

INCH-POUND

MS24266M  
6 February 2004  
SUPERSEDING  
MS24266L(USAF)  
7 September 1990

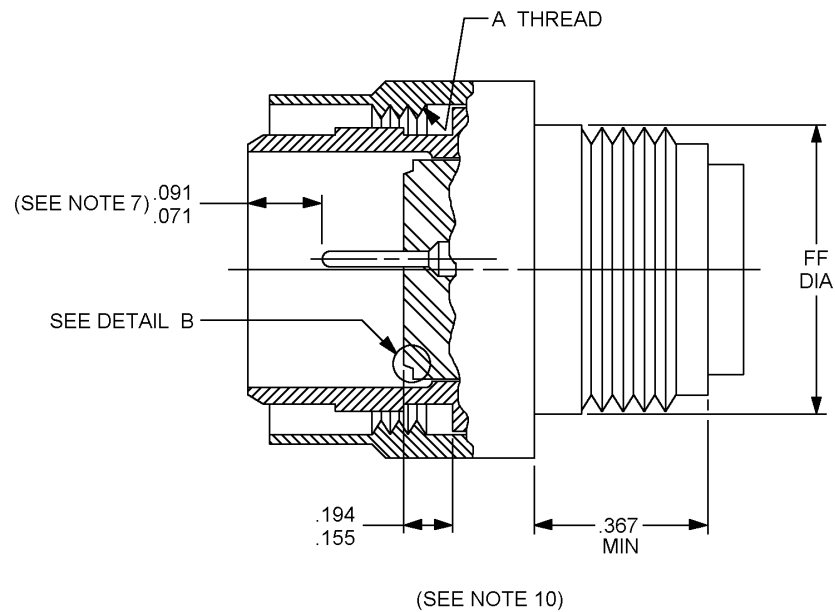
# DETAIL SPECIFICATION SHEET

CONNECTORS, PLUG, ELECTRICAL, STRAIGHT,  
MINIATURE, CLASSES F, G AND R

Inactive for new design after 14 November 1977.  
For new design, use MIL-DTL-83723, series III.

This specification is approved for use by all Departments  
and Agencies of the Department of Defense.

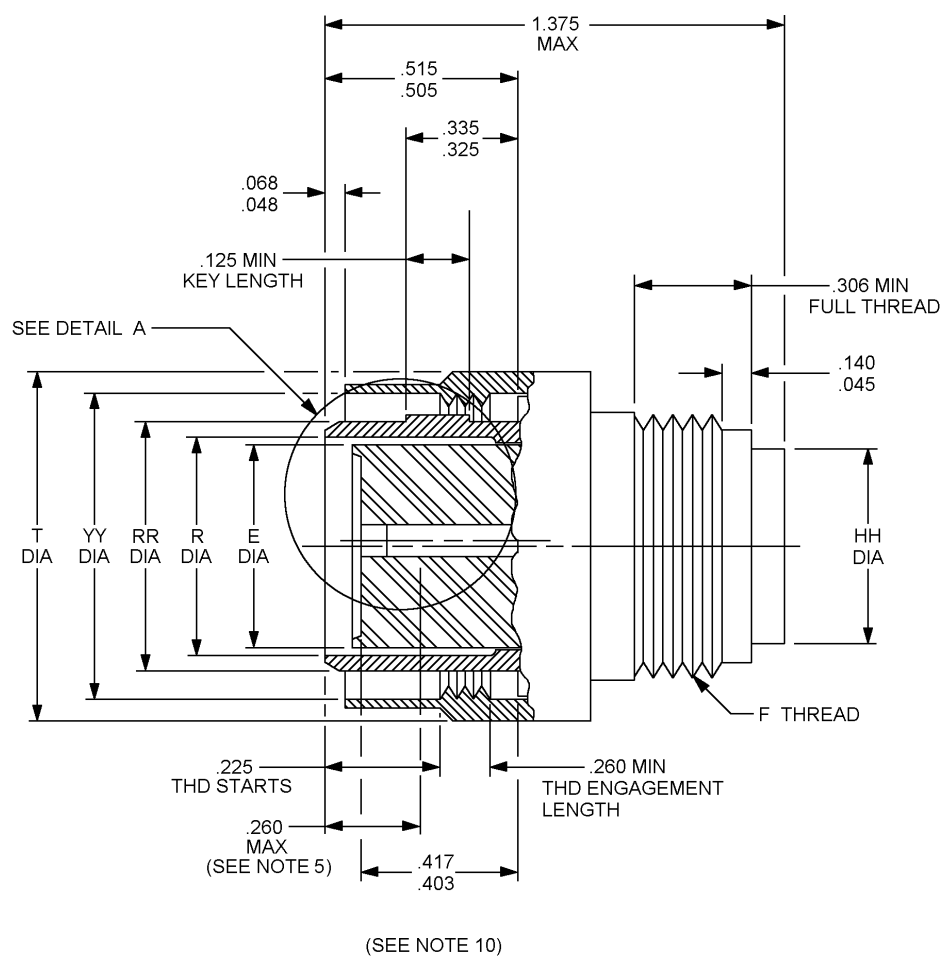
The requirements for acquiring the product described herein  
shall consist of this specification sheet and MIL-DTL-26500.



