INCH-POUND

MS24265P
6 February 2004
SUPERSEDING
MS24265N
7 September 1990

DETAIL SPECIFICATION SHEET

CONNECTORS, RECEPTACLE, ELECTRICAL, SINGLE HOLE MOUNT, 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.

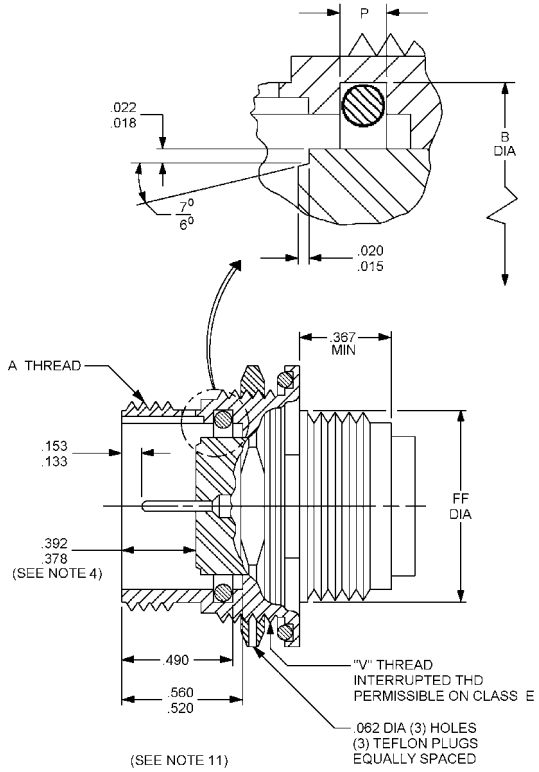
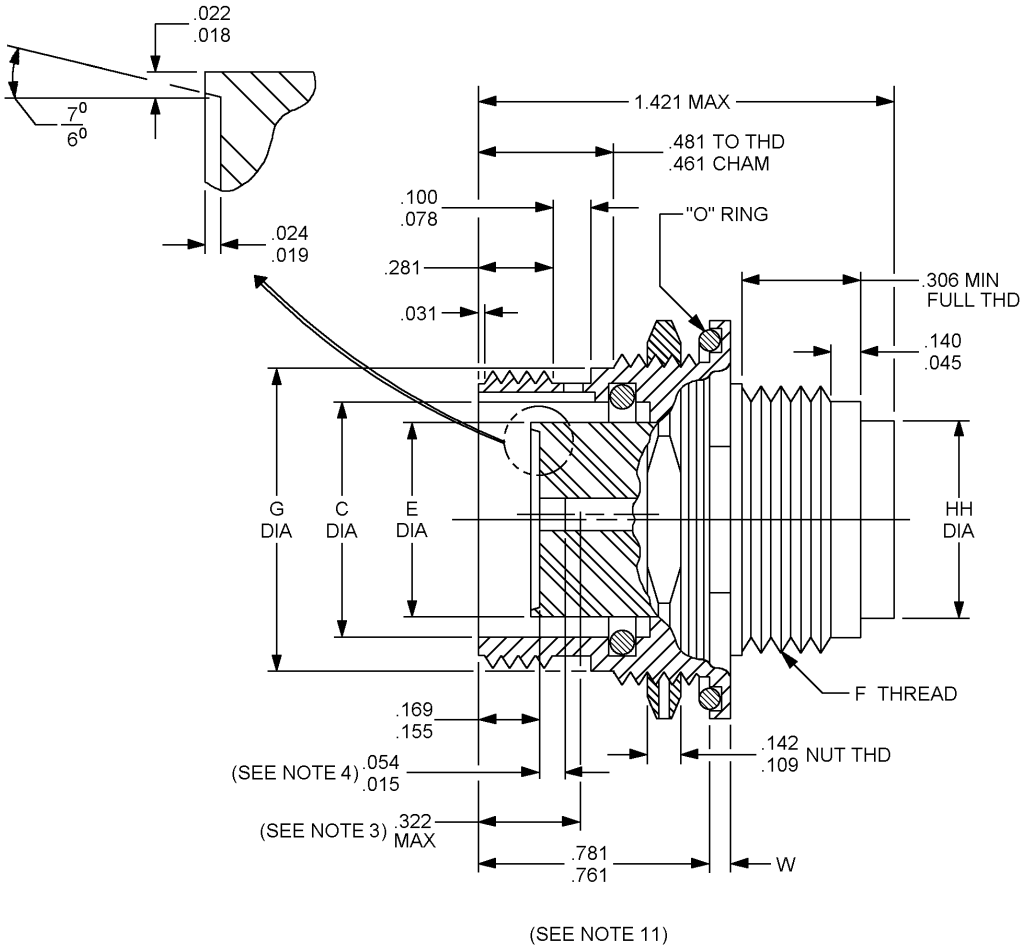


FIGURE 1. Receptacle threaded for classes F, G and R.



