

REV.
A

SAE AS85049/24

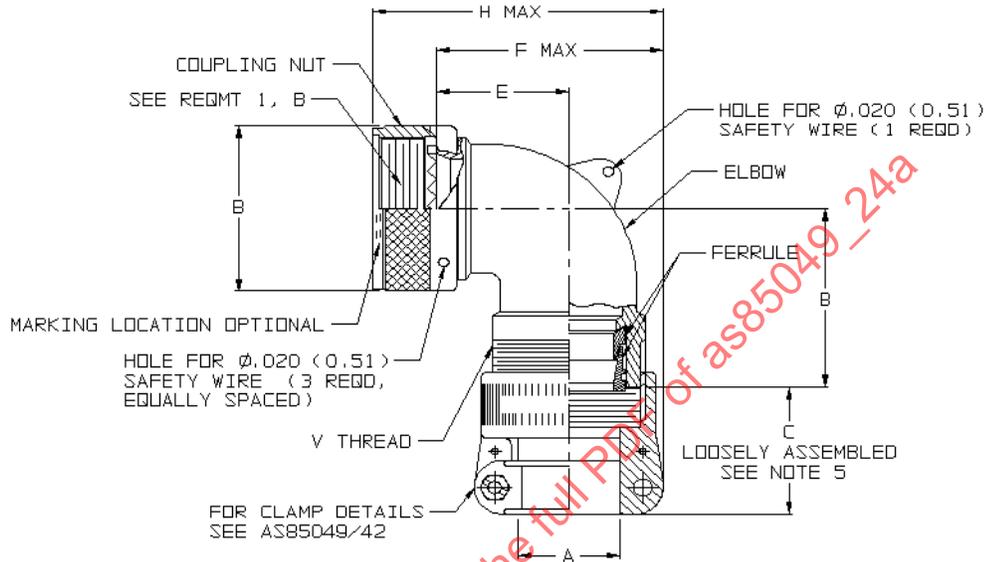
FEDERAL SUPPLY CLASS
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RATIONALE

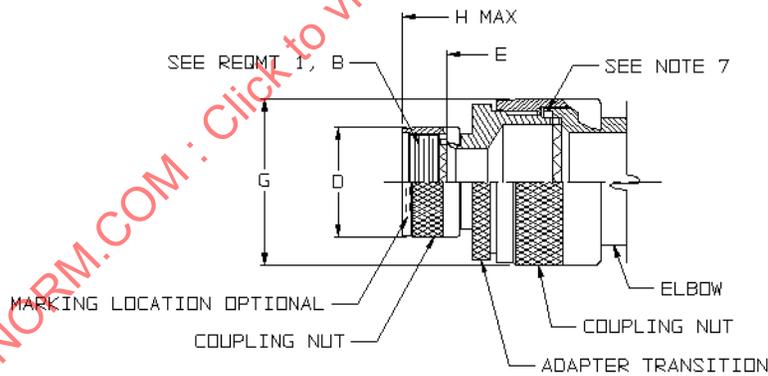
REVISED TO INCLUDE COMMENTS RECEIVED BY THE GOVERNMENT / INDUSTRY AND INCORPORATED THE AS85049/24-A1 AMENDMENT. ALIGN SPECIFICATION WITH SAE GUIDELINES AND REVIEWED SPECIFICATION FOR KNOWN TECHNICAL ISSUES.

NOTICE

THE REQUIREMENTS FOR PROCURING THE PRODUCT DESCRIBED HEREIN SHALL CONSIST OF THIS SPECIFICATION SHEET AND THE LATEST ISSUE OF SAE AS85049.



