

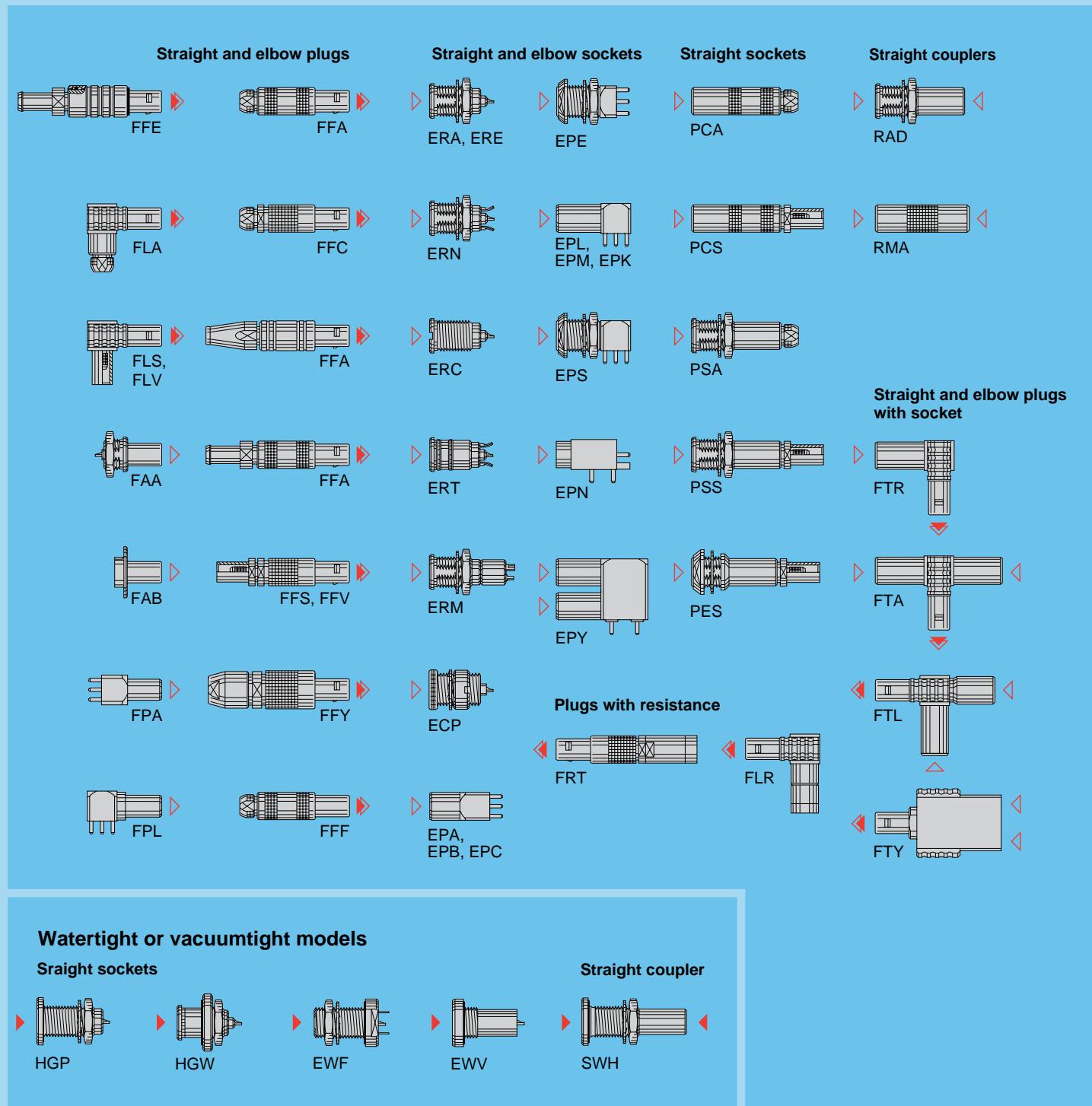
Series 00 (NIM-CAMAC-CD/N 549)

Introduction

The 00 series is a range of 50Ω coaxial connectors. They are suitable for a wide variety of applications particularly in measurement, control system and nuclear physics, having formed the basis for the NIM-CAMAC-CD/N 549 standard. LEMO 00 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

Interconnections



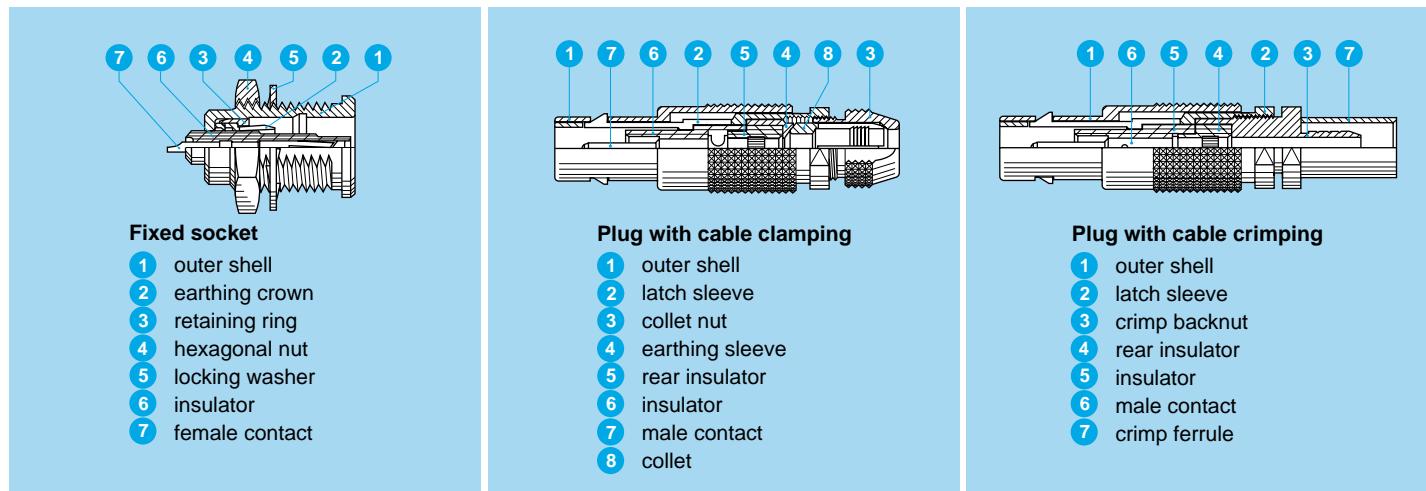
Models Description

ABA Adaptor from LEMO socket to BNC plug
ABB Adaptor from LEMO fixed socket to BNC socket
ABC Adaptor from LEMO socket to BNC socket
ABD Adaptor from LEMO socket to BNC fixed socket
ABF Adaptor from LEMO plug to BNC socket
ACA Adaptor from LEMO socket to C plug
ACB Adaptor from LEMO socket to C socket
AGG Adaptor from LEMO socket to General-Radio socket type 874
AGH Adaptor from LEMO socket to UHF plug
ANA Adaptor from LEMO socket to N plug
ANB Adaptor from LEMO socket to N socket
ANC Adaptor from LEMO socket to N fixed socket
APF Adaptor from LEMO plug to CINCH socket
ASA Adaptor from LEMO socket to SMA plug
ASB Adaptor from LEMO socket to SMA socket
ASF Adaptor from LEMO plug to SMA socket
ASG Adaptor from LEMO plug to SMA plug
ECP Straight socket with two nuts
EPA Straight socket for printed circuit
EPB Straight socket for printed circuit (long studs)
EPC Straight socket for printed circuit with clearance under the body
EPE Straight socket with two nuts for printed circuit

EPK Elbow socket (90°) for printed circuit with clearance under the body
EPL Elbow socket (90°) for printed circuit
EPM Elbow socket (90°) for printed circuit (long studs)
EPN Straight socket for press mounting in pair on printed circuit,
EPS Elbow socket (90°) with two nuts for printed circuit
EPY Elbow socket (90°) for printed circuit with two vertical sockets
ERA Fixed socket, nut fixing
ERC Fixed socket, nut fixing, with slots in flange
ERE Fixed socket, nut fixing, with conical lead in
ERM Fixed socket, nut fixing, with microswitch
ERN Fixed socket, nut fixing, with tags
ERT Straight socket without thread, force or adhesive fit
EWF Fixed socket, nut fixing, with tags, vacuumtight, (back panel mounting)
EWV Fixed socket, vacuumtight
FAA Straight plug, non-latching, nut fixing
FAB Straight plug, non-latching, riveted fixing
FFA Straight plug with cable collet
FFA Straight plug with cable collet PEEK outer shell
FFA Straight plug with cable collet and nut for fitting a strain relief
FFC Straight plug with flats on latch sleeve and cable collet
FFE Straight plug with front sealing ring, cable collet and nut for fitting a strain relief

FFF Straight plug, non-latching, with cable collet
FFS Straight plug with cable crimping
FFY Straight plug with cable collet
FFV Straight plug for cable crimping with improved screen efficiency
FLA Elbow plug (90°) with cable collet
FLR Elbow plug (90°) with resistor
FLS Elbow plug (90°) for cable crimping
FLV Elbow plug (90°) for cable crimping with improved screen efficiency
FPA Straight plug, non-latching, for printed circuit
FPL Elbow plug (90°) non-latching for printed circuit
FRT Straight plug with resistor or shorted
FTA T-plug with two sockets in line
FTL T-plug with two sockets (90°)
FTR Elbow plug (90°) with one socket
FTY Straight plug with two parallel sockets
HGP Fixed socket, nut fixing, watertight
HGW Fixed socket, nut fixing, with rear sealing ring
PCA Free socket with cable collet
PCS Free socket with cable crimping
PES Fixed socket, nut fixing, with cable crimping (back panel mounting)
PSA Fixed socket, nut fixing, with cable collet
PSS Fixed socket, nut fixing, with cable crimping
RAD Fixed coupler, nut fixing
RMA Free coupler
SWH Fixed coupler, nut fixing, vacuumtight

Part Section Showing Internal Components



Models with collet nut for fitting a strain relief

To order models with a collet nut for fitting a strain relief, add a "Z" in the "variant" position (see page 12) of the part number. Strain reliefs are available in nine colours and several sizes to accommodate different cable outside diameters. They are ordered separately as indicated in the "Accessories" section.

Watertight/Vacuumtight models

The fixed sockets and couplers, models HGP, HGW, EWF, EWV, SWH allow the device on which they are

fitted to reach a protection index of IP66 as per IEC 529 (unmated). They are fully compatible with the non watertight models of the same series and are widely used for portable radios, ship installations and in aircraft.

Specially prepared & tested versions of these models are available for vacuumtight applications guaranteeing a leakage level of less than 10^{-6} mbar.l.s⁻¹ (as per MIL-STD-1344A standard method 1008). A vacuumtight model is identified by the letter at the end of the part number (certificate on request).

