

# 1D Series

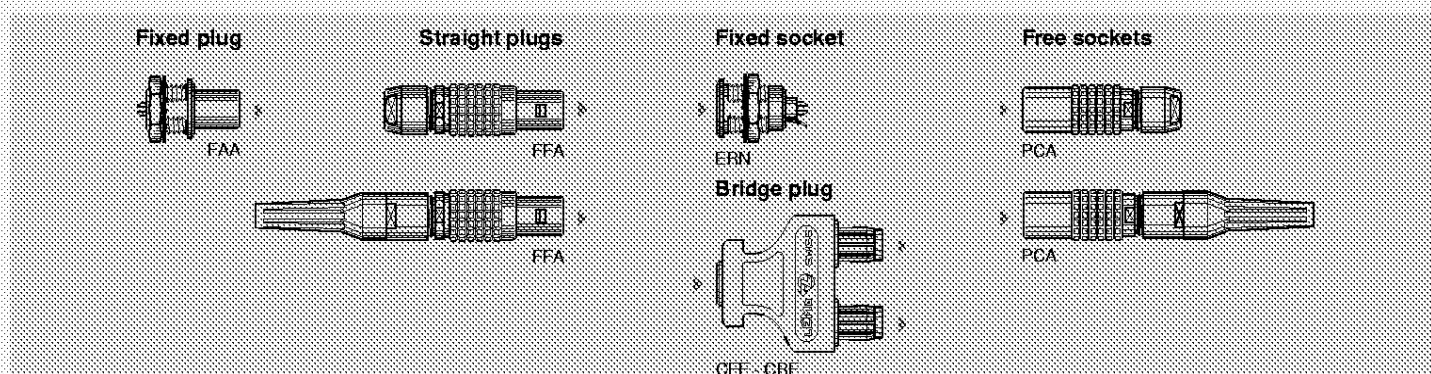
1D series QUADRAX connectors have four concentric contacts insulated from the connector shell, ready to solve any kind of audio-stereo patch panel problems.

Specially developed for major radio and television channels, this new connector type provides the possibility of blind mating with the full security of the LEMO Push-Pull self-latching system.

They can also be fitted on panel in a «star» configuration for switching a single signal to different outputs.

To enable the user to create his own coding system, bridge plug housings, double panel washers or insulating washers for sockets as well as cable bend reliefs are available in nine colours.

## Interconnections



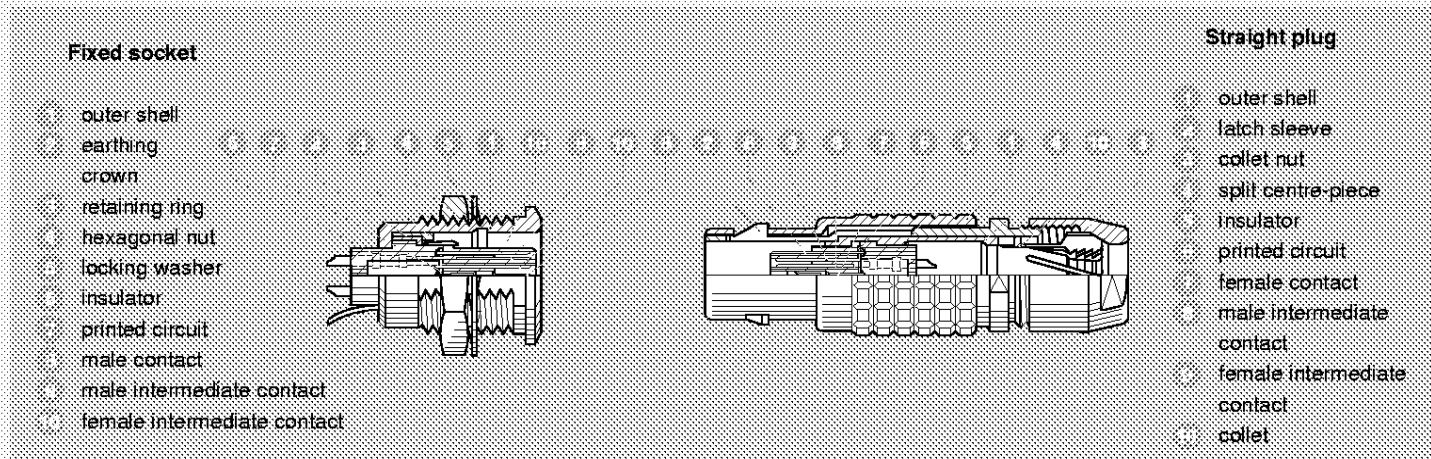
## Model Description

**CFF** Bridge plug with two non-latching plugs  
**CRF** Bridge plug with two non-latching plugs with monitoring output  
**ERN** Fixed socket nut fixing, with earthing tag

