

**SHORT FORM CATALOGUE** 





## Precision modular connectors to suit your application

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

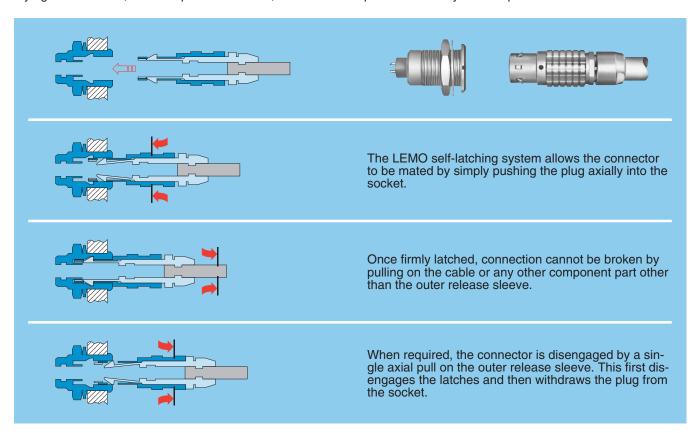
### Over 50'000 connectors

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

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

# **LEMO's Push-Pull Self-Latching Connection System**

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



# UL Recognition 🔁

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

# CE marking C€

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

## RoHS

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



### Introduction

This catalogue gives the complete description of LEMO connectors with coaxial, triaxial and mixed contacts. Mixed contacts include coaxial and low voltage contact configurations, as well as multi-coaxial contact configurations.

The LEMO manufacturing programme has been extended to almost 40 series divided into 7 product families with specific mating and environmental characteristics. Each series includes a wide variety of plug, socket and coupler models, available in contact configurations adapted to all round cables. The catalogue includes the B, K, S and E Series of the LEMO product range. In addition the 00 Series (triaxial) connector is also represented.

Watertight and vacuumtight models are also available. Since LEMO connectors are perfectly screened and designed to guarantee very low resistance to shell electrical continuity, they are particularly adapted to applications where electromagnetic compatibility (EMC) is important.

## **Material and treatment**

				5	Surfac	e tre	atmer	nt (µm	1)			
Component	Material (Standard)	С	hrom	е	nic	kel		gold		black	chr.	Notes
		Cu	Ni	Cr	Cu	Ni	Cu	Ni	Au	Ni	Cr	
	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)				wit	hout	treatn	nent				
Q	Aluminium alloy (AA 6262A or AA 6023)					ano	dized					
Outer shell, collet nut, conical nut	POM (Delrin® or Ertacetal®), Polyoxymethylene, black						_					1)
or notched nut and oversized collet	PEEK, Polyether ethercetone, beige						_					2)
	PSU (Udel®), Polysulfone, grey or white						_					3)
	PPSU (Radel®), Polyphenylsulfone, cream						_					3)
	PPS (Ryton®), Polyphenilene sulfide, brown						_					4)
	Bronze (UNS C 54400) or special brass	_	_	_	0.5	3	0.5	3	1.0	_	_	5)
Earthing crown	Beryllium Copper (UNS C 17300)	_	_	_	0.5	3	0.5	3	1.0	_	_	6)
	Stainless steel (AISI 416 or 316L)				wit	hout	treatn	nent				7)
Latch sleeve	Special brass	0.5	3	0.3	0.5	3	0.5	3	0.5	_	_	
Later sieeve	Stainless steel (AISI 416 or 316L)				wit	hout	treatn	nent				7)
Locking washer	Bronze (UNS C 52100)				0.5	3	0.5	3	0.5			
	Brass (UNS C 38500)	_	_	_	0.5	3	0.5	3	0.5	_	_	
Hexagonal or round nut	Stainless steel (AISI 303, 304 or 316L)				wit	hout	treatn	nent				8)
	Aluminium alloy (AA 6262A or AA 6023)				an	odize	d nat	ural				8)
Other metallic components	Brass (UNS C 38500)	_	_	_	0.5	3	0.5	3	0.5	_	_	
Other metallic components	Stainless steel (AISI 303, 304 or 316L)				wit	hout	treatn	nent				
O-ring and gaskets	Silicone MQ/MVQ or FPM/FKM (Viton®)						_					9)
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
   black chrome: MIL-C-14538C with a minimum of 10 μm of lacquer
- for FFP, PCP and ERN models of the 0S to 3S series for FFP, PCP and ERN models of the 0S to 3S series, FGG and ENG models of the 0B, 1B, 3B and 4B series, FFA and FFC models of the 00 triaxial series
- for the FGG, FGY and ENY models of the 2B to 4B series for 00 triaxial series (elbow sockets for printed circuits) gold-plating for unipole types

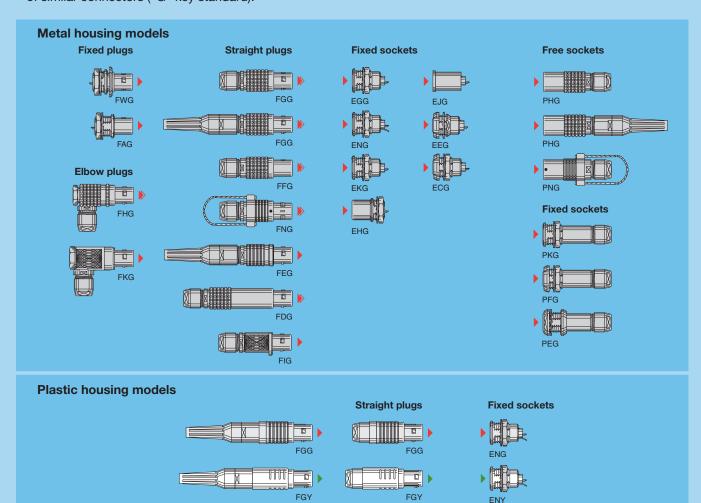
- used in 00 series free and fixed sockets
- AISI 416 steel is used with shells made of AISI 303 or 304
- delivered with free and fixed sockets with aluminium alloy or stainless
- steel shell FPM/FKM (Viton®) o-ring and gaskets are installed upon special request. However standard for vacuumtight models.



# **B** Series

B series connectors provide the following main features:

- security of the Push-Pull self-latching system
- coaxial, triaxial and mixed contact configurations
- plastic models made of PSU or PPSU
- multiple key options to avoid cross mating of similar connectors («G» key standard).
- up to 10 coaxial contacts
- solder or crimp contacts
- high packing density for space savings
  360° screening for full EMC shielding



### **Model Description**

ECG Fixed socket with two nuts, key (G) or keys (A...L and R) (back panel mounting)

Fixed socket, nut fixing, key (G) or keys

**FGG** 

(A...L and R) (back panel mounting)
Fixed socket, nut fixing, key (G) or keys (A...L and R)
Fixed socket, nut fixing, key (G) or keys (A...L and R), and protruding shell
Fixed socket, press or adhesive fit, **EHG** 

key (G) or keys (A...L)
Fixed socket, nut fixing, key (G) or keys
(A...L and R), special alignment mark on the front

on the front
Fixed socket with earthing tag, nut fixing, key (G) or keys (A...L)
Fixed socket with earthing tag, nut fixing, key (G or J), PEEK outer shell
Fixed socket with earthing tag, nut fixing, keys (Y), PSU or PPSU outer shell
Fixed plug, non-latching, nut fixing, key (G) or keys (A...L and R)
Straight plug, long version, key (G) or keys (A...L), cable collet

FEG Straight plug, key (G) or keys (A...L), cable FEG Straight plug, key (G) or keys (A...L), cable collet, front seal and nut for fitting a bend relief (IP 54 protection index when mated)

FFG Straight plug, non-latching, key (G) or keys (A...L), cable collet

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

FGG Straight plug, key (G) or keys (A...L),

cable collet and nut for fitting a bend relief FGG Straight plug, key (G or J), cable collet, PEEK outer shell

FGG Straight plug, key (G or J), cable collet, PEEK outer shell, nut for fitting a bend relief

Straight plug, keys (Y), cable collet and PSU or PPSU outer shell

and PSU or PPSU outer shell

FGY Straight plug, keys (Y), cable collet
and PSU or PPSU outer shell and nut
for fitting a bend relief

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

FIG Straight plug for remote handling, key (G)
or keys (A...L and R), special alignment
mark, knurled handling surface, cable collet