To seal both the watertight and vacuumtight models, LEMO uses an epoxy resin.

Technical Characteristics

Mechanical and climatical

Characteristics	Value	Standard	Method
Contact retention force	> 18 N	MIL-STD-1344A	2007.1
Cable pull off force	> 100 N	MIL-STD-1344A	2009.1
Connector pull off force	> 90 N		
Endurance	> 1000 cycles	MIL-STD-1344A	2016
Operating temperature ¹⁾	- 55°C + 260°C		

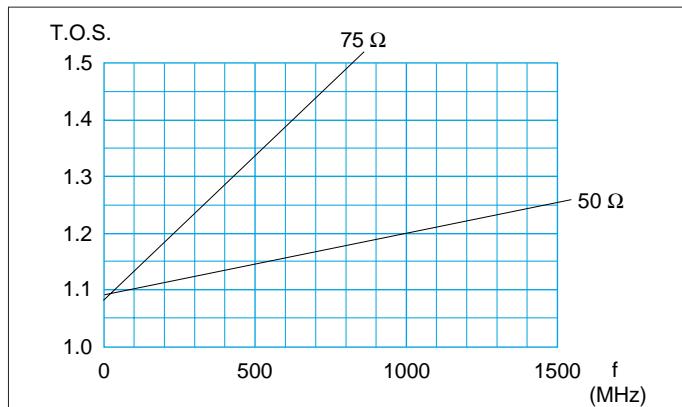
Note: 1) to seal both the watertight and vacuumtight models, LEMO uses and epoxy resin. The operating temperature is limited between -20°C and +80°C.

Electrical

Characteristics	Value	Standard	Method
Impedance	50 Ω		
Operating voltage (50 Hz)	0.7 kV rms	IEC 130-1 1 ^{ère} ed. § 14.5	
Test voltage (50 Hz)	2.1 kV rms	MIL-STD-1344A	3001.1
Rated current	4 A	IEC 512-3	
Contact resistance	< 6 mΩ	MIL-STD-202 F	307
Screen resistance	< 3.5 mΩ	MIL-STD-1344A	3007
Insulating resistance	> 10 ¹² Ω	MIL-STD-1344A	3003.1
VSWR (f. in GHz)	50 Ω 75 Ω	1.09+0.11f 1.08+0.51f	IEC 169-1-1 IEC 169-1-1

Voltage Standing Wave Ratio

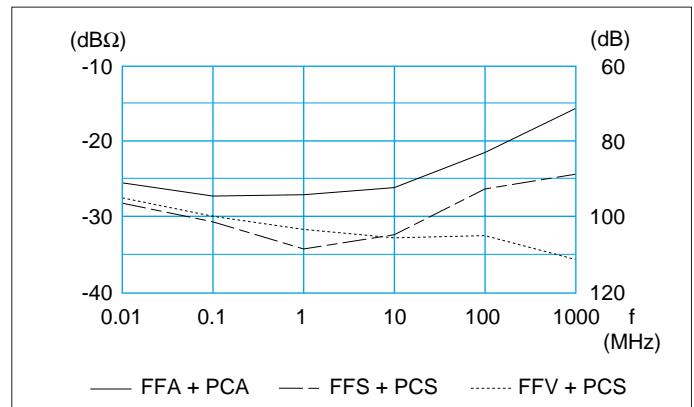
The VSWR (Voltage Standing Wave Ratio) is the value representing the power reflected in a connection. In most cases, the working frequency range is where $VSWR \leq 1.25$



Note: value for FFS plug and PCS socket mated (with PTFE insulator). Impedance measured under 50 Ω with a RG-174 A/U cable or under 75 Ω with a RG-179 B/U cable.

Screening efficiency (EMC properties) in dB (transfer impedance in dBohm)

The screening efficiency is the ratio between the electromagnetic field inside the connector and a power source at the outside of the connector (or vice versa).



Note: measured according to IEC-169-1-3 standard.

Recommended cables

Cable group	Standard			Other cable	Imp. (Ω)
	MIL-C-17	IEC 96-2	CCTU 10-01A		
6	RG.58 C/U	50.3.1	KX 15	Belden 8262	$50 \pm 2 \Omega$
7	RG.142 B/U				$50 \pm 2 \Omega$
3	RG.174 A/U	50.2.1	KX 3A	Belden 8216	$50 \pm 2 \Omega$
				Lemo CCH.99.281.505	$50 \pm 2 \Omega$
1	RG.178 B/U	50.1.1	KX 21A	Belden 83265	$50 \pm 2 \Omega$
2	RG.179 B/U	75.2.1			$75 \pm 3 \Omega$
5	RG.180 B/U				$95 \pm 5 \Omega$
2	RG.187 A/U	75.2.2			$75 \pm 3 \Omega$
4	RG.188 A/U	50.2.3		Belden 83269	$50 \pm 2 \Omega$
1	RG.196 A/U	50.1.2			$50 \pm 2 \Omega$
4	RG.316 /U	50.2.2	KX 22A	Belden 83284	$50 \pm 2 \Omega$
3				Dätwyler HF-2114	$50 \pm 2 \Omega$
8				Storm 421 099	$50 \pm 2 \Omega$
8				H+S G02232D-60	$50 \pm 2 \Omega$

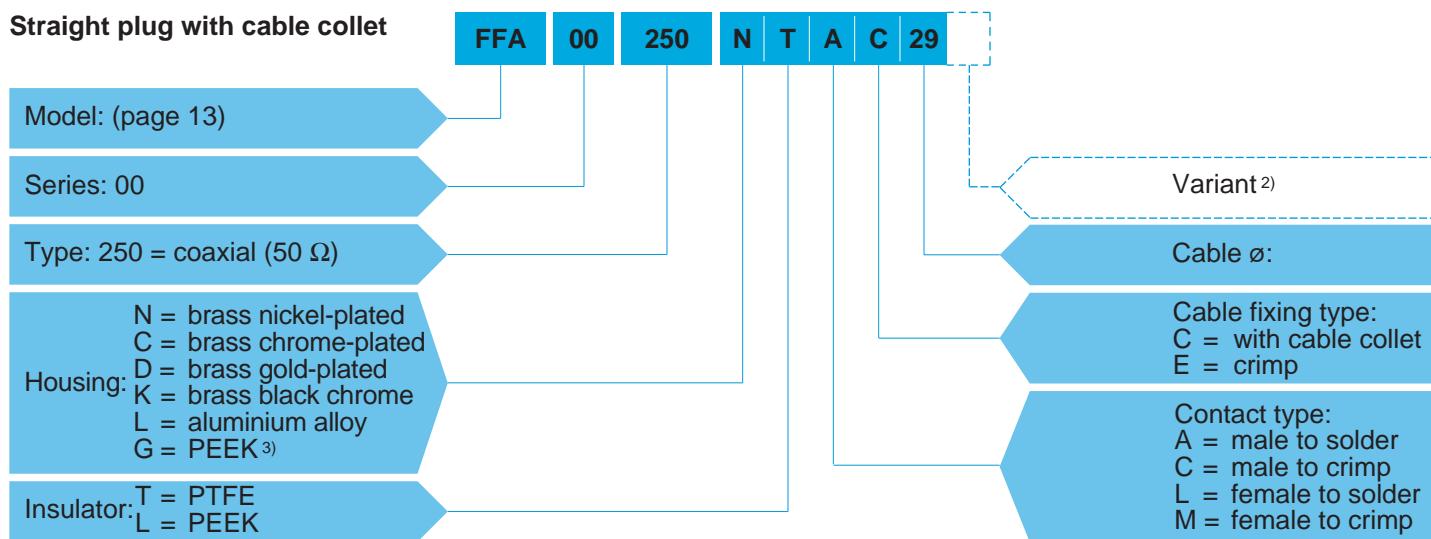
Colour of connectors in anodized aluminium alloy

When ordering a connector with an aluminium alloy, the outer shell colour must be chosen from the table variant listed below and included in the position of the part number.

