

# MIL-C-26482 Se.2

## CONNECTOR



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## Technical Specifications

### Materials & Finishes

Shell, Coupling nut, Jam nut	Aluminum alloy / Black anodized, Electroless nickel or Olive drab cadmium over nickel
Insulator	Synthetic resin
Contact	Copper alloy / Gold plating
Grommet and Seal	Silicone rubber

### Electrical Data

Operating Voltage / Test Voltage

Service Rating	Test Altitude	Maximum Operating Voltage		Test Voltage	
		DC V	AC V (r.m.s.)	DC V	AC V (r.m.s.)
I	Sea Level	850	600	2,100	1,500
II		1,275	1,000	3,200	2,300
I	70,000 feet	-	300	535	375
II		-	450	770	500

Current Rating

Contact Size	Wire Size (AWG)	Max. Test Current (Amps)	Potential Drop (Millivolts at +25°C)
20	24	3.0	< 45
	20	7.5	< 55
16	20	7.5	< 45
	16	13.0	< 50
12	14	17.0	< 45
	12	23.0	< 50

Contact Resistance      Size 20 : ≤ 1mΩ      Size 16 : ≤ 0.55mΩ      Size 12 : ≤ 0.35mΩ

Insulator Resistance      Min. 5000 Megohms at +25°C

Shielding      70 dB to 5 MHz, 40 dB to 100 MHz

### Mechanical

Operating Temperature      Black anodized & Electroless nickel plating : -55°C to +200°C (Class A and L)  
    Olive drab cadmium over nickel plating : -55°C to +175°C (Class W)

Water Pressure      2 bar differential pressure, leakage ≤16 cm<sup>3</sup>/hr

Wire Sealing Range

Contact Size	Wire Size (AWG)	Insulation Outside Dia. Limit			
		Min.		Max.	
		Inches	mm	Inches	mm
20	24, 22 and 20	0.040	1.02	0.083	2.11
16	20, 18 and 16	0.053	1.35	0.103	2.62
12	12 and 14	0.097	2.46	0.158	4.01

Insulation Strip Length

Contact Size	Wire Size (AWG)	Strip Length	
		Inches	mm
20	24, 22 and 20	0.188	4.76
16	20, 18 and 16	0.281	7.14
12	12 and 14	0.281	7.14

Durability      500 cycles minimum. (RFI grounding plug : 250 cycles minimum.)

Salt Spray      Class A and W : 500 hours at environmental temperature.  
                                  Class L : 48 hours at environmental temperature.

Heat      Class L : +200°C for 1,000 hours.  
                          Class W : +175°C for 1,000 hours.

Chemical Resistance      20 hour full immersion unmated in hydraulic fluid and lubricating oil.

Vibration      6 hours of 50 to 2,000Hz with 41.7G peak level.

Shock      150g's, 6 ms duration, three major axes. 10 microseconds maximum discontinuity.

Contact Style      Crimp

## Technical Specifications

### Mechanical

Number of Contact 2 to 61

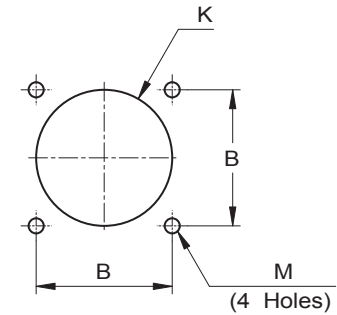
Contact Retention

Contact Size	Axial Load Min.	
	Newtons	Lbs.
20	90	20
16	115	25
12	133	30

### Panel Cutout Dimensions

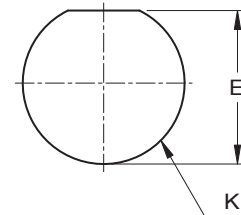
Narrow (MS3470) and Wide Flange Receptacle (MS3472)

Shell Size	MS3470	MS3472	K dia. ±0.15	M dia. ±0.25
	B ±0.13	B ±0.13		
8	15.09	18.64	14.43	3.05
10	18.26	20.62	17.40	3.05
12	20.62	23.83	21.95	3.05
14	23.01	26.19	25.12	3.05
16	24.61	28.58	28.27	3.05
18	26.97	30.56	31.45	3.05
20	29.36	32.94	34.62	3.05
22	31.75	34.93	37.80	3.05
24	34.93	38.10	41.02	3.73



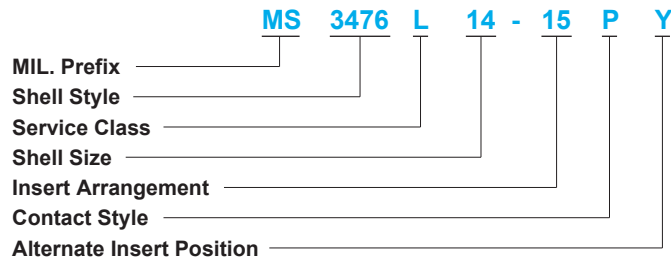
Jam Nut Receptacle (MS3474)

