

SHORT FORM CATALOGUE





#### Precision modular connectors to suit your application

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

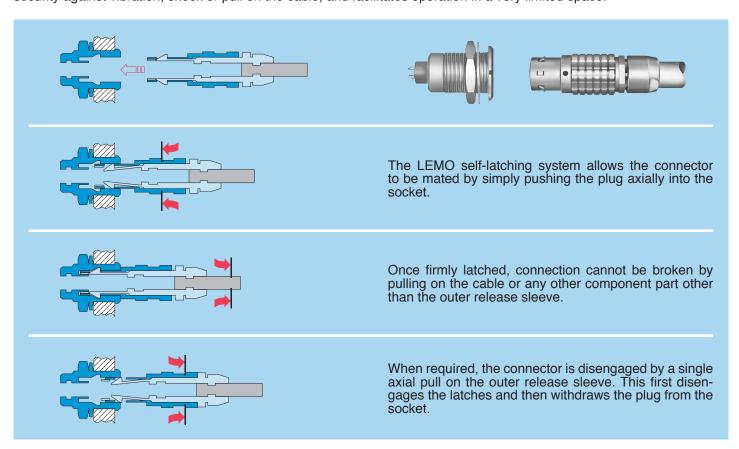
#### Over 75000 connectors

The modular design of the LEMO range provides over 75000 connectors from miniature Ø 3 mm to Ø 50 mm, capable of handling cable diameters up to 30 mm and for up to 114 contacts.

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

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

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



## UL Recognition 🔊

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

## CE marking CE

CE marking 

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

#### **RoHS**

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



#### 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**

				9	Surfac	e tre	atmer	nt (µm	1)			
Component	Material (Standard)		hrom	_		kel		gold		black		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	thout	treatr	nent				
	Aluminium alloy (AA 6262A or AA 6023)					anod	dized					
Outer shell, collet nut, conical nut or notched	POM (Delrin® or Ertacetal®), Polyoxymethylene, black					-	-					1)
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	thout	treatr	nent				7)
Latch sleeve	Special brass	0.5	3	0.3	0.5	3	0.5	3	0.5	-	_	
Lateri sieeve	Stainless steel (AISI 416 or 316L)				wit	thout	treatr	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	thout	treatr	nent				8)
	Aluminium alloy (AA 6262A or AA 6023)				an	odize	ed 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	thout	treatr	nent				
O-ring and gaskets	Silicone MQ/MVQ or FPM/FKM (Viton®)					-	-					9)
Sealing resin	Epoxy (Araldite® or Stycast®)					-	-					

standards for surface treatment are as follows:

- chrome-plated: SAE AMS 2460
  nickel-plated: SAE AMS QQ N 290, or MIL DTL 32119
  gold-plated: ISO 27874
  black chrome: MIL-C-14538C with a minimum of 10 μm of lacquer protection
- 1) for FFP, PCP and ERN models of the 0S to 3S series
  2) 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
- 3) for the FGG, FGY and ENY models of the 2B to 4B series
- 4) for 00 triaxial series (elbow sockets for printed circuits)
- 5) 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
  - 8) delivered with free and fixed sockets with aluminium alloy or stainless steel shell
- 9) FPM/FKM (Viton®) o-ring and gaskets are installed upon special request. However standard for vacuumtight models.

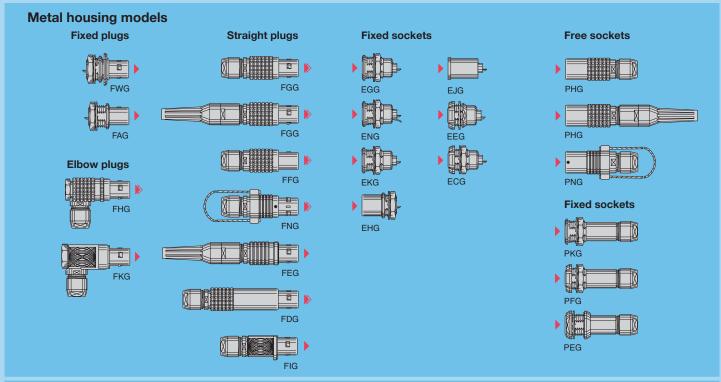


### **B** Series

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



#### Plastic housing models Straight plugs **Fixed sockets** FGG FGG D **FGY FGY** ENY

#### **Model Description**

- ECG Fixed socket with two nuts, key (G) or keys (A...L and R) (back panel mounting)
  EEG Fixed socket, nut fixing, key (G) or keys
- EGG
- (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 **ENG** Fixed socket with earthing tag, nut fixing,
- 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 FAG

