

MIL-C-5015 series



Part number

	MS	3106	A	18	10	P	Y
Basic series							
Type of Shell							
3100 = Wall mounting receptacle							
3101 = In-line receptacle							
3102 = Box mounting receptacle							
3106 = Straight plug							
3108 = Elbow plug							
Service Class							
A = Solid shell, solder contacts and non-pressurized							
B = Split shell, solder contacts and non-pressurized							
E = Environmental							
F = R with clamp							
R = Solder contacts with grommet seal and without clamp							
Shell Size							
10SL, 12S, 12, 14S, 14, 16S, 16, 18, 20, 22, 24, 28, 32, 36							
Contact layout (See below)							
Type of contact							
P = Pin							
S = Socket							
Alternate positioning							
W, X, Y, Z							

Technical specifications

- A. Materials
- Shell: Aluminum alloy; Olive drab cadmium or zinc plating
- Insulator: Synthetic rubber
- Contact: Copper alloy; Silver plating
- Gasket & Grommet: Synthetic rubber

- B. Electrical specifications
- Operating voltage & Test voltage,

Service class	Operating voltage		Test voltage	Air Spacing	Cree page
	DC (V)	AC (V)	AC (V)	Nominal (Inches)	Nominal (Inches)
Inst.	250	200	1000	—	1/16
A	700	500	2000	1/16	1/8
D	1250	900	2800	1/8	3/16
E	1750	1250	3500	3/16	1/4
B	2450	1750	4500	1/4	5/16
C	4200	3000	7000	5/16	1

Rated current (+20°C),

Contact size	Contact resistance (mΩ)	Test current (A)	Potential drop (mV)
16	16	13	49
12	3	23	42
8	1	46	26
4	0.5	80	23
0	0.2	150	21

Insulator resistance: +25°C ≥ 5000MΩ

C. Mechanical specifications

Operating temperature: -55°C ~ +125°C

Sealing: Under water (6 feet in water): 48 hours per MIL-DTL-5015, 4.6.19. Meet 20 days extreme humidity testing per.

Contact size	Outside dia. of insulation			
	Min.		Max.	
	inches	mm	inches	mm
16	0.064	1.63	0.130	3.30
12	0.114	2.90	0.170	4.32
8	0.164	4.17	0.255	6.48
4	0.275	6.98	0.370	9.40
0	0.415	10.54	0.550	13.97

Durability: ≥ 100 cycles

Salt spray: MIL-STD-1344 method 1001, condition B, ≥ 48 hours (Cadmium plating)

Heat: at +125°C, 60 hours; at +85°C, 1000 hours

Chemical resistance: in Hydraulic fluid or lubricating oil, 20 hours

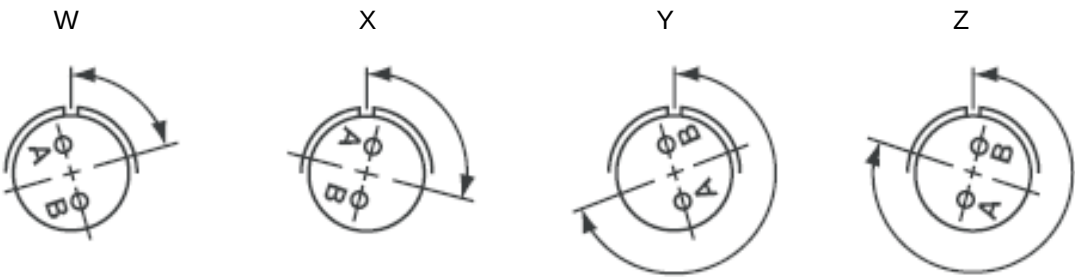
Vibration: 10 ~ 2000Hz, acceleration: 10 g's

Shock: acceleration: 50g

Contact retention & Separation force

Contact size	Retention		Separation force min.	
	N	Lbs.	N	Lbs.
16	44	10	1	0.25
12	67	15	2	0.50
8	89	20	3	0.75
4	89	20	4	1.00
0	111	25	9	2.00

Polarization



Contact layout	Service class	Cores	Contact size					Angle			
			0	4	8	12	16	W	X	Y	Z
10SL-3	A	3					3				
10SL-4	A	2					2				
12S-3	A	2					2	70	145	215	290
12S-4	D	1					1				
12-5	D	1				1					
14S-1	A	3					3				
14S-2	Inst.	4					4		120	240	
14S-4	D	1					1				
14S-5	Inst.	5					5		110		
14S-6	Inst.	6					6				
14S-7	A	3					3	90	180	270	
14S-9	A	2					2	70	145	215	290
14-3	A	1			1						
16S-1	A	7					7	80			280
16S-3	B	1					1				
16S-4	D	2					2	35	110	250	325
16S-5	A	3					3	70	145	215	290
16S-6	A	3					3	90	180	270	
16S-8	A	5					5		170	265	
16-2	E	1				1					
16-7	A	3			1		2	80	110	250	280
16-9	A	4				2	2	35	110	250	325
16-10	A	3				3		90	180	270	
16-11	A	2				2		35	110	250	325
16-12	A	1		1							
16-13	A	2				2		35	110	250	325
18-1	A/Inst.	10					10	70	145	215	290
18-3	D	2				2		35	110	250	325
18-4	D	4					4	35	110	250	325
18-5	D	3				2	1	80	110	250	280
18-6	D	1		1							
18-7	B	1			1						
18-8	A	8				1	7	70			290
18-9	Inst.	7				2	5	80	110	250	280
18-10	A	4				4			120	240	
18-11	A	5				5			170	265	
18-12	A	6					6	80			280
18-13	A	4			1	3		80	110	250	280
18-14	A	2		1			1	80	110	250	280
18-15	A	4				4			120	240	
18-16	C	1				1					

Contact layout	Service class	Cores	Contact size					Angle			
			0	4	8	12	16	W	X	Y	Z
18-20	A	5					5	90	180	270	
18-22	D	3					3	70	145	215	290
18-29	A	5					5	90	180	270	
20-2	D	1	1								
20-3	D	3				3		70	145	215	290
20-4	D	4				4		45	110	250	
20-6	D	3					3	70	145	215	290
20-7	D/A	8					8	80	110	250	280
20-8	Inst.	6			2		4	80	110	250	280
20-9	D/A	8				1	7	80	110	250	280
20-11	Inst.	13					13				
20-12	A	2		1			1	80	110	250	280
20-14	A	5			2	3		80	110	250	280
20-15	A	7				7		80			280
20-16	A	9				2	7	80	110	250	280
20-17	A	6				5	1	90	180	270	
20-18	A	9				3	6	35	110	250	325
20-19	A	3			3			90	180	270	
20-20	A	4		1		3		80	110	250	280
20-21	A	9				1	8	35	110	250	325
20-22	A	6			3		3	80	110	250	280
20-23	A	2			2			35	110	250	325
20-24	A	4			2		2	35	110	250	325
20-27	A	14					14	35	110	250	325
20-29	A	17					17	80			280
20-33	A	11					11				
22-1	D	2			2			35	110	250	325
22-2	D	3			3			70	145	215	290
22-4	A	4			2	2		35	110	250	325
22-5	D	6				2	4	35	110	250	325
22-6	D	3			2		1	80	110	250	280
22-7	E	1	1								
22-8	E	2				2		35	110	250	325
22-9	E	3				3		70	145	215	290
22-10	E	4					4	35	110	250	325
22-11	B	2					2	35	110	250	325
22-12	D	5			2		3	80	110	250	280
22-13	D/A	5				4	1	35	110	250	325
22-14	A	19					19	80	110	250	280
22-15	E/A	6				5	1	80	110	250	280
22-16	A	9				3	6	80	110	250	280

Contact layout	Service class	Cores	Contact size					Angle			
			0	4	8	12	16	W	X	Y	Z
22-17	D/A	9				1	8	80	110	250	280
22-18	A/D	8					8	80	110	250	280
22-19	A	14					14	80	110	250	280
22-20	A	9					9	35	110	250	325
22-21	A	3	1				2	80	110	250	280
22-22	A	4			4				110	250	
22-23	D/A	8				8		35		250	
22-24	D/A	6				2	4	80	110	250	280
22-27	D/A	9			1		8	80		250	280
22-28	A	7				7		80			280
22-33	D/A	7					7	80	110	250	280
22-34	D	5				3	2	80	110	250	280
22-36	D/A	8				8		90		270	
24-2	D	7				7		80			280
24-3	D	7				2	5	80	110	250	280
24-5	A	16					16	80	110	250	280
24-6	D/A	8				8		80	110	250	280
24-7	A	16				2	14	80	110	250	280
24-9	A	2		2				35	110	250	325
24-10	A	7			7			80			280
24-11	A	9			3	6		35	110	250	325
24-12	A	5		2		3		80	110	250	280
24-16	D/A	7			1	3	3	80	110	250	280
24-17	D	5				2	3	80	110	250	280
24-20	D	11				2	9	80	110	250	280
24-21	D	10			1		9	80	110	250	280
24-22	D	4			4			45	110	250	
24-27	E	7					7	80			280
24-28	Inst.	24					24	80	110	250	280
28-1	D/A	9			3	6		80	110	250	280
28-2	D	14				2	12	35	110	250	325
28-3	E	3			3			70	145	215	290
28-4	E/D	9				2	7	35	110	250	325
28-5	D	5		2		1	2	35	110	250	325
28-6	D	3		3				70	145	215	290
28-8	E/D/A	12				2	10	80	110	250	280
28-9	D	12				6	6	80	110	250	280
28-10	D/A	7		2	2	3		80	110	250	280
28-11	A	22				4	18	80	110	250	280
28-12	A	26					26	90	180	270	
28-15	A	35					35	80	110	250	280

