

MIL-C-5015 PRODUCT SHORTFORM

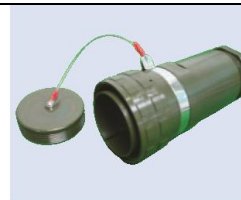
Amphenol Australia Pty Ltd

Quick Facts:

- Harsh environment multipole connectors.
- Silver plated solder contacts.
- Resilient synthetic rubbers inserts to aid sealing.
- High grade aluminum alloy connector shells.
- Standard contact layouts available ex-stock in Australia.
- Cable connectors supplied complete with telescopic bushing MS3420. This is designed to keep dirt, oil and moisture out of the endbell.



Telescopic bushing



Amphenol MS connectors satisfy all the performance requirements of MIL-C-5015 and are recommended for conditions where vibration, moisture, pressure and / or temperature are extreme.

Shells:

Shell components are fabricated from high grade aluminum alloy. The standard hardware plating is electrically zinc plated finish with an olive drab chromate after treatment for corrosion resistance. the choice is simple.

Contacts:

Contacts are silver plated copper alloy for maximum corrosion resistance, maximum current carrying capacity and low milivolt drop. Size 16 and 12 contacts incorporate a closed entry design.

Inserts:

Inserts are resilient synthetic rubber, offering high dielectric strength, high arc resistance and resistance to vibration. Proprietary design permits pressurization of either pin or socket insert.

Strain relief:

Strain relief clamp minimizes tension at the solder well connection and provides a positive mechanical moisture seal. Complete field serviceability is possible with the strain relief clamp.



Straight Plug



Cable connecting Receptacle



Right Angle Plug



Box Mounting Receptacle

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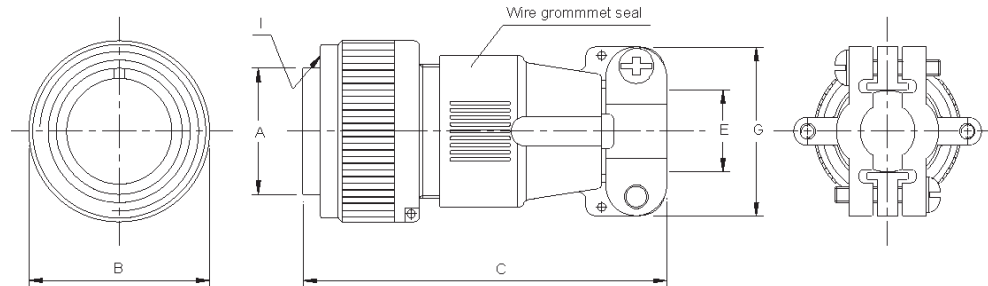
Straight Plug

MS3106F straight plugs mate with 3101 and 3102 receptacles



Supplied complete with telescopic bushing

MS3106F Straight Plug – Integral Cable Clamp



Shell Size	A +0.00 -0.38	B Max.	C Max.	ØE Max.	ØG Max.	I Thread-2B (UNEF)
10SL	11.33	24.61	57.15	7.9	23.0	5/8-24 NEF
14S	17.15	29.36	57.15	11.2	26.0	3/4-20 NEF
16S	20.45	31.75	57.15	14.2	29.0	3/4-20 NEF
18	23.62	34.13	68.27	16.0	31.6	1-20 NEF
20	26.67	37.31	69.85	19.1	37.5	1 1/4-18 NEF
24	33.02	43.66	75.41	23.8	43.0	1 1/2-18 NEF



