SPECIFICATION

Commercial MIL-DTL-5015

A new range of high reliability, rugged, RoHS-compliant Circular Connectors released by Harwin to meet the high standards of MIL-DTL-5015, yet 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 IP-67**

- **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:	Polychloroprene

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.

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

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

| CONTACT GENDER	
P	Male
S	Female

SERIES CODE

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

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 |
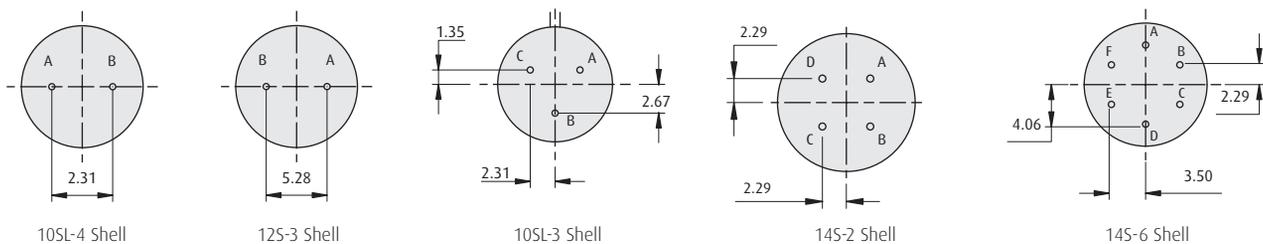
All dimensions in mm.

HARWIN

Commercial MIL-DTL-5015
Cable Connector & Straight Plug

- Male & Female Circular Connectors intermateable with MIL-DTL-5015.
- Rugged connector system for harsh environments.
- Cable assembly service available.
- Exceeds IP-67.

CABLE CONNECTOR

'C' THREAD

DIM 'B'

DIM 'A'

STRAIGHT PLUG

DIM 'A'

'C' THREAD

ØDIM 'B'
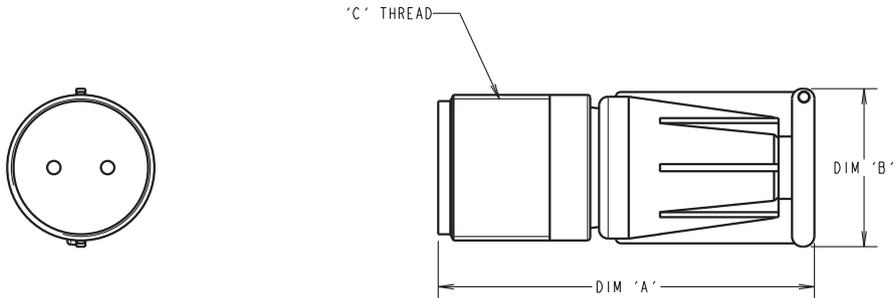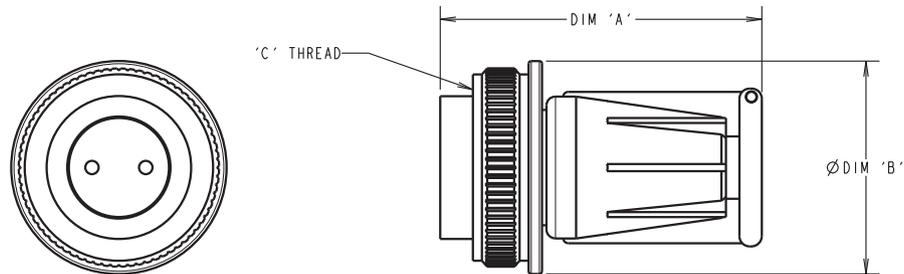
CALCULATION

SHELL SIZE	THREAD*	DIMENSION					
		ØA max.	B max.	ØC min.	D max.	ØE max.	ØF min.
10SL-3	5/8-24UNEF-2A/2B	24.61	16.66	11.38	24.61	24.61	11.33
10SL-4	5/8-24UNEF-2A/2B	24.61	16.66	11.38	22.20	24.61	11.33
12S-3	3/4-20UNEF-2A/2B	26.97	19.43	14.15	22.70	26.97	14.10
14S-2	7/8-20UNEF-2A/2B	29.63	22.60	17.32	27.00	29.36	17.15
14S-6	7/8-20UNEF-2A/2B	29.63	22.60	17.32	27.00	29.36	17.15

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

All dimensions in mm.

HARWIN

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.
‣ 13A power.

