

C90 Series Circular Connectors

December 2014

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1. DESCRIPTION OF CONNECTOR AND INTENDED APPLICATION.

A range of high reliability, rugged, RoHS compliant circular connectors, designed to meet the high standards of MIL-DTL-5015 (MIL-C-5015). The C90 range comes in a variety of free-plug, panel mount and cable connector orientations, available in a number of popular shell and layout options.

These connectors satisfy all the performance requirements of MIL-DTL-5015 (MIL-C-5015) and are recommended for harsh conditions where vibration, moisture and pressure/temperature are extreme.

- Intermateable with MIL-DTL-5015 (MIL-C-5015)
- Low cost, highly durable & rugged connector system
- Solder termination
- Full environmental sealing with the use of back shells and sealing gaskets, exceeds IP-67.
- Threaded and polarised coupling
- COTS applications where MIL spec is not mandatory

It is recommended that the wire is stripped to a length of 7.5mm.

2. MARKING OF THE CRIMP CONNECTOR AND/OR PACKAGE (ORDER CODE).

The marking (order code) shall appear on the package and shall be of the following style:

	<u>C90</u> - <u>310XX</u> <u>XXXX-X</u> <u>X</u>
Product Range ————————————————————————————————————	
Type 3101F = Cable Connector with back shell 3102R = Panel Mount Connector with gasket 3106F = Straight plug with back shell	
Shell Size 10SL-3 = Thread 5/8-24UNEF, 3 contacts 10SL-4 = Thread 5/8-24UNEF, 2 contacts 12S-3 = Thread 3/4-20UNEF, 2 contacts 14S-2 = Thread 7/8-20UNEF, 4 contacts 14S-6 = Thread 7/8-20UNEF, 6 contacts	
Contact Gender — P = Male S = Female	



2.1. CONNECTOR ACCESSORIES.

The marking (order code) shall appear on the package and shall be of the following style:

C90 - 2504X - 1XXX Product Range C90 Commercial MIL-DTL-5015 Style Type 25042 = End Cap and Chain with External Thread 25043 = End Cap and Chain with Internal Thread

Shell Size 10SL = Thread 5/8-24UNEF 12S = Thread 3/4-20UNEF 14S = Thread 7/8-20UNEF

The marking (order code) shall appear on the package and shall be of the following style:

	<u>C90</u> - <u>3420</u> - <u>X</u>
Product Range ————————————————————————————————————	
Type 3420 = Rubber Bushing	

Size ______ 4 = Diameter: Ø5.59mm. Length: 69.85mm

6 = Diameter: Ø7.92mm. Length: 66.68mm



3. RATINGS.

3.1 MATERIALS.

Outer shell Inner contacts Insulator, grommet Aluminium Alloy, Zinc with Black Chromate Coating Copper Alloy, Silver Finish Synthetic Rubber

3.2 ENVIRONMENTAL CHARACTERISTICS.

Operating Temperature: Vibration sensitivity: Shock Severity: Water resistance (sealing) Durability

-55°C to +125°C 10Hz to 500Hz, 98mm/s² (10G) 490m/s² (50G) for 11ms 1.8m for 48 hours, exceeds IP67 500 Cycles MIN

3.3 ELECTRICAL CHARACTERISTICS. .

Current rating:	13A	
Voltage rating:	10SL shell:	500V AC, 700V DC
	12S shell:	500V AC, 700V DC
	14S shell:	200V AC, 250V DC
Voltage Proof:	10SL shell:	2,000V AC
	12S shell:	2,000V AC
	14S shell:	1,000V AC

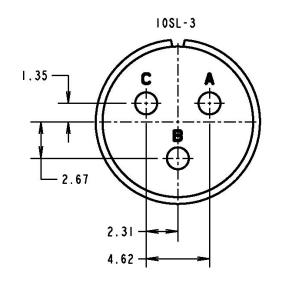
Insulation Resistance:

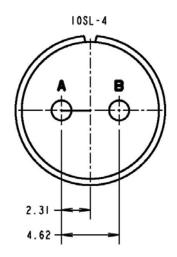
5,000 MΩ min

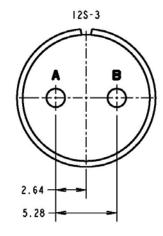
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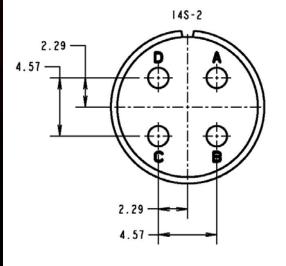
4. CONTACT DETAILS.

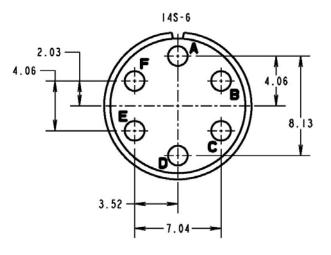
4.1 MALE—FRONT VIEW.









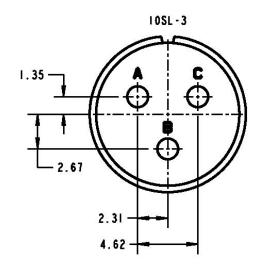


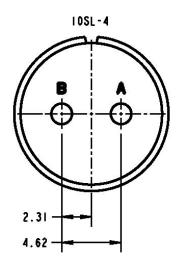
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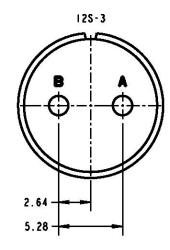
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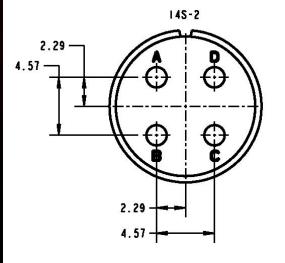
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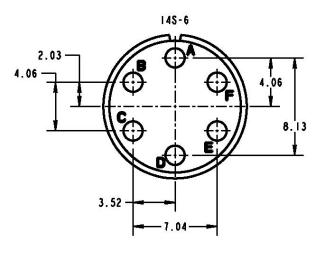
4.2 FEMALE—FRONT VIEW.











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