INCH-POUND

MS24264R
20 August 2009
SUPERSEDING
MS24264P
6 February 2004

DETAIL SPECIFICATION SHEET

CONNECTORS, RECEPTACLE, ELECTRICAL, FLANGE MOUNTING, MINIATURE, CLASSES E, F, G AND R

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

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.

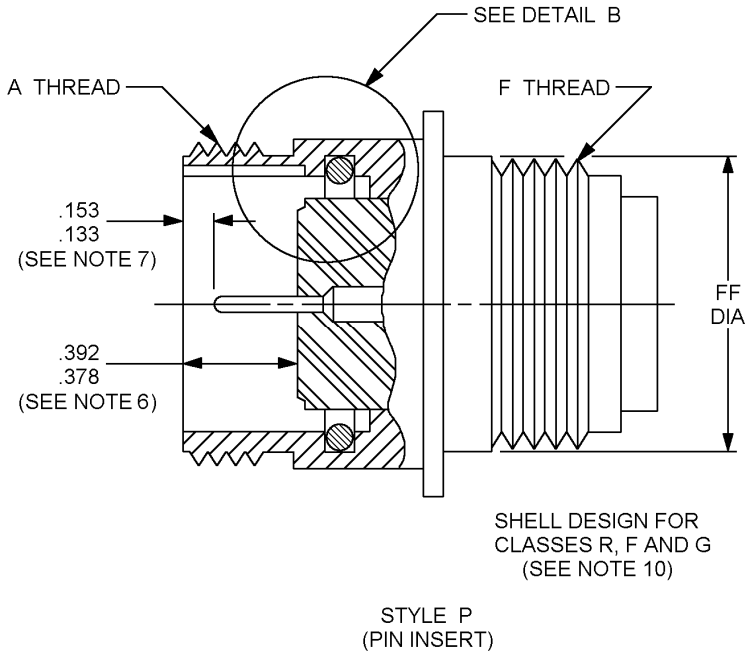
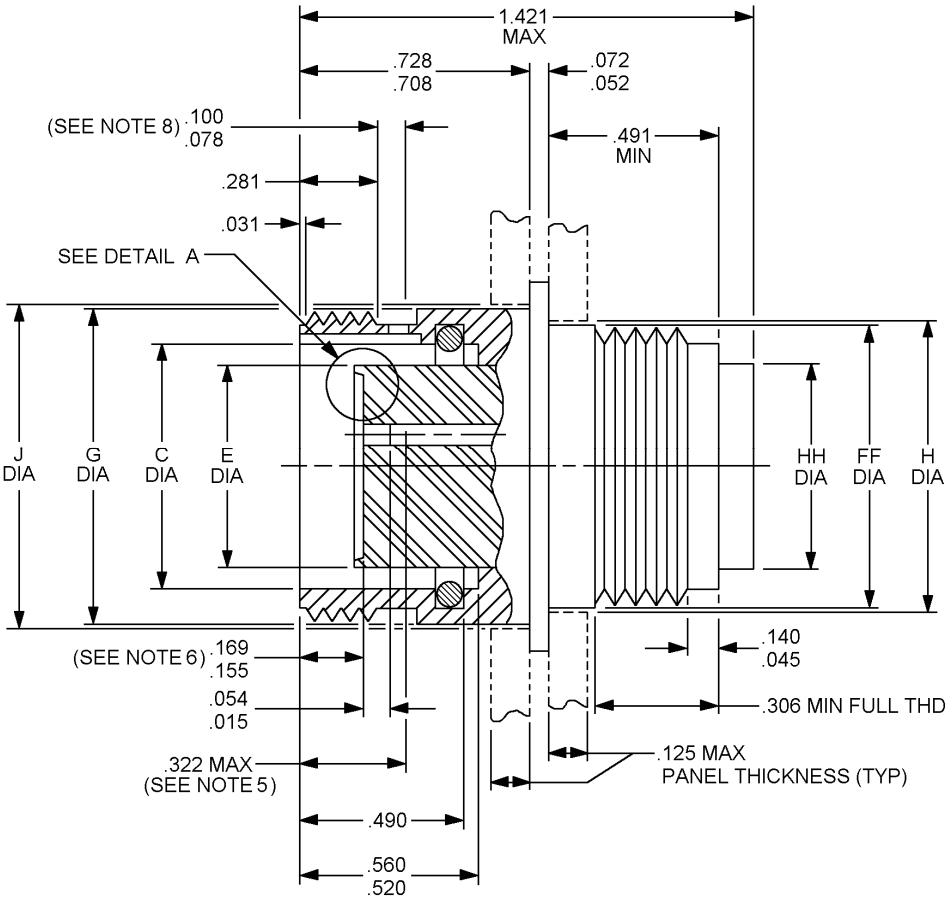


