

REV.
B

SAE AS85049/24

RATIONALE

REVISION IS REQUIRED TO ELIMINATE QUALITY INSPECTION ISSUES AND ALIGN THE PRODUCT DETAIL FEATURES WITH SIMILAR DETAIL SHEETS.

NOTICE

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

FEDERAL SUPPLY CLASS
5935

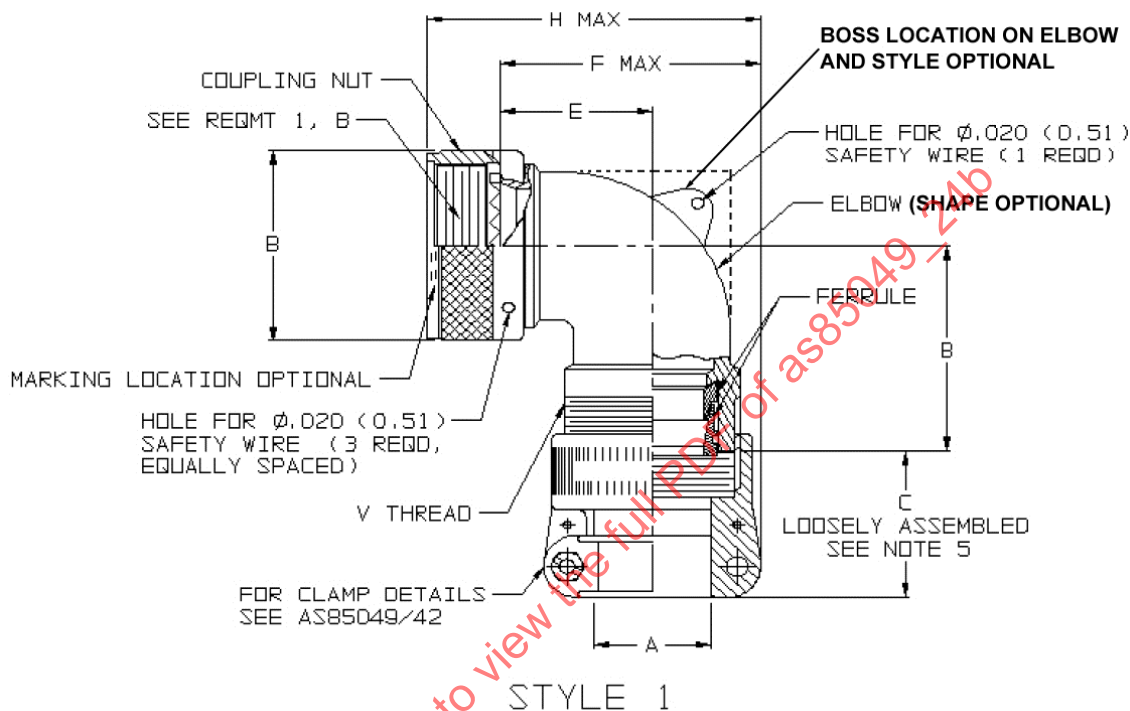
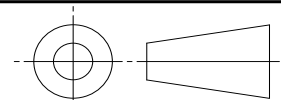


FIGURE 1 – CONFIGURATION AND DIMENSIONS

SAE values your input. To provide feedback on this Technical Report, please visit <http://www.sae.org/technical/standards/AS85049/24B>

THIRD ANGLE PROJECTION



CUSTODIAN: AE-8/AE-8C1

PROCURMENT SPECIFICATION: AS85049

SAE Aerospace
An SAE International Group

AEROSPACE STANDARD

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.
B

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				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		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)