STYLE 1

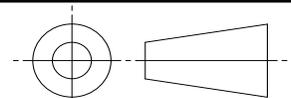


STYLE 2

FIGURE 1 – CONFIGURATION AND DIMENSIONS

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THIRD ANGLE PROJECTION



CUSTODIAN: AE-8C1

PROCUREMENT SPECIFICATION: AS85049

SAE Aerospace
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AEROSPACE STANDARD

(R) CONNECTOR ACCESSORIES, ELECTRICAL, BACKSHELL, NONENVIRONMENTAL, 90°, SHIELD TERMINATION, CATEGORY 3A (FOR AS50151 CRIMP, MIL-DTL-26482 SERIES 2, AS81703 SERIES 3, AND MIL-DTL-83723 SERIES III CONNECTORS)

SAE AS85049/24
SHEET 1 OF 8

REV. A

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ISSUED 1998-08 REAFFIRMED 2004-11 REVISED 2011-02

TABLE 1 – DIMENSIONS

DASH NO.	FITS SHELL OF CONNECTOR				CLAMP SIZE	A WIRE BUNDLE ACCOMMODATION RANGE (SEE NOTE 6)		STYLE	B DIM. ± .125 (± 3.2)	C DIM. (REF.)	D DIA. MAX.
	AS81703 SERIES 3	MIL-DTL-26482 SERIES 2	AS50151 CRIMP	MIL-DTL-83723 SERIES III		MIN	MAX				
1	3	X	X	X	4	.125 (3.2)	.250 (6.4)	1	1.800 (45.7)	1.027 (26.1)	.669 (17.0)
2					6	.250 (6.4)	.437 (11.1)	2	1.320 (33.5)	1.027 (26.1)	.669 (17.0)
3	X	8	8S	8	4	.125 (3.2)	.250 (6.4)	1	1.200 (30.5)	1.027 (26.1)	.617 (15.7)
4		10	10S, 10SL	10	4	.125 (3.2)	.312 (7.9)	1	1.920 (48.8)	1.027 (26.1)	.734 (18.6)
5					6	.250 (6.4)	.375 (9.5)	1	1.320 (33.5)	1.027 (26.1)	.734 (18.6)
6	7	12	12, 12S	12	4	.125 (3.2)	.312 (7.9)	1	1.940 (49.3)	1.027 (26.1)	.858 (21.8)
7					6	.250 (6.4)	.437 (11.1)	1	1.940 (49.3)	1.027 (26.1)	.858 (21.8)
8					10	.350 (8.9)	.500 (12.7)	1	1.335 (33.9)	1.027 (26.1)	.858 (21.8)
9	12	14	14, 14S	14	6	.250 (6.4)	.437 (11.1)	1	2.010 (51.1)	1.027 (26.1)	.984 (25.0)
10					10	.350 (8.9)	.575 (14.6)	1	1.655 (42.0)	1.027 (26.1)	.984 (25.0)
11	19	16	16, 16S	16	6	.250 (6.4)	.437 (11.1)	1	2.100 (53.3)	1.027 (26.1)	1.112 (28.2)
12					12	.500 (12.7)	.700 (17.8)	1	1.745 (44.3)	1.059 (26.9)	1.112 (28.2)
13	27	18	18	18	10	.350 (8.9)	.625 (15.9)	1	2.270 (57.7)	1.027 (26.1)	1.218 (30.9)
14					16	.625 (15.9)	.779 (19.8)	1	1.920 (48.8)	1.156 (29.4)	1.218 (30.9)