Shell Size	K dia. ±0.13	E ±0.13
8	14.53	13.61
10	17.70	16.79
12	22.73	20.93
14	25.65	24.08
16	28.83	27.23
18	32.00	30.40
20	35.18	33.58
22	38.35	36.75
24	41.53	38.93



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## Ordering Information



### Shell Style

- 3470 = Wall mount receptacle
- 3471 = In-line receptacle
- 3472 = Box mount receptacle (Class "E" only)
- 3474 = Jam nut receptacle
- 3475 = Straight plug
- 3476 = Thru-bulkhead receptacle (Class "E" only)

### Service Class

- A = General duty
- L = Grommet seal
- W = Grommet seal with clamp

### Shell Size

8, 10, 12, 14, 16, 18, 20, 22 and 24

### Insert Arrangement

See, MIL-STD-1669 (page 5, 6)

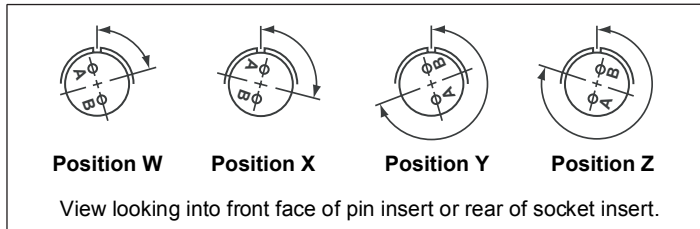
### Contact Style

- P = Pin
- S = Socket

### Alternate Insert Position

W, X, Y, Z (Ref. : MIL-STD-1669)

## Alternate Positioning



Shell Size	Layout	Service Rating	Total Contacts	Contact Size			Alternate Position -Degrees			
				20	16	12	W	X	Y	Z
8	2	I	2	2			58	122	-	-
	3	I	3	3			60	210	-	-
	4	I	4	4			45	-	-	-
	33	I	3	3			90	-	-	-
10	6	I	6	6			90	-	-	-
	98	I	6	6			90	180	240	270
12	3	II	3		3		-	-	180	-
	8	I	8	8			90	112	203	292
	10	I	10	10			60	155	270	295
14	4	I	4			4	45	-	-	-
	5	II	5		5		40	92	184	273
	12	I	12	8	4		43	90	-	-
	15	I	15	14	1		17	110	155	234
	18	I	18	18			15	90	180	270
	19	I	19	19			30	165	315	-
16	22	I	5	1		4	45	-	-	-
	8	II	8		8		54	152	180	331
	23	I	23	22	1		158	270	-	-
	26	I	26	26			60	-	275	338
	99	I	23	21	2		66	156	223	340

Shell Size	Layout	Service Rating	Total Contacts	Contact Size			Alternate Position -Degrees			
				20	16	12	W	X	Y	Z
18	8	I	8			8	180	-	-	-
	11	II	11		11		62	119	241	340
	30	I	30	29	1		180	190	285	350
	32	I	32	32			85	138	222	265
20	16	II	16		16		238	318	333	347
	24	I	24	24			70	145	215	290
	27	I	27	27			72	144	216	288
	39	I	39	37	2		63	144	252	333
22	41	I	41	41			45	126	225	-
	21	II	21		21		16	135	175	349
	32	I	32	32			72	145	215	288
	34	I	34	34			62	142	218	298
	41	I	41	27	14		39	135	264	-
24	55	I	55	55			30	142	226	314
	31	I	31		31		90	225	255	-
	61	I	61	61			90	180	270	324

## Contact Arrangement \* front face of pin inserts illustrated

### Shell Size 8

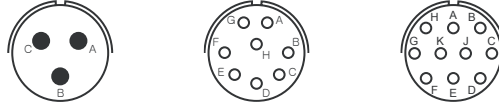


<b>Insert Arrangement</b>	8 - 2	8 - 3	8 - 4	8 - 33	10 - 6	10 - 98
<b>Contact Size - No. of Contacts</b>	#20 - 2	#20 - 3	#20 - 4	#20 - 3	#20 - 6	#20 - 6
<b>Service Rating</b>	I	I	I	I	I	I

### Shell Size 10

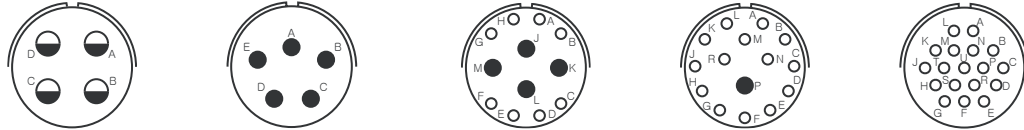


### Shell Size 12

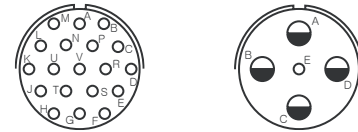


<b>Insert Arrangement</b>	12 - 3	12 - 8	12 - 10
<b>Contact Size - No. of Contacts</b>	#16 - 3	#20 - 8	#20 - 10
<b>Service Rating</b>	II	I	I