Style P  
(pin insert)

FIGURE 1. Plug, threaded for classes F, G and R.

## MS24266M



Style S  
(socket insert)

FIGURE 1. Plug, threaded for classes F, G and R – Continued.

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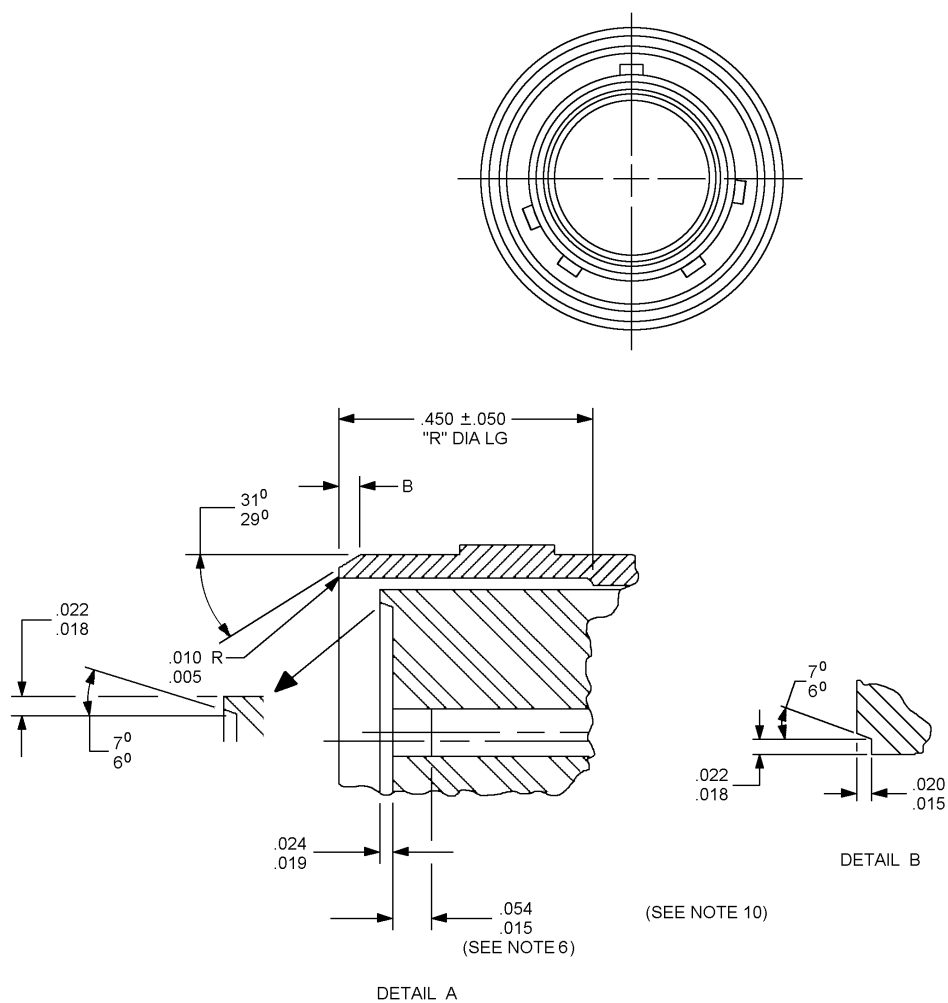


FIGURE 1. Plug, threaded for classes F, G and R – Continued.

