

THREADED COUPLING, MIL-DTL-5015 TYPE Harsh Environment Power and Signal Interconnects



253-505 Environmental Stainless Steel PCB Jam-Nut Mount Receptacle MIL-DTL-5015 Series III Type

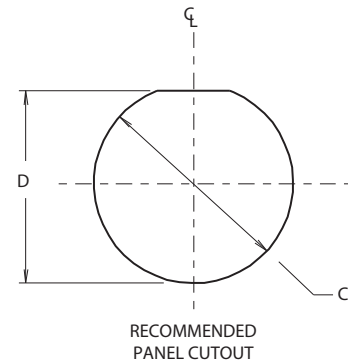
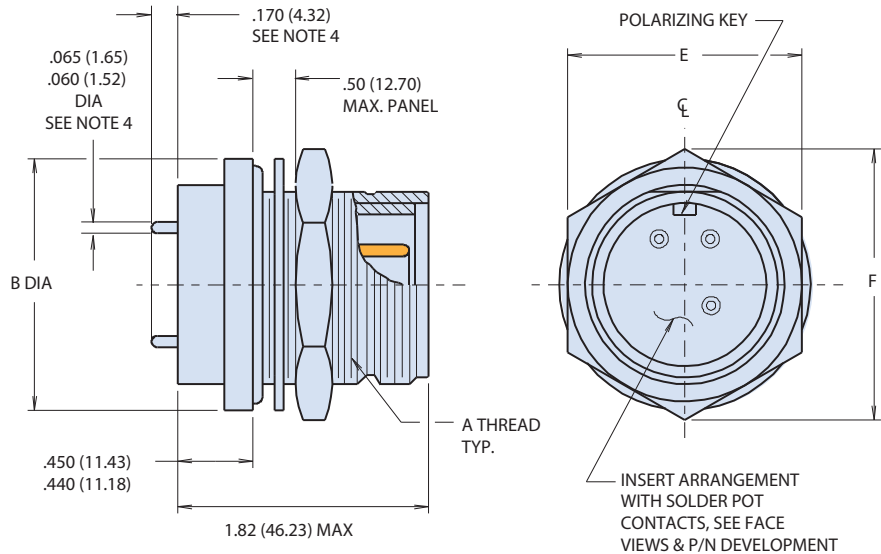
ENVIRONMENTAL CONNECTORS



HOW TO ORDER				
Sample Part Number	253-505	14S-5	P	W
Basic Part Number	253-505 = 5015 type, PCB receptacle			
Shell Size - Insert Arrangement	See shell size - insert arrangement; Contact factory for additional options			
Contact Type	P = pin S = socket See page 21 for for PCB footprints			
Alternate Insert Position	W, X, Y, Z, OMIT for normal; alternate insert positions on page 4			

NOTES:

- Assembly identified with manufacturer's name and P/N, space permitting.
- Material/finish:
 - Shell: passivated stainless steel
 - Insulator, o-ring, grommet: nitrile/neoprene
 - Contacts: gold plated copper alloy
- Performance data
 - Contact current rating
#20-5 amps, #16-10 amps,
#12-17 amps, #8-35 amps.
 - Rated operating voltage
service rating instrument: 250 VDC
service rating A: 700 VDC.
 - DWV (hi-pot)
service rating instrument: 1000 VRMS
service rating A: 2000 VRMS.
 - Insulation resistance: 5000 megohms
minimum at 500 VDC and +25°C
 - Temperature range: -55°C to +125°C
- Extension and diameter of contacts apply to #16 contacts only, for other sizes, consult factory.
- Electrical safety limits must be established by the user. Peak voltages, switching surges, transients, etc., should be used to determine safety of application.
- Contact factory for additional insert arrangements and backshell options