**FAA** Fixed plug, nut fixing, non-latching  
**FFA** Straight plug, cable collet  
**FFA** Straight plug, cable collet and nut for fitting a bend relief

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

## Part Section Showing Internal Components



## Technical Characteristics

### Mechanical and Climatical

Characteristics	Value	Standard
Endurance	> 1000 cycles	IEC 60512-5 test 9a
Temperature range <sup>1)</sup>	-40° C, +120° C	
Salt spray corrosion test	> 144h	IEC 60512-6 test 11f
Protection index	IP50	IEC 60529

**Note:**

<sup>1)</sup> for bridge plug: -40° C, +80° C

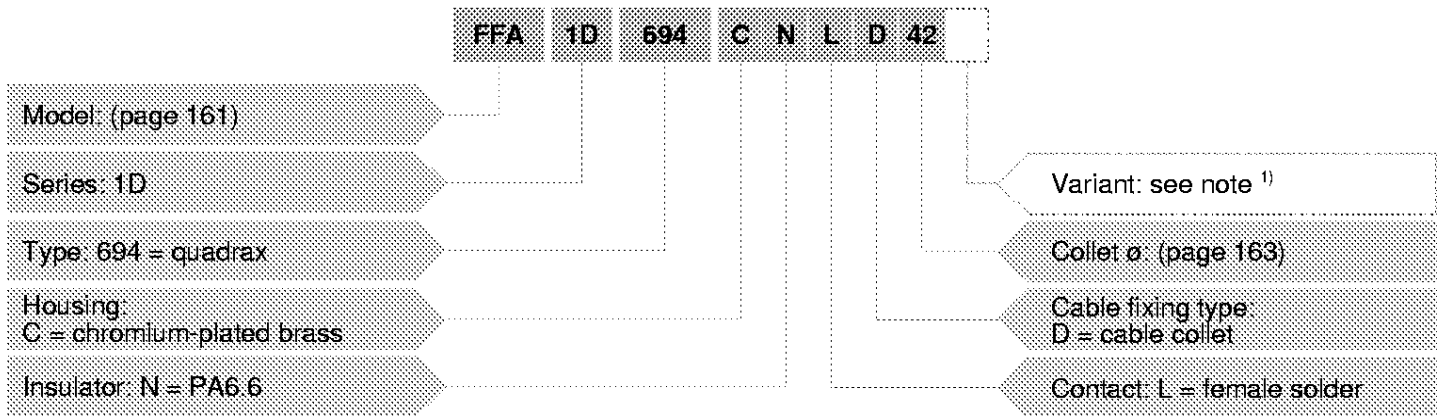
Detailed electrical characteristics, as well as materials and treatment are presented in the chapter Technical Characteristics on page 197.

### Electrical

Characteristics	Value	Standard	
Insulation resistance	> 10 <sup>11</sup> Ω	IEC 60512-2 test 3a	
Insul. res. after 48h 95%RH	> 10 <sup>10</sup> Ω	IEC 60512-2 test 3a	
Screening efficiency	at 10 MHz	> 70 dB	IEC 60169-1-3
	at 1 GHz	> 35 dB	IEC 60169-1-3
Contact resistance	< 20mΩ	IEC 60512-2 test 2a	