FKG Elbow (90°) plug for remote handling, key (G) or keys (A...L), special alignment mark, knurled handling surface, cable collet
FNG Straight plug, key (G) or keys (A...L and R), cable collet and lanyard release
FWG Fixed plug, nut fixing, key (G) or keys (A...L)
PEG Fixed socket, nut fixing, key (G) or keys (A...L), cable collet (back panel mounting)
PFG Fixed socket with two purts, key (G)

PFG Fixed socket, with two nuts, key (G) or keys (A...L and R), cable collet (back panel mounting)
PHG Free socket, key (G) or keys (A...L and R),

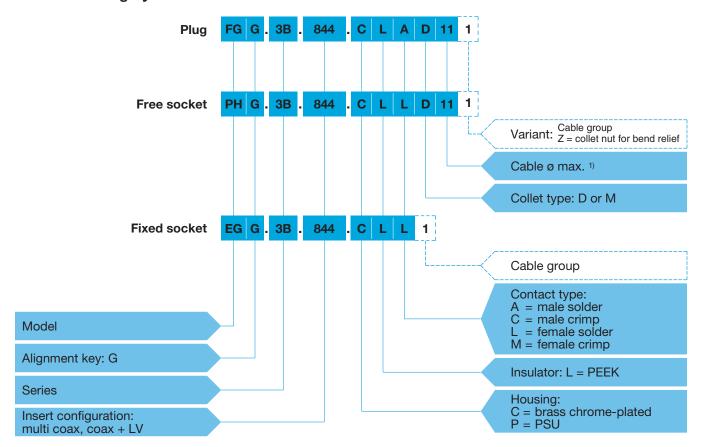
cable collet

PHG Free socket, key (G) or keys (A...L),

cable collet and nut for fitting a bend relief Fixed socket, nut fixing, key (G) or keys (A...L and R), cable collet Free socket, nut fixing, key (G) or keys (A...L and R), cable collet with lanyard



### **Part Numbering System**



## **Part Number Example**

### Straight plug with cable collet:

**FGG.3B.844.CLAD111** = straight plug with key (G) and cable collet, 3B series, mixed coax & low voltage type (1 coax and 4 low voltage contacts), outer shell in chrome-plated brass, PEEK insulator, male solder contacts, D type collet for up to 11 mm diameter cable. Cable group 1.

### Free socket:

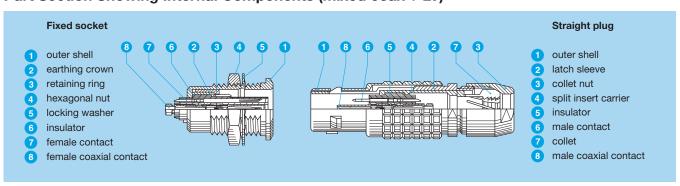
**PHG.3B.844.CLLD111** = free socket with key (G) and cable collet, 3B series, mixed coax & low voltage type (1 coax and 4 low voltage contacts), outer shell in chrome-plated brass, PEEK insulator, female solder contacts, D type collet for up to 11 mm diameter cable. Cable group 1.

## **Fixed socket:**

**EGG.3B.844.CLL1**= fixed socket, nut fixing, with key (G), 3B series, mixed coax & low voltage type (1 coax and 4 low voltage contacts), outer shell in chrome plated brass, PEEK insulator, female solder contacts. Cable group 1.

Note: 1) see unipole-multipole catalogue (p. 52).

## Part Section Showing Internal Components (mixed coax + LV)





# **K** Series

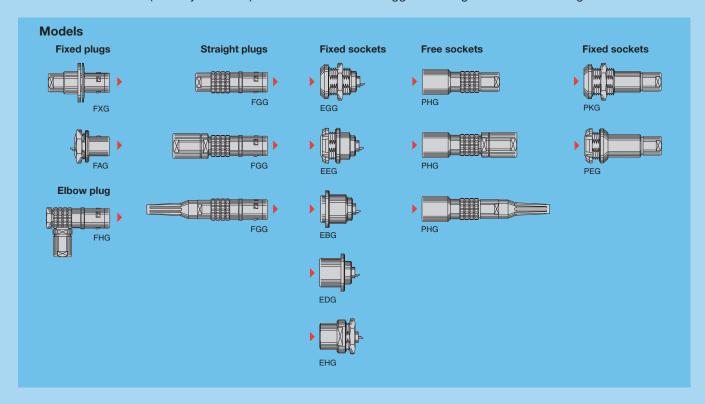
K series connectors have been specifically designed for outdoor applications.

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

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

- security of the Push-Pull latching system
- coaxial, triaxial and mixed contact configurations
- solder or crimp contacts
- multiple key options to avoid cross mating of similar connectors («G» key standard)

- watertight connection (IP 68/IP 66)
- up to 10 coaxial contacts
- 360° screening for full EMC shielding
- high packing density for space savings
- rugged housing for extreme working conditions.



### **Model Description**

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

and earthing tag, screw fixing

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

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

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

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

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

PKG Fixed plug with round flange, key (G) or keys (A to F, L and R) and screw fixing
PEG Fixed socket, nut fixing, key (G) or keys (A to F, L and R), cable collet (back panel mounting)

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

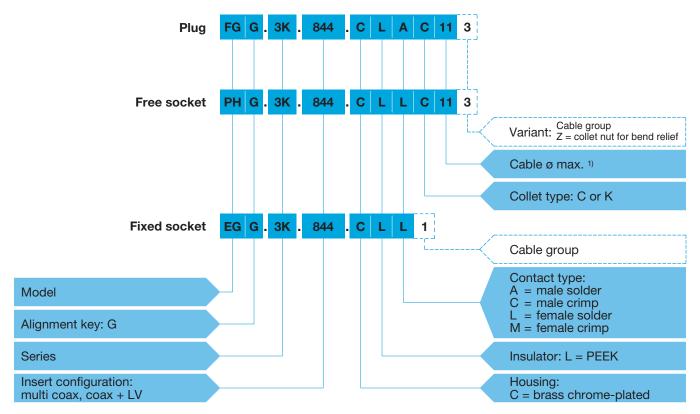
Free socket, key (G) or keys (A to F, L and

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

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



## **Part Numbering System**



# **Part Number Example**

## Straight plug with cable collet:

**FGG.3K.844.CLAC113** = straight plug with key (G) and cable collet, 3K series, mixed coax & low voltage type (1 coax and 4 low voltage contacts), outer shell in chrome-plated brass, PEEK insulator, male solder contacts, C type collet for 10.5 mm diameter cable. Cable group 3.

### Free socket:

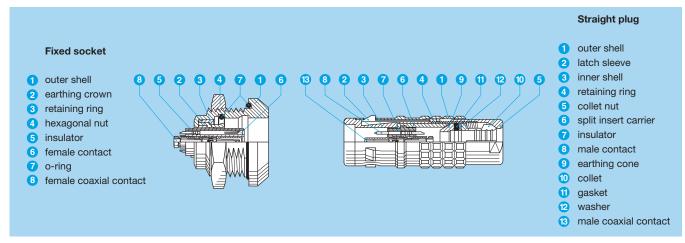
**PHG.3K.844.CLLC113** = free socket with key (G) and cable collet, 3K series, mixed coax & low voltage type (1 coax and 4 low voltage contacts), outer shell in chrome-plated brass, PEEK insulator, female solder contacts, C type collet for 10.5 mm diameter cable. Cable group 3.

### **Fixed socket:**

**EGG.3K.844.CLL1** = fixed socket, nut fixing, with key (G), 3K series, mixed coax & low voltage type (1 coax and 4 low voltage contacts), outer shell in chrome-plated brass, PEEK insulator, female solder contacts. Cable group 1.

Note: 1) see unipole-multipole catalogue (p. 53).