### Shell Size 14

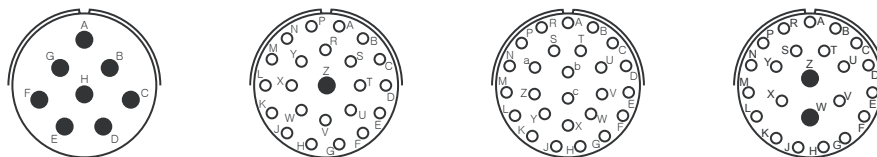


<b>Insert Arrangement</b>	14 - 4	14 - 5	14 - 12	14 - 15	14 - 18
<b>Contact Size - No. of Contacts</b>	#12 - 4	#16 - 5	#20 - 8, #16 - 4	#20 - 14, #16 - 1	#20 - 18
<b>Service Rating</b>	I	II	I	I	I



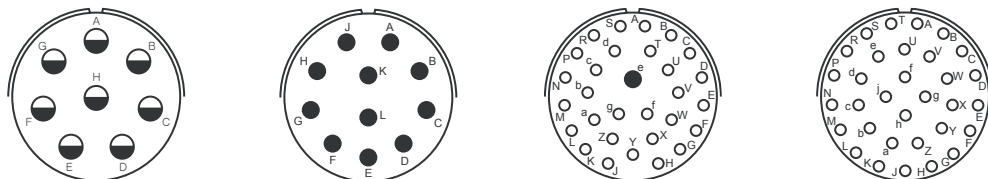
<b>Insert Arrangement</b>	14 - 19	14 - 22
<b>Contact Size - No. of Contacts</b>	#20 - 19	#20 - 1, #12 - 4
<b>Service Rating</b>	I	I

### Shell Size 16



<b>Insert Arrangement</b>	16 - 8	16 - 23	16 - 26	16 - 99
<b>Contact Size - No. of Contacts</b>	#16 - 8	#20 - 22, #16 - 1	#20 - 26	#20 - 21, #16 - 2
<b>Service Rating</b>	II	I	I	I

### Shell Size 18

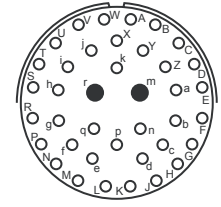
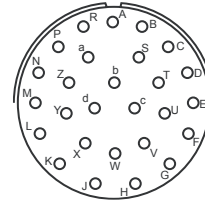
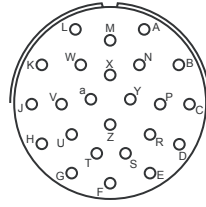
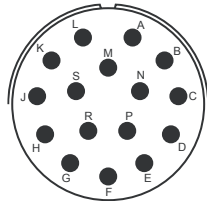


<b>Insert Arrangement</b>	18 - 8	18 - 11	18 - 30	18 - 32
<b>Contact Size - No. of Contacts</b>	#12 - 8	#16 - 11	#20 - 29, #16 - 1	#20 - 32
<b>Service Rating</b>	I	II	I	I

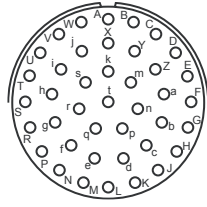
# MSCN / MIL-C-26482 Series 2

## Contact Arrangement \* front face of pin inserts illustrated

### Shell Size 20

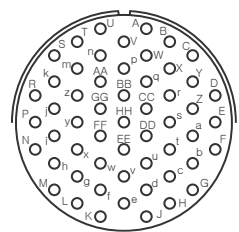
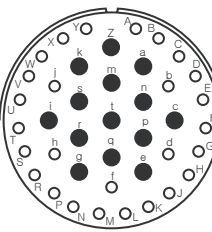
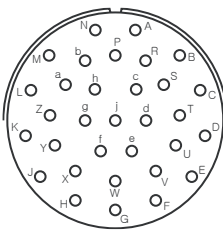
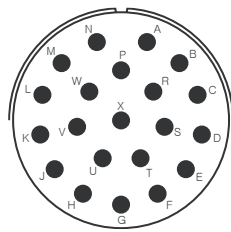


Insert Arrangement	20 - 16	20 - 24	20 - 27	20 - 39
Contact Size - No. of Contacts	#16 - 16	#20 - 24	#20 - 27	#20 - 37, #16 - 2
Service Rating	I	I	I	I



