Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!

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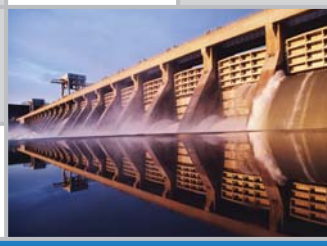
LEMO's Environmentally Sealed Connectors

K Series - Mechanical Keying

E Series - Hermaphroditic Keying

2005



Expect Success. Spec LEMO®.

A Global Leader

Since its beginning in Switzerland in 1946, LEMO® has evolved into a worldwide leader in the design and manufacture of circular connectors, with products sold in more than 80 countries.

Today, LEMO offers a product line for almost any application, from medical equipment to test and measurement instrumentation.

LEMO Means "Quality"

The name LEMO has become synonymous with quality and customer service in the connector industry, setting standards that others strive to meet. Our connectors are designed in an ISO 9001 business environment, ensuring the highest quality products for our customers.

LEMO – We Deliver Reliability

Ask for LEMO connectors for any application where quality, safety and ruggedness are essential; where reliability is critical or where connectors are frequently engaged and disengaged, even in the toughest environments.

LEMO Connectors offer a unique combination of benefits:

Original QUICK-LOK™ push-pull, self-latching system saves space and time while ensuring durable connections.

Precision construction from machined brass, stainless steel or aluminum ensures safety and uniform mating.

Gold plated contacts assure excellent electrical performance.

Collet-type strain relief securely grips circumference of any round cable, protecting connection even under extreme stress.

Bend relief option offers additional cable protection, including color-coding for easy identification.

Custom Design

If we don't have it, we'll build it. Although we offer the most extensive product line in the industry, we understand that some application needs are unique. If we don't have exactly what you need, LEMO will design and build a connector that's just right for your application.

Cable Assembly

Expand the quality of the connector to the cable assembly with our one-stop shop value-added service. LEMO's skilled technicians build and test assemblies to your specifications.

Customer Support

Customer Support when you need it. Only LEMO offers extended customer service hours so you get technical support when you need it. LEMO's Customer Support Team includes in-house Product Specialists, plus a nationwide network of sales representatives and distributors.

LEMO®

Table of Contents

LEMO's Product Line

● Connectors, accessories and tools found in this catalog.

Connectors

Single contact from 2 to 150 Amps
Coaxial 50 and 75 Ω
Coaxial 50 Ω (NIM-CAMAC)
Coaxial 50 Ω for frequency → 12 GHz
Multicoaxial 50 and 75 Ω
● Multicontact from 2 to 106 contacts
High Voltage 3, 5, 8, 10, 15, 30 and 50 kV cc
Multi High Voltage 3, 5, and 10 kV cc
Triaxial 50 and 75 Ω
Quadrax
● Mixed: High Voltage (HV) + Low Voltage (LV)
● Mixed: Coax + LV
● Mixed: Triax + LV
Thermocouple
Multithermocouple
Fiber optic singlemode
Fiber optic multimode
Mixed: fiber optic + LV
Mixed: fiber optic + coax + LV
Fluidic
Multifluidic
Mixed: fluidic + LV
Subminiature
Miniature
Plastic
● Printed circuit board
Remote handling
● Watertight
● Sealed (pressure and/or vacuum)
With plastic outer shell
● With aluminium outer shell
● With stainless steel outer shell
With special radiation resistant insulator material
With screw thread coupling for very high pressure
● With microswitch

Patch Panels

For audio-mono applications: triax
For audio-mono applications: 3 contacts
For audio-stereo applications: quadrax
For audio-stereo applications: 6 contacts
For video applications: coax 75 Ω

Patch Panels

For video HDTV applications: 3 coax 75 Ω + 2LV
For fiber optic applications

Adaptors

For BNC, C, UHF, N, CINCH, GEN-RADIO connectors
For TNC, SMA connectors

Accessories

● Insulator for crimp contacts
● Crimp contacts
● Coaxial contacts
Triaxial contacts
Fiber optic contacts
Fiber optic ferrules
● Caps and bend relief
● Heatshrink boot
● Insulating washers
Double plastic panel washers
● Locking washers
Tapered washers
● Hexagonal nuts
Conical nuts
● Round nuts
● Notched nuts
● Grounding washers
Lead-through with cable collet

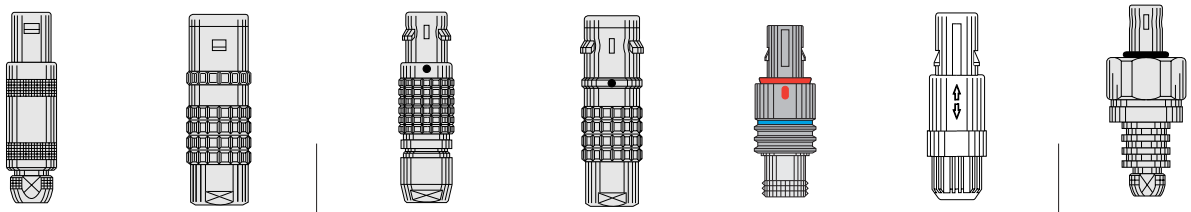
Tooling

● Wrenches
● Wrenches for assembling plug
Assembly tool
● Pliers
Tap
● Crimping tools
● Positioners
Crimping dies
● Banding Tool
● Extractors
● Insertion testing tool for crimp contacts
Fiber optic termination workstation
Fiber optic polishing tools

On request

Filtered connectors
Connectors with special alloy housing
Mixed special connectors
Assembly onto cable

Characteristics of Primary Series



Series	**STANDARD**	**WATERTIGHT**	**KEYED**	**KEYED WATERTIGHT**		**PLASTIC**	**SCREW**
	01 (Minax)	0E to 6E	00 (multicontact)	0K to 5K	FF to 5F	REDEL® 1P	03
	00 (NIM-CAMAC)	3T	0B to 5B	2N to 5N		REDEL® 2P	0V to 5V
	00 (single contact)	4M	2G/5G			REDEL® 3P	0W to 5W
	05 / R0	REDEL® F					2U to 5U
	0S to 6S						
	0A / 4A						
	1D / 2C						
	1Y-3Y-6Y						
Latching	Push-Pull						Screw
Key	Stepped insert (Half-Moon)		Key (G) or other key-way code		Key (G) or other key-way code	Key (G) or other key-way code	Key (G) or stepped insert (Half-Moon)
Shell	Metal or plastic	Metal	Metal or plastic	Metal	Metal	Plastic	Metal
Insert	Hermaphroditic or cylindrical		Cylindrical				Hermaphroditic or cylindrical
Contact	Solder or printed circuit		Solder, crimp or printed circuit				Solder (crimp or PC)

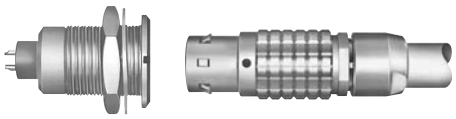
LEMO's Line of Series by Types

Note:

■ = included in this catalog
● = available but not included in this catalog.

	Series	Single contact	Coaxial 50 Ω	Coaxial 75 Ω	Multicontact	High Voltage	Triaxial 50 Ω	Triaxial 75 Ω	Quadrax	Multi HV	Multi Coaxial	Mixed HV+LV	Mixed Coax+LV	Mixed Triax+LV	Fiber Optic	Multi FO	Mixed FO+LV	Fluidic	Multi fluidic	Mixed fluidic+LV	Thermocouple
Hermaphroditic Keying	01		●																		
	00	●	●				●											●			
	05					●															
	R0		●																		
	0A		●	●																	
	0S	●	●		●	●	●														●
	1S	●	●	●	●	●	●														●
	2S	●	●	●	●	●	●	●				●									●
	3S	●	●	●	●	●	●	●		●		●	●								
	4S	●	●	●	●	●	●	●		●	●	●	●								
	5S	●	●	●	●					●	●	●	●								
	6S				●						●		●								
	1D								●												
	2C		●		●																
	4A							●													
	1Y-3Y-6Y					●															
Hermaphroditic Keying — Watertight	0E	■	■		■	■	■														●
	1E	■	■	■	■	■	■														●
	2E	■	■	■	■	■	■	■				■									●
	3E	■	■	■	■	■	■	■		■		■	■								
	4E	■	■	■	■		■	■				■	■								
	5E	■			■					■	■	■	■								
	6E				■						■		■								
	3T			●				●													
	4M						●	●													
Mechanical Keying	00				●										●						
	0B				●										●			●			●
	1B				●							●									●
	2B				●					●	●	●	●	●			●			●	●
	3B				●						●	●	●	●		●	●		●	●	
	4B				●					●	●	●	●	●		●	●		●	●	
	5B				●					●	●	●	●	●		●					
	2G				●																
	5G									●											
Mechanical Keying — Watertight	0K				■										●			■			●
	1K				■							■									●
	2K				■						■	■	■	■			●			■	●
	3K			■	■						■	■	■	■		●	●		■	■	
	4K				■					■	■	■	■	■		●	●		■	■	
	5K				■					■	■	■	■	■		●					
	0F to 5F				●																
	3N to 5N				●																
Plastic	1P to 3P				●								●	●				●			
Screw	03		●		●																
	0V	●	●		●		●													●	
	1V	●	●	●	●		●													●	
	2V	●	●	●	●		●	●				●								●	
	3V	●	●	●	●		●	●		●		●	●								
	4V	●	●	●	●		●	●				●	●								
	5V	●			●					●	●	●	●								
	0W to 5W				●						●	●	●	●			●			●	●
	2U to 5U				●										●	●	●				

QUICK-LOK™ Push-Pull Self-Latching System



LEMO's Original QUICK-LOK push-pull, 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, facilitates operation in a very limited space, and offers unique advantages for all applications:

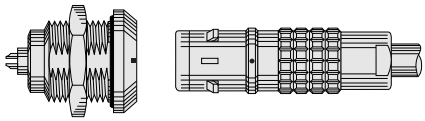
Speed – Engage connectors simply and quickly by pushing plugs axially into mating receptacles. Pull on outer shell to remove plug easily.

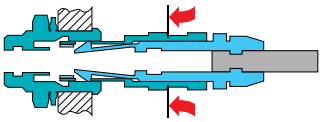
Space Savings – Just one finger clearance on two sides is needed to engage and disengage connectors, so there's no need to twist or turn a locking ring.

Reliability – Connections are reliable and assured when locking mechanism is engaged.

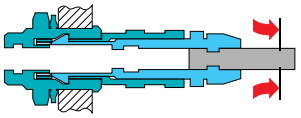
Ruggedness – Sturdy design, with sealed models to various IP levels.

How QUICK-LOK™ Works

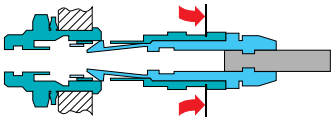




Engaging
QUICK-LOK allows the connector to be mated by simply pushing the plug straight into the receptacle.



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



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

Key:
Fv = average latching force.
Fd = average unmating force with axial pull on the outer release
Fa = average pull force with axial pull on the collet nut.

