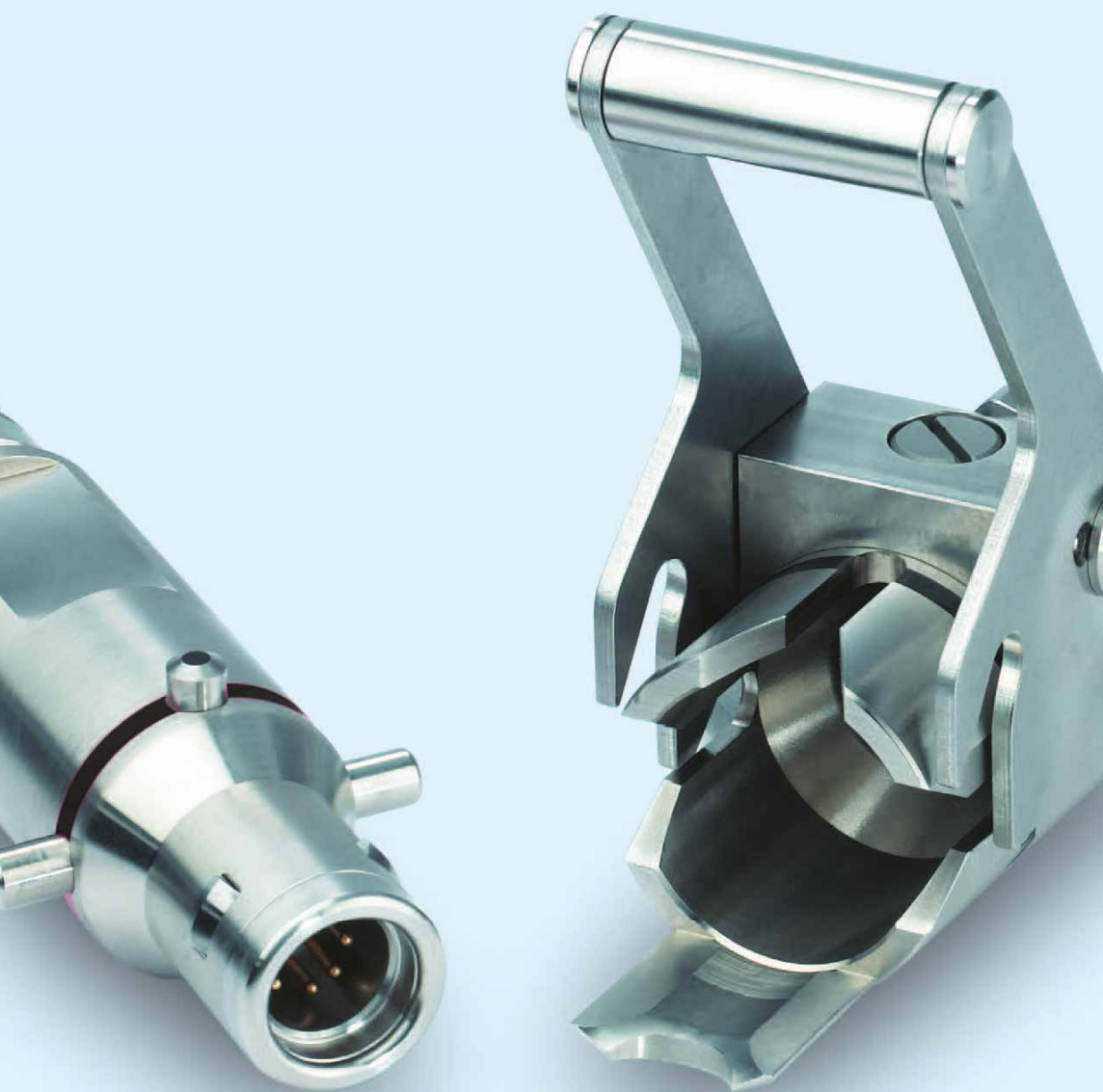


TELEMANIPULATOR CONNECTORS N SERIES



Precision modular connectors to suit your application

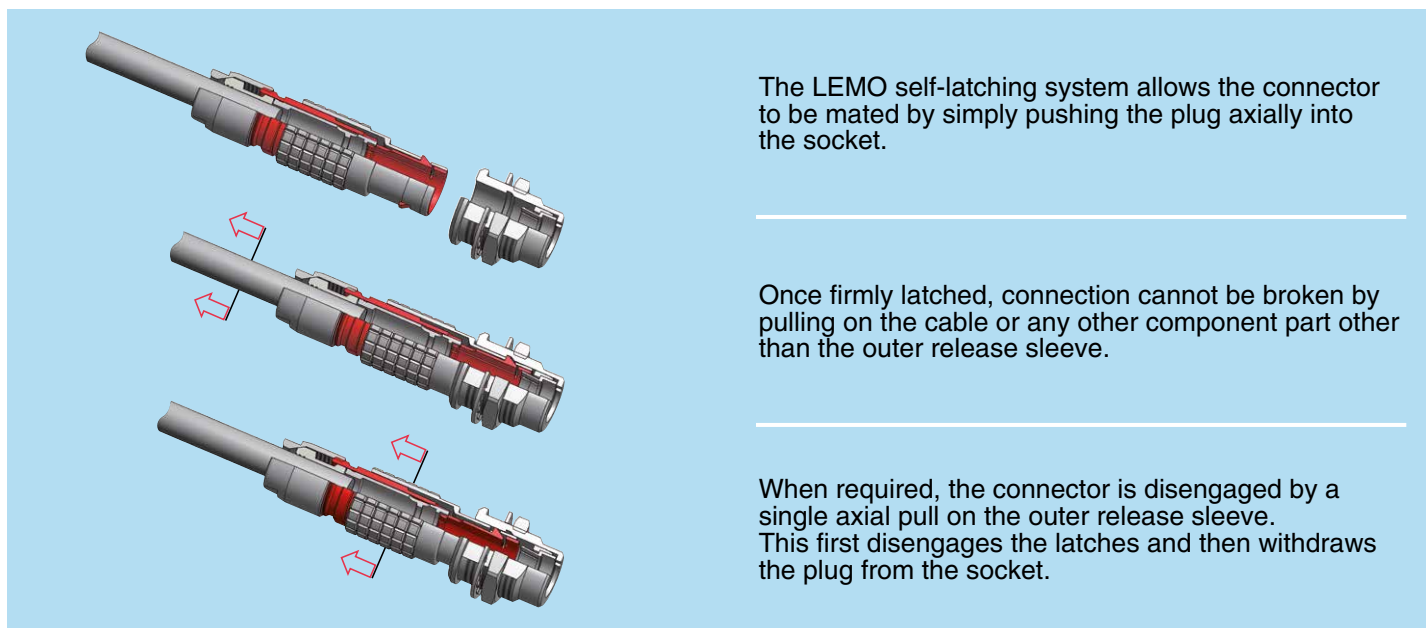
Since its creation in Switzerland in 1946 the LEMO Group has been recognized as a global leader of circular Push-Pull connectors and connector solutions. Today LEMO and its affiliated companies, REDEL and COELVER, are active in more than 80 countries with the help of over 40 subsidiaries and distributors.

Over 75000 connectors

The modular design of the LEMO range provides over 75000 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

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 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 conform to 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.

Product safety notice & disclaimers

Please read and follow all instructions specified on the last page or on our [website](#) carefully and consult all relevant national and international safety regulations for your application. Improper handling, cable assembly, or wrong use of connectors can result in hazardous situations.

LEMO products and services are provided "as is." LEMO makes no warranties or representations with regard to LEMO product & services or use of them, express, implied or statutory, including for accuracy, completeness, or security.

In no event shall LEMO be liable for any direct, indirect, punitive, incidental, special consequential damages, to property or life, whatsoever arising out of or connected with the use or misuse of LEMO's products.

N Series

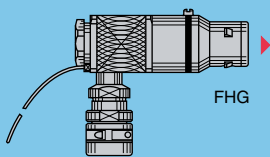
A range of remote handling stainless steel connectors suitable for operating in harsh environments such as nuclear reprocessing cells and the chemical industry. Features include alignment system and connection identification for ease of use. The N series are non-shielded connectors, one of the connector pin can be used as shield ground.

