value; contact to contact or contact to shell.

● First choice alternative ○ Special order alternative

Multipole

Number of LV contacts	Solder contacts / Crimp contacts	Reference	Watertight	Contact ø (mm)	Contact type: Solder	Contact type: Crimp	Contact type: Print (straight)	Contact type: Print (elbow)	AWG: Solder (max.)	AWG: Crimp min.	AWG: Crimp max.	Test voltage (kV rms)[1) 2)]	Test voltage (kV dc)[1) 2)]	Rated current (A)[1)]
22		322	5V	2x3.0 20x1.6	●				12 18			1.8	2.4	16 9
24		324	4V	0.9	●		○		22			2.1	3.0	7
			5V	1.6	●				18			2.7	3.9	9
30		330	5V	1.3	●				20			1.8	2.4	8
36		336	5V	1.3	●				20			1.8	2.4	7
40		340	5V	1.3	●				20			1.2	1.8	7
44		344	5V	1.3	●				20			1.2	1.8	6
48		348	5V	1.3	●				20			1.2	1.8	6

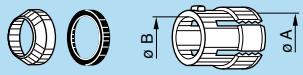
Note: [1)] **see calculation method, caution and suggested standard.** [2)] lowest measured value; contact to contact or contact to shell.

● First choice alternative ○ Special order alternative

Collets

C and K type collets

0V, 1V, 2V and 3V series



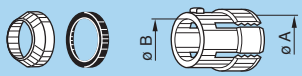
	Reference		Collet ø		Cable ø	
	Type	Code	ø A	ø B	max.	min.
0V	C	10[1)]	1.6	–	1.2	1.0
	C	15[1)]	1.6	–	1.5	1.3
	C	20[1)]	2.1	–	2.0	1.6
	C	25	3.1	–	2.5	2.1
	C	30	3.1	–	3.0	2.6
	C	35	4.2	4.2	3.5	3.1
	C	40	4.2	4.2	4.0	3.6
	C	45	5.2	5.2	4.5	4.1
	K	50	5.2	5.2	5.0	4.6
	K	55	6.2	6.2	5.5	5.1
	K	60	6.2	6.2	6.0	5.6
	K	65	7.2	6.7	6.5	6.1
1V	C	35	4.2	–	3.5	3.1
	C	40	4.2	–	4.0	3.6
	C	45	5.2	–	4.5	4.1
	C	50	5.2	–	5.0	4.6
	C	55	6.2	6.2	5.5	5.1
	C	60	6.2	6.2	6.0	5.6
	C	65	7.2	6.7	6.5	6.1
	K	70	7.2	–	7.0	6.6
	K	75	8.2	8.2	7.5	7.1
	K	80	8.2	8.2	8.0	7.6
	K	85	9.2	8.6	8.5	8.1

	Reference		Collet ø		Cable ø	
	Type	Code	ø A	ø B	max.	min.
2V	C	65	7.2	–	6.5	6.1
	C	70	7.2	–	7.0	6.6
	C	75	8.2	8.2	7.5	7.1
	C	80	8.2	8.2	8.0	7.6
	C	85	9.2	8.6	8.5	8.1
	K	90	9.2	–	9.0	8.6
	K	95	10.2	10.2	9.5	9.1
	K	10	10.2	10.2	10.0	9.6
	K	11	11.2	10.6	10.5	10.1
3V	C	65	7.2	–	6.5	6.1
	C	70	7.2	–	7.0	6.6
	C	75	8.2	–	7.5	7.1
	C	80	8.2	–	8.0	7.6
	C	85	9.2	–	8.5	8.1
	C	90	9.2	–	9.0	8.6
	C	95	10.2	10.2	9.5	9.1
	C	10	10.2	10.2	10.0	9.6
	C	11	11.2	10.6	10.5	10.1
	K	11	12.3	–	12.0	10.6
	K	12	13.8	13.8	12.8	12.1
	K	13	13.8	13.8	13.5	12.9
	K	14	15.3	15.3	14.0	13.6
	K	15	15.3	15.3	15.0	14.1

Note: All dimensions are in millimetres.
[1)] the inner diameter of the smallest bend relief available is 2.5 mm (in TPU) / 1.7 mm (in silicone).