Latching Characteristics for K and E Series Connectors

Force (N)	Series					
	0K	1K	2K	3K	4K	5K
Fv	14	16	20	32	65	85
Fd	9	10	13	25	40	60
Fa	250	300	400	550	700	800

Force (N)	Series						
	0E	1E	2E	3E	4E	5E	6E
Fv	14	16	20	32	65	85	100
Fd	9	10	13	25	40	60	75
Fa	250	300	400	550	700	800	900

Notes: the forces were measured on outer shell not fitted with contacts. The mechanical endurance represents the number of cycles after which the latching system is still effective (1 cycle = 1 latching/unlatching – 300 cycles per hour).

Mechanical endurance: 5000 cycles.

The values were measured according to the standard MIL-STD-1344A method 2013.1.

1N = 0.102kg.

General Characteristics

Materials and Surface Treatment

Outer Shell

Brass

In most cases, LEMO connectors have a brass outer shell which is suitable for most general purpose applications, including civilian and military. The brass outer shells have a chrome nickel-plated surface which ensures very good protection against industrial atmosphere, salt air and most corrosive agents.

Alternative protective coatings are available to satisfy other specific environmental conditions:
Electrolytic nickel;
Nickel-gold; and
Nickel-black chrome. After the black chrome treatment, the part is coated with a protective organic film.

Other metallic components

In general, most metallic components are manufactured in brass. However, bronze or beryllium copper are used where good elasticity is required (for example: grounding crown). Depending upon the application, these parts have electrolytic nickel or nickel-gold plating.

These parts can also be manufactured in stainless steel.

Sealing gasket

In general, sealing gaskets are made of silicone rubber MQ/MVQ. However, for vacuum-tight receptacles and couplers, gaskets are made of fluorosilicone rubber (FPM).

Sealing resin

An epoxy resin is used to seal both watertight and vacuum-tight receptacle and coupler models.

Component	Material (Standard)	Surface treatment (µm)										Notes
		chrome			nickel		gold			black chr.		
		Cu	Ni	Cr	Cu	Ni	Cu	Ni	Au	Ni	Cr	
Outer shell, collet nut, conical nut or notched nut and oversized collet	Brass (UNS C 38500)	0.5	3	0.3	0.5	3	0.5	3	0.5	1	2	
	Stainless steel (AISI 303, 304 or 316L)	without treatment										
	Avional (AA 2007)	–	–	–	–	5	–	–	–	–	–	1)
	Aluminium alloy (AA 6012)	anodized										
	POM (Delrin® or Ertacetal®), Polyoxymethylene, black	–										2)
	PEEK, Polyether etherketone, beige	–										3)
	PSU (Udel®), Polysulfone, gray or white	–										4)
	PPSU (Radel®), Polyphenylsulfone, cream	–										4)
	PA.6 (Grilon®), Polyamid	–										5)
	PPS (Ryton®), Polyphenilene sulfide, brown	–										6)
Grounding crown	Bronze (UNS C 54400) or special brass	–	–	–	0.5	3	0.5	3	1.0	–	–	7)
	Beryllium Copper (UNS C 17300)	–	–	–	0.5	3	0.5	3	1.0	–	–	8)
	Stainless steel (AISI 416 or 316L)	without treatment										9)
Latch sleeve	Special brass	0.5	3	0.3	0.5	3	0.5	3	0.5	–	–	
	Stainless steel (AISI 416 or 316L)	without treatment										9)
Locking washer	Bronze (UNS C 52100)	–	–	–	0.5	3	0.5	3	0.5	–	–	
Hexagonal or round nut	Brass (UNS C 38500)											
	Stainless steel (AISI 303, 304 or 316L)	without treatment										10)
	Aluminium alloy (AA 6012)	anodized natural										10)
Other metallic components	Brass (UNS C 38500)	–	–	–	0.5	3	0.5	3	0.5	–	–	
	Stainless steel (AISI 303, 304 or 316L)	without treatment										
O-ring and gaskets	Silicone MQ/MVQ or FPM/FKM (Viton®)	–										11)
Sealing resin	Epoxy (Araldite® or Stycast®)	–										

Notes:
standards for surface treatment are as follows:
Chrome-plated: FS QQ-C-320B;
Nickel-plated: FS QQ-N-290A, or MIL-C-26074C;
Gold-plated: ISO 4523; and
Black chrome: MIL-C-14538C with a minimum of 10 µm of lacquer protection.

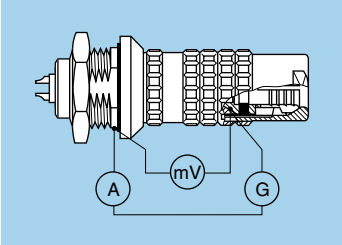
1) anthracite color (other colors upon request)
2) for FFP, PCP and ERN models of the 0S to 3S series
3) for FFP, PCP and ERN models of the 0S to 3S series and FGG and ENG models of the 1B, 3B and 4B series
4) for the FGY and ENY models of the 2B and 3B series
5) for bridge plugs of the B series
6) for S and B series elbow receptacles for printed circuits
7) gold-plating for single contact types
8) used in 00 series free and fixed receptacles and couplers
9) AISI 416 steel is used with shells made of AISI 303 or 304
10) delivered with free and fixed receptacles with aluminium alloy or stainless steel shell

Electrical Characteristics

Shell electrical continuity: (measured according to IEC 60512-2 test 2f)

Test current: 1A
A = Ammeter
mV = Millivoltmeter
G = Generator

Standard and Keyed watertight series



Series	R_1 (mΩ)	R_2 (mΩ)
0E-0K	2.8	1.6
1E-1K	2.2	1.5
2E-2K	1.8	1.2
3E-3K	1.6	1.2
4E-4K	1.4	1.0
5E-5K	1.4	1.0
6E	1.0	0.5

R_1 Values with grounding crown and latch sleeve or inner-sleeve nickel-plated.

R_2 Values with gold-plated grounding crown and nickel-plated latch sleeve or inner sleeve.

Electromagnetic compatibility (EMC) and shielding efficiency

The electromagnetic compatibility of a device can only be ensured by meeting a number of basic rules with the design of the device and by carefully selecting components, cables and connectors.

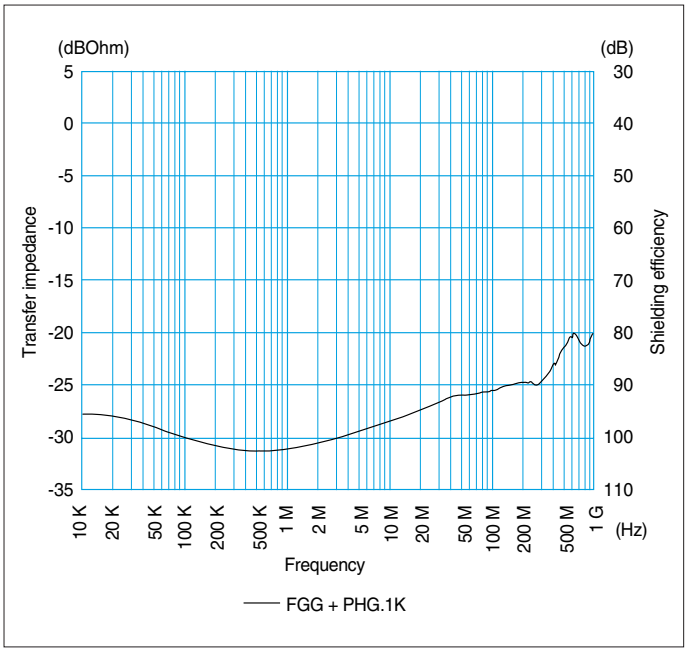
Electrical and electronic devices are to be designed to ensure the following:

a) Reduce the emission of generated electromagnetic interference to a level where radios and telecommunication and other devices can properly function;
b) Electromagnetic immunity against electromagnetic interference so that they can properly function.

When selecting a connector, screen or shielding efficiency and low resistance to electric continuity between the cable and the connector should be considered.

The design of LEMO connectors with metal shell and grounding crown guarantee optimum shielding efficiency in all applications where electromagnetic compatibility (EMC) is critical.

The performance of a connector is measured through shielding efficiency, a value that represents the ratio between the electromagnetic field on the outside and the inside of the shell. Our measurements are carried out according to the IEC 60169-1-3 standard.



The performance of K and E series connectors is comparable to the results of measurements carried out on a pair of FGG + PHG.1K connectors.

Insulator

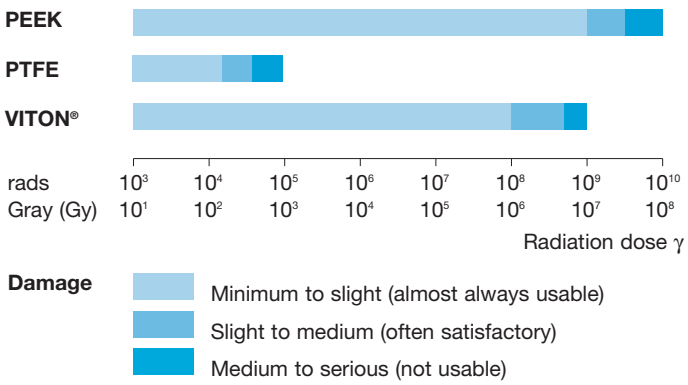
Plastic material used by LEMO for manufacturing insulators is selected according to the electric and thermal properties required for the various connector types. Characteristics examined for the two connector types are:

- Dielectric strength;
- Comparative tracking index;
- Surface and volume resistivity;
- Continuous service temperature;
- Water absorption;
- Radiation resistance;
- Flammability rating;
- Resistance to hydrocarbon.

Mechanical and Electrical Properties

LEMO uses PEEK (Polyether Etherketone) for the insulator material. The performance of this thermo-plastic material is enhanced by the addition of glass fibers in the resin to achieve very high mechanical strength, to increase dielectric strength and to reduce water absorption rate. The above features of PEEK, plus its excellent chemical and radiation resistance, make it ideal for most applications. Sealing grommets are molded from Viton®. Such polymer has inherently excellent electrical insulating properties which does not change when exposed to adverse environments.
Insulating resistance $>10^{12}\Omega$ (per MIL-STD-1344A method 3003.1).

Radiation resistance



Note: Technical data in this chapter provide general information on plastics used by LEMO as electrical insulators. LEMO reserves the right to propose new materials with better technical characteristics, and to withdraw, without notice, any material mentioned in the present catalog or any other publications edited by LEMO SA. and/or its subsidiaries. LEMO SA and its subsidiaries use only plastic granules, powder or bars supplied by specialized companies, and thus cannot in any case take responsibility with regard to this material.

