

## **C90 Series Circular Connectors**

July 2017

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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

S = Female

- 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).

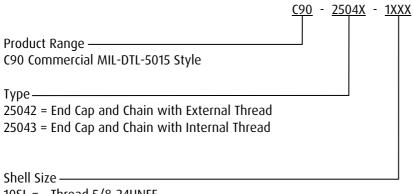
The marking (order code) shall appear on the package and shall be of the following style:

	<u> C90 - 310XX XXXX-X 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	



#### 2.1. CONNECTOR ACCESSORIES.

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



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 ————————————————————————————————————	
C90 Commercial MIL-DTL-5015 Style  Type ————————————————————————————————————	
3420 = Rubber Bushing	
Size —	
JILC	·

4 = Diameter: Ø5.59mm. Length: 69.85mm 6 = Diameter: Ø7.92mm. Length: 66.68mm



#### 3. RATINGS.

#### 3.1 MATERIALS.

Outer shell Aluminium Alloy, Zinc with Black Cobalt Alloy Coating Inner contacts Copper Alloy, Silver Finish

Insulator, grommet Synthetic Rubber

#### 3.2 ENVIRONMENTAL CHARACTERISTICS.

Operating Temperature: -55°C to +125°C

Vibration sensitivity: 10Hz to 500Hz, 98m/s² (10G) Shock Severity: 490m/s² (50G) for 11ms

Water resistance (sealing) 1.8m for 48 hours, exceeds IP67

Durability 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

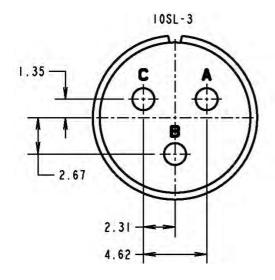
12S shell: 2,000V AC 14S shell: 1,000V AC

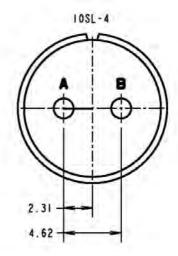
Insulation Resistance: 5,000 MΩ min

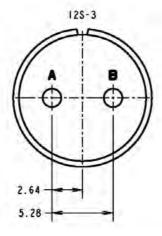
# HARWIN

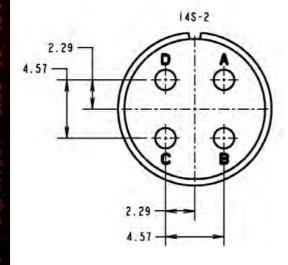
### 4. CONTACT DETAILS.

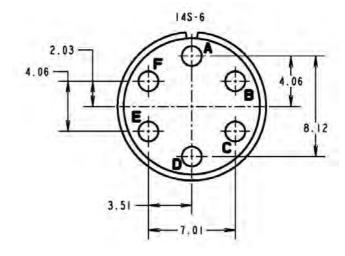
#### 4.1 MALE—FRONT VIEW.





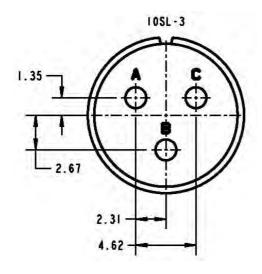


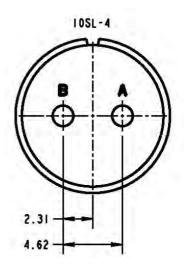


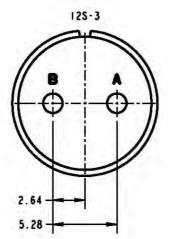


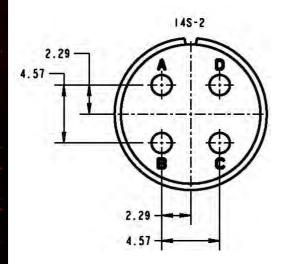
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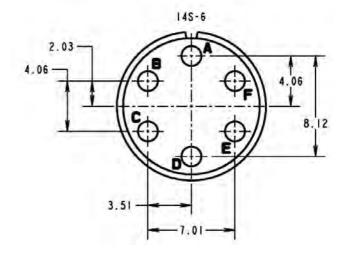
- 4. CONTACT DETAILS.
- 4.2 FEMALE—FRONT VIEW.











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