INCH-POUND

MS24266N
20 August 2009
SUPERSEDING
MS24266M
6 February 2004

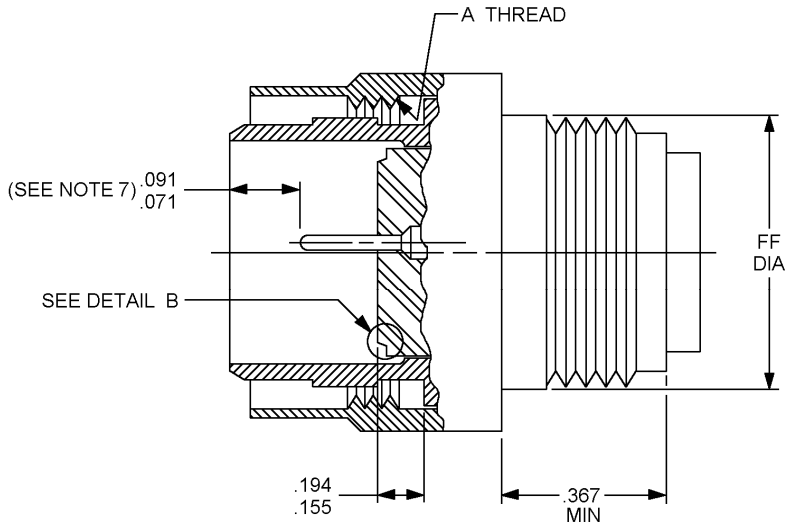
DETAIL SPECIFICATION SHEET

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

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

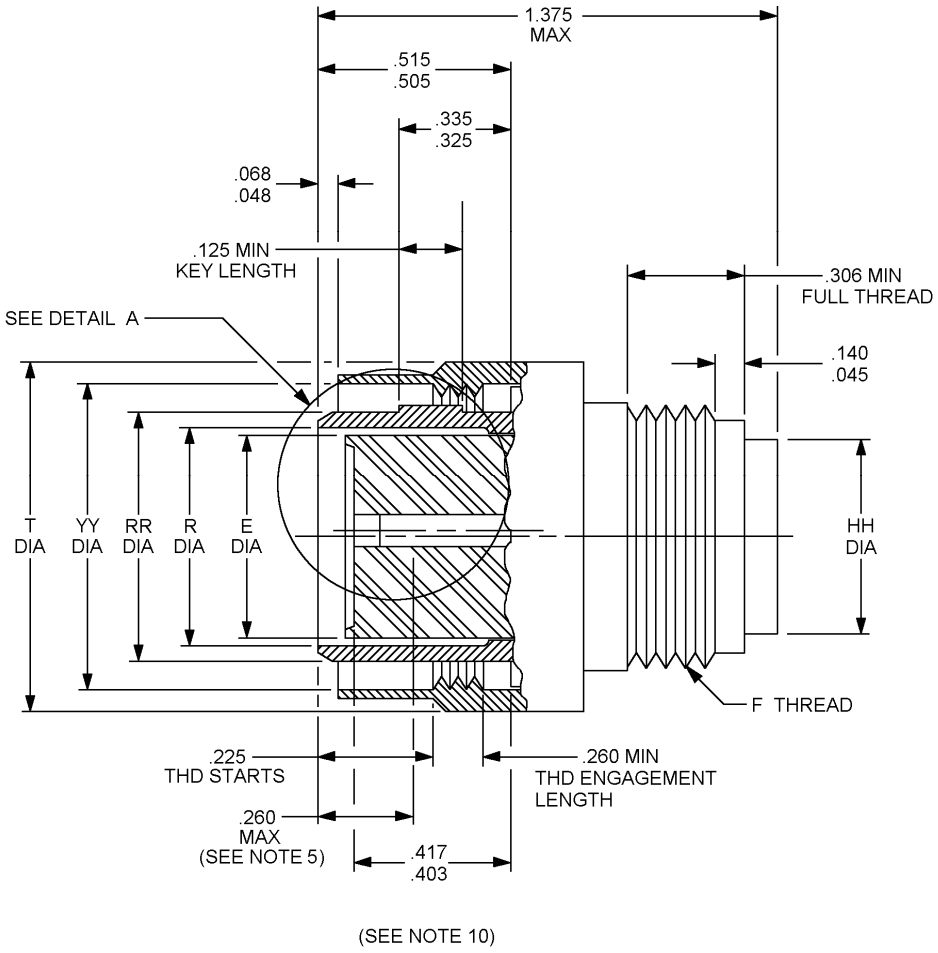
This specification is approved for use by all Departments and Agencies of the Department of Defense.