DASH NO.	E DIM. ± .125 (3.2)	V THREAD CLASS 2A	F DIM. MAX.	G DIA. MAX.	H DIM. MAX.
1	.636 (16.2)	.625-24 UNEF	1.18 (30.0)	-	1.57 (39.9)
2	1.386 (35.2)	.750-20 UNEF	2.02 (51.3)	.858 (21.8)	2.41 (61.2)
3	.541 (13.7)	.625-24 UNEF	1.09 (27.7)	-	1.48 (37.6)
4	.636 (16.2)	.625-24 UNEF	1.18 (30.0)	-	1.57 (39.9)
5	.636 (16.2)	.750-20 UNEF	1.27 (32.3)	-	1.66 (42.2)
6	.641 (16.3)	.625-24 UNEF	1.18 (30.0)	-	1.57 (39.9)
7	.641 (16.3)	.750-20 UNEF	1.28 (32.5)	-	1.67 (42.4)
8	.641 (16.3)	1.000-20 UNEF	1.37 (34.8)	-	1.76 (44.7)
9	.741 (18.8)	.750-20 UNEF	1.38 (35.1)	-	1.77 (45.0)
10	.741 (18.8)	1.000-20 UNEF	1.47 (37.3)	-	1.86 (47.2)
11	.926 (23.5)	.750-20 UNEF	1.59 (40.4)	-	1.98 (50.3)
12	.926 (23.5)	1.187-18 UNEF	1.77 (45.0)	-	2.15 (54.6)
13	1.016 (25.8)	1.000-20 UNEF	1.80 (45.7)	-	2.19 (55.6)
14	1.016 (25.8)	1.437-18 UNEF	1.97 (50.0)	-	2.36 (59.9)

TABLE 1 – DIMENSIONS (CONT'D)

DASH NO.	FITS SHELL OF CONNECTOR				CLAMP SIZE	A WIRE BUNDLE ACCOMMODATION RANGE (SEE NOTE 6)		STYLE	B DIM. ± .125 (± 3.2)	C DIM. (REF.)	D DIA. MAX.
	AS81703 SERIES 3	MIL-DTL-26482 SEREIS 2	AS50151 CRIMP	MIL-DTL-83723 SERIES III		MIN	MAX				
15	37	20	20	20	10	.350 (8.9)	.625 (15.9)	1	2.270 (57.7)	1.027 (26.1)	1.345 (34.2)
16					16	.625 (15.9)	.904 (23.0)	1	1.920 (48.8)	1.156 (29.4)	1.345 (34.2)
17	22	22	22	22	12	.500 (12.7)	.750 (19.1)	1	2.380 (60.5)	1.059 (26.9)	1.468 (37.3)
18					20	.875 (22.2)	1.029 (26.1)	1	2.025 (51.4)	1.375 (34.9)	1.468 (37.3)
19	24	24	24	24	12	.500 (12.7)	.750 (19.1)	1	2.380 (60.5)	1.069 (27.2)	1.593 (40.5)
20					20	.875 (22.2)	1.144 (29.1)	1	2.025 (51.4)	1.375 (34.9)	1.593 (40.5)
21	28	28	28	28	16	.625 (15.9)	.937 (23.8)	1	2.550 (64.8)	1.156 (29.4)	1.969 (50.0)
22					24	1.000 (24.4)	1.375 (34.9)	1	2.195 (55.8)	1.500 (38.1)	1.969 (50.0)
23	32	32	32	32	16	.625 (15.9)	.937 (23.8)	1	2.800 (71.1)	1.156 (29.4)	2.219 (56.4)
24					20	.875 (22.2)	1.250 (31.8)	1	2.800 (71.1)	1.375 (34.9)	2.219 (56.4)
25	36	36	36	36	28	1.250 (31.8)	1.625 (41.3)	1	2.445 (62.1)	1.781 (45.2)	2.219 (56.4)
26					16	.625 (15.9)	.937 (23.8)	1	2.770 (70.4)	1.156 (29.4)	2.469 (62.7)
27	36	36	36	36	24	1.000 (24.5)	1.375 (34.9)	1	2.770 (70.4)	1.500 (38.1)	2.469 (62.7)
28					32	1.437 (36.5)	1.840 (46.7)	1	2.415 (61.3)	1.830 (46.5)	2.469 (62.7)