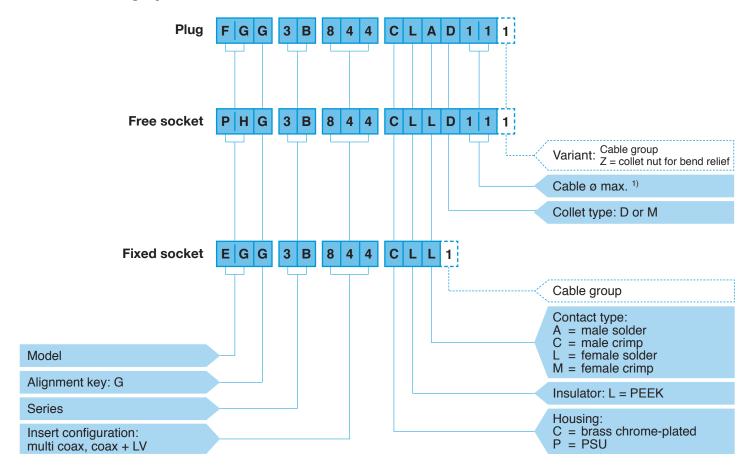
- Straight plug, key (G) or keys (A...L), cable collet, front seal and nut for fitting a bend relief (IP 54 protection index when mated)
- FGG
- Straight plug, non-latching, key (G) or keys (A...L), cable collet Straight plug, key (G) or keys (A...L and R), cable collet Straight plug, key (G) or keys (A...L), cable collet and nut for fitting a bend relief Straight plug, key (G or J), cable collet, PEEK outer shell
- 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
- Straight plug, keys (Y), cable collet and PSU or PPSU outer shell and nut
- and PSU or PPSU outer shell and nut for fitting a bend relief Elbow (90°) plug, key (G) or keys (A...L and R), cable collet 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
- **PEG** Fixed socket, nut fixing, key (G) or keys (A...L), cable collet (back panel mounting)
- **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
- PKG Fixed socket, nut fixing, key (G) or keys (A...L and R), cable collet
  PNG Free socket, nut fixing, key (G) or keys (A...L and R), cable collet with lanyard release



#### **Part Numbering System**



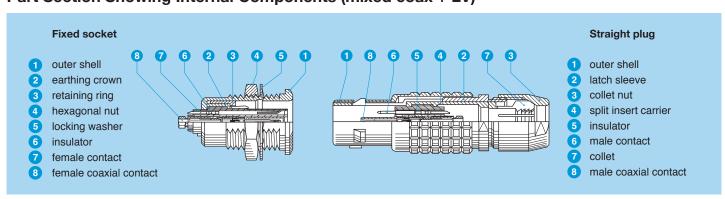
FGG.3B.844.CLAD111 = straight plug with key (G) and cable collet, 3B series, mixed coax & low voltage type (1 coax and 4 low voltage contacts), outer shell in chrome-plated brass, PEEK insulator, male solder contacts, D type collet for up to 11 mm diameter cable. Cable group 1.

**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.

**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.

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





## **K Series**

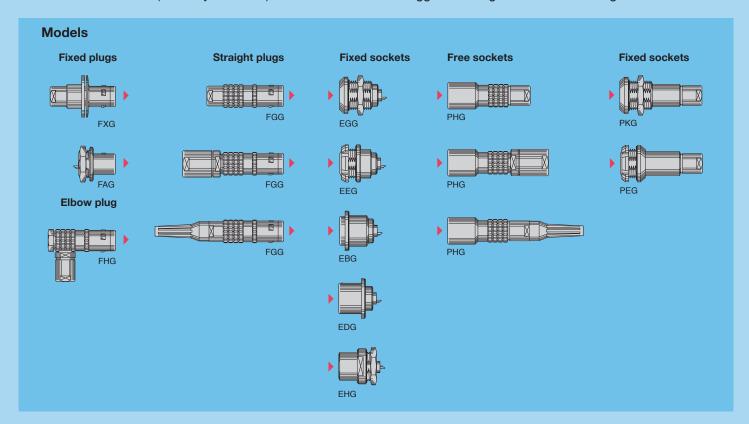
K series connectors have been specifically designed for outdoor applications.

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**

- **EBG** 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
- or keys (A to F, L and R), protruding sh and earthing tag, screw fixing

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

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

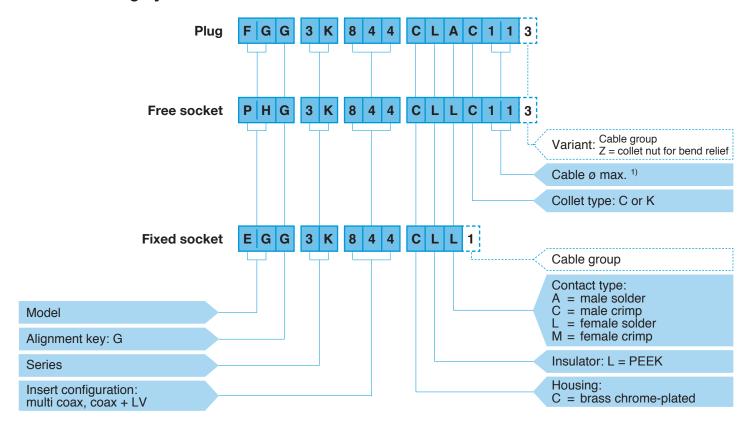
  EHG Fixed socket, nut fixing, key (G) or keys (A to F and L), protruding shell FAG Fixed plug, nut fixing, non-latching, key (G) or keys (A to F, L and R)