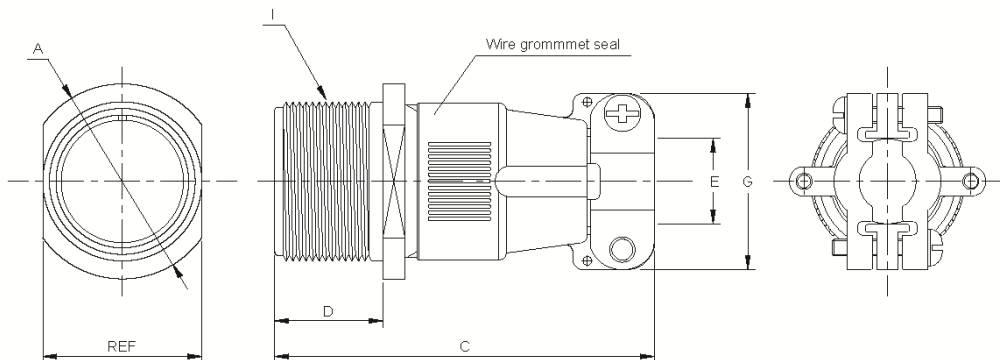
Cable connecting Receptacle

MS3101E receptacles mate with 3106 and 3108 plugs



Supplied complete with telescopic bushing

MS3101F Cable Connecting Receptacle – Integral Cable Clamp



Shell Size	A Max.	C Max.	D +0.79 -0.00	ØE Max.	ØG Max.	I Thread-2B (UNEF)
10SL	25.40	57.15	14.28	7.9	23.0	5/8-24 NEF
14S	30.18	57.15	14.28	11.2	26.0	3/4-20 NEF
16S	32.54	57.15	14.28	14.2	29.0	3/4-20 NEF
18	34.93	68.27	19.05	16.0	31.6	1-20 NEF
20	38.10	69.85	19.05	19.1	37.5	1 1/4-18 NEF
24	44.45	75.41	20.63	23.8	43.0	1 1/2-18 NEF

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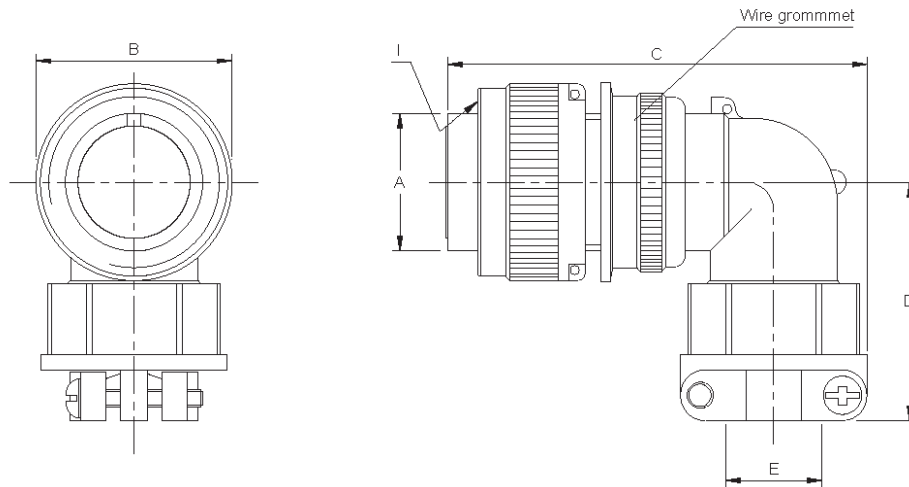
Right Angle Plug

MS3106F straight plugs mate with 3101 and 3102 receptacles



Supplied complete with telescopic bushing

MS3108F Right Angle Plug – Integral Cable Clamp

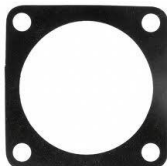


Shell Size	A +0.00 -0.38	B Max.	C Max.	D Max.	ØE Max.	I Thread-2B (UNEF)
10SL	11.33	24.61	55.57	38.1	7.9	5/8-24 NEF
14S	17.15	29.36	58.72	40.4	11.2	3/4-20 NEF
16S	20.45	31.75	61.11	42.8	14.2	3/4-20 NEF
18	23.62	34.13	72.23	45.2	16.0	1-20 NEF
20	26.67	37.31	82.55	50.0	19.1	1 1/4-18 NEF
24	33.02	43.66	94.46	53.9	23.8	1 1/2-18 NEF



