

# REFERENCE GUIDE

## LEMO's PLUG IDENTIFICATION GUIDE ●



**INTRODUCTION**

This guide is designed for individuals who have a LEMO plug, and wish to identify its part number. It describes basic steps in identifying a part number for a specific LEMO plug and covers only the most common LEMO connectors. To identify items not listed in the document, refer to LEMO’s web site and/or catalogs. Knowing the cable or cable size to be used will also greatly help. For additional assistance, or with help on more complex models, please contact LEMO.

**A QUICK PATH**

If you know the part number for the plug mate, use the Part # Search feature on the LEMO web site, and select “Find Mate” on the Product Details page.

**STEPS**

**1. Determine if the plug is a LEMO product**

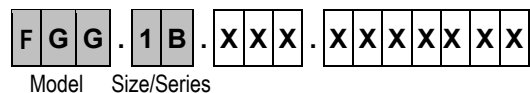
The B Series, K Series and E Series have the LEMO chocolate block pattern. The S Series has two knurled bands.



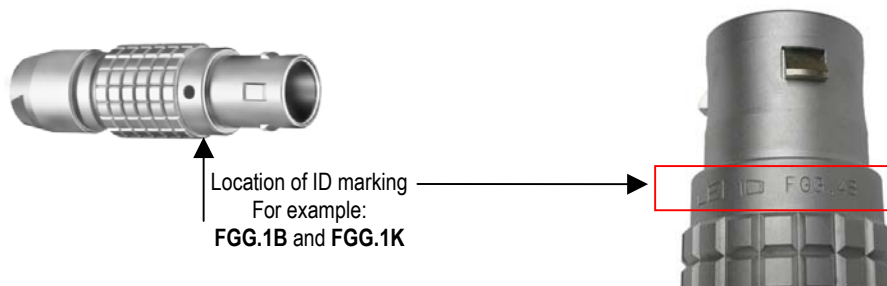
Examples of Non-LEMO plugs



**2. Determine model, size, and series**



LEMO plugs have the model, size, and series marked on the circumference of the shell. Example: FGG.1B. Note: the 3<sup>rd</sup> letter is the Key style. ‘G’ is most common, but other key configurations are available (refer to catalogs).



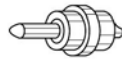
### 3. Determine insert/contact type

**F G G . 1 B . 3 X X . X X X X X X X**

Look into the nose of the plug to determine the insert/contact type. Type

**Single Contact**

If there is only one electrical contact, it will be a **low voltage** pin, coax, triax, or a **high voltage** contact. For more specifics on each of these insert/contact types, see the [Concentric Contacts Identification Guide](#). For the most common single pin contact, a single 'low voltage' pin, the sixth position of the part number is a '1'. A coax connector is nominally a '2', a high voltage (with its additional anti creep spacer) will be a '4', and a triax has a '6' designation.



Single pin



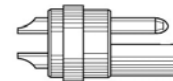
Coax

**Multi Contact**

If there are multiple contacts, they may be low voltage, coax, triax, high voltage, fiber optic, or a combination thereof. For the most common multiple contact connector, with low voltage pins, the sixth position of the part number is a "3".



Two pin, 'B' type insert



Hermaphroditic or 'S' type insert

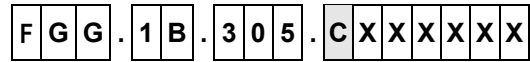
### 4. Determine insert/contact configuration

**F G G . 1 B . 3 0 5 . X X X X X X X**

Having determined the first digit in the "type identifier", now determine the next two digits. For common low voltage configurations, count the number of pins and see the [Part Number Explanation](#) page on the web site, or the 'type tables' in the catalog of the series identified in step 2. A typical table is shown below. For example, the multi-pin low voltage insert, with 5 pins is a 'type' **305**.