MALE
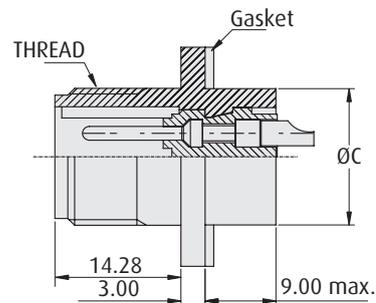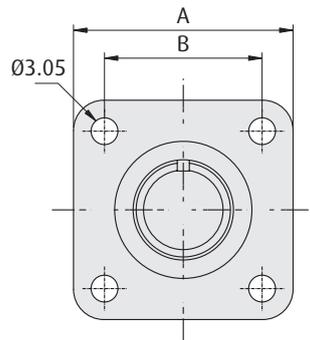
FEMALE
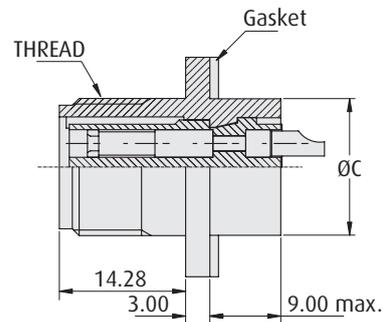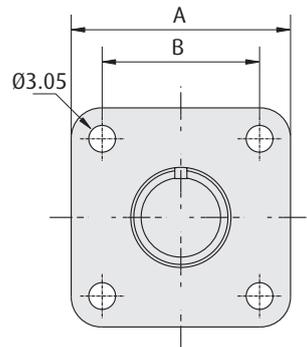
CALCULATION

| SHELL SIZE	THREAD	DIMENSION		
		A ±0.79	B ±0.12	C max.
10SL-3	5/8-24UNEF-2A	25.40	18.26	19.35
10SL-4	5/8-24UNEF-2A	25.40	18.26	19.35
12S-3	3/4-20UNEF-2A	27.79	20.62	19.86
14S-2	7/8-20UNEF-2A	30.18	23.01	23.01
14S-6	7/8-20UNEF-2A	30.18	23.01	23.01

All dimensions in mm.

CIRCULAR CONNECTORS

HARWIN

Commercial MIL-DTL-5015
Dust Caps & Rubber Bushing

- Dust cap with external thread for use with Straight Plugs (C90-3106F).
- Dust cap with internal thread for use with Cable connectors (C90-3101F) and Panel Mount connectors (C90-3102R).
- Dust caps supplied fitted with chain.
- Rubber Bushing for use with Cable connectors (C90-3101F) and Straight Plugs (C90-3106).

DUST CAP – EXTERNAL THREAD

125.00

16.66

THREAD

ØC
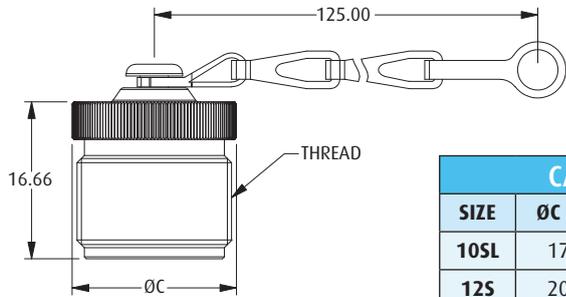
CALCULATION

SIZE	ØC MAX	THREAD
10SL	17.45	5/8-24UNEF-2A
12S	20.62	3/4-20UNEF-2A
14S	23.8	7/8-20UNEF-2A

DUST CAP – INTERNAL THREAD

125.00

11.66

THREAD

ØD

CALCULATION

SIZE	ØD MAX	THREAD
10SL	20.70	5/8-24UNEF-2B
12S	25.40	3/4-20UNEF-2B
14S	28.58	7/8-20UNEF-2B

RUBBER BUSHING

ØA

B

CALCULATION

SIZE	ØA	B
4	5.59	69.85
6	7.92	66.68

HOW TO ORDER

C90 – XXXXX – XXXX

SERIES CODE

TYPE	
25042	Dust Cap – External thread
25043	Dust Cap – Internal thread
3420	Rubber Bushing

SIZE	
10SL	For use with 10SL shell size (Dust caps)
12S	For use with 12S shell size (Dust caps)
14S	For use with 14S shell size (Dust caps)
4	For use with 10SL & 12S shell sizes (Bushing)
6	For use with 14S shell size (Bushing)

All dimensions in mm.

HARWIN