FIGURE 1. Receptacle, threaded for classes F, G and R.

AMSC N/A

FSC 5935



STYLE S
(SOCKET INSERT)

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

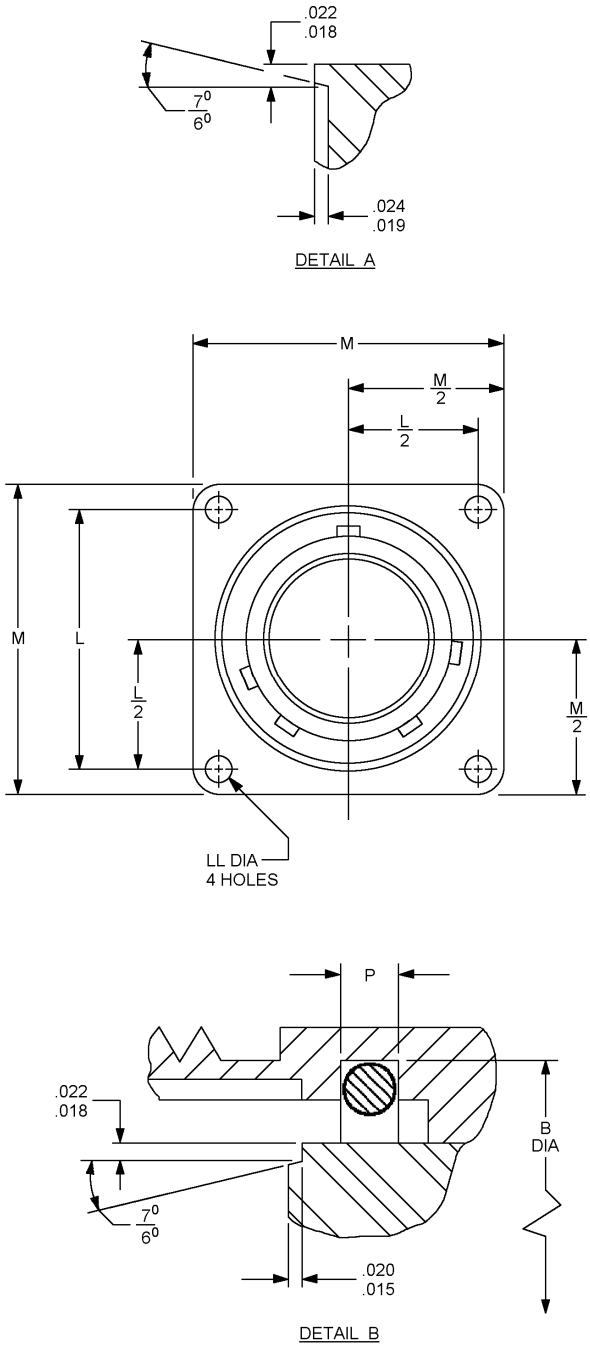


FIGURE 1. Receptacle, threaded for classes F, G and R – Continued.