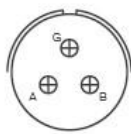
Contact layout	Service class	Cores	Contact size					Angle			
			0	4	8	12	16	W	X	Y	Z
28-16	A	20					20	80	110	250	280
28-17	B/D/A	15					15	80	110	250	280
28-18	C/D/A/Inst.	12					12	70	145	215	290
28-19	B/D/A	10				4	6	80	110	250	280
28-20	A	14				10	4	80	110	250	280
28-21	A	37					37	80	110	250	280
28-22	D	6		3			3	70	145	215	290
32-1	E/D	5	2			3		80	110	250	280
32-2	E	5		3			2	70	145	215	290
32-3	D	9	1	2		2	4	80	110	250	280
32-4	A/D	14				2	12	80	110	250	280
32-5	D	2	2					80	110	250	325
32-6	A	23		2	3	2	16	80	110	250	280
32-7	Inst./A	35				7	28	80	125	235	280
32-8	A	30				6	24	80	125	235	280
32-9	D	14		2			12	80	110	250	280
32-10	E/B/D/A	7		2	2		3	80	110	250	280
32-12	A/D	15				5	10	80	110	250	280
32-13	D	23				5	18	80	110	250	280
32-15	D	8	2			6		35	110	250	280
32-17	D	4		4				45	110	250	
32-22	A	54					54	80	110	250	280
36-1	D	22				4	18	80	110	250	280
36-3	D	6	3			3		70	145	215	290
36-4	D/A	3	3					70	145	215	290
36-5	A	4	4						120	240	
36-6	A	6	2	4				35	110	250	325
36-7	A	47				7	40	80	110	250	280
36-8	A	47				1	46	80	110	250	280
36-9	A	31		1	2	14	14	80	125	235	280
36-10	A	48					48	80	125	235	280
36-13	E/A	17				2	15	80	110	250	280
36-14	D	16			5	5	6	90	180	270	
36-15	D/A	35					35	60	125	245	305
36-52	A	52					52	72	144	216	288

Contact layouts

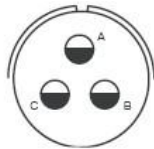
						
12S-4 #16-1	12-5 #12-1	14S-4 #16-1	16S-3 #16-1	16-2 #12-1	16-12 #4-1	18-6 #4-1
						
18-7 #8-1	18-16 #12-1	22-7 #0-1				
						
10SL-4 #16-2	12S-3 #16-2	14S-9 #16-2	16S-4 #16-2	16-11 #12-2	16-13 #12-2	18-3 #12-2
						
18-14 #16-1,#4-1	20-12 #16-1,#4-1	20-23 #8-2	22-1 #8-2	22-8 #12-2		
						
22-11 #16-2	24-9 #4-2	32-5 #0-2	36-4 #0-3			
						
10SL-3 #16-3	14S-1 #16-3	14S-7 #16-3	16S-5 #16-3	16S-6 #16-3	16-7 #16-2	16-10 #12-3



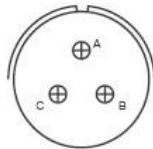
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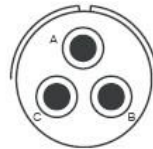
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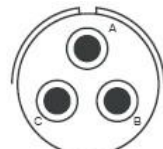
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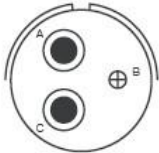
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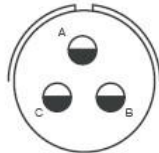
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22-2
#8-3



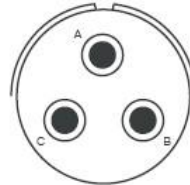
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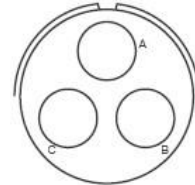
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28-3
#8-3



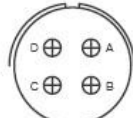
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#4-3



14S-2
#16-4



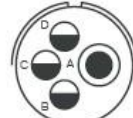
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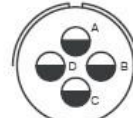
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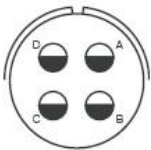
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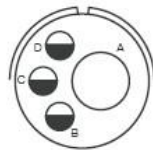
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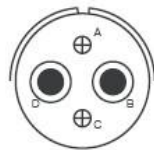
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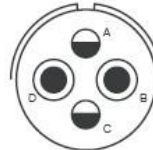
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#12-4



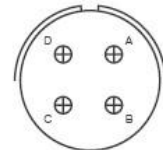
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20-24
#16-2, #8-2



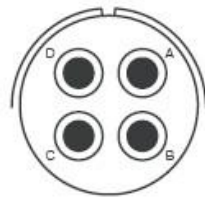
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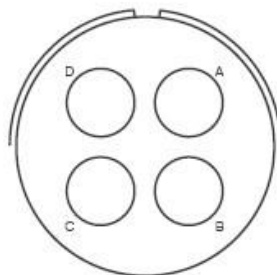
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#16-4



22-22
#8-4



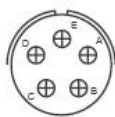
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#8-4



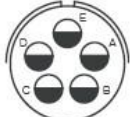
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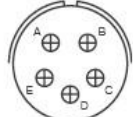
14S-5
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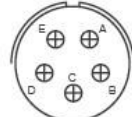
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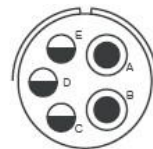
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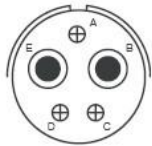
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#16-5



18-29
#16-5

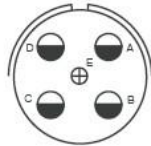


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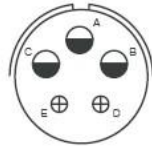
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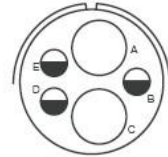
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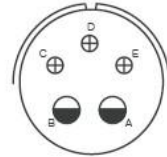
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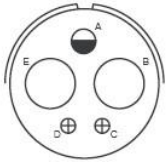
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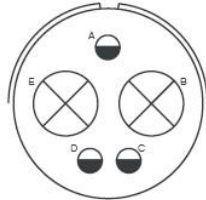
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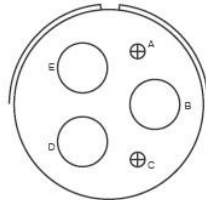
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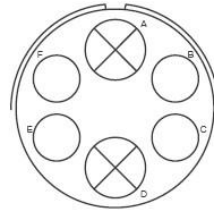
32-1