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Inches	mm	Inches	mm
.005	.13	.140	3.56
.010	.25	.180	4.57
.015	.38	.194	4.93
.018	.46	.225	5.72
.019	.48	.260	6.60
.020	.51	.306	7.77
.022	.56	.325	8.26
.024	.61	.335	8.51
.045	1.14	.367	9.32
.048	1.22	.403	10.24
.050	1.27	.417	10.59
.054	1.37	.450	11.43
.068	1.73	.505	12.83
.071	1.80	.515	13.08
.091	2.31	1.375	34.92
.125	3.18		

## NOTES:

1. Dimensions are in inches. Unless otherwise specified, tolerance on decimals is  $\pm .005$ .
2. Metric equivalents are given for general information only.
3. All diameters to be concentric with each other within .015 T.I.R.
4. All diameters in the same plane to be concentric with each other with .004 T.I.R.
5. Distance between end of shell and the point at which a gauge pin having the same basic diameter as the mating contact and a square face, engages socket contact spring.
6. Dimensions on pin and socket contact locations and end of shell to insert faces apply when contacts are placed in inserts for inspection or application.
7. Dimensions .071 may reduce to .056 minimum under pressures caused by molded cable assemblies or sharp cable bends.
8. Use tool MIL-I-81969/17 to assemble contacts into this connector, and use tool MIL-I-81969/19 to remove contacts from this connector.
9. Thread relief groove is optional on shell. When groove is omitted the length of full thread from front of shell will be .221 minimum.
10. Environment resistant (classes F and R) plugs, type T aluminum shell material. Grounding environment resistant (class G) plugs, type T aluminum shell material. Environment resistant (class E) plugs, type T stainless steel shell material.
11. True position (T.P.) tolerances specified are for maximum material conditions (M.M.C.).

FIGURE 1. Plug, threaded for classes F, G and R – Continued.

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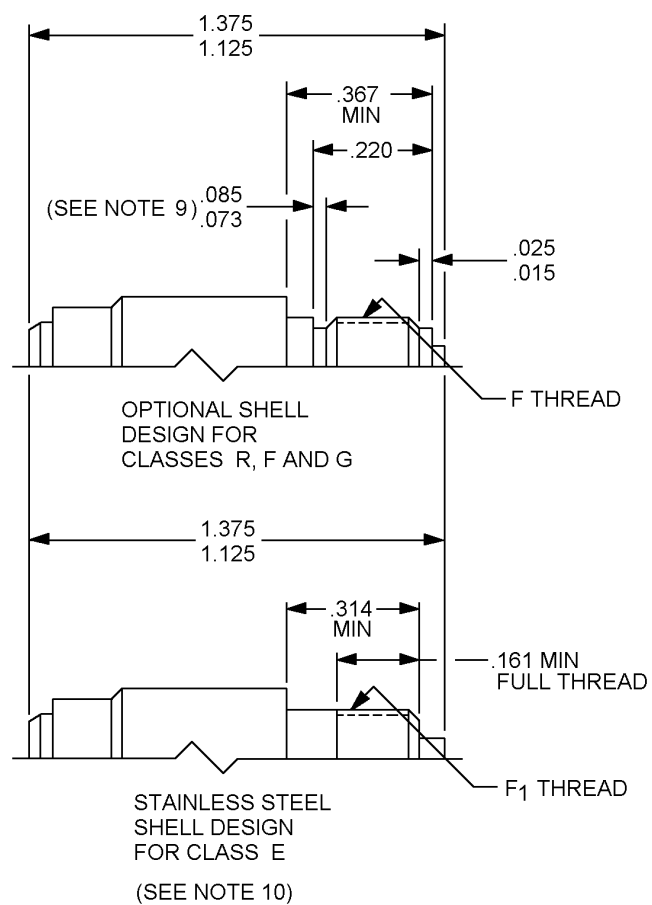


FIGURE 2. Plug, threaded, stainless steel shell design for class E.

