

MIL-C-5015 SERIES CONNECTOR

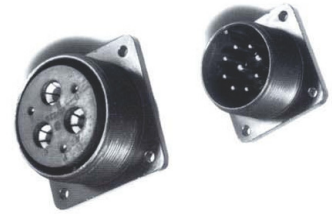
Over View

They were originally designed for aircraft, but have since found their way into a wide variety of commercial and military applications.

These popular connector styles are particularly well suited to commercial applications where a low cost, yet extremely rugged connector is required.

Over 180 contact layouts are available from 1 to 65 positions and up to 150 Amps per contact.

The standard MIL-C-5015 layouts allow the mixing of power and signal contact, power only, or signal only. These connectors are completely sealed to withstand moisture, condensation, vibration, and flash-over. When the two connector halves are mated, the rear sealing grommet plus the interfacial seal at the front create a completely sealed



BOX MOUNTING RECEPTACLE
MS 3102 E / MS 3102 R

Applications

- Power Generators
 - Battery system
 - Engines
 - Sensors
- Motion control
 - Off-road vehicles
 - Earth moving equipment
 - Ships
- Railroad equipment
 - Mobile equipment
 - Industrial machinery
 - Telecommunications



STRAIGHT CABLE CONNECTOR
INTEGRAL CABLE CLAMP
MS 3106 E / MS 3106 F

Features

- Full Military Temperature range
MIL-C-5015 Connectors will operate in temperatures from -55°C to +125°C (-67°F to +257°F) under the harshest possible conditions.

Wide range of wire gauges and current carrying capability
Up to 24 Amps with wire gauges from size 20 up size 0 AWG wire.

Resilient insulator & grommet
Resilient synthetic rubber insulator and rear sealing grommet guarantees a liquid tight assembly

Environmental
Vibration proof and water proof, will perform in the full range of MIL-C-5015 environments, Coupling nuts will accommodate lock wires if required.

High performance, Low cost
Design original as the first military specification Tri-Service connector for the Army, Air Force and Navy, these connectors are now widely used in industrial applications. These threaded connectors are easy to specify, purchase, and assembly providing long service life for applications needing minimum maintenance.



WALL MOUNTING RECEPTACLE
INTEGRAL CABLE CLAMP
MS 3100 E / MS 3100 F

Ordering Information

MIL. Prefix	MS	3102	A	18	-10	P	X
Shell Type 3100 = Wall mount receptacle 3101 = In-line receptacle 3102 = Box mount receptacle 3106 = Straight plug 3108 = 90° Angle Plug							
Service Class A = Solid endbell, solder contacts and non-pressurized. B = Split endbell, solder contacts and non-pressurized. E = Environmental, use R or F. F = R type with clamp R = Solder contacts with grommet seal and without clamp.							
Shell Size 10SL, 12, 14S, 14, 16S, 16, 18, 20, 22, 24, 28, 32, 36, 40.							
Insert Arrangement Ref. : MIL-STD-1651A							
Contact Style P = Pin S = Socket							
Alternate Insert Position W, X, Y, Z (Ref. : MIL-STD-1651A)							



90° ANGLE CONNECTOR
MS 3108 E / MS 3108 F



CABLE CONNECTOR WITH
INTEGRAL CABLE CLAMP
MS 3101 E / MS 3101 F



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MIL-C-5015 SERIES CONNECTOR

Material and Finishes

Shell & Coupling Nut	Aluminum alloy, Olive drab chromate coating over cadmium Plating or green zinc
Insulator, Grommet & Seals	Synthetic Rubber
Contacts	Copper alloy, Silver plating

Electrical Data

* Operating Voltage & Test Voltage

Service Rating	Operating Voltage		Test Voltage VAC rms	Air Spacing Nom. (inches)	Creepage Distance Nom. (inches)
	VDC	VAC rms			
Inst.	250	200	1,000	-	1/16
A	700	500	2,000	1/16	1/8
D	1,250	900	2,800	1/8	3/16
E	1,750	1,250	3,500	3/16	1/4
F	2,450	1,750	4,500	1/4	5/16

Contact Rating

Contact Size	Contact Resistance Milliohm Max	Test Current (Amps)	Potential Drop (Millivolts)
16	6	13	49
12	3	23	42
8	1	46	26
4	0.5	80	23
0	0.2	150	21

* Wire range size
16 AWG to 0 AWG

* Insulation resistance
5,000 megohms minimum at 25°C (77°F) per MIL-C-5015, 3.18.

Mechanical

* Operating temperature
-55°C to +125°C : (-67°F to +257°F)

* Sealing
48 hours in 6 feet of water per MIL-C-5015 4.6.19. meets 20 day extreme humidity testing per MIL-C-5015 4.6.18.

* Wire sealing range

Contact Size	AWG Wire Size	Insulation Outside Dia. Min.		Insulation Outside Dia. Max.	
		mm	inches	mm	inches
16	16	1.63	0.064	3.30	0.130
12	12	2.90	0.114	4.32	0.170
8	8	4.17	0.164	6.48	0.255
4	4	6.98	0.275	9.40	0.370
0	0	10.54	0.415	13.97	0.550

Technical Specifications

* Mating Life
100 cycles minimum. To MIL-C-5015, 3.16

* Salt spray
Unmated connectors and protective covers meet 48 hours exposure to MIL-STD-1344 method 1001 per MIL-C-5015. (Cadmium plating)

* Heat
+125°C (+257°F) for 60 hours, +55°C (+135°F) for 1,000 hours per MIL-C-5015, 4.6.14, minimum.

* Chemical Resistance
20 hours full immersion unmated in hydraulic fluid and lubricating oil per MIL-C-5015 minimum

* Vibration
10 to 2,000 Hz (15g's) 10 microseconds maximum discontinuity. to MIL-STD-1344 method 2005 per MIL-C-5015

* Shock
50g's, 11ms duration, three major axes. 10 microsecond maximum discontinuity. to MIL-C-5015, 3.13.

* Contact Retention
To MIL-C-5015, 4.6.6

Contact Size	Axial load Min.	
	lbs	Newtons
16	10	44
12	15	67
8	20	89
4	20	89
0	25	111

* Polarization
Integral key and keyway plus optional rotational polarization.

Specials

Please consult our sales team for further details.

- Platings: Bright Nickel/Black Anodized
- High Temperature Inserts: Viton/Silicone/Teflon
- PG/Metric Adaptors: Nickel/Black/Olive Drab finishes
- EMI/RFI Backshells: for screened inserts
- Pre-mating contacts
- Stainless Steel connectors
- Earthing Connectors, just to name a few.

Mil C 26482 and bayonet versions also available

Mil C 5015 bayonet versions available on request



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