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.



Style S
(socket insert)

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

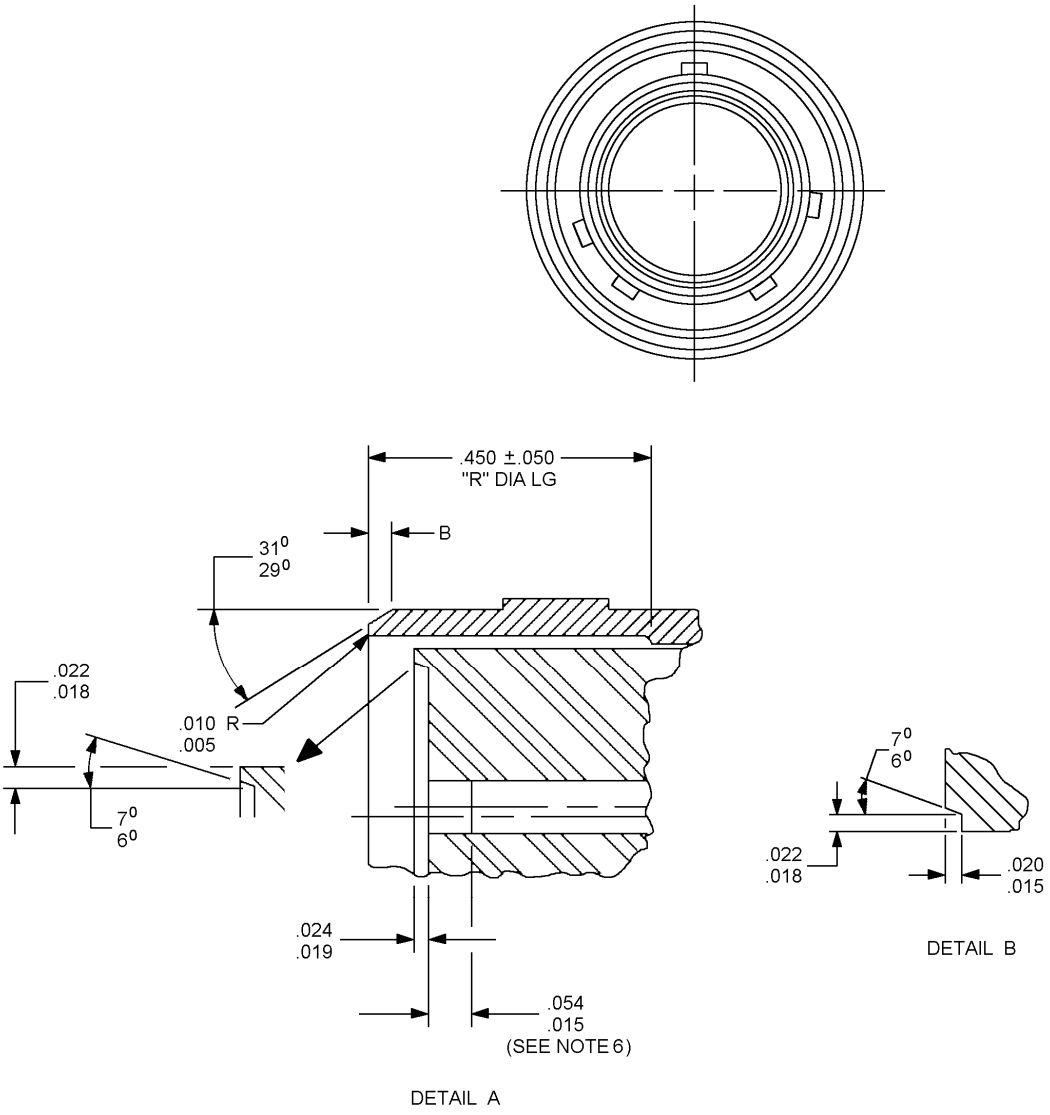


FIGURE 1. Plug, threaded for classes F, G and R – Continued.