Inches	mm	Inches	mm
.015	0.38	.153	3.89
.018	0.46	.155	3.94
.019	0.48	.169	4.29
.020	0.51	.281	7.14
.022	0.56	.306	7.77
.024	0.61	.322	8.18
.031	0.79	.378	9.60
.045	1.14	.392	9.96
.052	1.32	.490	12.45
.054	1.37	.491	12.47
.072	1.83	.520	13.21
.078	1.98	.560	14.22
.100	2.54	.708	17.98
.125	3.18	.728	18.49
.133	3.38	1.421	36.09
.140	3.56		

NOTES:

1. Dimensions in inches. Unless otherwise specified, tolerances on decimals is ± .005.
2. Metric equivalents are given for information only.
3. 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.
4. All diameters to be concentric with each other within .015 T.I.R. All diameters in the same plane to be concentric with each other within .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 .133 may reduce to .118 minimum under pressures caused by molded cable assemblies or sharp cable bends.
8. Thread relief groove is optional on shell. When groove is omitted the length of full thread from front of shell will be .310 minimum and thread run out .385 maximum.
9. Thread relief groove is optional on shell. When groove is omitted, the length of full thread from rear of shell will be .221 minimum.
10. Environment resistant (classes F and R) receptacles, type T aluminum shell material. Grounding environment resistant (class G) receptacles, type T aluminum shell material. Environment resistant (class E) receptacles, type T stainless steel shell material. These receptacles mate with plug MS24266 type T.
11. True position (T.P.) tolerances specified are for maximum material conditions (M.M.C).

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

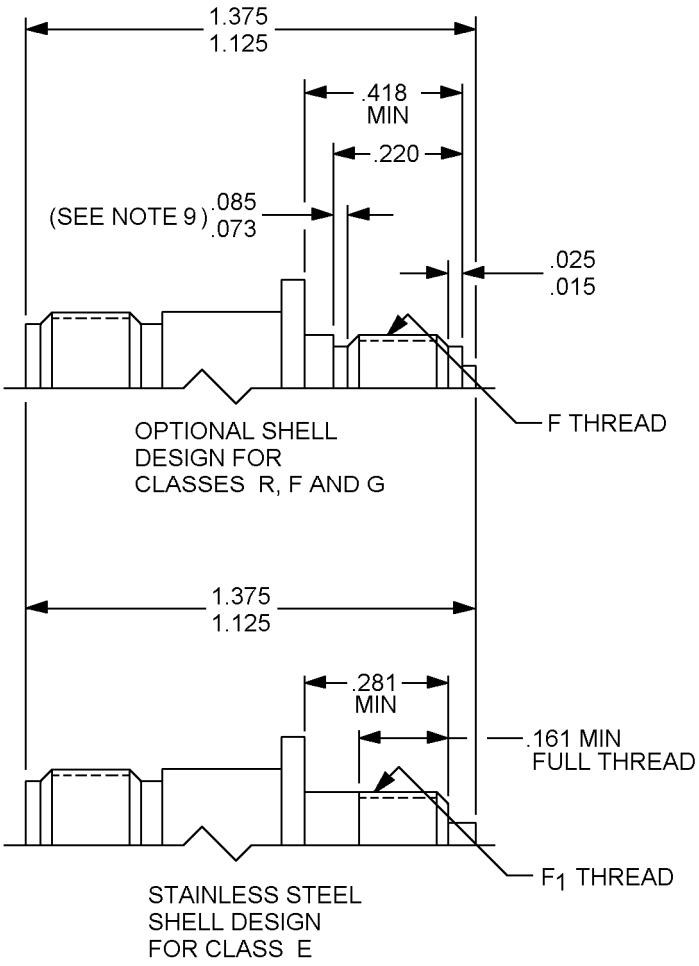


FIGURE 2. Receptacle, optional shell design for classes F, G, R and stainless steel shell design for class E.

Inches	mm
.015	.38
.025	.63
.073	1.85
.086	2.18
.161	4.09
.220	5.59
.281	7.14
.418	10.62
1.125	28.57
1.375	34.92

NOTES:

1. Dimensions in inches. Unless otherwise specified, tolerances on decimals is ± .005.
2. Metric equivalents are given for information only.
3. 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.
4. All diameters to be concentric with each other within .015 T.I.R. All diameters in the same plane to be concentric with each other within .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 .133 may reduce to .118 minimum under pressures caused by molded cable assemblies or sharp cable bends.
8. Thread relief groove is optional on shell. When groove is omitted the length of full thread from front of shell will be .310 minimum and thread run out .385 maximum.
9. Thread relief groove is optional on shell. When groove is omitted, the length of full thread from rear of shell will be .221 minimum.
10. Environment resistant (classes F and R) receptacles, type T aluminum shell material. Grounding environment resistant (class G) receptacles, type T aluminum shell material. Environment resistant (class E) receptacles, type T stainless steel shell material. These receptacles mate with plug MS24266 type T.
11. True position (T.P.) tolerances specified are for maximum material conditions (M.M.C).