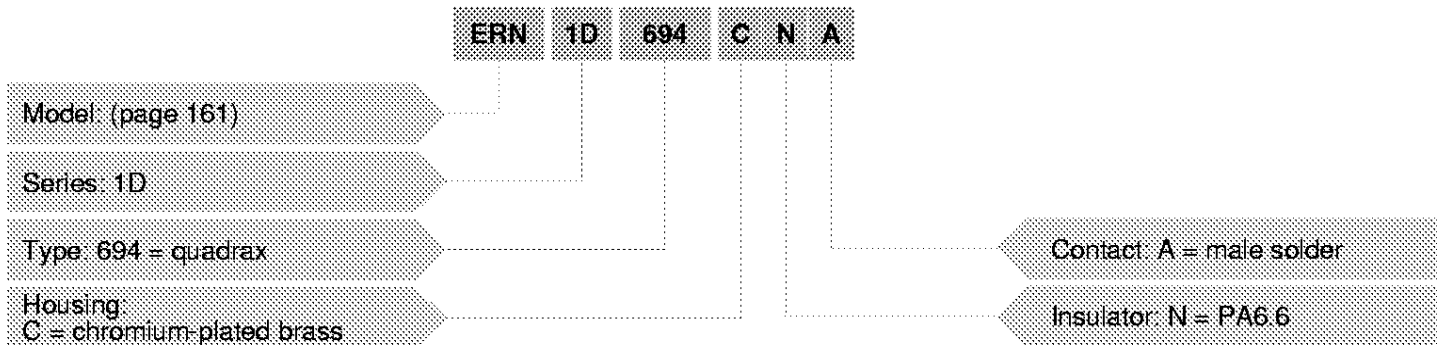
## Part Number Example

### Straight plug with cable collet



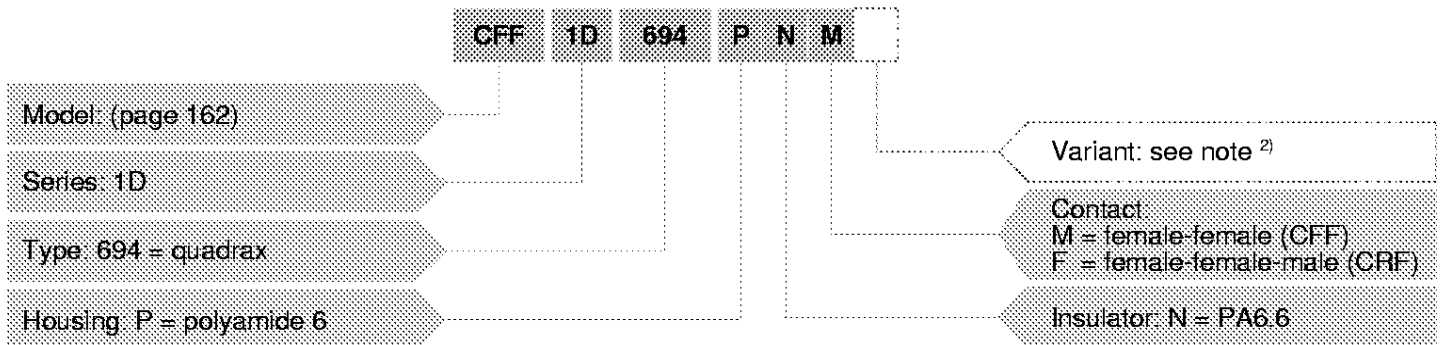
**FFA.1D.694.CNLD42** = straight plug with cable collet, 1D series, quadrax type, outer shell in chrome-plated brass, PA6.6 insulator, female solder contacts, D type collet for 4.2 mm diameter cable.

### Fixed socket



**ERN.1D.694.CNA** = Fixed socket, 1D series, quadrax type, outer shell in chrome-plated brass, PA6.6 insulator, male solder contacts.

### Bridge plug



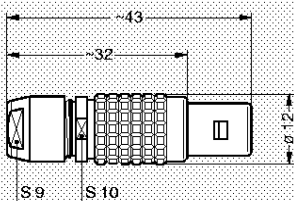
**CFF.1D.694.PNM** = bridge plug with two non-latching plugs, 1D series, quadrax type, outer shell in polyamide 6, PA6.6 insulator, female-female contacts, grey colour housing.

#### Note:

<sup>1)</sup> the «variant» position of the part number is used to specify the presence of a nut for fitting a bend relief, a «Z» should be indicated and a bend relief can be ordered separately as indicated in the «Accessories» section. An order for a connector with bend relief should thus include two references.