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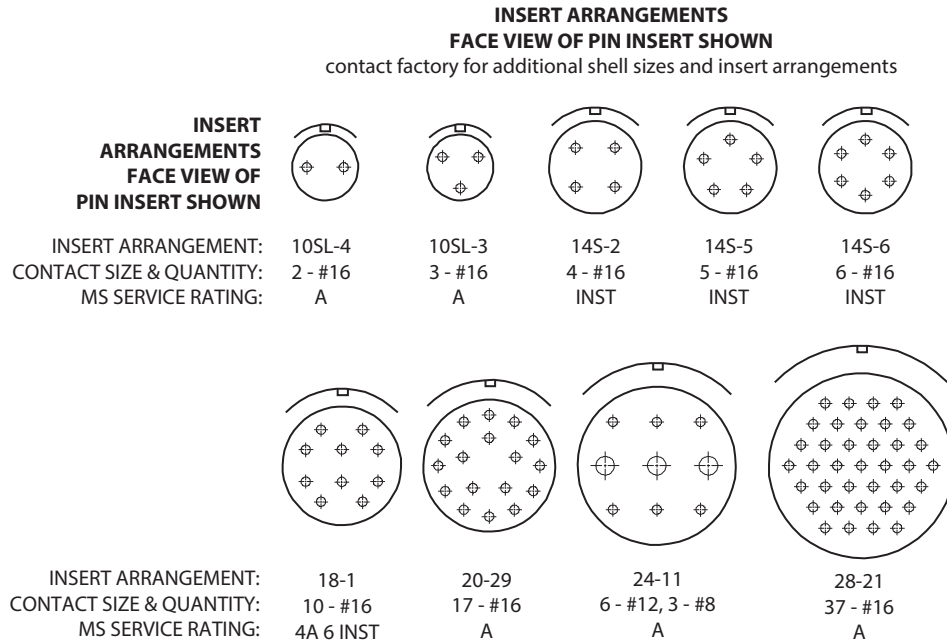


TABLE I: CONNECTOR DIMENSIONS						
SHELL SIZE	A THREAD CLASS 2A	B DIA MAX	C DIA +.010-.000 (+0.3-0)	D +.010-.000 (+0.3-0)	E FLATS	F REF
10SL	5/8 -24 UNEF	1.03(26.2)	.635(16.1)	.585(14.9)	.870(22.1)	1.000(25.4)
12	3/4 -20 UNEF	1.16(29.5)	.760(19.3)	.710(18.0)	.995(25.3)	1.125(28.6)
14S	7/8 -20 UNEF	1.28(32.5)	.885(22.5)	.835(21.2)	1.120(28.4)	1.250(31.8)
18	1 1/8 -18 UNEF	1.66(42.2)	1.135(28.8)	1.085(27.6)	1.495(38.0)	1.730(43.9)
20	1 1/4 -18 UNEF	1.78(45.2)	1.260(32.0)	1.210(30.7)	1.620(41.1)	1.870(47.5)
24	1 1/2 -18 UNEF	2.03(51.6)	1.510(38.4)	1.460(37.1)	1.870(47.5)	2.165(55.0)
28	1 3/4 -18 UNEF	2.28(57.9)	1.760(44.7)	1.710(43.4)	2.120(53.8)	2.448(62.2)

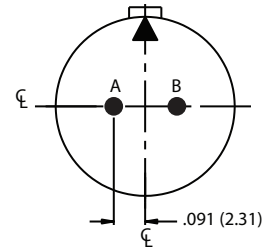
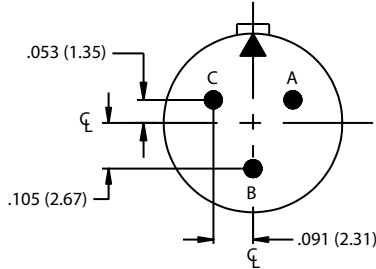
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MIL STD-1651B PCB Footprints