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



#### **Part Numbering System**



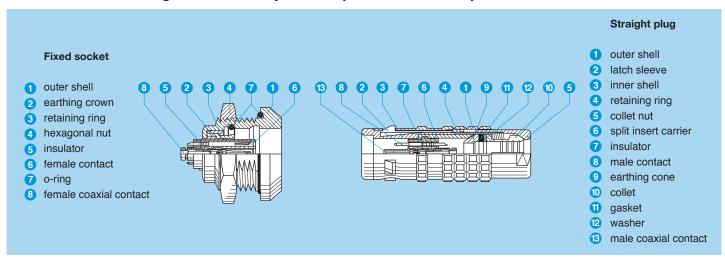
FGG.3K.844.CLAC113 = straight plug with key (G) and cable collet, 3K series, mixed coax & low voltage type (1 coax and 4 low voltage contacts), outer shell in chrome-plated brass, PEEK insulator, male solder contacts, C type collet for 10.5 mm diameter cable. Cable group 3.

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.

**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.

#### 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		ntacts	۵)	je 10)		ntacts		Cont	tacts pe			(F)
		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)
1B 1K		801	1	50	F	2	1	0.9	•	•	0.85	1.20	10
		803	1	50	F	2	3	0.9	•	•	0.75	1.05	10
2B 2K		802	1	50	A1	1-2-3	2	0.9	•	•	0.85	1.20	10
		804	1	50	A1	1-2-3	4	0.7	•	•	0.75	1.05	7
		806	1	50	A1	1-2-3	6	0.7			0.75	1.05	7
		810	2	50	C E	1-2-3	10	1.6	•	•	1.90	2.70	7 17
		232	2	50	G	_	_	-	_	_	-	_	_
		243	3	50	Е	2	_	_	-	_	_	_	_
3B 3K		803	1	50	A0	6	3	0.9	•	-	1.10	1.55	8
3K		806	1	50	A1	1-2-3	6	0.7	•	•	1.00	1.50	7
		809	1	50	A1	1-2-3	9	0.7	•	•	1.00	1.50	7
		812	1	50	A1	1-2-3	12	0.9	•	•	0.80	1.10	5
		813	1	50	A1	1-2-3	13	0.7	•	•	0.90	1.30	7
		822	1	50	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 alternative

O Special order alternative



7

# Mixed: multi coax, coax + LV

					Сс	ax				Low	voltage	(LV)		
	<b>∀</b>   ■	Coax	Reference	Number of contacts	Impedance (Ω)	Type (see page 10)	Cable group	Number of contacts	ø A (mm)	Solder	Crimp duin	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	1-2-3	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	Е	2	18	0.7	•	•	0.90	1.30	5
			894	6	50	Е	2	22	0.7	•	0	0.90	1.30	4
5B 5K			9971)	1	75	A4	N/A	32	1.3	•	•	1.20	1.70	8
			840	1	50	Α	5-6	40	0.9	•	•	1.30	1.80	7
	First choice alternative	O Special order alternative	/e		N	ote: 1) (	only ava	ilable ii	n 5B se	ries. Sc	olution f	or triax	al cable	fixing.



# Mixed: multi coax, coax + LV

				Со	ах				Low	voltage	(LV)		
	Coax		itacts		e 10)		itacts		Cont typ	acts			(A)
	V C	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		868 878	1	50 75	B B	6 3-5	4 44	3.0 0.9	•	•	0.80	1.15	35 6
		850 870	2	50 75	B B	6 3-5	10	0.9	0	•	1.40	2.00	8
		856 876	2	50 75	B B	6 3-5	16	0.9	•	•	1.40	2.00	7
	0.0	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	•	•	0.90	1.30	8
		273	3	75	B1	5	-	_	1	-	-	-	_
		274	4	75	B1	5	-	-	1	-	-	-	ı
		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	-	-	-	-	-	-	-



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

					Coax			Low (L	volt. V)	High (H	volt. V)	Fibre (F	optic O)	Flu (F	idic L)
	Coax	Reference	Number of contacts	Impedance (Ω)	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	2 1)	0.7	<b>1</b> <sup>2)</sup>	0.7	-	-	-	-
3B 3K		934	1	50	2.0	С	1	4	0.9	1	0.9	_	_	_	_
		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