Style S
(socket insert)

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

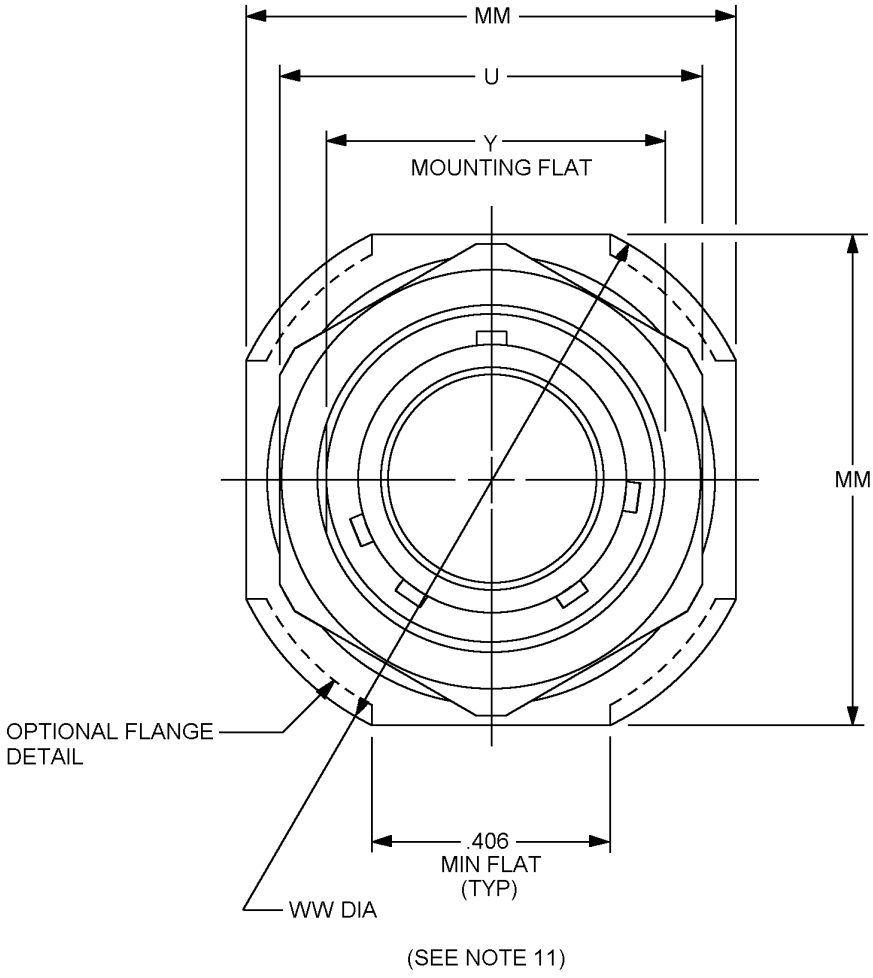


FIGURE 1. Receptacle threaded for classes F, G and R – Continued.

Inches	mm	Inches	mm
.015	0.38	.155	3.94
.018	0.46	.169	4.29
.019	0.48	.281	7.14
.020	0.51	.306	7.77
.022	0.56	.322	8.18
.024	0.61	.367	9.32
.031	0.79	.378	9.60
.045	1.14	.392	9.96
.054	1.37	.406	10.31
.062	1.57	.461	11.71
.078	1.98	.481	12.21
.100	2.54	.490	12.45
.109	2.77	.520	13.21
.133	3.38	.560	14.22
.140	3.56	.708	17.98
.142	3.60	.761	19.33
.153	3.89	.768	19.51
		1.421	36.09

NOTES:

1. Dimensions are in inches. Unless otherwise specified, tolerances 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 within .004 T.I.R.
5. True position (T.P.) tolerances specified are for maximum material conditions (M.M.C.)
6. 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.
7. Dimensions on pin and socket contact locations and end of shells to insert faces apply when contacts are placed in inserts for inspection or application.
8. Dimensions .133 may reduce to .118 minimum under pressure caused by molded cable assemblies or sharp cable bends. 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 .310 minimum and thread runout .385 maximum.
10. Thread relief groove is optional on shell. When groove is omitted, the length of full thread from rear of shell will be .221 minimum.
11. Environment resistant (class 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.