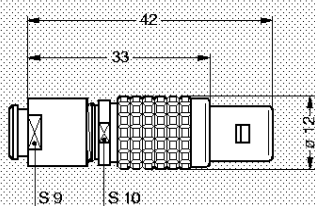
<sup>2)</sup> for bridge plugs the variant position indicates the housing colour (see page 163).

## Models - Series



### FFA Straight plug, cable collet

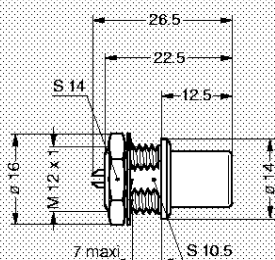
Part number
FFA 1D.694 CNLD42
FFA 1D.694 CNLD52
FFA 1D.694 CNLD62
FFA 1D.694 CNLD72
FFA 1D.694 CNLD76



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

Part number
FFA 1D.694 CNLD42Z
FFA 1D.694 CNLD52Z
FFA 1D.694 CNLD62Z
FFA 1D.694 CNLD72Z

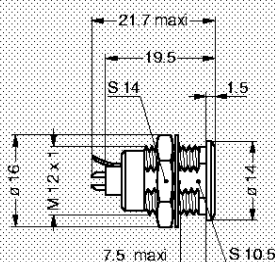
**Note:** the bend relief must be ordered separately (see page 175).



### FAA Fixed plug, nut fixing, non-latching

Part number
FAA 1D.694 CNL

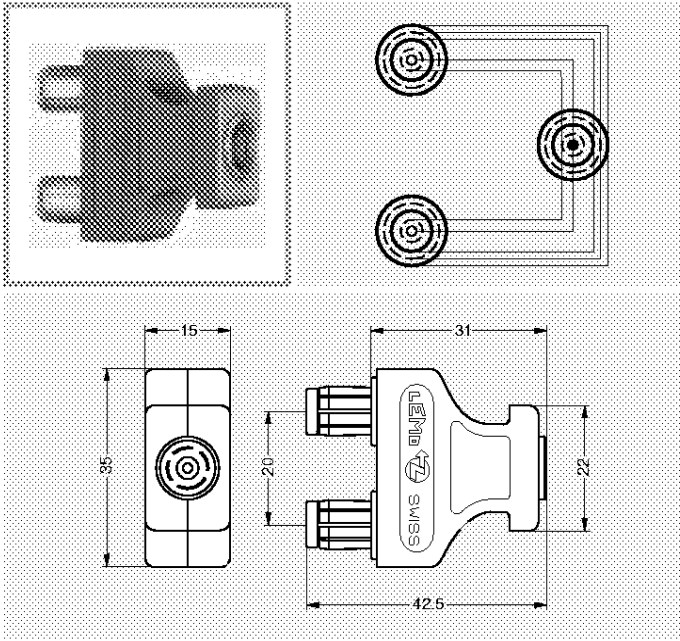
Panel cut-out (p. 164)



### ERN Fixed socket nut fixing, with earthing tag

Part number
ERN 1D.694 GNA

Panel cut-out (page 164)