#12-3, #0-2



32-2

#16-2, #4-3



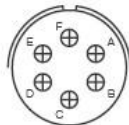
36-6

#4-4, #0-2



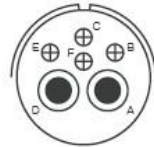
14S-6

#16-6



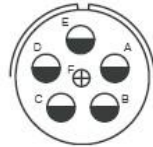
18-12

#16-6



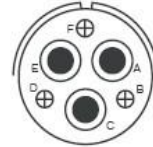
20-8

#16-4, #8-2



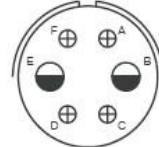
20-17

#16-1, #12-5



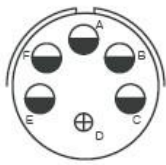
20-22

#16-3, #8-3



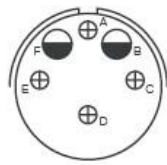
22-5

#16-4, #12-2



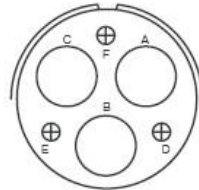
22-15

#16-1, #12-2



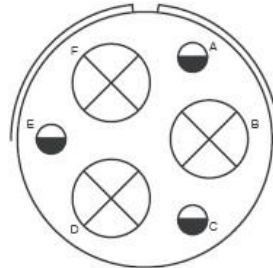
22-24

#16-4, #12-2



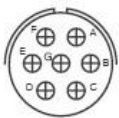
28-22

#16-3, #4-3



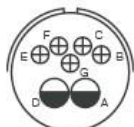
36-3

#12-3, #0-3



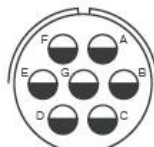
16S-1

#16-7



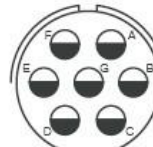
18-9

#16-5, #12-2



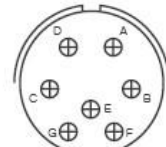
20-15

#12-7



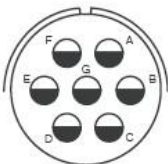
22-28

#12-7



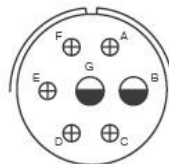
22-33

#16-7



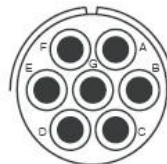
24-2

#12-7



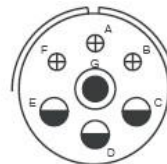
24-3

#16-5, #12-2



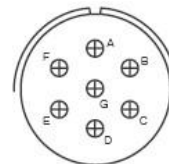
24-10

#8-7



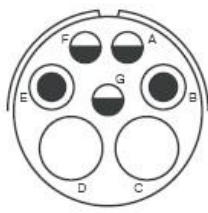
24-16

#16-3, #12-3, #8-1



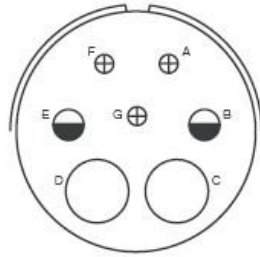
24-27

#16-7



28-10

#12-3, #8-2, #4-2



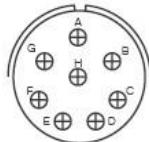
32-10

#16-3, #8-2, #4-2



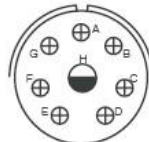
18-8

#16-7, #12-1



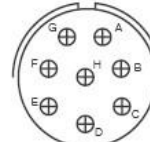
20-7

#16-8



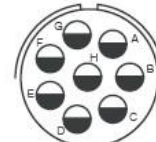
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#16-7, #12-1



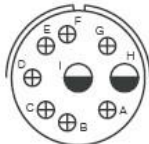
22-18

#16-8



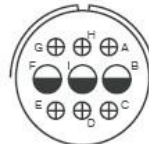
22-23

#12-8



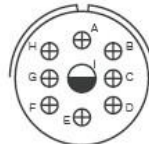
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#16-7, #12-2



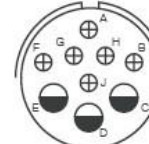
20-18

#16-6, #12-3



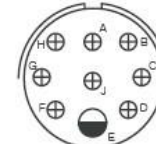
20-21

#16-8, #12-1



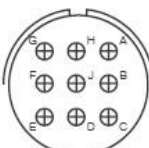
22-16

#16-6, #12-3



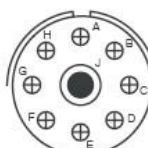
22-17

#16-8, #12-1



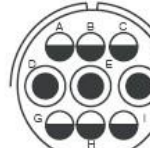
22-20

#16-9



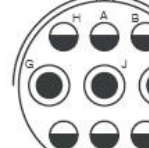
22-27

#16-8, #8-1



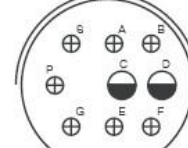
24-11

#12-6, #8-3



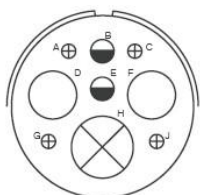
28-1

#12-6, #8-3



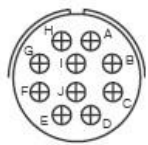
28-4

#16-7, #12-2



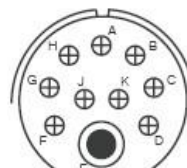
32-3

#16-4, #12-2, #4-2, #0-1



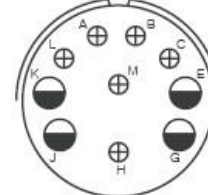
18-1

#16-10



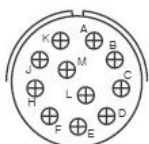
24-21

#16-9, #8-1



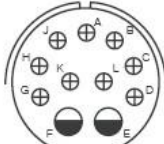
28-19

#16-6, #12-4



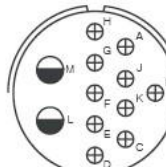
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#16-11



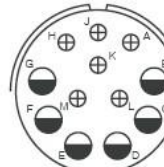
24-20

#16-9, #12-2



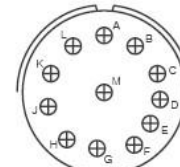
28-8

#16-10, #12-2



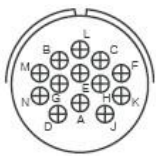
28-9

#16-6, #12-6

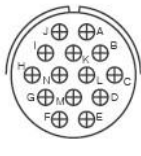


28-18

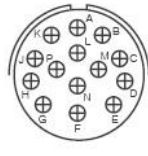
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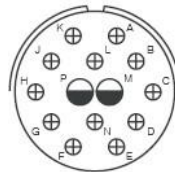
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#16-13



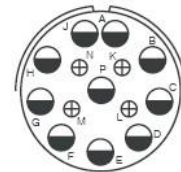
20-27
#16-14



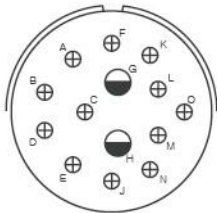
22-19
#16-14



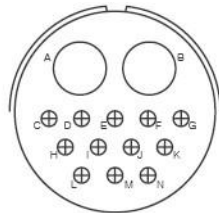
28-2
#16-12, #12-2



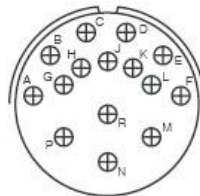
28-20
#16-4, #12-10



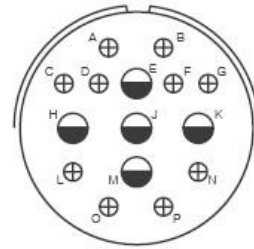
32-4
#16-12, #12-2



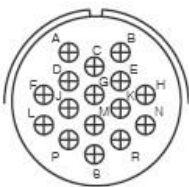
32-9
#16-12, #4-2



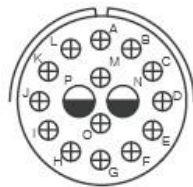
28-17
#16-15



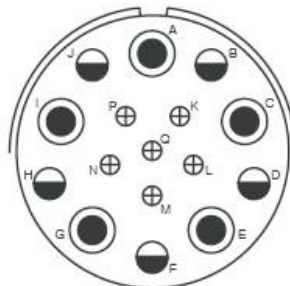
32-12
#16-10, #12-5



24-5
#16-16



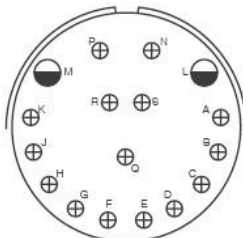
24-7
#16-14, #12-2



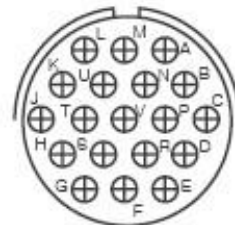
36-14
#16-6, #12-5, #8-5



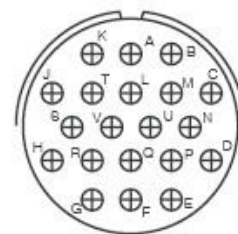
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#16-17



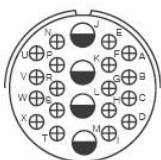
36-13
#16-15, #12-2



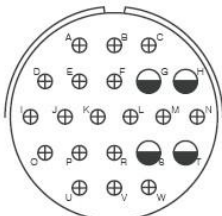
22-14
#16-19



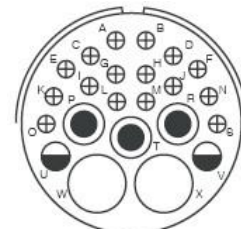
18-16
#16-20



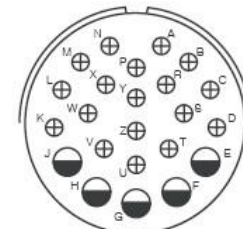
28-16
#16-18, #12-4



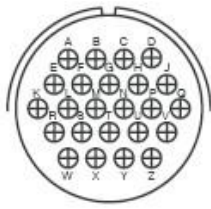
36-1
#16-18, #12-4



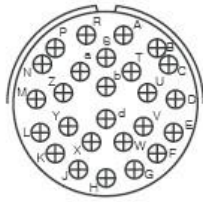
32-6
#16-16, #12-2, #8-3, #4-2



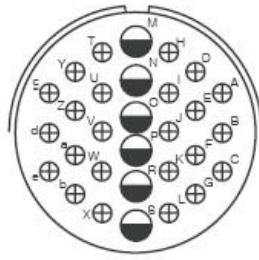
32-13
#16-18, #12-3



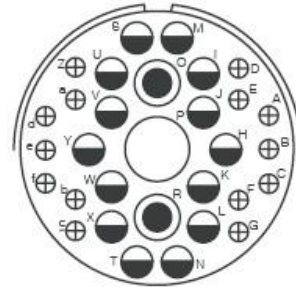
24-28
#16-24



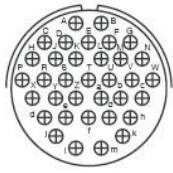
28-12
#16-26



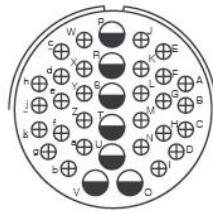
32-8
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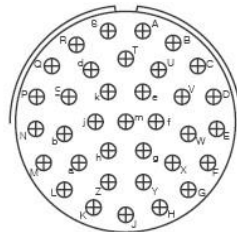
36-9
#16-14, #12-14, #8-2, #4-1