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 ± .005.
2. Metric equivalents are given for 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.

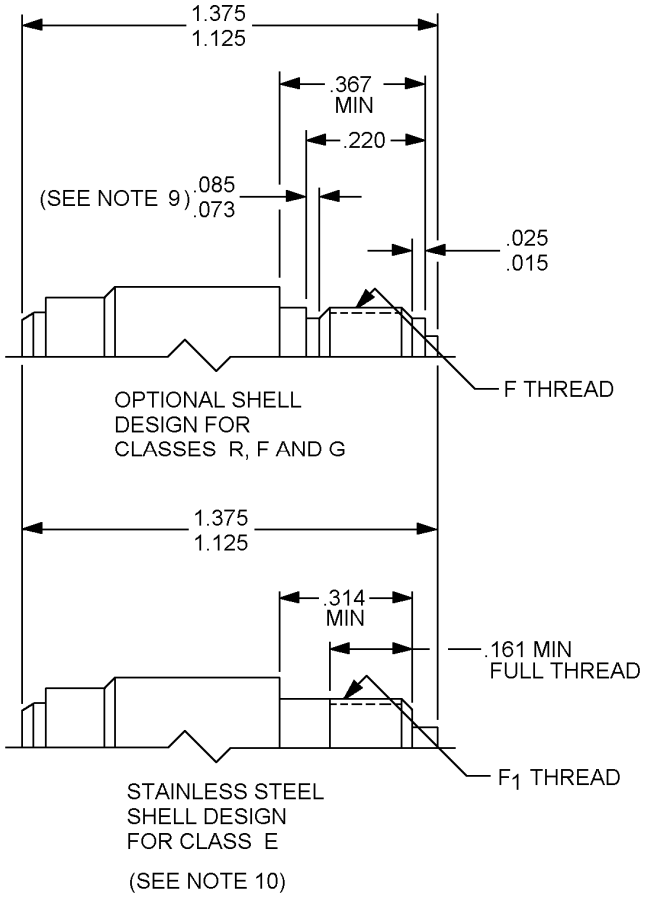


FIGURE 2. Plug, threaded, stainless steel shell design for class E.

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

NOTES:

1. Dimensions are in inches. Unless otherwise specified, tolerance on decimals is ± .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. Dimension .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 2. Plug, threaded, stainless steel shell design for class E – Continued.

