



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 ² (10G)
Shock Severity	490m/s ² (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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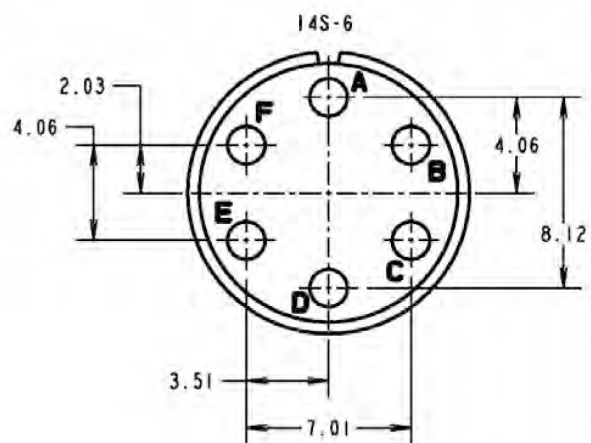
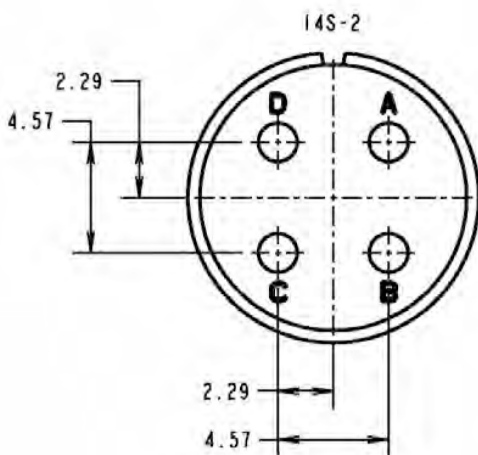
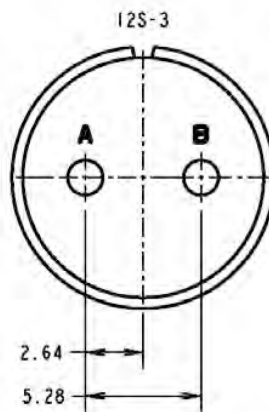
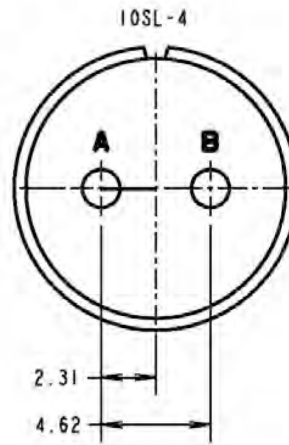
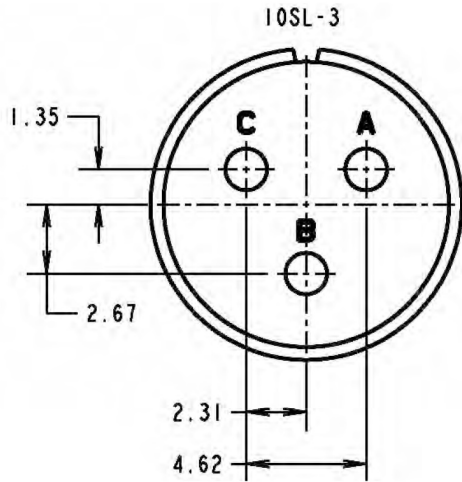
2.5. Wire Termination Range

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)