Reference	Number of contacts	ø A (mm)	Contact type availability				Solder contact		Crimp contact		Rated current (A) <sup>1)</sup>		
			Solder	Crimp	Printed circuit (straight)	Printed circuit (elbow)	Test voltage (kV rms) <sup>1)</sup> Contact-contact	Test voltage (kV rms) <sup>1)</sup> Contact-shell	Test voltage (kV rms) <sup>1)</sup> Contact-contact	Test voltage (kV rms) <sup>1)</sup> Contact-shell			
<b>1B</b>		302	2	1.3	●	●	●	●	1.50	1.35	1.70	1.45	15.0 <sup>3)</sup>
		303	3	1.3	●	●	●	●	1.30	1.55	1.60	1.85	12.0
		304	4	0.9	●	●	●	●	1.35	1.45	1.70	1.80	10.0 <sup>2)</sup>
		305	5	0.9	●	●	●	●	1.25	1.15	1.30	1.55	9.0 <sup>2)</sup>

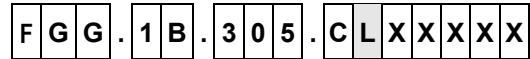
**5. Determine shell material**



Shell Material

For 9<sup>th</sup> position number, determine the shell material. The most common shell material is brass with matte chrome plating and is indicated with the letter “C”. Anodized aluminum alloy has an L designator and so on. There are many alternative choices available. Details and shell material codes can be found on the [Part Number Explanation](#) page of LEMO’s web site, and catalogs.

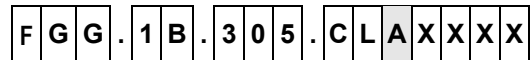
**6. Determine insert material**



Insulator Material

The 10<sup>th</sup> position is the insulator material of the insert. The most common insert material is ‘PEEK’ plastic, a pale beige in color, and is the letter ‘L’ (or sometimes Y). Coax inserts are most often Teflon, which is white, and indicated with the letter “T”. Other insert materials are available and are indicated in a table in the catalogs. Contact LEMO if you are unable to determine the material.

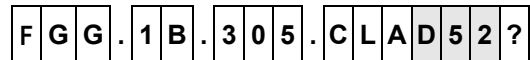
**7. Determine termination type**



Termination Type

The 11<sup>th</sup> position indicates the type of pin termination. If the termination is solder, the termination is type “A”. A crimp connection is a “C”. In a B-series connector female solder pin, type “L”, or crimp type “M” are possible, for reverse sex configurations (female contacts in a male plug). (Note: there are certain *keyways*, such as the J-keyway, reserved for reverse sex connectors, see step 2.)

**8. Determine collet size and type**



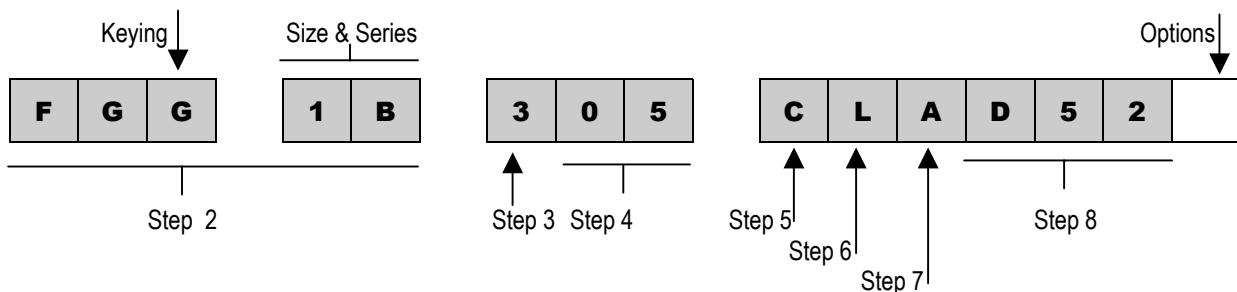
Collet Size

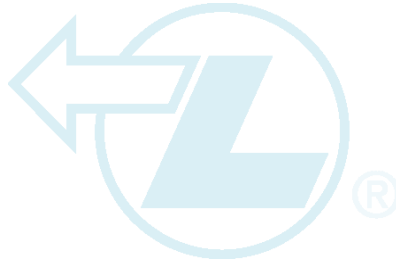
Measure the diameter of the cable to determine the collet size. In the collet tables of the catalog, find the appropriate table for your size and series as determined in step 2. Find the cable max and min dimension, which best describes your cable, and then look for the ‘referenced type’ of the collet best suited for your cable. If your connector is not terminated, measure the inside diameter of the collet to determine its size.

The last position is reserved for options (like an additional bend relief etc.) and is not required for a viable connector.

Reference	Collet ø		Cable ø		Part number of the collet <sup>1)</sup>		
	Type	ø	ø A	ø B		max.	min.
1B	M	27	2.7	–	2.6	2.2	FFC.00.727.CN
	M	31	3.1	–	3.0	2.6	FFC.00.731.CN
	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 <sup>3)</sup>	

**9. Configure the part number for your LEMO plug - Summary**





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