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

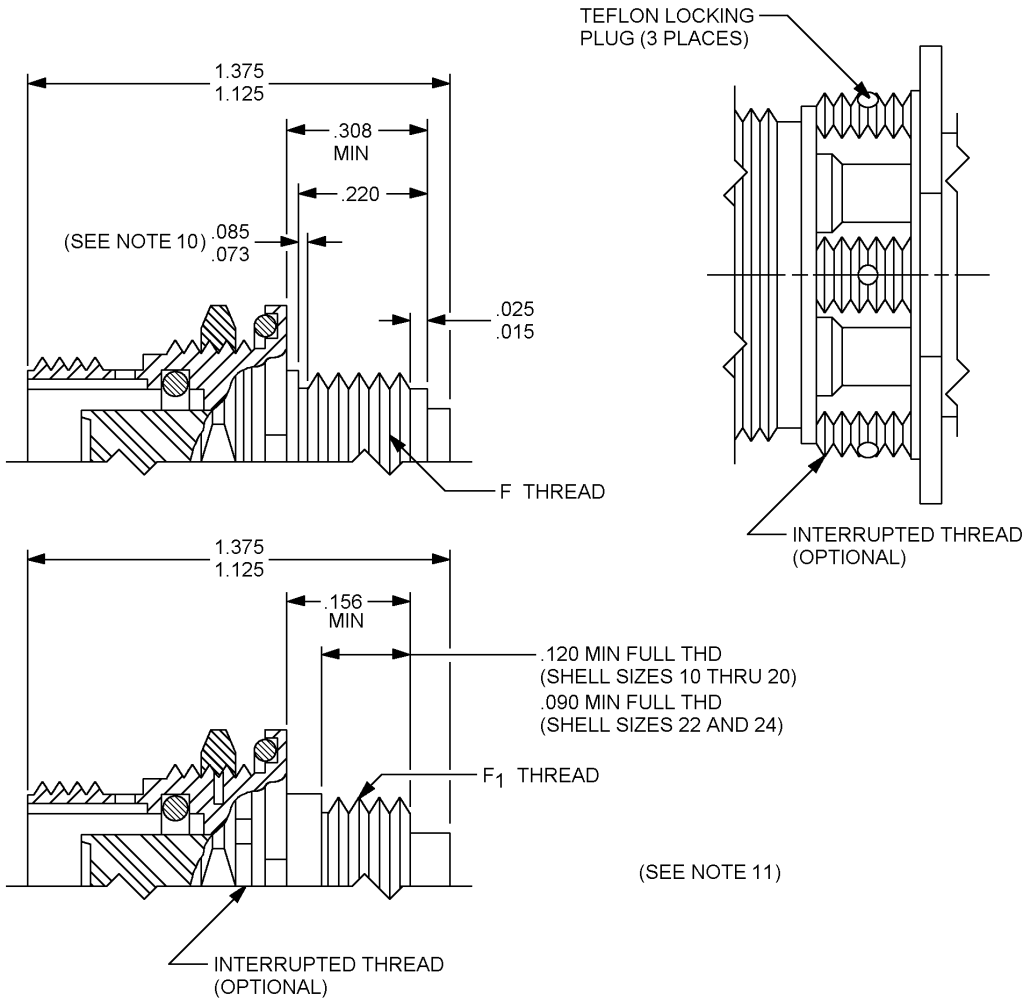


FIGURE 2. Receptacle, threaded, stainless steel shell design for class E.

Inches	mm
.015	.38
.025	.64
.073	1.85
.085	2.16
.090	2.29
.120	3.05
.156	3.96
.220	5.59
.308	7.82
.378	9.60
.392	9.96
1.125	28.58
1.375	34.92

NOTES:

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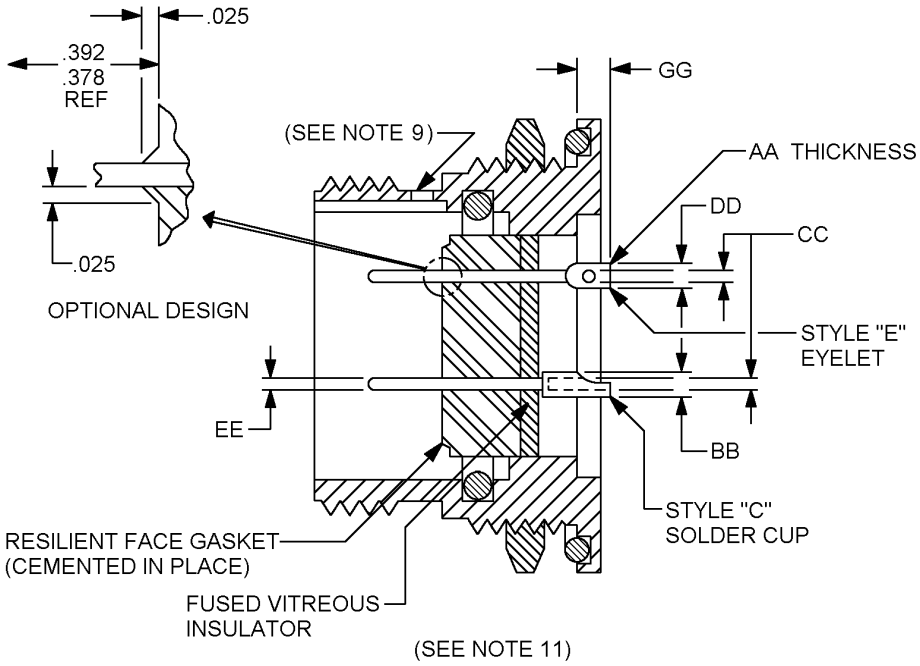
2. Metric equivalents are given for general information only.
3. All diameters to be concentric with each other within .015 T.I.R.
4. All diameters in the same plane to be concentric with each other within .004 T.I.R.
5. True position (T.P.) tolerances specified are for maximum material conditions (M.M.C.)
6. 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.
7. Dimensions on pin and socket contact locations and end of shells to insert faces apply when contacts are placed in inserts for inspection or application.
8. Dimensions .133 may reduce to .118 minimum under pressure caused by molded cable assemblies or sharp cable bends. 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 .310 minimum and thread runout .385 maximum.
10. Thread relief groove is optional on shell. When groove is omitted, the length of full thread from rear of shell will be .221 minimum.
11. Environment resistant (class 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.