C and K type collets

4V series



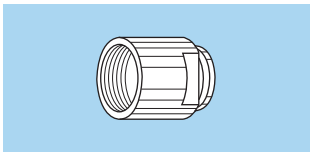
	Reference		Collet ø		Cable ø	
	Type	Code	ø A	ø B	max.	min.
4V	C	50	6.3	–	5.0	4.8
	C	55	6.3	–	5.5	5.1
	C	60	6.3	–	6.0	5.6
	C	65	7.3	–	6.5	6.1
	C	70	7.3	–	7.0	6.6
	C	75	8.3	–	7.5	7.1
	C	80	8.3	–	8.0	7.6
	C	85	9.3	–	8.5	8.1
	C	90	9.3	–	9.0	8.6
	C	95	10.8	–	9.5	9.1
	C	10	10.8	–	10.5	9.6
	C	11	12.3	–	12.0	10.6
	C	12	13.8	13.8	12.8	12.1
	C	13	13.8	13.8	13.5	12.9
	C	14	15.3	15.3	14.0	13.6
	C	15	15.3	15.3	15.0	14.1
	K	16	17.8	–	16.5	15.6
	K	17	17.8	–	17.5	16.6
	K	18	19.8	–	18.5	17.6
	K	19	19.8	–	19.5	18.6
	K	20	21.8	–	20.5	19.6
	K	21	21.8	–	21.5	20.6
	K	22	23.8	23.8	22.5	21.6
	K	23	23.8	23.8	23.5	22.6

5V series

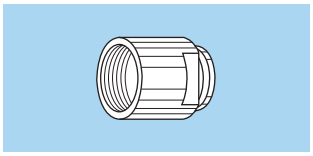
	Reference		Collet ø		Cable ø	
	Type	Code	ø A	ø B	max.	min.
5V	C	14	15.8	–	14.5	13.6
	C	15	15.8	–	15.5	14.6
	C	16	17.8	–	16.5	15.6
	C	17	17.8	–	17.5	16.6
	C	18	19.8	–	18.5	17.6
	C	19	19.8	–	19.5	18.6
	C	20	21.8	–	20.5	19.6
	C	21	21.8	–	21.5	20.6
	C	22	23.8	23.8	22.5	21.6
	C	23	23.8	23.8	23.5	22.6

Variant

Bend relief for models with collet



	Ref.	Collet	
		Type	Code
0V	z	C	35 to 45
		K	50
1V	z	C	35 to 65
		K	70 to 85
2V	z	C	65 to 85
		K	90 to 10



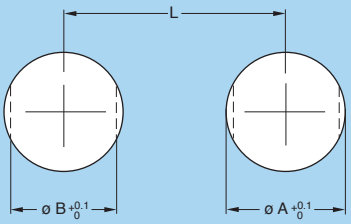
	Ref.	Collet	
		Type	Code
3V	z	C	65 to 10
		K	11 to 15
4V	z	C	65 to 15

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

Panel cut-outs

Panel Cut-outs

EVP, PSN



Series	Dimensions (mm)		
	A	B	L
0V	14.1	12.6	19.0
1V	16.1	14.6	21.0
2V	20.2	18.6	25.5
3V	24.2	22.6	30.0
4V	30.2	28.6	37.0
5V	45.2	42.6	53.0

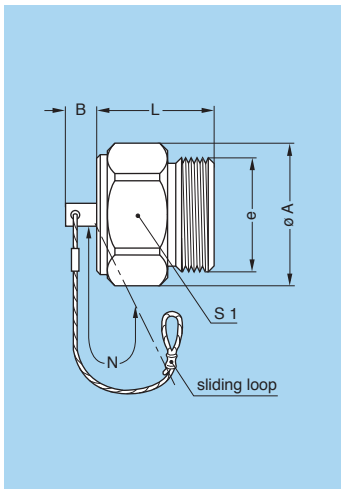
Mounting nuts torque

Component	Torque (Nm)					
	0V	1V	2V	3V	4V	5V
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	0.7	0.8	2	3	5	8

1N = 0.102 kg

Accessories

BFA Plug caps (IP68 and resistance to hydrostatic pressure 30 bars)