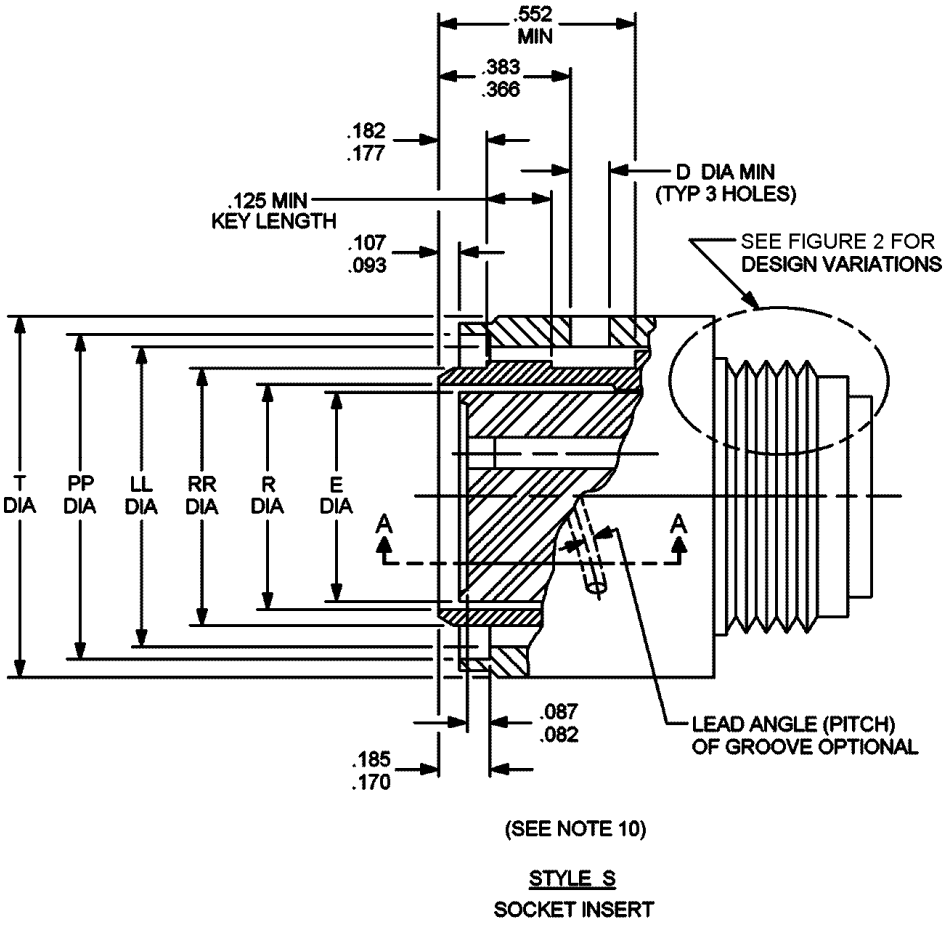
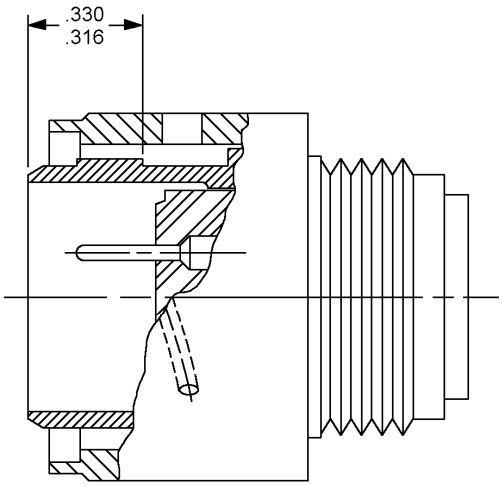


FIGURE 3. Plug, bayonet for classes F, G and R.



(SEE NOTE 10)