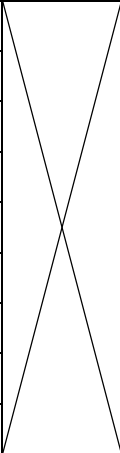
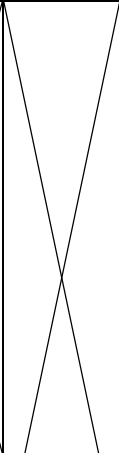
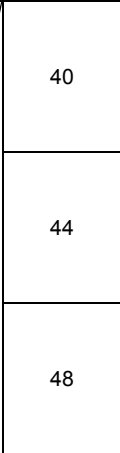
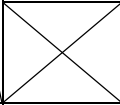
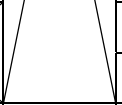
DASH NO.	E DIM. ± .125 (3.2)	V THREAD CLASS 2A	F DIM. MAX.	G DIA. MAX.	H DIM. MAX.
1	.636 (16.2)	.625-24 UNEF	1.18 (30.0)	-	1.57 (39.9)
2	1.386 (35.2)	.750-20 UNEF	2.02 (51.3)	.858 (21.8)	2.41 (61.2)
3	.541 (13.7)	.625-24 UNEF	1.09 (27.7)	-	1.48 (37.6)
4	.636 (16.2)	.625-24 UNEF	1.18 (30.0)	-	1.57 (39.9)
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 (CONTINUED)

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				
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	X	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	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	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					16	.625 (15.9)	.937 (23.8)	1	2.800 (71.1)	1.156 (29.4)	2.219 (56.4)
24		32	32	32	20	.875 (22.2)	1.250 (31.8)	1	2.800 (71.1)	1.375 (34.9)	2.219 (56.4)
25					28	1.250 (31.8)	1.625 (41.3)	1	2.445 (62.1)	1.781 (45.2)	2.219 (56.4)
26		36	36	36	16	.625 (15.9)	.937 (23.8)	1	2.770 (70.4)	1.156 (29.4)	2.469 (62.7)
27					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)

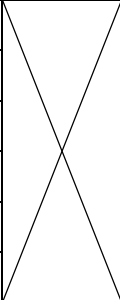
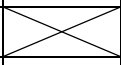
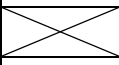
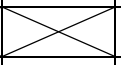
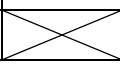
DASH NO.	E DIM. ± .125 (3.2)	V THREAD CLASS 2A	F DIM. MAX.	G DIA. MAX.	H DIM. MAX.
15	1.016 (25.8)	1.000-20 UNEF	1.80 (45.7)	-	2.19 (55.6)
16	1.016 (25.8)	1.437-18 UNEF	1.97 (50.0)	-	2.36 (59.9)
17	1.166 (29.6)	1.187-18 UNEF	2.11 (53.6)	-	2.50 (63.5)
18	1.166 (29.6)	1.750-18 UNS	2.29 (58.2)	-	2.68 (68.1)
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)

TABLE 1 – DIMENSIONS (CONTINUED)

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			40		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			44		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					32	1.437 (36.5)	1.875 (47.6)	1	2.415 (61.3)	1.830 (46.5)	2.969 (75.4)	
35			48		16	.625 (15.9)	.937 (23.8)	1	2.770 (70.4)	1.156 (29.4)	3.219 (81.8)	
36					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			12	.500 (12.7)	.750 (19.1)	1	2.380 (60.5)	1.059 (26.9)	1.653 (42.0)		
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)

TABLE 1 – DIMENSIONS (CONTINUED)

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				
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		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					12	.500 (12.7)	.750 (19.1)	1	2.770 (70.1)	1.059 (26.9)	2.469 (62.7)
48			36		12	.500 (12.7)	.750 (19.1)	1	2.770 (70.1)	1.059 (26.9)	2.719 (69.1)
49					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				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		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)

TABLE 1 – DIMENSIONS (CONTINUED)

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				
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	28	28	20	.875 (22.2)	1.250 (31.8)	1	2.550 (64.8)	1.375 (34.9)	1.969 (50.0)
62					24	1.000 (25.4)	1.375 (34.9)	1	2.800 (71.1)	1.500 (38.1)	2.219 (56.4)
63		36	36	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	40	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	44	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	48	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)