## MS24266M

Inches	mm
.015	.38
.025	.66
.073	1.85
.085	2.16
.161	4.09
.220	5.59
.314	7.98
.367	9.32
1.125	28.58
1.375	34.92

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4. All diameters in the same plane to be concentric with each other with .004 T.I.R.
5. Distance between end of shell and the point at which a gauge pin having the same basic diameter as the mating contact and a square face, engages socket contact spring.
6. Dimensions on pin and socket contact locations and end of shell to insert faces apply when contacts are placed in inserts for inspection or application.
7. .071 dimension may reduce to .056 minimum under pressures caused by molded cable assemblies or sharp cable bends.
8. Use tool MIL-I-81969/17 to assemble contacts into this connector, and use tool MIL-I-81969/19 to remove contacts from this connector.
9. Thread relief groove is optional on shell. When groove is omitted the length of full thread from front of shell will be .221 minimum.
10. Environment resistant (classes F and R) plugs, type T aluminum shell material. Grounding environment resistant (class G) plugs, type T aluminum shell material. Environment resistant (class E) plugs, type T stainless steel shell material.
11. True position (T.P.) tolerances specified are for maximum material conditions (M.M.C.).

FIGURE 2. Plug, threaded, stainless steel shell design for class E – Continued.

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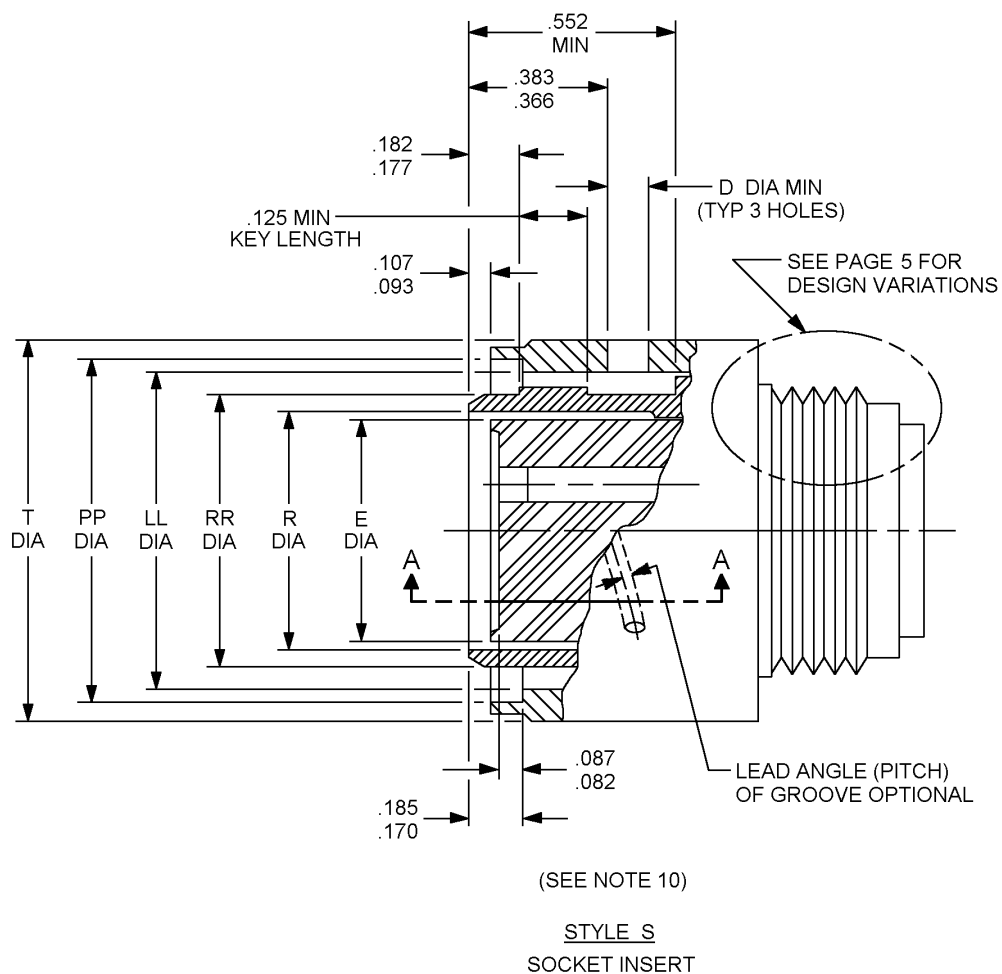
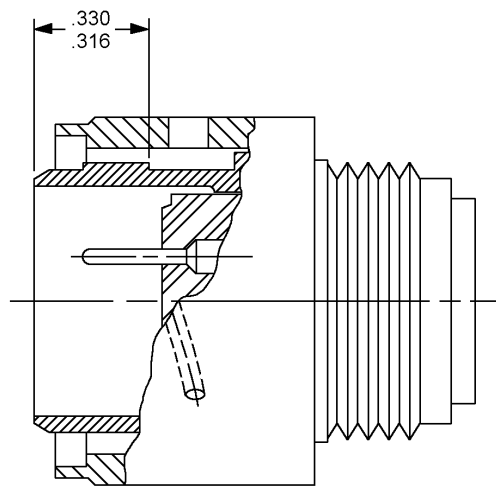


FIGURE 3. Plug, bayonet for classes F, G and R.