Feature / Benefits:

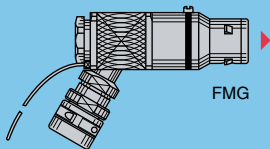
- Self-latching connection system based on K series
- Easy handling and gripping with highly efficient pre-positioning
- Reduced mating and unmating forces
- Black visual indicator on plug and socket shell
- Cable clamp on all plugs
- Non-shielded connection

Models (page 6)

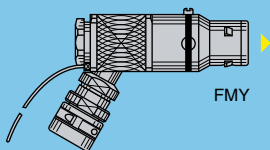
Elbow plugs



FHG

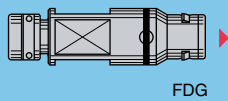


FMG

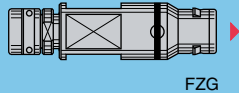


FMY

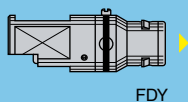
Straight plugs



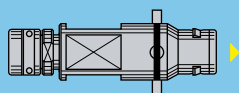
FDG



FZG

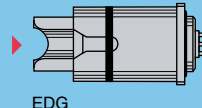


FDY

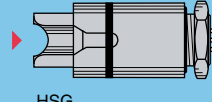


FZY

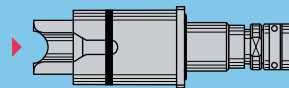
Fixed sockets



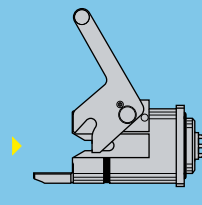
EDG



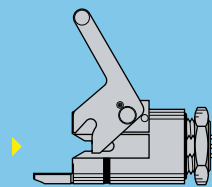
HSG



PBG

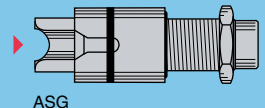


EDY

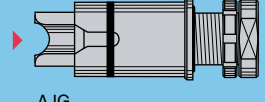


HSY

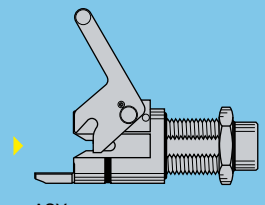
Fixed sockets adaptors



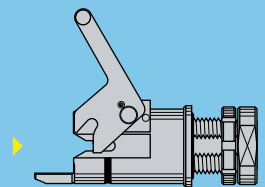
ASG



AJG



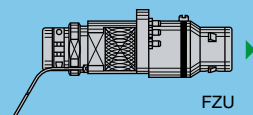
ASY



AJY

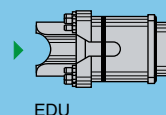
Keyed models (page 15)

Straight plug



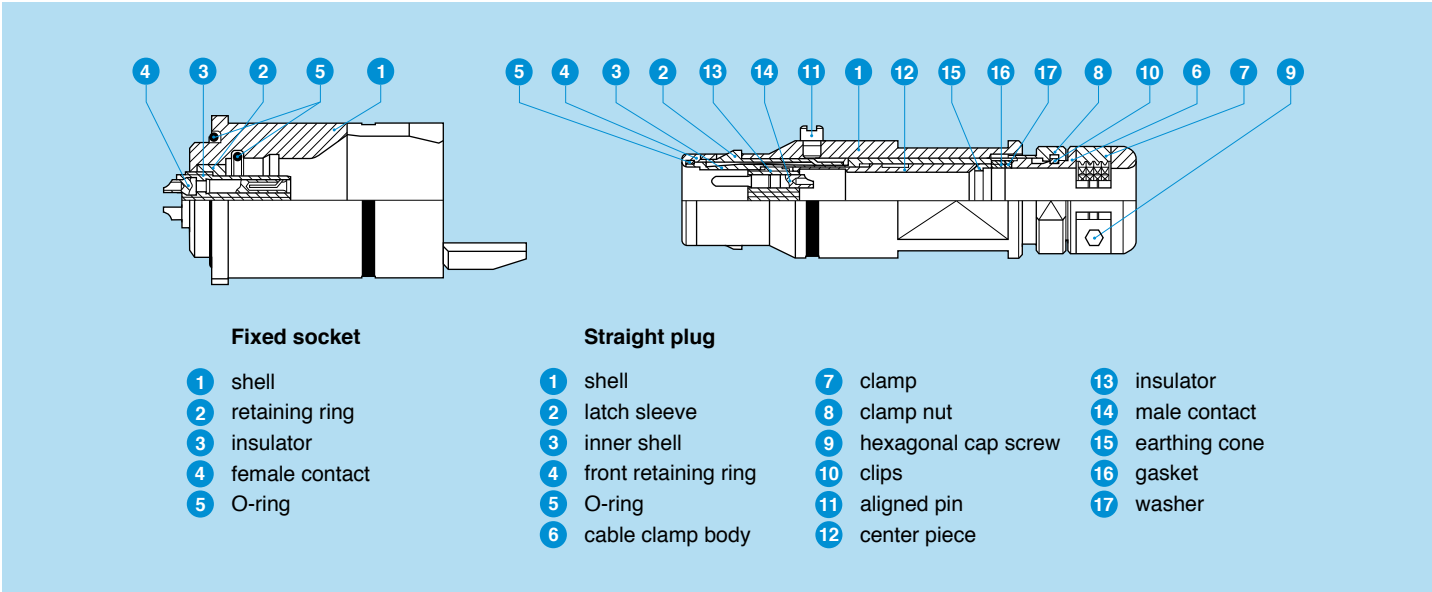
FZU

Fixed socket



EDU

Part Section Showing Internal Components



Shell material and Treatment

Components	Material (Standard)	Surface treatment (µm)	
		Nickel-plated	
		Cu	Ni
Outer shell, collet clamp, pre-positioning sleeve, washer	AISI 304L	without treatment	
Latch sleeve	Special stainless steel	without treatment	
Earthing crown	AISI 304L	without treatment	
Pin, screw	Stainless steel	without treatment	
Other metallic parts	Brass (UNS C 38500)	0.5	3
O-ring and gasket	EPDM	without treatment	
Insulator	PEEK	without treatment	

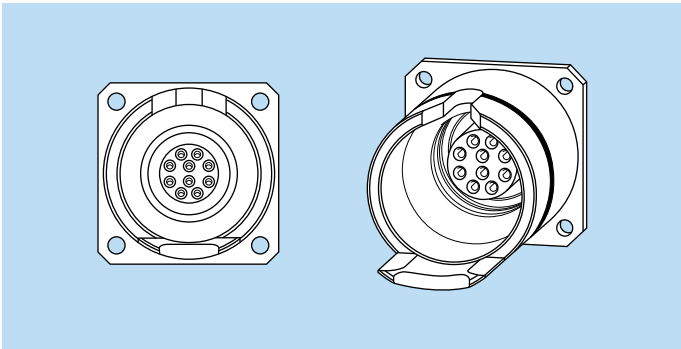
Note: the surface treatment standards are as follows: chrome FS-QQ-C-320B, nickel FS-QQ-N-290A.

Alignment Key

Standard positioning offers landing tray and notched entry for self-correcting alignment in robotic applications. Optional user configurable version provides further flexibility.