FIGURE 2. Receptacle, optional shell design for classes F, G, R and stainless steel shell design for class E – Continued.

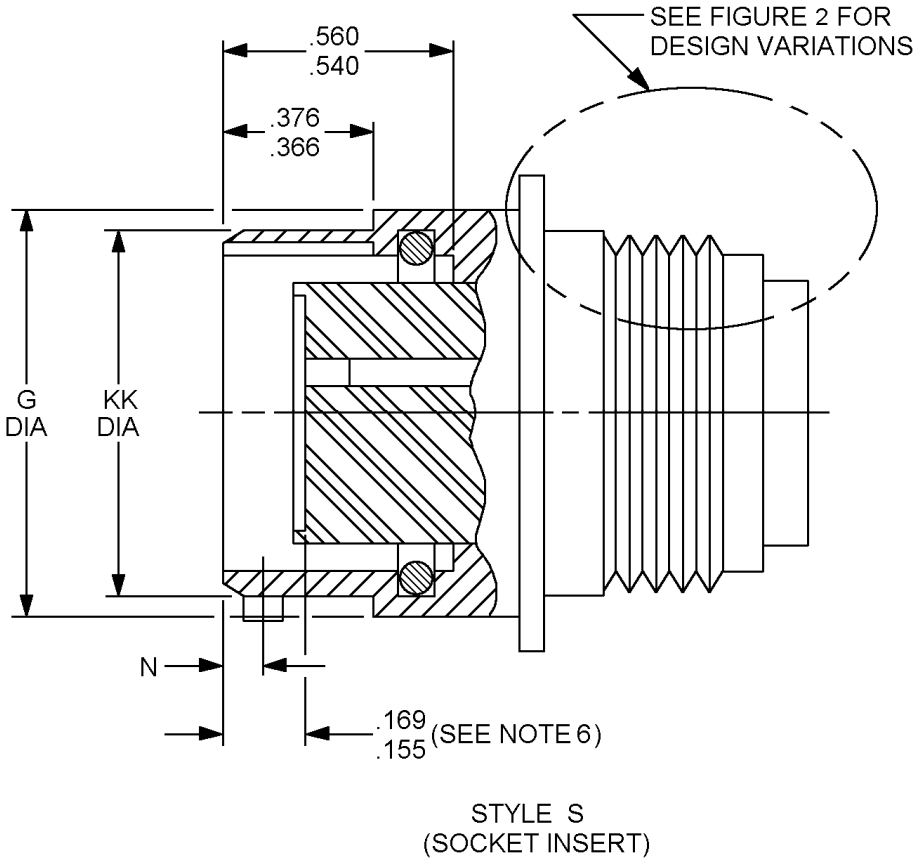


FIGURE 3. Receptacle, bayonet, optional design.

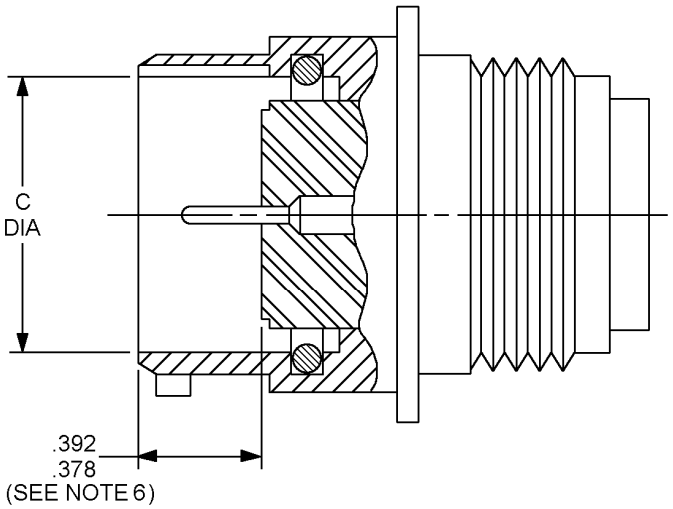


FIGURE 3. Receptacle, bayonet, optional design - Continued.