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(SEE NOTE 10)

STYLE P  
PIN INSERT

FIGURE 3. Plug bayonet for classes F, G and R – Continued.



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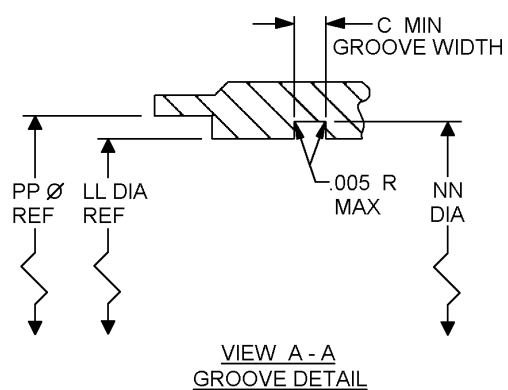
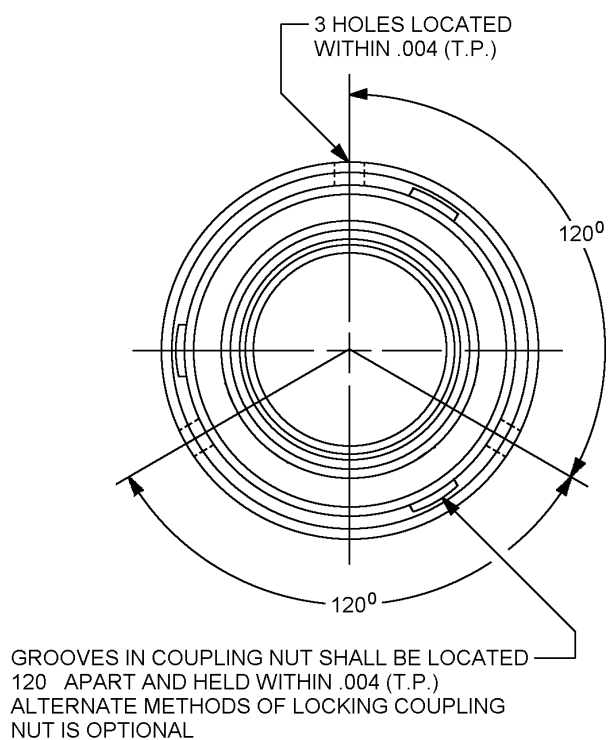


FIGURE 3. Plug, bayonet for classes F, G and R – Continued.

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Inches	mm
.004	.10
.005	.13
.082	2.08
.087	2.21
.093	2.36
.107	2.71
.125	3.18
.177	4.50
.188	4.78
.316	8.03
.330	8.38
.366	9.30
.383	9.73
.552	14.02

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4. All diameters in the same plane to be concentric with each other with .004 T.I.R.
5. Distance between end of shell and the point at which a gauge pin having the same basic diameter as the mating contact and a square face, engages socket contact spring.
6. Dimensions on pin and socket contact locations and end of shell to insert faces apply when contacts are placed in inserts for inspection or application.
7. .071 dimension may reduce to .056 minimum under pressures caused by molded cable assemblies or sharp cable bends.
8. Use tool MIL-I-81969/17 to assemble contacts into this connector, and use tool MIL-I-81969/19 to remove contacts from this connector.
9. Thread relief groove is optional on shell. When groove is omitted the length of full thread from front of shell will be .221 minimum.
10. Environment resistant (classes F and R) plugs, type B aluminum shell material. Grounding environment resistant (class G) plugs, types B-aluminum shell material. Environment resistant (class E) plugs, types B-stainless steel shell material.
11. True position (T.P.) tolerances specified are for maximum material conditions (M.M.C.).

FIGURE 3. Plug, bayonet for classes F, G and R – Continued.