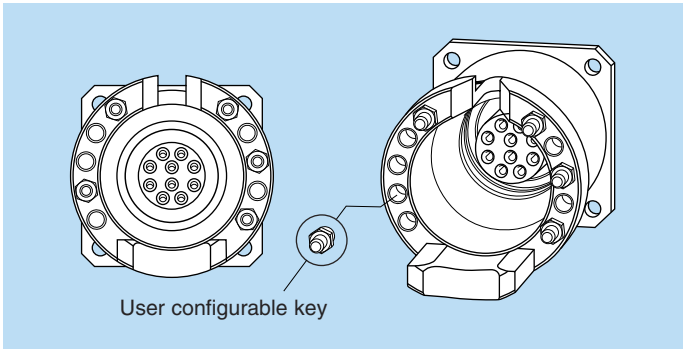
G-Positioning (Standard) - 2N-5N

- Standard alignment & positioning for 2N to 5N Series

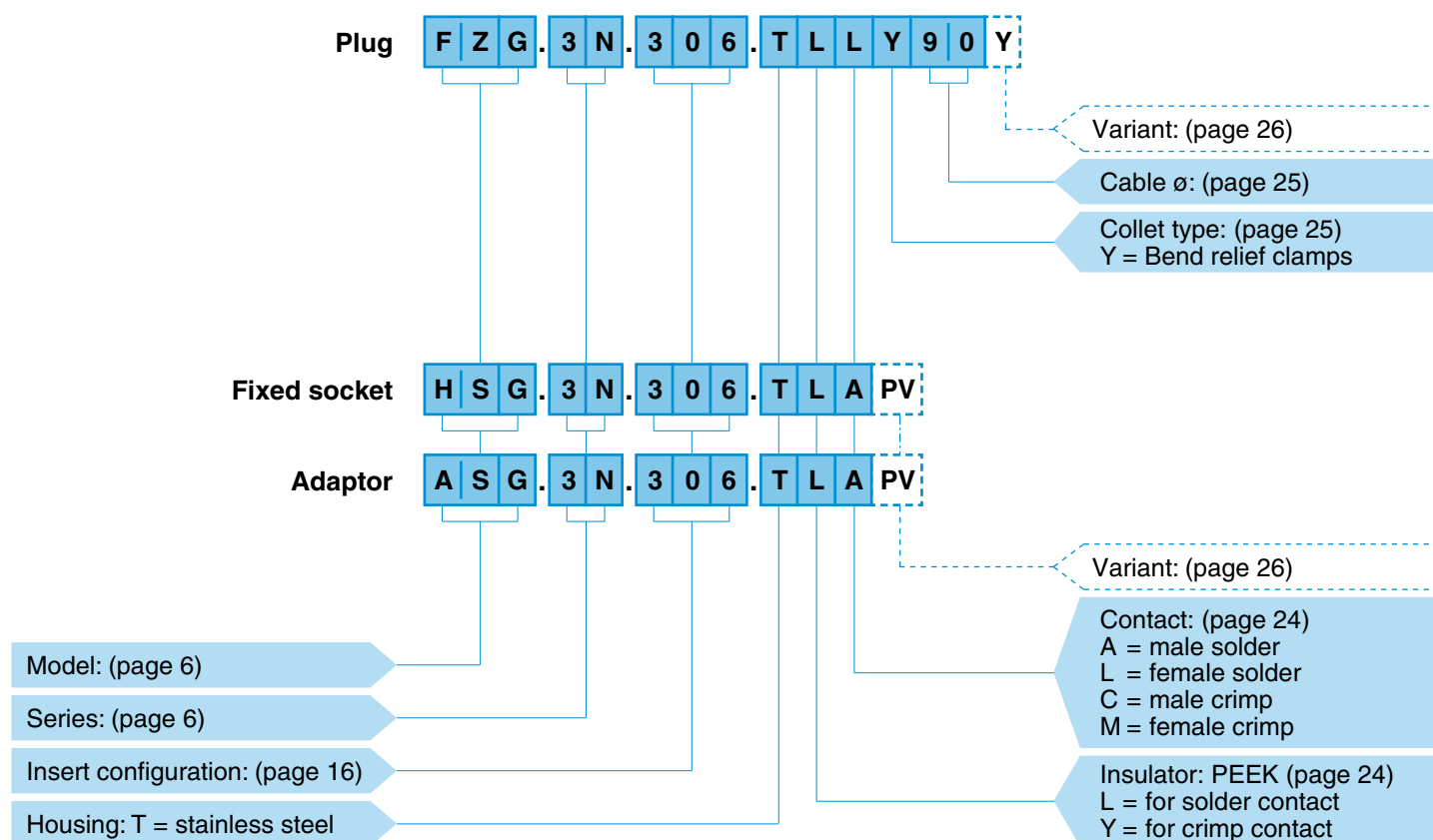


U-Keying (Robust) - 5N only

- Same features as the standard G-positioning, plus:
- 32 user configurable keying options



Part Numbering System



FZG.3N.306.TLLY90Y = straight plug, 3N series, multipole type with 6 contacts, outer shell in stainless steel, PEEK insulator, female solder contacts, Y type collet for 9.0 mm diameter cable.

HSG.3N.306.TLAPV = fixed socket, nut fixing, 3N series, multipole type with 6 contacts, outer shell in stainless steel, PEEK insulator, male solder contacts, vacuumtight.

ASG.3N.306.TLAPV = fixed adaptor, 3N series, multipole type with 6 contacts, outer shell in stainless steel, PEEK insulator, male solder contacts on the N series side and female solder contacts on the K series side, vacuumtight.



Metal housing models

Technical Characteristics

Mechanical and Climatical

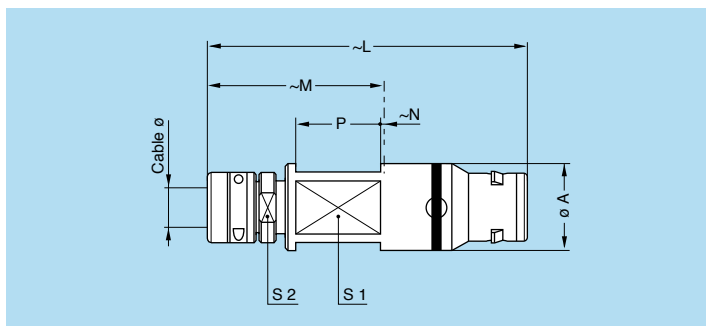
Characteristics	Value	Standard
Endurance ¹⁾	> 5000 cycles	IEC 60512-5 test 9a
Humidity	up to 95% at 60° C	
Temperature range ²⁾	-40° C, +160° C	
Resistance to vibrations	10-2000 Hz, 15g	IEC 60512-4 test 6d

Characteristics	Value	Standard
Shock resistance	100 g, 6 ms	IEC 60512-4 test 6c
Salt spray corrosion test	> 1000h	IEC 60512-6 test 11f
Protection index (mated)	IP 66	IEC 60529
Climatical category	20/80/21	IEC 60068-1

Note: ¹⁾ in order to perform correctly and withstand the pressure, cable assembly shall be made according to instruction we recommend.

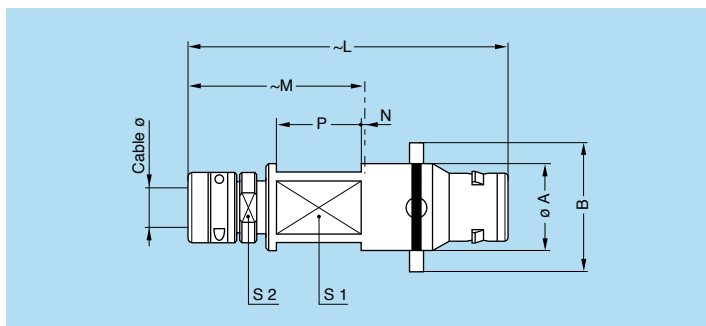
²⁾ vacuumtight version: -20°C, + 80°C.

FZG Straight plug with positioning pin, cable clamp and smooth handling surface



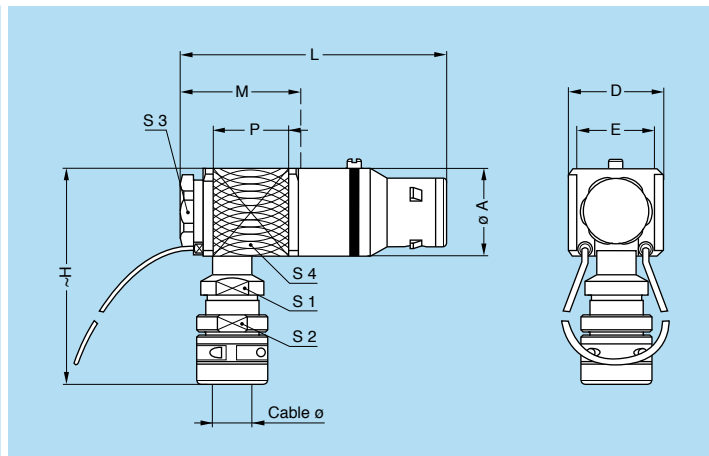
Reference		Dimensions (mm)							Cable ø	
Model	Series	A	L	M	N	P	S1	S2	mini	maxi
FZG	3N	25	103	55	1	25	21	20	6.1	12
FZG	4N	31	113	62	1	30	26	25	6.1	17
FZG	5N	45	155	90	1	50	39	40	9.1	30

FZY Straight plug with positioning pin, cable clamp and smooth handling surface



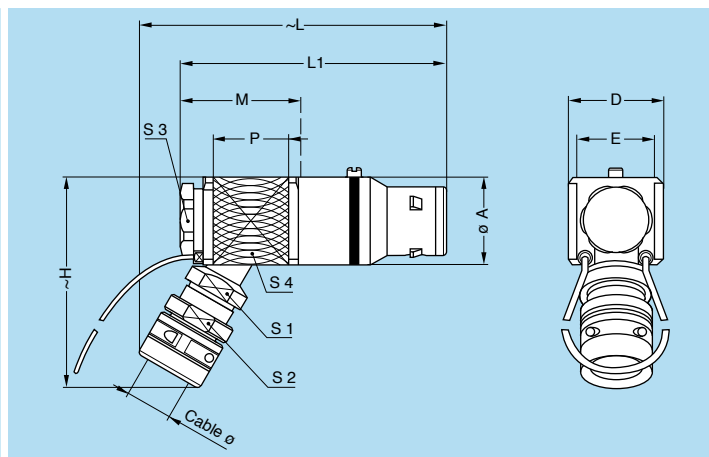
Reference		Dimensions (mm)								Cable ø	
Model	Series	A	B	L	M	N	P	S1	S2	mini	maxi
FZY	2N	22	29.4	89	48	1	22	18	17	7.6	10
FZY	3N	25	38.0	103	55	1	25	21	20	6.1	12
FZY	4N	31	44.0	113	62	1	30	26	25	6.1	17
FZY	5N	45	61.0	155	90	1	50	39	40	9.1	30

FHG Elbow plug (90°) with positioning pin, cable clamp and rough handling surface



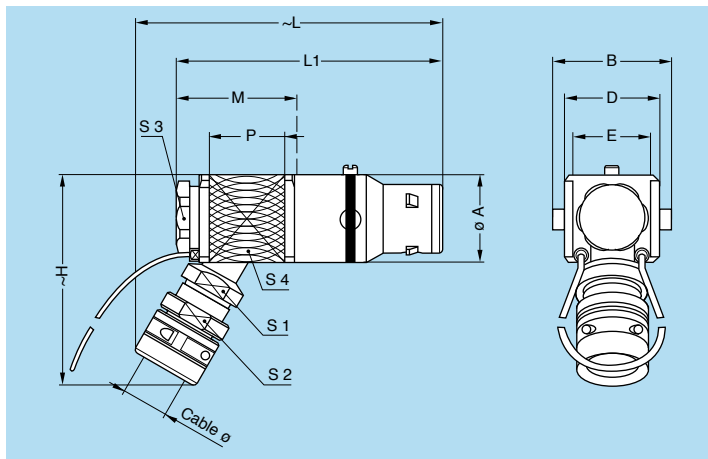
Reference		Dimensions (mm)											Cable ø	
Model	Series	A	D	E	H	L	M	P	S1	S2	S3	S4	mini	maxi
FHG	3N	25	28	24	70.2	82.3	34.6	23	17	20	18	24	6.1	12

FMG Elbow plug (120°) with positioning pin, cable clamp and rough handling surface