								Shea	ath ø		rms)	
Type	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) 3)	50	0.5	solder	crimp	2	0.35	1.05	_	2.10	1.05 +1.83f	0.8	2
<b>A</b> 1	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
<b>C</b> <sup>1)</sup>	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) 3)	50	0.5	solder	crimp	2	0.35	0.95	_	2.00	1.02 +0.93f	0.8	2
Α	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
<b>A</b> 4	75	1.3	solder	collet	none	1.05	3.95	6.7	7.60	1.01 +0.19f	2.4	7
<b>B</b> 1)	50	0.9	solder	crimp	6	1.05	3.75	_	6.25	1.06 +0.156f	0.8	11
Β"	75	0.6	solder	crimp	3 5	0.80 0.80	2.45 3.75	_	6.25	1.00 +0.22f	2.1	6
В0	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
<b>D</b> <sup>1)</sup>	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
<b>G</b> <sup>3)</sup>	50	0.5	solder	crimp	1	0.35	1.65	-	3.00	1.01 +0.73f	0.4	2
Α0	50	1.3	solder	collet	6	0.95	-	3.3	4.10	1.02 +0.3f <sup>2)</sup>	3.0	12

**Note:**<sup>1)</sup> These contacts require specific tools for assembly on the cable, see page 11. <sup>2)</sup> Frequency range with SWR  $\leq$  1.2 = 0 - 1.5 GHz. <sup>3)</sup> Coax contact design differs, the central pin is reverse gender.



## 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 ± 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:** <sup>1)</sup> 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	Imp. Ω	Cable group	Crimping tool with die	Spanner for tightening the contact	Extractor
F	50	2	DPE.99.025.45K	DCC.91.019.1AK	-
C <sup>1)</sup>	50	1-3	DPE.99.103.8K	-	DCC.91.384.5LA
<i>C.,</i>	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
	75	5	DPE.99.006.2K	DCB.91.685.8TN	-
D	75	8	DPE.99.005.2K	DCB.91.685.8TN	-
	75	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**

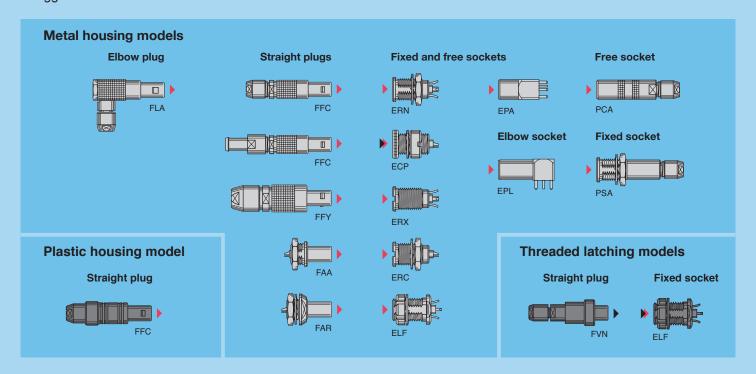
The 00 Series are available in triax configuration, allowing a very compact solution for triaxial cables.

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 uselow weight
- reliable performances
- wide choice to suit application



#### **Model Description**

Fixed socket with 2 round nuts **ECP** 

(back panel mounting)
Fixed socket, nut fixing, threaded shell with tag (back panel mounting)

Fixed socket, nut fixing, threaded shell with tag, black chromium-plated outer shell

**EPA** 

(back panel mounting)
Straight socket for printed circuit board
Elbow plug (90°) for printed circuit board
Fixed socket, with thread, with slots **EPL 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 FFC and cable collet

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

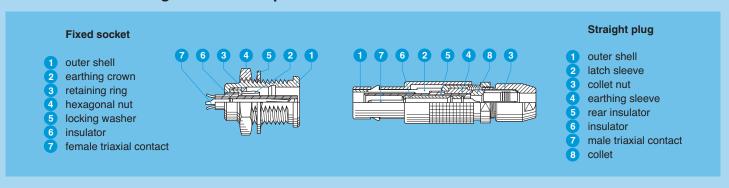
Straight plug with flats on latch sleeve and cable collet, black POM (Delrin® outershell) FFC

Straight plug, large shell with cable collet Elbow socket (90°) with cable collet Straight plug with cable collet,

**FVN** 

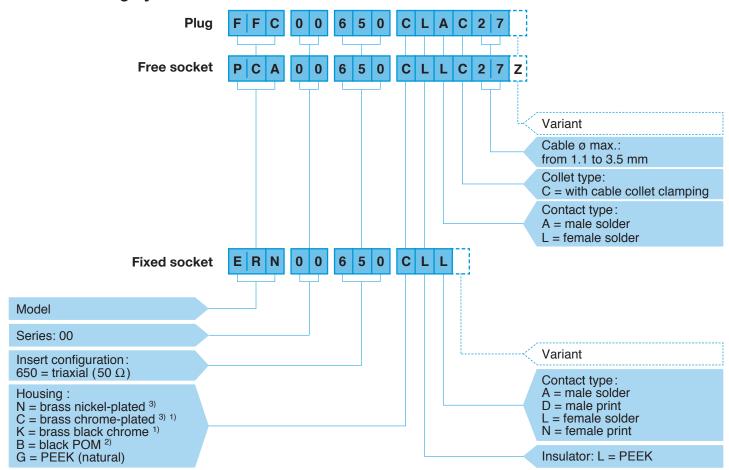
black chromium-plated outer shell PCA Free socket with capie collet PSA Fixed socket, nut fixing, cable collet