## Part Section Showing Internal Components (mixed coax + LV)





# Insert configuration (B and K series)

# Mixed: multi coax, coax + LV

				Со	ax				Low	voltage	(LV)		
	Coax		tacts		10)		tacts		Cont	tacts oe			বি
		Reference	Number of contacts	Impedance (요)	Type (see page 10)	Cable group	Number of contacts	ø A (mm)	Solder	Crimp	Test voltage (kV rms)	Test voltage (kV dc)	Rated current (A)
1B 1K		801	1	50	F	2	1	0.9	•	•	0.85	1.20	10
IK		803	1	50	F	2	3	0.9	•	•	0.75	1.05	10
2B		802	1	50	A1	1-2-3	2	0.9	•	•	0.85	1.20	10
2K		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	С	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	_	_	_	_	_	_	_
3B 3K		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	•	•	0.90	1.30	9
		813	1	50	A1	1-2-3	13	0.7	•	•	0.90	1.30	7
		822	1	50	С	1-2-3	22	0.7	•	•	0.70	1.00	5
		844	2	50	С	1-2-3	4	0.9	•	•	0.90	1.30	10
		846	2	50	С	1-2-3	6	0.9	•	•	0.90	1.30	10
		850	2	50	С	1-2-3	10	0.7	•	•	0.75	1.05	8
		856	2	50	С	1-2-3	16	0.7	•	•	0.70	1.00	7
		242	2	50	С	1-2-3	-	-	_	_	_	_	_
		243	3	50	С	1-2-3	-	-	_	_	_	_	_
		862	3	50	С	1-2-3	2	0.9	•	•	1.10	1.60	9

First choice alternativeSpecial order alternative



# Mixed: multi coax, coax + LV

				Сс	ax				Low	voltage	(LV)		
	Coax		tacts		10)		tacts		Cont	tacts pe			<del>্</del>
		Reference	Number of contacts	Impedance (Q)	Type (see page 10)	Cable group	Number of contacts	ø A (mm)	Solder	Crimp	Test voltage (kV rms)	Test voltage (kV dc)	Rated current (A)
4B 4K		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	С	1-2-3	12	0.9	•	•	0.90	1.30	8
		856	2	50	С	1-2-3	16	0.9	•	•	0.90	1.30	8
		858	2	50	С	1-2-3	18	0.7	•	•	0.80	1.10	7
		866	3	50	С	1	6	0.7	•	•	0.80	1.10	7
		885	3	50	С	1-2-3	12	0.7	•	•	0.80	1.10	8
		244	4	50	С	1-2-3	-	_	-	_	_	-	-
		879	4	50	С	1-2-3	9	0.7	•	•	0.90	1.30	8
		890	6	50	E	2	18	0.7	•	0	0.90	1.30	5
		894	6	50	E	2	22	0.7	•	0	0.90	1.30	4
5B 5K		997 1)	1	75	A4	N/A	32	1.3	•	0	1.20	1.70	8
		840	1	50	А	5-6	40	0.9	•	•	1.30	1.80	7

 $\mbox{\bf Note:}~^{1)}$  only available in 5B series. Solution for triaxial cable fixing.

www.lemo.com



# Mixed: multi coax, coax + LV

				Со	ax				Low	voltage	e (LV)		
	Coax		tacts		10)		tacts		Cont	tacts oe			ৰি
		Reference	Number of contacts	Impedance (Ω)	Type (see page 10)	Cable group	Number of contacts	ø A (mm)	Solder	Crimp	Test voltage (kV rms)	Test voltage (kV dc)	Rated current (A)
5B 5K		868	1	50	В	6	4 44	3.0 0.9	•	0	0.80	1.15	35 6
		850 870	2	50 75	B B	6 3-5	10	0.9	0	•	1.40	2.00	8
		856 876	2	50 75	B B	6 3-5	16	0.9	0	•	1.40	2.00	7
		857 877	2	50 75	B B	6 3-5	2 15	2.0 0.9	00	•	1.40 1.40	2.00 2.00	30 7
		864	2	75	В0	1-6	24	1.3	•	0	0.90	1.30	8
		273	3	75	B1	5	-	-	-	ı	_	_	_
		274	4	75	B1	5	-	-	-	-	_	_	-
		892	6	75	D	5-8-9	10	0.9	•	0	0.70	1.00	7
		260	7	75	D	5-8-9	-	-	-	_	_	_	-
		240	10	50	С	1-2-3	-	-	-	_	_	_	-
	First choice alternative	ve											



# Mixed: coax + LV + HV, coax + LV + Fluidic, coax + LV + Fibre optic

					Coax			Low (L	volt. V)	High (H	volt. V)	Fibre (F	optic O)	Flui (F	idic FL)
	Coax	Reference	Number of contacts	Impedance (\O)	Rated current (A)	Type (see page 10)	Cable group	Number of contacts	ø A (mm)	Number of contacts	ø A (mm)	Number of contacts	Туре	Number of contacts	Inner tube ø (mm)
2B 2K		932	1	50	2.0	С	1	21)	0.7	12)	0.7	-	-	-	_
3B 3K		934	1	50	2.0	С	1	4	0.9	1	0.9	ı	-	-	_
		970	1	50	2.0	С	1	10	0.7	-	-	-	-	1	1.3
		986	1	50	2.0	С	1	16	0.7	-	-	1	F2	-	_

Note: 1) Test voltage LV contact-shell 1.9 (kV rms). 2) Test voltage HV contact-shell 7.5 (kV rms). Total rated current for 2B.932 configuration 6 (A).



# Coaxial contacts for B and K series

							- <del></del>	Shea	ath ø		'rms)	2
Туре	Impedance (Ω)	ø A (mm)	Cond. fixing	Screen fixing	Cable group	Mini Cond. ø maxi Maxi	Dielectric ø maxi	Mini	Maxi	VSWR (f=GHz)	Test voltage (kV rms)	Rated current (A)
F 1)	50	0.5	solder	crimp	2	0.35	1.05	_	2.10	1.05 +1.83f	0.8	2
A1	50	0.7	solder	collet	1 2 3	0.60 0.60 0.60	1.90 1.90 1.90	2.5 1.7 2.2	3.00 2.10 2.60	1.01 +0.127f	0.9	5
C 1)	50	0.6	crimp	crimp	1 2 3	0.50 0.58 0.28 0.35 0.28 0.35	1.65 1.05 1.65	_	3.00 2.35 3.00	1.04 +0.1f	1.6	2
E 1)	50	0.5	solder	crimp	2	0.35	0.95	_	2.00	1.02 +0.93f	0.8	2
А	50	1.6	solder	collet	5 6	1.35 1.35	3.95 3.95	4.3 5.3	5.10 6.10	1.01 +0.146f	1.8	12
A	75	1.3	solder	collet	4 5 6	1.05 1.05 1.05	3.95 3.95 3.95	3.8 4.3 5.3	4.60 5.10 6.10	1.01 +0.19f	2.4	7
A4	75	1.3	solder	collet	none	1.05	3.95	6.7	7.60	1.01 +0.19f	2.4	7
B 1)	50	0.9	solder	crimp	6	1.05	3.75	_	6.25	1.06 +0.156f	0.8	11
B 7	75	0.6	solder	crimp	3 5	0.80 0.80	2.45 3.75	_	6.25	1.00 +0.22f	2.1	6
ВО	75	0.6	solder	solder	1 6	0.75 0.75	2.95 3.75	_	4.25	1.00 +0.22f	2.1	6
B1 <sup>1)</sup>	75	0.6	crimp	crimp	5	0.55 0.80	3.75	_	6.25	1.00 +0.22f	2.1	6
D 1)	75	0.5	solder	crimp	5 8 9	0.75 0.75 0.75	3.75 2.45 3.00	_	5.40 3.90 4.90	1.00 +0.38f	1.0	5
G	50	0.5	solder	crimp	1	0.35	1.65	-	3.00	1.01 +0.73f	0.4	2
A0	50	1.3	solder	collet	6	0.95	-	3.3	4.10	1.02 +0.3f <sup>2)</sup>	3.0	12

**Note:** 1) These contacts require specific tools for assembly on the cable, see page 11. 2) Frequency range with SWR  $\leq$  1.2 = 0 - 1.5 GHz.



# Recommended coaxial cables for mixed coax, multi coax for B and K Series

LEMO cable Part Number	Туре	LEMO cable group	Impedance (Ω)	Conductor ø (mm)	Dielectric ø (mm)	Screen ø (mm)	Sheath ø (mm)
	RG 6 A/U	7	75 ± 3	0.73	4.70	6.20	8.45
311 100 LEDE	RG 11 A/U	9	75 ± 2	1.17	7.25	8.15	10.10
CCX.50.RG5.8CU50N	RG 58 C/U	6	50 ± 2	0.90	2.95	3.60	5.00
CCX.50.RG5.9BU62N	RG 59 B/U	5	75 ± 3	0.60	3.70	4.50	6.20
CCX.50.RG1.74AU27N	RG 174 A/U	1	50 ± 2	0.48	1.50	2.00	2.80
CCX.50.RG1.78BU18M	RG 178 B/U	2	50 ± 2	0.30	0.84	1.30	1.80
CCX.75.RG1.79BU26M	RG 179 B/U	3	$75 \pm 3$	0.30	1.50	2.00	2.50
	RG 180 B/U	4	$95 \pm 5^{1}$	0.30	2.60	3.10	3.60
CCX.75.RG1.87AU26B	RG 187 A/U	2	75 ± 3	0.30	1.50	2.00	2.60
CCX.50.RG1.88AU26B	RG 188 A/U	1	50 ± 2	0.54	1.50	2.00	2.60
CCX.50.RG1.96AU20B	RG 196 A/U	1	50 ± 2	0.30	0.84	1.30	1.95
CCX.50.RG3.16U26M	RG 316 /U	1	50 ± 2	0.60	1.60	2.10	2.80

**Note:** 1) when no defined impedance is required. The cable group number corresponding to the chosen cable must be written in the variant position, see pages 3 and 5.