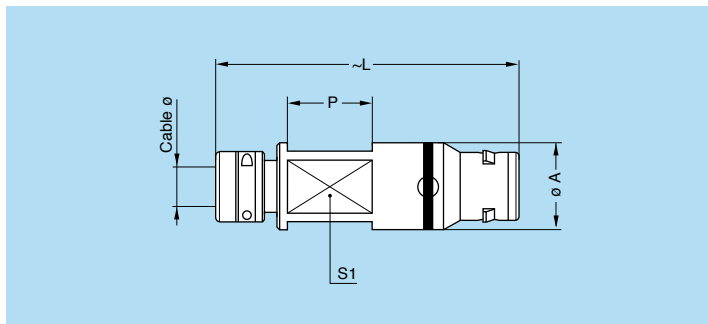
Reference		Dimensions (mm)												Cable ø	
Model	Series	A	D	E	H	L	L1	M	P	S1	S2	S3	S4	mini	maxi
FMG	3N	25	28	24	67.0	98.9	82.3	34.6	23	17	20	18	24	6.1	12
FMG	4N	31	36	30	76.8	109.2	93.0	42.5	23	22	25	24	30	6.1	17
FMG	5N	45	48	42	116.9	154.5	129.6	66.3	23	36	40	38	42	9.1	30

FMY Elbow plug (120°) with positioning pin, cable clamp and rough handling surface



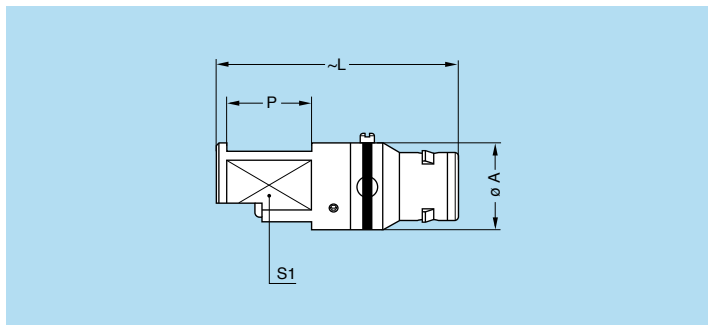
Reference		Dimensions (mm)													Cable ø	
Model	Series	A	B	D	E	H	L	L1	M	P	S1	S2	S3	S4	mini	maxi
FMY	4N	31	44	36	30	76.8	109.2	93.0	42.5	23	22	25	24	30	6.1	17
FMY	5N	45	61	48	42	116.9	154.5	129.6	66.3	23	36	40	38	42	9.1	30

FDG Straight plug with positioning pin, cable clamp and smooth handling surface



Reference		Dimensions (mm)				Cable ø	
Model	Series	A	L	P	S1	mini	maxi
FDG	3N	25	91	23	21	6.1	12

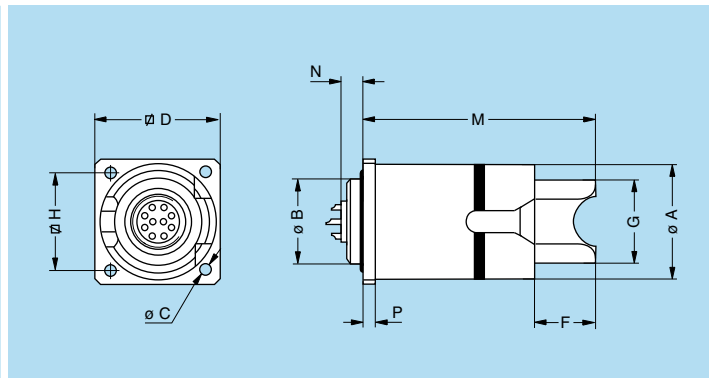
FDY Straight plug with positioning pin, cable clamp and smooth handling surface



Reference		Dimensions (mm)			
Model	Series	A	L	P	S1
FDY	4N	31	85.6	30	26

Part number example: FDY.4N.3●.TL●C●●

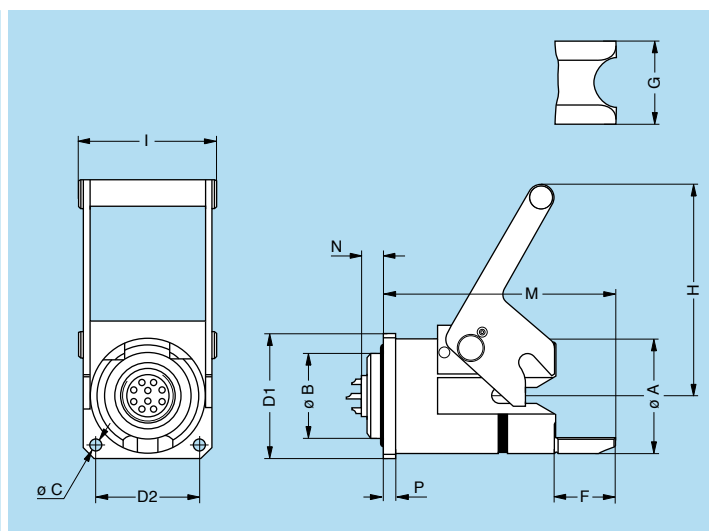
EDG Fixed socket with square flange, 4 screws fixing, with long pre-positioning sleeve. Without earthing crown



Reference		Dimensions (mm)										
Model	Series	A	B	C	D	F	G	H	M	N	P	
EDG	3N	32	24	3.2	34	18.5	19	27	68.5	8.7	3	
EDG	4N	40	30	4.2	43	20.0	24	35	74.0	10.7	4	
EDG	5N	55	45	5.2	58	28.0	35	46	94.0	13.2	5	

P3 Panel cut-out (page 27)

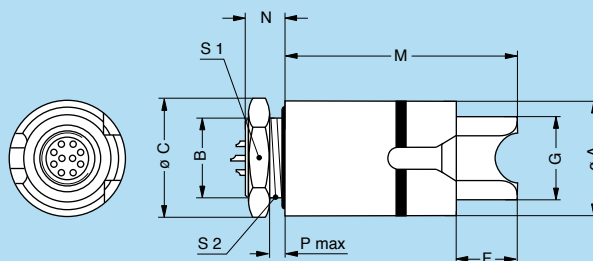
EDY Fixed socket for remote handling with square flange and lever



Reference		Dimensions (mm)												
Model	Series	A	B	C	D1	D2	F	G	H	I	M	N	P	
EDY	3N	32	24	3.2	34	27	18.5	19	68.4	36.6	68.5	8.7	3	
EDY	4N	40	30	4.2	43	35	20.0	24	75.8	43.6	74.0	10.7	4	
EDY	5N	55	45	5.2	58	46	28.0	35	96.4	60.6	94.0	13.2	5	

P3 Panel cut-out (page 27)

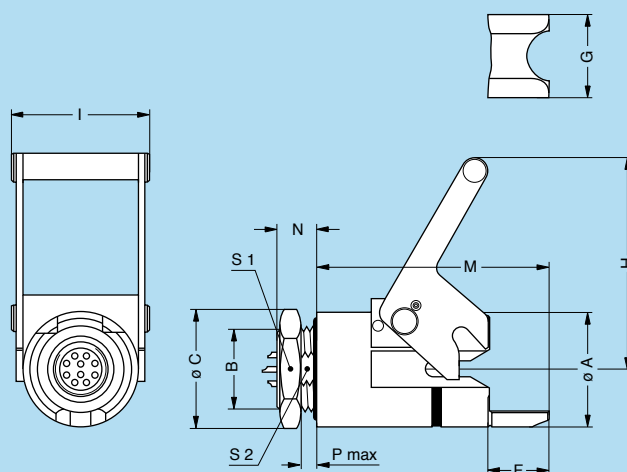
HSG Fixed socket, with long pre-positioning sleeve, without earthing crown, watertight or vacuumtight



Reference		Dimensions (mm)									
Model	Series	A	B	C	F	G	M	N	P	S1	S2
HSG	2N	27	M20x1.0	27.8	14.0	16	56.5	12.0	8.0	24	18.5
HSG	3N	32	M24x1.0	34.0	18.5	19	68.5	13.0	8.0	30	22.5
HSG	4N	40	M30x1.0	40.5	20.0	24	74.0	16.0	9.0	36	28.5
HSG	5N	55	M45x1.5	54.0	28.0	35	94.0	19.5	11.5	—	42.5

P1 Panel cut-out (page 27)

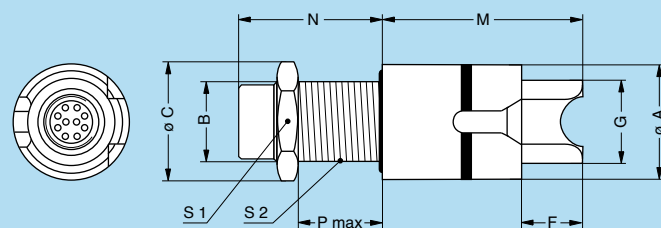
HSY Fixed socket for remote handling with lever, watertight or vacuumtight



Reference		Dimensions (mm)											
Model	Series	A	B	C	F	G	H	I	M	N	P	S1	S2
HSY	2N	27	M21x1.0	27.8	14.0	16	58.5	31.6	56.5	12.0	8.0	24	18.5
HSY	3N	32	M24x1.0	34.0	18.5	19	68.4	36.6	68.5	13.0	8.0	30	22.5
HSY	4N	40	M30x1.0	40.5	20.0	24	75.8	43.6	74.0	16.0	9.0	36	28.5
HSY	5N	55	M45x1.5	54.0	28.0	35	96.4	60.6	94.0	19.5	11.5	—	42.5