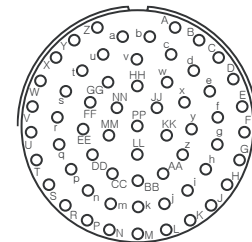
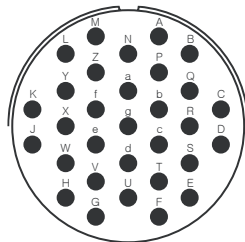
Insert Arrangement	20 - 41
Contact Size - No. of Contacts	#20 - 41
Service Rating	I

### Shell Size 22



Insert Arrangement	22 - 21	22 - 32	22 - 41	22 - 55
Contact Size - No. of Contacts	#16 - 21	#20 - 32	#20 - 27, #16 - 14	#20 - 55
Service Rating	II	I	I	I

### Shell Size 24



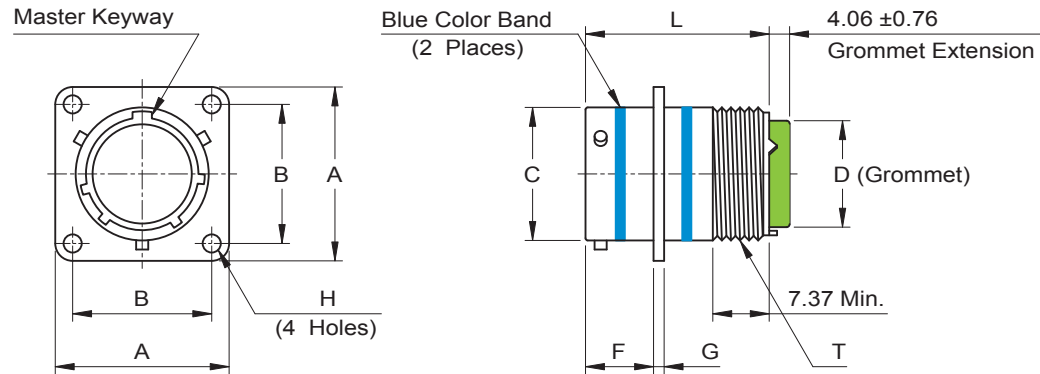
Insert Arrangement	24 - 31	24 - 61
Contact Size - No. of Contacts	#16 - 31	#20 - 61
Service Rating	I	I

### Contact Legend

Symbol	Contact Size
○	20
●	16
◐	12

Wall Mount Receptacle

MS3470



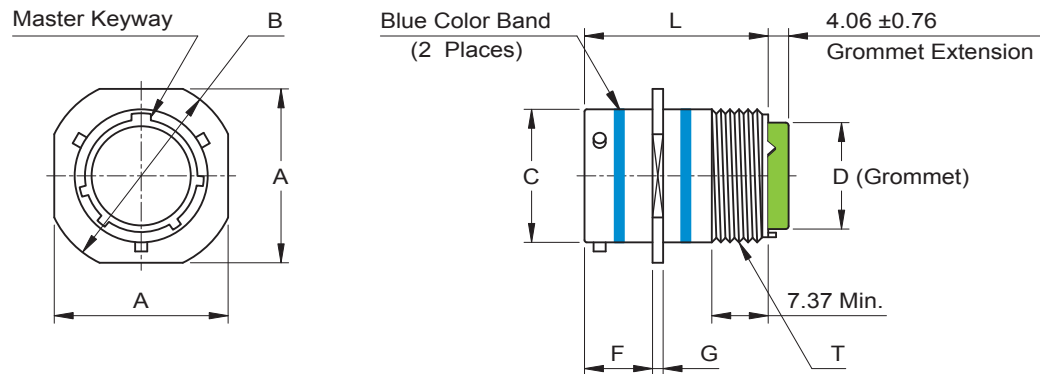
Dimensions in mm.

MIL-C-26482 Part no.	A max.	B ±0.13	C dia. ±0.08	D dia. max.	F +0.41 -0.38	G ±0.41	H dia. ±0.13	L max.	"T" Thread Class 2A
MS3470 * 8 - **	21.03	15.09	11.96	7.75	11.33	1.57	3.05	30.86	1/2-20 UNF
MS3470 * 10 - **	24.23	18.26	14.94	10.29	11.33	1.57	3.05	30.86	5/8-24 UNEF
MS3470 * 12 - **	26.59	20.62	19.00	13.49	11.33	1.57	3.05	30.86	3/4-20 UNEF
MS3470 * 14 - **	28.98	23.01	22.17	16.89	11.33	1.57	3.05	30.86	7/8-20 UNEF
MS3470 * 16 - **	31.34	24.61	25.35	20.07	11.33	1.57	3.05	30.86	1-20 UNEF
MS3470 * 18 - **	33.73	26.97	28.52	22.07	11.33	1.57	3.05	30.86	1 1/16-18 UNEF
MS3470 * 20 - **	36.91	29.36	31.70	24.74	14.50	2.39	3.05	32.39	1 3/16-18 UNEF
MS3470 * 22 - **	40.08	31.75	34.87	28.42	14.50	2.39	3.05	32.39	1 5/16-18 UNEF
MS3470 * 24 - **	43.26	34.93	38.05	31.60	15.34	2.39	3.73	32.39	1 7/16-18 UNEF

\* Service Class, \*\* Insert Arrangement & Contact Style

In-Line Receptacle

MS3471



Dimensions in mm.