Technical characteristics

Type	Standard	Units	POM	PEEK	PSU	PPSU	PPS	PA.6	Silicone	FPM	Epoxy
Density	ASTM D 792	–	1.4	1.3-1.4	1.24	1.3	1.67	1.14	~1.2	~1.9	1.58
Tensile strength (at 73.4° F)	ASTM D 638/ ISO R527	MPa	70-80	92-142	70	70	121	55	> 9	> 12	16
Flexurale strength (at 73.4° F)	ASTM D 790/ ISO R178	MPA	–	170	106	91	179	75	–	–	24
Dielectric strength	ASTM D 149/IEC 60243	kV/mm	60	19-25	17-20	15	17	35	18-30	–	15
Volume resis. at 50% HR and 73.4° F	ASTM D 257/IEC 60093	Ω • cm	10^{15}	10^{16}	$5x10^{16}$	–	10^{16}	10^{15}	10^{14}	–	10^{14}
Surface resistivity	ASTM D 257	Ω	10^{13}	10^{15}	–	–	–	–	–	–	–
Thermal conductivity	ASTM C 177	W/K • m	0.31	0.25	0.26	–	0.3	–	–	–	0.8
Comparative tracking index	IEC 60112	V	CTI 600	CTI 150	CTI 150	–	CTI 200	CTI 600	–	–	CTI>600
Maxi. continuous service temperature	UL 746	°F	194	482	284	356	428	176	392	392	176
Min. continuous service temperature	UL 746	°F	-58	-67	-76	-58	-106	-40	-58	-4	-4
Max. short-time service temperature	–	°F	284	572	320	392	482	302	> 482	572	248
Water absorption in 24h at 73.4° F	ASTM D 570/ISO R62A	%	0.85	0.12	0.3	0.37	< 0.05	> 3	–	–	0.25
Radiation resistance	–	Gy[1)]	$8x10^3$	10^7	10^5	–	$> 10^7$	$5x10^3$	10^5	$8x10^4$	$2x10^6$
Flammability rating	ASTM D 635/UL 94	–	HB	V-0/3.2	V-0/4.4	V-0/1.6	V-0/5V	V-2	–	–	V-0/4
Resistance to steam sterilization	–	–	bad	excel.	good	excel.	excel.	bad	good	good	bad

Notes: [1)] 1 Gy (Gray) = 100 rad

ASTM = American Society for Testing Material
ISO = International Standards Organization
UL = Underwriters Laboratories
IEC = International Electrotechnical Commission

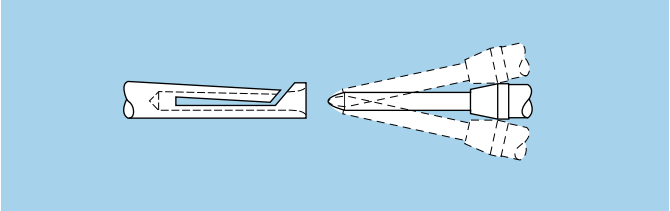
Note: Values of insulation resistance between contacts are given on page 9.

Electrical Contact

Technical Description

The secure reliable electromechanical connection achieved with LEMO female cylindrical contacts is mainly due to two important design features:

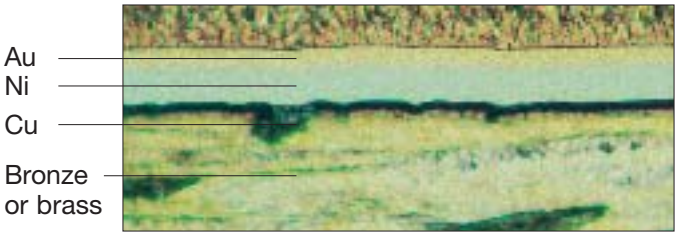
1. *Prod proof entry* on the mating side which ensures perfect concentric mating even with carelessly handled connectors; and
2. *The pressure spring*, with good elasticity, maintains a constant even force on the male contact when mated. The leading edge of the pressure spring preserves the surface treatment (gold-plated) and prevents undue wear.



Contact Material and Treatment

LEMO female contacts are made of bronze beryllium (QQ-C-530) or bronze (UNS C 54400). These materials are chosen because of their high modulus of elasticity, their excellent electrical conductivity and a high mechanical strength.

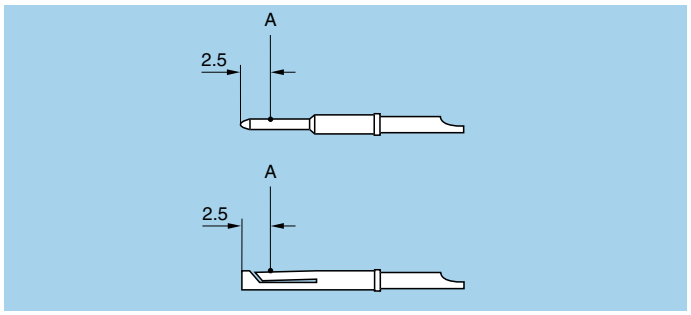
LEMO male solder and printed circuit contacts are made of brass (UNS C 38500). Male crimp contacts are made of brass (UNS C 34500) or annealed brass (UNS C 38500) with optimum hardness (HV) for crimping onto the wire.



Notes: The standard surface treatment are as follows:
Nickel: FS QQ-N-290A or MIL-C-26074C; and
Gold: ISO 4523.
1) Minimum value 2) For elbow printed circuit contacts
3) Treatment completed by 6 µm Sn-Pb tin-plating

Type	Material (standard)	Surf. treatment (µm)		
		Cu	Ni	Au[1)]
Male crimp	Brass (UNS C 34500)	0.5	3	1.0
	Brass (UNS C 38500)			
Male printed circuit	Brass (UNS C 38500)			
Female crimp	Bronze (UNS C 54400) Cu-Be (FS QQ-C-530)	0.5	3	1.5
Female printed circuit				
Clips	Cu-Be (FS QQ-C-530)	–	–	–
	Stainless steel			
Wire[2)]	Brass	–	3[3)]	–

Thickness comparison between the outside and the inside of female contacts



Note: A = inspection point

Contact ø A (mm)	Gold thickness		
	male (µm)	female	
		outside (µm)	inside (%)
0.5	1.0	1.5	65
0.7	1.0	1.5	70
0.9	1.0	1.5	75
1.3	1.0	1.5	75
1.6	1.0	1.5	75
2.0	1.0	1.5	75
3.0	1.0	1.5	75
4.0	1.0	1.5	75
5.0	1.0	1.5	75
6.0	1.0	1.5	75
8.0	1.0	1.5	75
12.0[1)]	–	–	–

Notes: 1) Contacts are silver plated.

Electrical Contact

Contact resistance with relation to the number of mating cyles

Maximum values measured after the mating cycles and the salt spray test according to IEC 60512-6 test 11f.

A ø (mm)	Contact resistance (mΩ)		
	1000 cycles	3000 cycles	5000 cycles
0.5	7.5	8.3	8.7
0.7	5.6	5.7	6.1
0.9	4.1	4.2	4.8
1.3	2.8	2.9	3.6
1.6	2.6	2.7	3.5
2.0	2.9	3.1	3.3

A ø (mm)	Contact resistance (mΩ)		
	1000 cycles	3000 cycles	5000 cycles
3.0	2.0	2.2	3.1
4.0	1.6	2.0	2.8
5.0	1.4	–	–
6.0	1.2	–	–
8.0	0.8	–	–
12.0	0.7	–	–

(measured according to IEC 60512-2 test 2a)

Insulation resistance between the contacts and contact/shell

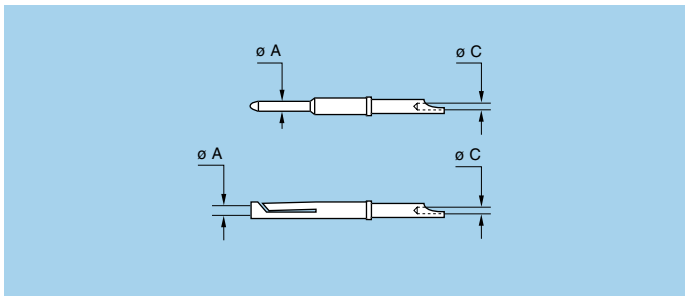
(measured according to IEC 60512-2 test 3a)

Insulating material	Multicontact	Single contact
	PEEK	PTFE
new	> 10^{12} Ω	> 10^{12} Ω
after humidity test[1)]	> 10^{10} Ω	> 10^{10} Ω

Note:
[1)] 21 days at 95% RH according to IEC 60068-2-3.

Solder Contacts

The conductor bucket of these contacts is machined at an angle to form a cup into which the solder can flow.



Note:
[1)] For E series
[2)] For 00 multicontact series
[3)] 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.

Contact		Conductor			
		Solid		Stranded	
ø A (mm)	ø C (mm)	AWG max.	Section max (mm^2)	AWG max.	Section max (mm^2)
0.5[2)]	0.40[2)]	28	0.09	30	0.05
0.5	0.45	28	0.09	28	0.09
0.7[1)]	0.60[1)]	24	0.25	26	0.14
0.7	0.80	22	0.34	22[3)]	0.34
0.9	0.80	22	0.34	22[3)]	0.34
1.3	1.00	20	0.50	20[3)]	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
5.0	5.20	–	–	8	10.00
6.0	5.20	–	–	8	10.00
8.0	7.00	–	–	4	16.00
12.0	6.20	–	–	6	16.00

Electrical Contact

Crimp Contacts

The square form crimp method is used (MIL-C-22520F, class I, type 2) photo 1 for single contact contacts.

For multicontact contacts the standard four-identer crimp method is used, (MIL-C-22520F, class I, type 1), photo 2. The crimp method requires a controlled compression to obtain a symmetrical deformation of the conductor strand and of the contact material. The radial hole in the side of the contact makes it possible to check whether the conductor is correctly positioned within the contact. A good crimping is characterized by only slightly reduced conductor section and practically no gap.

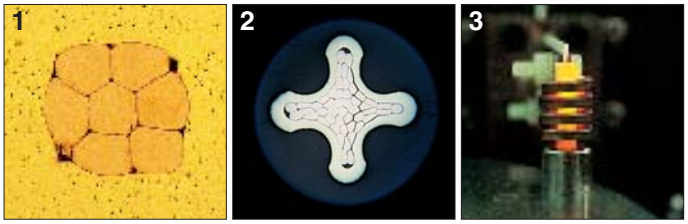
For optimum crimping of bronze or brass contacts they are annealed to relieve internal stress and reduce material hardening during the crimping process.

Only the crimping zone is annealed with the help of an induction heating machine designed by the LEMO Research and Development Department (see photo 3).

Advantages of crimping

- practical, quick contact fixing outside the insulator
- possible use at high temperature
- no risk of heating the insulator during the conductor-contact fixing
- high tensile strength

Crimp contacts are available in standard version (figure 1) for mounting maximum size conductors.
For some dimensions, these crimp contacts can be produced with reduced crimp barrels (figure 2) for mounting reduced size conductors.



Contacts are provided in two forms: with a standard crimp barrel for large conductors (see fig. 1), or with a reduced crimp barrel for smaller conductors (see fig. 2).

A detailed range of conductor dimensions that can be crimped into our contacts is given on the table below.

Fig. 1

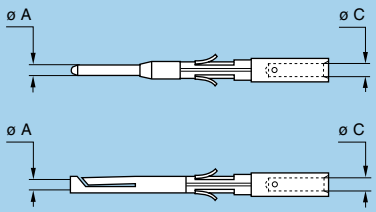
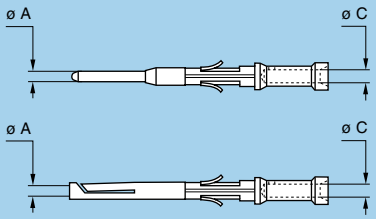


Fig. 2



Note: 1) 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.