Reference	Colour
A	blue
J	yellow
N	black
R	red
T	natural
V	green

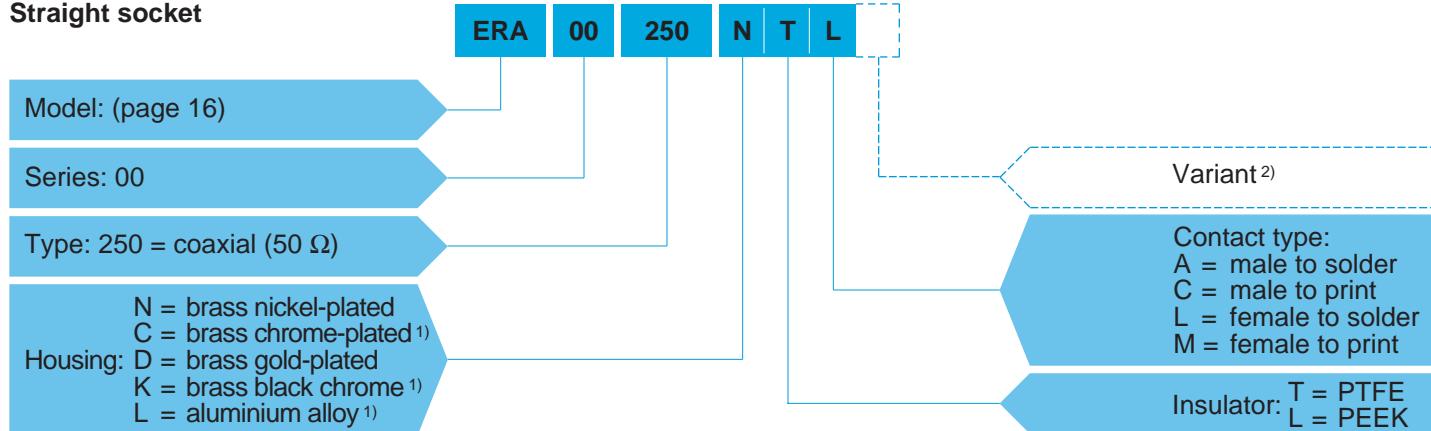
Part Number Example

Straight plug with cable collet



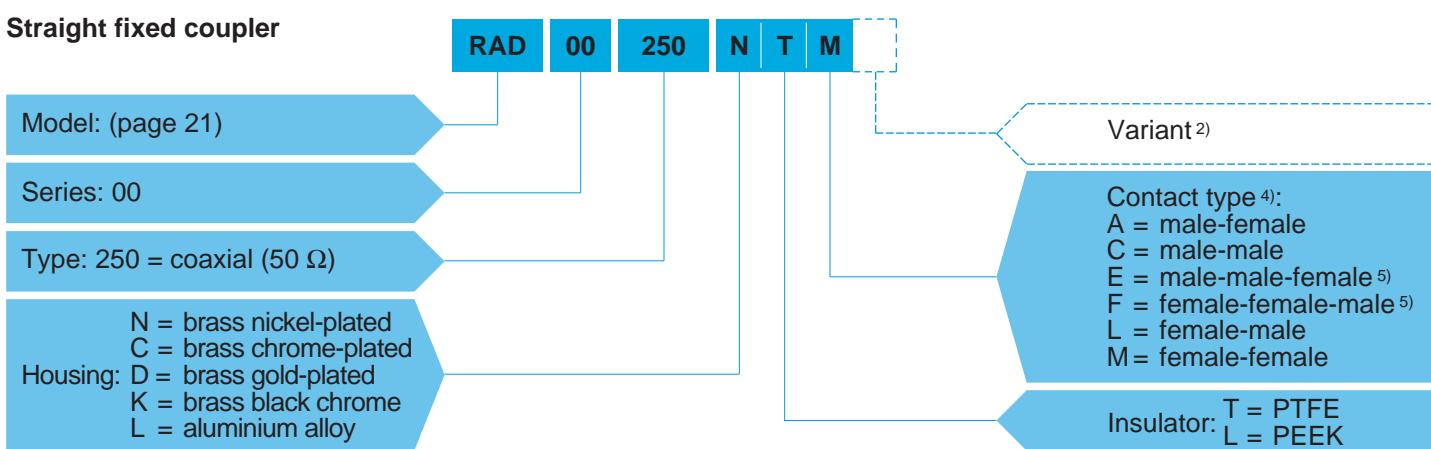
FFA.00.250.NTAC29 = straight plug with cable collet, series 00, coaxial type (50 Ω), outer shell in nickel-plated brass, PTFE insulator, male solder contact, C type collet of 2.9 mm diameter.

Straight socket



ERA.00.250.NTL = fixed socket, nut fixing, series 00, coaxial type (50 Ω), outer shell in nickel-plated brass, PTFE insulator, female solder contact.

Straight fixed coupler



RAD.00.250.NTM = straight fixed coupler, nut fixing, series 00, coaxial type (50 Ω), outer shell in nickel-plated brass, PTFE insulator, female-female contact.

Note: 1) treatment not available for the printed circuit models

2) the "variant" position in the reference is used to specify the anodized colour of the housing in aluminium alloy (page 11) or models with a collet nut for fitting a strain relief "Z". The strain relief can be ordered separately as indicated in the "Accessories" section.

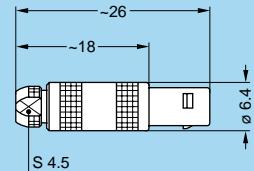
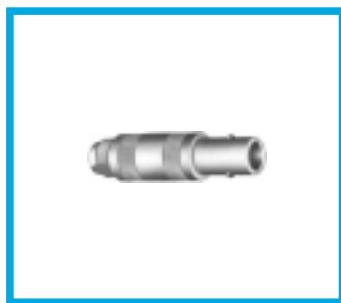
3) available for the FFA model only

4) concerning the straight fixed couplers with nut fixing RAD and SWH, the first contact type mentioned is always the contact at the flange end.

5) used only for models: FTA, FTL and FTY.



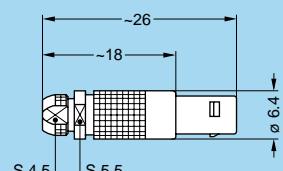
Models



FFA Straight plug with cable collet

Part number	Cable group	Note
FFA.00.250.NTAC22	1	●
FFA.00.250.NTAC29	2-3-4	●
FFA.00.250.NTAC31	8	●

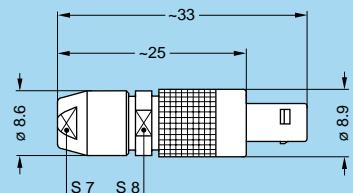
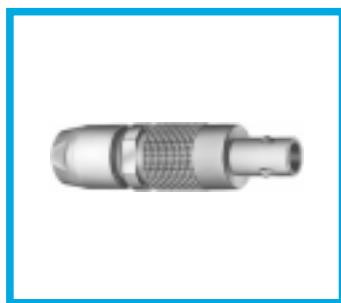
M1 Cable assembly



FFC Straight plug with flats on latch sleeve and cable collet

Part number	Cable group	Note
FFC.00.250.NTAC22	1	●
FFC.00.250.NTAC27	2-4	●
FFC.00.250.NTAC31	3-8	●

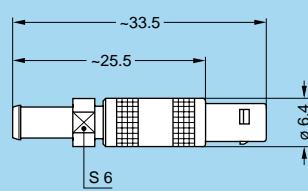
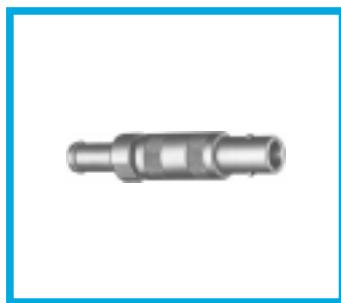
M3 Cable assembly



FFY Straight plug with cable collet

Part number	Cable group	Note
FFY.00.250.NTAC52	6-7	●

M2 Cable assembly

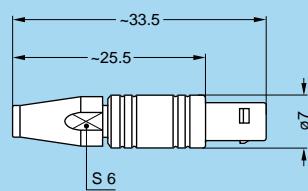


FFA Straight plug with cable collet and nut for fitting a strain relief

Part number	Cable group	Note
FFA.00.250.NTAC22Z	1	●
FFA.00.250.NTAC29Z	2-3-4	●
FFA.00.250.NTAC31Z	8	●

Note: the strain relief must be ordered separately (see page 29).

M1 Cable assembly

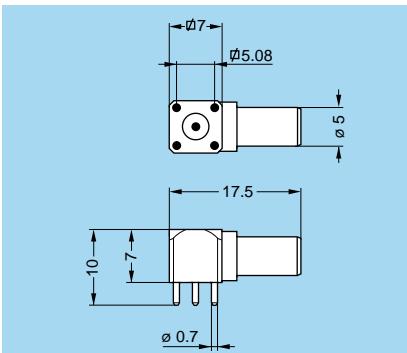
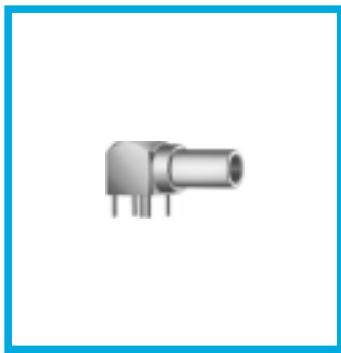


FFA Straight plug with cable collet, PEEK outer shell

Part number	Cable group	Note
FFA.00.250.GTAC22	1	●
FFA.00.250.GTAC29	2-3-4	●
FFA.00.250.GTAC31	8	●

M1 Cable assembly

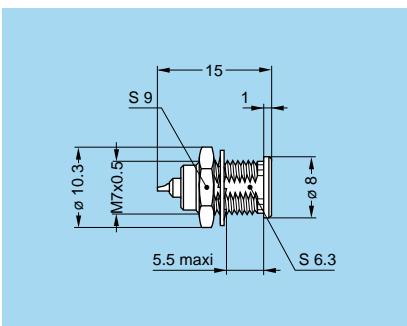
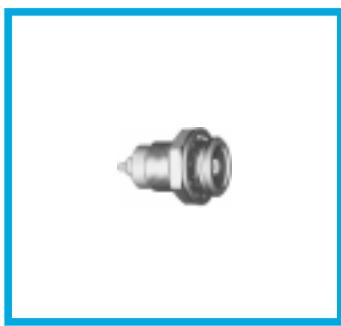
● Available ○ On request



FPL Elbow plug (90°), non-latching
for printed circuit

Part number	Weight (g)	Note
FPL.00.250.NTD	2.5	●

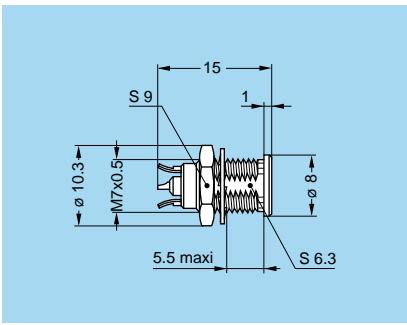
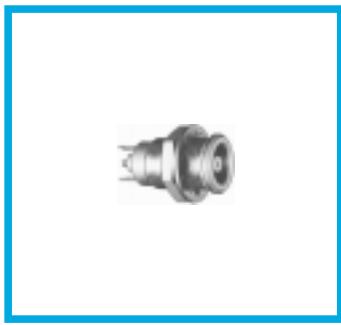
P10 PCB drilling pattern



ERA Fixed socket, nut fixing

Part number	Weight (g)	Note
ERA.00.250.NTL	2.8	●

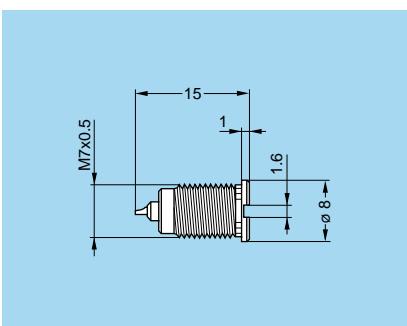
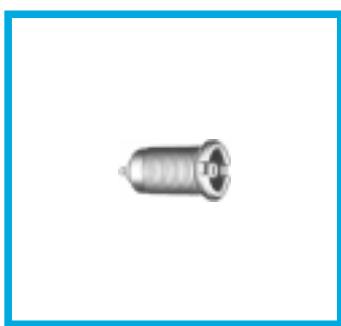
P5 Panel cut-out



ERN Fixed socket, nut fixing,
with earthing tags

Part number	Weight (g)	Note
ERN.00.250.NTL	2.8	●

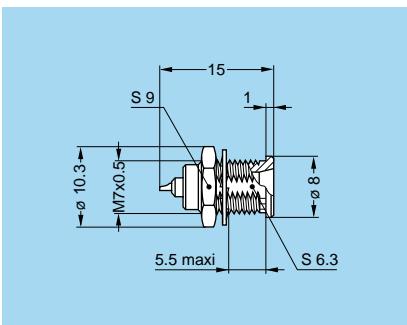
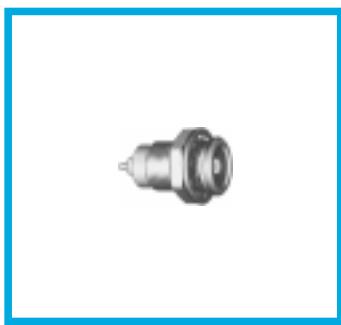
P5 Panel cut-out