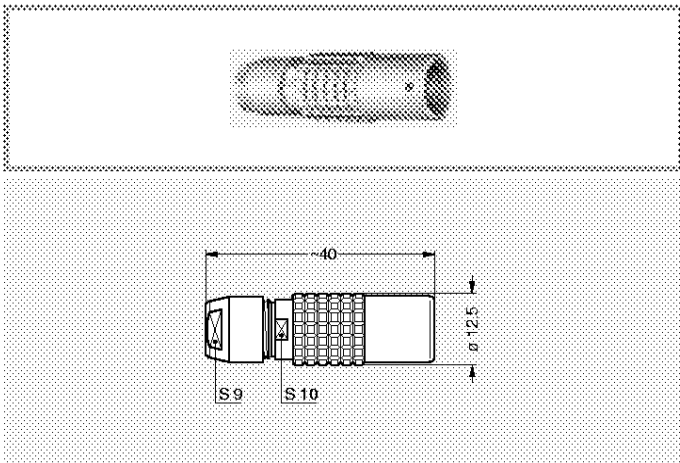


**OFF** Bridge plug with two non-latching plugs

**CRF** Bridge plug with two non-latching plugs with monitoring output

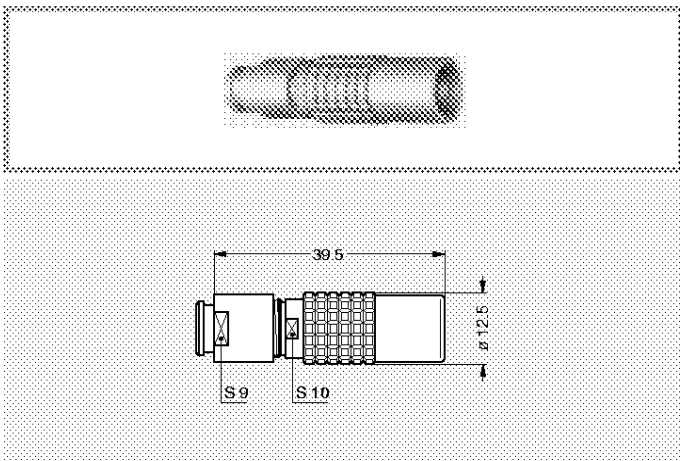
Part number
OFF 1D.694.PNMG
CRF 1D.694.PNFG

**Note:** the last letter (G) of the part number indicates the grey colour of the housing. For other colours, replace this letter (G) by the one corresponding to the required colour.



**PCA** Free socket, cable collet

Part number
PCA 1D.694.CNAD42
PCA 1D.694.CNAD52
PCA 1D.694.CNAD62
PCA 1D.694.CNAD72
PCA 1D.694.CNAD76










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

Part number
PCA 1D.694.CNAD42Z
PCA 1D.694.CNAD52Z
PCA 1D.694.CNAD62Z
PCA 1D.694.CNAD72Z

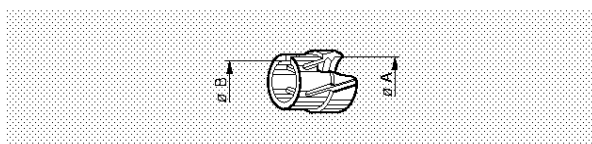
**Note:** the bend relief must be ordered separately (see page 175).

## Type

 Male solder contacts	 Female solder contacts	Reference	Number of contacts	Contact type	Test voltage (kV rms) <sup>1) 2)</sup>	Test voltage (kV dc) <sup>1) 2)</sup>	Rated current (A) <sup>1)</sup>
			Solder				
 	 	694	4		0.42	0.6	0.5

**Note:** 1) see calculation method, caution and suggested standard on page 204.  
2) lowest measured value; contact to contact or contact to shell.

## Collets



Reference		Collet ø		Cable ø		Part number of the collet 1)
Type	ø	ø A	ø B	max.	min.	
D	42	4.2	–	4.0	3.1	FGG.1B.742.DN
D	52	5.2	–	5.0	4.1	FGG.1B.752.DN
D	62	6.2	–	6.0	5.1	FGG.1B.762.DN
D	72	7.2	6.7	7.0	6.1	FGG.1B.772.DN
D	76	7.6	6.7	7.5	7.1	FGG.1B.776.DN 2)

**Note:**

- 1) for ordering collets separately.
  - 2) these collets can not be used with connector models using a nut for fitting a bend relief.
- All dimensions are in millimetres.

## Variant

### Bridge plug colours

Ref.	Colour
A	blue
B	white
G	grey
J	yellow

Ref.	Colour
M	brown
N	black
R	red
V	green

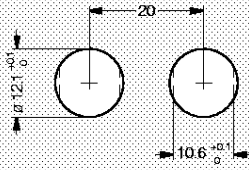
**Note:**

in standard version the letter G is not mentioned in the «variant» position and the grey colour is chosen by default.

Accessories and tooling for the 1D series are identical with the 1B series. Please refer to corresponding pages (page 167 and 183).

## Panel cut-out

### Panel cut-out



**Note:** mounting nut torque: 4.5 Nm (1N = 0.102 kg)  
When connectors are assembled with double panel washers or insulating washers the mounting nut torque is 4 Nm.