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INSERT ARRANGEMENT: 10SL-3

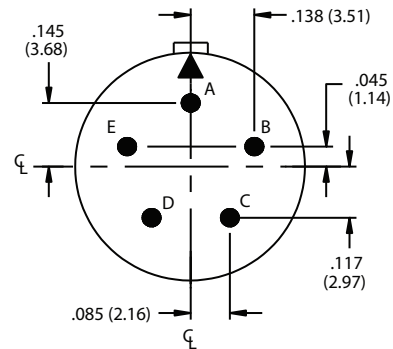
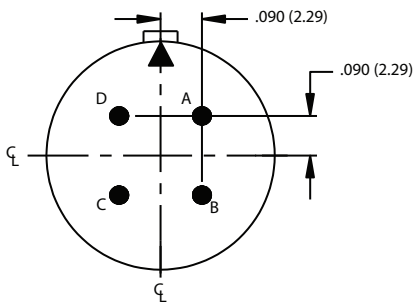
Contact Position Identification (ID)	Contact Location	
	X-axis (mm)	Y-axis (mm)
A	+0.091 (2.31)	+0.053 (1.35)
B	+0.000 (0.00)	-.105 (2.66)
C	-.091 (2.31)	+0.053 (1.35)

Number of Contacts	Contact Size	Service Rating	Contact Location
3	16 pin / skt 16S skt	A	all

INSERT ARRANGEMENT: 10SL-4

Contact Position Identification (ID)	Contact Location	
	X-Axis (Mm)	Y-Axis (Mm)
A	-.091 (2.31)	+0.000 (0.00)
B	+0.091 (2.31)	+0.000 (0.00)

Number of Contacts	Contact Size	Service Rating	Contact Location
2	16 pin / skt 16S skt	A	all



INSERT ARRANGEMENT: 14S-2

Contact Position Identification (ID)	Contact Location	
	X-axis (mm)	Y-axis (mm)
A	+0.090 (2.29)	+0.090 (2.29)
B	+0.090 (2.29)	-.090 (2.29)
C	-.090 (2.29)	-.090 (2.29)
D	-.090 (2.29)	+0.090 (2.29)

Number of Contacts	Contact Size	Service Rating	Contact Location
4	16 pin / skt 16S skt	Inst	all

INSERT ARRANGEMENT: 14S-5

Contact Position Identification (ID)	Contact Location	
	X-axis (mm)	Y-axis (mm)
A	+0.000 (0.00)	+0.145 (3.68)
B	+0.138 (3.51)	+0.045 (1.14)
C	+0.085 (2.16)	-.117 (2.97)
D	-.085 (2.16)	-.117 (2.97)
E	-.138 (3.51)	+0.045 (1.14)

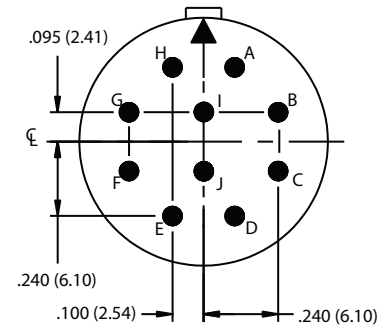
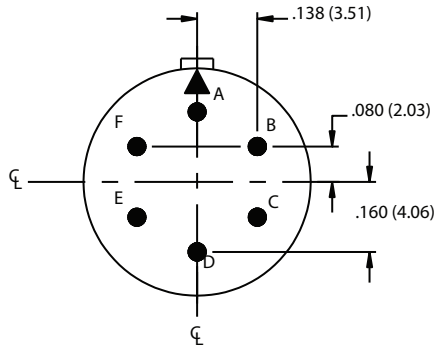
Number of Contacts	Contact Size	Service Rating	Contact Location
5	16 pin / skt 16S skt	Inst	all

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INSERT ARRANGEMENT: 145-6

Contact Position Identification (ID)	Contact Location	
	X-axis (mm)	Y-axis (mm)
A	+0.000 (0.00)	+0.160 (4.06)
B	+0.138 (3.51)	+0.080 (2.03)
C	+0.138 (3.51)	-0.080 (2.03)
D	+0.000 (0.00)	-0.160 (4.06)
E	-0.138 (3.51)	-0.080 (2.03)
F	-0.138 (3.51)	+0.080 (2.03)