ERC Fixed socket, nut fixing,
with slots in flange

Part number	Weight (g)	Note
ERC.00.250.NTL	2.2	●

P3 Panel cut-out

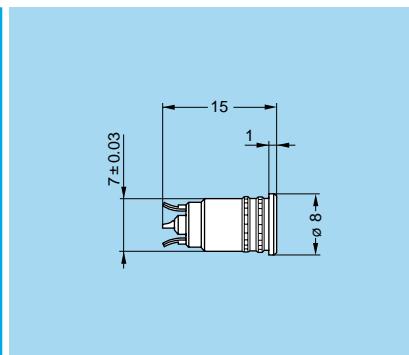


ERE Fixed socket, nut fixing,
with conical lead-in

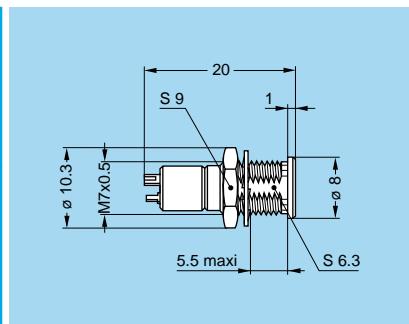
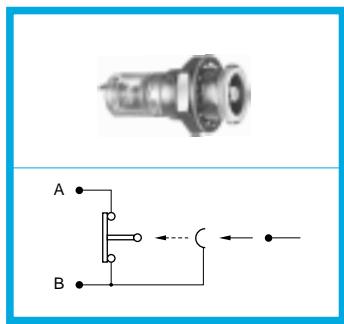
Part number	Weight (g)	Note
ERE.00.250.NTL	2.8	●

P5 Panel cut-out

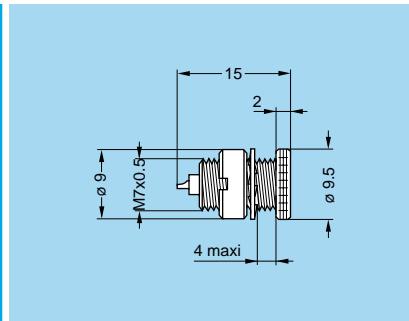
● Available ○ On request


ERT Straight socket without thread, force or adhesive fit

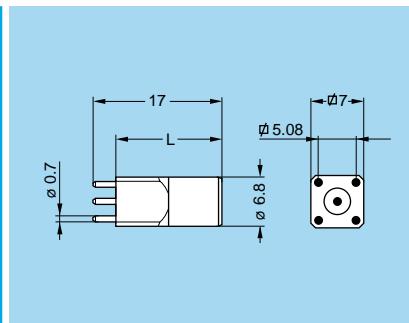
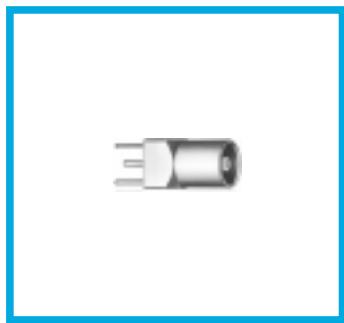
Part number	Weight (g)	Note
ERT.00.250.NTL	2.2	●

P4 Panel cut-out

ERM Fixed socket, nut fixing, with microswitch

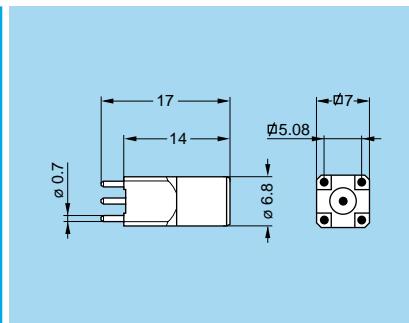
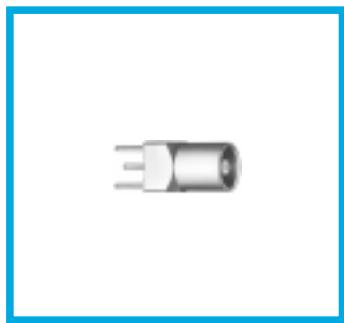
Part number	Weight (g)	Note
ERM.00.250.NTL	3.0	●

P5 Panel cut-out

ECP Fixed socket with two nuts

Part number	Weight (g)	Note
ECP.00.250.NTL	3.3	●

P1 Panel cut-out

EPA-EPB Straight socket for printed circuit

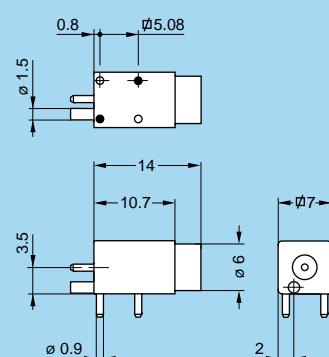
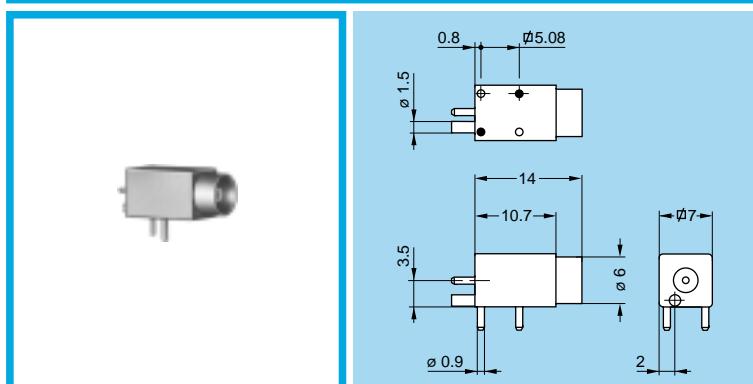
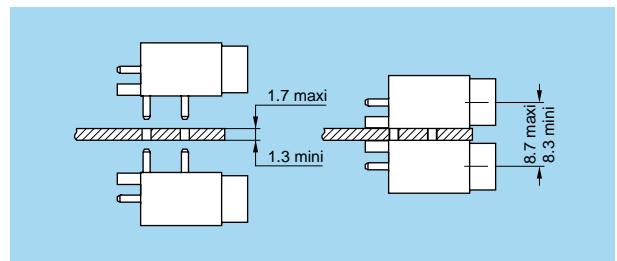
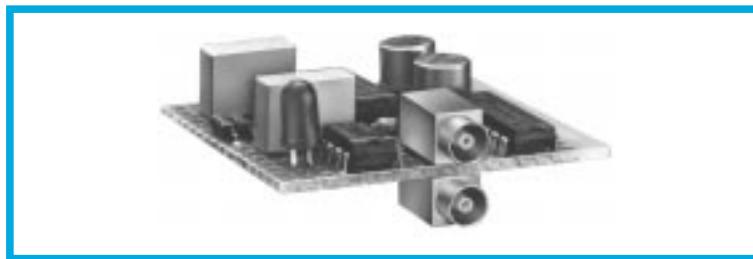
Part number	L (mm)	Weight (g)	Note
EPA.00.250.NTN	14	3.4	●
EPB.00.250.NTN	12	3.3	●

P10 PCB drilling pattern

EPC Straight socket for printed circuit with clearance under the body

Part number	Weight (g)	Note
EPC.00.250.NTN	3.3	●

P10 PCB drilling pattern

● Available ○ On request



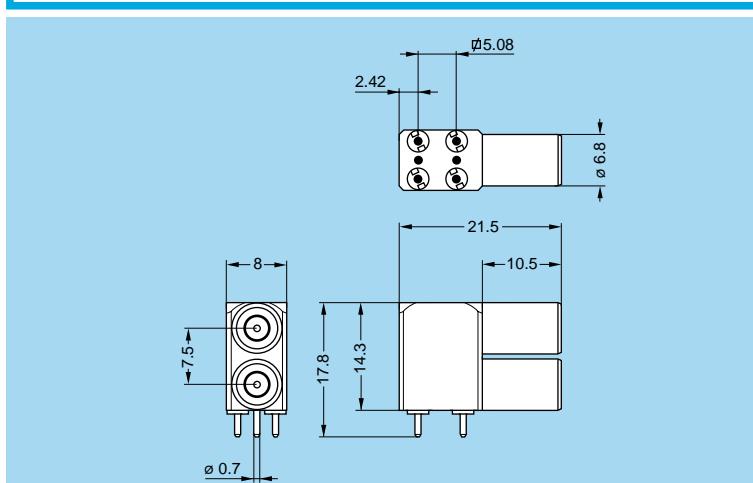
EPN Straight socket for press mounting in pair on printed circuit

Part number	Weight (g)	Note
EPN.00.250.NTN	3.6	●

P9 PCB drilling pattern

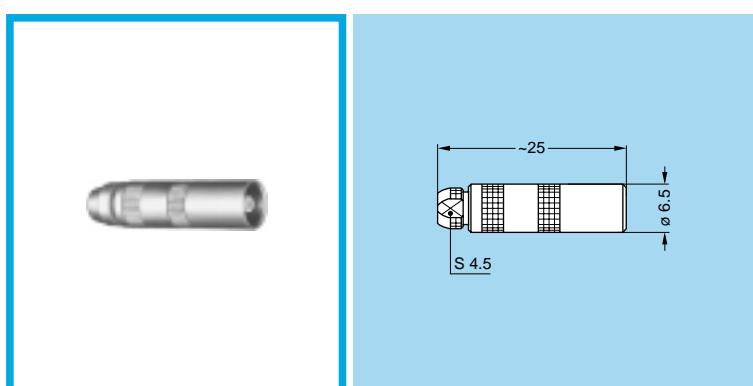


EPY Elbow socket (90°) for printed circuit, with two vertical sockets



Part number	Weight (g)	Note
EPY.00.250.NTN	12.8	●

P13 PCB drilling pattern

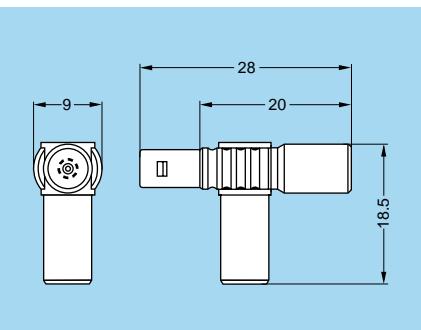


PCA Free socket with cable collet

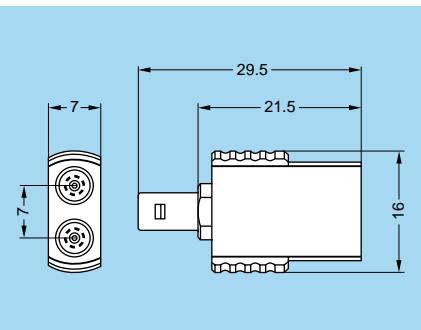
Part number	Cable group	Note
PCA.00.250.NTLC22	1	●
PCA.00.250.NTLC29	2-3-4	●
PCA.00.250.NTLC31	8	●

