



# HARWIN

## Component Specification

**C04509**

C90 Series Circular Connectors  
November 2022

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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

## 2. RATINGS

### 2.1. Material & Finish

Outer shell .....	Aluminium Alloy, Zinc with Black Cobalt Alloy Coating
Inner contacts .....	Copper Alloy, Silver Finish
Insulator, Grommet .....	Synthetic Rubber

### 2.2. Environmental Characteristics

Operating Temperature .....	-55°C to +125°C
Vibration Sensitivity .....	10Hz to 500Hz, 98m/s <sup>2</sup> (10G)
Shock Severity .....	490m/s <sup>2</sup> (50G) for 11ms
Water Resistance (sealing).....	1.8m for 48 hours, exceeds IP67

### 2.3. 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: .....	5,000MΩ min

### 2.4. Mechanical Characteristics

Durability .....	500 mating cycles min
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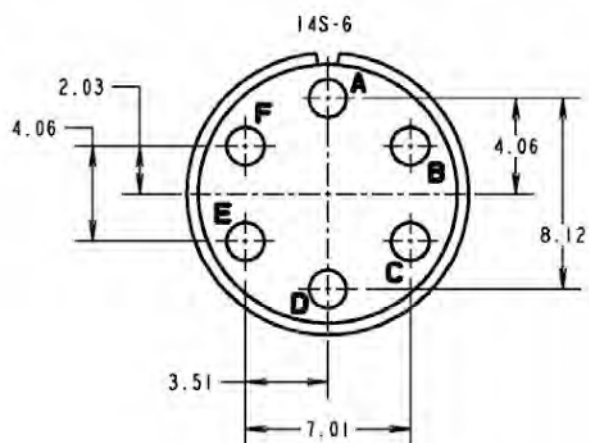
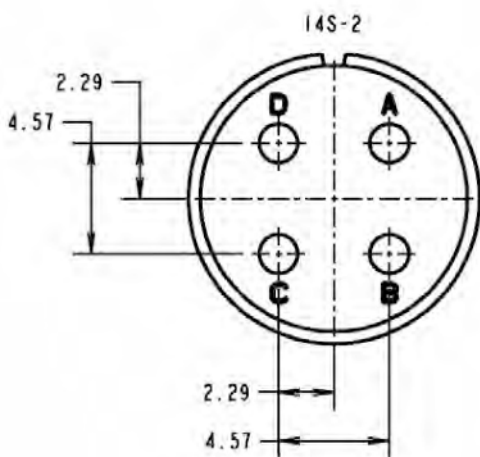
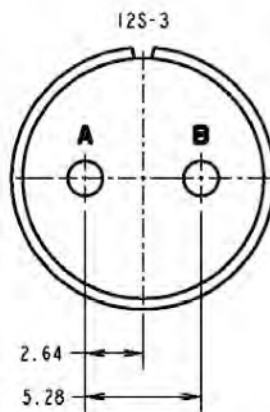
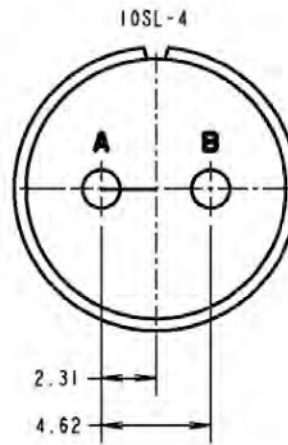
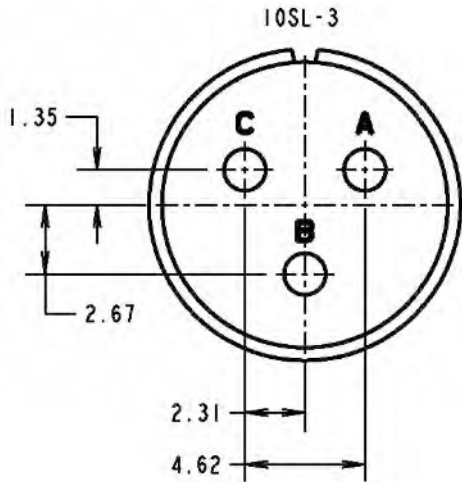
### 2.5. Wire Termination Range

Recommended Wire Size.....	16-22 AWG
Recommended Wire Strip Length.....	7.5mm



**APPENDIX 1 – CONTACT NUMBERING**

**A1.1. Male (view onto mating face)**



A1.2. Female (view onto mating face)

