

REFERENCE GUIDE

LEMO's CONCENTRIC CONTACTS IDENTIFICATION GUIDE ●



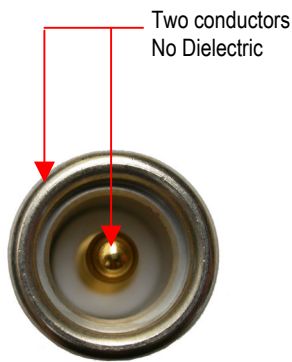
LEMO®

INTRODUCTION

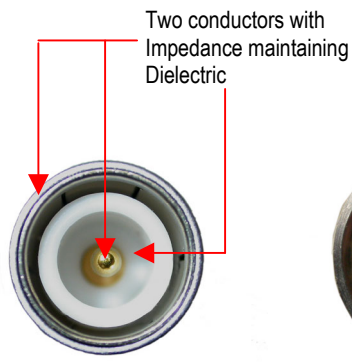
This guide is intended to assist with the identification of the various LEMO concentric contact types (single center pin) when the specific part number is not known.

PROCEDURE

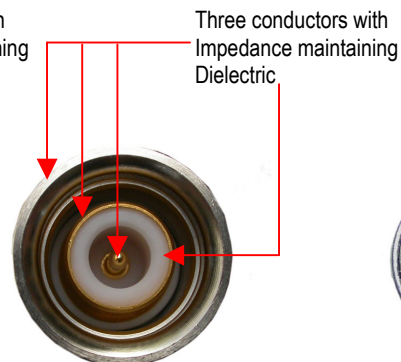
Use these visual images to assist in determining the different types of concentric electrical contact connectors.



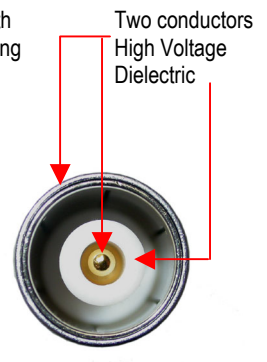
Single Contact Plug
Type Code - 1XX



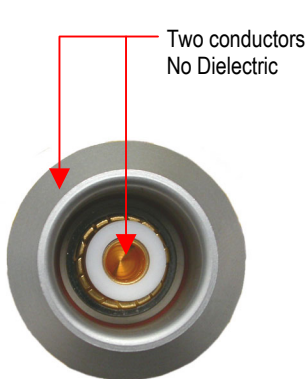
Coaxial Plug
Type Code - 2XX



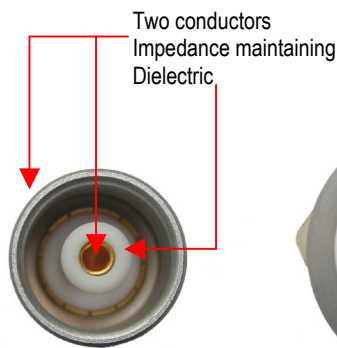
Triaxial Plug
Type Code - 6XX



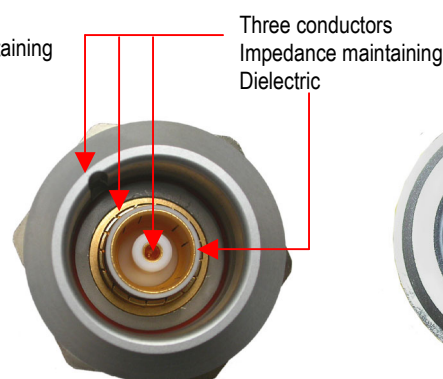
High Voltage Plug
Type Code - 4XX



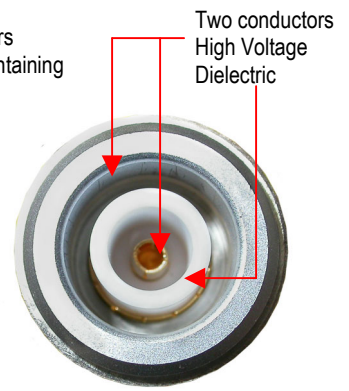
Single Contact Receptacle
Type Code - 1XX



Coaxial Receptacle
Type Code - 2XX



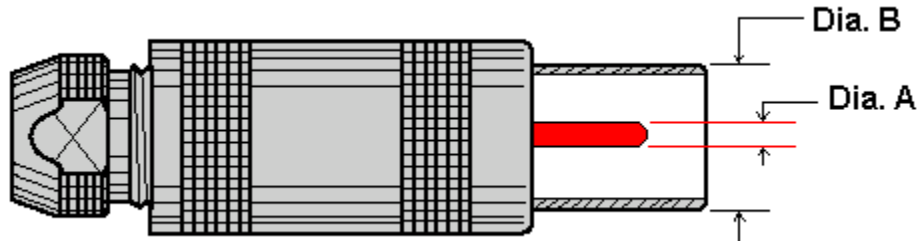
Triaxial Receptacle
Type Code - 6XX



High Voltage Receptacle
Type Code - 4XX

Single Contact *(also referred to as 'Unipole')*

If a single contact type has been determined from the images on page 2, the next step is to determine the connector size. Use Table 1 to determine the contact size and shell size.