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





#### **Part Numbering System**



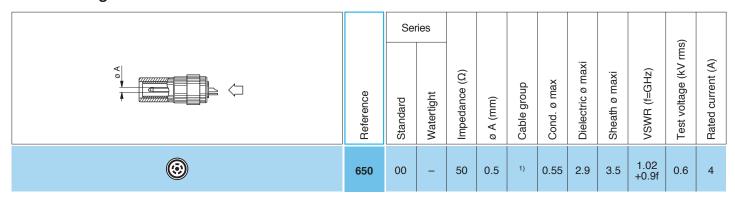
**FFC.00.650.CLAC27** = straight plug with flats on latch sleeve and cable collet, 00 Series, triaxial (50  $\Omega$ ), outer shell in chrome-plated brass, PEEK insulator, C type collet for an up to 2.6 mm diameter cable.

**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.

**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).

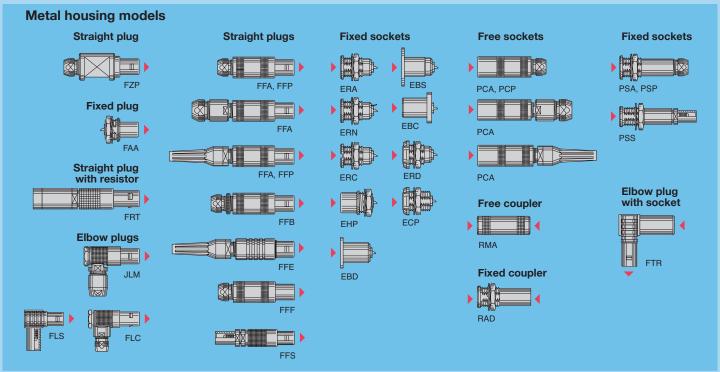


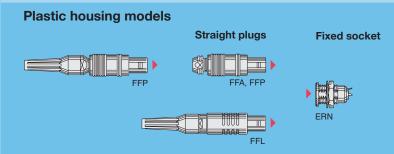
## **S** Series

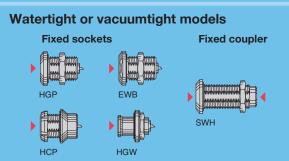
S series connectors have main features as follows:

- security of the Push-Pull self-latching system
- solder contacts, print contacts only for coaxial and triaxial configurations

- 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
Fixed socket with square flange, screw

**EBS** 

Fixed socket with round flange, screw fixing Fixed socket with two nuts, long threaded **ECP** 

shell (back panel mounting)
Fixed socket, nut fixing, protruding shell
Fixed socket, nut fixing
Fixed socket, nut fixing, slot in the flange **EHP ERA** 

**ERC ERD** Fixed socket with two nuts (back panel mounting)

ERN ERN Fixed socket, nut fixing, with earthing tag Fixed socket, nut fixing, with earthing tag, PEEK or POM outer shell

Fixed socket, nut fixing, with two flats on the flange, watertight or vacuumtight

FFA FFA

Fixed plug non-latching, nut fixing
Straight plug, cable collet
Straight plug with oversize cable collet
Straight plug, cable collet
and nut for fitting a bend relief Straight plug, cable collet,

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, 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 **FLC** 

**FRT** 

Straight plug with resistor Elbow (90°) plug with socket Straight plug for remote handling,

cable collet and inner anti-rotating device 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

JLM Elbow (90°) plug, cable collet

PCA Free socket, cable collet

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

Free socket, cable collet and inner anti-rotating device
Fixed socket, nut fixing, cable collet Fixed socket, nut fixing, cable collet PCP

PSA PSP and inner anti-rotating device

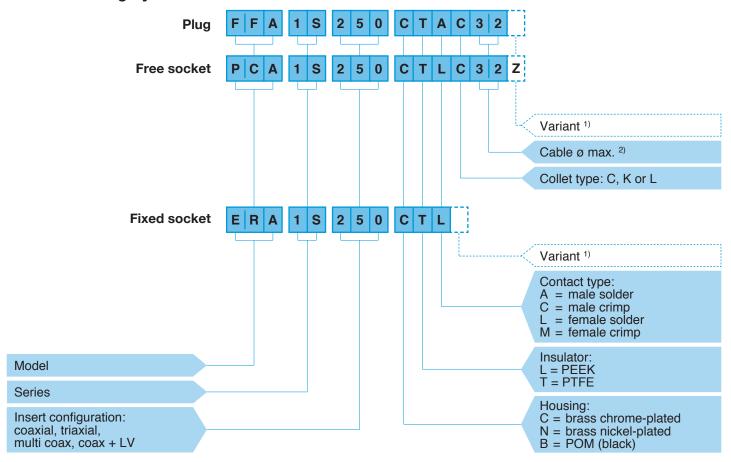
**PSS** Free socket, nut fixing for cable crimping