M1 Cable assembly

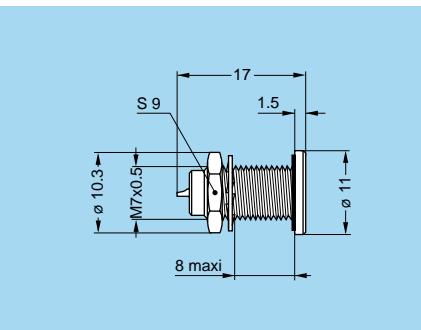
● Available ○ On request


FTL T-plug with two sockets (90°)

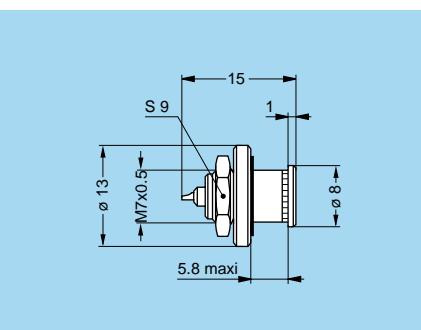
Part number	Weight (g)	Note
FTL.00.250.NTF	7.1	●


FTY Straight plug with two parallel sockets

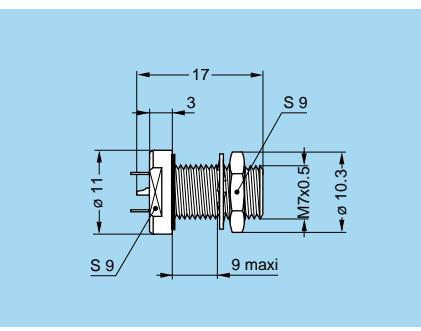
Part number	Weight (g)	Note
FTY.00.250.NTF	12.5	●


HGP Fixed socket, nut fixing, watertight

Part number	Weight (g)	Note
HGP.00.250.NTLP	4.2	●

P1 Panel cut-out

HGW Fixed socket, nut fixing, with rear sealing ring

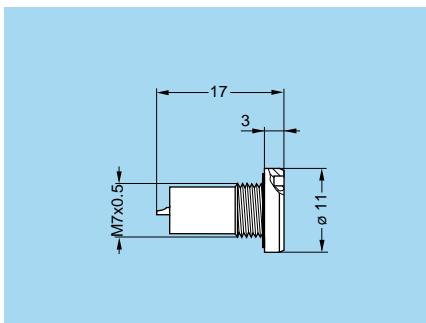
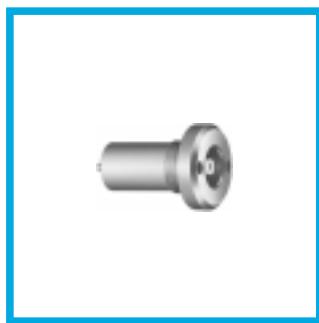
Part number	Weight (g)	Note
HGW.00.250.NTLP	4.2	●

P1 Panel cut-out

EWF Fixed socket, nut fixing, vacuumtight (back panel mounting)

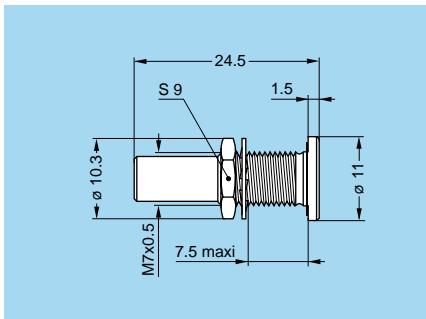
Part number	Weight (g)	Note
EWF.00.250.NTLPV	4.2	●

P1 Panel cut-out

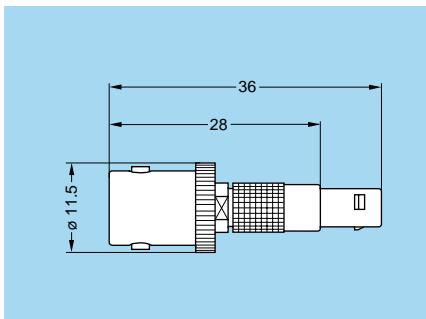
● Available ○ On request


EWV Fixed socket, vacuumtight

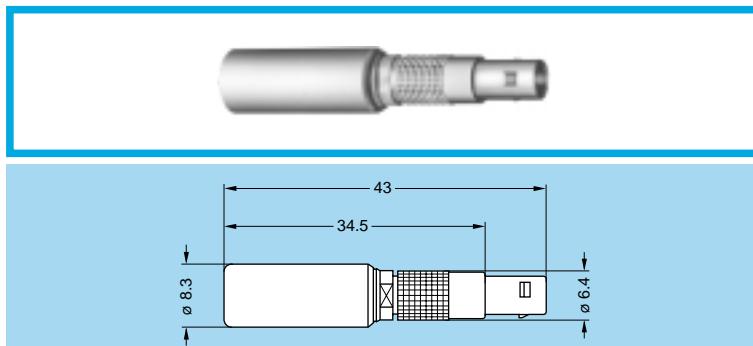
Part number	Weight (g)	Note
EWV.00.250.NTLPV	3.7	●

P2 Panel cut-out

SWH Fixed coupler, nut fixing, vacuumtight

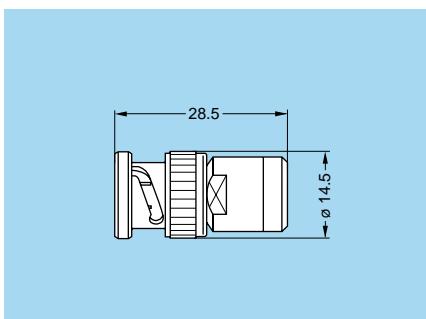
Part number	Weight (g)	Note
SWH.00.250.NTMV	5.2	●

P1 Panel cut-out

ABF Adaptor from LEMO plug to BNC socket

Part number	Weight (g)	Note
ABF.00.250.NTA	8.3	●


APF Adaptor from LEMO plug to CINCH socket

Part number	Colour of the ring	Weight (g)	Note
APF.00.250.DTAB	white	7	●
APF.00.250.DTAR	red	7	●

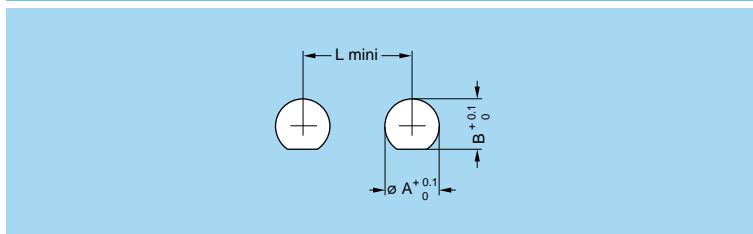
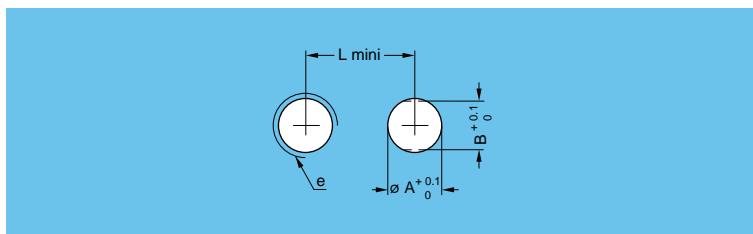

ABA Adaptor from LEMO socket to BNC plug

Part number	Weight (g)	Note
ABA.00.250.NTL	18.7	●

● Available ○ On request

Cut-Out

Panel cut-out

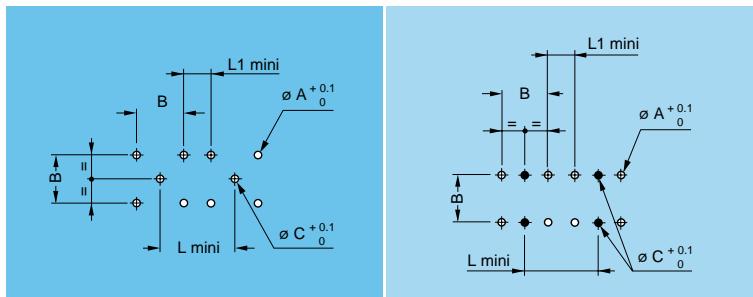


Cut-out	Model	Dimensions			
		A	B	L	e
P1	HGP-HGW-SWH-ECP EPE-EPS-FAB-EWF	7.1	—	14.5	—
P2	EWV	—	—	12.0	M7x0.5
P3	ERC	—	—	9.0	M7x0.5
P4	ERT	7 _{0.02}	—	—	—
P5	Other models ¹⁾	7.1	6.5	14.5	—
P6	ABB	9.7	9.0	15.0	—
P7	ABD	12.9	11.7	20.5	—
P8	ANC	16.1	13.7	24.0	—

Note: 1) If these models are used with a tapered washer GBB, the panel cut-out must be according P1.

Recommended mounting nut torque: 2.5 Nm.

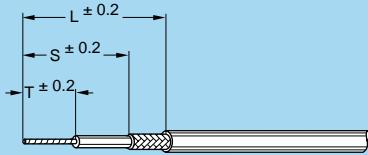
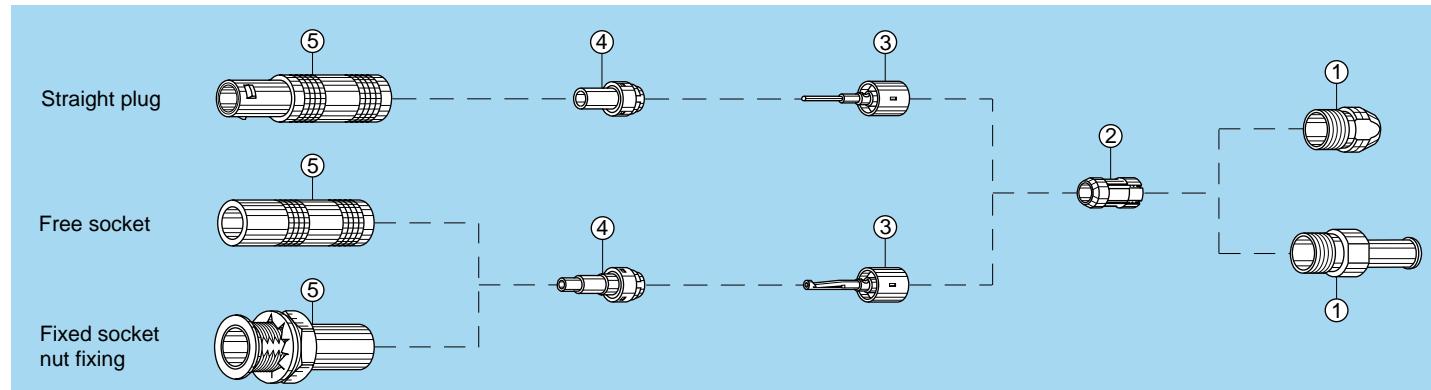
PCB drilling pattern



Cut-out	Model	Dimensions				
		A	B	L	L1	C
P9	EPN	0.9	5.08	—	2.0	—
P10	Other models	0.8	5.08	8.0	2.9	0.8
P11	FPA	0.8	5.08	8.0	2.9	1.0
P12	EPE-EPS	0.8	5.08	14.5	9.4	0.8
P13	EPY	0.8	5.08	9.0	3.9	0.8

Terminated Instructions

Terminating of plugs and straight sockets with cable collet M1 M2 M3



1. Cable preparation

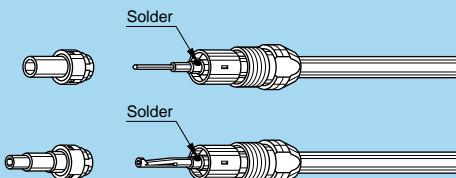
First place the strain relief (if to be used) on the cable. Strip the cable according to dimensions below.

