

MIL-DTL-3922/67E
w/ Amendment 1
27 May 2014
SUPERSEDING
MIL-DTL-3922/67E
17 September 2013

FLANGES, WAVEGUIDE (CONTACT)
(ROUND, 4 HOLE) (MILLIMETER)

The requirements for acquiring the flanges described herein shall consist of this specification sheet and MIL-DTL-3922.

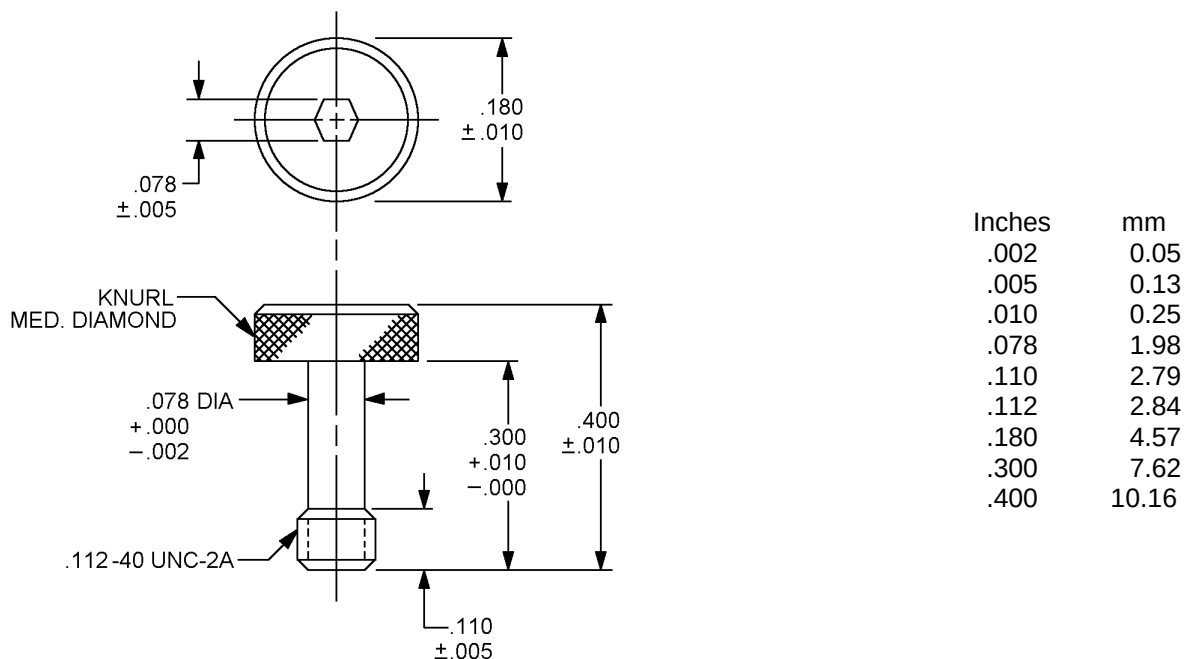


- FIGURE 1. Flange.

TABLE I. Flange dimensions.