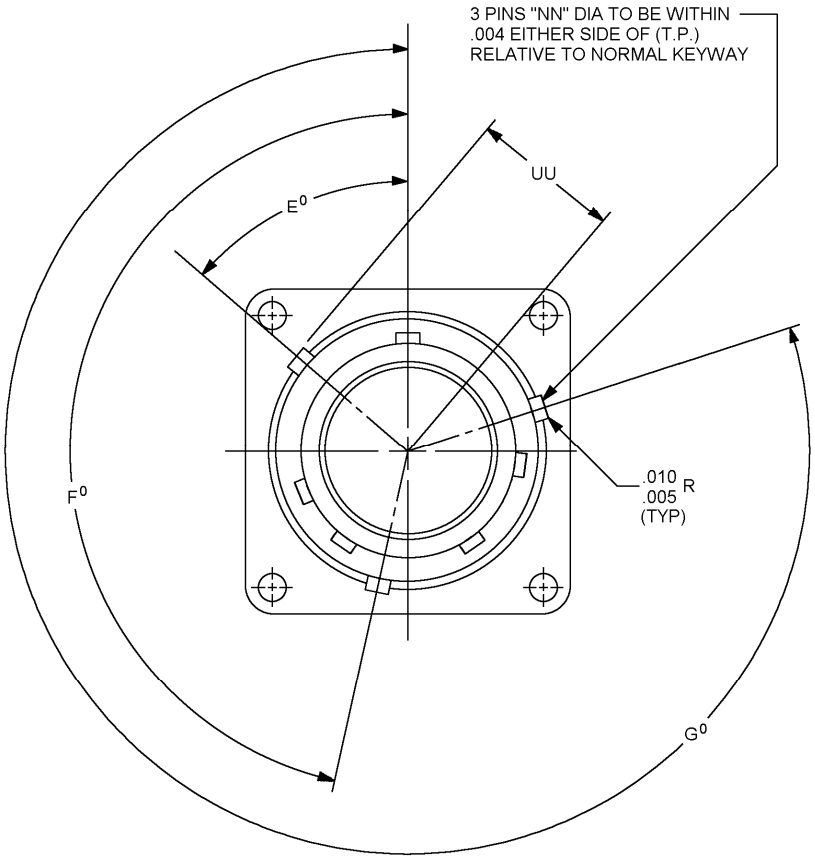


FIGURE 3. Receptacle, bayonet optional design - Continued.

Inches	mm
.004	.10
.005	.13
.010	.25
.155	3.94
.169	4.29
.368	9.35
.376	9.55
.378	9.6
.392	9.96
.540	13.72
.560	14.22

NOTES:

1. Dimensions in inches. Unless otherwise specified, tolerances on decimals is ± .005.
2. Metric equivalents are given for general information only.
3. 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.
4. All diameters to be concentric with each other within .015 T.I.R. All diameters in the Same plane to be concentric with each other within .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. Dimension 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 .133 may reduce to .118 minimum under pressures caused by molded cable assemblies or sharp cable bends.
8. Environment resistant (classes F and R) receptacles, type B aluminum shell material. Grounding environment resistant (class G) receptacles, types B-aluminum shell material. Environment resistant (class E) receptacles, types B-stainless steel shell material. This receptacle mates with plug MS24266 type B.
9. True position (T.P.) tolerances specified are for maximum material conditions (M.M.C.).

FIGURE 3. Receptacle, bayonet optional design - Continued.