Cable group	M1			M2			M3		
	T	S	L	T	S	L	T	S	L
1-2-3-4-8	4	4.5	8	—	—	—	5	5	8
6-7	—	—	—	7.5	8.5	13	—	—	—

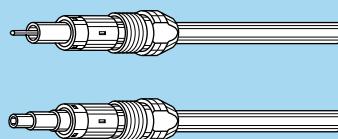


2. Cable termination

2.1 Place the collet nut ① and the collet ② on the cable. Fold back the shield braid onto the conical part of the collet, and trim to the outer edge of the collet



2.2 Slide the subassembly ③ to trap the shield braiding and solder the central conductor into the contact.



2.3 Slide the insulator ④ onto the subassembly ③ until it rests against the earthing sleeve of the subassembly ③.



2.4 Slide the assembly into the connector outer shell ⑤. Screw the collet nut ① into the connector outer shell ⑤ using the appropriate tool and tighten to a torque of 0.25 Nm (see "Tooling" on page 31 and 32). Push the strain relief (if used) onto the collet nut.



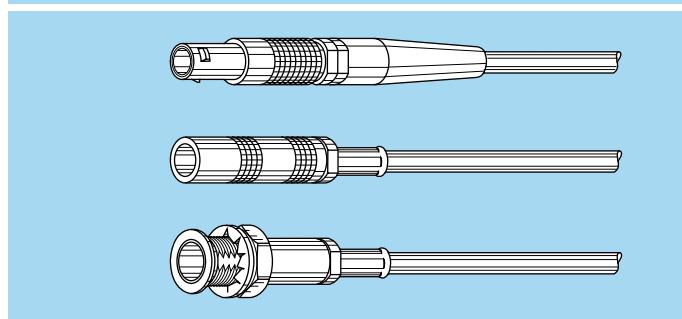
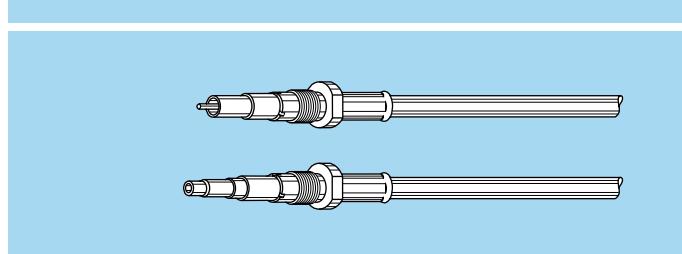
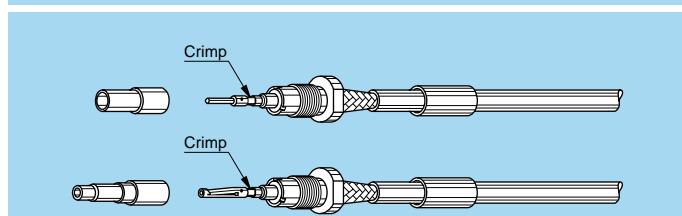
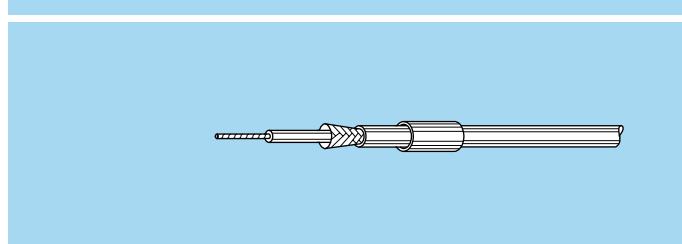
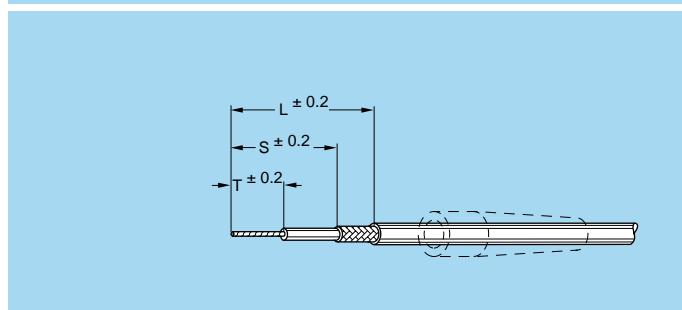
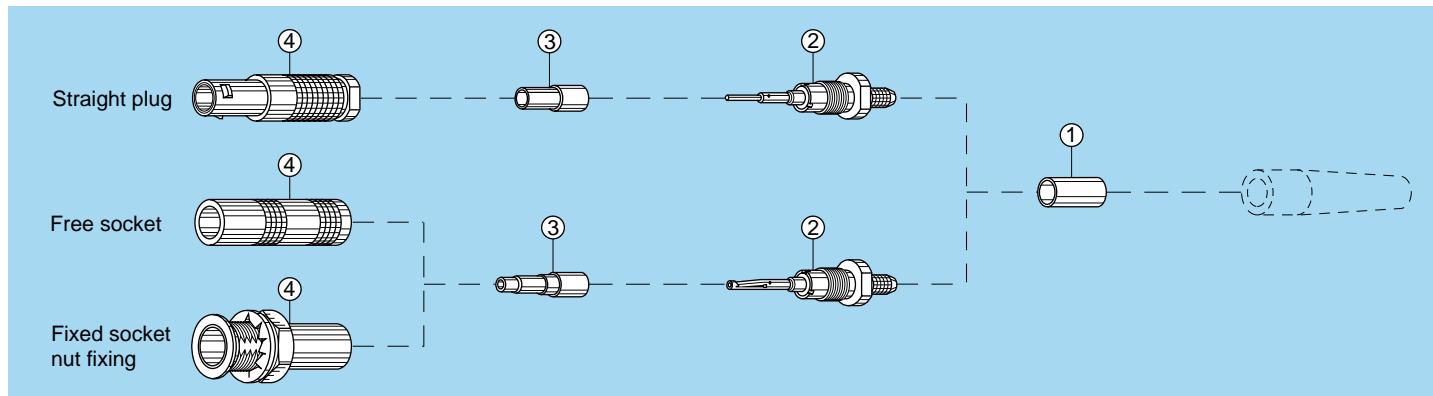
Note: these terminating instructions apply to the following models:

M1 = FFA, FFE, FFF, PCA, PSA

M2 = FFY

M3 = FFC

Terminating of plugs and straight sockets with cable crimping (crimp contact) M4



1. Cable preparation

First place the strain relief (if to be used) on the cable. Strip the cable according to dimensions below.

Cable group	M4		
	T	S	L
1-2-3-4-5-8	7	15	19.5
6-7	7	15	21.5

2. Cable termination

2.1 Place crimp ferrule ① on the cable. Widen the shield braid. Slide the subassembly ② into the cable until the insulator rests against the dielectric and the cable conductor is visible through the contact inspection hole.

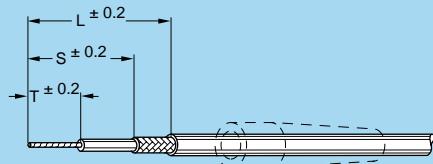
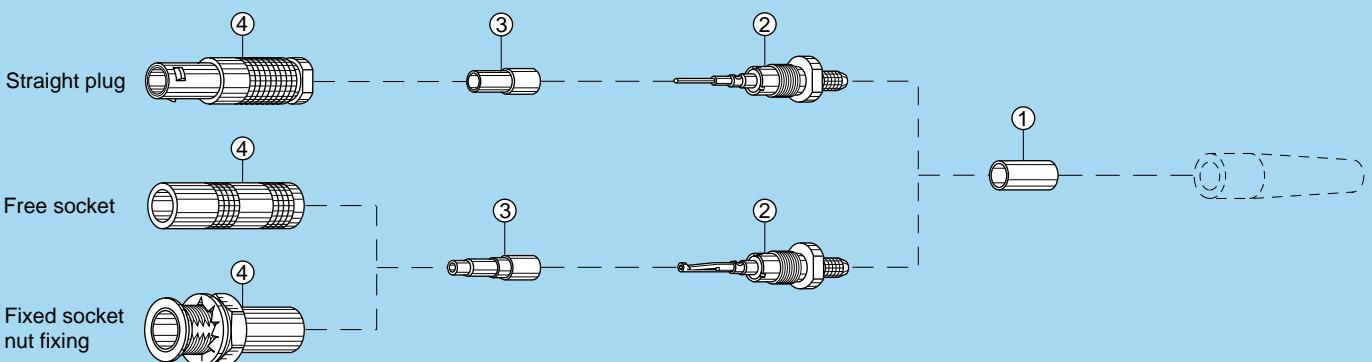
2.2 Crimp the contact with the LEMO crimping tool using the square hole (see "Tooling" on page 32). Gently pull the cable in order to check the crimping.

2.3 Slide the crimp ferrule ① onto the shield until it rests against the crimp backnut of the subassembly ②. Crimp with the same LEMO crimping tool using the hexagonal opening. Slide the insulator ③ onto the subassembly ②.

2.4 Slide the assembly into the connector shell ④ and screw it onto the subassembly ②. Tighten using the appropriate tool to a torque of 0.25 Nm (see "Tooling" on page 31 and 32). Push the strain relief (if used) onto the crimp ferrule ①.

Note: these terminating instructions apply to the following models:
M4 = FFS, FFV, PCS, PSS, PES

Terminating of plugs and straight sockets with cable crimping (solder contact) M5



1. Cable preparation

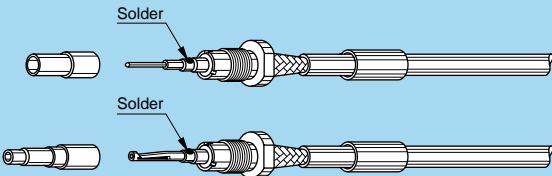
First place the strain relief (if to be used) on the cable. Strip the cable according to dimensions below.