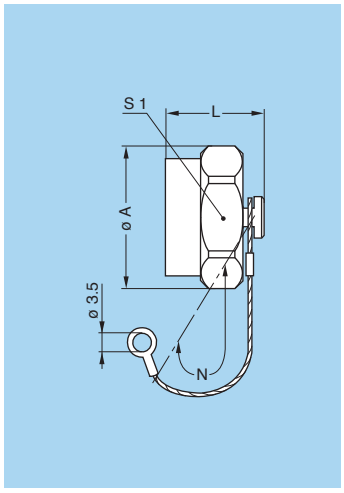


Part number	Series	Dimensions (mm)					
		A	B	e	L	N[1)]	S1
BFA.0V.100.●AZ	0V	17.2	6	M14x1.0	12.5	85	16
BFA.1V.100.●AZ	1V	19.3	6	M16x1.0	15.5	85	18
BFA.2V.100.●AZ	2V	23.5	6	M20x1.0	17.5	85	22
BFA.3V.100.●AZ	3V	27.8	6	M24x1.0	22.0	120	26
BFA.4V.100.●AZ	4V	34.3	10	M30x1.0	22.5	120	32
BFA.5V.100.●AZ	5V	50.0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

Note: 1) the tolerance on this dimension is ± 5 mm.

- 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)

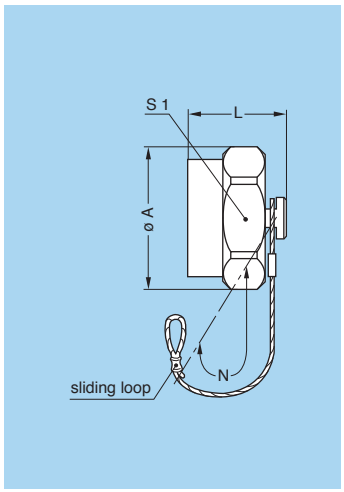


Part number	Series	Dimensions (mm)			
		A	L	N[1)]	S1
BRE.0V.200.●AV	0V	17.2	13.7	85	16
BRE.1V.200.●AV	1V	19.3	13.7	85	18
BRE.2V.200.●AV	2V	23.5	14.7	85	22
BRE.3V.200.●AV	3V	27.8	14.7	120	26
BRE.4V.200.●AV	4V	34.3	14.7	120	32
BRE.5V.200.●AV	5V	50.0	16.2	120	47

Note: 1) the tolerance on this dimension is ± 5 mm.

- 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)

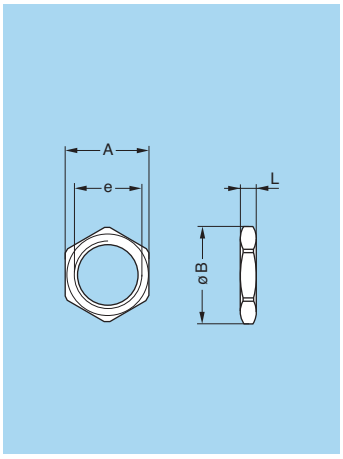


Part number	Series	Dimensions (mm)			
		A	L	N[1)]	S1
BRF.0V.200.●AV	0V	17.2	13.7	85	16
BRF.1V.200.●AV	1V	19.3	13.7	85	18
BRF.2V.200.●AV	2V	23.5	14.7	85	22
BRF.3V.200.●AV	3V	27.8	14.7	120	26
BRF.4V.200.●AV	4V	34.3	14.7	120	32
BRF.5V.200.●AV	5V	50.0	16.2	120	47

Note: 1) the tolerance on this dimension is ± 5 mm.

- 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®)

GEA Hexagonal nuts

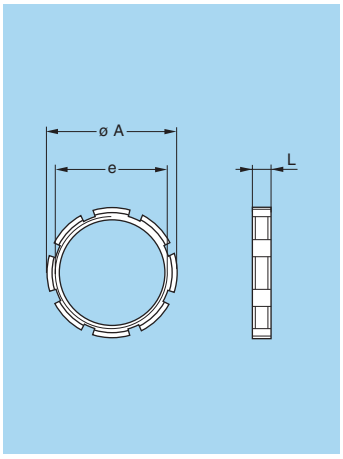


Part number	Series	Dimensions (mm)			
		A	B	e	L
GEA.0E.240.LN	0V	17	19.2	M14 x 1.00	2.5
GEA.1E.240.LN	1V	19	21.5	M16 x 1.00	3.0
GEA.2E.240.LN	2V	24	27.0	M20 x 1.00	4.0
GEA.3E.240.LN	3V	30	34.0	M24 x 1.00	5.0
GEA.4E.240.LN	4V	36	40.5	M30 x 1.00	7.0

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».