P1 Panel cut-out (page 27)

ASG Fixed adaptor to K series (the K side is equipped with female contacts, the N side with male ones)

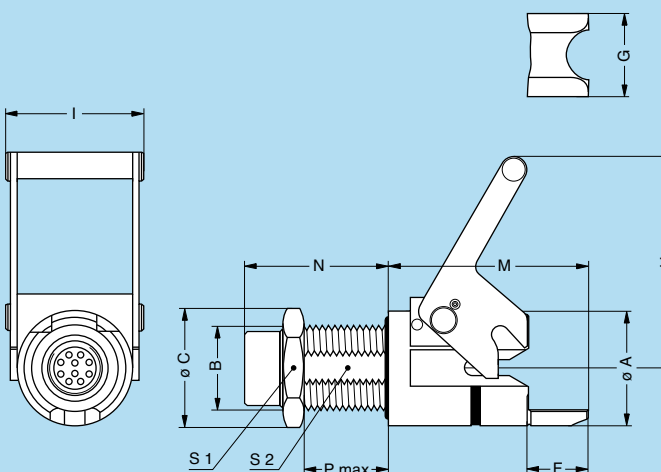


Reference		Dimensions (mm)									
Model	Series	A	B	C	F	G	M	N	P	S1	S2
ASG	3N	32	M24x1.0	34.0	18.5	19	56.5	54.0	37.0	30	22.5
ASG	4N	40	M30x1.0	40.5	20.0	24	74.0	50.2	31.2	36	28.5
ASG	5N	55	M45x1.5	54.0	28.0	35	94.0	60.5	37.5	¹⁾	42.5

P1 Panel cut-out (page 27)

Note: ¹⁾ delivered with a round nut (GEB.5E.240.AZ).

ASY Fixed adaptor to K series (the K side is equipped with female contacts, the N side with male ones)

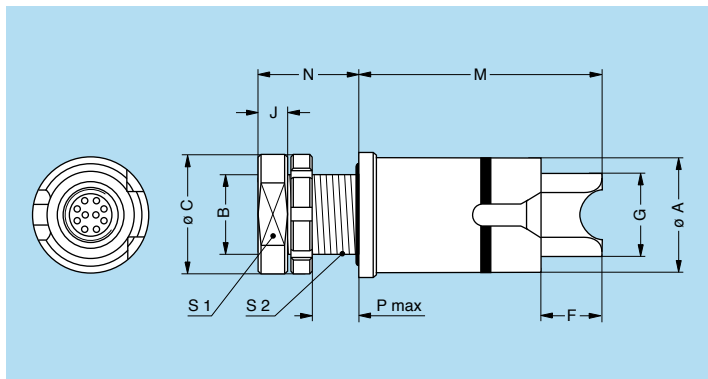


Reference		Dimensions (mm)											
Model	Series	A	B	C	F	G	H	I	M	N	P	S1	S2
ASY	3N	32	M24x1.0	34.0	18.5	19	68.4	36.6	68.5	42.0	24.0	30	22.5
ASY	4N	40	M30x1.0	40.5	20.0	24	75.8	43.6	81.7	42.5	23.5	36	28.5
ASY	5N	55	M45x1.5	54.0	28.0	35	96.4	60.6	94.0	60.5	37.5	¹⁾	42.5

P1 Panel cut-out (page 27)

Note: ¹⁾ delivered with a round nut (GEB.5E.240.AZ).

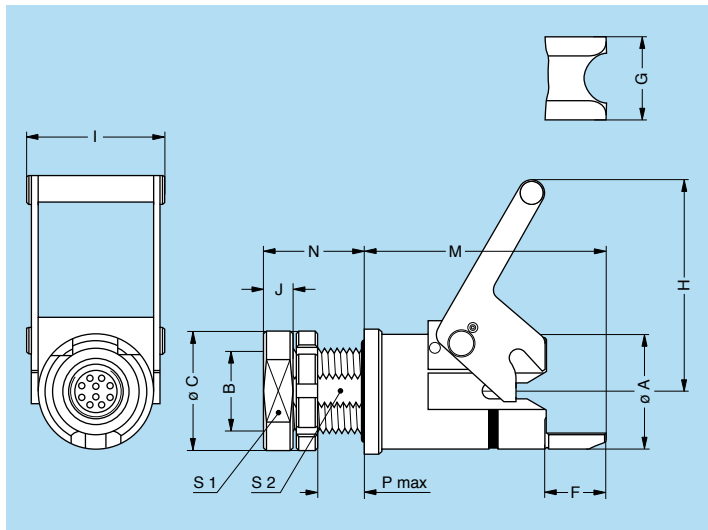
AJG Fixed adaptor to K series, vacuumtight (interchangeable insulator)
(the K side is equipped with female contacts, the N side with male ones)



Reference		Dimensions (mm)										
Model	Series	A	B	C	F	G	J	M	N	P	S1	S2
AJG	3N	32	M30x1	40	18.5	19	13	80.6	30	7	36	28.5

P2 Panel cut-out (page 27)

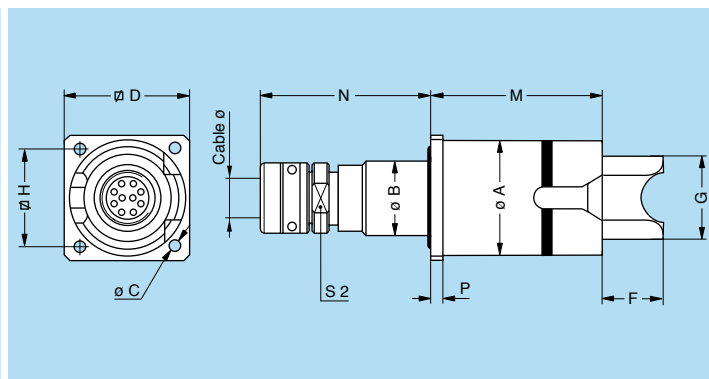
AJY Fixed adaptor to K series, vacuumtight with lever (interchangeable insulator)
(the K side is equipped with female contacts, the N side with male ones)



Reference		Dimensions (mm)												
Model	Series	A	B	C	F	G	H	I	J	M	N	P	S1	S2
AJY	3N	32	M30x1.0	40	18.5	19	68.4	36.6	13	80.6	30.0	7	36	28.5
AJY	4N	40	M40x1.5	50	20.0	24	75.8	43.6	13	89.5	34.9	12	46	38.0
AJY	5N	55	M55x2.0	65	28.0	35	96.4	60.6	13	120.5	34.0	11	60	52.0

P2 Panel cut-out (page 27)

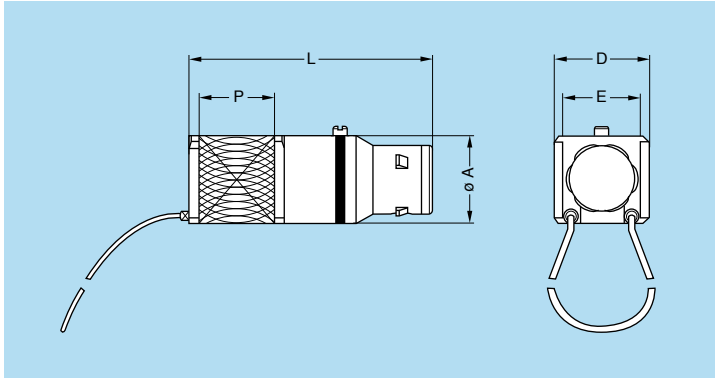
PBG Fixed socket with square flange, 4 screws fixing, with long pre-positioning sleeve and cable clamp. Without earthing crown



Reference		Dimensions (mm)											Cable $\varnothing$	
Model	Series	A	B	C	D	F	G	H	M	N	P	S2	mini	maxi
PBG	3N	32	24	3.2	34	18.5	19	27	50	58.5	3	20	6.1	12
PBG	4N	40	30	4.2	43	20.0	24	35	54	66.0	4	25	6.1	17
PBG	5N	55	45	5.2	58	28.0	35	46	66	91.0	5	40	9.1	30

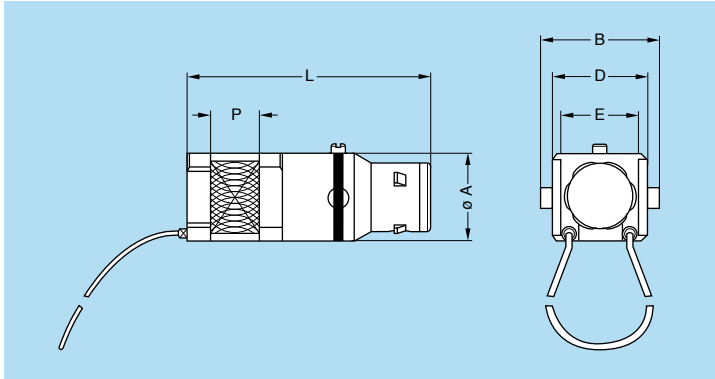
P3 Panel cut-out (page 27)

BZG Cap for socket (model ●●G)



Part number	Dimensions (mm)				
	A	D	E	L	P
BZG.3N.200.TAV	25	28	24	76.8	23
BZG.4N.200.TAV	31	36	30	86	23
BZG.5N.200.TAV	45	48	42	120	23