# Tooling for coaxial contacts of B and K series

				Reference	
Coaxial contact type	lmp. Ω	Cable group	Crimping tool with die	Spanner for tightening the contact	Extractor
F	50	2	DPE.99.025.45K	DCC.91.019.1LA	-
C 1)	50	1-3	DPE.99.103.8K	-	DCC.91.384.5LA
C .,	50	2	DPE.99.103.1K	-	DCC.91.384.5LA
Е	50	2	DPE.99.002.5K	DCC.91.050.2LA	-
	50	6	DPE.99.176.2K	_	DCC.91.804.5LA
В	75	3	DPE.99.125.2K	-	DCC.91.804.5LA
	75	5	DPE.99.127.0K	-	DCC.91.804.5LA
B1	75	5	DPE.99.127.0K	-	DCC.91.808.0LC
		5	DPE.99.006.2K	DCB.91.685.8TN	-
D	75	8	DPE.99.005.2K	DCB.91.685.8TN	-
		9	DPE.99.005.5K	DCB.91.685.8TN	-

Note: 1) for the 3B.243/3K.243 and 3B.862/3K.862 the extractor is part number DCC.91.393.4LT.



# **00.650 Series**

The 00 Series are available in triax configuration, allowing a very compact solution for triaxial cables.

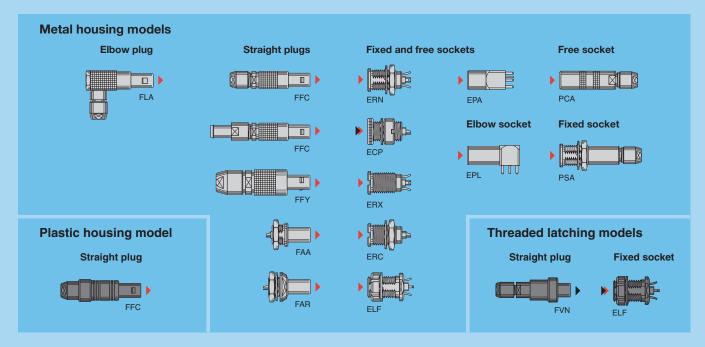
These connectors are designed for small diameter ranging from 1.1 to 3.5 mm.

Either twinax (2 shielded connectors) or triax (1 conductor and 2 concentric separate screens) can be used with the 00 Series. The 00 Series with a 650 configuration insert are mostly used in audio-video applications where a large density of connection

LEMO 00 Series connectors offer customers many benefits including:

- self-latching push-pull system
- aesthetically pleasing appearance
- small size
- high packing density
- rugged construction.

- ease of use
- low weight
- reliable performances
- wide choice to suit application



## **Model Description**

Fixed socket with 2 round nuts (back panel mounting)
Fixed socket, nut fixing, threaded shell **ECP** 

with tag (back panel mounting)

Fixed socket, nut fixing, threaded shell with tag, black chromium-plated outer shell (back panel mounting)

Straight socket for printed circuit board Elbow plug (90°) for printed circuit board Fixed socket, with thread, with slots

**ERC** 

**ERN** Fixed socket with nut fixing and tags **ERX** Fixed socket with nut fixing,

slots on flange and tags

Straight plug non latching with nut Straight plug non latching with 2 nuts **FAR** 

(back panel mounting) Straight plug with flats on latch sleeve and cable collet

Straight plug with flats on latch sleeve and cable collet and nut for fitting a bend relief

Straight plug with flats on latch sleeve and cable collet, black POM (Delrin® outershell) Straight plug, large shell with cable collet Elbow socket (90°) with cable collet Straight plug with cable collet,

**FVN** 

black chromium-plated outer shell Free socket with cable collet

Fixed socket, nut fixing, cable collet

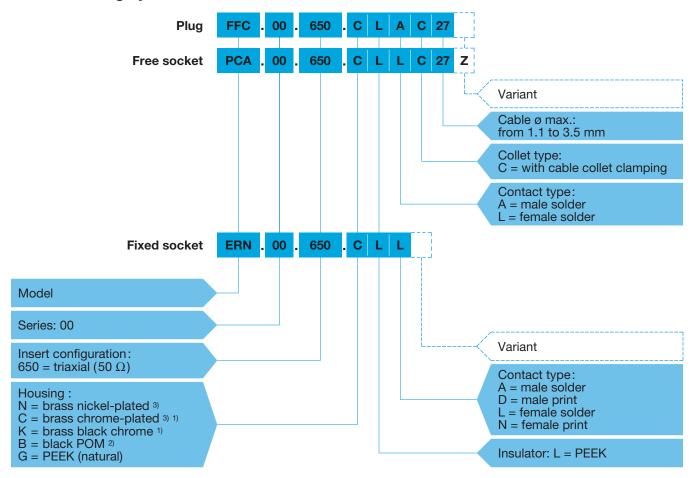
### **Part Section Showing Internal Components**

### Straight plug **Fixed socket** 1 7 6 2 5 4 8 3 7 6 3 4 5 2 1 outer shell outer shell latch sleeve earthing crown collet nut retaining ring earthing sleeve hexagonal nut rear insulator locking washer 6 insulator insulator male triaxial contact female triaxial contact collet



13

## **Part Numbering System**



### **Part Number Example**

### Straight plug with cable collet:

**FFC.00.650.CLAC27** = straight plug with flats on latch sleeve and cable collet, 00 Series, triaxial (50  $\Omega$ ), outer shell in chrome-plated brass, PEEK insulator, C type collet for an up to 2.6 mm diameter cable.

## Free socket:

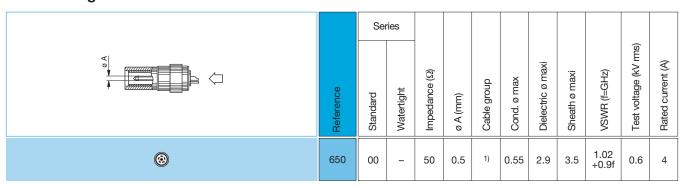
**PCA.00.650.CLLC27Z** = free socket with cable collet, 00 Series, triaxial (50  $\Omega$ ), outer shell in chrome-plated brass, PEEK insulator, C type collet for an up to 2.6 mm diameter cable and nut for fitting a bend relief.

### **Fixed socket:**

**ERN.00.650.CLL** = fixed socket with nut fixing and tags, 00 Series, triaxial (50  $\Omega$ ), outer shell in chrome-plated brass, PEEK insulator.

Note: 1) treatment not available for the printed circuit models. 2) available for the FFC model only. 3) standard.

## Insert configuration



Note: 1) 00.650 is designed for use with 2 conductors screened cable (twinax).

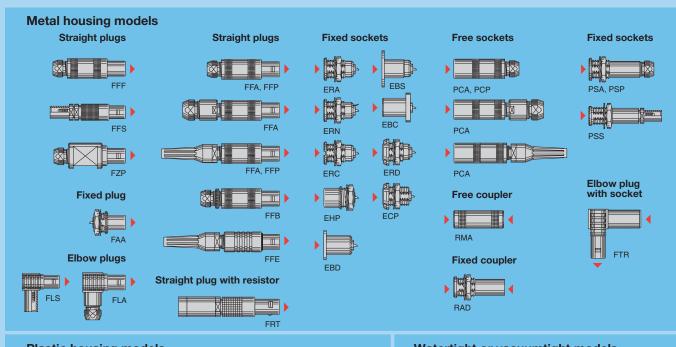


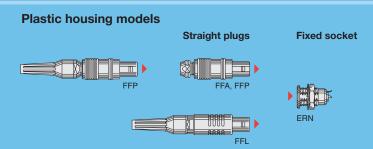
# **S** Series

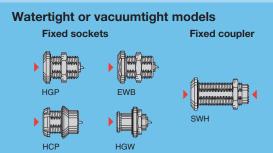
S series connectors have main features as follows:

- security of the Push-Pull self-latching system
- solder contacts, print contacts only for coaxial and triaxial configurations
- 360° screening for full EMC shielding.