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



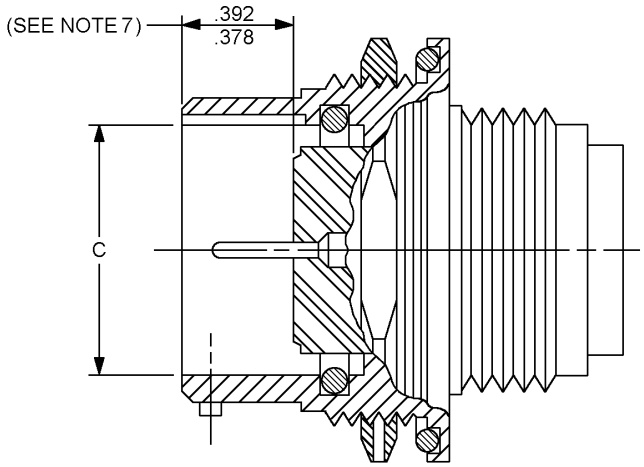
Inches	mm
.015	.38
.025	.64
.073	1.85
.085	2.16
.090	2.29
.120	3.05
.156	3.96
.220	5.59
.308	7.82
.378	9.60
.392	9.96
1.125	28.58
1.375	34.92

FIGURE 3. Receptacle, threaded, shell design for class H, (hermetic) type T.

NOTES:

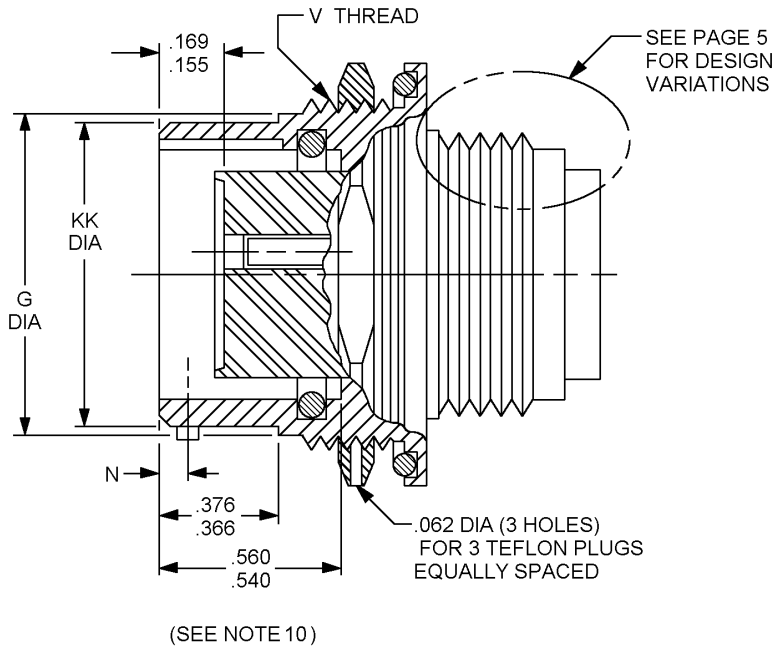
1. Dimensions are in inches. Unless otherwise specified, tolerances on decimals is ± .005.
2. Metric equivalents are given for general information only.
3. All diameters to be concentric with each other within .015 T.I.R.
4. All diameters in the same plane to be concentric with each other within .004 T.I.R.
5. True position (T.P.) tolerances specified are for maximum material conditions (M.M.C.)
6. 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.
7. Dimensions on pin and socket contact locations and end of shells to insert faces apply when contacts are placed in inserts for inspection or application.
8. Dimensions .133 dimensions may reduce to .118 minimum under pressure caused by molded cable assemblies or sharp cable bends. 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 .310 minimum and thread runout .385 maximum.
10. Thread relief groove is optional on shell. When groove is omitted, the length of full thread from rear of shell will be .221 minimum.
11. Environment resistant (class 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.

FIGURE 3. Receptacle, threaded, shell design for class H, (hermetic) type T – Continued.



Style P
(pin insert)

FIGURE 4. Receptacle, bayonet, socket insert.



Style S
(socket insert)

FIGURE 4. Receptacle, bayonet, socket insert – Continued.