Number of Contacts	Contact Size	Service Rating	Contact Location
6	16 pin / skt 16S skt	Inst	all

INSERT ARRANGEMENT: 18-1

Contact Position Identification (ID)	Contact Location	
	X-axis (mm)	Y-axis (mm)
A	+0.100 (2.54)	+0.240 (6.10)
B	+0.240 (6.10)	+0.095 (2.41)
C	+0.240 (6.10)	-0.095 (2.41)
D	+0.100 (2.54)	-0.240 (6.10)
E	-0.100 (2.54)	-0.240 (6.10)
F	-0.240 (6.10)	-0.095 (2.41)
G	-0.240 (6.10)	+0.095 (2.41)
H	-0.100 (2.54)	+0.240 (6.10)
I	+0.000 (0.00)	+0.095 (2.41)
J	+0.000 (0.00)	-0.095 (2.41)

Number of Contacts	Contact Size	Service Rating	Contact Location
4	16	A	B, C, F, G
6		Inst	All others

ENVIRONMENTAL CONNECTORS

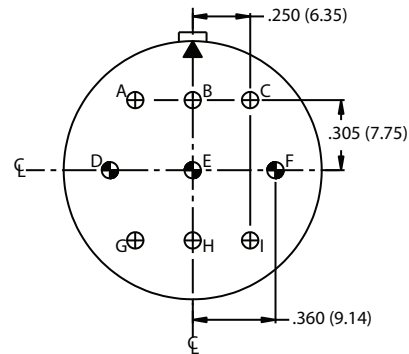
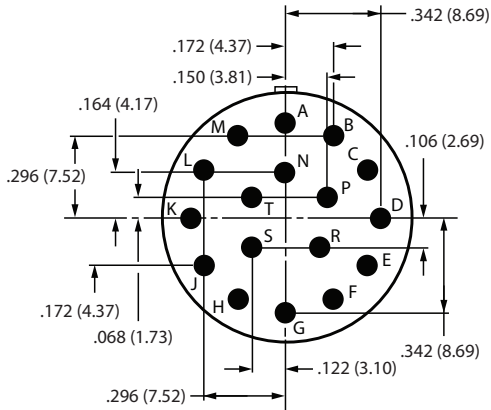
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INSERT ARRANGEMENT: 20-29		
Contact Position Identification (ID)	Contact Location	
	X-axis (mm)	Y-axis (mm)
A	+0.000 (0.00)	+0.342 (8.69)
B	+0.172 (4.37)	+0.296 (7.52)
C	+0.296 (7.52)	+0.172 (4.37)
D	+0.342 (8.69)	+0.000 (0.00)
E	+0.296 (7.52)	-0.172 (4.37)
F	+0.172 (4.37)	-0.296 (7.52)
G	+0.000 (0.00)	-0.342 (8.69)
H	-0.172 (4.37)	-0.296 (7.52)
J	-0.296 (7.52)	-0.172 (4.37)
K	-0.342 (8.69)	+0.000 (0.00)
L	-0.296 (7.52)	+0.172 (4.37)
M	-0.172 (4.37)	+0.296 (7.52)
N	+0.000 (0.00)	+0.164 (4.17)
P	+0.150 (3.81)	+0.068 (1.73)
R	+0.122 (3.10)	-0.106 (2.69)
S	-0.122 (3.10)	-0.106 (2.69)
T	-0.150 (3.81)	+0.068 (1.73)

INSERT ARRANGEMENT: 24-11		
Contact Position Identification (ID)	Contact Location	
	X-axis (mm)	Y-axis (mm)
A	-0.250 (6.35)	+0.305 (7.75)
B	+0.000 (0.00)	+0.305 (7.75)
C	+0.250 (6.35)	+0.305 (7.75)
D	-0.360 (9.14)	+0.000 (0.00)
E	+0.000 (0.00)	+0.000 (0.00)
F	+0.360 (9.14)	+0.000 (0.00)
G	-0.250 (6.35)	-0.305 (7.75)
H	+0.000 (0.00)	-0.305 (7.75)
I	+0.250 (6.35)	-0.305 (7.75)

