

# Commercial MIL-DTL-5015 Specification

A range of high reliability, rugged, RoHS-compliant Circular Connectors to meet the high standards of MIL-DTL-5015, priced to be cost-effective for commercial and industrial applications.

Designed for use in harsh and demanding environments, the high specification, cadmium- and hexavalent chromium-free range features free plug, panel mount and cable connector orientations in a number of popular shell and layout options.

## Features

- Intermateable with MIL-DTL-5015
- Low cost, highly durable & rugged connector system
- Solder termination
- Full environmental sealing with the use of backshells and sealing gaskets, exceeds IP67
- Threaded and polarised coupling
- Zinc & Black Chromate-plated shells
- COTS applications where MIL spec is not mandatory

### Materials

Outer shell: Aluminium Alloy, Zinc with Black Chromate finish  
 Inner contacts: Copper Alloy, Silver finish  
 Insulator, Grommet: Synthetic Rubber

### Environmental

Operating temperature: -55°C to +125°C  
 Vibration sensitivity: 10Hz to 500Hz, 98mm/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

### Electrical

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

### Mechanical

Durability: 500 operations  
 Wire size: 16 to 22 AWG

All preferred sizes of this range are held in stock. Check [www.harwin.com](http://www.harwin.com) for availability.

## HOW TO ORDER

**C90 - 310X# XXXX-X X**

### SERIES CODE

TYPE	
<b>3101F</b>	Cable connector with backshell
<b>3102R</b>	Panel mount connector with gasket
<b>3106F</b>	Straight plug with backshell

### CONTACT GENDER

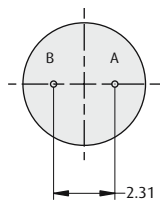
<b>P</b>	Male
<b>S</b>	Female

### SHELL SIZE

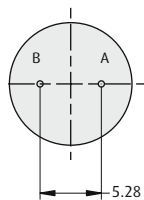
<b>10SL-3</b>	Thread 5/8-24UNEF, 3 contacts
<b>10SL-4</b>	Thread 5/8-24UNEF, 2 contacts
<b>12S-3</b>	Thread 3/4-20UNEF, 2 contacts
<b>14S-2</b>	Thread 7/8-20UNEF, 4 contacts
<b>14S-6</b>	Thread 7/8-20UNEF, 6 contacts

## Contact Configuration

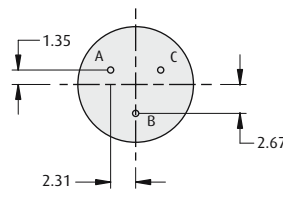
Contact numbering is shown looking onto the mating face of the male connector.



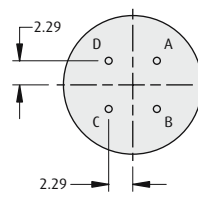
10SL-4 Shell



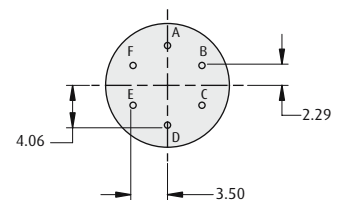
12S-3 Shell



10SL-3 Shell



14S-2 Shell



14S-6 Shell

All dimensions in mm.

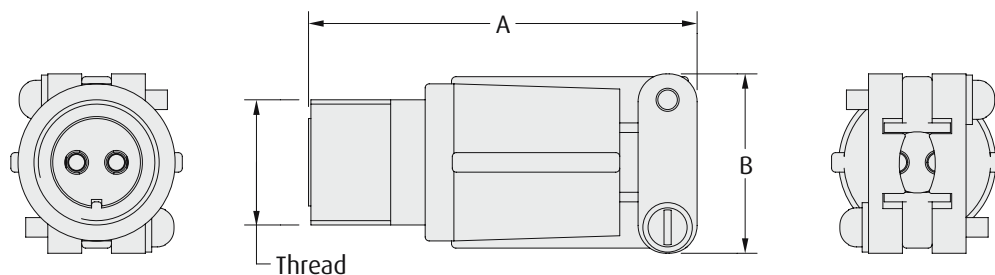
# Commercial MIL-DTL-5015

## Cable Connector & Straight Plug

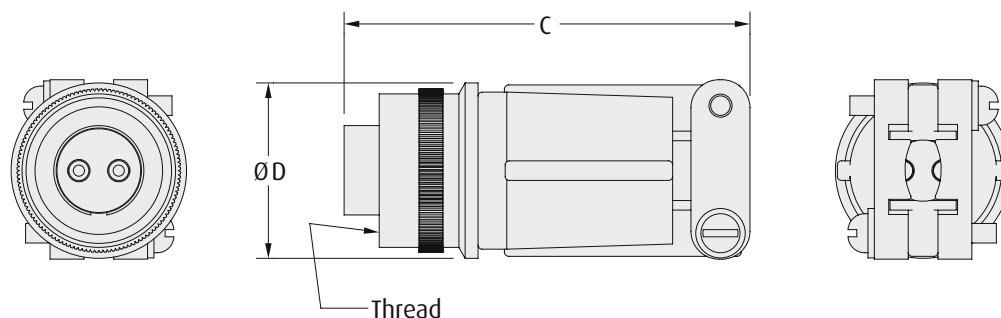
- ❖ Male & female circular connectors interchangeable with MIL-DTL-5015.
- ❖ Rugged connector system for harsh environments.
- ❖ Exceeds IP67.
- ❖ Recommended wire strip length is 7.5mm.



### CABLE CONNECTOR



### STRAIGHT PLUG



### CALCULATION

SHELL SIZE	THREAD*	DIMENSIONS			
		A max	B max	C max	ØD max
<b>10SL-3</b>	5/8-24UNEF-2A/2B	54.10	22.76	54.10	24.10
<b>10SL-4</b>	5/8-24UNEF-2A/2B	54.10	22.76	54.10	24.10
<b>12S-3</b>	3/4-20UNEF-2A/2B	54.10	22.76	54.10	25.30
<b>14S-2</b>	7/8-20UNEF-2A/2B	54.10	25.94	55.91	28.53
<b>14S-6</b>	7/8-20UNEF-2A/2B	54.10	25.94	55.91	28.53

\*2A class for external threads, 2B class for internal threads.

All dimensions in mm.