## MS24266M

Shell size	A UNEF-2A coupling	B	C min	D min dia	E max Insert dia	F UNEF-2A access
8	.5625-24 (14.27)	.025 (.66)	.079 (2.01)	.079 (2.01)	.312 (7.92)	.4375-28 (11.10)
10	.6875-24 (17.45)	.031 (.79)	.094 (2.39)	.094 (2.39)	.388 (9.86)	.5625-24 (14.27)
12	.875-20 (22.22)	.031 (.79)	.094 (2.39)	.094 (2.39)	.558 (14.17)	.750-20 (19.05)
14	.9375-20 (23.80)	.031 (.79)	.094 (2.39)	.094 (2.39)	.627 (15.92)	.8125-20 (20.62)
16	1.0625-10 (26.97)	.031 (.79)	.094 (2.39)	.094 (2.39)	.754 (19.15)	.9375-20 (23.80)
18	1.1875-18 (30.15)	.031 (.79)	.094 (2.39)	.094 (2.39)	.860 (21.84)	1.0625-18 (26.97)
20	1.3125-18 (33.32)	.031 (.79)	.094 (2.39)	.094 (2.39)	.985 (25.02)	1.1875-18 (30.15)
22	1.4375-18 (36.50)	.031 (.79)	.094 (2.39)	.094 (2.39)	1.110 (28.19)	1.3125-18 (33.32)
24	1.5625-18 (39.67)	.031 (.79)	.094 (2.39)	.094 (2.39)	1.235 (31.37)	1.4375-18 (36.50)

FIGURE 4. Plug dimensions.

## MS24266M

Shell size	F <sub>1</sub> -36NS-2A	F <sub>1</sub> pitch dia	FF max dia
8	.4340 (11.024)	.4151/.4114 (10.544/10.450)	.437 (11.10)
10	.5634 (14.310)	.5454/.5415 (13.853/13.754)	.562 (14.27)
12	.7334 (18.628)	.7154/.7115 (18.171/18.072)	.750 (19.50)
14	.8032 (20.401)	.7841/.7806 (19.961/19.827)	.812 (20.62)
16	.9302 (23.627)	.9110/.9074 (23.134/23.048)	.938 (23.82)
18	1.0362 (26.319)	1.0171/1.0134 (25.834/25.740)	1.062 (26.97)
20	1.1611 (29.492)	1.1431/1.1385 (29.034/28.918)	1.182 (30.02)
22	1.2862 (32.669)	1.2670/1.2633 (32.182/32.088)	1.312 (33.32)
24	1.4111 (35.842)	1.3931/1.3885 (35.385/35.268)	1.432 (36.37)

FIGURE 4. Plug dimensions – Continued.

## MS24266M

Shell size	HH max grommet dia	LL dia + .005 (0.12) - .000 (0.00)	NN min dia	PP min dia	R min dia
8	.328 (8.33)	.539 (13.69)	.632 (16.05)	.632 (16.05)	.352 (8.94)
10	.420 (10.67)	.662 (16.81)	.760 (19.30)	.760 (19.30)	.428 (10.87)
12	.580 (14.73)	.832 (21.13)	.930 (23.62)	.930 (23.62)	.598 (15.19)
14	.664 (16.86)	.901 (22.88)	.999 (25.37)	.999 (25.37)	.667 (16.94)
16	.769 (19.53)	1.028 (26.11)	1.126 (28.60)	1.126 (28.60)	.794 (20.17)
18	.902 (23.37)	1.134 (28.80)	1.232 (31.29)	1.232 (31.29)	.900 (22.86)
20	1.033 (26.24)	1.261 (32.03)	1.357 (34.47)	1.357 (34.47)	1.025 (26.04)
22	1.152 (29.26)	1.384 (35.15)	1.482 (37.66)	1.482 (37.66)	1.150 (29.21)
24	1.282 (32.56)	1.511 (38.38)	1.607 (40.82)	1.607 (40.82)	1.275 (32.38)

FIGURE 4. Plug, dimensions – Continued.