- coaxial, triaxial and mixed contact configurations
- polarisation by stepped insert (half-moon)
- up to 8 coaxial contacts







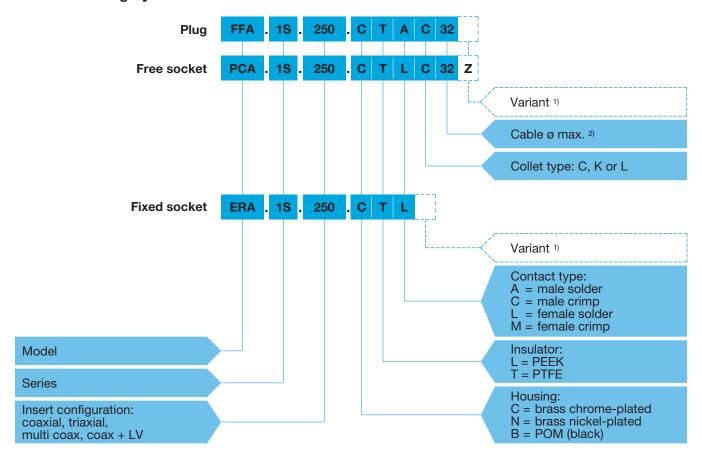
## **Model Description**

EBC Fixed socket with square flange, protruding shell and screw fixing EBD Fixed socket with square flange **FFA** Straight plug, cable collet, PEEK or POM outer shell PEEK or POM outer shell
Straight plug, cable collet
and safety locking ring
Straight plug, cable collet, front seal
and nut for fitting a bend relief
(protected to IP54 when mated)
Straight plug, non-latching, cable collet
Straight plug, cable collet
and inner anti-rotating device
Straight plug, cable collet and screw fixing
Fixed socket with round flange and screw fixing
Fixed socket with two nuts, long threaded
shell (back panel mounting)
Fixed socket, nut fixing, protruding shell
Fixed socket, nut fixing Straight plug, cable collet, PEEK or POM outer shell Fixed socket, nut fixing with slot in the flange PEEK or POM outer shell and inner anti-rotating device Straight plug, cable collet, PEEK or POM outer shell, inner anti-rotating device and nut for fitting a bend relief Straight plug for cable crimping Elbow (90°) plug, cable collet Elbow (90°) plug, cable collet and nut for fitting a bend relief Elbow (90°) plug for cable crimping Straight plug with resistor Elbow (90°) plug with socket Straight plug for remote handling, cable collet and inner anti-rotating device Fixed socket with two nuts (back panel mounting) Fixed socket, nut fixing with earthing tag
Fixed socket, nut fixing, with earthing tag, PEEK or POM outer shell PEEK or POM outer shell
FWB Fixed socket, nut fixing, with two flats on the flange, watertight or vacuumtight
FAA Fixed plug non-latching, nut fixing
FFA Straight plug, cable collet
FFA Straight plug with oversize cable collet
FFA Straight plug, cable collet
and nut for fitting a bend relief FRT cable collet and inner anti-rotating device

HCP Fixed socket, nut fixing, watertight or vacuumtight (back panel mounting)
HGP Fixed socket, nut fixing, watertight or vacuumtight
HGW Fixed socket, nut fixing, with back washer, watertight or vacuumtight
PCA Free socket, cable collet
PCA Free socket with oversize cable collet
PCA Free socket, cable collet and nut for fitting a bend relief
PCP Free socket, cable collet and inner anti-rotating device
PSA Fixed socket, nut fixing, cable collet and inner anti-rotating device
PSS Free socket, nut fixing device
PSS Free socket, nut fixing for cable crimping
RAD Fixed coupler, nut fixing, watertight or vacuumtight



### **Part Numbering System**



## **Part Number Example**

### Straight plug with cable collet:

**FFA.1S.250.CTAC32** = straight plug with cable collet, 1S series, coaxial (50  $\Omega$ ), outer shell in chrome-plated brass, PTFE insulator, male solder contact, C type collet for a 3.2 mm diameter cable.

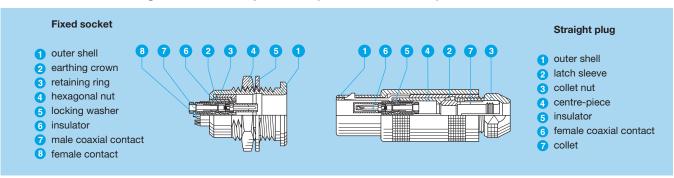
## Free socket:

PCA.1S.250.CTLC32Z = free socket with cable collet, 1S series, coaxial (50 Ω), outer shell in chrome-plated brass, PTFE insulator, female solder contact, C type collet for a 3.2 mm diameter cable and nut for fitting a bend relief.

**ERA.1S.250.CTL** = fixed socket, nut fixing, 1S series, coaxial (50  $\Omega$ ), outer shell in chrome-plated brass, PTFE insulator, female solder contact.

**Note:** <sup>1)</sup> for mixed contacts, add cable group to the part number. <sup>2)</sup> see unipole-multipole catalogue (p. 102).

## Part Section Showing Internal Components (mixed coax + LV)





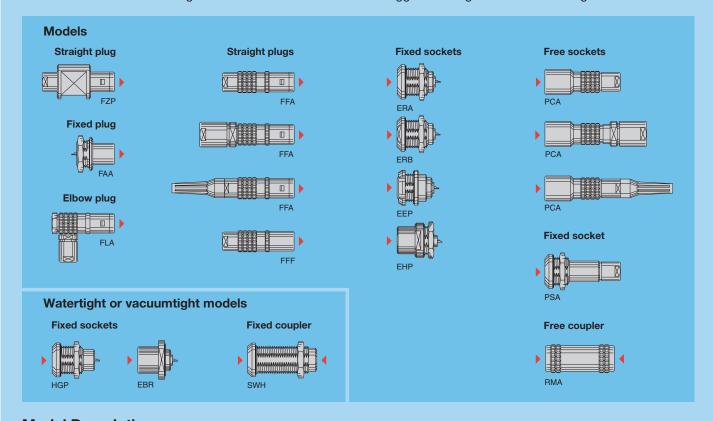
# **E Series**

E 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 or fixed socket. All models of these series are watertight when mated and give a protection index of IP 68 as per IEC 60529 standard (in mated condition) when correctly assembled to an appropriate cable (IP 66 otherwise).

- security of the Push-Pull latching system
   watertight connection (IP 68/IP 66)
   solder contacts, print contacts only for coaxial and triaxial configurations

- coaxial, triaxial and mixed contact configurations
- polarization by stepped insert (half-moon)
- 360° screening for full EMC shielding
- rugged housing for extreme working condition.



## **Model Description**

Fixed socket with round flange, watertight, protruding shell and screw fixing Fixed socket, nut fixing (back panel

mounting)

Fixed socket, nut fixing, protruding shell **ERA** Fixed socket, nut fixing

Fixed socket, nut fixing with two flats **ERB** 

in the flange

FAA Fixed plug non-latching, nut fixing

FFA Straight plug, cable collet

FFA Straight plug with oversize cable collet FFA Straight plug, cable collet and nut for fitting a bend relief

**FFF** FLA FZP

and nut for fitting a bend reflet
Straight plug non-latching, cable collet
Elbow (90°) plug, cable collet
Straight plug for remote handling,
cable collet and inner anti-rotating device
Fixed socket, nut fixing,
watertight or vacuumtight

**HGP** 

PCA Free socket, cable collet

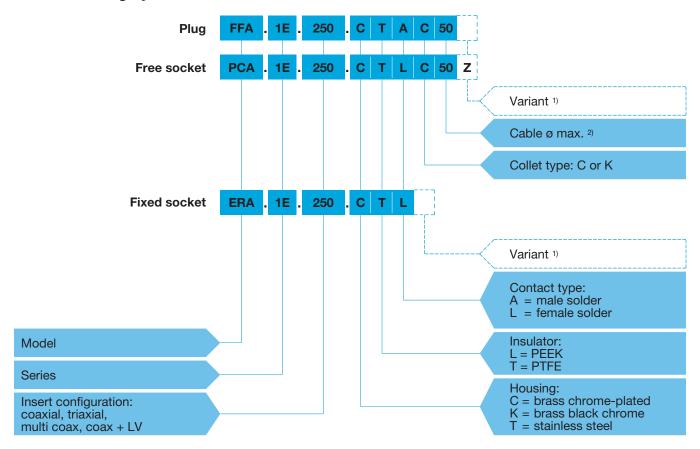
PCA Free socket with oversize cable collet
PCA Free socket, cable collet
and nut for fitting a bend relief

Fixed socket, nut fixing, cable collet **RMA** Free coupler

SWH Fixed coupler, nut fixing, watertight or vacuumtight



## **Part Numbering System**



## **Part Number Example**

### Straight plug with cable collet:

**FFA.1E.250.CTAC50** = straight plug with cable collet, 1E series, coaxial (50  $\Omega$ ), outer shell in chrome-plated brass, PTFE insulator, C type collet for an up to 5.0 mm diameter cable.