DASH NO.	E DIM. ± .125 (3.2)	V THREAD CLASS 2A	F DIM. MAX.	G DIA. MAX.	H DIM. MAX.
15	1.016 (25.8)	1.000-20 UNEF	1.80 (45.7)	-	2.19 (55.6)
16	1.016 (25.8)	1.437-18 UNEF	1.97 (50.0)	-	2.36 (59.9)
17	1.166 (29.6)	1.187-18 UNEF	2.11 (53.6)	-	2.50 (63.5)
18	1.166 (29.6)	1.750-18 UNS	2.29 (58.2)	-	2.68 (68.1)
19	1.166 (29.6)	1.187-18 UNEF	2.11 (53.6)	-	2.50 (63.5)
20	1.166 (29.6)	1.750-18 UNS	2.29 (58.2)	-	2.68 (68.1)
21	1.266 (32.2)	1.437-18 UNEF	2.33 (59.2)	-	2.88 (73.2)
22	1.266 (32.2)	2.000-18 UNS	2.51 (63.8)	-	3.06 (77.7)
23	1.616 (41.0)	1.437-18 UNEF	2.81 (71.4)	-	3.36 (85.3)
24	1.616 (41.0)	1.750-18 UNS	2.81 (71.4)	-	3.36 (85.3)
25	1.816 (46.1)	2.250-16 UN	3.07 (78.0)	-	3.62 (91.9)
26	1.816 (46.1)	1.437-18 UNEF	3.13 (79.5)	-	3.68 (93.5)
27	1.816 (46.1)	2.000-18 UNS	3.13 (79.5)	-	3.68 (93.5)
28	2.566 (65.2)	2.500-16 UN	3.39 (86.1)	-	3.94 (100.1)

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	(R) CONNECTOR ACCESSORIES, ELECTRICAL, BACKSHELL, NONENVIRONMENTAL, 90°, SHIELD TERMINATION, CATEGORY 3A (FOR AS50151 CRIMP, MIL-DTL-26482 SERIES 2, AS81703 SERIES 3, AND MIL-DTL-83723 SERIES III CONNECTORS)		

TABLE 1 – DIMENSIONS (CONT'D)

DASH NO.	FITS SHELL OF CONNECTOR				CLAMP SIZE	A WIRE BUNDLE ACCOMMODATION RANGE (SEE NOTE 6)		STYLE	B DIM. ± .125 (± 3.2)	C DIM. (REF.)	D DIA. MAX.	
	AS81703 SERIES 3	MIL-DTL-26482 SEREIS 2	AS50151 CRIMP	MIL-DTL-83723 SERIES III		MIN	MAX					
29	61	16	16, 16S	16	16	.625 (15.9)	.937 (23.8)	1	2.770 (70.4)	1.156 (29.4)	2.719 (69.1)	
30					24	1.000 (25.4)	1.375 (34.9)	1	2.770 (70.4)	1.500 (38.1)	2.719 (69.1)	
31					32	1.437 (36.5)	1.875 (47.6)	1	2.415 (61.3)	1.830 (46.5)	2.719 (69.1)	
32					40	16	.625 (15.9)	.937 (23.8)	1	2.770 (70.4)	1.156 (29.4)	2.969 (75.4)
33						24	1.000 (25.4)	1.375 (34.9)	1	2.770 (70.4)	1.500 (38.1)	2.969 (75.4)
34					44	32	1.437 (36.5)	1.875 (47.6)	1	2.415 (61.3)	1.830 (46.5)	2.969 (75.4)
35						16	.625 (15.9)	.937 (23.8)	1	2.770 (70.4)	1.156 (29.4)	3.219 (81.8)
36					48	24	1.000 (25.4)	1.375 (34.9)	1	2.770 (70.4)	1.500 (38.1)	3.219 (81.8)
37						32	1.437 (36.5)	1.875 (47.6)	1	2.415 (61.3)	1.830 (46.5)	3.219 (81.8)
38					61	16	16, 16S	16	12	.500 (12.7)	.750 (19.1)	1
39	20	.875 (22.2)	1.184 (30.1)	1					2.025 (51.4)	1.375 (34.9)	1.653 (42.0)	
40	19	16	16, 16S	16	10	.350 (8.9)	.625 (15.9)	1	2.100 (53.3)	1.027 (26.1)	1.112 (28.2)	
41	27	18	18	18	4	.125 (3.2)	.312 (7.9)	1	2.270 (57.7)	1.027 (26.1)	1.218 (30.9)	
42					6	.250 (6.4)	.437 (11.1)	1	2.270 (57.7)	1.027 (26.1)	1.218 (30.9)	