## MS24266M

Shell size	RR dia + .000 (0.00) - .005 (0.12)	T max O.D. coupling nut	YY min dia
8	.424 (10.77)	.776 (19.71)	.583 (14.81)
10	.526 (13.36)	.906 (23.01)	.707 (17.96)
12	.696 (17.68)	1.078 (27.38)	.895 (22.73)
14	.765 (19.43)	1.141 (28.98)	.957 (24.31)
16	.892 (22.66)	1.266 (32.16)	1.084 (27.53)
18	.998 (25.35)	1.375 (34.47)	1.209 (30.71)
20	1.123 (28.52)	1.510 (38.35)	1.334 (33.88)
22	1.248 (31.70)	1.625 (41.28)	1.459 (37.06)
24	1.373 (34.87)	1.760 (44.70)	1.584 (40.23)

## NOTES:

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2. Metric equivalents are given for general information only.
3. All diameters to be concentric with each other within .015 T.I.R.
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5. Distance between end of shell and the point at which a gauge pin having the same basic diameter as the mating contact and a square face, engages socket contact spring.
6. Dimensions on pin and socket contact locations and end of shell to insert faces apply when contacts are placed in inserts for inspection or application.
7. .071 dimension may reduce to .056 minimum under pressures caused by molded cable assemblies or sharp cable bends.
8. Use tool MIL-I-81969/17 to assemble contacts into this connector, and use tool MIL-I-81969/19 to remove contacts from this connector.
9. Thread relief groove is optional on shell. When groove is omitted the length of full thread from front of shell will be .221 minimum.
10. Environment resistant (classes F and R) plugs, type T aluminum shell material. Grounding environment resistant (class G) plugs, type T aluminum shell material. Environment resistant (class E) plugs, type T stainless steel shell material.
11. True position (T.P.) tolerances specified are for maximum material conditions (M.M.C.).

FIGURE 4. Plug dimensions – Continued.

## MS24266M

Weight chart		
Maximum connector weight in pounds		
Pin insert		
MS PIN.	Less contacts	With contacts
MS24266R 8T2PN	.028(.071)	.030(.76)
MS24266R 10T2PN	.040(1.02)	.042(1.07)
MS24266R 10T5PN	.039(.99)	.043(1.09)
MS24266R 10T20PN	.040(1.02)	.044(1.12)
MS24266R 12T3PN	.055(1.40)	.060(1.52)
MS24266R 12T12PN	.053(1.35)	.063(1.60)
MS24266R 14T3PN	.059(1.50)	.069(1.75)
MS24266R 14T4PN	.059(1.50)	.074(1.88)
MS24266R 14T7PN	.059(1.50)	.072(1.83)
MS24266R 14T12PN	.059(1.50)	.072(1.83)
MS24266R 14T15PN	.059(1.50)	.073(1.85)
MS24266R 16T10PN	.072(1.83)	.090(2.29)
MS24266R 16T24PN	.071(1.80)	.091(2.31)
MS24266R 18T8PN	.081(2.06)	.110(2.79)
MS24266R 18T11PN	.078(1.98)	.102(2.59)
MS24266R 18T14PN	.078(1.98)	.103(2.62)
MS24266R 18T31PN	.078(1.98)	.104(2.64)
MS24266R 20T16PN	.098(2.49)	.126(3.20)
MS24266R 20T25PN	.095(2.14)	.133(3.38)
MS24266R 20T28PN	.097(2.46)	.132(3.35)
MS24266R 20T39PN	.097(2.46)	.132(3.35)
MS24266R 20T41PN	.097(2.46)	.131(3.33)
MS24266R 22T12PN	.110(2.79)	.153(3.89)
MS24266R 22T19PN	.110(2.79)	.154(3.91)
MS24266R 22T32PN	.110(2.79)	.153(3.89)
MS24266R 22T55PN	.106(2.69)	.153(3.89)
MS24266R 24T43PN	.129(3.28)	.184(4.67)
MS24266R 24T57PN	.128(3.25)	.181(4.60)
MS24266R 24T61PN	.125(3.18)	.176(4.47)

FIGURE 5. Weights for threaded connectors, classes F, G and R.