### Free socket:

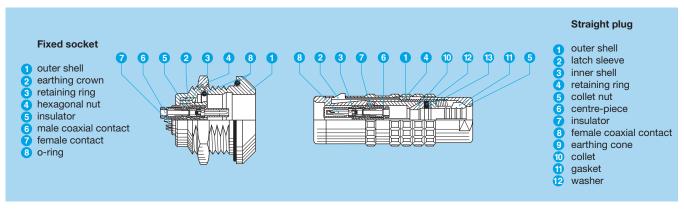
**PCA.1E.250.CTLC50Z** = free socket with cable collet, 1E series, coaxial (50  $\Omega$ ), outer shell in chrome-plated brass, PTFE insulator, C type collet for an up to 5.0 mm diameter cable and collet nut for fitting a bend relief.

## **Fixed socket:**

**ERA.1E.250.CTL** = fixed socket, nut fixing, 1E series, coaxial (50  $\Omega$ ), outer shell in chrome-plated brass, PTFE insulator.

**Note:** 1) for mixed contacts, add cable group to the part number. 2) see unipole-multipole catalogue (p. 105).

## Part Section Showing Internal Components (mixed coax + LV)





# Insert configuration (S and E series)

# Coaxial

			Ser	ies						Shea	ath ø			
		Reference	Standard	Watertight	Impedance (Q)	ø A (mm)	Cable group	Cond. ø max	Dielectric ø maxi	Maxi S series	Maxi E series	VSWR (f=GHz)	Test voltage (kV rms)	Rated current (A)
00	<b>©</b>	250 <sup>1)</sup>	00	_	50	0.7	1 to 9	1.05	3.05	5	.5	1.09 +0.11f	2.1	4
0S 0E		250	08	0E	50	0.9	1-2 3-4	0.95	2.95	6.7	5.0	1.02 +0.25f	3.0	6
1S 1E		250	18	1E	50	1.6	1-2 3-4	1.35	3.95	8.5	8.5	1.01 +0.23f	3.0	12
		275	18	1E	75	1.3	5-6-7	1.05	3.95	8.5	8.5	1.02 +0.08f	2.4	10
2S 2E		250	28	2E	50	2.0	6-7	1.75	5.95	10.5	10.5	1.01 +0.95f	3.0	15
		275	28	2E	75	1.6	6-7	1.35	5.95	10.5	10.5	1.02 +0.03f	1.5	12
3S 3E		250	38	3E	50	3.0	8	2.65	8.15	13.0	15.0	1.06 +0.5f	3.0	26
		275	38	3E	75	2.0	8	1.75	8.15	13.0	15.0	1.04 +0.05f	2.7	15
4S 4E		250	48	4E	50	4.0	8-9	3.65	10.05	22.0	23.5	1.01 +1.9f	2.1	36
		275	48	4E	75	3.0	8-9-0	2.65	10.05	22.0	23.5	1.01 +0.12f	1.8	26
58		250	58	-	50	5.0	9	5.15	17.45	30.0	30.0	1.02 +2.3f	3.0	45

Note: 1) see NIM-CAMAC catalogue.



# **Triaxial**

		Ser	ies						Shea	ath ø			
	Reference	Standard	Watertight	Impedance (Ω)	ø A (mm)	Cable group	Cond. ø max	Dielectric ø maxi	Maxi S series	Maxi E series	VSWR (f=GHz)	Test voltage (kV rms) (contact/screen)	Rated current (A)
0S 0E	650	08	0E	50	0.9	1-2	0.75	2.95	6.7	5.0	1.03 +0.34f	1.0	6
1S 1E	650	18	1E	50	0.9	1-2-3	0.75	3.95	8.5	8.5	1.01 +0.17f	1.0	6
2S 2E	650	28	2E	50	1.6	2-3-4	1.35	5.95	10.5	10.5	1.01 +0.3f	1.5	12
	675	28	2E	75	0.9	4-6	0.75	5.95	10.5	10.5	1.01 +0.07f	1.5	6
3S 3E	650	38	3E	50	2.0	3-4-5	1.75	8.45	13.0	15.0	1.01 +0.27f	2.4	15
	675	3S	3E	75	0.9	4-5	0.75	8.45	13.0	15.0	1.02 +0.05f	1.8	6
4S 4E	650	48	4E	50	3.0	4-5	2.65	10.05	22.0	23.5	1.01 +0.38f	2.7	26
	675	48	4E	75	2.0	4-5-7	2.25	10.05	22.0	23.5	1.01 +0.14f	2.2	15



			Sei	ries		(	Coaxia	I			Lov	w Volta	age	
	Coax	Reference	Standard	Watertight	Number of contacts	Impedance (Ω)	Rated current (A)	Type (see page 27)	Cable group	Number of contacts	ø A (mm)	Test voltage (kV rms)	Test voltage (kV dc)	Rated current (A)
3S 3E		801	3S	3E	1	50	5	A1	1-2-3	1	1.3	2.7	3.9	14
3E		802	38	3E	1	50	5	A1	1-2-3	2	1.3	1.2	1.8	14
		803	38	3E	1	50	5	A1	1-2-3	3	1.3	2.7	3.9	14
		804	38	3E	1	50	5	A1	1-2-3	4	1.3	1.2	1.8	10
		805	38	3E	1	50	5	A1	1-2-3	5	0.9	1.8	2.4	8
		806	3S	3E	1	50	5	A1	1-2-3	6	0.9	0.8	1.2	8
		807	38	3E	1	50	5	A1	1-2-3	7	0.9	0.8	1.2	7
4S 4E		802	48	4E	1	50	5	A1	1-2-3	2	3.0	2.1	3.0	21
		803	48	4E	1	50	5	A1	1-2-3	3	2.0	2.1	3.0	16
		804	48	4E	1	50	5	A1	1-2-3	4	1.3	2.7	3.9	13
		805	4S	4E	1	50	5	A1	1-2-3	5	1.3	2.1	3.0	11
		806	48	4E	1	50	5	A1	1-2-3	6	1.3	2.1	3.0	9
		807	48	4E	1	50	5	A1	1-2-3	7	1.3	2.1	3.0	8
		809	48	4E	1	50	5	A1	1-2-3	9	0.9	2.1	3.0	7
		810	48	4E	1	50	5	A1	1-2-3	10	0.9	2.1	3.0	7
		812	48	4E	1	50	5	A1	1-2-3	12	0.9	2.1	3.0	7
		202	48	4E	2	50	5	A1	1-2-3	-	-	-	-	-
		832	48	4E	2	50	5	A1	1-2-3	2	1.3	2.1	3.0	13



			Sei	ries		(	Coaxia	I			Lov	w Volta	age	
	Coax	Reference	Standard	Watertight	Number of contacts	Impedance (Q)	Rated current (A)	Type (see page 27)	Cable group	Number of contacts	ø A (mm)	Test voltage (kV rms)	Test voltage (kV dc)	Rated current (A)
4S 4E		834	48	4E	2	50	5	A1	1-2-3	4	1.3	2.1	3.0	13
		836	48	4E	2	50	5	A1	1-2-3	6	0.9	1.8	2.4	7
		838	48	4E	2	50	5	A1	1-2-3	8	0.9	1.8	2.4	7
		842	48	4E	2	50	5	A1	1-2-3	12	0.9	1.8	2.4	7
5S 5E		803	_	5E	1	50	12	Α	4-6	3	3.0	3.0	4.2	25
		804	58	_	1	50	6	A0	1-3-4	4	3.0	2.1	3.0	22
		804	-	5E	1	75	7	Α	3-4-5	4	3.0	2.1	3.0	22
		810	58	5E	1	50	5	A1	1-2-3	10	1.6	1.8	2.4	11
		232	58	_	2	50	6	A0	1-3-4	-	-	-	-	-
		282 292	58	5E	2	50 75	12 7	Α	4-6 3-4-5	-	-	-	-	-
		832	5S	5E	2	50	6	A0	1-3-4	2	2.0	2.1	3.0	18