Shell size	A UNEF-2A coupling	B dia	C dia + .005 (0.13) - .000 (0.00)	E max Insert dia	F UNEF-2A access
8	.5625-24 (14.27)	.508 (12.90)	.428 (10.87)	.318 (8.08)	.4375-28 (11.10)
10	.6875-24 (17.45)	.636 (16.15)	.530 (13.46)	.394 (10.01)	.5625-24 (14.27)
12	.875-20 (22.22)	.806 (20.47)	.700 (17.78)	.564 (14.33)	.750-20 (19.05)
14	.9375-20 (23.80)	.875 (22.22)	.769 (19.53)	.633 (16.08)	.8125-20 (20.62)
16	1.0625-18 (26.97)	1.002 (25.45)	.896 (22.76)	.760 (19.30)	.9375-20 (23.80)
18	1.1875-18 (30.15)	1.108 (28.62)	1.002 (25.45)	.866 (22.00)	1.0625-18 (26.97)
20	1.3125-18 (33.32)	1.233 (31.32)	1.127 (28.62)	.991 (25.17)	1.1875-18 (30.15)
22	1.4375-18 (36.50)	1.358 (34.49)	1.252 (31.80)	1.116 (28.35)	1.3125-18 (33.32)
24	1.5625-18 (39.67)	1.483 (37.67)	1.377 (34.98)	1.241 (31.52)	1.4375-18 (36.50)

FIGURE 4. Receptacle dimensions.

Shell size	F_1 -36NS-2A	F_1 pitch dia	FF max dia	G max dia
8	.4340 (11.024)	.4151/.4114 (10.544/10.450)	.437 (11.10)	.561 (14.25)
10	.5634 (14.310)	.5454/.5415 (13.853/13.754)	.562 (14.27)	.696 (17.68)
12	.7334 (18.628)	.7154/.7115 (18.171/18.072)	.750 (19.50)	.875 (22.22)
14	.8032 (20.401)	.7841/.7806 (19.961/19.827)	.812 (20.62)	.935 (23.75)
16	.9302 (23.627)	.9110/.9074 (23.134/23.048)	.938 (23.82)	1.062 (26.97)
18	1.0362 (26.319)	1.0171/1.0134 (25.834/25.740)	1.062 (26.97)	1.187 (30.15)
20	1.1611 (29.492)	1.1431/1.1385 (29.034/28.918)	1.182 (30.02)	1.312 (33.32)
22	1.2862 (32.669)	1.2670/1.2633 (32.182/32.088)	1.312 (33.32)	1.437 (36.50)
24	1.4111 (35.842)	1.3931/1.3885 (35.385/35.268)	1.432 (36.37)	1.562 (39.67)

FIGURE 4. Receptacle dimensions – Continued.

Shell size	H min dia front mounting hole	HH max grommet dia	J min dia back mounting hole	KK dia + .000 (0.00) - .005 (0.13)	L mounting hole	LL dia + .000 (0.00) - .009 (0.23)
8	.447 (11.35)	.328 (8.33)	.620 (15.75)	.536 (13.61)	.594 (15.09)	.125 (3.18)
10	.572 (14.53)	.420 (10.67)	.748 (19.00)	.659 (16.74)	.719 (18.26)	.125 (3.18)
12	.760 (19.30)	.580 (14.73)	.913 (23.19)	.829 (21.06)	.812 (20.62)	.125 (3.18)
14	.822 (20.88)	.664 (16.86)	.980 (24.90)	.898 (22.81)	.906 (23.01)	.125 (3.18)
16	.948 (24.08)	.769 (19.53)	1.107 (28.12)	1.025 (26.03)	.969 (24.61)	.125 (3.18)
18	1.072 (28.12)	.902 (22.91)	1.209 (30.71)	1.131 (28.73)	1.062 (26.97)	.125 (3.18)
20	1.192 (30.28)	1.033 (26.24)	1.337 (33.96)	1.256 (31.90)	1.156 (29.36)	.125 (3.18)
22	1.322 (33.58)	1.152 (29.26)	1.452 (36.89)	1.381 (35.08)	1.250 (31.75)	.125 (.318)
24	1.442 (36.63)	1.282 (32.56)	1.577 (40.055)	1.505 (38.25)	1.375 (34.925)	.154 (3.91)

FIGURE 4. Receptacle dimensions – Continued.