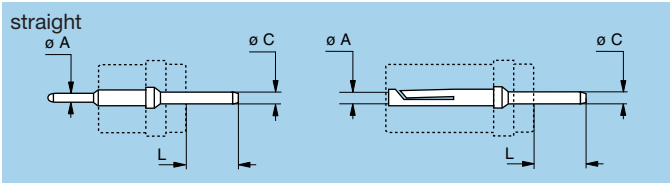
Contact			Conductor stranded				F_r (N)
ø A (mm)	ø C (mm)	Form per fig.	AWG stranded min.	AWG stranded max.	Section (mm²) min.	Section (mm²) max.	
0.5	0.45	1	32	28	0.035	0.09	12
0.7	0.80	1	26	22[1)]	0.140	0.34	22
	0.45	2	32	28	0.035	0.09	
0.9	1.10	1	24	20	0.250	0.50	30
	0.80	2	26	22[1)]	0.140	0.34	
	0.45	2	32	28	0.035	0.09	
1.3	1.40	1	20	18	0.500	1.00	40
	1.10	2	24	20	0.250	0.50	
	0.80	2	26	22[1)]	0.140	0.34	
1.6	1.90	1	18	14[1)]	1.000	1.50	50
	1.40	2	22	18	0.340	1.00	
2.0	2.40	1	16	12[1)]	1.500	2.50	65
	1.90	2	18	14	1.000	1.50	
3.0	2.90	1	14	10[1)]	2.500	4.00	75
4.0	4.00	1	12	10	4.000	6.00	90

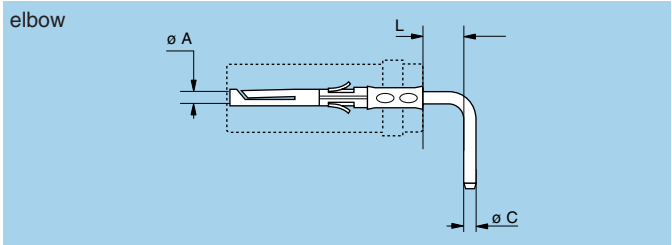
Note: Fr = mean contact retention force in the insulator (according to IEC 60512-8 test 15a).

Printed Circuit Contacts

Printed circuit contacts are available in straight or elbow versions for certain connector types, mostly for straight and elbow receptacle models. Connection is made on flexible or rigid printed circuits by soldering.

Printed circuit contacts are gold-plated which guarantees optimum soldering, even after long-term storage. However for wave soldering, we recommend removal of the gold-plating from the contact end on the printed circuit side before soldering according to the assembly procedures.





Electrical Contact

Test Voltage

Test voltage (Ue):
(measured according to the IEC 60512-2 test 4a standard).

It corresponds to 75% of the mean breakdown voltage. Test voltage is applied at 500 V/s and the test duration is one minute.

This test has been carried out with a mated plug and receptacle, with power supply only on the plug end.

Operating voltage (Us):
It is proposed according to the following ratio: $Us = \frac{Ue}{3}$

Caution:
For a number of applications, safety requirements for electrical appliances are more severe with regard to operating voltage.

In such cases operating voltage is defined according to creepage distance and air clearance between live parts.

Please consult us for the choice of a connector by indicating the safety standard to be met by the product.

Voltage values are given in the table on insulator types for each series corresponding with values measured at sea level and are adapted to all applications up to an altitude of 2000 m.

In case a device is used at a higher altitude, air clearance between live parts has to be multiplied by the following coefficients:
(Test voltage also has to be divided by this coefficient).

altitude (m)	coefficient
2000	1.00
3000	1.14
4000	1.29
5000	1.48

Rated Current

(measured according to IEC 60512-3 test 5a).

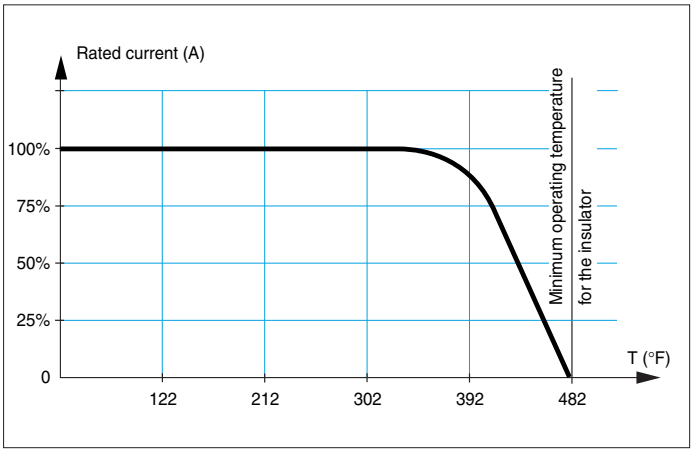
The specified rated current can be applied simultaneously to all the contacts, corresponding with an average temperature rise of 104° F of the connector.

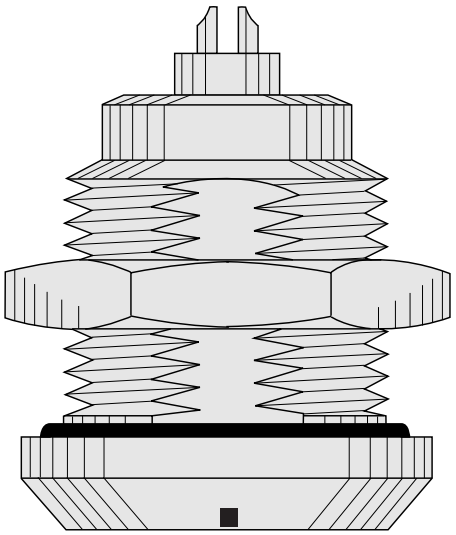
The current values are indicated in the table of insulator types in each series. For use at higher temperatures, acceptable rated current will be lower. It tends towards zero as the material is used at the maximum operating temperature accepted for the insulator.

In most cases, the current depends on the conductor dimension, or on the printed circuit dimension.

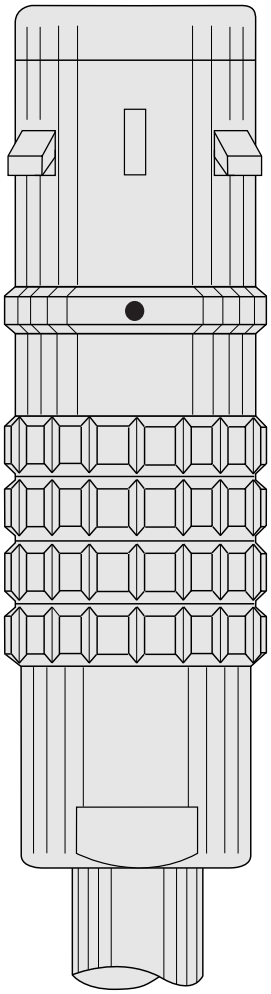
Caution:
In general, connectors should not be unmated while live.

For connectors with PEEK insulator, maximum admissible current will follow the curve below depending on the operating temperature T.





• K Series Connectors



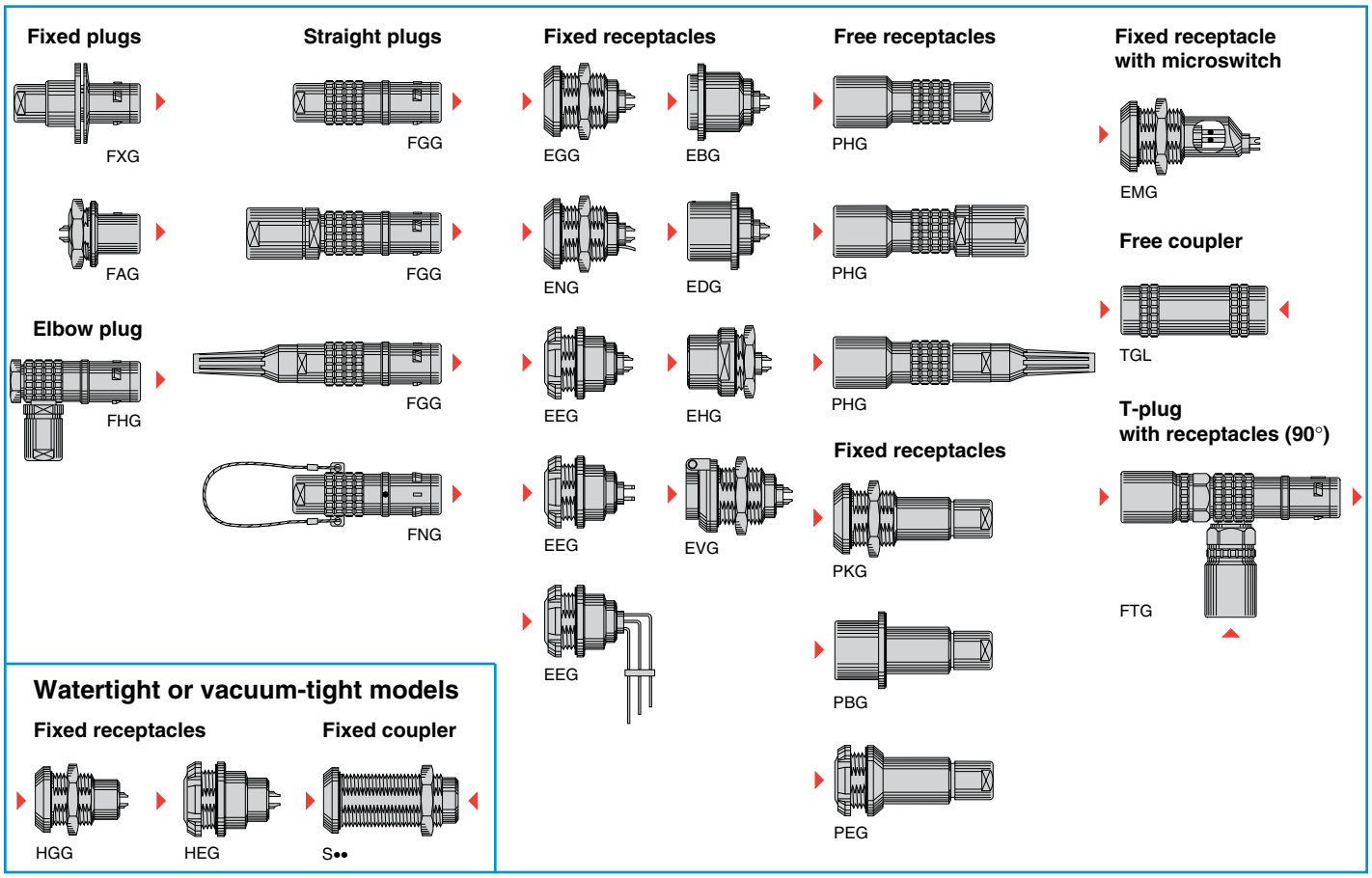
K Series Connectors

K series connectors have been specifically designed for outdoor applications.