			Ser	ries		(	Coaxia	I			Lov	w Volta	age	
	Coax	Reference	Standard	Watertight	Number of contacts	Impedance (Ω)	Rated current (A)	Type (see page 27)	Cable group	Number of contacts	ø A (mm)	Test voltage (kV rms)	Test voltage (kV dc)	Rated current (A)
5S 5E		834	58	5E	2	50	6	A0	1-3-4	4	2.0	2.1	3.0	18
		838	58	-	2	50	6	A0	1-3-4	8	1.6	1.8	2.4	12
		842	58	5E	2	50	6	A0	1-3-4	12	1.3	1.8	2.4	9
		846	_	5E	2	75	7	А	3-4-5	16	1.3	0.8	1.2	8
		850	58	-	2	50	6	A0	1-3-4	20	1.3	0.8	1.2	7
		854	58	-	2	50	6	A0	1-3-4	24	1.3	0.8	1.2	6
		234	58	5E	4	50	5	A1	1-2-3	-	-	-	-	_
		876	5S	5E	4	50	5	A1	1-2-3	6	1.3	0.8	1.2	6



WII/COC	. Coax + Lv, muiti Coax	Coaxial					Low Voltage					
	Coax	Reference	Number of contacts	Impedance (Ω)	Rated current (A)	Type (see page 27)	Cable group	Number of contacts	ø A (mm)	Test voltage (kV rms)	Test voltage (kV dc)	Rated current (A)
<b>6S</b>		826	1	75	7	Α	3-4-5	26	2.0	1.5	2.1	7
		830	1	75	7	А	3-4-5	4 30	3.0 1.6	1.5 1.5	2.1 2.1	14 5
		858	2	75	7	Α	3-4-5	6 6 5 17	1.3 1.6 2.0 0.9	1.2 1.2 1.2 1.2	1.8 1.8 1.8 1.8	4 5 10 2
		859	2	50	5	A1	1-2-3	36 4	1.3 3.0	1.2 1.2	1.8 1.8	4 14
		866	3	50	6	Α0	1-3-4	26	2.0	1.5	2.1	7
		867	3	75	7	А	3-4-5	49 2	0.9 1.6	1.2 1.2	1.8 1.8	2 5
		883	4	50	4	A1	1-2-3	30	1.6	1.5	2.1	5



	ii oodx 1 Et, maid oodx			(	Coaxia	I			Lov	v Volta	age	
	Coax	Reference	Number of contacts	Impedance (Ω)	Rated current (A)	Type (see page 27)	Cable group	Number of contacts	ø A (mm)	Test voltage (kV rms)	Test voltage (kV dc)	Rated current (A)
6S		284 294	4	50 75	12 7	Α	4-6 3-4-5	_	-	_	_	_
		882	4	75	7	Α	3-4-5	26	0.9	0.8	1.2	2
		887	1 4	50 50	26 5	A3 A1	73}9	7	2.0	1.5	2.1	10
		890	6	50	5	A1	1-2-3	4	4.0	1.5	2.1	16
		893	6	50	5	A1	1-2-3	20	1.6	1.5	2.1	5
		238	8	50	6	Α0	1-3-4	_	ı	_	_	-
		899	8	50	5	A1	1-2-3	20	1.6	1.5	2.1	5



	coax : 21, main coax			(	Coaxia	l			Lov	v Volta	age	
	Coax	Reference	Number of contacts	Impedance (Ω)	Rated current (A)	Type (see page 27)	Cable group	Number of contacts	ø A (mm)	Test voltage (kV rms)	Test voltage (kV dc)	Rated current (A)
6E	00000	8051)	1	75	7	Α	3-4-5	5	2.0	1.5	2.1	10
		831	1	75	7	Α	3-4-5	24 12	0.9 2.0	0.8 1.5	1.2 2.1	2 10
	O•O	843	2	75	7	Α	3-4-5	12 1	2.0 3.0	1.5 1.5	2.1 2.1	10 14
		847	2	50	5	A1	1-2-3	17	2.0	1.5	2.1	10
		856	2	75	7	А	3-4-5	26	2.0	1.5	2.1	7
		857	2	75	7	Α	3-4-5	33	1.3	1.2	1.8	4
		865	3	75	7	Α	3-4-5	21 4	1.3 2.0	1.2 1.2	1.8 1.8	4 10

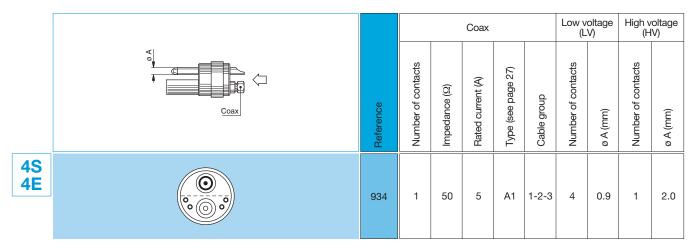
Note:1) The type 6E.805 is delivered with female contacts in the plug.



				(	Coaxia	l			Lov	v Volta	ıge	
	Coax	Reference	Number of contacts	Impedance (Q)	Rated current (A)	Type (see page 27)	Cable group	Number of contacts	ø A (mm)	Test voltage (kV rms)	Test voltage (kV dc)	Rated current (A)
<b>6E</b>		866	3	75	7	А	3-4-5	26	1.3	1.2	1.8	4
		880	4	50	5	A1	1-2-3	20	1.3	1.2	1.8	4
		882	4	75	7	Α	3-4-5	20	0.9	0.8	1.2	2
		884	4	75	7	Α	3-4-5	38	0.9	0.8	1.2	2
		235	5	50	6	A0	1-3-4	_	-	_	_	-
		899	8	50	5	A1	1-2-3	20	1.6	1.5	2.1	5



# Mixed: coax + LV + HV



# Coaxial contacts for S and E series

							· <b>&gt;</b>	Shea	ath ø		/ rms)	(T
Туре	Impedance (Ω)	ø A (mm)	Cond. fixing	Screen fixing	Cable group	Cond. ø maxi	Dielectric ø maxi	Mini	Maxi	VSWR (f=GHz)	Test voltage (kV rms)	Rated current (A)
A1	50	0.7	solder	collet	1 2 3	0.55 0.55 0.55	1.90 1.90 1.90	2.5 1.7 2.2	3.0 2.1 2.6	1.01 +0.127f	0.9	5
A0	50	0.9	solder	collet	2 3 4	0.95 0.95 0.95	2.95 2.95 2.95	1.7 2.7 3.3	2.1 3.1 4.1	1.06 +0.1f	3.0	6
A	50	1.6	solder	collet	4 6	1.35 1.35	3.95 3.95	3.3 4.3	4.1 5.1	1.01 +0.146f	1.8	12
A	75	1.3	solder	collet	3 4 5	1.05 1.05 1.05	3.95 3.95 3.95	2.2 3.3 5.3	2.6 4.1 6.1	1.01 +0.19f	2.4	7
A3	50	3.0	solder	collet	7	2.60	8.10	10.0	10.6	1.06 +0.5f	3.0	15



# Recommended coaxial cables for 00 Series

	Туре	LEMO cable Part Number	LEMO cable group	Impedance $(\Omega)$	Conductor ø (mm)	Dielectric ø (mm)	Screen ø (mm)	Sheath ø (mm)
	RG 58 C/U	CCX.50.RG5.8CU50N	6	50 ± 2	0.90	2.95	3.60	5.00
	RG 142 B/U	CCX.50.RG1.42BU50M	7	50 ± 2	0.95	2.95	3.53 / 4.30	5.00
ا م	RG 174 /U	CCX.50.RG1.74U25N	3	50 ± 2	0.48	1.50	2.00	2.55
Standard	RG 174 A/U	CCX.50.RG1.74AU27N	3	50 ± 2	0.48	1.50	2.00	2.80
tan	RG 178 B/U	CCX.50.RG1.78BU18M	1	50 ± 2	0.30	0.84	1.30	1.80
00	RG 179 B/U	CCX.75.RG1.79BU26M	2	75 ± 3	0.30	1.50	2.00	2.50
	RG 187 A/U	CCX.75.RG1.87AU26B	2	75 ± 3	0.30	1.50	2.00	2.60
	RG 188 A/U	CCX.50.RG1.88AU24B	4	50 ± 2	0.54	1.50	2.00	2.60
	RG 195 A/U	CCX.95.RG1.95AU37B	5	95 ± 5	0.30	2.52	3.10	3.70
	RG 196 A/U	CCX.50.RG1.96AU20B	1	50 ± 2	0.30	0.84	1.30	1.95
	RG 316 /U	CCX.50.RG3.16U26M	4	50 ± 2	0.54	1.50	2.10	2.60
_ b	Huber+Suhner G02232D-60		8	50 ± 2	0.50	1.50	1.95 / 2.40	3.10
Non standard	Huber+Suhner K01152-07		9	50 ± 5	0.19	0.52	0.90	1.25
sta	Storm 421-099		8	50 ± 2	0.50	1.52	2.00 / 2.50	3.05

Note: for more details on cable properties, see NIM-CAMAC catalogue.