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

GEB Round nuts

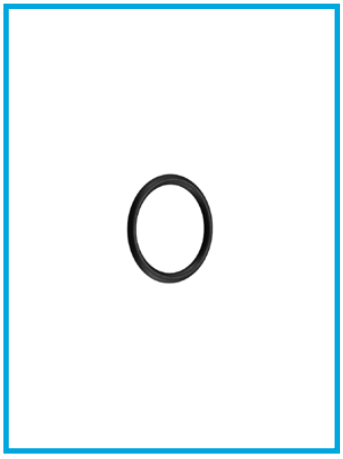


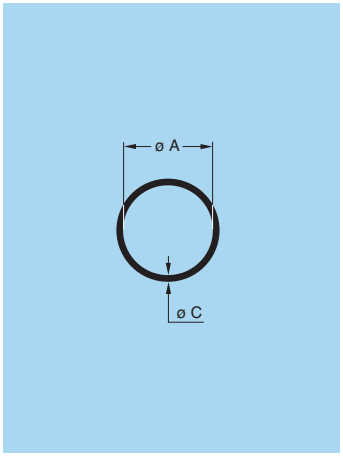
Part number	Series	Dimensions (mm)		
		A	e	L
GEB.5E.240.LN	5V	54	M45 X 1.5	8.0

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».

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

GDA O-ring for plug





Part number	Series	Dim. (mm)	
		A	C
GDA.99.080.100VK	0V	8.0	1.0
GDA.99.100.100VK	1V	10.0	1.0
GDA.99.130.150VK	2V	13.0	1.5
GDA.99.165.150VK	3V	16.5	1.5
GDA.99.210.200VK	4V	21.0	2.0
GDA.99.330.250VK	5V	33.0	2.5

- Material: FPM (Viton®)

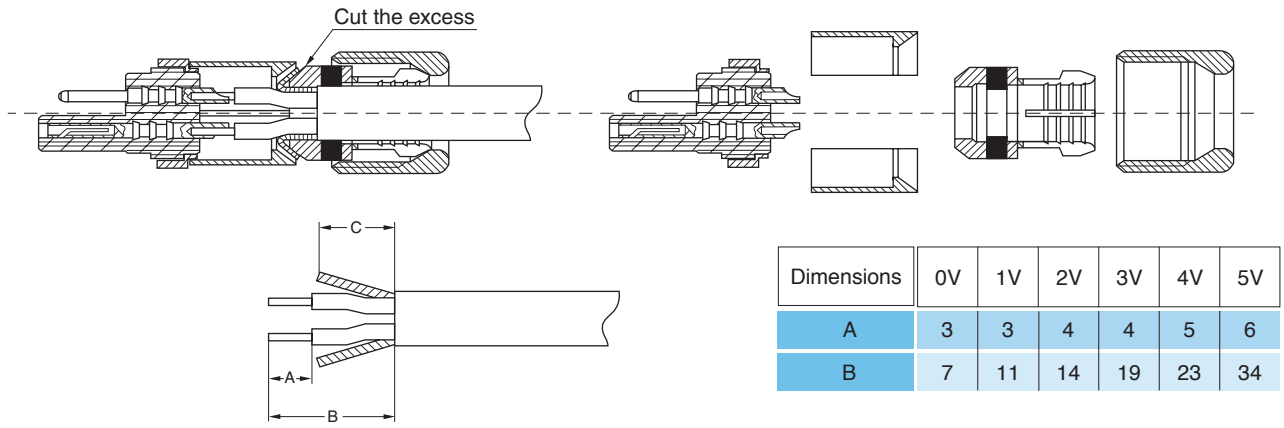
Cable assembly

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.