DASH NO.	E DIM. ± .125 (3.2)	V THREAD CLASS 2A	F DIM. MAX.	G DIA. MAX.	H DIM. MAX.
29	2.566 (65.2)	1.437-18 UNEF	3.88 (98.6)	-	4.43 (112.5)
30	2.566 (65.2)	2.000-18 UNS	3.88 (98.6)	-	4.43 (112.5)
31	2.566 (65.2)	2.500-16 UN	4.14 (105.2)	-	4.69 (119.1)
32	2.566 (65.2)	1.437-18 UNEF	3.88 (98.6)	-	4.43 (112.5)
33	2.566 (65.2)	2.000-18 UNS	3.88 (98.6)	-	4.43 (112.5)
34	2.566 (65.2)	2.500-16 UN	4.14 (105.2)	-	4.69 (119.1)
35	2.566 (65.2)	1.437-18 UNEF	3.88 (98.6)	-	4.43 (112.5)
36	2.566 (65.2)	2.000-18 UNS	3.88 (98.6)	-	4.43 (112.5)
37	2.566 (65.2)	2.500-16 UN	4.14 (105.2)	-	4.69 (119.1)
38	1.166 (29.6)	1.187-18 UNEF	2.11 (53.6)	-	2.50 (63.5)
39	1.166 (29.6)	1.750-18 UNS	2.29 (58.2)	-	2.68 (68.1)
40	.926 (23.5)	1.000-20 UNEF	1.66 (42.2)	-	2.05 (52.1)
41	1.016 (25.8)	.625-24 UNEF	1.80 (45.7)	-	2.19 (55.6)
42	1.016 (25.8)	.750-20 UNEF	1.80 (45.7)	-	2.19 (55.6)

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	(R) CONNECTOR ACCESSORIES, ELECTRICAL, BACKSHELL, NONENVIRONMENTAL, 90°, SHIELD TERMINATION, CATEGORY 3A (FOR AS50151 CRIMP, MIL-DTL-26482 SERIES 2, AS81703 SERIES 3, AND MIL-DTL-83723 SERIES III CONNECTORS)			

TABLE 1 – DIMENSIONS (CONT'D)