PIN M3922/67-			PIN M3922/67-			Dimensions <u>1/</u>								
Dash no. <u>2/</u>	Used with		Dash no. <u>3/</u>	Used with		A +.002 (+ 0.05) -.000	B +.002 (+ 0.05) -.000	C + 0.00 -.002 (- 0.05)	D ± .005 (± 0.13)	E ± .005 (± 0.13)	F BSC	G ± .005 (±0.13)	H ± .005 (±0.13)	J9
	Waveguide	Mating flange		Waveguide	Mating flange									
001	M85/3-010 (RG-97/U), 011, 012 (RG-272/U)	M3922/67-001	---	---	---	.309 (7.85)	.197 (5.00)	1.125 (28.58)	.406 (10.31)	.406 (10.31)	.9375 (23.812)	.268 (6.81)	.042 (1.07)	.156 (3.96) ±.005 (0.13)
002	M85/3-017(RG-98/U), 018, 019 (RG-273/U)	M3922/67-002	---	---	---	.233 (5.92)	.159 (4.04)	.750 (19.05)	.328 (8.33)	.328 (8.33)	.5625 (14.288)	.268 (6.81)	.030 (0.76)	.156 (3.96) ±.005 (0.13)
003	M85/3-020(RG-99/U), 021, 022 (RG-274/U)	M3922/67-003	---	---	---	.207 (5.26)	.146 (3.71)	.750 (19.05)	.296 (7.52)	.296 (7.52)	.5625 (14.288)	.268 (6.81)	.030 (0.76)	.156 (3.96) ±.005 (0.13)
004	M85/1-100,102(RG-53/U), 106 (RG-66/U)	M3922/67-004	011	M85/1-103 (RG-121/U), 104	M3922/ 67-011	.502 (12.75)	.252 (6.40)	1.125 (28.58)	.625 (15.88)	.625 (15.88)	.9375 (23.812)	.250 (6.35)	.032 (0.81)	.160 (4.06) +.005 (.13) -.002 (.05)
005	M85/3-006(RG-96/U), 007, 008 (RG-271/U)	M3922/67-005	012	M85/3-009	M3922/ 67-012	.362 (9.19)	.222 (5.64)	1.125 (28.58)	.500 (12.70)	.468 (11.89)	.9375 (23.812)	.250 (6.35)	.032 (0.81)	.160 (4.06) +.005 (.13) -.002 (.05)
006	M85/3-010(RG-97/U), 011, 012 (RG-272/U)	M3922/67-006	013	M85/3-013	M3922/ 67-013	.306 (7.77)	.194 (4.93)	1.125 (28.58)	.500 (12.70)	.468 (11.89)	.9375 (23.812)	.250 (6.35)	.032 (0.81)	.160 (4.06) +.005 (.13) -.002 (.05)
007	M85/3-014, 015, 016 (RG-358/U)	M3922/67-007	---	---	---	.270 (6.86)	.176 (4.47)	1.125 (28.58)	.500 (12.70)	.468 (11.89)	.9375 (23.812)	.250 (6.35)	.032 (0.81)	.160 (4.06) +.005 (.13) -.002 (.05)
008	M85/3-017 (RG-98/U), 018, 019 (RG-273/U)	M3922/67-008	---	---	---	.230 (5.84)	.156 (3.96)	.750 (19.05)	.375 (9.53)	.312 (7.92)	.5625 (14.288)	.250 (6.35)	.032 (0.81)	.160 (4.06) +.005 (.13) -.002 (.05)
009	M85/3-020 (RG-99/U), 021, 022 (RG-274/U)	M3922/67-009	---	---	---	.204 (5.18)	.143 (3.63)	.750 (19.05)	.375 (9.53)	.312 (7.92)	.5625 (14.288)	.250 (6.35)	.032 (0.81)	.160 (4.06) +.005 (.13) -.002 (.05)
010	M85/3-023, 024, 025 (RG-359/U)	M3922/67-010	---	---	---	.182 (4.62)	.132 (3.35))	.750 (19.05)	.375 (9.53)	.312 (7.92)	.5625 (14.288)	.250 (6.35)	.032 (0.81)	.160 (4.06) +.005 (.13) -.002 (.05)

1/ Metric equivalents are in parentheses.2/ Material shall be copper alloy.3/ Material shall be aluminum alloy.



NOTES:

1. Dimensions are in inches.
2. Metric equivalents are for general information only (1.00 inch = 25.4 mm).

FIGURE 2. Socket-head cap screw.

REQUIREMENTS:

Dimensions and configuration: See figure 1 and table I.

Material:

Flange: See table I.

Cap screw: Corrosion resistant steel in accordance with SAE-AMS-QQ-S-763, type 302 or 304.

Marking: See figure 1.

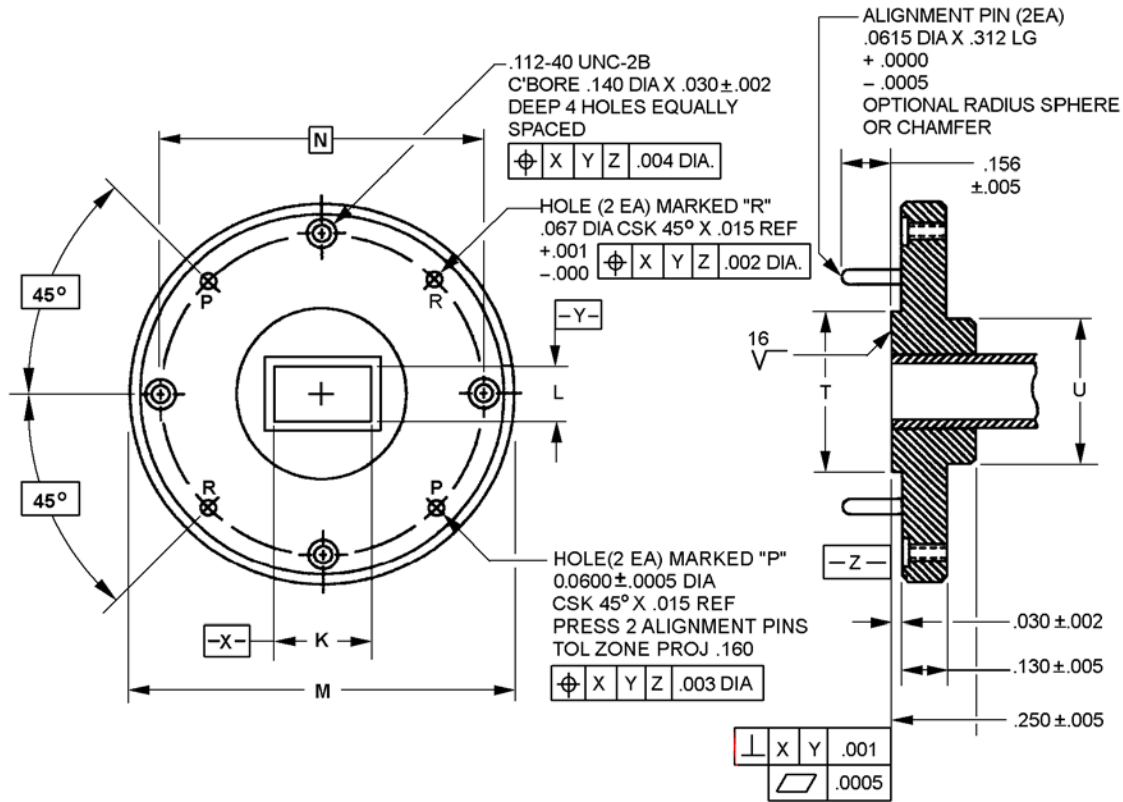
Part or Identifying Number (PIN): M3922/67-(dash number from table I).