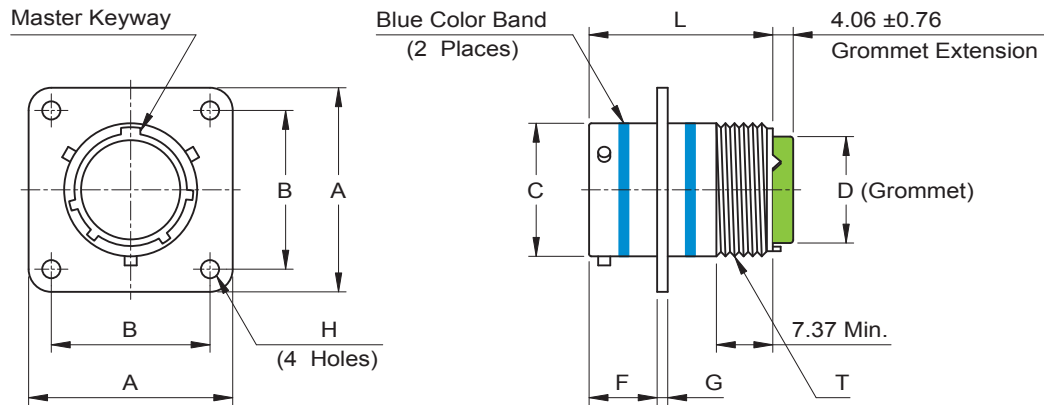
MIL-C-26482 Part no.	A max.	B dia. ±0.51	C dia. ±0.08	D dia. max.	F +0.41 -0.38	G ±0.41	L max.	"T" Thread Class 2A
MS3471 * 8 - **	21.03	23.83	11.96	7.75	11.33	1.57	30.86	1/2-20 UNF
MS3471 * 10 - **	24.23	26.97	14.94	10.29	11.33	1.57	30.86	5/8-24 UNEF
MS3471 * 12 - **	26.59	29.36	19.00	13.49	11.33	1.57	30.86	3/4-20 UNEF
MS3471 * 14 - **	28.98	31.75	22.17	16.89	11.33	1.57	30.86	7/8-20 UNEF
MS3471 * 16 - **	31.34	34.14	25.35	20.07	11.33	1.57	30.86	1-20 UNEF
MS3471 * 18 - **	33.73	36.53	28.52	22.07	11.33	1.57	30.86	1 1/16-18 UNEF
MS3471 * 20 - **	36.91	39.67	31.70	24.74	14.50	2.39	32.39	1 3/16-18 UNEF
MS3471 * 22 - **	40.08	42.88	34.87	28.42	14.50	2.39	32.39	1 5/16-18 UNEF
MS3471 * 24 - **	43.26	46.02	38.05	31.60	15.34	2.39	32.39	1 7/16-18 UNEF

\* Service Class, \*\* Insert Arrangement & Contact Style

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## Wide Flange Receptacle

MS3472



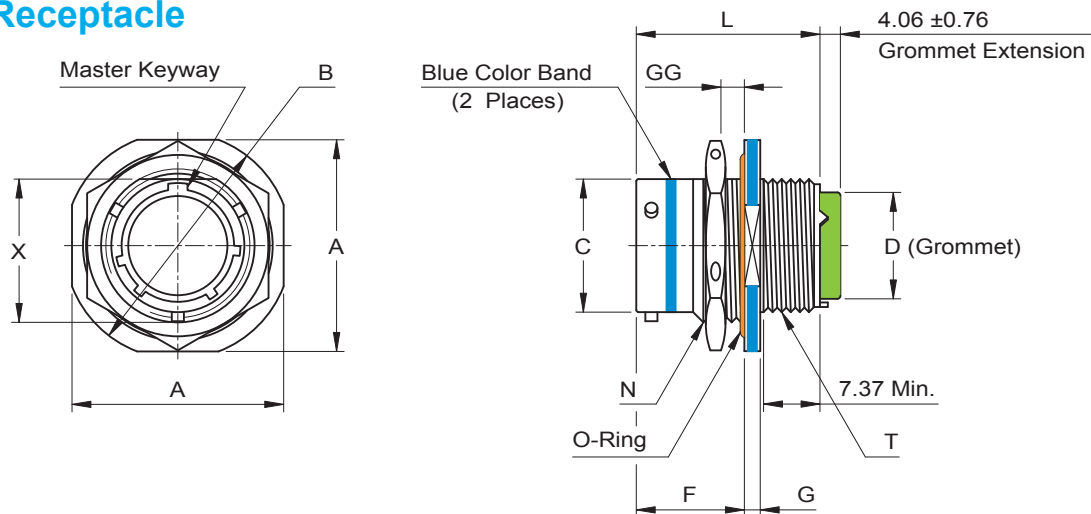
Dimensions in mm.