Inches	mm
.004	.10
.005	.13
.010	.25
.025	.64
.062	1.57
.155	3.94
.169	4.29
.366	9.30
.376	9.55
.378	9.60
.392	9.96
.540	12.80
.560	14.22

NOTES:

1. Dimensions are in inches. Unless otherwise specified, tolerances on decimals is ± .005.
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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 within .004 T.I.R.
5. True position (T.P.) tolerances specified are for maximum material conditions (M.M.C.)
6. 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.
7. Dimensions on pin and socket contact locations and end of shells to insert faces apply when contacts are placed in inserts for inspection or application.
8. Dimensions .133 may reduce to .118 minimum under pressure caused by molded cable assemblies or sharp cable bends. 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 .310 minimum and thread runout .385 maximum.
10. Environment resistant (class F and R) receptacles, type B aluminum shell material. Grounding environment resistant (class G) receptacles, type B aluminum shell material. Environment resistant (class E) receptacles, type B stainless steel shell material.

FIGURE 4. Receptacle, bayonet, socket insert – Continued.

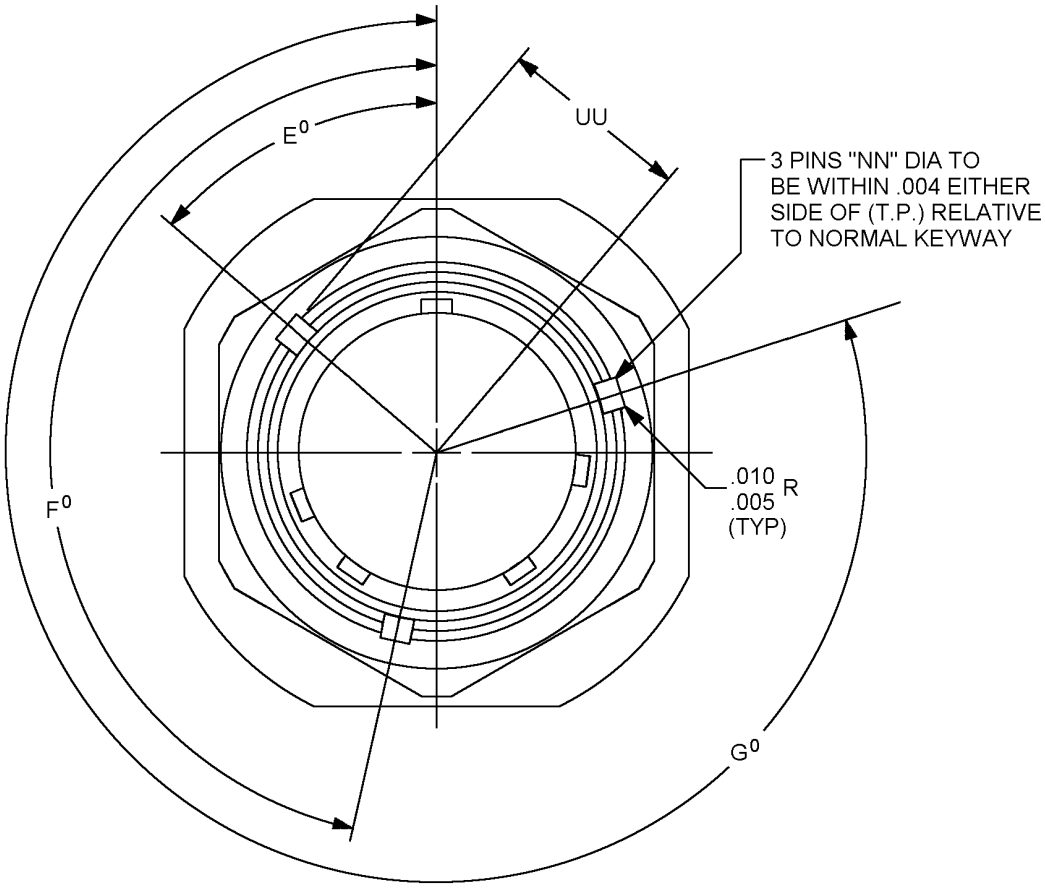
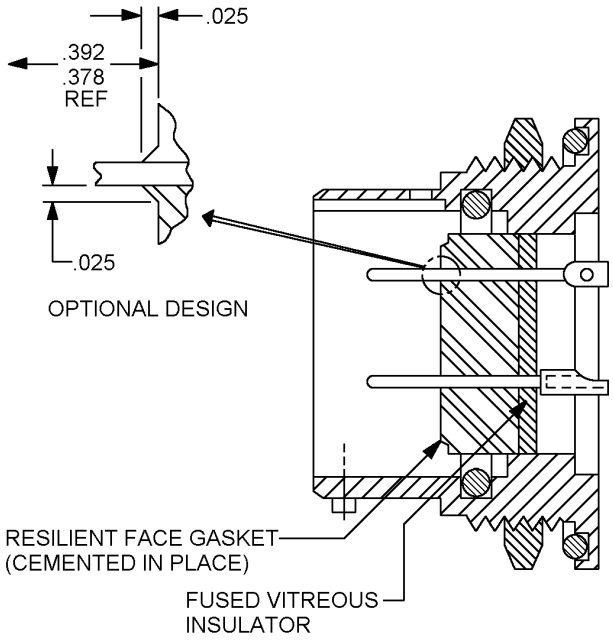


FIGURE 5. Receptacle, threaded, hermetic (class H).



