

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/s² (10G)
 Shock severity: 490m/s² (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 for availability.

HOW TO ORDER

C90 - 310X# XXXX-X X

SERIES CODE

TYPE	
3101F	Cable connector with backshell
3102R	Panel mount connector with gasket
3106F	Straight plug with backshell

CONTACT GENDER

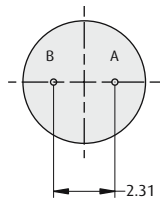
P	Male
S	Female

SHELL SIZE

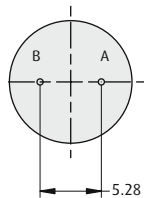
10SL-3	Thread 5/8-24UNEF, 3 contacts
10SL-4	Thread 5/8-24UNEF, 2 contacts
12S-3	Thread 3/4-20UNEF, 2 contacts
14S-2	Thread 7/8-20UNEF, 4 contacts
14S-6	Thread 7/8-20UNEF, 6 contacts

Contact Configuration

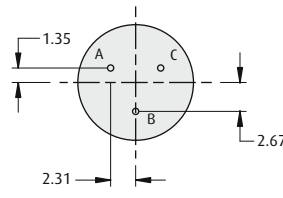
Contact numbering is shown looking onto the mating face of the male connector.



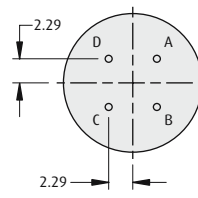
10SL-4 Shell



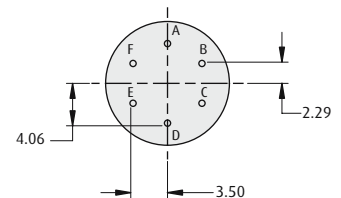
12S-3 Shell



10SL-3 Shell



14S-2 Shell



14S-6 Shell

All dimensions in mm.

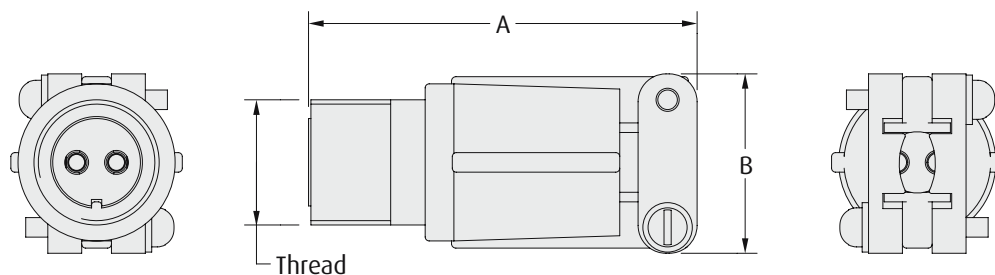
Commercial MIL-DTL-5015

Cable Connector & Straight Plug

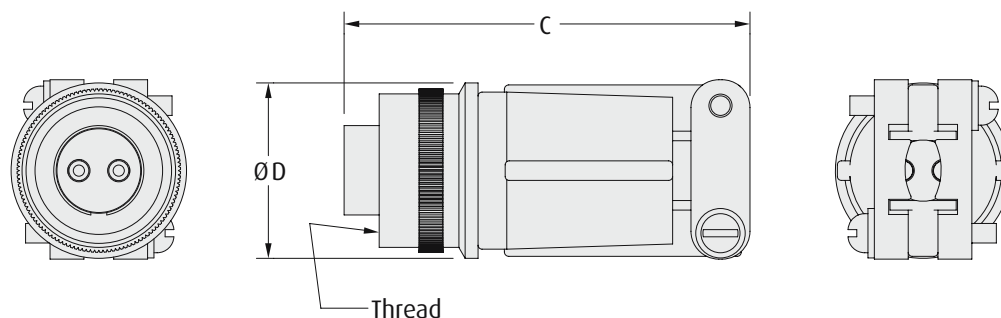
- ❖ Male & female circular connectors interchangeable with MIL-DTL-5015.
- ❖ Rugged connector system for harsh environments.
- ❖ Exceeds IP67.
- ❖ Recommended wire strip length is 7.5mm.