MIL-C-26482 Part no.	A max.	B ±0.13	C dia. ±0.08	D dia. max.	F +0.41 -0.38	G ±0.41	H dia. ±0.13	L max.	"T" Thread Class 2A
MS3472 * 8 - **	27.05	18.64	11.96	7.75	11.33	1.57	3.05	30.86	1/2-20 UNF
MS3472 * 10 - **	28.98	20.62	14.94	10.29	11.33	1.57	3.05	30.86	5/8-24 UNEF
MS3472 * 12 - **	32.16	23.83	19.00	13.49	11.33	1.57	3.05	30.86	3/4-20 UNEF
MS3472 * 14 - **	34.54	26.19	22.17	16.89	11.33	1.57	3.05	30.86	7/8-20 UNEF
MS3472 * 16 - **	36.91	28.58	25.35	20.07	11.33	1.57	3.05	30.86	1-20 UNEF
MS3472 * 18 - **	38.91	30.56	28.52	22.07	11.33	1.57	3.05	30.86	1 1/16-18 UNEF
MS3472 * 20 - **	42.88	32.94	31.70	24.74	14.50	2.39	3.05	32.39	1 3/16-18 UNEF
MS3472 * 22 - **	44.86	34.93	34.87	28.42	14.50	2.39	3.05	32.39	1 5/16-18 UNEF
MS3472 * 24 - **	48.03	38.10	38.05	31.60	15.34	2.39	3.37	32.39	1 7/16-18 UNEF

\* Service Class, \*\* Insert Arrangement & Contact Style

## Jam Nut Receptacle

MS3474



Dimensions in mm.

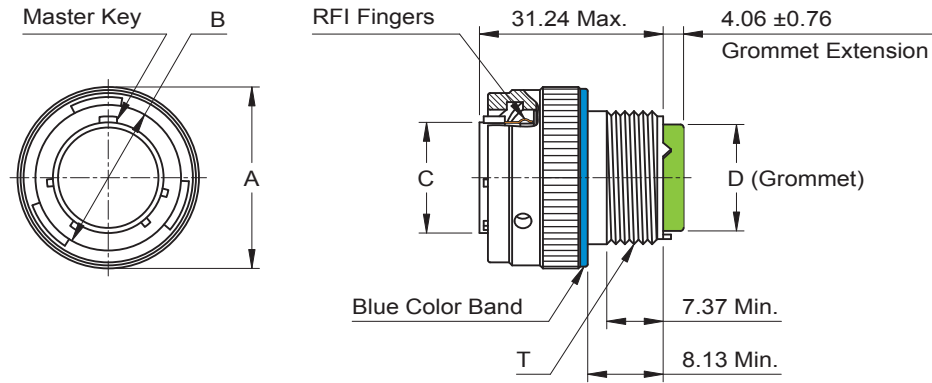
MIL-C-26482 Part no.	A +0.00 -0.79	B dia. +0.00 -0.79	C dia. ±0.08	D dia. max.	F	G	GG (Panel - Thickness)	L max.	"N" Thread Class 2A	"T" Thread Class 2A
MS3474 * 8 - **	24.23	27.38	11.96	7.75	16.71 / 17.95	2.19 / 2.87	1.57 / 4.75	30.86	9/16-24 UNEF	1/2-20 UNF
MS3474 * 10 - **	27.38	30.56	14.94	10.29	16.71 / 17.95	2.19 / 2.87	1.57 / 4.75	30.86	11/16-24 UNEF	5/8-24 UNEF
MS3474 * 12 - **	32.16	35.33	19.00	13.49	16.71 / 17.95	2.19 / 2.87	1.57 / 4.75	30.86	7/8-20 UNEF	3/4-20 UNEF
MS3474 * 14 - **	35.33	38.58	22.17	16.89	16.71 / 17.95	2.19 / 2.87	1.57 / 4.75	30.86	1-20 UNEF	7/8-20 UNEF
MS3474 * 16 - **	38.51	41.68	25.35	20.07	16.71 / 17.95	2.19 / 2.87	1.57 / 4.75	30.86	1 1/8-18 UNEF	1-20 UNEF
MS3474 * 18 - **	41.68	44.86	28.52	22.07	16.71 / 17.95	2.19 / 2.87	1.57 / 4.75	30.86	1 1/4-18 UNEF	1 1/16-18 UNEF
MS3474 * 20 - **	46.63	49.63	31.70	24.74	18.31 / 19.61	2.44 / 3.76	1.57 / 6.35	32.39	1 3/8-18 UNEF	1 3/16-18 UNEF
MS3474 * 22 - **	49.63	52.78	34.87	28.42	18.31 / 19.61	2.44 / 3.76	1.57 / 6.35	32.39	1 1/2-18 UNEF	1 5/16-18 UNEF
MS3474 * 24 - **	52.78	55.96	38.05	31.60	18.31 / 19.61	2.44 / 3.76	1.57 / 5.56	32.39	1 5/8-18 UNEF	1 7/16-18 UNEF