Inches	mm
.004	.10
.005	.13
.010	.25
.025	.64
.062	1.57
.155	3.94
.169	4.29
.366	9.30
.376	9.55
.378	9.60
.392	9.96
.540	12.80
.560	14.22

STYLE P (PIN INSERT)

HERMETIC (CLASS "H") RECEPTACLES, TYPE "B"
THIS RECEPTACLE MATES WITH MS24266, TYPE "B"

NOTES:

1. Dimensions are in inches. Unless otherwise specified, tolerances 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 within .004 T.I.R.
5. True position (T.P.) tolerances specified are for maximum material conditions (M.M.C.)
6. 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.
7. Dimensions on pin and socket contact locations and end of shells to insert faces apply when contacts are placed in inserts for inspection or application.
8. Dimensions .133 may reduce to .118 minimum under pressure caused by molded cable assemblies or sharp cable bends. 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 .310 minimum and thread runout .385 maximum.

FIGURE 5. Receptacle, threaded, hermetic (class H) - 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	.562-24 (14.27)	.508 (12.90)	.428 (10.87)	.312 (7.92)	.437-28 (11.10)
10	.687-24 (17.45)	.636 (16.15)	.530 (13.46)	.388 (9.86)	.562-24 (14.27)
12	.875.20 (22.22)	.806 (20.47)	.700 (17.78)	.558 (14.17)	.750-20 (19.05)
14	.937-20 (23.80)	.875 (22.22)	.769 (19.53)	.627 (15.92)	.812-20 (20.62)
16	1.062-18 (26.97)	1.002 (25.45)	.896 (22.76)	.754 (19.15)	937-20 (23.80)
18	1.187-18 (30.15)	1.108 (28.62)	1.002 (25.45)	.860 (21.84)	1.062-18 (26.97)
20	1.312-18 (33.32)	1.233 (31.32)	1.127 (28.62)	.985 (25.02)	1.187-18 (30.15)
22	1.437-18 (36.50)	1.358 (34.49)	1.252 (31.80)	1.110 (28.19)	1.312-18 (33.32)
24	1.562-18 (39.67)	1.483 (37.67)	1.377 (34.98)	1.235 (31.37)	1.437-18 (36.50)

FIGURE 6. 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 (19.916/19.827)	.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 6. Receptacle dimensions – Continued.

Shell size	HH max grommet dia	KK dia + .000 (0.00) - .005 (0.13)	MM	N dia + .000 (0.00) - .004 (0.10)	NN dia + .000 (0.00) - .003 (0.07)	P dia + .000 (0.00) - .005 (0.13)
8	.328 (8.33)	.536 (14.30)	.979 (24.97)	.101 (2.56)	.078 (1.98)	.076 (1.93)
10	.420 (10.67)	.659 (16.74)	1.104 (28.04)	.094 (2.39)	.093 (2.36)	.089 (2.26)
12	.580 (14.73)	.829 (21.06)	1.291 (32.79)			
14	.664 (16.86)	.898 (22.81)	1.391 (35.33)			
16	.769 (19.53)	1.025 (26.34)	1.516 (38.51)			
18	.920 (23.37)	1.131 (28.73)	1.641 (41.68)			
20	1.033 (26.24)	1.256 (31.90)	1.766 (44.86)			
22	1.152 (29.26)	1.381 (35.08)	1.954 (49.63)			
24	1.282 (32.56)	1.506 (38.25)	2.079 (52.81)			

Shell size	S	U max hex	UU + .000 (0.00) - .009 (0.22)	V UNEF-2A
8	.605 (15.37)	.828 (21.03)	.310 (7.87)	.625-20-UN-2A (15.88)
10	.730 (18.64)	.953 (24.21)	.374 (9.50)	.750-20 (19.05)
12	.917 (23.29)	1.140 (28.46)	.459 (11.66)	.937-20 (23.80)
14	.980 (24.89)	1.250(31.75)	.494 (12.55)	1.000-20 (25.40)
16	1.105 (28.07)	1.329 (33.76)	.557 (14.15)	1.125-20-UN-2A (28.58)
18	1.225 (31.12)	1.455 (36.96)	.610 (15.49)	1.250-20-UN-2A (31.75)
20	1.350 (34.29)	1.642 (41.71)	.673 (17.09)	1.375-18- (34.92)
22	1.475 (37.46)	1.705 (43.31)	.735 (18.67)	1.500-20-UN-2A (38.10)
24	1.600 (40.64)	1.892 (48.06)	.798 (20.27)	1.625-18 (41.28)

FIGURE 6. Receptacle dimensions – Continued.