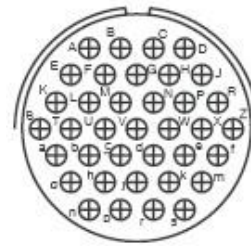
28-15
#16-35



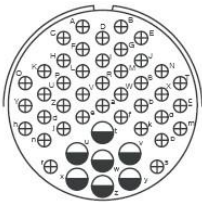
32-7
#16-28, #12-7



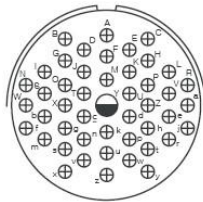
36-15
#16-35



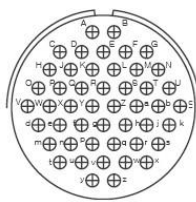
28-21
#16-37



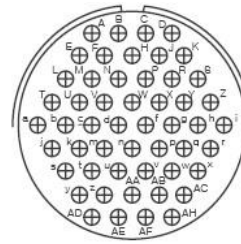
36-7
#16-40, #12-7



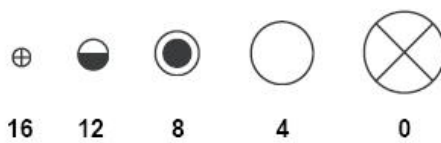
36-8
#16-46, #12-1



36-10
#16-48

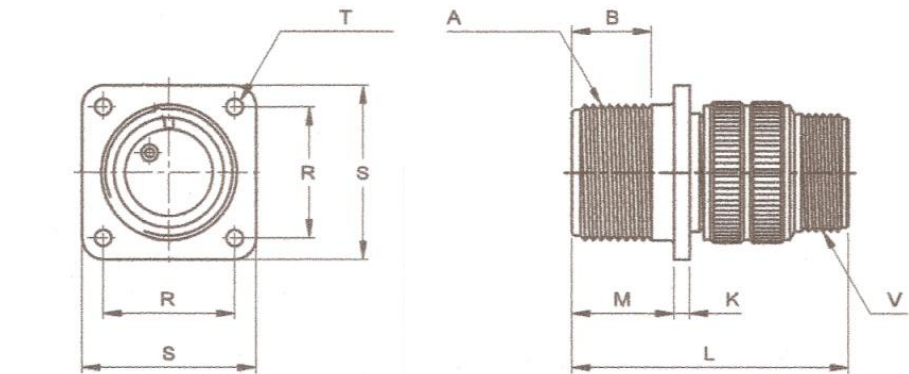


36-52
#16-52



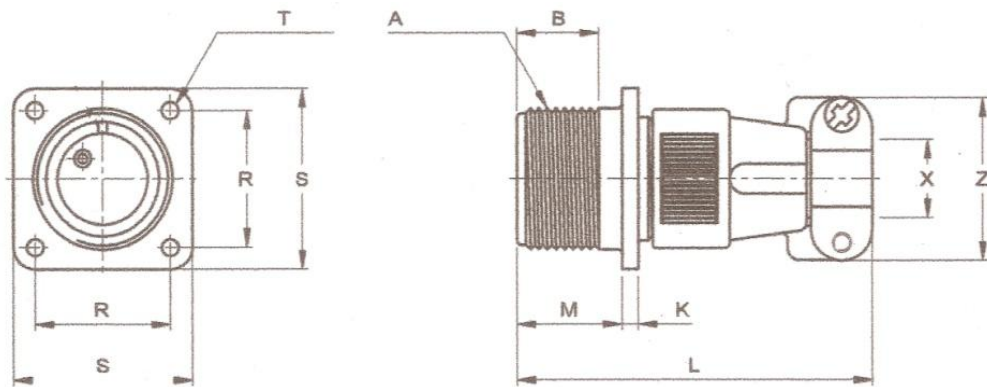
Shell size

- a. Wall mounting receptacle
- MS3100 Class A



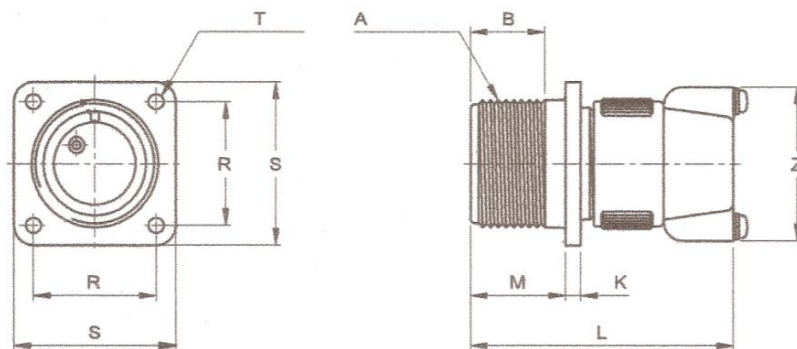
Part No.	A Thread Class 2A	B (Min)	K Min /Max	L Max	M+0.79 /-0.00	R ±0.12	S ±0.79	T+0.25 /-0.12	V Thread Class 2A
MS3100A 10SL	5/8-24 UNF	9.53	1.58/3.96	38.88	14.28	18.26	25.40	3.05	5/8-24NEF
MS3100A 12S	3/4-20 UNEF	9.53	1.58/3.96	42.87	14.28	20.62	27.79	3.05	5/8-24NEF
MS3100A 12	3/4-20 UNEF	15.88	1.58/3.96	52.37	19.05	20.62	27.79	3.05	5/8-24NEF
MS3100A 14S	7/8-20 UNEF	9.53	1.58/3.96	42.87	14.28	23.01	30.18	3.05	3/4-20 UNEF
MS3100A 14	7/8-20 UNEF	15.88	1.58/3.96	52.37	19.05	23.01	30.18	3.05	3/4-20 UNEF
MS3100A 16S	1-20 UNEF	9.53	1.58/3.96	42.87	14.28	24.61	32.54	3.05	7/8-20 UNEF
MS3100A 16	1-20 UNEF	15.88	1.58/3.96	52.37	19.05	24.61	32.54	3.05	7/8-20 UNEF
MS3100A 18	1 1/8-18 NEF	15.88	2.39/5.15	52.37	19.05	26.97	34.93	3.05	1-20 UNEF
MS3100A 20	1 1/4-18 NEF	15.88	2.39/5.15	55.57	19.05	29.36	38.10	3.05	1 3/16-18 NEF
MS3100A 22	1 3/8-18 NEF	15.88	2.39/5.15	55.57	19.05	31.75	41.28	3.05	1 3/16-18 NEF
MS3100A 24	1 1/2-18 NEF	15.88	2.39/5.15	58.72	20.63	34.93	44.45	3.73	1 7/16-18 NEF
MS3100A 28	1 3/4-18 NEF	15.88	2.39/5.15	58.72	20.63	39.67	50.80	3.73	1 7/16-18 NEF
MS3100A 32	2-18 UNS	15.88	3.18/9.11	61.92	22.23	44.45	57.15	4.39	1 3/4-18 UNS
MS3100A 36	2 1/4-16UN	15.88	3.18/9.11	61.92	22.23	49.23	63.50	4.39	2-18 UNS

MS3100 Class E & F



Part No.	A Thread Class 2A	B (Min)	K Min/Max	L Max	M+0.79 /-0.00	R ±0.12	S ±0.79	T+0.25 /-0.12	X Min	Z Max
MS3100E/F 10SL	5/8-24 UNF	9.53	1.98/3.96	57.15	14.28	18.26	25.40	3.05	7.14	28.57
MS3100E/F 12S	3/4-20 UNEF	9.53	1.98/3.96	57.15	14.28	20.62	27.79	3.05	7.14	28.57
MS3100E/F 12	3/4-20 UNEF	15.88	1.98/3.96	66.67	19.05	20.62	27.79	3.05	7.14	28.57
MS3100E/F 14S	7/8-20 UNEF	9.53	1.98/3.96	57.15	14.28	23.01	30.18	3.05	10.32	34.11
MS3100E/F 14	7/8-20 UNEF	15.88	1.98/3.96	66.67	19.05	23.01	30.18	3.05	10.32	34.11
MS3100E/F 16S	1-20 UNEF	9.53	1.98/3.96	57.15	14.28	24.61	32.54	3.05	12.70	37.69
MS3100E/F 16	1-20 UNEF	15.88	1.98/3.96	66.67	19.05	24.61	32.54	3.05	12.70	37.69
MS3100E/F 18	1 1/8-18 NEF	15.88	2.39/5.15	68.27	19.05	26.97	34.93	3.05	13.49	40.86
MS3100E/F 20	1 1/4-18 NEF	15.88	2.39/5.15	69.85	19.05	29.36	38.10	3.05	16.67	48.00
MS3100E/F 22	1 3/8-18 NEF	15.88	2.39/5.15	69.85	19.05	31.75	41.28	3.05	16.86	48.00
MS3100E/F 24	1 1/2-18 NEF	15.88	2.39/5.15	75.41	19.05	34.93	44.45	3.73	19.84	55.11
MS3100E/F 28	1 3/4-18 NEF	15.88	2.39/5.15	76.98	19.05	39.67	50.80	3.73	23.42	55.11
MS3100E/F 32	2-18 UNS	15.88	3.18/9.11	76.98	19.05	44.45	57.15	4.39	29.36	67.46
MS3100E/F 36	2 1/4-16 UN	15.88	3.18/9.11	83.33	19.05	46.68	63.50	4.39	31.75	74.21