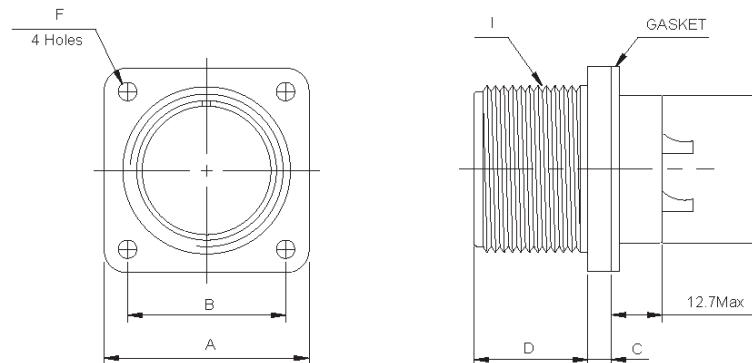
Box Mounting Receptacle

MS3102R receptacles mate with 3106 and 3108 plugs



Supplied complete with sealing gasket

MS3102R Box Mounting Receptacle



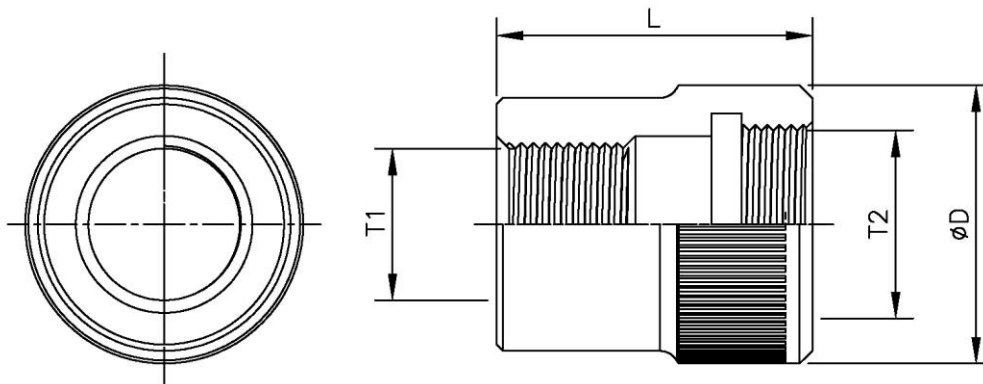
Shell Size	A ±0.79	B ±0.12	C ±0.5	D +0.79 -0.00	ØF +0.25 -0.12	ØG Max.	I Thread-2A (UNEF)
10SL	25.40	18.26	3.0	14.28	3.05	16.0	5/8-24 NEF
14S	30.18	23.01	3.0	14.28	3.05	20.0	3/4-20 NEF
16S	32.54	24.61	3.0	14.28	3.05	23.0	3/4-20 NEF
18	34.93	26.97	4.0	19.05	3.05	26.0	1-20 NEF
20	38.10	29.36	4.0	19.05	3.05	29.0	1 1/4-18 NEF
24	44.45	34.93	4.0	20.63	3.73	35.5	1 1/2-18 NEF

MIL-C-5015 PRODUCT SHORTFORM



Metric Adaptor
Part# 97B-14S-M16*1.5

Metric Adaptors



Part Number	Shell Size	T1	T2	D Max.	L ±0.20
97B-10SLM12*1.5	10SL	M12X1.5	5/8-24 UNEF	22.00	25.00
97B-14S-M16*1.5	14S	M16X1.5	3/4-20 UNEF	25.00	25.00
97B-16S-M16*1.5	16S / 16	M16X1.5	7/8-20 UNEF	27.00	30.00
97B-18-M20*1.5	18	M20X1.5	1-20 UNEF	30.50	40.00
97B-20-M25*1.5	20	M25X1.5	1 1/8-18 UNEF	33.00	40.00
97B-24-M32*1.5	24	M32X1.5	1 3/8-18 UNEF	39.50	50.00



Application example: MS3106 fitted with metric adaptor and cable gland

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Quick Facts:

Contact Layouts -

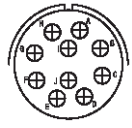
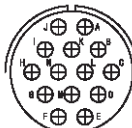
Standard contact layouts shown here are available ex-stock in Australia. Please contact us directly to check availability of non-standard inserts.