DASH NO.	FITS SHELL OF CONNECTOR				CLAMP SIZE	A WIRE BUNDLE ACCOMMODATION RANGE (SEE NOTE 6)		STYLE	B DIM. ± .125 (± 3.2)	C DIM. (REF.)	D DIA. MAX.	
	AS81703 SERIES 3	MIL-DTL-26482 SEREIS 2	AS50151 CRIMP	MIL-DTL-83723 SERIES III		MIN	MAX					
43	37	20	20	20	6	.250 (6.4)	.437 (11.1)	1	2.270 (57.7)	1.027 (26.1)	1.345 (34.2)	
44	X	22	22	22	4	.125 (3.2)	.312 (7.9)	1	2.380 (60.1)	1.027 (26.1)	1.468 (37.3)	
45					6	.250 (6.4)	.437 (11.1)	1	2.380 (60.1)	1.027 (26.1)	1.468 (37.3)	
46		24	24	24	10	.350 (8.9)	.625 (15.9)	1	2.380 (60.1)	1.027 (26.1)	1.593 (40.5)	
47		X	X	X	X	12	.500 (12.7)	.750 (19.1)	1	2.770 (70.1)	1.059 (26.9)	2.469 (62.7)
48						12	.500 (12.7)	.750 (19.1)	1	2.770 (70.1)	1.059 (26.9)	2.719 (69.1)
49		10	10S, 10SL	10	6	.250 (6.4)	.437 (11.1)	2	1.940 (49.3)	1.027 (26.1)	.734 (18.6)	
50		12	14	14, 14S	14	12	.500 (12.7)	.750 (19.1)	2	2.270 (57.7)	1.059 (26.9)	.984 (25.0)
51	19	16	16, 16S	16	16	.625 (15.9)	.937 (23.8)	2	2.380 (60.1)	1.156 (29.4)	1.112 (28.2)	
52	27	18	18	18	12	.500 (12.7)	.750 (19.1)	1	2.270 (57.7)	1.059 (26.9)	1.218 (30.9)	
53	61	X	X	X	16	.625 (15.9)	.937 (23.8)	1	2.025 (51.4)	1.156 (29.4)	1.653 (42.0)	
54	37	20	20	20	12	.500 (12.7)	.750 (19.1)	1	2.270 (57.7)	1.059 (26.9)	1.345 (34.2)	
55					20	.875 (22.2)	1.250 (31.8)	2	2.550 (64.8)	1.375 (34.9)	1.345 (34.2)	
56	X	22	22	22	10	.350 (8.9)	.625 (15.9)	1	2.380 (60.1)	1.027 (26.1)	1.468 (37.3)	

DASH NO.	E DIM. ± .125 (3.2)	V THREAD CLASS 2A	F DIM. MAX.	G DIA. MAX.	H DIM. MAX.
43	1.016 (25.8)	.750-20 UNEF	1.80 (45.7)	-	2.19 (55.6)
44	1.166 (29.6)	.625-24 UNEF	2.11 (53.6)	-	2.50 (63.5)
45	1.166 (29.6)	.750-20 UNEF	2.11 (53.6)	-	2.50 (63.5)
46	1.166 (29.6)	1.000-20 UNEF	2.11 (53.6)	-	2.50 (63.5)
47	1.816 (46.1)	1.187-18 UNEF	3.13 (79.5)	-	3.68 (93.5)
48	1.816 (46.1)	1.187-18 UNEF	3.88 (98.6)	-	4.43 (112.5)
49	1.381 (35.1)	.750-20 UNEF	2.03 (51.6)	.858 (21.8)	2.42 (61.5)
50	1.766 (44.9)	1.187-18 UNEF	2.61 (66.3)	1.218 (30.9)	3.00 (76.2)
51	1.916 (48.7)	1.437-18 UNEF	2.87 (72.9)	1.468 (37.3)	3.26 (82.8)
52	1.016 (25.8)	1.187-18 UNEF	1.86 (47.2)	-	2.25 (57.2)
53	1.166 (29.6)	1.437-18 UNEF	2.14 (54.4)	-	2.25 (57.2)
54	1.016 (25.8)	1.187-18 UNEF	1.86 (47.2)	-	3.53 (89.7)
55	2.016 (51.2)	1.750-18 UNS	3.14 (79.8)	1.969 (50.0)	2.50 (57.2)
56	1.166 (29.6)	1.000-20 UNEF	2.11 (53.6)	-	2.51 (63.8)

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	(R) CONNECTOR ACCESSORIES, ELECTRICAL, BACKSHELL, NONENVIRONMENTAL, 90°, SHIELD TERMINATION, CATEGORY 3A (FOR AS50151 CRIMP, MIL-DTL-26482 SERIES 2, AS81703 SERIES 3, AND MIL-DTL-83723 SERIES III CONNECTORS)		

TABLE 1 – DIMENSIONS (CONT'D)