Shell size	W ± .020 (.51)	WW dia max	Y ± .003 (.08)	Z dia
8	.117 (2.97)	1.068 (27.13)	.593 (15.06)	.635 (16.13)
10		1.192 (30.28)	.718 (18.24)	.760 (19.30)
12		1.380 (35.05)	.905 (22.99)	.947 (24.05)
14		1.505 (38.23)	.968 (24.59)	1.010 (25.65)
16		1.630 (41.40)	1.093 (27.76)	1.135 (28.83)
18		1.740 (44.20)	1.217 (30.91)	1.260 (32.00)
20		1.860 (47.24)	1.342 (34.09)	1.385 (35.18)
22	.148 (3.76)	2.040 (51.82)	1.467 (37.26)	1.510 (38.35)
24		2.160 (54.86)	1.592 (40.44)	1.635 (41.53)

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

FIGURE 6. Receptacle dimensions – Continued.

Size of contact	Type of contact	AA	BB	CC dia min	DD	EE dia	GG max
12	Solder Cup		.150 (3.81)	.112 (2.84)		.095/ .093 (2.41) (2.36)	.235 (5.97)
12	Eyelet	.035 (0.89)			.200 (5.08)		
16	Solder Cup		.103 (2.61)	.069 (1.75)		.063/ .061 (1.60) (1.55)	
16	Eyelet	.025 (0.64)			.125 (3.18)		
20	Solder Cup		.077 (1.96)	.042 (1.07)		.041/ .039 (1.04) (0.99)	.165 (4.19)
20	Eyelet	.015 (0.38)			.080 (2.03)		

NOTES:
1. Dimensions are in inches.
2. Millimeters are in parentheses.
3. Metric equivalents are given for general information only.
4. All diameters to be concentric with each other within .015 T.I.R.
5. All diameters in the same plane to be concentric with each other within .004 T.I.R.
6. True position (T.P.) tolerances specified are for maximum material conditions (M.M.C.)
7. 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.
8. Dimensions on pin and socket contact locations and end of shells to insert faces apply when contacts are placed in inserts for inspection or application.
9. Dimensions .133 may reduce to .118 minimum under pressure caused by molded cable assemblies or sharp cable bends. 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.

FIGURE 6. Receptacle dimensions – Continued.

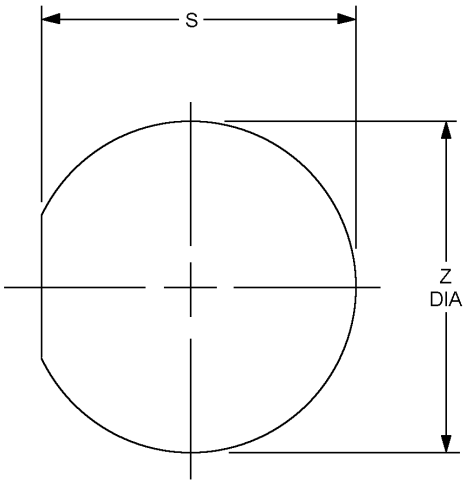


FIGURE 7. Panel cut-out.

Weight chart		
Maximum connector weight in pounds		
Pin insert		
MS PIN.	Less contacts	With contacts
MS24265R8T2PN	.027 (0.68)	.029 (0.74)
MS24265R10T2PN	.045 (1.14)	.047 (1.19)
MS24265R10T5PN	.044 (1.12)	.048 (1.22)
MS24265R10T20PN	.045 (1.14)	.049 (1.24)
MS24265R12T3PN	.061 (1.55)	.066 (1.68)
MS24265R12T12PN	.059 (1.50)	.069 (1.75)
MS24265R14T3PN	.073 (1.85)	.083 (2.11)
MS24265R14T4PN	.073 (1.85)	.087 (2.21)
MS24265R14T7PN	.073 (1.85)	.086 (2.16)
MS24265R14T12PN	.073 (1.85)	.086 (2.18)
MS24265R14T15PN	.073 (1.85)	.086 (2.18)
MS24265R16T10PN	.084 (2.13)	.102 (2.59)
MS24265R16T24PN	.084 (2.13)	.104 (2.64)
MS24265R16T8PN	.102 (2.59)	.131 (3.33)
MS24265R18T11PN	.101 (2.56)	.125 (3.18)
MS24265R18T14PN	.101 (2.56)	.127 (3.22)
MS24265R18T31PN	.100 (2.54)	.127 (3.22)
MS24265R20T16PN	.116 (2.95)	.144 (3.66)
MS24265R20T25PN	.114 (2.90	.152 (3.86)
MS24265R20T28PN	.115 (2.92)	.150 (3.81)
MS24265R20T39PN	.115 (2.92)	.150 (3.81)
MS24265R20T41PN	.115 (2.92)	.149 (3.78)
MS24265R22T12PN	.134 (3.40)	.177 (4.50)
MS24265R22T19PN	.137 (3.50)	.172 (4.37)
MS24265R22T32PN	.138 (3.50)	.181 (4.60)
MS24265R22T55PN	.133 (3.38)	.180 (4.57)
MS24265R24T43PN	.153 (3.89)	.208 (5.28)
MS24265R24T57PN	.152 (3.86)	.205 (5.21)
MS24265R24T61PN	.150 (3.81)	.201 (5.10)

FIGURE 8. Weights for threaded connectors, classes F, G and R.