\* Service Class, \*\* Insert Arrangement & Contact Style



Straight Plug, RFI Grounding

MS3475



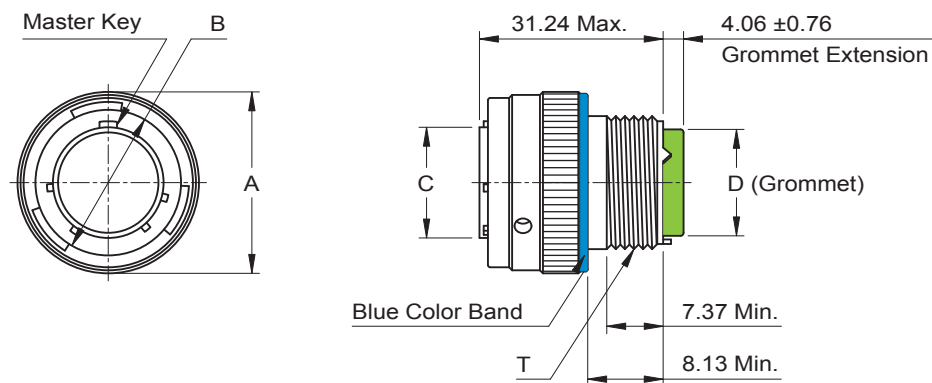
Dimensions in mm.

MIL-C-26482 Part no.	A dia. max.	B dia. ±0.08	C dia. ±0.08	D dia. max.	"T" Thread Class 2A
MS3475 * 8 - **	19.86	9.02	12.87	7.75	1/2-20 UNF
MS3475 * 10 - **	23.52	12.87	15.34	10.29	5/8-24 UNEF
MS3475 * 12 - **	26.49	15.11	19.38	13.49	3/4-20 UNEF
MS3475 * 14 - **	30.05	18.29	22.53	16.89	7/8-20 UNEF
MS3475 * 16 - **	33.15	21.46	25.70	20.07	1-20 UNEF
MS3475 * 18 - **	35.33	24.00	28.91	22.07	1 1/16-18 UNEF
MS3475 * 20 - **	38.89	27.18	32.05	24.74	1 3/16-18 UNEF
MS3475 * 22 - **	42.06	30.35	35.23	28.42	1 5/16-18 UNEF
MS3475 * 24 - **	45.14	33.53	38.40	31.60	1 7/16-18 UNEF

\* Service Class, \*\* Insert Arrangement & Contact Style

Straight Plug

MS3476



Dimensions in mm.

MIL-C-26482 Part no.	A dia. max.	B dia. ±0.08	C dia. ±0.08	D dia. max.	"T" Thread Class 2A
MS3476 * 8 - **	19.86	9.02	12.87	7.75	1/2-20 UNF
MS3476 * 10 - **	23.52	12.87	15.34	10.29	5/8-24 UNEF
MS3476 * 12 - **	26.49	15.11	19.38	13.49	3/4-20 UNEF
MS3476 * 14 - **	30.05	18.29	22.53	16.89	7/8-20 UNEF
MS3476 * 16 - **	33.15	21.46	25.70	20.07	1-20 UNEF
MS3476 * 18 - **	35.33	24.00	28.91	22.07	1 1/16-18 UNEF
MS3476 * 20 - **	38.89	27.18	32.05	24.74	1 3/16-18 UNEF
MS3476 * 22 - **	42.06	30.35	35.23	28.42	1 5/16-18 UNEF
MS3476 * 24 - **	45.14	33.53	38.40	31.60	1 7/16-18 UNEF

\* Service Class, \*\* Insert Arrangement & Contact Style

## Accessories & Tools

### Crimp Contacts

Contact Size	Wire Range		Pin Contacts MS Part no.	Socket Contacts MS Part no.
	AWG	mm x mm		
20	24 ~ 20	0.2 ~ 0.6	M39029/4-110	M39029/5-115
16	20 ~ 16	0.5 ~ 1.4	M39029/4-111	M39029/5-116
12	14 ~ 12	2.0 ~ 3.0	M39029/4-113	M39029/5-118