Cable group	M5		
	T	S	L
1-2-3-4-5-8	5	12	17
6-7	5	12	19

2. Cable terminating

2.1 Place the crimp ferrule ① on the cable. Widen the shield braid. Slide the subassembly ② over the cable until the insulator rests against the dielectric and the cable conductor is visible through the contact solder hole.

2.2 Solder the conductor through the hole.

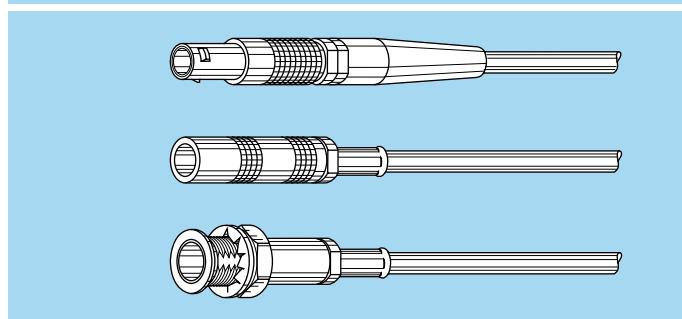
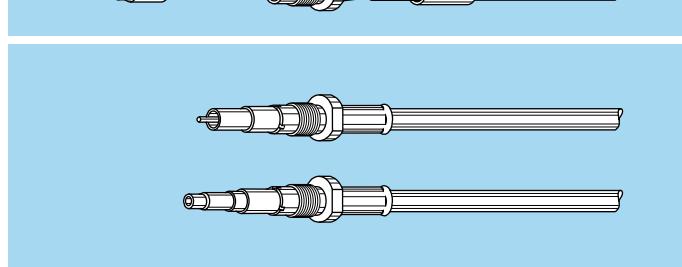
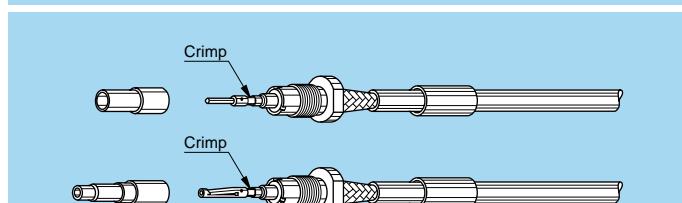
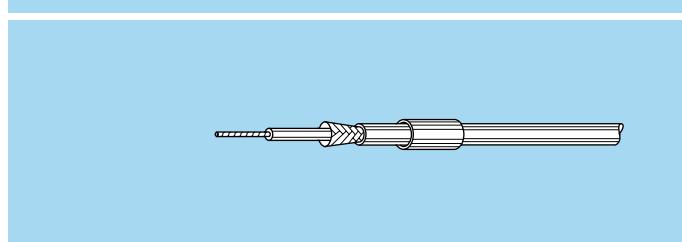
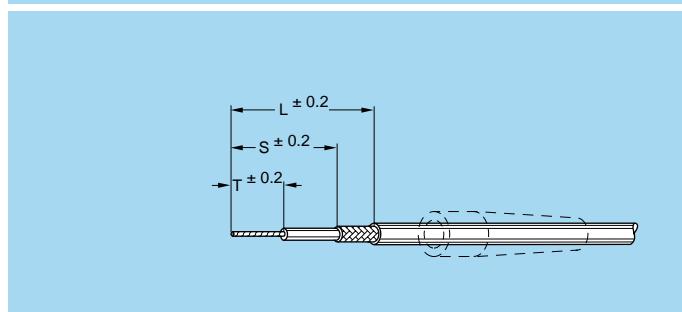
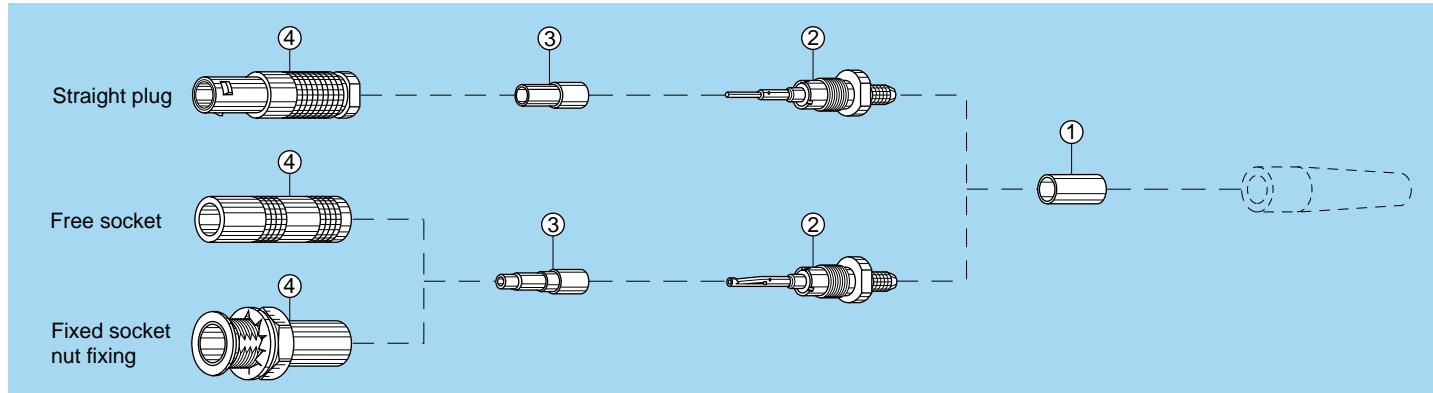


2.3 Slide the crimp ferrule ① onto the shield until it rests against the crimp backnut of the subassembly ②. Crimp with the LEMO crimping tool using the hexagonal opening (see "Tooling" on page 32). Slide the insulator ③ onto the subassembly ②.

2.4 Slide the assembly into the connector shell ④ and screw it onto the subassembly ②. Tighten using the appropriate tool to a torque of 0.25 Nm (see tooling on pages 31 and 32). Push the strain relief (if used) onto the crimp ferrule.

Note: these terminating instructions apply to the following models:
M5 = FFS, FFV, PCS, PSS, PES

Terminating of plugs and straight sockets with cable crimping (crimp contact) M4



1. Cable preparation

First place the strain relief (if to be used) on the cable. Strip the cable according to dimensions below.

Cable group	M4		
	T	S	L
1-2-3-4-5-8	7	15	19.5
6-7	7	15	21.5

2. Cable termination

2.1 Place crimp ferrule ① on the cable. Widen the shield braid. Slide the subassembly ② into the cable until the insulator rests against the dielectric and the cable conductor is visible through the contact inspection hole.

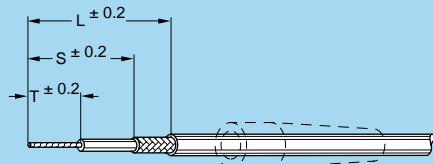
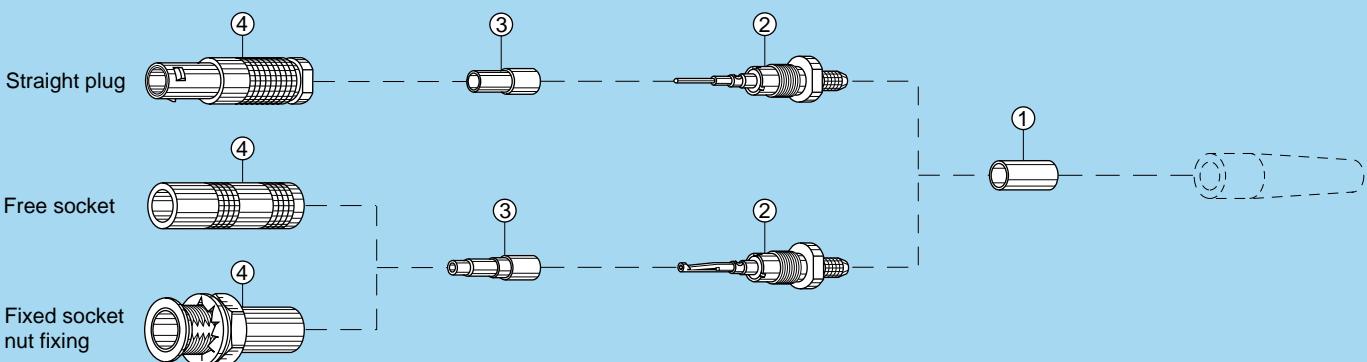
2.2 Crimp the contact with the LEMO crimping tool using the square hole (see "Tooling" on page 32). Gently pull the cable in order to check the crimping.

2.3 Slide the crimp ferrule ① onto the shield until it rests against the crimp backnut of the subassembly ②. Crimp with the same LEMO crimping tool using the hexagonal opening. Slide the insulator ③ onto the subassembly ②.

2.4 Slide the assembly into the connector shell ④ and screw it onto the subassembly ②. Tighten using the appropriate tool to a torque of 0.25 Nm (see "Tooling" on page 31 and 32). Push the strain relief (if used) onto the crimp ferrule ①.

Note: these terminating instructions apply to the following models:
M4 = FFS, FFV, PCS, PSS, PES

Terminating of plugs and straight sockets with cable crimping (solder contact) M5



1. Cable preparation

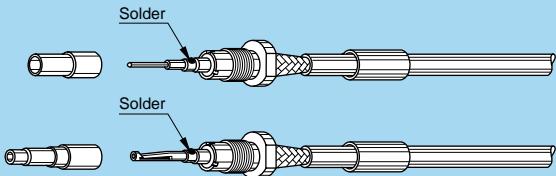
First place the strain relief (if to be used) on the cable. Strip the cable according to dimensions below.

Cable group	M5		
	T	S	L
1-2-3-4-5-8	5	12	17
6-7	5	12	19

2. Cable terminating

2.1 Place the crimp ferrule ① on the cable. Widen the shield braid. Slide the subassembly ② over the cable until the insulator rests against the dielectric and the cable conductor is visible through the contact solder hole.

2.2 Solder the conductor through the hole.

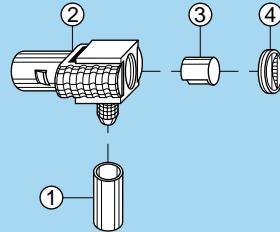
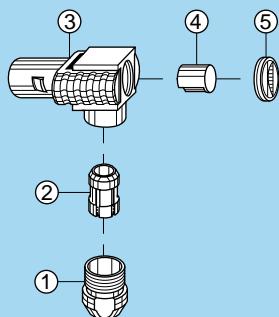


2.3 Slide the crimp ferrule ① onto the shield until it rests against the crimp backnut of the subassembly ②. Crimp with the LEMO crimping tool using the hexagonal opening (see "Tooling" on page 32). Slide the insulator ③ onto the subassembly ②.