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

K series connectors have the same insulators as the B series and have the following main features:
– security of the Push-Pull latching system
– watertight connection (IP 68/IP 66)
– multicontact types 2 to 64 contacts
– hybrid types (multicontact, high voltage, low voltage, coaxial)
– solder, crimp or printed circuit (straight or elbow) contacts
– keying system («G» key standard) for connector alignment
– multiple key options to avoid cross mating of similar connectors
– high packing density for space savings
– 360° screening for full EMC shielding
– rugged housing for extreme working conditions.

Interconnections



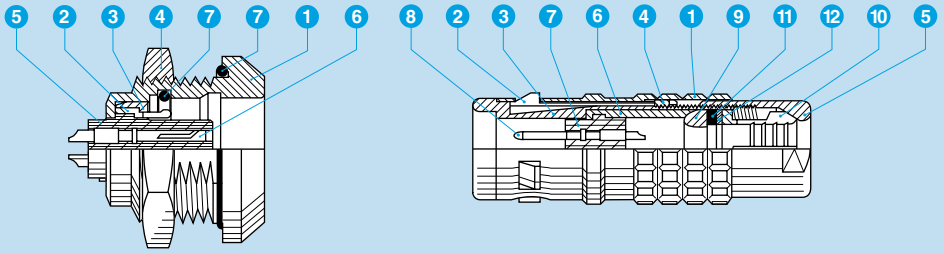
Model Description

EBG Fixed receptacle with square flange, key (G) or keys (A to F, L and R), screw fixing
EDG Fixed receptacle with square flange, key (G) or keys (A to F, L and R), protruding shell and grounding tab, screw fixing
EEG Fixed receptacle, nut fixing, key (G) or keys (A to F, L and R), (back panel mounting)
EEG Fixed receptacle, nut fixing, key (G) or keys (A to F, L and R) with straight printed circuit contacts for printed circuit (back panel mounting)
EEG Fixed receptacle, nut fixing, key (G) or keys (A to F and R) with elbow (90°) contacts for printed circuit (back panel mounting)
EGG Fixed receptacle, nut fixing, key (G) or keys (A to F, L and R)
EHG Fixed receptacle, nut fixing, key (G) or keys (A to F and L), protruding shell
EMG Fixed receptacle, nut fixing, with microswitch, key (G) or keys (A to F and L)
ENG Fixed receptacle, nut fixing, key (G) or keys (A to F, L and R) and grounding tab
EVG Fixed receptacle, nut fixing, key (G) or keys (A to F and L) and dust cap (spring loaded)
FAG Fixed plug, nut fixing, non-latching, key (G) or keys (A to F, L and R)
FGG Straight plug, key (G) or keys (A to F, L and R), cable collet
FGG Straight plug, key (G) or keys (A to F, L and R), cable collet and oversize cable collet
FGG Straight plug, key (G) or keys (A to F, L and R), cable collet and nut for fitting a bend relief
FHG Elbow (90°) plug, key (G) or keys (A to F, L and R), cable collet
FNG Straight plug, key (G) or keys (A to F and L), cable collet and lanyard release
FTG T-plug, key (G) with receptacles (90°), key (G)
FXG Fixed plug with round flange, key (G) or keys (A to F, L and R), screw fixing
HEG Fixed receptacle, nut fixing, key (G) or keys (A to F and L), watertight or vacuum-tight (back panel mounting)
HGG Fixed receptacle, nut fixing, key (G) or keys (A to F and L), watertight or vacuum-tight
PBG Fixed receptacle, key (G) with square flange, cable collet, screw fixing
PEG Fixed receptacle, nut fixing, key (G) or keys (A to F, L and R), cable collet (back panel mounting)
PHG Free receptacle, key (G) or keys (A to F, L and R), cable collet
PHG Free receptacle, key (G) or keys (A to F, L and R), cable collet and oversize cable collet
PHG Free receptacle, key (G) or keys (A to F, L and R), cable collet and nut for fitting a bend relief
PKG Fixed receptacle, nut fixing, key (G) or keys (A to F, L and R), cable collet
S•• Fixed coupler, nut fixing, key (G) or keys (L) at the flange end, and key (G) or keys (C or L) at the other end, watertight or vacuum-tight
TGL Free coupler, key (G) on one side and keys (L) on the other

Part Section Showing Internal Components

Fixed receptacle

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



Straight plug

1. outer shell
2. latch sleeve
3. inner shell
4. retaining ring
5. collet nut
6. split insert carrier
7. insulator
8. male contact
9. grounding cone
10. collet
11. gasket
12. washer

Technical Characteristics

Mechanical and Climatic

Characteristics	Value	Standard
Endurance	> 5000 cycles	IEC 60512-5 test 9a
Humidity	up to 95% at 140° F	
Temperature range[1) 2)]	-58° F, +392° F	
Resistance to vibrations	10-2000 Hz, 15 g	IEC 60512-4 test 6d
Shock resistance	100 g, 6 ms	IEC 60512-4 test 6c
Salt spray corrosion test	> 144h	IEC 60512-6 test 11f
Protection index (mated)	IP 68/IP 66	IEC 60529
Climatic category[1)]	50/175/21	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:
The various tests have been carried out with FGG and EGG connector pairs, with chrome-plated brass shell, PEEK insulator and silicone O-ring.
Detailed electrical characteristics, as well as materials and treatment are presented on page 6.

1) For watertight or vacuum-tight models see page 25.
2) Minimum operating temperature is -4°F for receptacles fitted with an FPM (Viton) O-ring.

Available Models (series and types)

Model	Multicontact					
	0K	1K	2K	3K	4K	5K
EBG				●	●	●
EDG				●		
EEG	●	●	●	●	●	
EEG 4)	●	●	●	●		
EGG	●	●	●	●	●	●
EHG		●	●			
EMG			●			
ENG				●		
EVG	●					

Model	Multicontact					
	0K	1K	2K	3K	4K	5K
FAG			●	●	●	●
FGG	●	●	●	●	●	●
FGG 1)		●	●	●	●	
FGG 2)	●	●	●	●	●	
FHG	●	●	●	●	●	
FNG			●		●	
FTG			●			
FXG				●	●	●
HEG	●	●	●			

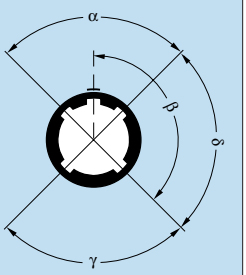
Model	Multicontact					
	0K	1K	2K	3K	4K	5K
HGG	●	●	●	●	●	●
PBG				●		
PEG	●	●	●	●		
PHG	●	●	●	●	●	●
PHG 1)		●	●	●	●	
PHG 2)	●	●	●	●	●	
PKG	●	●	●	●	●	●
S●●			●		●	●
TGL 3)				●		

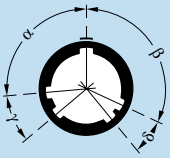
Note:
1) With oversize cable collet.
2) With nut for fitting a bend relief.
3) The TGL model is not available in all types. Please consult the page corresponding to this model.
4) With elbow (90°) printed circuit contacts.
● = available models by series and types

Alignment Key and Polarized Keying System

Part numbers for the keyed series are composed of three letters. The LAST LETTER indicates the key position and the contact type (male or female). For example, straight plugs with «G» key or A, B, C, D, E, F, R keys, are fitted with male contacts; whereas with L keys, plugs are fitted with female contacts.

Straight receptacles with «G» key or A, B, C, D, E, F, R keys, are fitted with female contacts; whereas with L keys, receptacles are fitted with male contacts.

Front view of a receptacle	Model	# of keys	Angles	Series 0K	1K	2K	3K	4K	5K	Contact type: Plug	Receptacle	Coupler 1)	Note
	●●G	1		0°	0°	0°	0°	0°	0°	male	female	female-male	■
	●●A	2	α	30°	30°	30°	30°	30°	30°	male	female	female-male	■
	●●B	2	α	45°	45°	45°	45°	45°	45°	male	female	female-male	■
	●●C	2	α	60°	60°	60°	60°	60°	60°	male	female	female-male	■
	●●D	2	γ	95°	95°	95°	95°	95°	95°	male	female	female-male	□
	●●E	2	β	120°	120°	120°	120°	120°	120°	male	female	female-male	□
	●●F	2	β	145°	145°	145°	145°	145°	145°	male	female	female-male	□
	●●L	2	γ	75°	75°	75°	75°	75°	75°	female	male	male-female	□

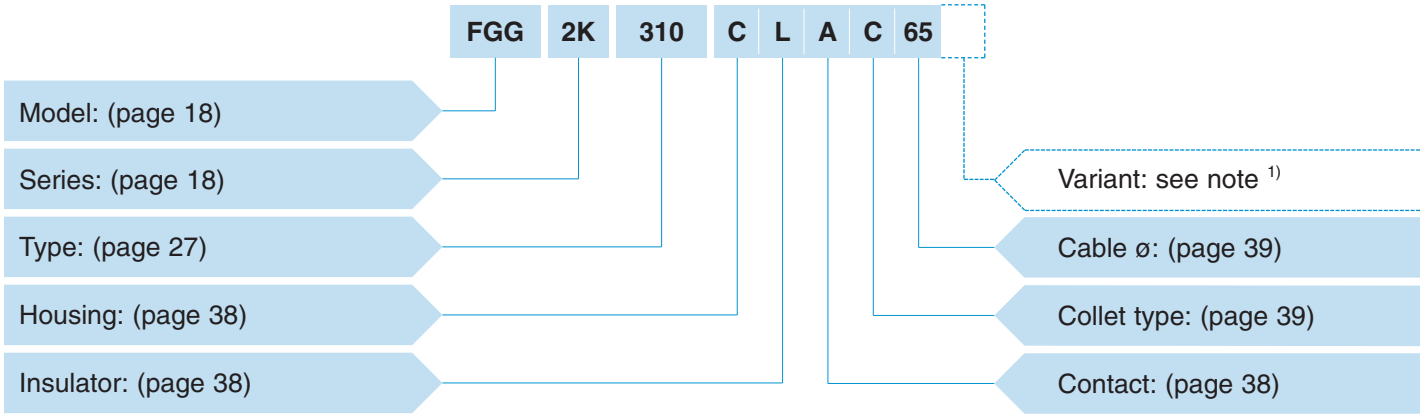
Front view of a receptacle	Model	# of keys	Angles	Series 0K	1K	2K	3K	4K	5K	Contact type: Plug	Receptacle	Coupler 1)	Note
	●●R	5	α	–	–	–	95°	–	–	male	female	female-male	■
			β	–	–	–	115°	–	–				
			γ	–	–	–	35°	–	–				
			δ	–	–	–	25°	–	–				

Note:
S●● and TGL models are not available with all the keys.
For S●● models see explanation on page 26.
Please consult the pages corresponding to these models.
1) The first contact type mentioned is always the one at the flange end.