Ø A - mm (in.)	Type Code	Ø B - mm (in.)	Shell Size
1.3 (0.051)	113	5 (0.197)	00
1.6 (0.063)	116	7 (0.276)	0S
2.0 (0.079)	120	9 (0.354)	1S
3.0 (0.118)	130	9 (0.354)	1S
3.0 (0.118)	130	12 (0.472)	2S
4.0 (0.157)	140	12 (0.472)	2S
4.0 (0.157)	140	15 (0.591)	3S
6.0 (0.236)	160	15 (0.591)	3S
4.0 (0.157)	140	20 (0.787)	4S
6.0 (0.236)	160	20 (0.787)	4S
12 (0.472)	112	30 (1.181)	5S

Table 1

Coaxial Contact

If a coaxial contact type has been determined from the images on page 2, the next step is to determine the impedance. This can be determined from the coaxial cable attached to the current plug, or from the manual of the instrument with the LEMO receptacle. The choices are 50-ohm impedance or 75-ohm impedance. If these methods are not available, measurement of the center pin will assist with identification. (Caution: This can be difficult since the pin is recessed down in the nose of the plug.)

Impedance	Type Code	Center Pin - Ø mm (in)	Plug Nose - Ø mm (in)	Shell Size
50 ohm	250	0.9 (0.035)	7 (0.276)	0S
50 ohm	250	1.6 (0.063)	9 (0.354)	1S
75 ohm	275	1.3 (0.051)	9 (0.354)	1S
50 ohm	250	2.0 (0.079)	12 (0.472)	2S
75 ohm	275	1.6 (0.063)	12 (0.472)	2S
50 ohm	250	3.0 (0.118)	15 (0.591)	3S
75 ohm	275	2.0 (0.079)	15 (0.591)	3S
50 ohm	250	4.0 (0.157)	20 (0.787)	4S
75 ohm	275	3.0 (0.118)	20 (0.787)	4S
50 ohm	250	5.0 (0.197)	30 (1.181)	5S
75 ohm	275	4.0 (0.157)	30 (1.181)	5S

Table 2

Triax Contact

If a triaxial contact type has been determined from the images on page 2, the next step is to determine the impedance. This can be determined from the triaxial cable attached to the current plug or from the manual of the instrument with the LEMO receptacle. The choices are 50-ohm impedance or 75-ohm impedance. If these methods are not available, measurement of the center pin may assist with identification. (Caution: This can be difficult since the pin is recessed down in the nose of the plug.)

Impedance	Type Code	Center Pin - Ø mm (in)	Plug Nose - Ø mm (in)	Shell Size
50 ohm	650	0.9 (0.035)	7 (0.276)	0S
50 ohm	650	0.9 (0.035)	9 (0.354)	1S
50 ohm	650	1.6 (0.063)	12 (0.472)	2S
75 ohm	675	0.9 (0.035)	12 (0.472)	2S
50 ohm	650	2.0 (0.079)	15 (0.591)	3S
75 ohm	675	0.9 (0.035)	15 (0.591)	3S
50 ohm	650	3.0 (0.118)	20 (0.787)	4S
75 ohm	675	2.0 (0.079)	20 (0.787)	4S

Table 3

High Voltage Contact

If a high voltage contact has been determined from the sample images, the next step is to confirm the operating voltage of the associated piece of equipment. The manual for the piece of equipment should indicate the operating voltage. LEMO high voltage receptacles typically have digit(s) marked on the shell of the receptacle to indicate the kilovolt rating. For safety reasons, determining the operating voltage is very important. Measurement of the center contact is a partial method for contact identification. (See Table 4.)

Operating Voltage kV rms	Type Code	Center Pin Ø mm (in)	Plug Nose Ø mm (in)	Shell Size
2.8	403	0.9 (0.035)	7 (0.276)	0S
5.0	405	1.3 (0.051)	9 (0.354)	1S
5.5	408	2.0 (0.079)	12 (0.472)	2S
5.0	405	4.0 (0.157)	15 (0.591)	3S
7.0	410	2.0 (0.079)	15 (0.591)	3S
10.0	415	1.3 (0.051)	15 (0.591)	3S
7.0	410	2.5 (0.098)	20 (0.787)	4S

Table 4

Please note there are several other specialized high voltage connectors outside of the S Series high voltage connectors.

The information determined through this guide can be very helpful in determining a replacement or mating LEMO connector.



635 Park Court, Rohnert Park, CA 94928
P.O. Box 2408, Rohnert Park, CA 94928-2408
(800) 444-5366 • (707) 578-8811 • fax (707) 578-0869

www.LemoUSA.com • email: info@lemousa.com

Notice: The information contained in this document is subject to change without notice. LEMO makes no warranty of any kind with regard to this material, including, but not limited to, the implied warranties of merchantability and fitness for a particular purpose. LEMO shall not be liable for errors contained herein or for incidental or consequential damages in connection with the furnishing, performance or use of this material.

Reproduction, adaptation or translation of this document is prohibited without prior written permission of LEMO.