BZY Cap for socket (model ●●Y)

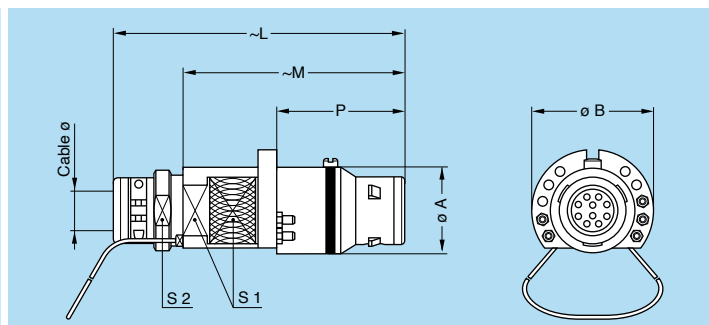
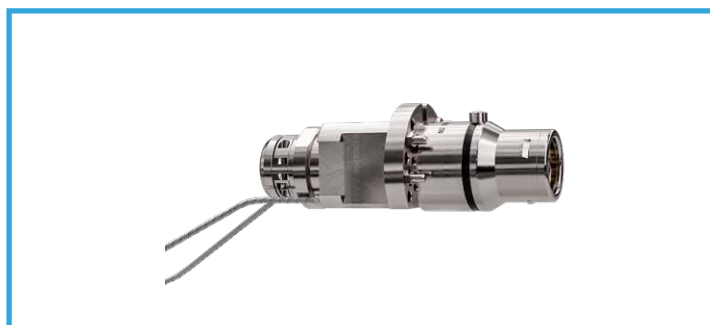


Part number	Dimensions (mm)					
	A	B	D	E	L	P
BZY.4N.200.TAV	31	44	36	30	86	23
BZY.5N.200.TAV	45	61	48	42	120	23



Keyed models

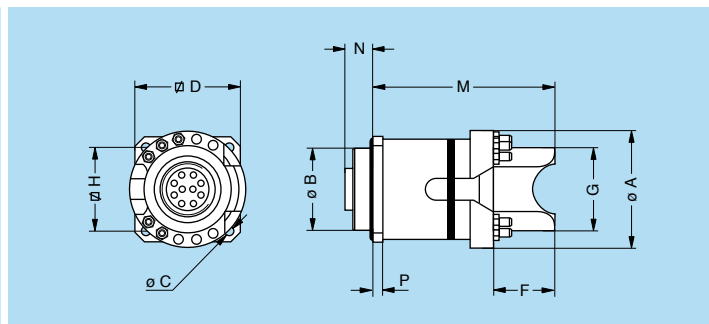
FZU Straight plug with positioning pin and coding pins, cable clamp and rough handling surface, with lanyard release



Reference		Dimensions (mm)							Cable ø	
Model	Series	A	B	L	M	P	S1	S2	mini	maxi
FZU	5N	45	65	155.3	118.1	68.1	42	40	16.6	17.5

Note: Please contact the factory for other cable clamps.

EDU Fixed socket with square flange with coding pins, 4 screws fixing



Reference		Dimensions (mm)									
Model	Series	A	B	C	D	F	G	H	M	N	P
EDU	5N	65	45	5.2	58	28	35	46	94	16	5

P4 Panel cut-out (page 27)

Multipole

[illegible]

- First choice alternative
- Special order alternative



Multipole

		Solder contacts Crimp contacts		Reference	Series	Contact ø (mm)	Contact type				AWG		Solder contact		Crimp contact		Rated current (A) ¹⁾
		Solder	Crimp				Print (straight)	Print (elbow)	Solder (max.)	Crimp		Test voltage (kV rms) ¹⁾ Contact-contact	Test voltage (kV rms) ²⁾ Contact-shell	Test voltage (kV rms) ¹⁾ Contact-contact	Test voltage (kV rms) ²⁾ Contact-shell		
										min.	max.						
8			308	2N	0.9	●	●	–	–	22	32	20	1.50	1.25	1.95	1.95	10.0
				3N	1.3	●	●	–	–	20	26	18	1.65	1.15	1.85	1.75	13.0
9			309														
				3N	8x1.3 1x2.0	●	●	–	–	20 16	26 18	18 12	1.35	1.05	1.10	1.05	6.0 15.0
10			310	2N	0.9	●	●	–	–	22	32	20	1.45	1.30	1.80	2.10	8.0
				3N	1.3	●	●	–	–	20	26	18	1.25	0.90	1.50	1.80	12.0
				4N	1.6	●	●	–	–	18	22	14	1.85	1.30	1.90	1.95	17.0
				5N	3.0	●	●	–	–	12	14	10	2.35	2.30	2.65	3.20	20.0
12			312	2N	0.7	●	●	–	–	22	32	22	1.25	1.35	1.65	2.00	7.0
				3N	0.9	●	●	–	–	22	32	20	1.45	1.00	1.65	1.85	9.0
				4N	1.3	●	●	–	–	20	26	18	1.45	1.60	1.90	1.85	12.0
14			314	2N	0.7	●	●	–	–	22	32	22	1.15	1.35	1.55	1.55	6.5
				3N	0.9	●	●	–	–	22	32	20	1.20	1.20	1.80	1.65	9.0
				5N	2.0	●	●	–	–	16	18	12	2.10	2.00	2.85	2.95	18.0
16			316	2N	0.7	●	●	–	–	22	32	22	0.95	1.25	1.55	1.75	6.0
				3N	0.9	●	●	–	–	22	32	20	1.20	0.85	1.80	1.50	8.0
				4N	0.9	●	●	–	–	22	32	20	1.35	1.50	2.30	2.10	10.0
				5N	2.0	●	●	–	–	16	18	12	1.85	1.95	2.45	3.05	12.0
18			318														
				2N	0.7	●	●	–	–	22	32	22	0.85	1.20	1.45	2.10	5.5
				3N	0.9	●	●	–	–	22	32	20	1.20	1.05	1.85	1.60	7.0

Note: ¹⁾ see calculation method, caution and suggested standard.
²⁾ test voltage (kV) contact-shell (values here are for B series).

● First choice alternative
○ Special order alternative

Multipole

		Solder contacts Crimp contacts		Reference	Series	Contact ø (mm)	Contact type				AWG		Solder contact		Crimp contact		Rated current (A) ¹⁾	
							Solder	Crimp	Print (straight)	Print (elbow)	Solder (max.)	Crimp		Test voltage (kV rms) ¹⁾ Contact-contact	Test voltage (kV rms) ²⁾ Contact-shell	Test voltage (kV rms) ¹⁾ Contact-contact		Test voltage (kV rms) ²⁾ Contact-shell
												min.	max.					
19			319	2N	0.7	●	●	–	–	22	32	22		0.95	1.25	1.55	1.65	5.0
20			320	3N	0.7	●	●	–	–	22	32	22		1.00	0.90	1.35	1.55	6.0
20			320	4N	0.9	●	●	–	–	22	32	20		1.35	1.00	1.05	0.95	8.0
				5N	1.6	●	●	–	–	18	22	14		1.90	1.70	2.20	2.40	10.0
22			322	3N	0.7	●	●	–	–	22	32	22		1.00	0.90	1.70	1.45	5.5
24			324	3N	0.7	●	●	–	–	22	32	22		0.95	0.80	1.35	1.35	4.0
				4N	0.9	●	●	–	–	22	32	20		1.20	1.45	1.80	2.05	7.0
26			326	2N	0.5	●	–	–	–	28	–	–		0.95	1.30	–	–	2.0
				3N	0.7	●	●	–	–	22	32	22		0.95	0.70	1.50	1.30	4.0
30			330	3N	0.7	●	●	–	–	22	32	22		0.80	0.70	1.35	1.20	3.5
				4N	0.9	●	●	–	–	22	32	20		0.95	0.85	1.75	1.45	5.0
				5N	1.3	●	●	–	–	20	26	18		1.45	1.60	2.05	2.45	8.0

Note: ¹⁾ see calculation method, caution and suggested standard.
²⁾ test voltage (kV) contact-shell (values here are for B series).

● First choice alternative
○ Special order alternative



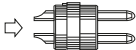
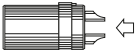
Multipole

		Solder contacts Crimp contacts		Reference	Series	Contact ø (mm)	Contact type				AWG		Solder contact		Crimp contact		Rated current (A) ¹⁾
		Solder	Crimp				Print (straight)	Print (elbow)	Solder (max.)	Crimp		Test voltage (kV rms) ¹⁾ Contact-contact	Test voltage (kV rms) ²⁾ Contact-shell	Test voltage (kV rms) ¹⁾ Contact-contact	Test voltage (kV rms) ²⁾ Contact-shell		
										min.	max.						
32			332	2N	0.5	●	–	–	–	28	–	–	0.80	1.20	–	–	1.5
32			332	3N	0.7	●	●	–	–	22	32	22	0.75	0.70	–	–	3.0
40			340	4N	0.7	●	●	–	–	22	32	22	0.90	0.90	1.30	1.30	2.0
				5N	1.3	●	●	–	–	20	26	18	1.30	1.45	2.00	1.95	7.0
48			348	4N	0.7	●	●	–	–	22	32	22	0.70	0.70	1.00	1.00	1.5
48			348	5N	1.3	●	●	–	–	20	26	18	1.20	1.10	2.00	1.55	6.0
50			350	5N	0.9	●	●	–	–	22	32	20	1.30	1.60	1.20	1.45	6.0

Note: ¹⁾ see calculation method, caution and suggested standard.
²⁾ test voltage (kV) contact-shell (values here are for B series).