Material supplied with flange: Four socket-head cap screws as specified in figure 2.

ENGINEERING INFORMATION:

Finished flange and waveguide assembly (dash numbers 004 through 013 only): See figure 3 and table II.

Cross reference and supersession data, frequency range, and return loss data: See table III.



Inches	mm	Inches	mm	Inches	mm
.0005	0.013	.015	0.38	.130	3.30
.001	0.03	.030	0.76	.140	3.56
.002	0.05	.0600	1.524	.156	3.96
.003	0.08	.0615	1.562	.160	4.06
.004	0.10	.067	1.70	.250	6.35
.005	0.13	.112	2.84	.312	7.92

NOTES:

1. Dimensions are in inches.
2. Metric equivalents are given for general information only based upon 1.00 inch = 25.4 mm.
3. See table II for lettered dimensions.

FIGURE 3. Finished flange and waveguide assembly.

TABLE II. Finished flange and waveguide assembly dimensions (004 through 013 only).

PIN M3922/67-	Dimensions <u>1/</u>					
	K ±.0015 (0.038)	L ±.0015 (0.038)	M +.000 -.002 -0.05	N BSC	T ±.005 (0.13)	U ±.005 (0.13)
004, 011	.4200 (10.668)	.1700 (4.318)	1.125 (28.58)	.9375 (23.812)	.625 (15.88)	.625 (15.88)
005, 012	.2800 (7.112)	.1400 (3.556)	1.125 (28.58)	.9375 (23.812)	.500 (12.70)	.468 (11.89)
006, 013	.2240 (5.690)	.1120 (2.845)	1.125 (28.58)	.9375 (23.812)	.500 (12.70)	.468 (11.89)
007	.1880 (4.775)	.0940 (2.388)	1.125 (28.58)	.9375 (23.812)	.500 (12.70)	.468 (11.89)
008	.1480 (3.759)	.0740 (1.880)	.750 (19.05)	.5625 (14.288)	.375 (9.53)	.312 (7.92)
009	.1220 (3.099)	.0610 (1.549)	.750 (19.05)	.5625 (14.288)	.375 (9.53)	.312 (7.92)
010	.1000 (2.540)	.0500 (1.270)	.750 (19.05)	.5625 (14.288)	.375 (9.53)	.312 (7.92)

1/ Metric equivalents are in parentheses.TABLE III. Suggested frequency range, cross reference, supersession data, and return loss data.

PIN M3922/67-	AN nomenclature	Frequency range	Worst case return loss (dB)	
			Lowest frequency	Highest frequency
		<u>GHz</u>		
001	UG-383/U	33.0 - 50.0	-29.6	-36.3
002	UG-385/U	50.0 - 75.0	-22.4	-28.9
003	UG-387/U	60.0 - 90.0	-18.8	-25.4
004	---	18.0 - 26.5	-55.1	-61.2
005	---	26.5 - 40.0	-48.7	-54.2
006 <u>1/</u>	---	33.0 - 50.0	-43.7	-50.3
007 <u>2/</u>	---	40.0 - 60.0	-41.4	-47.4
008	---	50.0 - 75.0	-36.5	-43.0
009	---	60.0 - 90.0	-32.9	-39.5
010	---	75.0 - 110.0	-30.1	-36.1
011	---	18.0 - 26.5	-55.1	-61.2
012	---	26.5 - 40.0	-48.7	-54.2
013	---	33.0 - 50.0	-43.7	-50.3

1/ Supersedes M3922/65-001.2/ Supersedes M3922/65-002.

Referenced documents: In addition to MIL-DTL-3922, this specification sheet also references:
SAE-AMS-QQ-S-763

Amendment notations. The margins of this specification are marked with vertical lines to indicate modifications generated by this amendment. This was done as a convenience only and the Government assumes no liability whatsoever for any inaccuracies in these notations. Bidders and contractors are cautioned to evaluate the requirements of this document based on the entire content irrespective of the marginal notations.

Custodians:

Army - CR
Navy - EC
Air Force - 85
DLA - CC

Preparing activity:

DLA - CC

(Project 5985-2014-026)

Review activities:

Army - AR, CR4, MI
Navy - AS, CG, MC, OS
Air Force - 19, 99

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