■ First choice alternative □ Special order alternative

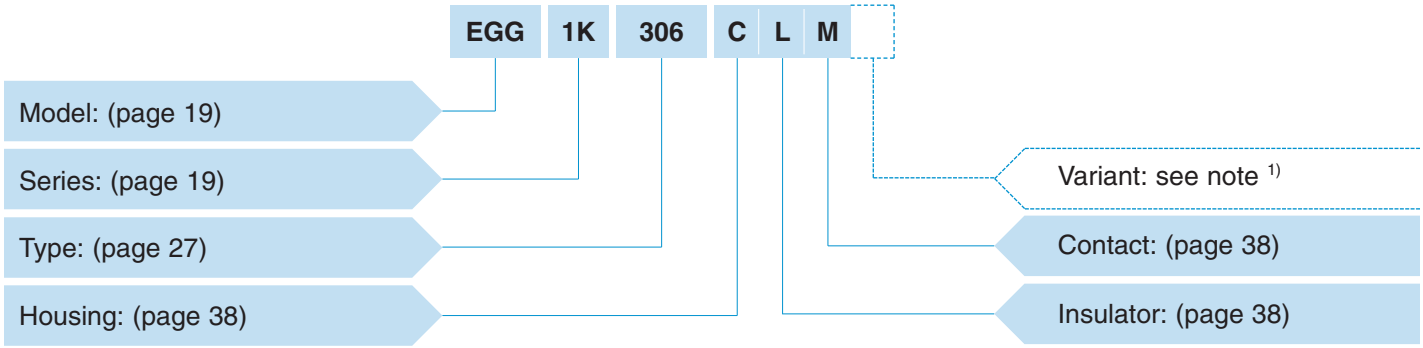
Part Number Example

Straight plug with cable collet



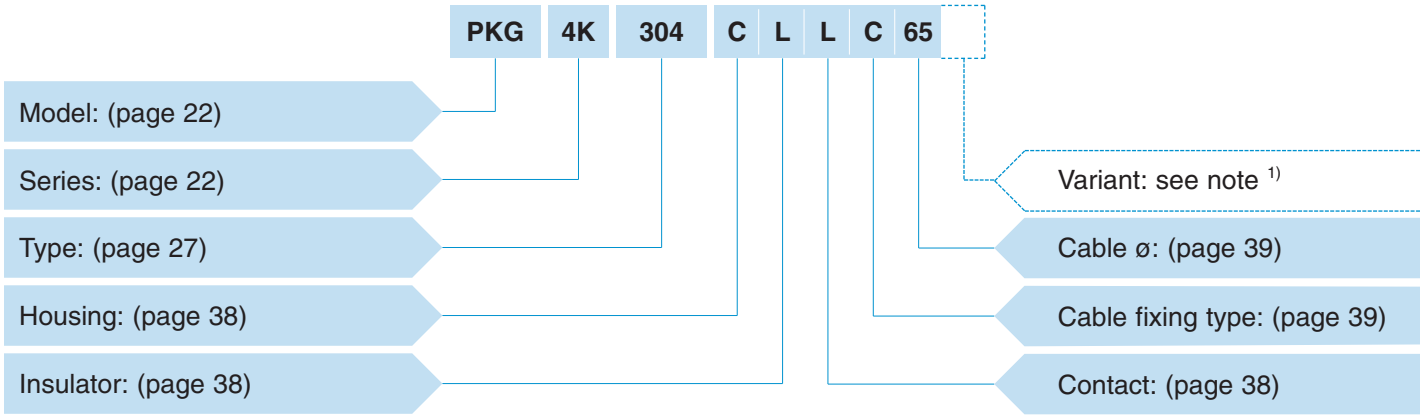
FGG.2K.310.CLAC65 = straight plug with key (G) and cable collet, 2K series, multicontact type with 10 contacts, outer shell in chrome-plated brass, PEEK insulator, male solder contacts, C type collet for 6.5 mm diameter cable.

Fixed receptacle



EGG.1K.306.CLM = fixed receptacle, nut fixing, with key (G), 1K series, multicontact type with 6 contacts, outer shell in chrome-plated brass, PEEK insulator, female crimp contacts.

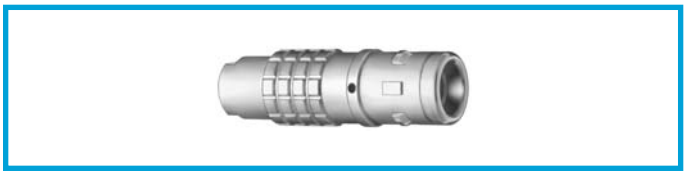
Straight receptacle

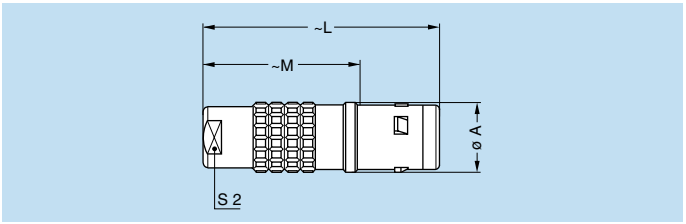


PKG.4K.304.CLLC65 = straight receptacle, nut fixing, with key (G), 4K series, multicontact type with 4 contacts, outer shell in chrome-plated brass, PEEK insulator, female solder contacts, C type collet for 6.5 mm diameter cable.

Note: 1) The «Variant» position in the reference is used to specify either the presence of a collet nut for fitting the bend relief or the anodized color of the housing in aluminium alloy.
For models with collet nut for fitting the bend relief, a «Z» should be indicated and a bend relief can be ordered separately as indicated in the «Accessories» section. An order for a connector with bend relief should thus include two part numbers.
For the various housings available in colors, the corresponding letter in the part number for the color is indicated on page 81.
For the watertight models of receptacle, the letter «P» is used; for the vacuum-tight models of receptacle the letters «PV» shall be indicated.
For the plug and receptacle that should be fitted with an FPM (Viton) O-ring the letter «H» shall be indicated.

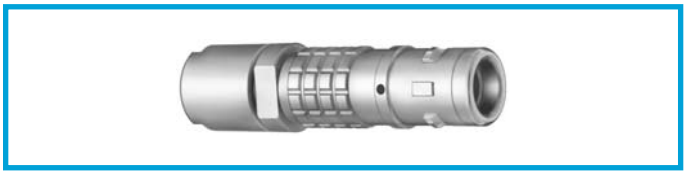
Models

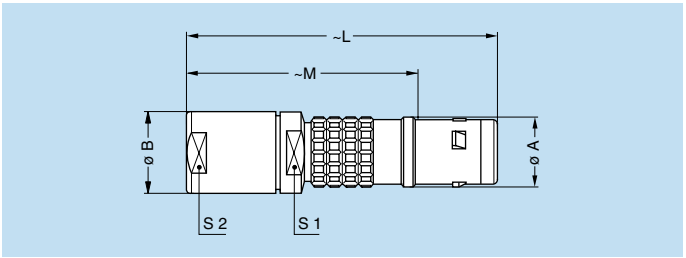




FGG Straight plug, key (G) or keys (A to F, L and R), cable collet

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

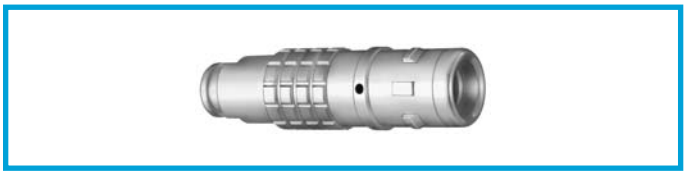


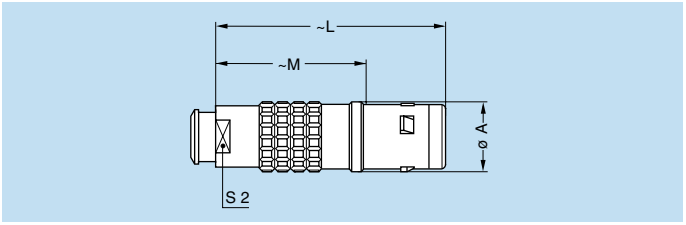


FGG Straight plug, key (G) or keys (A to F, L and R), and oversize cable collet

Reference		Dimensions (mm)						Availability
Model	Series	A	B	L	M	S1	S2	
FGG	1K	13	14.5	55	41.0	12	12	○
FGG	2K	16	17.0	65	49.0	15	15	○
FGG	3K	19	22.0	80	60.0	19	19	○
FGG	4K	25	36.0	107	86.0	30	32	○

Note: 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.

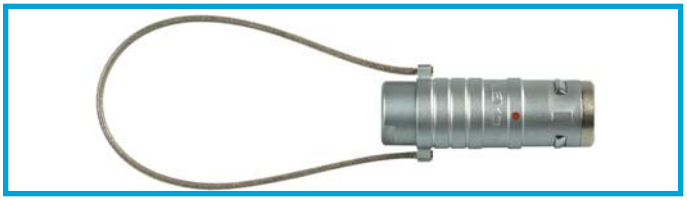


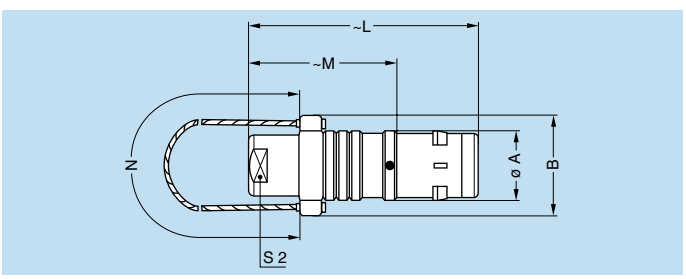


FGG Straight plug, key (G) or keys (A to F, L and R), cable collet and nut for fitting a bend relief

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

Note: The bend relief must be ordered separately (see page 91).



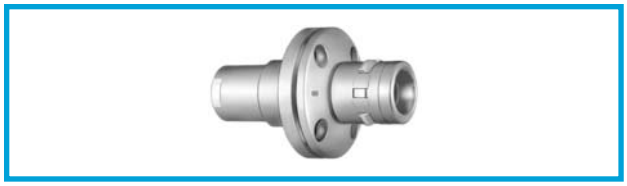


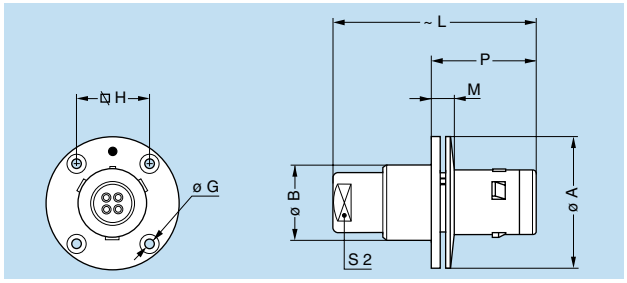
FNG Straight plug, key (G) or keys (A to F and L), cable collet and lanyard release

Reference		Dimensions (mm)						Availability
Model	Series	A	B	L	M	N	S2	
FNG	2K	16	23.6	52	36.0	160	12	○
FNG	4K	25	35.2	71	50.5	230	19	○

Note: Cable material – stainless steel with PVC sheath.