For multiconductors cables, the assembly instructions are the followings:



Dimensions	0V	1V	2V	3V	4V	5V
A	3	3	4	4	5	6
B	7	11	14	19	23	34

1) Preparation and stripping of cable (see above).
2) Slide the heatshrink boot over the cable; types and dimensions to have are:

Series	0V	1V	2V	3V	4V	5V
Type of heatshrink boot	12/3-0	12/3-0	19/6-0	19/6-0	24/6-0	40/13-0
Length of the boot	30	35	40	45	50	65
Oversize collet	–	16/4-0	19/6-0	24/8-0	40/13-0	–
Length of the boot for oversize collet	–	–	70	–	–	–

3) After having soldered the conductors on the contacts of the plug/socket insulator, bring the earthing cone against the centre-piece. Cut the excess of screen.
4) Locate the insulator, the centre-piece, the earthing cone, the gland, the compression ring and the collet in the plug/socket shell.
5) Screw the collet nut at the recommended torque value.
6) Remove all grease left on plug/socket shells with acetone.
7) Place the heatshrink boot of the correct dimensions onto the rear end of the plug/socket against the coupling nut.
8) Heat the heatshrink boot until the melting coating totally melts and adheres perfectly onto the cable jacket.

Product safety notice

PLEASE READ AND FOLLOW ALL INSTUCTIONS CAREFULLY AND CONSULT ALL RELEVENT NATIONAL AND INTERNATIONAL SAFETY REGULATIONS FOR YOUR APPLICATION.
IMPROPER HANDLING, CABLE ASSEMBLY, OR WRONG USE OF CONNECTORS CAN RESULT IN HAZARDOUS SITUATIONS.

1. **SHOCK AND FIRE HAZARD**
   Incorrect wiring, the use of damaged components, presence of foreign objects (such as metal debris), and / or residue (such as cleaning fluids), can result in short circuits, overheating, and / or risk of electric shock.
   Mated components should never be disconnected while live as this may result in an exposed electric arc and local overheating, resulting in possible damage to components.

2. **HANDLING**
   Connectors and their components should be visually inspected for damage prior to installation and assembly. Suspect components should be rejected or returned to the factory for verification.
   Connector assembly and installation should only be carried out by properly trained personnel. Proper tools must be used during installation and / or assembly in order to obtain safe and reliable performance.

3. **USE**
   Connectors with exposed contacts should never be live (or on the current supply side of a circuit). Under general conditions voltages above 30 VAC and 42 VDC are considered hazardous and proper measures should be taken to eliminate all risk of transmission of such voltages to any exposed metal part of the connector.

4. **TEST AND OPERATING VOLTAGES**
   The maximum admissible operating voltage depends upon the national or international standards in force for the application in question. Air and creepage distances impact the operating voltage; reference values are indicated in the catalog however these may be influenced by PC board design and / or wiring harnesses.
   The test voltage indicated in the catalog is 75% of the mean breakdown voltage; the test is applied at 500 V/s and the test duration is 1 minute.

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

6. **PRODUCT IMPROVEMENTS**
   The LEMO Group reserves the right to modify and improve to our products or specifications without providing prior notification.

7. ⚠ **WARNING (Prop 65 State of California)**
   Proposition 65 requires businesses to provide warnings to Californians about significant exposures to chemicals that cause cancer, birth defects or other reproductive harm. LEMO products are exempt from proposition 65 warnings because they are manufactured, marketed, and sold solely for commercial and industrial use. For further information, please visit https://www.lemo.com/quality/LEMO-Prop-65-compliance-declaration.pdf.