CABLE CONNECTOR



STRAIGHT PLUG



CALCULATION

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

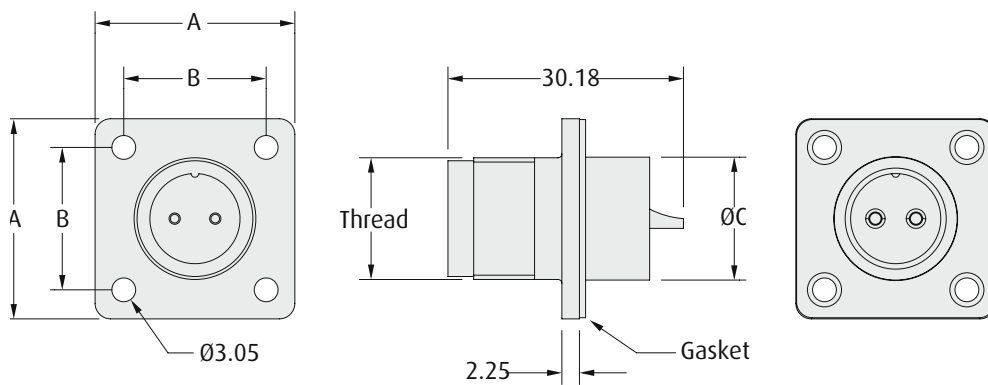
Commercial MIL-DTL-5015

Panel Mount Connector, Receptacle Style

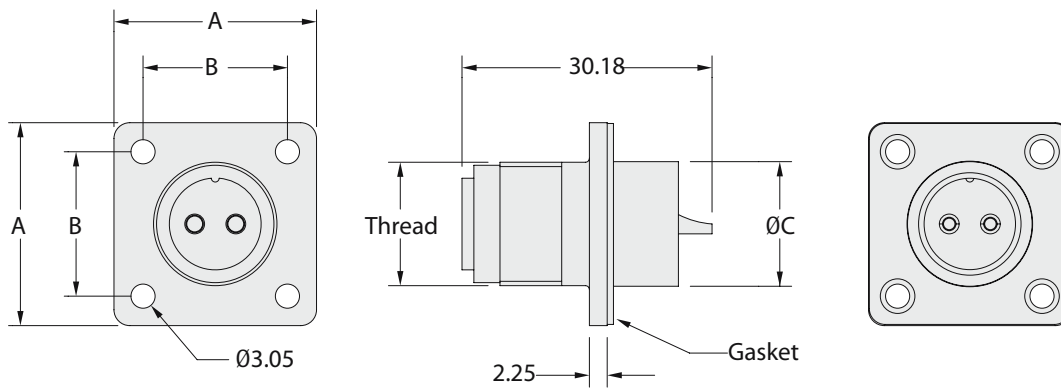
- ❖ Male & female circular connectors intermateable with MIL-DTL-5015.
- ❖ Features screw holes for panel mounting.
- ❖ Gaskets provide additional sealing.
- ❖ Recommended wire strip length is 7.5mm.
- ❖ Mates with C90-3106F Straight Plug connectors shown on previous page.



MALE



FEMALE



CALCULATION

SHELL SIZE	THREAD	DIMENSIONS		
		A	B	ØC
10SL-3	5/8-24UNEF-2A	25.65	18.25	15.75
10SL-4	5/8-24UNEF-2A	25.65	18.25	15.75
12S-3	3/4-20UNEF-2A	28.02	20.62	17.17
14S-2	7/8-20UNEF-2A	30.40	23.02	18.92
14S-6	7/8-20UNEF-2A	30.40	23.02	18.92

All dimensions in mm.