● First choice alternative
○ Special order alternative

Multipole

	Solder contacts  		Reference	Series	Contact ø (mm)	Contact type				AWG		Solder contact		Crimp contact		Plated current (A) ¹⁾	
	Crimp contacts  					Solder	Crimp	Print (straight)	Print (elbow)	Solder (max.)	Crimp		Test voltage (kV rms) ¹⁾ Contact-contact	Test voltage (kV rms) ²⁾ Contact-shell	Test voltage (kV rms) ¹⁾ Contact-contact		Test voltage (kV rms) ²⁾ Contact-shell
	min.	max.															
54			354	5N	0.9	●	●	—	—	22	32	20	1.15	1.55	2.00	2.10	5.0
64			364	5N	0.9	●	●	—	—	22	32	20	1.30	1.55	1.35	1.85	3.0

Note: ¹⁾ see calculation method, caution and suggested standard.
²⁾ test voltage (kV) contact-shell (values here are for B series).

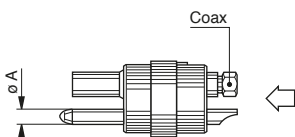
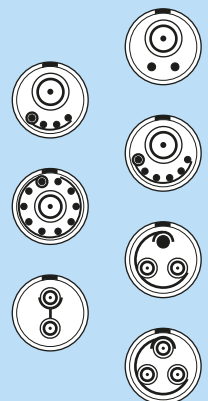
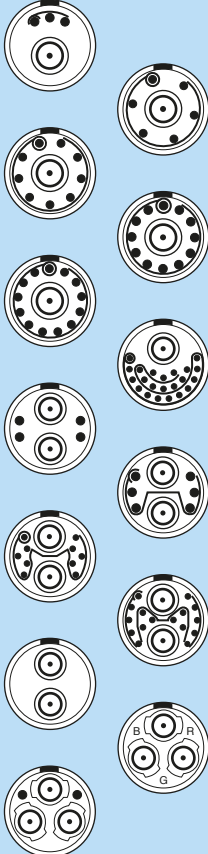
● First choice alternative
○ Special order alternative

Note:

More contact configurations are available, please consult our coax-triax-hybrid catalogue.
Thermocouple contacts are also available, please contact your local sales subsidiary for more information.



Multi coax, hybrid coax + LV

			Reference	Coax				Low voltage (LV)						
				Number of contacts	Impedance (Ω)	Type ¹⁾	Cable group ¹⁾	Number of contacts	ø A (mm)	Contacts type		Test voltage (kV rms)	Test voltage (kV dc)	Rated current (A)
										Solder	Crimp			
2N			802	1	50	A1	1-2-3	2	0.9	●	●	0.85	1.20	10
			804	1	50	A1	1-2-3	4	0.7	●	●	0.75	1.05	7
			806	1	50	A1	1-2-3	6	0.7	●	●	0.75	1.05	7
			810	1	50	C	1-2-3	10	0.7	●	●	0.95	1.35	7
			841	2	50	E	2	1	1.6	●	●	1.90	2.70	17
			232	2	50	G	–	–	–	–	–	–	–	–
			243	3	50	E	2	–	–	–	–	–	–	–
3N			803	1	50	A0	6	3	0.9	●	–	1.10	1.55	8
			806	1	50	A1	1-2-3	6	0.7	●	●	1.00	1.50	7
			809	1	50	A1	1-2-3	9	0.7	●	●	1.00	1.50	7
			812	1	50	A1	1-2-3	12	0.9	●	●	0.80	1.10	5
			813	1	50	A1	1-2-3	13	0.7	●	●	0.90	1.30	7
			822	1	50	C	1-2-3	22	0.7	●	●	0.70	1.00	5
			844	2	50	C	1-2-3	4	0.9	●	●	0.90	1.30	10
			846	2	50	C	1-2-3	6	0.9	●	●	0.90	1.30	10
			850	2	50	C	1-2-3	10	0.7	●	●	0.75	1.05	8
			856	2	50	C	1-2-3	16	0.7	●	●	0.70	1.00	7
			242	2	50	C	1-2-3	–	–	–	–	–	–	–
			243	3	50	C	1-2-3	–	–	–	–	–	–	–
			862	3	50	C	1-2-3	2	0.9	●	●	1.10	1.60	9

Note: ¹⁾ see coax, triax and hybrid catalogue.

● First choice alternative ○ Special order alternative

Multi coax, hybrid coax + LV

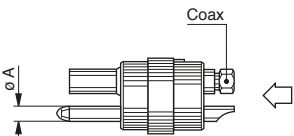
		Reference	Coax				Low voltage (LV)						
			Number of contacts	Impedance (Ω)	Type ¹⁾	Cable group ¹⁾	Number of contacts	ø A (mm)	Contacts type		Test voltage (kV rms)	Test voltage (kV dc)	Rated current (A)
									Solder	Crimp			
4N		802 822	1	50 75	A A	5-6 4 to 6	2	0.9	●	●	1.00	1.40	12
		804 824	1	50 75	A A	5-6 4 to 6	4	0.9	●	●	1.00	1.40	10
		806 826	1	50 75	A A	5-6 4 to 6	6	0.9	●	●	1.00	1.40	10
		842	2	50	A1	1-2-3	2	0.9	●	●	1.70	2.40	12
		844	2	50	A1	1-2-3	4	0.9	●	●	1.70	2.40	10
		852	2	50	C	1-2-3	12	0.9	●	●	0.90	1.30	8
		856	2	50	C	1-2-3	16	0.9	●	●	0.90	1.30	8
		858	2	50	C	1-2-3	18	0.7	●	●	0.80	1.10	7
		866	3	50	C	1-2-3	6	0.7	●	●	0.80	1.10	7
		885	3	50	C	1-2-3	12	0.7	●	●	0.80	1.10	8
		244	4	50	C	1-2-3	–	–	–	–	–	–	–
		879	4	50	C	1-2-3	9	0.7	●	●	0.90	1.30	8
		890	6	50	E	2	18	0.7	●	○	0.90	1.30	5
		894	6	50	E	2	22	0.7	●	○	0.90	1.30	4
5N		997²⁾	1	75	A4	N/A	32	1.3	●	○	1.20	1.70	8
		840	1	50	A	5-6	40	0.9	●	●	1.30	1.80	7

Note: ¹⁾ see coax, triax and hybrid catalogue.
²⁾ only available in 5B series. Solution for triaxial cable fixing.

● First choice alternative
○ Special order alternative



Multi coax, hybrid coax + LV

	Reference	Coax				Low voltage (LV)						
		Number of contacts	Impedance (Ω)	Type ¹⁾	Cable group ¹⁾	Number of contacts	ϕ A (mm)	Contacts type		Test voltage (kV rms)	Test voltage (kV dc)	Rated current (A)
								Solder	Crimp			
	868 878	1	50 75	B B	6 3-5	4 44	3.0 0.9	●	○	0.80	1.15	35 6
	850 870	2	50 75	B B	6 3-5	10	0.9	○	●	1.40	2.00	8
	856 876	2	50 75	B B	6 3-5	16	0.9	○	●	1.40	2.00	7
	857 877	2	50 75	B B	6 3-5	2 15	2.0 0.9	○ ○	● ●	1.40 1.40	2.00 2.00	30 7
	864	2	75	B0	1-6	24	1.3	●	○	0.90	1.30	8
	273	3	75	B1	5	—	—	—	—	—	—	—
	274	4	75	B1	5	—	—	—	—	—	—	—
	892	6	75	D	5-8-9	10	0.9	●	○	0.70	1.00	7
	260	7	75	D	5-8-9	—	—	—	—	—	—	—
	240	10	50	C	1-2-3	—	—	—	—	—	—	—

Note: ¹⁾ see coax, triax and hybrid catalogue.

● First choice alternative ○ Special order alternative

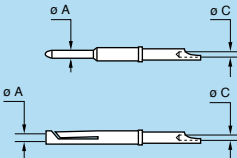
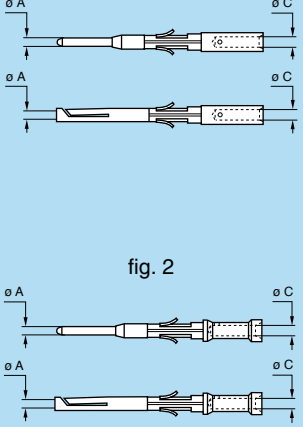
Insulators

Ref.	Material	Contact type	Remarks
Y	PEEK	Crimp	extended design, with contacts that recess into insulator
L	PEEK	Solder or print	

Note: detailed characteristics of these materials are presented in the Unipole/Multipole catalogue.