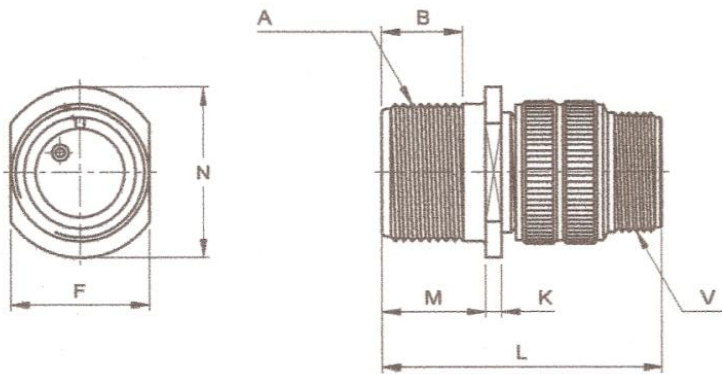
MS3100 Class R



Part No.	A Thread Class 2A	B Min	K Min/Max	L Max	M+0.79 /-0.00	R±0.12	S±0.79	T+0.25 /-0.12	Z Max.
MS3100R 10SL	5/8-24 UNF	9.53	1.93/3.96	46.68	14.28	18.26	25.40	3.05	28.57
MS3100R 12S	3/4-20 UNEF	9.53	1.93/3.96	46.68	14.28	20.62	27.79	3.05	28.57
MS3100R 12	3/4-20 UNEF	15.88	1.93/3.96	55.39	19.05	20.62	27.79	3.05	28.57
MS3100R 14S	7/8-20 UNEF	9.53	1.93/3.96	46.68	14.28	23.01	30.18	3.05	34.11
MS3100R 14	7/8-20 UNEF	15.88	1.93/3.96	55.39	19.05	23.01	30.18	3.05	34.11
MS3100R 16S	1-20 UNEF	9.53	1.93/3.96	46.68	14.28	24.61	32.54	3.05	37.69
MS3100R 16	1-20 UNEF	15.88	1.93/3.96	55.39	19.05	24.61	32.54	3.05	37.69
MS3100R 18	1 1/8-18 NEF	15.88	2.39/5.15	57.93	19.05	26.97	34.93	3.05	40.86
MS3100R 20	1 1/4-18 NEF	15.88	2.39/5.15	57.93	19.05	29.36	38.10	3.05	48.00
MS3100R 22	1 3/8-18 NEF	15.88	2.39/5.15	57.93	19.05	31.75	41.28	3.05	48.00
MS3100R 24	1 1/2-18 NEF	15.88	2.39/5.15	57.93	19.05	34.93	44.45	3.73	55.11
MS3100R 28	1 3/4-18 NEF	15.88	2.39/5.15	57.93	19.05	39.67	50.80	3.73	55.11
MS3100R 32	2-18 UNS	15.88	3.18/9.11	58.97	19.05	44.45	57.15	4.39	67.46
MS3100R 36	2 1/4-16 UN	15.88	3.18/9.11	58.97	19.05	49.23	63.50	4.39	74.21

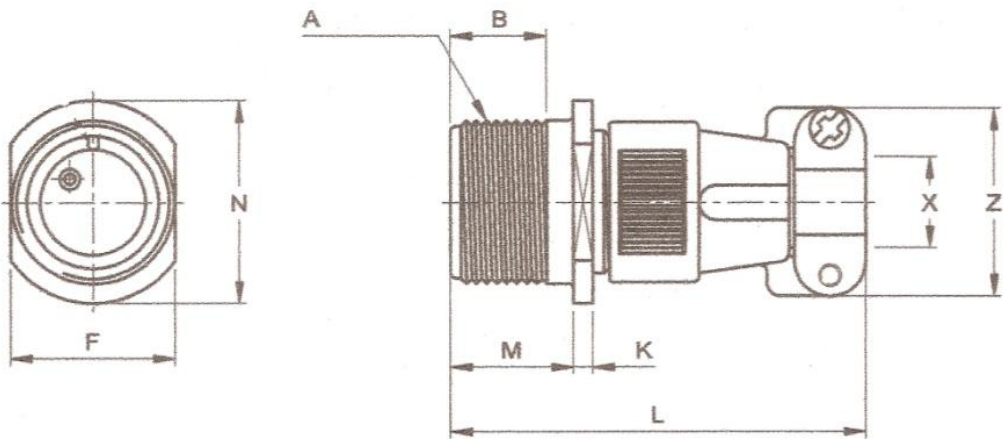
b. In-line receptacle

MS3101 Class A



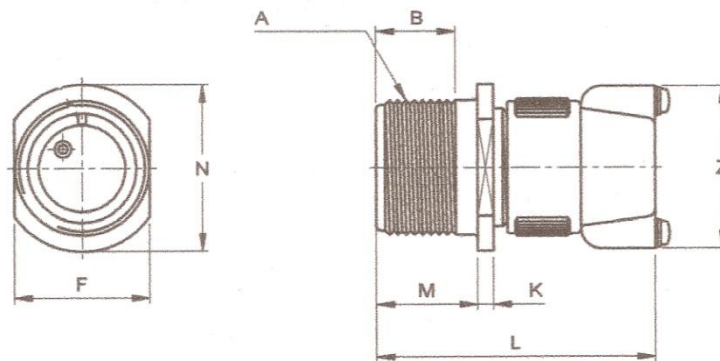
Part No.	A Thread Class 2A	B Min	F Ref	K Min /Max	L Max	M+0.79 /-0.00	N Max	V Thread Class 2A
MS3101A 10SL	5/8-24 UNF	9.53	16.2	1.58/3.96	38.88	14.28	24.61	5/8-24 NEF
MS3101A 12S	3/4-20 UNEF	9.53	19.9	1.58/3.96	42.87	14.28	26.97	5/8-24 NEF
MS3101A 12	3/4-20 UNEF	15.88	19.9	1.58/3.96	52.37	19.05	26.97	5/8-24 NEF
MS3101A 14S	7/8-20 UNEF	9.53	22.6	1.58/3.96	42.87	14.28	29.36	3/4-20 UNEF
MS3101A 14	7/8-20 UNEF	15.88	22.6	1.58/3.96	52.37	19.05	29.36	3/4-20 UNEF
MS3101A 16S	1-20 UNEF	9.53	25.7	1.58/3.96	42.87	14.28	31.75	7/8-20 UNEF
MS3101A 16	1-20 UNEF	15.88	25.7	1.58/3.96	52.37	19.05	31.75	7/8-20 UNEF
MS3101A 18	1 1/8-18 NEF	15.88	28.8	2.39/5.15	52.37	19.05	34.13	1-20 UNEF
MS3101A 20	1 1/4-18 NEF	15.88	32.0	2.39/5.15	55.57	19.05	37.31	1 3/16-18 NEF
MS3101A 22	1 3/8-18 NEF	15.88	35.2	2.39/5.15	55.57	19.05	40.48	1 3/16-18 NEF
MS3101A 24	1 1/2-18 NEF	15.88	38.4	2.39/5.15	58.72	19.05	43.66	1 7/16-18 NEF
MS3101A 28	1 3/4-18 NEF	15.88	44.8	2.39/5.15	58.72	19.05	50.01	1 7/16-18 NEF
MS3101A 32	2-18 UNS	15.88	51.2	3.18/9.11	61.92	19.05	56.36	1 3/4-18 UNS
MS3101A 36	2 1/4-16 UN	15.88	57.5	3.18/9.11	61.92	19.05	62.71	2-18 UNS