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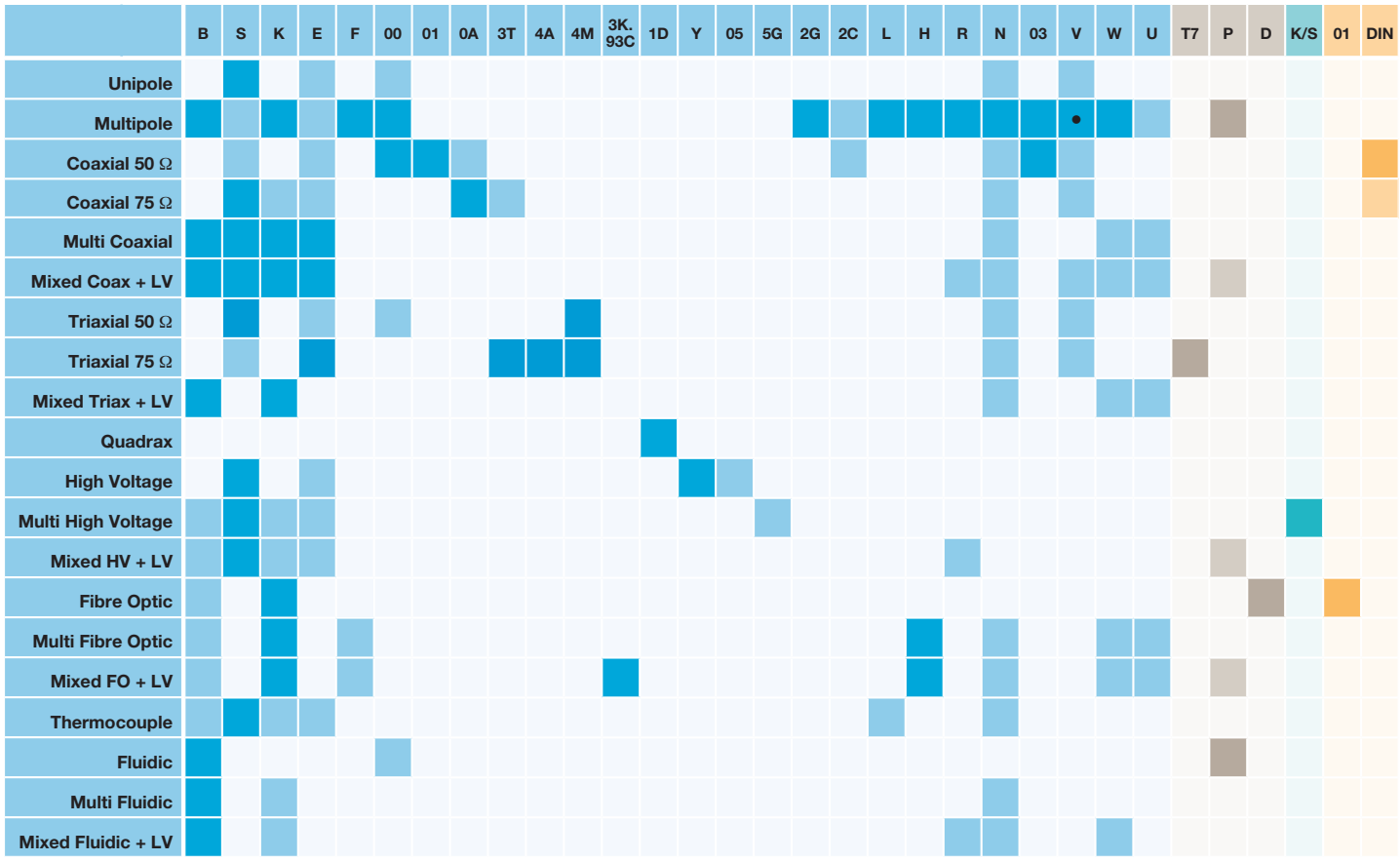
LEMO complete product range



Most frequently used in darker colour

• included in this catalogue

B Series Keyed

S Series

K Series Keyed

E Series

F Series Keyed

00 Series

01 Series

0A Series

3T Series

4A Series

4M Series Keyed

3K.93C Series Keyed

1D Series

Y Series

05 Series

5G Series Keyed

2G Series Keyed

2C Series

L Series Keyed

H Series

M Series Keyed

R Series Keyed

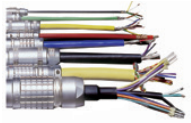
N Series Keyed

03 Series Keyed

V Series

W Series Keyed

Cable assembly



K/S Series Keyed

REDEL T7 Series

REDEL P Series Keyed

REDEL D Series

01 Series Keyed

VAA Series

SAA Series

TAA Series

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Компания «ЭлектроПласт» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

Наши преимущества:

- Оперативные поставки широкого спектра электронных компонентов отечественного и импортного производства напрямую от производителей и с крупнейших мировых складов;
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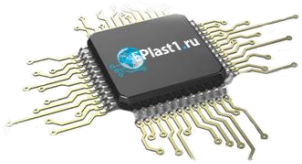

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