Shell size	M length side	N + .000 (0.00) - .004 (0.10)	NN + .000 (0.00) - .004 (0.10)	P + .000 (0.00) - .005 (0.13)	UU + .000 (0.00) + .009 (0.23)
8	.812 (20.62)	.101 (2.56)	.078 (1.93)	.076 (1.93)	.310 (7.87)
10	.937 (23.80)	.094 (2.39)	.093 (2.36)	.089 (2.26)	.374 (9.50)
12	1.031 (26.19)	.094 (2.39)	.093 (2.36)	.089 (2.26)	.459 (11.66)
14	1.125 (28.58)	.094 (2.39)	.093 (2.36)	.089 (2.26)	.494 (12.55)
16	1.250 (31.76)	.094 (2.39)	.093 (2.36)	.089 (2.26)	.557 (14.15)
18	1.343 (34.11)	.094 (2.39)	.093 (2.36)	.089 (2.26)	.610 (15.49)
20	1.437 (36.50)	.094 (2.39)	.093 (2.36)	.089 (2.26)	.673 (17.09)
22	1.562 (39.67)	.094 (2.39)	.093 (2.36)	.089 (2.26)	.735 (18.67)
24	1.703 (43.26)	.094 (2.39)	.093 (2.36)	.089 (2.26)	.798 (20.27)

Position	Shell size 8			Shell size 10			Shell sizes 12 thru 24		
	E °	F°	G°	E°	F°	G°	E°	F°	G°
Normal	60	180	300	60	180	300	50	170	290
6	46	166	286	46	166	286	50	170	290
7	46	166	286	46	166	286	50	170	290
8	60	180	300	60	180	300	50	170	290
9	89	209	329	89	209	329	50	170	290
Y	-	-	-	60	180	300	50	170	290

NOTES:
1. Dimensions are in inches.
2. Metric equivalent are given for information only.

FIGURE 4. Receptacle dimensions – Continued.

Weight chart		
Maximum connector weight in lbs		
Pin insert		
MS PIN	Less contacts	With contacts
MS24264R8T2PN	.023 (0.58)	.025 (0.64)
MS24264R10T2PN	.039 (0.99)	.041 (1.04)
MS24264R10T5PN	.038 (0.96)	.042 (1.07)
MS24264R10T20PN	.038 (0.96)	.042 (1.07)
MS24264R12T3PN	.053 (1.35)	.058 (1.47)
MS24264R12T12PN	.051 (1.30)	.061 (1.55)
MS24264R14T3PN	.057 (1.48)	.067 (1.70)
MS24264R14T4PN	.057 (1.48)	.072 (1.83)
MS24264R14T7PN	.057 (1.48)	.070 (1.78)
MS24264R14T12PN	.057 (1.48)	.070 (1.78)
MS24264R14T15PN	.057 (1.48)	.071 (1.80)
MS24264R16T10PN	.067 (1.70)	.085 (2.16)
MS24264R16T24PN	.067 (1.71)	.087 (2.21)
MS24264R18T8PN	.081 (2.06)	.110 (2.79)
MS24264R18T11PN	.079 (2.01)	.103 (2.62)
MS24264R18T14PN	.080 (2.03)	.105 (2.67)
MS24264R18T31PN	.079 (2.01)	.105 (2.67)
MS24264R20T16PN	.095 (2.41)	.123 (3.12)
MS24264R20T25PN	.092 (2.34)	.130 (3.30)
MS24264R20T28PN	.093 (2.36)	.128 (3.25)
MS24264R20T39PN	.093 (2.36)	.128 (3.25)
MS24264R20T41PN	.093 (2.36)	.127 (3.22)
MS24264R22T12PN	.106 (2.69)	.149 (3.78)
MS24264R22T19PN	.108 (2.74)	.142 (3.61)
MS24264R22T32PN	.109 (2.77)	.152 (3.86)
MS24264R22T55PN	.104 (2.64)	.151 (2.16)
MS24264R24T43PN	.126 (3.20)	.181 (4.60)
MS24264R24T57PN	.125 (3.18)	.178 (4.52)
MS24264R24T61PN	.123 (3.12)	.174 (4.42)