MS3101 Class E & F



Part No.	A Thread Class 2A	B Min	F Ref	K Min/Max	L Max	M+0.79 /-0.00	N Max	X Min	Z Max
MS3101E/F 10SL	5/8-24 UNF	9.53	16.2	1.58/3.96	57.15	14.28	24.61	7.14	28.57
MS3101E/F 12S	3/4-20 UNEF	9.53	19.9	1.58/3.96	57.15	14.28	26.97	7.14	28.57
MS3101E/F 12	3/4-20 UNEF	15.88	19.9	1.58/3.96	66.67	19.05	26.97	7.14	28.57
MS3101E/F 14S	7/8-20 UNEF	9.53	22.6	1.58/3.96	57.15	14.28	29.36	10.32	34.11
MS3101E/F 14	7/8-20 UNEF	15.88	22.6	1.58/3.96	66.67	19.05	29.36	10.32	34.11
MS3101E/F 16S	1-20 UNEF	9.53	25.7	1.58/3.96	57.15	14.28	31.75	12.70	37.69
MS3101E/F 16	1-20 UNEF	15.88	25.7	1.58/3.96	66.67	19.05	31.75	12.70	37.69
MS3101E/F 18	1 1/8-18 NEF	15.88	28.8	2.39/5.15	68.67	19.05	34.13	13.49	40.86
MS3101E/F 20	1 1/4-18 NEF	15.88	32.0	2.39/5.15	69.85	19.05	37.31	16.67	48.00
MS3101E/F 22	1 3/8-18 NEF	15.88	35.2	2.39/5.15	69.85	19.05	40.48	18.80	48.00
MS3101E/F 24	1 1/2-18 NEF	15.88	38.4	2.39/5.15	75.41	19.05	43.66	19.84	55.11
MS3101E/F 28	1 3/4-18 NEF	15.88	44.8	2.39/5.15	76.98	19.05	50.01	23.42	55.11
MS3101E/F 32	2-18 UNS	15.88	51.2	3.18/9.11	76.98	19.05	56.36	29.37	67.46
MS3101E/F 36	2 1/4-16 UN	15.88	57.5	3.18/9.11	83.33	19.05	62.71	31.75	74.21

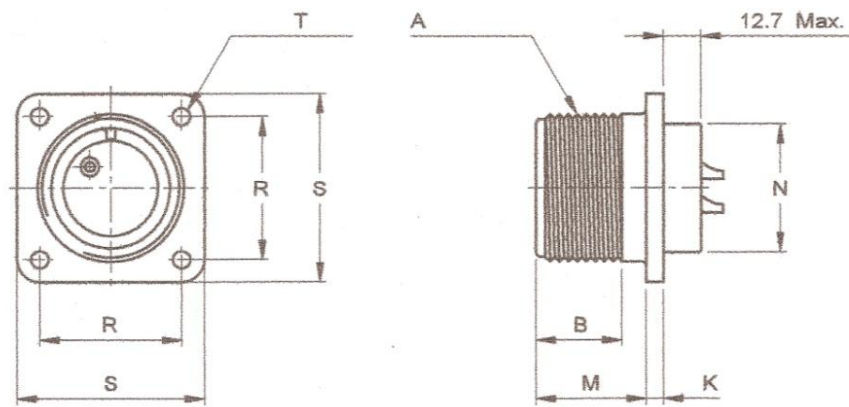
MS3101 Class R



Part No.	A Thread Class 2A	B Min	F Ref	K Min/Max	L Max	M+0.79 /-0.00	N Max	Z Max
MS3101R 10SL	5/8-24 UNF	9.53	16.2	1.58/3.96	46.68	14.28	24.61	28.57
MS3101R 12S	3/4-20 UNEF	9.53	19.9	1.58/3.96	46.68	14.28	26.97	28.57
MS3101R 12	3/4-20 UNEF	15.88	19.9	1.58/3.96	55.39	19.05	26.97	28.57
MS3101R 14S	7/8-20 UNEF	9.53	22.6	1.58/3.96	46.68	14.28	29.36	34.11
MS3101R 14	7/8-20 UNEF	15.88	22.6	1.58/3.96	55.39	19.05	29.36	34.11
MS3101R 16S	1-20 UNEF	9.53	25.7	1.58/3.96	46.68	14.28	31.75	37.69
MS3101R 16	1-20 UNEF	15.88	25.7	1.58/3.96	55.39	19.05	31.75	37.69
MS3101R 18	1 1/8-18 NEF	15.88	28.8	2.39/5.15	57.93	19.05	34.13	40.86
MS3101R 20	1 1/4-18 NEF	15.88	32.0	2.39/5.15	57.93	19.05	37.31	48.00
MS3101R 22	1 3/8-18 NEF	15.88	35.2	2.39/5.15	57.93	19.05	40.48	48.00
MS3101R 24	1 1/2-18 NEF	15.88	38.4	2.39/5.15	57.93	19.05	43.66	55.11
MS3101R 28	1 3/4-18 NEF	15.88	44.8	2.39/5.15	57.93	19.05	50.01	55.11
MS3101R 32	2-18 UNS	15.88	51.2	3.18/9.11	58.97	19.05	56.36	67.46
MS3101R 36	2 1/4-16 UN	15.88	57.5	3.18/9.11	58.97	19.05	62.71	74.21

c. Box mounting receptacle

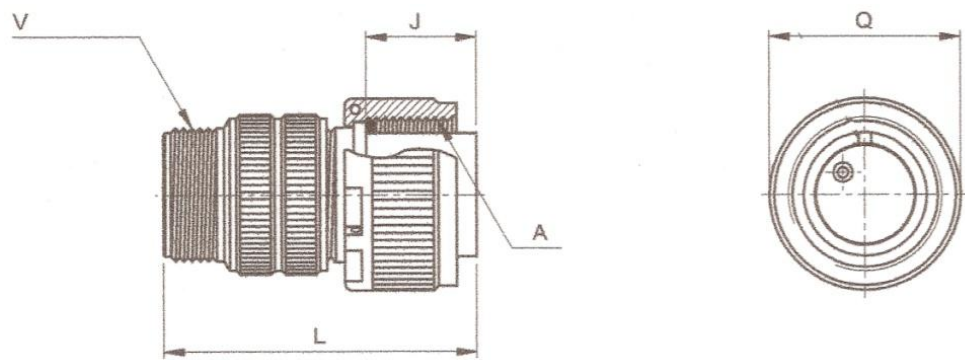
MS3102 Class A, E & R



Part No.	A Thread Class 2A	B Min	K Min/Max	M+0.79 /-0.00	N+0.00 /-4.77	R±0.12	S±0.79	T+0.25 /-0.12
MS3102A/E/R 10SL	5/8-24 UNF	9.53	1.58/3.96	14.28	19.86	18.26	25.40	3.05
MS3102A/E/R 12S	3/4-20 UNEF	9.53	1.58/3.96	14.28	19.86	20.62	27.79	3.05
MS3102A/E/R 12	3/4-20 UNEF	15.88	1.58/3.96	19.05	19.86	20.62	27.79	3.05
MS3102A/E/R 14S	7/8-20 UNEF	9.53	1.58/3.96	14.28	23.01	23.01	30.18	3.05
MS3102A/E/R 14	7/8-20 UNEF	15.88	1.58/3.96	19.05	23.01	23.01	30.18	3.05
MS3102A/E/R 16S	1-20 UNEF	9.53	1.58/3.96	14.28	26.21	24.61	32.54	3.05
MS3102A/E/R 16	1-20 UNEF	15.88	1.58/3.96	19.05	26.21	24.61	32.54	3.05
MS3102A/E/R 18	1 1/8-18 NEF	15.88	2.39/5.15	19.05	29.36	26.97	34.93	3.05
MS3102A/E/R 20	1 1/4-18 NEF	15.88	2.39/5.15	19.05	32.56	29.36	38.10	3.05
MS3102A/E/R 22	1 3/8-18 NEF	15.88	2.39/5.15	19.05	35.71	31.75	41.28	3.05
MS3102A/E/R 24	1 1/2-18 NEF	15.88	2.39/5.15	20.63	38.91	34.93	44.45	3.73
MS3102A/E/R 28	1 3/4-18 NEF	15.88	2.39/5.15	20.63	45.26	39.67	50.80	3.73
MS3102A/E/R 32	2-18 UNS	15.88	3.18/9.11	22.23	51.61	44.45	57.15	4.39
MS3102A/E/R 36	2 1/4-16 UN	15.88	3.18/9.11	22.23	57.96	49.23	63.50	4.39