STYLE P

PIN INSERT

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

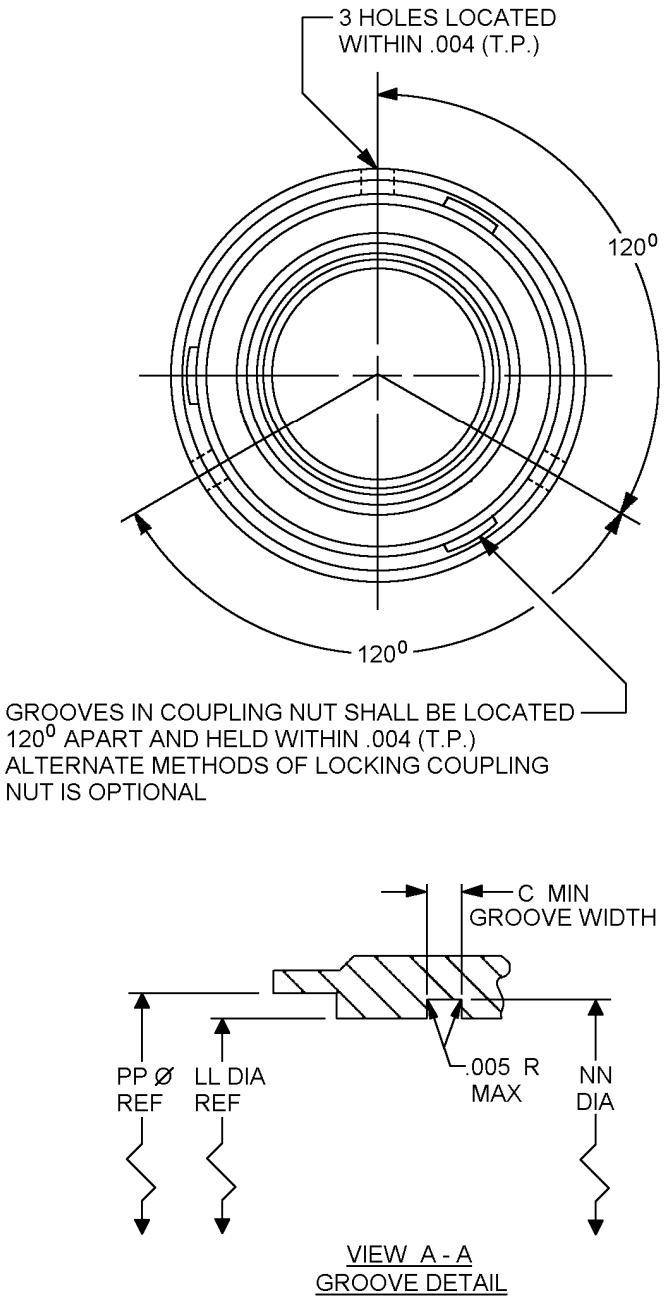


FIGURE 3. Plug, bayonet for classes F, G and R – Continued.

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

NOTES:

1. Dimensions are in inches. Unless otherwise specified, tolerance on decimals is ± .005.
2. Metric equivalents are given for 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. Dimension .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 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.

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)	.318 (8.08)	.4375-28 (11.10)
10	.6875-24 (17.45)	.031 (.79)	.094 (2.39)	.094 (2.39)	.394 (10.01)	.5625-24 (14.27)
12	.875-20 (22.22)	.031 (.79)	.094 (2.39)	.094 (2.39)	.564 (14.33)	.750-20 (19.05)
14	.9375-20 (23.80)	.031 (.79)	.094 (2.39)	.094 (2.39)	.633 (16.08)	.8125-20 (20.62)
16	1.0625-10 (26.97)	.031 (.79)	.094 (2.39)	.094 (2.39)	.760 (19.30)	.9375-20 (23.80)
18	1.1875-18 (30.15)	.031 (.79)	.094 (2.39)	.094 (2.39)	.866 (22.00)	1.0625-18 (26.97)
20	1.3125-18 (33.32)	.031 (.79)	.094 (2.39)	.094 (2.39)	.991 (25.17)	1.1875-18 (30.15)
22	1.4375-18 (36.50)	.031 (.79)	.094 (2.39)	.094 (2.39)	1.1161 (28.35)	1.3125-18 (33.32)
24	1.5625-18 (39.67)	.031 (.79)	.094 (2.39)	.094 (2.39)	1.241 (31.52)	1.4375-18 (36.50)

FIGURE 4. Plug, dimensions.

Shell size	F_1 -36NS-2A	F_1 pitch dia	FF max dia
8	.4340 (11.024)	.4151/.4114 (10544/10.450)	.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.

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.

Shell size	RR dia + .000 (0.00) - .005 (0.12)	T max OD 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:

1. Dimensions are in inches. Unless otherwise specified, tolerance on decimals is ± .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. Dimension .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 4. Plug, dimensions – Continued.