● Standard, typically 0-6 weeks delivery for quantities of 250 or less.
○ Non-standard product, contact LEMO USA, typically 6-12 weeks delivery for quantities of 250 or less.
Non-standard product is defined as any product which contains one or more components which are not standard.



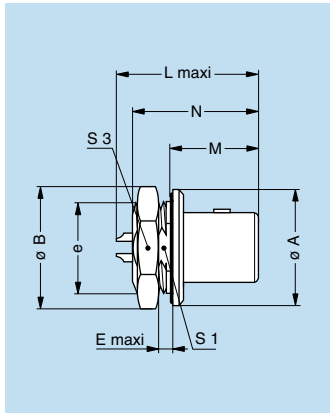


FXG Fixed plug with round flange, key (G) or keys (A to F, L and R) and screw fixing

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

Panel cut-out: **P6**

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

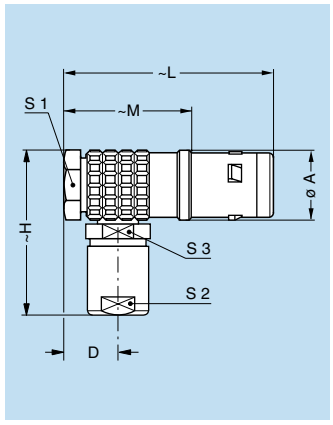


FAG Fixed plug, nut fixing, non-latching, key (G) or keys (A to F, L and R)

Reference		Dimensions (mm)								Availability
Model	Series	A	B	e	E	L	M	N[1)]	S1	S3	
FAG	2K	25	27.5	M20x1.0	4.5	28.2	18.0	28.3	18.5	24	○
FAG	3K	31	34.5	M24x1.0	4.0	34.3	22.5	33.8	22.5	30	○
FAG	4K	37	41.5	M30x1.0	4.0	35.3	23.0	36.3	28.5	36	○
FAG	5K	55	54.0	M45x1.5	4.0	43.5	28.5	42.3	42.5	–	○

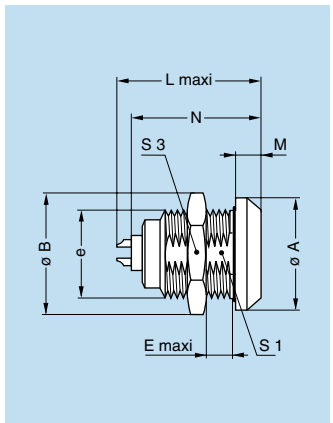
Panel cut-out: **P1**

Note: [1)] Maximum length with crimp contacts.



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

Reference		Dimensions (mm)								Availability
Model	Series	A	D	H	L	M	S1	S2	S3	
FHG	0K	11.5	7.6	27	36	25.0	10	8	8	○
FHG	1K	14.0	8.8	33	43	29.0	12	9	10	○
FHG	2K	17.5	10.5	40	51	35.0	15	12	13	○
FHG	3K	21.0	11.5	47	60	40.0	18	15	15	○
FHG	4K	27.5	15.5	57	72	51.5	24	19	20	○



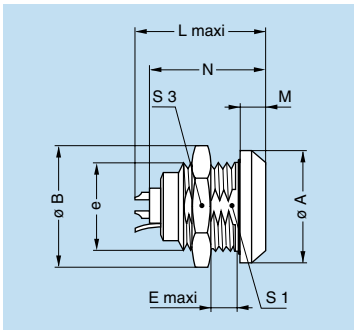
EGG Fixed receptacle, nut fixing, key (G) or keys (A to F, L and R)

Reference		Dimensions (mm)								Availability
Model	Series	A	B	e	E	L	M	N[1)]	S1	S3	
EGG	0K	18	19.5	M14x1.0	6	21.7	4.0	20.1	12.5	17	●
EGG	1K	20	21.5	M16x1.0	9	27.0	4.5	25.1	14.5	19	●
EGG	2K	25	27.5	M20x1.0	9	30.7	5.0	28.6	18.5	24	●
EGG	3K	31	34.5	M24x1.0	11	36.2	6.0	33.6	22.5	30	○
EGG	4K	37	40.5	M30x1.0	9	40.2	6.5	38.6	28.5	36	○
EGG	5K	55	54.0	M45x1.5	10	47.5	9.0	43.6	42.5	–	○

Panel cut-out: **P1**

Note: [1)] Maximum length with crimp contacts. The 5K series is delivered with a round nut.

● Standard, typically 0-6 weeks delivery for quantities of 250 or less.
○ Non-standard product, contact LEMO USA, typically 6-12 weeks delivery for quantities of 250 or less.
Non-standard product is defined as any product which contains one or more components which are not standard.

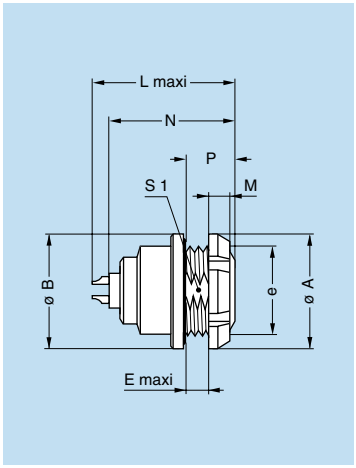


ENG Fixed receptacle, nut fixing, key (G) or keys (A to F, L and R) and grounding tab

Reference		Dimensions (mm)									Avail-ability
Model	Series	A	B	e	E	L	M	N[1)]	S1	S3	
ENG	3K	31	34.7	M24x1.0	11.3	36.2	6	33.6	22.5	30	○

Panel cut-out: **P1**

Note: 1) Maximum length with crimp contacts.

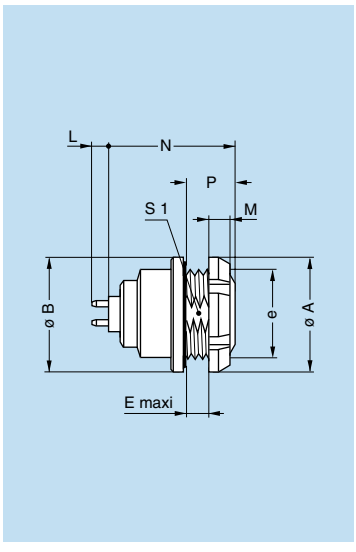


EEG Fixed receptacle, nut fixing, key (G) or keys (A to F, L and R)
(back panel mounting)

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

Panel cut-out: **P1**

Note: 1) Maximum length with crimp contacts.
The 3K and 4K series are delivered with a conical nut.



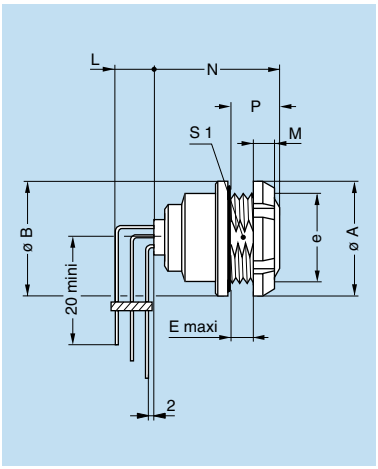
EEG Fixed receptacle, nut fixing, key (G) or keys (A to F and R) and straight contacts for printed circuit
(back panel mounting)

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

Panel cut-out: **P1** PCB drilling pattern: **P15**

Note: This contact type is available for E●● receptacle models fitted with female contact.
Length «L» depends on the number of contacts, see table page 106
The 3K and 4K series are delivered with a conical nut.

● Standard, typically 0-6 weeks delivery for quantities of 250 or less.
○ Non-standard product, contact LEMO USA, typically 6-12 weeks delivery for quantities of 250 or less.
Non-standard product is defined as any product which contains one or more components which are not standard.



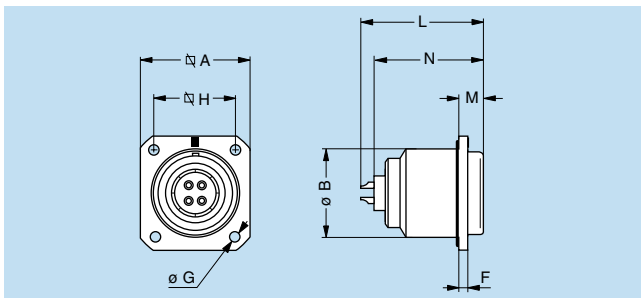
EEG Fixed receptacle, nut fixing, key (G) or keys (A to F and R) with elbow (90°) contacts for printed circuit (back panel mounting)

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

Panel cut-out: **P1**

PCB drilling pattern: **P17**

Note: Length «L» depends on the number of contacts, see PCB drilling pattern page 107.
The 3K series is delivered with a conical nut.

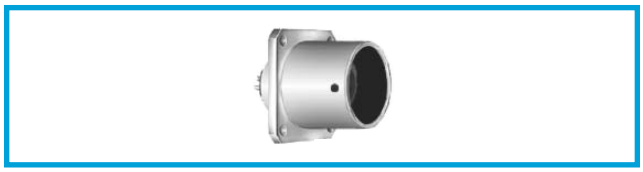


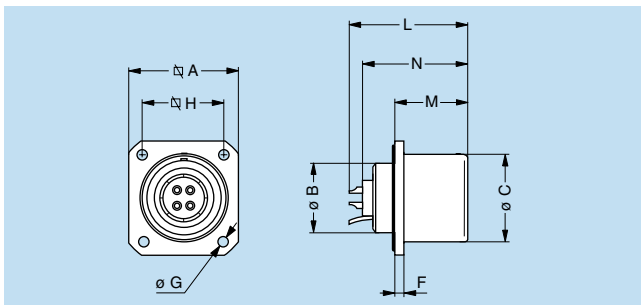
EBG Fixed receptacle with square flange, key (G) or keys (A to F, L and R) and screw fixing

Reference		Dimensions (mm)								Avail-ability
Model	Series	A	B	F	G	H	L	M	N[1)]	
EBG	3K	29	23	3	3.4	23	36.2	6.0	32.6	○
EBG	4K	37	30	3	3.4	29	40.2	6.5	36.6	○
EBG	5K	54	45	4	4.4	44	47.5	8.0	42.1	○

Panel cut-out: **P7**

Note: [1)] Maximum length with crimp contacts.



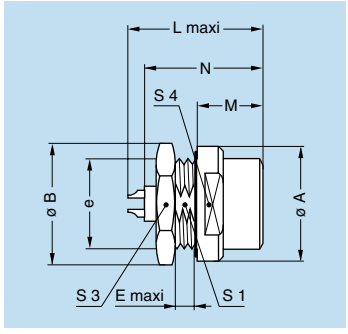


EDG Fixed receptacle with square flange, key (G) or keys (A to F, L and R), protruding shell and grounding tab, screw fixing

Reference		Dimensions (mm)									Avail-ability
Model	Series	A	B	C	F	G	H	L	M	N[1)]	
EDG	3K	29	18	23	3	3.4	23	36.2	22.5	32.6	○

Panel cut-out: **P7**

Note: [1)] Maximum length with crimp contacts.