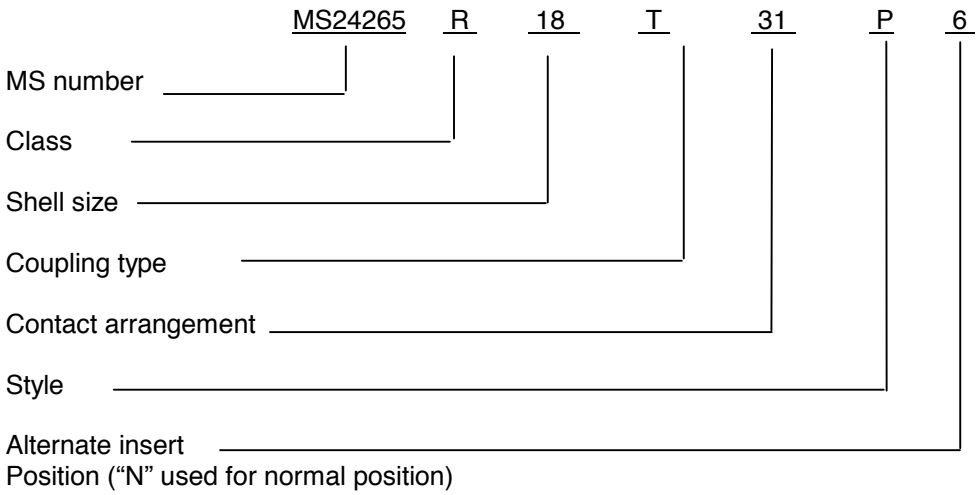
Weight chart		
Maximum connector weight in pounds		
Socket insert		
MS PIN	Less contacts	With contacts
MS24265R8T2SN	.028 (0.71)	.030 (0.76)
MS24265R10T2SN	.046 (1.17)	.048 (1.22)
MS24255R10T5SN	.046 (1.17)	.049 (1.24)
MS24265R10T20SN	.046 (1.17)	.050 (1.27)
MS24265R12T3SN	.063 (1.60)	.060 (1.73)
MS24265R12T12SN	.060 (1.52)	.070 (1.78)
MS24265R14T32SN	.079 (2.01)	.088 (2.24)
MS24265R14TRSN	.075 (1.90)	.089 (2.26)
MS24265R14T7SN	.075 (1.90)	.087 (2.21)
MS24265R14T12SN	.075 (1.90)	.088 (2.24)
MS24265R14T15SN	.075 (1.90)	.087 (2.21)
MS24265R16T10SN	.086 (2.18)	.104 (2.64)
MS24265R16T24SN	.086 (2.18)	.106 (2.69)
MS24265R18T8SN	.105 (2.67)	.133 (3.38)
MS24265R18T11SN	.104 (2.64)	.127 (3.22)
MS24265R18T14SN	.106 (2.67)	.131 (3.33)
MS24265R18T31SN	.104 (2.64)	.130 (3.30)
MS24265R20T16SN	.122 (3.10)	.150 (3.81)
MS24265R20T25SN	.120 (3.05)	.157 (3.99)
MS24265R20T28SN	.120 (3.05)	.154 (3.91)
MS24265R20T39SN	.120 (3.05)	.154 (3.91)
MS24265R20T41SN	.120 (3.05)	.154 (3.91)
MS24265R22T12SN	.141 (3.58)	.183 (4.65)
MS24265R22T19SN	.144 (3.66)	.178 (4.52)
MS24265R22T32SN	.144 (3.66)	.187 (4.75)
MS24265R22T55SN	.139 (3.93)	.185 (4.70)
MS24265R24T43SN	.158 (4.01)	.212 (5.38)
MS24265R24T57SN	.157 (3.99)	.209 (5.31)
MS24265R24T61SN	.155 (3.94)	.205 (5.21)

FIGURE 8. Weights for threaded connectors, classes F, G and R – Continued.

REQUIREMENTS

Dimensions and configurations: See figures 1 through 8.
Connector mating: This connector mates with MS24266 and MS27615, type B.
Insert arrangement: See MIL-STD-1554.
Contacts: Shall be in accordance with MIL-C-39029.
For accessories used on 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:

MIL-C-39029
MIL-DTL-26500
MIL-I-81969/17
MIL-I-81969/19
MIL-STD-1554
MS24266
MS27615

CONCLUDING MATERIAL

Custodians:
Air Force–11
DLA–CC

Review activity:
Air Force–99

Preparing activity:
DLA–CC

(Project 5935–4419–009)

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.