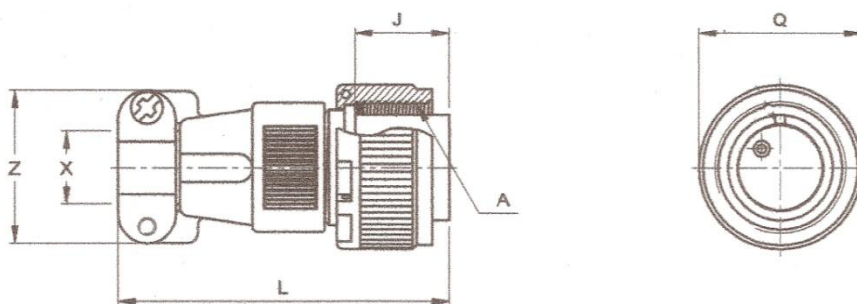
d. Straight plug

MS3106 Class A



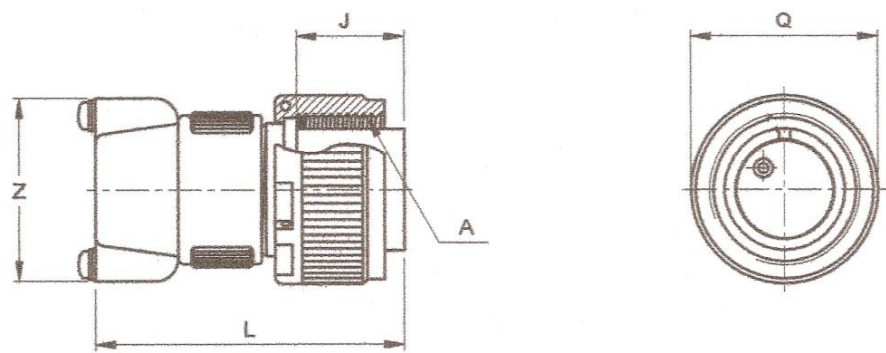
Part No.	A Thread Class 2A	J±0.12	L max.	Q max.	V Thread Class 2A
MS3106A 10SL	5/8-24 UNF	13.49	38.88	24.61	5/8-24 NEF
MS3106A 12S	3/4-20 UNEF	13.49	42.87	26.97	5/8-24 NEF
MS3106A 12	3/4-20 UNEF	18.26	52.37	26.97	5/8-24 NEF
MS3106A 14S	7/8-20 UNEF	13.49	42.87	29.36	3/4-20 UNEF
MS3106A 14	7/8-20 UNEF	18.26	52.37	29.36	3/4-20 UNEF
MS3106A 16S	1-20 UNEF	13.49	42.87	31.75	7/8-20 UNEF
MS3106A 16	1-20 UNEF	18.26	52.37	31.75	7/8-20 UNEF
MS3106A 18	1 1/8-18 NEF	18.26	52.37	34.13	1-20 UNEF
MS3106A 20	1 1/4-18 NEF	18.26	55.57	37.31	1 3/16-18 NEF
MS3106A 22	1 3/8-18 NEF	18.26	55.57	40.48	1 3/16-18 NEF
MS3106A 24	1 1/2-18 NEF	18.26	58.72	43.66	1 7/16-18 NEF
MS3106A 28	1 3/4-18 NEF	18.26	58.72	50.01	1 7/16-18 NEF
MS3106A 32	2-18 UNS	18.26	61.92	56.36	1 3/4-18 UNS
MS3106A 36	2 1/4-16 UN	18.26	61.92	62.71	2-18 UNS

MS3106 Class E & F



Part No.	A Thread Class 2A	J±0.12	L (Max)	Q (Max)	X (Min)	Z (Max)
MS3106E/F 10SL	5/8-24 UNF	13.49	57.15	24.61	7.14	28.57
MS3106E/F 12S	3/4-20 UNEF	13.49	57.15	26.97	7.14	28.57
MS3106E/F 12	3/4-20 UNEF	18.26	66.67	26.97	7.14	28.57
MS3106E/F 14S	7/8-20 UNEF	13.49	57.15	29.36	10.32	34.11
MS3106E/F 14	7/8-20 UNEF	18.26	66.67	29.36	10.32	34.11
MS3106E/F 16S	1-20 UNEF	13.49	57.15	31.75	12.70	37.69
MS3106E/F 16	1-20 UNEF	18.26	66.67	31.75	12.70	37.69
MS3106E/F 18	1 1/8-18 NEF	18.26	68.27	34.13	13.49	40.86
MS3106E/F 20	1 1/4-18 NEF	18.26	69.85	37.31	16.67	48.00
MS3106E/F 22	1 3/8-18 NEF	18.26	69.85	40.48	18.80	48.00
MS3106E/F 24	1 1/2-18 NEF	18.26	75.41	43.66	19.84	55.11
MS3106E/F 28	1 3/4-18 NEF	18.26	76.98	50.01	23.42	55.11
MS3106E/F 32	2-18 UNS	18.26	76.98	56.36	29.37	67.46
MS3106E/F 36	2 1/4-16 UN	18.26	83.33	62.71	31.75	74.21

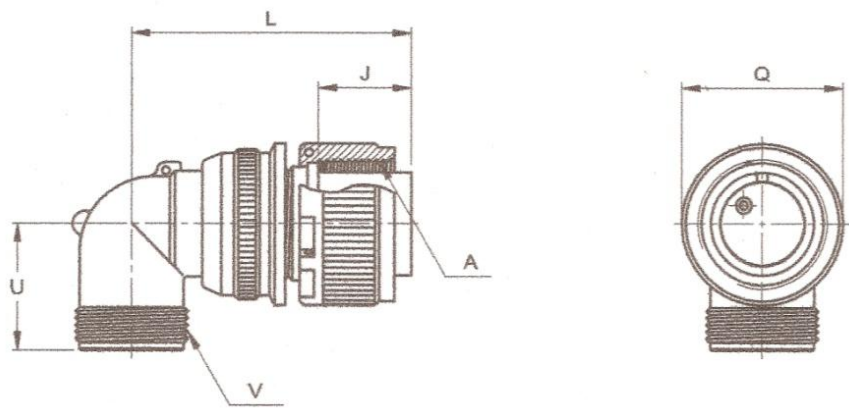
MS3106 Class R



Part No.	A Thread Class 2A	J±0.12	L (Max)	Q (Max)	Z (Max)
MS3106R 10SL	5/8-24 UNF	13.49	46.68	24.61	28.57
MS3106R 12S	3/4-20 UNEF	13.49	46.68	26.97	28.57
MS3106R 12	3/4-20 UNEF	18.26	55.39	26.97	28.57
MS3106R 14S	7/8-20 UNEF	13.49	46.68	29.36	34.16
MS3106R 14	7/8-20 UNEF	18.26	55.39	29.36	34.16
MS3106R 16S	1-20 UNEF	13.49	46.68	31.75	37.69
MS3106R 16	1-20 UNEF	18.26	55.39	31.75	37.69
MS3106R 18	1 1/8-18 NEF	18.26	57.93	34.13	40.86
MS3106R 20	1 1/4-18 NEF	18.26	57.93	37.31	48.00
MS3106R 22	1 3/8-18 NEF	18.26	57.93	40.48	48.00
MS3106R 24	1 1/2-18 NEF	18.26	57.93	43.66	67.46
MS3106R 28	1 3/4-18 NEF	18.26	57.93	50.01	67.46
MS3106R 32	2-18 UNS	18.26	58.97	56.36	67.46
MS3106R 36	2 1/4-16 UN	18.26	58.97	62.71	74.21

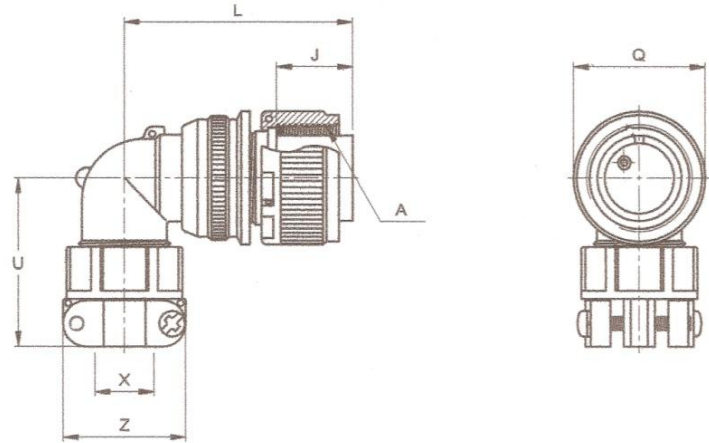
e. Elbow plug

MS3108 Class A



Part No.	A Thread Class 2A	J±0.12	L (max)	Q (max)	U (max)	V Thread Class 2A
MS3108A 10SL	5/8-24 UNF	13.49	45.0	24.61	25.40	5/8-24 UNF
MS3108A 12S	3/4-20 UNEF	13.49	45.0	26.97	26.97	5/8-24 UNF
MS3108A 12	3/4-20 UNEF	18.26	54.0	26.97	26.97	5/8-24 UNF
MS3108A 14S	7/8-20 UNEF	13.49	47.0	29.36	28.57	3/4-20 UNEF
MS3108A 14	7/8-20 UNEF	18.26	55.0	29.36	28.57	3/4-20 UNEF
MS3108A 16S	1-20 UNEF	13.49	48.0	31.75	30.17	7/8-20 UNEF
MS3108A 16	1-20 UNEF	18.26	57.0	31.75	30.17	7/8-20 UNEF
MS3108A 18	1 1/8-18 NEF	18.26	58.0	34.13	33.32	1-20 UNEF
MS3108A 20	1 1/4-18 NEF	18.26	61.0	37.31	34.92	1 3/16-18 NEF
MS3108A 22	1 3/8-18 NEF	18.26	61.0	40.48	34.92	1 3/16-18 NEF
MS3108A 24	1 1/2-18 NEF	18.26	66.0	43.66	39.67	1 7/16-18 NEF
MS3108A 28	1 3/4-18 NEF	18.26	66.0	50.01	39.67	1 7/16-18 NEF
MS3108A 32	2-18 UNS	18.26	72.0	56.36	47.62	1 3/4-18 UNS
MS3108A 36	2 1/4-16 UN	18.26	77.0	62.71	52.37	2-18 UNS