2.4 Slide the assembly into the connector shell ④ and screw it onto the subassembly ②. Tighten using the appropriate tool to a torque of 0.25 Nm (see tooling on pages 31 and 32). Push the strain relief (if used) onto the crimp ferrule.

Note: these terminating instructions apply to the following models:
M5 = FFS, FFV, PCS, PSS, PES

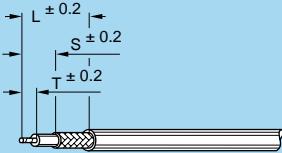
Terminating of elbow plugs (90°) with cable collet **M6** and cable crimp **M7**



1. Cable preparation

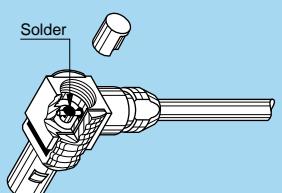
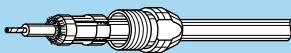
First place the strain relief (if to be used) on the cable. Strip the cable according to dimensions below.

Cable group	M6		
	T	S	L
1-2-3-4-8	1	3.5	6.5

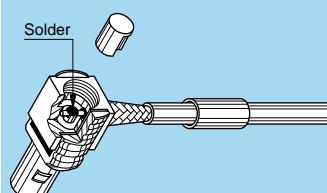
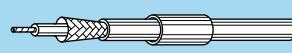


2. Cable terminating

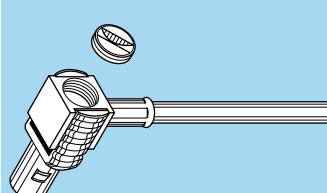
2.1 Place the crimp ferrule ① and collet ② on the cable. Fold back the shield braid onto the conical part of the collet, and trim to outer edge of the collet.



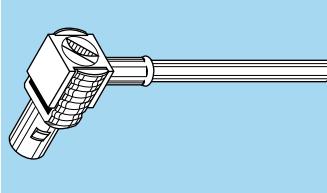
2.2 Slide the assembly into the connector shell ③ and tighten the collet nut ① using the appropriate tool to a torque of 0.25 Nm (see "Tooling" on page 31 and 32). Check that the cable conductor rests in the contact slot, tin solder the conductor through the hole.



2.3 Place the insulating sleeve ④ over the soldered contact.



2.4 Close the access hole with the flat screw ⑤. Push the strain relief (if used) onto the collet nut ①.



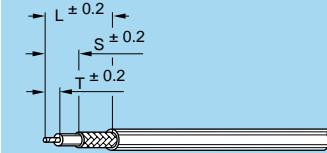
Note: these terminating instructions apply to the following models:

M6 = FLA

1. Cable preparation

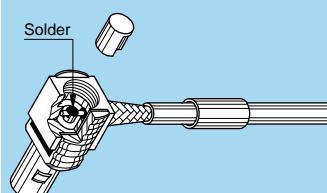
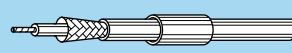
First place the strain relief (if to be used) on the cable. Strip the cable according to dimensions below.

Cable group	M7		
	T	S	L
1-2-3-4-8	1	4.5	9
6-7	3	4.5	11



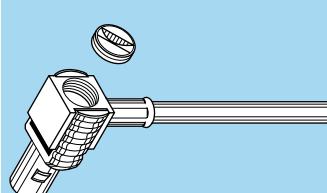
2. Cable terminating

2.1 Place the cable crimp ferrule ① on the cable and widen the braiding.

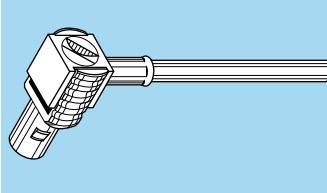


2.2 Slide the cable into the connector shell ②. Check that cable conductor rests in the contact slot, tin solder the conductor through the hole. Slide the crimp ferrule ① over the braiding until it reaches the connector shell ②. Crimp with the LEMO crimp tool using the hexagonal opening (see "Tooling" on page 32).

2.3 Place the insulating sleeve ③ over the soldered contact.



2.4 Close the connector hole with the flat screw ④. Push the strain relief (if used) onto the crimping tube ①.



Note: these terminating instructions apply to the following models:

M7 = FLS, FLV



Recommended coaxial cables

Dimensions and characteristics

Standard / Part number (supplier)			Imp. (Ω)	Construction and dimensions									Weight kg/100 m		
MIL-C-17	CCTU 10-01A	CEI 96-2		Conductor			Dielectric		Shield		Sheath				
				Construction	Mat.	Ø	Mat.	Ø	Mat.	Ø	Mat.	Ø			
RG.58C/U	KX 15	50-3-1	50 ± 2 Ω	19x0.18	CuSn	0.90	PE	2.95	CuSn	3.60	PVC*	4.95	3.80		
RG.142B/U		-	50 ± 2 Ω	solid	CuStAg	0.95	PTFE	2.95	CuAg CuAg	2 nd : 4.20	FEP	4.95	6.60		
RG.174A/U	KX 3A	50-2-1	50 ± 2 Ω	7x0.16	CuSt	0.48	PE	1.50	CuSn	2.00	PVC*	2.60	1.10		
RG.178B/U	KX 21A	50-1-1	50 ± 2 Ω	7x0.10	CuStAg	0.30	PTFE	0.87	CuAg	1.40	FEP	1.80	0.85		
RG.179B/U		75-2-1	75 ± 3 Ω	7x0.10	CuStAg	0.30	PTFE	1.50	CuAg	2.00	FEP	2.50	1.50		
RG.180B/U		-	95 ± 5 Ω	7x0.10	CuStAg	0.30	PTFE	2.60	CuAg	3.10	FEP	3.60	3.20		
RG.187A/U		75-2-2	75 ± 3 Ω	7x0.10	CuStAg	0.30	PTFE	1.50	CuAg	2.00	PTFE	2.60	1.60		
RG.188A/U		50-2-3	50 ± 2 Ω	7x0.18	CuStAg	0.54	PTFE	1.50	CuAg	2.00	PTFE	2.60	1.60		
RG.196A/U		50-1-2	50 ± 2 Ω	7x0.10	CuStAg	0.30	PTFE	0.87	CuAg	1.37	PTFE	2.10	1.10		
RG.316/U	KX 22A	50-2-2	50 ± 2 Ω	7x0.18	CuStAg	0.54	PTFE	1.50	CuAg	2.10	FEP	2.50	1.60		
8216 (Belden)		50-2-1	50 ± 2 Ω	7x0.16	CuSt	0.48	PE	1.52	CuSn	-	PVC	2.55	-		
8262 (Belden)		50-3-1	50 ± 2 Ω	19x0.18	CuSn	0.90	PE	2.95	CuSn	-	PVC	4.95	-		
83265 (Belden)		50-1-1	50 ± 2 Ω	7x0.10	CuStAg	0.30	PTFE	0.86	CuAg	-	FEP	1.85	-		
83269 (Belden)		-	50 ± 2 Ω	7x0.17	CuStAg	0.51	PTFE	1.52	CuAg	-	PTFE	2.60	-		
83284 (Belden)		50-2-2	50 ± 2 Ω	7x0.17	CuStAg	0.51	PTFE	1.52	CuAg	-	FEP	2.50	-		
HF-2114 (Dätwyler)		-	50 ± 2 Ω	7x0.16	Cu	0.48	PE	1.32	Cu	1.9	PVC	2.70	1.15		
CCH.99.281.505 (Lemo) ¹⁾		50-2-1	50 ± 2 Ω	7x0.18	Cu	0.54	PE	1.50	Cu	2.2	PoF	2.80	1.30		
421.099 (Storm)		-	50 ± 2 Ω	7x0.16	CuStAg	0.50	PTFE	1.52	CuAg CuAg	1 st : 2.00 2 nd : 2.50	FEP	3.05	1.95		
G02232D-60 (H+S)		-	50 ± 2 Ω	7x0.16	Cu	0.50	PE	1.50	CuAg CuSn	1 st : 1.95 2 nd : 2.50	PVC	3.10	2.10		

Notes: all dimensions are in millimeters.

1) Fire resistant according IEC 332-1.

Cu Bare copper
 CuAg Silver-plated copper
 CuSn Tinned copper
 CuSt Copper-plated steel
 CuStAg Silvered copper plated steel

FEP Extruded Fluorethylenpropylen
 PE Polyethylen
 PoF Polyolefin
 PTFE Wrapped or extruded
 Polytetrafluorethylen

PVC Polyvinylchlorid
 PVC* Polyvinylchlorid
 (Qual.IIa MIL-C-17)

Technical tables

VSWR effect on transmitted power

VSWR	VSWR (dB)	Return loss (dB)	Transmiss. loss (dB)	Reflected voltage coefficient	Transmit. power (%)	Reflected power (%)
1.00	0	0.000	0.00	100.0	0.0	
1.01	0.1	46.1	0.000	0.00	100.0	0.0
1.02	0.2	40.1	0.000	0.01	100.0	0.0
1.03	0.3	36.6	0.001	0.01	100.0	0.0
1.04	0.3	34.2	0.003	0.03	100.0	0.0
1.05	0.4	32.3	0.003	0.02	99.9	0.1
1.06	0.5	30.7	0.004	0.03	99.9	0.1
1.07	0.6	29.4	0.005	0.03	99.9	0.1
1.08	0.7	28.3	0.006	0.04	99.9	0.1
1.09	0.7	27.3	0.008	0.04	99.8	0.2
1.10	0.8	26.4	0.010	0.05	99.8	0.2
1.11	0.9	25.7	0.012	0.05	99.7	0.3
1.12	1.0	24.9	0.014	0.06	99.7	0.3

VSWR	VSWR (dB)	Return loss (dB)	Transmiss. loss (dB)	Reflected voltage coefficient	Transmit. power (%)	Reflected power (%)
1.13	1.1	24.3	0.016	0.06	99.6	0.4
1.14	1.1	23.7	0.019	0.07	99.6	0.4
1.15	1.2	23.1	0.021	0.07	99.5	0.5
1.16	1.3	22.6	0.024	0.07	99.5	0.5
1.17	1.4	22.1	0.027	0.08	99.4	0.6
1.18	1.4	21.7	0.030	0.08	99.3	0.7
1.19	1.5	21.2	0.033	0.09	99.2	0.8
1.20	1.6	20.8	0.036	0.09	99.2	0.8
1.21	1.7	20.4	0.039	0.10	99.1	0.9
1.22	1.7	20.1	0.043	0.10	99.0	1.0
1.23	1.8	19.7	0.046	0.10	98.9	1.1
1.24	1.9	19.4	0.050	0.11	98.9	1.1
1.25	1.9	19.1	0.054	0.11	98.8	1.2