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

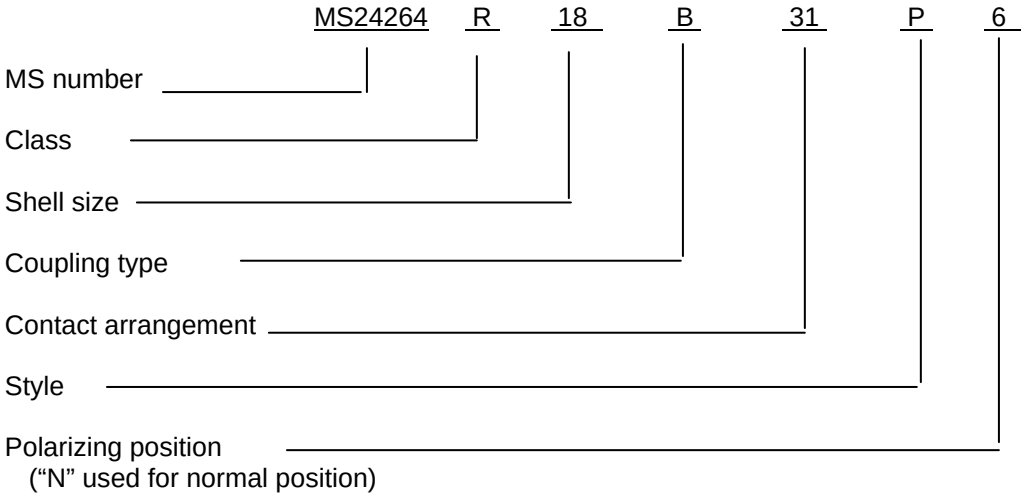
Weight chart		
Maximum connector weight in lbs		
Socket insert		
MS PIN	Less contacts	With contacts
MS24264R8T2SN	.024 (0.61)	.026 (0.66)
MS24264R10T2SN	.040 (1.02)	.042 (1.07)
MS24264R10T5SN	.039 (0.99)	.043 (1.09)
MS24264R10T20SN	.040 (1.02)	.044 (1.12)
MS24264R12T3SN	.055 (1.40)	.060 (1.52)
MS24264R12T12SN	.052 (1.32)	.062 (1.57)
MS24264R14T3SN	.063 (1.60)	.072 (1.83)
MS24264R14T4SN	.059 (1.50)	.074 (1.88)
MS24264R14T7SN	.059 (1.50)	.072 (1.83)
MS24264R14T12SN	.059 (1.50)	.072 (1.83)
MS24264R14T15SN	.059 (1.50)	.072 (1.83)
MS24264R16T10SN	.071 (1.80)	.089 (2.26)
MS24264R16T24SN	.070 (1.78)	.090 (2.29)
MS24264R18T8SN	.084 (2.13)	.112 (2.84)
MS24264R18T11SN	.081 (2.06)	.104 (2.64)
MS24264R18T14SN	.084 (2.13)	.109 (2.77)
MS24264R18T31SN	.083 (2.11)	.108 (2.74)
MS24264R20T16SN	.100 (2.54)	.128 (3.25)
MS24264R20T25SN	.097 (2.46)	.134 (3.40)
MS24264R20T28SN	.097 (2.46)	.131 (3.33)
MS24264R20T39SN	.097 (2.46)	.131 (3.33)
MS24264R20T41SN	.097 (2.46)	.131 (3.33)
MS24264R22T12SN	.111 (2.82)	.153 (3.89)
MS24264R22T19SN	.115 (2.92)	.148 (3.76)
MS24264R22T32SN	.116 (2.95)	.159 (4.04)
MS24264R22T55SN	.110 (2.79)	.155 (3.94)
MS24264R24T43SN	.134 (3.40)	.188 (4.78)
MS24264R24T57SN	.130 (3.30)	.182 (4.62)
MS24264R24T61SN	.128 (3.25)	.178 (4.52)

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

REQUIREMENTS

Insert arrangements and alternate insert keying positions shall be in accordance with MIL-STD-1554.
Dimensions and configurations: See figures 1 through 5.
Connector mating: This connector mates with MS24266 and MS27615.
Contacts: In accordance with SAE-AS39029 .
For accessories used with this connector, see MIL-DTL-26500.

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
MS24266
MS27615

MS24264R

CONCLUDING MATERIAL

Custodians:
Air Force – 85
DLA – CC

Review activity:
Air Force – 99

Preparing activity:
DLA – CC

(Project 5935–2009-099)

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.