MS3108 Class E & R



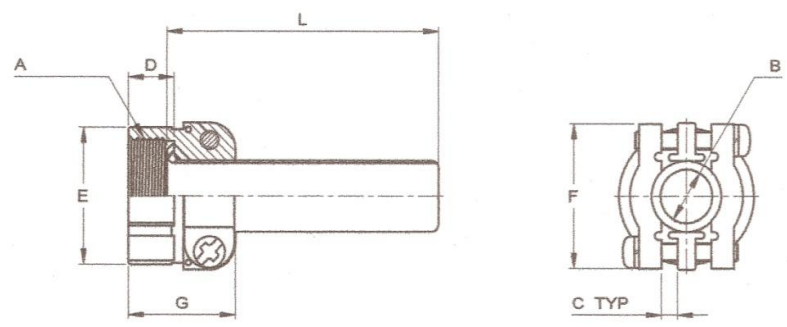
Note:

1. MS3108E/R: with grommet
2. MS3108E: without O ring
MS3108R: with O ring
3. MS3108R: without cable clamp

Part No.	A Thread Class 2A	J±0.12	L (Max)	Q (Max)	U (Max)	X (Min)	Z (Max)
MS3108E/R 10SL	5/8-24 UNF	13.49	45.0	24.61	42.0	7.14	28.57
MS3108E/R 12S	3/4-20 UNEF	13.49	45.0	26.97	42.0	7.14	28.57
MS3108E/R 12	3/4-20 UNEF	18.26	54.0	26.97	42.0	7.14	28.57
MS3108E/R 14S	7/8-20 UNEF	13.49	47.0	29.36	42.0	10.31	34.11
MS3108E/R 14	7/8-20 UNEF	18.26	55.0	29.36	42.0	10.31	34.11
MS3108E/R 16S	1-20 UNEF	13.49	48.0	31.75	45.0	12.70	37.69
MS3108E/R 16	1-20 UNEF	18.26	57.0	31.75	45.0	12.70	37.69
MS3108E/R 18	1 1/8-18 NEF	18.26	58.0	34.13	53.0	13.49	40.86
MS3108E/R 20	1 1/4-18 NEF	18.26	61.0	37.31	53.0	16.67	48.00
MS3108E/R 22	1 3/8-18 NEF	18.26	61.0	40.48	53.0	19.05	48.00
MS3108E/R 24	1 1/2-18 NEF	18.26	66.0	43.66	58.0	19.84	55.11
MS3108E/R 28	1 3/4-18 NEF	18.26	66.0	50.01	58.0	23.42	55.11
MS3108E/R 32	2-18 UNS	18.26	72.0	56.36	66.0	29.36	67.31
MS3108E/R 36	2 1/4-16 UN	18.26	77.0	62.71	69.0	31.75	74.21

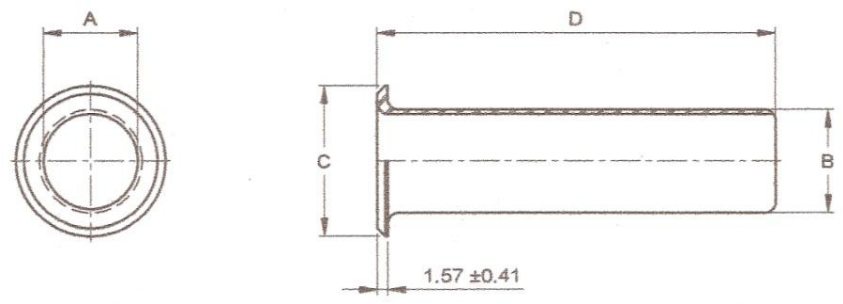
Accessories

- a. Cable clamp
MS3057 - A



Part No.	Shell size	A Thread Class 2A	B ±0.41	C TYP ±0.41	D ±0.41	E ±0.79	F ±0.79	G ±0.79	L ±0.8	Bushing Ref.
MS3057-4A	10SL, 12S, 12	5/8-24 UNF	7.92	1.57	10.31	20.62	22.23	20.62	69.8	MS3420-4
MS3057-6A	14S, 14	3/4-20 UNEF	11.10	1.98	10.31	24.61	26.97	22.22	66.7	MS3420-6
MS3057-8A	16S, 16	7/8-20 UNEF	14.27	2.77	10.31	27.79	29.36	23.82	63.5	MS3420-8
MS3057-10A	18	1-20 UNEF	15.88	3.16	10.31	30.18	31.75	23.82	60.3	MS3420-10
MS3057-12A	20, 22	1 3/16-18 NEF	19.05	3.96	10.31	34.47	37.31	23.82	57.2	MS3420-12
MS3057-16A	24, 28	1 7/16-18 NEF	23.80	4.78	10.31	42.06	42.88	26.18	54.0	MS3420-16
MS3057-20A	32	1 3/4-18 UNS	31.75	6.35	11.91	51.59	51.59	27.78	50.8	MS3420-20
MS3057-24A	36	2-18 UNS	34.92	7.54	13.49	56.36	57.94	29.36	47.6	MS3420-24

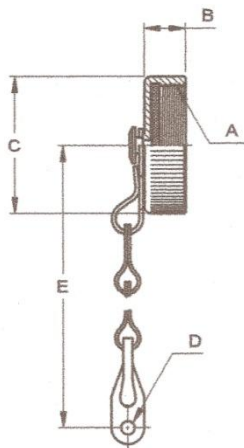
- b. Telescoping bushing
MS3420



Part No.	Shell size	A±0.41	B±0.41	C±0.41	D±0.41	Cable clamp ref.
MS3420-4	10SL, 12S, 12	5.59	7.67	12.83	69.85	MS3057-4A
MS3420-6	14S, 14	7.92	10.85	15.72	66.68	MS3057-6A
MS3420-8	16S, 16	11.10	14.02	18.90	63.50	MS3057-8A
MS3420-10	18	14.27	15.62	22.58	60.33	MS3057-10A
MS3420-12	20, 22	15.88	18.80	27.53	57.15	MS3057-12A
MS3420-16	24, 28	19.05	23.55	33.38	53.98	MS3057-16A
MS3420-20	32	23.80	31.50	40.59	50.80	MS3057-20A
MS3420-24	36	31.75	34.67	46.91	47.63	MS3057-24A

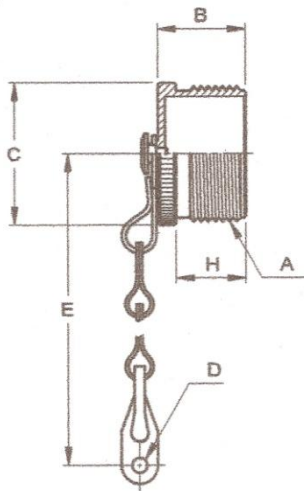
c. Dust-cap

MS25043 (For receptacle)



Part No.	Shell size	A Thread Class 2A	B (Max)	C (Max)	D+0.25/-0.13	E±21.0
MS25043-10D	10S, 10SL	5/8-24 UNF	11.91	20.70	3.56	101.6
MS25043-12D	12S, 12	3/4-20 UNEF	11.91	25.40	3.56	114.3
MS25043-14D	14S, 14	7/8-20 UNEF	11.91	28.58	3.56	114.3
MS25043-16D	16S, 16	1-20 UNEF	11.91	30.18	3.56	114.3
MS25043-18D	18	1 1/8-18 NEF	11.91	34.14	3.56	114.3
MS25043-20D	20	1 1/4-18 NEF	11.91	37.31	3.56	127.0
MS25043-22D	22	1 3/8-18 NEF	11.91	40.49	3.56	127.0
MS25043-24D	24	1 1/2-18 NEF	11.91	43.66	4.34	139.7
MS25043-28D	28	1 3/4-18 NEF	13.49	50.01	4.34	196.8
MS25043-32D	32	2-18 UNS	13.49	56.36	4.75	196.8
MS25043-36D	36	2 1/4-16 UN	13.49	62.71	4.75	196.8

MS25042 (For plug)



Part No.	Shell size	A Thread Class 2A	B(Max)	C(Max)	D+0.25/-0.13	E±21.0	H(Min)
MS25042-10D	10S, 10SL	5/8-24 UNF	16.66	17.45	3.96	101.6	9.65
MS25042-12D	12S, 12	3/4-20 UNEF	21.44	20.62	3.96	114.3	16.00
MS25042-14D	14S, 14	7/8-20 UNEF	21.44	23.80	3.96	114.3	16.00
MS25042-16D	16S, 16	1-20 UNEF	21.44	26.97	3.96	114.3	16.00
MS25042-18D	18	1 1/8-18 NEF	21.44	30.15	3.96	114.3	16.00
MS25042-20D	20	1 1/4-18 NEF	21.44	33.32	4.75	127.0	16.00
MS25042-22D	22	1 3/8-18 NEF	21.44	36.50	4.75	127.0	16.00
MS25042-24D	24	1 1/2-18 NEF	21.44	39.67	4.75	139.7	16.00
MS25042-28D	28	1 3/4-18 NEF	21.44	46.02	4.75	196.8	16.00
MS25042-32D	32	2-18 UNS	21.44	52.37	5.54	196.8	16.00
MS25042-36D	36	2 1/4-16 UN	21.44	58.72	5.54	196.8	16.00