### Sealing Plug

Contact Size	Color Code	MS Part no.
20	Red	MS27488-20
16	Blue	MS27488-16
12	Yellow	MS27488-12

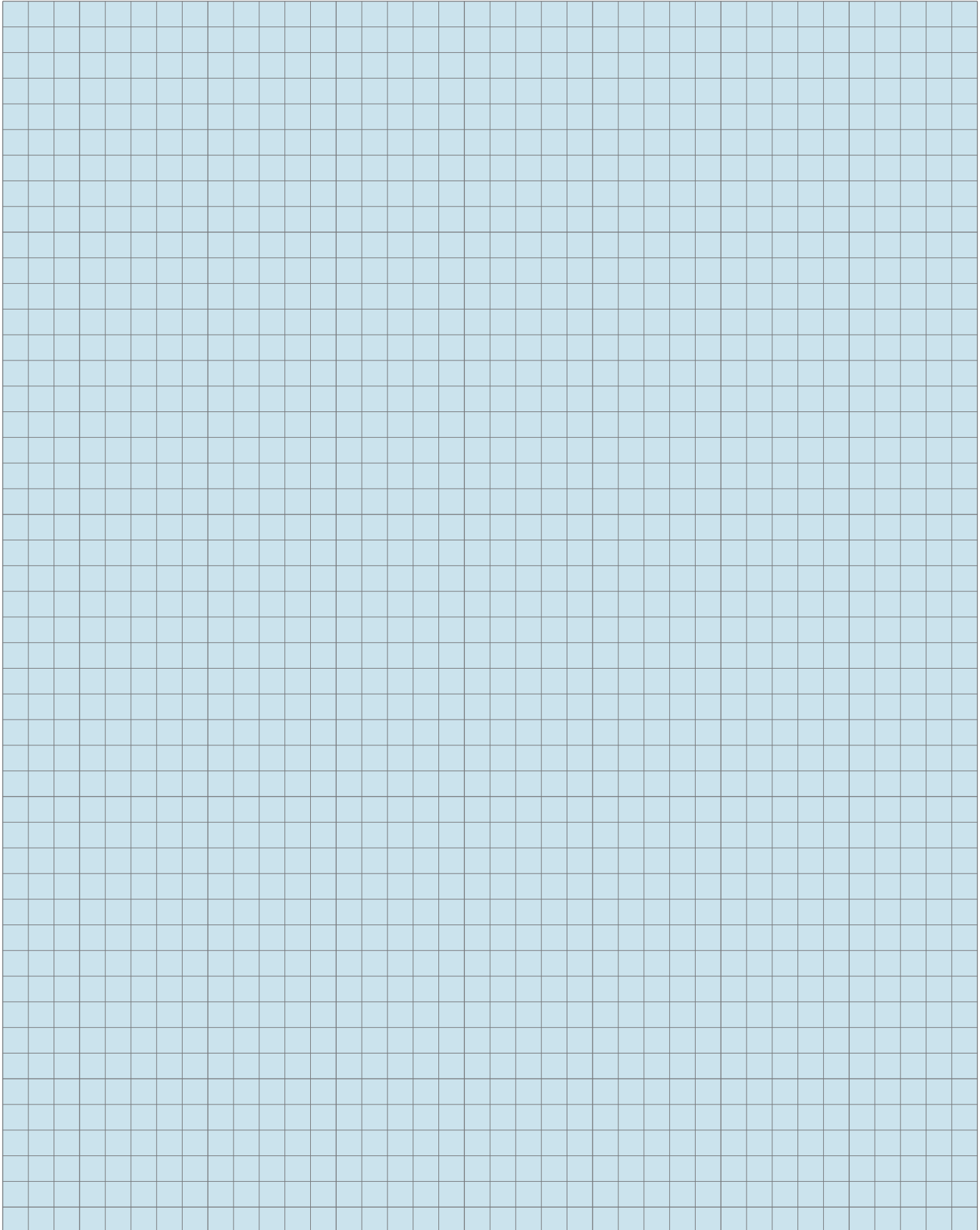
### Crimping Tools

Contact Size	Wire Range		Pin Contacts MS Part no.	Socket Contacts MS Part no.
	AWG	mm x mm		
20	24 ~ 20	0.2 ~ 0.6	M39029/4-110	M39029/5-115
16	20 ~ 16	0.5 ~ 1.4	M39029/4-111	M39029/5-116
12	14 ~ 12	2.0 ~ 3.0	M39029/4-113	M39029/5-118

### Insertion / Extraction Tools

Contact Size	Color Code	MS Part no.
20	Red / White	M81969/14-11
16	Blue / White	M81969/14-03
12	Yellow / White	M81969/14-04

Notes



**Notes**