Contacts

Contacts reference for plugs, free or fixed sockets

Contact type	Reference		Contact			Conductor						F _r ¹⁾ (N)	Notes
	Male	Female	ø A (mm)	ø C (mm)	Form per fig.	Solid		Stranded					
						AWG max.	Section max. (mm ²)	AWG		Section (mm ²)			
								min.	max.	min.	max.		
Solder 	A	L	0.5	0.45	—	28	0.09	—	28	—	0.09	—	●
			0.7	0.80	—	22	0.34	—	22 ²⁾	—	0.34	—	
			0.9	0.80	—	22	0.34	—	22 ²⁾	—	0.34	—	
			1.3	1.00	—	20	0.50	—	20 ²⁾	—	0.50	—	
			1.6	1.40	—	16	1.00	—	18	—	1.00	—	
			2.0	1.80	—	14	1.50	—	16	—	1.50	—	
			3.0	2.70	—	10	4.00	—	12	—	4.00	—	
			4.0	3.70	—	10	6.00	—	10	—	6.00	—	
			6.0	5.20	—	—	—	—	8	—	10.00	—	
Crimp 	C	M	0.7	0.80	1	—	—	26	22 ²⁾	0.140	0.34	22	●
	B	P	0.7	0.45	2	—	—	32	28	0.035	0.09	22	○
	C	M	0.9	1.10	1	—	—	24	20	0.250	0.50	30	●
	B	P	0.9	0.80	2	—	—	26	22 ²⁾	0.140	0.34	30	○
	G	U	0.9	0.45	2	—	—	32	28	0.035	0.09	30	○
	C	M	1.3	1.40	1	—	—	20	18	0.500	1.00	40	●
	B	P	1.3	1.10	2	—	—	24	20	0.250	0.50	40	○
	G	U	1.3	0.80	2	—	—	26	22 ²⁾	0.140	0.34	40	○
	C	M	1.6	1.90	1	—	—	18	14 ²⁾	1.000	1.50	50	●
	B	P	1.6	1.40	2	—	—	22	18	0.340	1.00	50	○
	C	M	2.0	2.40	1	—	—	16	12 ²⁾	1.500	2.50	65	●
	B	P	2.0	1.90	2	—	—	18	14	1.000	1.50	65	○
	C	M	3.0	3.20	1	—	—	14	10 ²⁾	2.500	4.00	75	●
	C	M	4.0	4.00	1	—	—	12	10	4.000	6.00	90	●

Note:

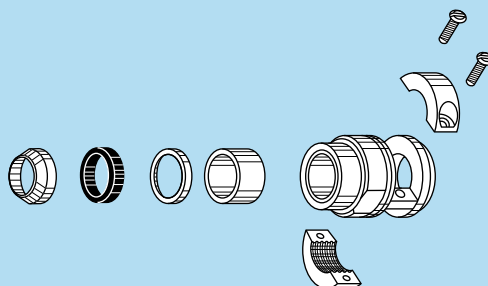
¹⁾ contact retention force in the insulator (according to IEC 60512-8 test 15 a).

²⁾ for a given AWG, the diameter of some stranded conductor designs is larger than the solder cup diameter. Make sure that the maximum conductor diameter is smaller than ø C.

● First choice alternative ○ Special order alternative



Collets



	Type	Cable ø (mm)	
		min.	max.
2N	Y80	7.6	8.0
	Y85	8.1	8.5
	Y90	8.6	9.0
	Y95	9.1	9.5
	Y10	9.6	10.5

	Type	Cable ø (mm)	
		min.	max.
3N	Y65	6.1	6.5
	Y70	6.6	7.0
	Y75	7.1	7.5
	Y80	7.6	8.0
	Y85	8.1	8.5
	Y90	8.6	9.0
	Y95	9.1	9.5
	Y10	9.6	10.5
	Y11	10.6	11.5
	Y12	11.6	12.5

	Type	Cable ø (mm)	
		min.	max.
4N	Y65	6.1	6.5
	Y70	6.6	7.0
	Y75	7.1	7.5
	Y80	7.6	8.0
	Y85	8.1	8.5
	Y90	8.6	9.0
	Y95	9.1	9.5
	Y10	9.6	10.5
	Y11	10.6	11.5
	Y12	11.6	12.5
	Y13	12.6	13.5
	Y14	13.6	14.5
	Y15	14.6	15.5
	Y16	15.6	16.5
	Y17	16.6	17.5

	Type	Cable ø (mm)	
		min.	max.
5N	Y95	9.1	9.5
	Y10	9.6	10.5
	Y11	10.6	11.5
	Y12	11.6	12.5
	Y13	12.6	13.5
	Y14	13.6	14.5
	Y15	14.6	15.5
	Y16	15.6	16.5
	Y17	16.6	17.5
	Y18	17.6	18.5
	Y19	18.6	19.5
	Y20	19.6	20.5
	Y21	20.6	21.5
	Y22	21.6	22.5
	Y23	22.6	23.5
	Y24	23.6	24.5
	Y25	24.6	25.5
	Y26	25.6	26.5
	Y27	26.6	27.5
	Y28	27.6	28.5
	Y30	28.6	30.0



Variant

Heatshrink boot

Ref.	Supplier part number	LEMO Part number	Ø as delivered (mm)	Length (mm)	Cable Ø (mm)
Y	Raychem® – WCSF-115-9/3-350/N	GMA.90.028.SN	9	28	2.9 to 7.3
	Raychem® – WCSF-300-28/8-350/N	GMA.91.028.SN	28	28	7.9 to 19
	Raychem® – WCSF-500-38/13-350/N	GMA.92.028.SN	38	28	14 to 32

Watertight and vacuumtight socket

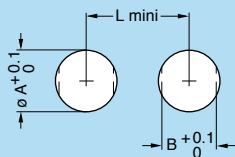
Ref.	Materials
PV	O-ring is in EPDM, potting is done with our standard solution and uses two compound Araldite. Other potting solutions available on request & based on your application (i.g rad-hard)

Tooling

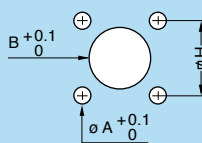
The tools for the crimp contacts are given in the Unipole/Multipole connectors catalogue.

Panel cut-outs

P1-P2



P3-P4



Series	P1			P2			P3			P4		
	$\varnothing A$	B	L	$\varnothing A$	B	L	$\varnothing A$	B	H	$\varnothing A$	B	H
2N	21.1	18.5	32	—	—	—	—	—	—	—	—	—
3N	24.2	22.5	37	30.2	28.6	45	3.3	24	27	—	—	—
4N	30.2	28.5	45	40.2	38.1	54	4.3	30	35	—	—	—
5N	45.2	42.5	58	55.2	52.1	69	5.3	45	46	5.3	45	46

Model	Type	Model	Type	Model	Type
AJG	P2	EDG	P3	HSY	P1
AJY	P2	EDU	P4	PBG	P3
ASG	P1	EDY	P3		
ASY	P1	HSG	P1		

Technical characteristics of plastic materials

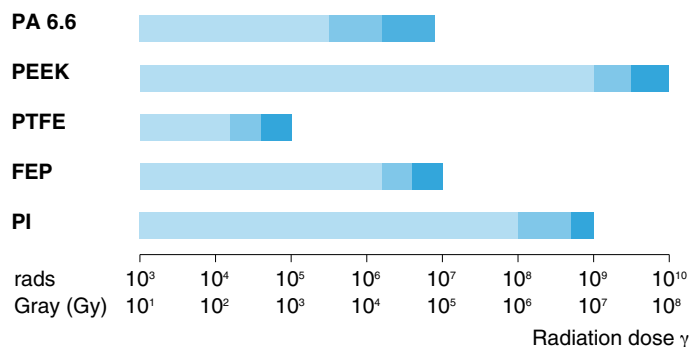
Type	Standard	Units	PEEK	EPDM	Epoxy
Density	ASTM D 792	g/cm ³	1.3-1.4	~1.13	1.58
Tensile strength (at 23°C)	ASTM D 638/ ISO R527	MPa	92-142	12-15	16
Flexural strength (at 23°C)	ASTM D 790/ ISO R178	MPa	170	–	24
Dielectric strength	ASTM D 149/IEC 60243	kV/mm	19-25	–	15
Volume resis. at 50% HR and 23°C	ASTM D 257/IEC 60093	Ω • cm	10 ¹⁶	10 ¹⁶	10 ¹⁴
Surface resistivity	ASTM D 257	Ω	10 ¹⁵	–	–
Thermal conductivity	ASTM C 177	W/K • m	0.25	0.15-0.26	0.8
Comparative tracking index	IEC 60112	V	CTI 150	–	CTI>600
Maxi. continuous service temperature	UL 746	°C	250	160	80
Min. continuous service temperature	UL 746	°C	-55	-40	-20
Max. short-time service temperature	–	°C	300	180	120
Water absorption in 24h at 23°C	ASTM D 570/ISO R62A	%	0.12	–	0.25
Radiation resistance	–	Gy ¹⁾	10 ⁷	8x10 ⁷	2x10 ⁶
Flammability rating	ASTM D 635/UL 94	–	V-0/1.5	–	V-0/4
Resistance to steam sterilization	–	–	excel.	excel.	bad

Notes: 1) 1 Gy (Gray) = 100 rad.

ASTM = American Society for Testing Material
ISO = International Standards Organisation

UL = Underwriters Laboratories
IEC = International Electrotechnical Commission

Radiation resistance



Damage

- Minimum to slight (almost available usable)
- Slight to medium (often satisfactory)
- Medium to serious (not usable)

Note

Note

Product safety notice

PLEASE READ AND FOLLOW ALL INSTRUCTIONS CAREFULLY AND CONSULT ALL RELEVANT 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 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.**

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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