RAD Fixed coupler, nut fixing RMA Free coupler

SWH Fixed coupler, nut fixing, watertight or vacuumtight



#### **Part Numbering System**



**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.

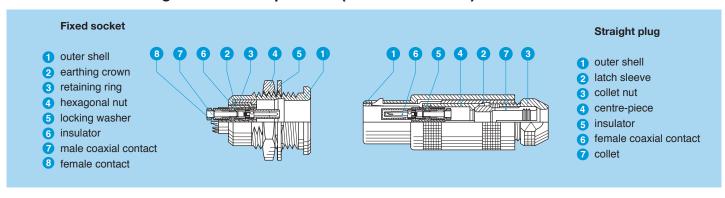
**PCA.1S.250.CTLC32Z** = free socket with cable collet, 1S series, coaxial (50  $\Omega$ ), outer shell in chrome-plated brass, PTFE insulator, female solder contact, C type collet for a 3.2 mm diameter cable and nut for fitting a bend relief.

**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: 1) for mixed contacts, add cable group to the part number.

<sup>2)</sup> see unipole-multipole catalogue.

#### 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).

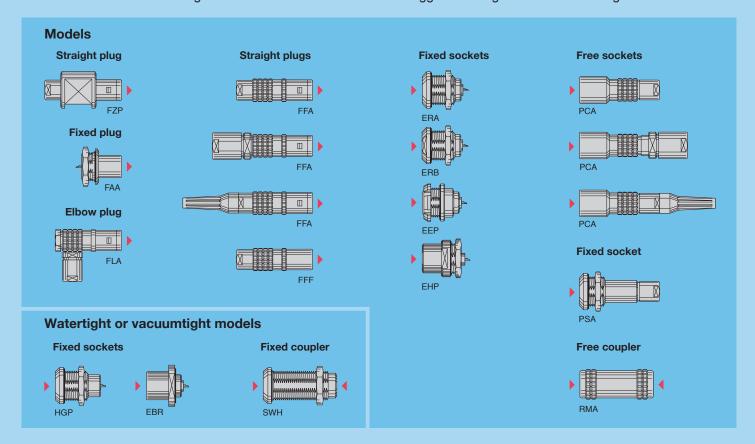
– security of the Push-Pull latching system

– watertight connection (IP 68/IP 66)

– polarization by stepped insert (half-moon)

- solder contacts, print contacts only for coaxial and triaxial configurations

- coaxial, triaxial and mixed contact configurations
- 360° screening for full EMC shielding
- rugged housing for extreme working condition.



### **Model Description**

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

ting)

EHP Fixed socket, nut fixing, protruding shell

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

in the flange
Fixed plug non-latching, nut fixing
Straight plug, cable collet

FFA

**FFA** 

FLA FZP

Straight plug with oversize cable collet Straight plug, cable collet and nut for fitting a bend relief 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 Free socket, cable collet **HGP** 

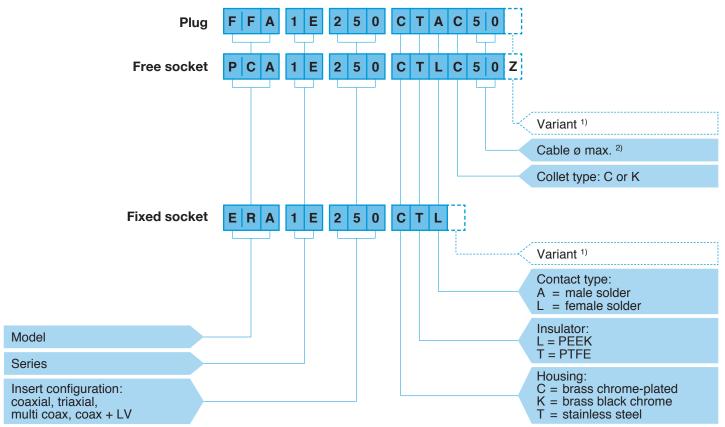
PCA Free socket with oversize cable collet
PCA Free socket, cable collet
and nut for fitting a bend relief
PSA Fixed socket, nut fixing, cable collet

RMA Free coupler

**SWH** Fixed coupler, nut fixing, watertight or vacuumtight



#### **Part Numbering System**



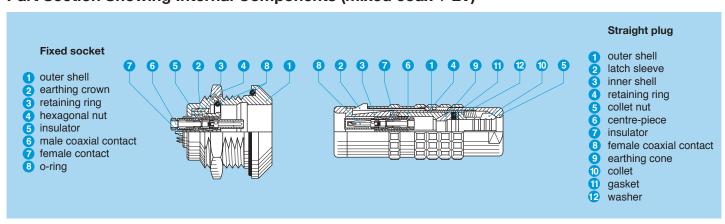
FFA.1E.250.CTAC50 = straight plug with cable collet, 1E series, coaxial (50 Ω), outer shell in chrome-plated brass, PTFE insulator, C type collet for an up to 5.0 mm diameter cable.