Accessories - We have large range of MIL-C-5015 accessories available including protection dust caps, EMI shielded backshells and PG, Metric or heat shrink adaptor backshells.

Pre-mating Earth – MS style connectors are also available featuring a pre-mating earth contact. Please call to discuss your specific requirements.

Standard connector layouts

				
Insert Arrangement	10SL-3	14S-5	14S-6	16S-1
Service Rating	A	Inst.	Inst.	A
Number of Contacts	3	5	6	7
Contact Size	16	16	16	16

				
Insert Arrangement	18-1	20-27	20-29	24-28
Service Rating	B,C,F,G = A, Bal. = Inst.	A	A	Inst.
Number of Contacts	10	14	17	24
Contact Size	16	16	16	16

Technical Data

1 . Characteristics

Insulation resistance	5,000 Mega ohms minimum (@25°C)
Temperature range	-55°C to 125°C
Durability	500 mating cycles

2 . Dielectric withstanding voltage

Service Rating	Test Voltage AC (RMS)	Operating voltage	
		AC	DC
Inst.	1,000	200	250
A	2,000	500	700
D	2,800	900	1,250
E	3,500	1,250	1,750
B	4,500	1,750	2,450
C	7,000	3,000	4,200

3 . Electrical data

Contact Size	Pin contact Ø	Solder pot Ø	Rated current (Mated with insulators fitted)	Contact resistance	
				Test current DC A	Potential Drop (Max) mV
#16	1.6mm	1.9mm	13A	13A	49
#12	2.4mm	3.0mm	23A	23A	42
#8	3.6mm	5.4mm	46A	46A	26

4 . Wire range

Contact Size	A.W.G	MM ²	Conductor O.D.
#16	#22 ~ #16	≤1.3	1.7 ~ 3.3
#12	#14 ~ #12	≤3.5	2.9 ~ 4.3
#8	#10 ~ #8	≤8.0	4.2 ~ 6.4

Radsok® Technology Connector options



MIL-C-5015 (Solder Contacts)

<u>MS</u>	<u>3102</u>	<u>A</u>	<u>18-10</u>	<u>P</u>	<u>W</u>	<u>XXX</u>
<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>
						<u>8</u>

1. Connector Type
MS - designates Military Standard
DS - Amphenol MIL- C-5015 Europe use
2. Connector Style
3100- wall mounting receptacle
3101- cable connecting plug
3102- box mounting receptacle
3106- straight plug
3108- 90° Right angle plug
3. Service Class
A - General purpose, Solid Endbell
E - Environmental resisting, with grommet seal & strain relief back shell
F - Environmental resisting with grommet seal & strain relief back shell
3106F and 3108E style include a front 'O' ring seal
R - Environmental resisting with grommet seal, light weight and shorter
Overall length 310R style include a front 'O' ring seal
- 4, 5. Shell size and insert arrangement - see tables, page 26.27
6. Contact Types
P- designates pin contact, (+) Male
S- designates socket contact, (-) Female
7. Insert Rotation
No suffix-Normal
"W", "X", "Y", or "Z" - See page 26.27
8. Plating information
No suffix - Olive Drab Zinc
CD - Cadmium
C1 - Cobalt (Without +6 Cr)
621 - Black Zinc
689 - Electro-less Nickel
426 - Electro-less Nickel & gold flash contacts

MIL-C-5015 (Crimp Contacts)

<u>MS</u>	<u>4102</u>	<u>A</u>	<u>18-10</u>	<u>P</u>	<u>W</u>	<u>XXX</u>
<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>
						<u>8</u>

1. Connector Type
MS - designates Military Standard
2. Connector Style
4100 - wall mounting receptacle
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Amphenol

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- **HIGH CURRENT RATING**
- **50A TO OVER 1000A**
- **HIGH RELIABILITY**
- **HIGH CYCLE DURABILITY**
- **LOW MILIVOLT DROP**
- **LOW INSERTION FORCE**
- **LOW TEMPERATURE RISE**



Radsok® socket contact
(Available in standard and custom sizes)