# Recommended triaxial cables for 00 Series

	Туре	LEMO cable Part Number	Impedance (Ω)	Conductor ø (mm)	Dielectric ø (mm)	Screen 1 ø (mm)	Screen 2 ø (mm)	Sheath ø (mm)
ard	RGT 316		50 ± 2	0.51	1.50	2.05	3.15	3.60
Standard	RGT 403		50 ± 2	0.30	0.84	1.30	2.35	2.95
Sts	RGT 174	017 410 LEDE	50 ± 2	0.48	1.55	1.90	2.90	3.90
	RGT 178	017 820 LEDE	50 ± 2	0.30	0.90	1.37	2.30	2.80
	Huber + Suhner G 02332		50 ± 2	0.49	1.50	2.00	3.05	4.25
	SMT 50		50 ± 2	0.16	0.52	0.85	1.35	1.60



# Recommended coaxial cables for S and E Series

Туре	LEMO cable Part Number	LEMO cable group	Impedance (Ω)	Conductor ø (mm)	Dielectric ø (mm)	Screen ø (mm)	Sheath ø (mm)
RG 11 A/U	311 100 LEDE	8	75 ± 2	1.17	7.25	8.15	10.10
RG 12 A/U		0	75 ± 3	1.20	7.25	8.20	11.80
RG 58 C/U	CCX.50.RG5.8CU50N	6	50 ± 2	0.90	2.95	3.60	5.00
RG 59 B/U	CCX.50.RG5.9BU62N	7	75 ± 3	0.60	3.70	4.50	6.20
RG 115 A/U		8	50 ± 2	2.25	6.50	8.00	10.50
RG 122 /U		4	50 ± 2	0.80	2.50	3.20	4.10
RG 142 B/U	CCX.50.RG1.42BU50M	6	50 ± 2	0.95	2.95	4.30	5.00
RG 144 /U		8	75 ± 3	1.35	7.25	8.00	10.40
RG 165 /U		8	50 ± 2	2.46	7.25	8.00	10.40
RG 174 A/U	CCX.50.RG1.74AU27N	3	50 ± 2	0.48	1.50	2.00	2.80
RG 178 B/U	CCX.50.RG1.78BU18M	1	50 ± 2	0.30	0.84	1.30	1.80
RG 179 B/U	CCX.75.RG1.79BU26M	5	75 ± 3	0.30	1.50	2.00	2.50
RG 187 A/U	CCX.75.RG1.87BU26M	5	75 ± 3	0.30	1.50	2.00	2.60
RG 188 A/U	CCX.50.RG1.88AU26B	2	50 ± 2	0.54	1.50	2.00	2.60
RG 196 A/U	CCX.50.RG1.96AU20B	1	50 ± 2	0.30	0.84	1.30	1.95
RG 213 /U	213 000 LEDE	8	50 ± 2	2.25	7.25	8.20	10.30
RG 214 /U		9	50 ± 2	2.25	7.25	8.80	10.80
RG 216 /U		9	75 ± 3	1.20	7.25	8.80	10.80
RG 223 /U		7	50 ± 2	0.89	2.95	4.30	5.40
RG 225 /U		9	50 ± 2	2.40	7.25	8.80	10.90
RG 302 /U		6	75 ± 3	0.64	3.70	4.40	5.10
RG 316 B/U	CCX.50.RG3.16U26M	2	50 ± 2	0.60	1.60	2.10	2.80
RG 400 /U		6	50 ± 2	1.00	2.98	4.20	5.00
HF-2114 Dätwyler		3	50 ± 2	0.48	1.30	1.90	2.70
HF-5408/1 Dätwyler		7	75 ± 3	0.60	3.80		5.60
2YCCY 0.4/2.5 Siemens		6	75 ± 2	0.40	2.50	3.70	4.50

# Recommended coaxial cables for mixed coax, multi coax for S and E Series

Туре	LEMO cable Part Number	LEMO cable group	Impedance (Ω)	Conductor ø (mm)	Dielectric ø (mm)	Screen ø (mm)	Sheath ø (mm)
RG 58 C/U	CCX.50.RG5.8CU50N	6	50 ± 2	0.90	2.95	3.60	5.00
RG 59 B/U	CCX.50.RG5.9BU62N	5	75 ± 3	0.60	3.70	4.50	6.20
RG 122 /U		4	50 ± 2	0.80	2.50	3.20	4.10
RG 142 B/U	CCX.50.RG1.42BU50M	6	50 ± 2	0.95	2.95	4.30	5.00
RG 174 A/U	CCX.50.RG1.74.AU27N	1	50 ± 2	0.48	1.50	2.00	2.80
RG 178 B/U	CCX.50.RG1.78BU18M	2	50 ± 2	0.30	0.84	1.30	1.80
RG 179 B/U	CCX.75.RG1.79BU26M	3	75 ± 3	0.30	1.50	2.00	2.50
RG 187 A/U	CCX.75.RG1.87BU26M	3	75 ± 3	0.30	1.50	2.00	2.60
RG 188 A/U	CCX.50.RG1.88AU26B	1	50 ± 2	0.54	1.50	2.00	2.60
RG 196 A/U	CCX.50.RG1.96AU20B	2	50 ± 2	0.30	0.84	1.30	1.95
RG 213 /U	213 000 LEDE	7	50 ± 2	2.25	7.25	8.20	10.30
RG 223 /U		6	50 ± 2	0.89	2.95	4.30	5.40
RG 302 /U		5	75 ± 3	0.64	3.70	4.40	5.10
RG 316 /U	CCX.50.RG3.16U26M	1	50 ± 2	0.54	1.50	2.10	2.60
RG 400 /U		5	50 ± 2	1.00	2.98	4.20	5.00

Note: the cable group number corresponding to the chosen cable must be written in the variant position, see pages 15 and 17.



# Recommended triaxial cables for S and E Series

Туре	LEMO cable Part Number	LEMO cable group	Impedance (Ω)	Conductor ø (mm)	Dielectric ø (mm)	Screen 1 ø (mm)	Screen 2 ø (mm)	Sheath ø (mm)
RGT 178	CTR.50.RG1.78BU29M	1	50 ± 2	0.30	0.90	1.37	2.30	2.80
RGT 174	CTR.50.RG1.74AU39N	2	50 ± 2	0.48	1.55	1.90	2.90	3.90
9222 Belden		3	50 ± 2	0.94	2.90	3.50	5.20	6.10
HF-2318 Dätwyler		5	50 ± 2	1.60	4.80	-	-	10.20
8215 Belden		4	$75 \pm 3$	0.72	4.55	_	_	8.43
8232A Belden		4	75 ± 3	0.80	3.70	_	-	8.00
HF-2426 Dätwyler		4	$75 \pm 3$	0.60	3.70	-	-	8.00
RGT 179		6	75 ± 3	0.30	1.60	2.10	3.10	3.60
Triax 8 Nokia	375 029 LEDE	4	$75 \pm 3$	1.00	4.50	5.20	7.20	8.50
9267 Belden		5	75 ± 3	0.84	3.70	-	_	9.20
Triax 11 Nokia	466 140 LEDE	7	75 ± 3	1.40	6.50	7.20	9.40	10.90
8233A Belden		7	75 ± 3	1.60	7.30	_	-	12.10







# **Product safety notice**

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

### 1. SHOCK AND FIRE HAZARD

Incorrect wiring, the use of damaged components, presence of foreign objects (such as metal debris), and / or residue (such as cleaning fluids), can result in short circuits, overheating, and / or risk of electric shock.

Mated components should never be disconnected while live as this may result in an exposed electric arc and local overheating, resulting in possible damage to components.

### 2. HANDLING

Connectors and their components should be visually inspected for damage prior to installation and assembly. Suspect components should be rejected or returned to the factory for verification.

Connector assembly and installation should only be carried out by properly trained personnel. Proper tools must be used during installation and / or assembly in order to obtain safe and reliable performance.

### 3. USE

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

### 4. TEST AND OPERATING VOLTAGES

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

## 5. CE MARKING C€

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.

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