PCA.1E.250.CTLC50Z = free socket with cable collet, 1E series, coaxial (50 Ω), 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.

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

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

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





# Insert configuration (S and E series)

# Coaxial

			Sei	ries						Shea	ath ø		(6	
		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)	Rated current (A)
00	<b>©</b>	<b>250</b> <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	0S	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	1S	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	2S	2E	75	1.6	6-7	1.35	5.95	10.5	10.5	1.02 +0.03f	1.5	12
3S 3E		250	3S	3E	50	3.0	8	2.65	8.15	13.0	15.0	1.06 +0.5f	3.0	26
		275	3S	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	4S	4E	75	3.0	8-9-0	2.65	10.05	22.0	23.5	1.01 +0.12f	1.8	26
58		250	5S	-	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**

		Sei	ries						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	0S	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	2S	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	3S	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	1.01 +0.05f	1.8	6
4S 4E	650	4S	4E	50	3.0	4-5	2.65	10.05	22.0	23.5	1.01 +0.38f	2.7	26
	675	4S	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	l			Lo	w volta	ige	
	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
<u> </u>		802	3S	3E	1	50	5	A1	1-2-3	2	1.3	1.2	1.8	14
		803	3S	3E	1	50	5	A1	1-2-3	3	1.3	2.7	3.9	14
		804	3S	3E	1	50	5	A1	1-2-3	4	1.3	1.2	1.8	10
		805	3S	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	3S	3E	1	50	5	A1	1-2-3	7	0.9	0.8	1.2	7
4S 4E		802	4S	4E	1	50	5	A1	1-2-3	2	3.0	2.1	3.0	21
		803	4S	4E	1	50	5	A1	1-2-3	3	2.0	2.1	3.0	16
		804	4S	4E	1	50	5	A1	1-2-3	4	1.3	2.7	3.9	13
		805	48	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	4S	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	4S	4E	1	50	5	A1	1-2-3	12	0.9	2.1	3.0	7
		202	4S	4E	2	50	5	A1	1-2-3	-	_	-	_	-
		832	4S	4E	2	50	5	A1	1-2-3	2	1.3	2.1	3.0	13



21

# Mixed: coax + LV, multi coax

			Ser	ries		(	Coaxia	l			Lo	w volta	ıge	
	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)
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	4S	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	ı	2	50	6	A0	1-3-4	-	-	-	ı	_
		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	ge	
	Coax		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	5S	5E	2	50	6	AO	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	Α	3-4-5	16	1.3	0.8	1.2	8
		850	5S	_	2	50	6	A0	1-3-4	20	1.3	0.8	1.2	7
		854	5S	_	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



				(	Coaxia	l			Lov	w volta	ge	
	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)
68		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
			2	75	7	А	3-4-5	6 6 5 17	1.3 1.6 2.0 1.9	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	A0	1-3-4	26	2.0	1.5	2.1	7
		867	3	75	7	Α	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



				(	Coaxia	ı			Lov	w volta	ige	
	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	-	1	ı	-	_
		882	4	75	7	А	3-4-5	26	0.9	0.8	1.2	2
		887	1 4	50 50	26 5	A3 A1	<sup>7</sup> 3}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	-	1	1	-	_
		899	8	50	5	A1	1-2-3	20	1.6	1.5	2.1	5



25

# Mixed: coax + LV, multi coax

				(	Coaxia	I			Lo	w volta	ge	
	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
		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
	0.0	856	2	75	7	Α	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

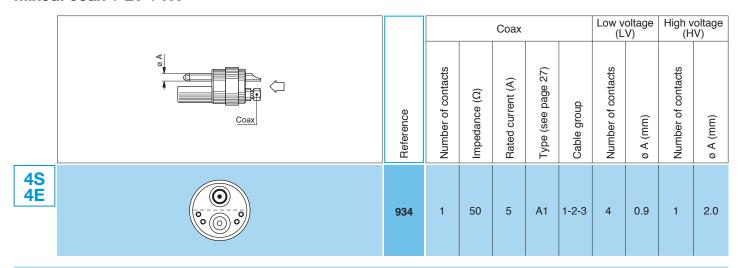
Note: 1) The type 6E.805 is delivered with female contacts in the plug.