## MS24266M

Weight chart		
Maximum connector weight in pounds		
Socket insert		
MS PIN	Less contacts	With contacts
MS2466R 8T2SN	.029(.72)	.031(.79)
MS2466R 10T2SN	.041(1.04)	.043(1.09)
MS2466R 10T5SN	.040(1.02)	.044(1.12)
MS2466R 10T20SN	.041(1.04)	.045(1.14)
MS2466R 12T3SN	.057(1.45)	.062(1.57)
MS2466R 12T12SN	.054(1.37)	.064(1.62)
MS2466R 14T3SN	.061(1.55)	.070(1.78)
MS2466R 14T4SN	.061(1.55)	.076(1.93)
MS2466R 14T7SN	.061(1.55)	.072(1.83)
MS2466R 14T12SN	.061(1.55)	.074(1.88)
MS2466R 14T15SN	.061(1.55)	.074(1.88)
MS2466R 16T10SN	.071(1.80)	.089(2.26)
MS2466R 16T24SN	.074(1.88)	.094(2.39)
MS2466R 18T8SN	.084(2.13)	.112(2.84)
MS2466R 18T11SN	.082(2.08)	.105(2.67)
MS2466R 18T14SN	.082(2.08)	.107(2.72)
MS2466R 18T31SN	.082(2.08)	.107(2.72)
MS2466R 20T16SN	.101(2.56)	.129(3.28)
MS2466R 20T25SN	.099(2.51)	.136(3.45)
MS2466R 20T26SN	.099(2.51)	.133(3.38)
MS2466R 20T39SN	.099(2.51)	.133(3.38)
MS2466R 20T41SN	.099(2.51)	.133(3.38)
MS2466R 22T12SN	.117(2.97)	.156(3.96)
MS2466R 22T19SN	.117(2.97)	.150(3.81)
MS2466R 22T32SN	.117(2.97)	.160(4.06)
MS2466R 22T55SN	.112(2.84)	.157(3.99)
MS2466R 24T43SN	.134(3.40)	.188(4.78)
MS2466R 24T57SN	.133(3.38)	.185(4.85)
MS2466R 24T61SN	.131(3.33)	.181(4.60)

FIGURE 5. Weights for threaded connectors, classes F, G and R – Continued.



## MS24266M

## REQUIREMENTS:

Dimensions and configuration: See figures 1 through 5.

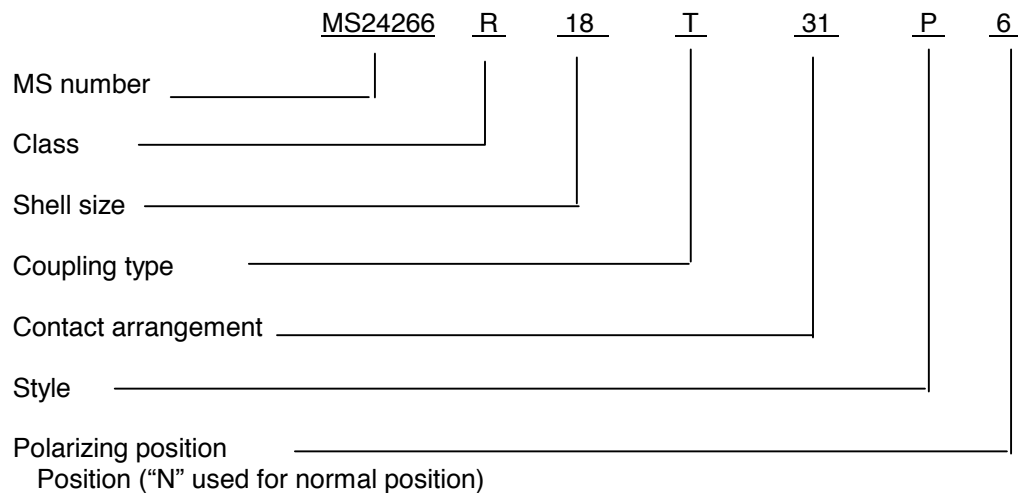
Connector mating: This connector mates with MS24264, MS24265, MS27034, MS27613 and MS27614.

For insert arrangements and alternate insert keying position: See MIL-STD-1554.

For accessories used with this connector: See MIL-DTL-26500.

Contacts: In accordance with MIL-C-39029.

Part or Identifying Number (PIN) example:



Referenced documents. In addition to MIL-DTL-26500, this document references the following:

MIL-C-39029  
MIL-DTL-26500  
MIL-STD-1554  
MS24264  
MS24265  
MS27034  
MS27613  
MS27614

## CONCLUDING MATERIAL

Custodians:  
Air Force – 11  
DLA – CC

Preparing activity:  
DLA – CC

(Project 5935-4419-010)

Review activity:  
Air Force – 99

NOTE: The activities listed above were interested in this document as of the date of this document. Since organizations and responsibilities can change, you should verify the currency of the information above using the ASSIST Online database at <http://www.dodssp.daps.mil>.