Weight chart		
Maximum connector weight in pounds		
Pin insert		
MS PIN.	Less contacts	With contacts
MS24266R8T2PN	.028(.071)	.030(.76)
MS24266R10T2PN	.040(1.02)	.042(1.07)
MS24266R10T5PN	.039(.99)	.043(1.09)
MS24266R10T20PN	.040(1.02)	.044(1.12)
MS24266R12T3PN	.055(1.40)	.060(1.52)
MS24266R12T12PN	.053(1.35)	.063(1.60)
MS24266R14T3PN	.059(1.50)	.069(1.75)
MS24266R14T4PN	.059(1.50)	.074(1.88)
MS24266R14T7PN	.059(1.50)	.072(1.83)
MS24266R14T12PN	.059(1.50)	.072(1.83)
MS24266R14T15PN	.059(1.50)	.073(1.85)
MS24266R16T10PN	.072(1.83)	.090(2.29)
MS24266R16T24PN	.071(1.80)	.091(2.31)
MS24266R18T8PN	.081(2.06)	.110(2.79)
MS24266R18T11PN	.078(1.98)	.102(2.59)
MS24266R18T14PN	.078(1.98)	.103(2.62)
MS24266R18T31PN	.078(1.98)	.104(2.64)
MS24266R20T16PN	.098(2.49)	.126(3.20)
MS24266R20T25PN	.095(2.14)	.133(3.38)
MS24266R20T28PN	.097(2.46)	.132(3.35)
MS24266R20T39PN	.097(2.46)	.132(3.35)
MS24266R20T41PN	.097(2.46)	.131(3.33)
MS24266R22T12PN	.110(2.79)	.153(3.89)
MS24266R22T19PN	.110(2.79)	.154(3.91)
MS24266R22T32PN	.110(2.79)	.153(3.89)
MS24266R22T55PN	.106(2.69)	.153(3.89)
MS24266R24T43PN	.129(3.28)	.184(4.67)
MS24266R24T57PN	.128(3.25)	.181(4.60)
MS24266R24T61PN	.125(3.18)	.176(4.47)

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

Weight chart		
Maximum connector weight in pounds		
Socket insert		
MS PIN	Less contacts	With contacts
MS2466R8T2SN	.029(.72)	.031(.79)
MS2466R10T2SN	.041(1.04)	.043(1.09)
MS2466R10T5SN	.040(1.02)	.044(1.12)
MS2466R10T20SN	.041(1.04)	.045(1.14)
MS2466R12T3SN	.057(1.45)	.062(1.57)
MS2466R12T12SN	.054(1.37)	.064(1.62)
MS2466R14T3SN	.061(1.55)	.070(1.78)
MS2466R14T4SN	.061(1.55)	.076(1.93)
MS2466R14T7SN	.061(1.55)	.072(1.83)
MS2466R14T12SN	.061(1.55)	.074(1.88)
MS2466R14T15SN	.061(1.55)	.074(1.88)
MS2466R16T10SN	.071(1.80)	.089(2.26)
MS2466R16T24SN	.074(1.88)	.094(2.39)
MS2466R 18T8SN	.084(2.13)	.112(2.84)
MS2466R18T11SN	.082(2.08)	.105(2.67)
MS2466R18T14SN	.082(2.08)	.107(2.72)
MS2466R18T31SN	.082(2.08)	.107(2.72)
MS2466R20T16SN	.101(2.56)	.129(3.28)
MS2466R20T25SN	.099(2.51)	.136(3.45)
MS2466R20T26SN	.099(2.51)	.133(3.38)
MS2466R20T39SN	.099(2.51)	.133(3.38)
MS2466R20T41SN	.099(2.51)	.133(3.38)
MS2466R22T12SN	.117(2.97)	.156(3.96)
MS2466R22T19SN	.117(2.97)	.150(3.81)
MS2466R22T32SN	.117(2.97)	.160(4.06)
MS2466R22T55SN	.112(2.84)	.157(3.99)
MS2466R24T43SN	.134(3.40)	.188(4.78)
MS2466R24T57SN	.133(3.38)	.185(1.85)
MS2466R24T61SN	.131(3.33)	.181(4.60)

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

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 SAE-AS39029.

Part or Identifying Number (PIN) example:

Changes from previous issue. Marginal notations are not used in this revision to identify changes with respect to the previous issue due to the extent of the changes.

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

SAE-AS39029
MIL-DTL-83723
MIL-I-81969/17
MIL-I-81969/19
MIL-STD-1554
MS24264
MS24265
MS27034
MS27613
MS27614

CONCLUDING MATERIAL

Custodians:
Air Force – 85
DLA – CC

Review activity:
Air Force – 99

Preparing activity:
DLA – CC

(Project 5935-2009-101)

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://assist.daps.dla.mil.