				(	Coaxia	I			Lov	w volta	ge	
	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		866	3	75	7	Α	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	-	ı	_	_	_
		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

								Shea	ath ø		rms)	3
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)
<b>A</b> 1	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
Α0	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
	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
А3	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 (page 18)

	LEMO cable Part Number	Туре	LEMO cable group	Impedance (Ω)	Conductor ø (mm)	Dielectric ø (mm)	Screen ø (mm)	Sheath ø (mm)
	CCX.50.RG5.8CU50N	RG 58 C/U	6	50 ± 2	0.90	2.95	3.60	5.00
	CCX.50.RG1.42BU50M	RG 142 B/U	7	50 ± 2	0.95	2.95	3.53 / 4.30	5.00
	CCX.50.RG1.74U25N	RG 174 /U	3	50 ± 2	0.48	1.50	2.00	2.55
ard	CCX.50.RG1.74AU27N	RG 174 A/U	3	50 ± 2	0.48	1.50	2.00	2.80
Standard	CCX.50.RG1.78BU18M	RG 178 B/U	1	50 ± 2	0.30	0.84	1.30	1.80
Ś	CCX.75.RG1.79BU26M	RG 179 B/U	2	75 ± 3	0.30	1.50	2.00	2.50
	CCX.75.RG1.87AU26B	RG 187 A/U	2	75 ± 3	0.30	1.50	2.00	2.60
	CCX.50.RG1.88AU24B	RG 188 A/U	4	50 ± 2	0.54	1.50	2.00	2.60
	CCX.95.RG1.95AU37B	RG 195 A/U	5	95 ± 5	0.30	2.52	3.10	3.70
	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	4	50 ± 2	0.54	1.50	2.10	2.60
5		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

 $\textbf{Note:} \ \text{for more details on cable properties, see NIM-CAMAC catalogue.}$ 

# Recommended triaxial cables for 00 Series (page 13)

	LEMO cable Part Number	Туре	Impedance $(\Omega)$	Conductor ø (mm)	Dielectric ø (mm)	Screen 1 ø (mm)	Screen 2 ø (mm)	Sheath ø (mm)
_		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
Star	017 410 LEDE	RGT 174	50 ± 2	0.48	1.55	1.90	2.90	3.90
	017 820 LEDE	RGT 178	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 (page 18)

LEMO cable Part Number	Туре	LEMO cable group	Impedance (Ω)	Conductor ø (mm)	Dielectric ø (mm)	Screen ø (mm)	Sheath ø (mm)
311 100 LEDE	RG 11 A/U	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
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	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
CCX.50.RG1.42BU50M	RG 142 B/U	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
CCX.50.RG1.74AU27N	RG 174 A/U	3	50 ± 2	0.48	1.50	2.00	2.80
CCX.50.RG1.78BU18M	RG 178 B/U	1	50 ± 2	0.30	0.84	1.30	1.80
CCX.75.RG1.79BU26M	RG 179 B/U	5	75 ± 3	0.30	1.50	2.00	2.50
CCX.75.RG1.87AU26M	RG 187 A/U	5	75 ± 3	0.30	1.50	2.00	2.60
CCX.50.RG1.88AU26B	RG 188 A/U	2	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
213 000 LEDE	RG 213 /U	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
CCX.50.RG3.16U26M	RG 316 B/U	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 (pages 20 to 26)

LEMO cable Part Number	Туре	LEMO cable group	Impedance (Ω)	Conductor ø (mm)	Dielectric ø (mm)	Screen ø (mm)	Sheath ø (mm)
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
	RG 122 /U	4	50 ± 2	0.80	2.50	3.20	4.10
CCX.50.RG1.42BU50M	RG 142 B/U	6	50 ± 2	0.95	2.95	4.30	5.00
CCX.50.RG1.74.AU27N	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 ± 3	0.30	1.50	2.00	2.50
CCX.75.RG1.87AU26M	RG 187 A/U	3	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	2	50 ± 2	0.30	0.84	1.30	1.95
213 000 LEDE	RG 213 /U	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
CCX.50.RG3.16U26M	RG 316 /U	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 (page 19)

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

Note: 1) when used with 1S.650 / 1E.650, please request large contact bucket («W» type).







### **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

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

#### 3. USE

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

#### 4. TEST AND OPERATING VOLTAGES

The maximum admissible operating voltage depends upon the national or international standards in force for the application in question. Air and creepage distances impact the operating voltage; reference values are indicated in the catalog however these may be influenced by PC board design and / or wiring harnesses.

The test voltage indicated in the catalog is 75% of the mean breakdown voltage; the test is applied at 500 V/s and the test duration is 1 minute.

#### 5. CE MARKING CE

CE marking **(** € means that the appliance or equipment bearing it complies with the protection requirements of one or several European safety directives.

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