Number of Contacts	Contact Size	Service Rating	Contact Location
6	12		A
3	18	D, E, F	

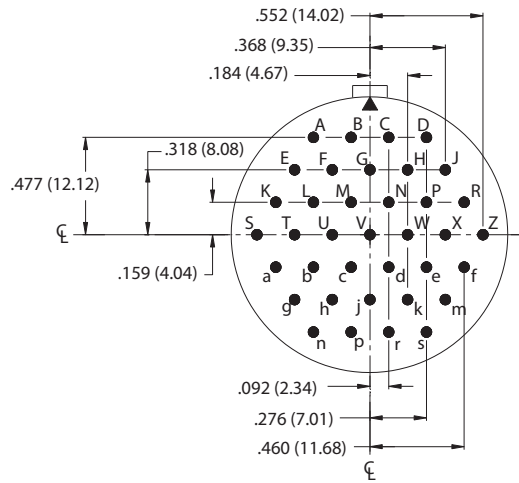
Number of Contacts	Contact Size	Service Rating	Contact Location
17	16	A	All

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INSERT ARRANGEMENT: 28-21

Contact Position Identification (ID)	Contact Location		Contact Position Identification (ID)	Contact Location	
	X-axis (mm)	Y-axis (mm)		X-axis (mm)	Y-axis (mm)
A	-0.276 (7.01)	+0.477 (12.12)	W	+0.184 (4.67)	+0.000 (0.00)
B	-0.092 (2.34)	+0.477 (12.12)	X	+0.368 (9.35)	+0.000 (0.00)
C	+0.092 (2.34)	+0.477 (12.12)	Z	+0.552 (14.02)	+0.000 (0.00)
D	+0.276 (7.01)	+0.477 (12.12)	a	-0.460 (11.68)	-0.159 (4.04)
E	-0.368 (9.35)	+0.318 (8.08)	b	-0.276 (7.01)	-0.159 (4.04)
F	-0.184 (4.67)	+0.318 (8.08)	c	-0.092 (0.00)	-0.159 (4.04)
G	+0.000 (0.00)	+0.318 (8.08)	d	+0.092 (0.00)	-0.159 (4.04)
H	+0.184 (4.67)	+0.318 (8.08)	e	+0.276 (7.01)	-0.159 (4.04)
J	+0.368 (9.35)	+0.318 (8.08)	f	+0.460 (11.68)	-0.159 (4.04)
K	-0.460 (11.68)	+0.159 (4.04)	g	-0.368 (9.35)	-0.318 (8.08)
L	-0.276 (7.01)	+0.159 (4.04)	h	-0.184 (4.67)	-0.318 (8.08)
M	-0.092 (2.34)	+0.159 (4.04)	j	+0.000 (0.00)	-0.318 (8.08)
N	+0.092 (2.34)	+0.159 (4.04)	k	+0.184 (4.67)	-0.318 (8.08)
P	+0.276 (7.01)	+0.159 (4.04)	m	+0.368 (9.35)	-0.318 (8.08)
R	+0.460 (11.68)	+0.159 (4.04)	n	-0.276 (7.01)	-0.477 (12.12)
S	-0.552 (14.02)	+0.000 (0.00)	p	-0.092 (0.00)	-0.477 (12.12)
T	-0.368 (9.35)	+0.000 (0.00)	r	+0.092 (0.00)	-0.477 (12.12)
U	-0.184 (4.67)	+0.000 (0.00)	s	+0.276 (7.01)	-0.477 (12.12)
V	+0.000 (0.00)	+0.000 (0.00)			

Number of Contacts	Contact Size	Service Rating	Contact Location
37	16	A	All

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