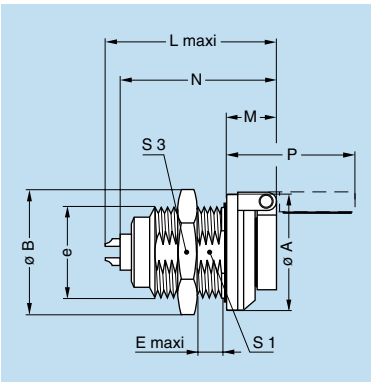
EHG Fixed receptacle, nut fixing, key (G) or keys (A to F and L), protruding shell

Reference		Dimensions (mm)										Avail-ability
Model	Series	A	B	e	E	L	M	N[1)]	S1	S3	S4	
EHG	1K	20	21.5	M16x1.0	1.5	27.0	15.5	25.1	14.5	19	17	○
EHG	2K	25	27.5	M20x1.0	1.5	30.7	17.0	27.1	18.5	24	20	○

Panel cut-out: **P1**

Note: [1)] Maximum length with crimp contacts.

● Standard, typically 0-6 weeks delivery for quantities of 250 or less.
○ Non-standard product, contact LEMO USA, typically 6-12 weeks delivery for quantities of 250 or less.
Non-standard product is defined as any product which contains one or more components which are not standard.

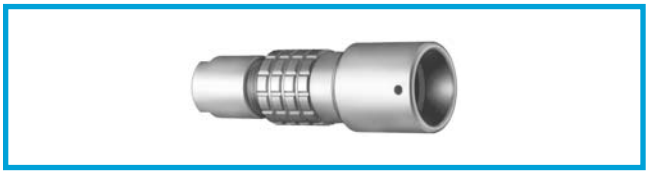


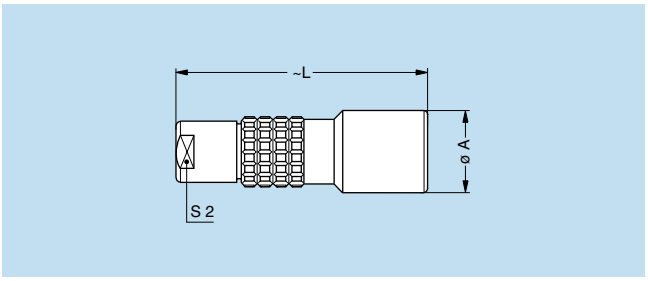
EVG Fixed receptacle, nut fixing, key (G) or keys (A to F and L) and dust cap (spring loaded)

Reference		Dimensions (mm)									Avail-ability
Model	Series	A	B	e	E	L	M	N[1)]	P	S1	S3	
EVG	0K	18	19.5	M14x1.0	6	24.8	7.2	23.3	21.6	12.5	17	○

Panel cut-out: **P1**

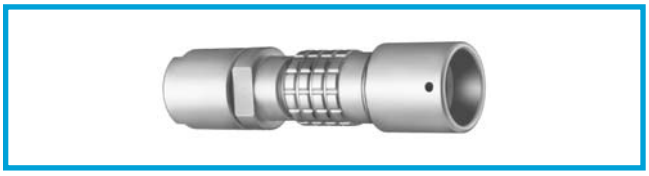
Note: [1)] Maximum length with crimp contacts.

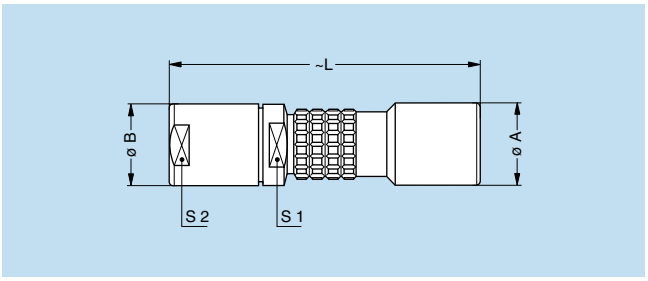




PHG Free receptacle, key (G) or keys (A to F, L and R), cable collet

Reference		Dimensions (mm)			Avail-ability
Model	Series	A	L	S2	
PHG	0K	13	34.0	8	●
PHG	1K	15	45.0	9	●
PHG	2K	19	54.0	12	○
PHG	3K	23	65.0	15	○
PHG	4K	29	75.5	19	○
PHG	5K	42	95.0	32	○

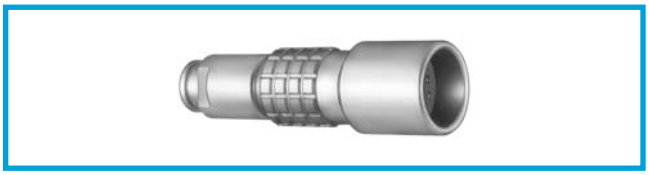


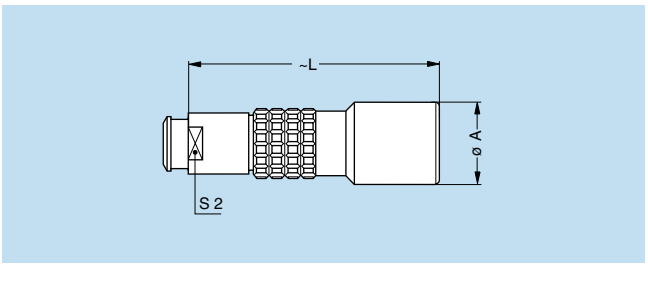


PHG Free receptacle, key (G) or keys (A to F, L and R), with oversize cable collet

Reference		Dimensions (mm)					Avail-ability
Model	Series	A	B	L	S1	S2	
PHG	1K	15	14.5	58	12	12	○
PHG	2K	19	17.0	67	15	15	○
PHG	3K	23	22.0	84	19	19	○
PHG	4K	29	36.0	109	30	32	○

Note: 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.



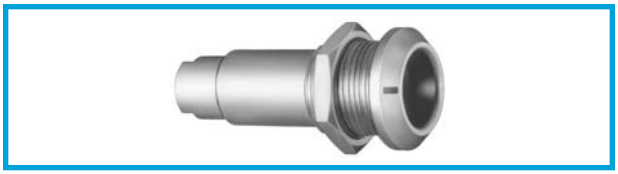


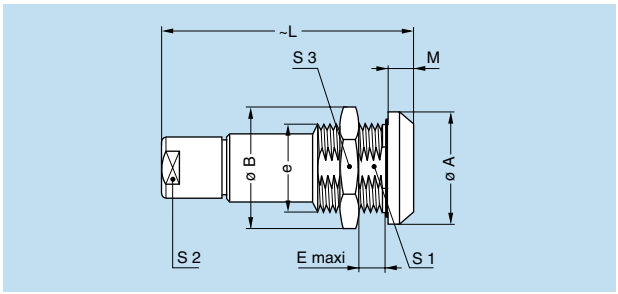
PHG Free receptacle, key (G) or keys (A to F, L and R), cable collet and nut for fitting a bend relief

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

Note: The bend relief must be ordered separately (see page 91).

● Standard, typically 0-6 weeks delivery for quantities of 250 or less.
○ Non-standard product, contact LEMO USA, typically 6-12 weeks delivery for quantities of 250 or less.
Non-standard product is defined as any product which contains one or more components which are not standard.



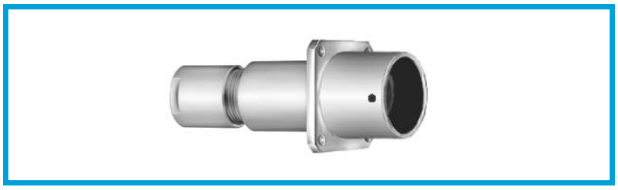


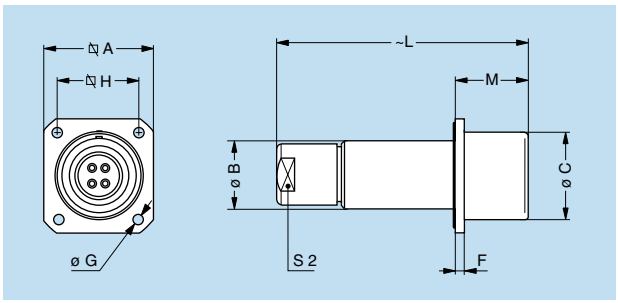
PKG Fixed receptacle, nut fixing, key (G) or keys (A to F, L and R), cable collet

Reference		Dimensions (mm)									Avail-ability
Model	Series	A	B	e	E	L	M	S1	S2	S3	
PKG	0K	18	19.5	M14x1.0	6	34.0	4.0	12.5	8	17	○
PKG	1K	20	21.5	M16x1.0	9	45.0	4.5	14.5	9	19	○
PKG	2K	25	27.5	M20x1.0	9	54.0	5.0	18.5	12	24	○
PKG	3K	31	34.5	M24x1.0	11	65.0	6.0	22.5	15	30	○
PKG	4K	37	40.5	M30x1.0	9	75.5	6.5	28.5	19	36	○
PKG	5K	55	54.0	M45x1.0	15	98.0	9.0	42.5	30	–	○

Panel cut-out: **P1**

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

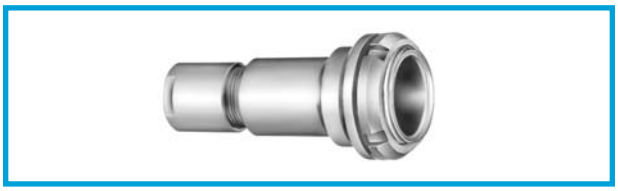


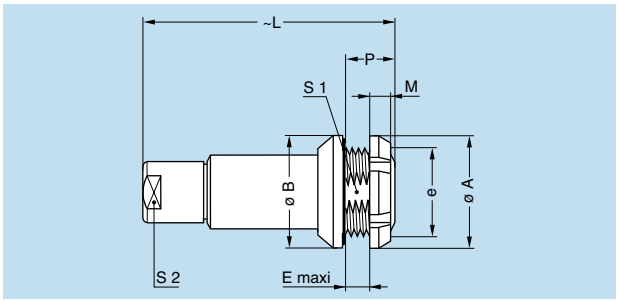


PBG Fixed receptacle, key (G) with square flange, cable collet and screw fixing

Reference		Dimensions (mm)								Avail-ability
Model	Series	A	B	C	F	G	H	L	M	S2	
PBG	3K	29	19	23	3	3.4	23	65	22.5	15	○

Panel cut-out: **P7**





PEG Fixed receptacle, nut fixing, key (G) or keys (A to F, L and R), cable collet
(back panel mounting)

Reference		Dimensions (mm)								Avail-ability
Model	Series	A	B	e	E	L	M	P	S1	
PEG	0K	18	18	M14x1.0	5.0	34	3.5	8.5	12.5	○
PEG	1K	20	20	M16x1.0	6.5	45	3.5	10	14.5	○
PEG	2K	25	25	M20x1.0	4.0	54	3.5	7.5	18.5	○
PEG	3K	30	31	M24x1.0	7.5	65	4.5	12	22.5	○

Panel cut-out: **P1**

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

● Standard, typically 0-6 weeks delivery for quantities of 250 or less.
○ Non-standard product, contact LEMO USA, typically 6-12 weeks delivery for quantities of 250 or less.
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