DASH NO.	FITS SHELL OF CONNECTOR				CLAMP SIZE	A WIRE BUNDLE ACCOMMODATION RANGE (SEE NOTE 6)		STYLE	B DIM. ± .125 (± 3.2)	C DIM. (REF.)	D DIA. MAX.
	AS81703 SERIES 3	MIL-DTL- 26482 SERIEIS 2	AS50151 CRIMP	MIL-DTL- 83723 SERIES III		MIN	MAX				
57		22	22	22	16	.625 (15.9)	.937 (23.8)	1	2.380 (60.5)	1.156 (29.4)	1.468 (37.3)
58					20	.875 (22.2)	1.250 (31.8)	2	2.550 (64.8)	1.375 (34.9)	1.468 (37.3)
59		24	24	24	16	.625 (15.9)	.937 (23.8)	1	2.380 (60.5)	1.156 (29.4)	1.593 (40.5)
60					12	.500 (12.7)	.750 (19.1)	1	2.550 (64.8)	1.059 (26.9)	1.969 (50.0)
61			28		20	.875 (22.2)	1.250 (31.8)	1	2.550 (64.8)	1.375 (34.9)	1.969 (50.0)
62			32		24	1.000 (25.4)	1.375 (34.9)	1	2.800 (71.1)	1.500 (38.1)	2.219 (56.4)
63			36		20	.875 (22.2)	1.250 (31.8)	1	2.770 (70.4)	1.375 (34.9)	2.469 (62.7)
64					28	1.250 (31.8)	1.625 (41.3)	1	2.770 (70.4)	1.781 (45.2)	2.469 (62.7)
65			40		20	.875 (22.2)	1.250 (31.8)	1	2.770 (70.4)	1.375 (34.9)	2.719 (69.1)
66					28	1.250 (31.8)	1.625 (41.3)	1	2.770 (70.4)	1.781 (45.2)	2.719 (69.1)
67			44		20	.875 (22.2)	1.250 (31.8)	1	2.770 (70.4)	1.375 (34.9)	2.969 (75.4)
68					28	1.250 (31.8)	1.625 (41.3)	1	2.770 (70.4)	1.781 (45.2)	2.969 (75.4)
69			48		20	.875 (22.2)	1.250 (31.8)	1	2.770 (70.4)	1.375 (34.9)	3.219 (81.8)
70					28	1.250 (31.8)	1.625 (41.3)	1	2.770 (70.4)	1.781 (45.2)	3.219 (81.8)

DASH NO.	E DIM. ± .125 (3.2)	V THREAD CLASS 2A	F DIM. MAX.	G DIA. MAX.	H DIM. MAX.
57	1.166 (29.6)	1.437-18 UNEF	2.12 (53.8)	-	2.51 (63.8)
58	2.016 (51.2)	1.750-18 UNS	3.14 (79.8)	1.969	3.53 (89.7)
59	1.166 (29.6)	1.437-18 UNEF	2.14 (54.4)	-	2.53 (64.3)
60	1.266 (32.2)	1.187-18 UNEF	2.33 (59.2)	-	2.88 (73.2)
61	1.266 (32.2)	1.750-18 UNS	2.39 (60.7)	-	2.94 (74.7)
62	1.616 (41.0)	2.000-18 UNS	2.86 (72.6)	-	3.41 (86.6)
63	1.816 (46.1)	1.750-18 UNS	3.13 (79.5)	-	3.68 (93.5)
64	1.816 (46.1)	2.250-16 UN	3.27 (83.1)	-	3.82 (97.0)
65	2.566 (65.2)	1.750-18 UNS	3.88 (98.6)	-	4.43 (112.5)
66	2.566 (65.2)	2.250-16 UN	4.02 (102.1)	-	4.57 (116.1)
67	2.566 (65.2)	1.750-18 UNS	3.88 (98.6)	-	4.43 (112.5)
68	2.566 (65.2)	2.250-16 UN	4.02 (102.1)	-	4.57 (116.1)
69	2.566 (65.2)	1.750-18 UNS	3.88 (98.6)	-	4.43 (112.5)
70	2.566 (65.2)	2.250-16 UN	4.02 (102.1)	-	4.57 (116.1)