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AS85049/43

FEDERAL SUPPLY CLASS
5935

RATIONALE

AS85049/43B HAS BEEN REAFFIRMED TO COMPLY WITH THE SAE FIVE-YEAR REVIEW POLICY.

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

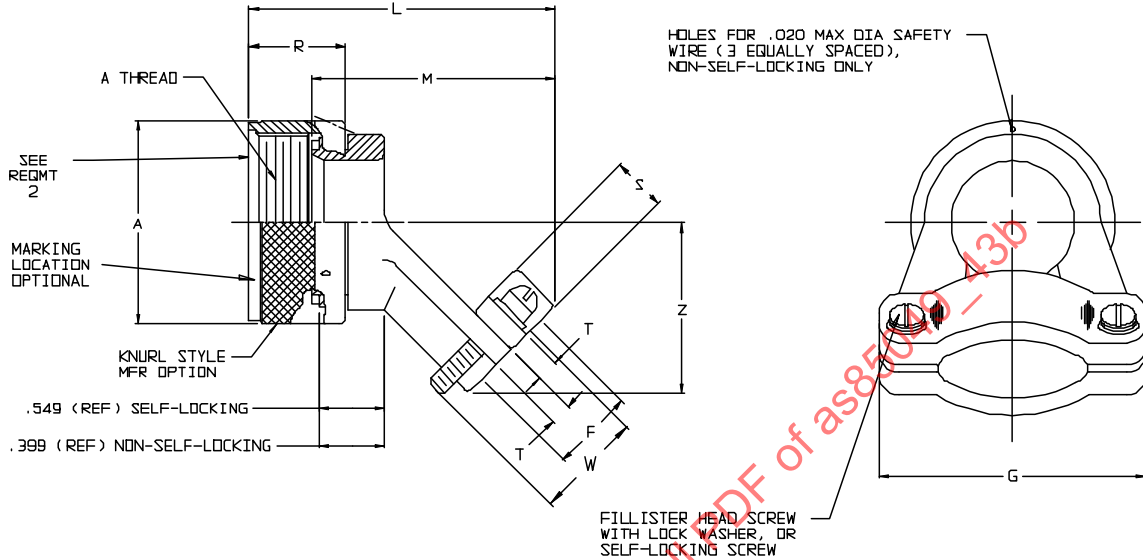
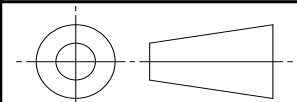


FIGURE 1 - CONFIGURATION AND DIMENSIONS
SELF-LOCKING AND NON-SELF-LOCKING

SAE values your input. To provide feedback
on this Technical Report, please visit
<http://www.sae.org/technical/standards/AS85049/43B>

THIRD ANGLE PROJECTION



CUSTODIAN: AE-8/AE-8C1

PROCUREMENT SPECIFICATION: AS85049



AEROSPACE STANDARD

CONNECTOR ACCESSORIES, ELECTRICAL, STRAIN RELIEF, NON-ENVIRONMENTAL, SELF-LOCKING AND NON-SELF-LOCKING, 45°, CATEGORY 4B (FOR MIL-DTL-5015 CRIMP, MIL-DTL-26482 SERIES 2, AS81703 SERIES 3, AND MIL-DTL-83723 SERIES III CONNECTORS)

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TABLE 1A - DIMENSIONS (NON-SELF-LOCKING ONLY)

DASH NUMBER	FOR CONNECTOR SHELL SIZE (REF)				NONSELF-LOCKING			
	AS81703 SERIES 3	MIL-DTL- 26482 SERIES 2	MIL-DTL-5015 CRIMP	MIL-DTL- 83723 SERIES III	A MAX DIA	L MAX CLOSED	M MAX	R MAX
-3	3				.669 (16.99)	1.490 (37.85)	1.160 (29.46)	.540 (13.72)
-8		8	8S	8	.617 (15.67)	1.490 (37.85)	1.160 (29.46)	↑
-10		10	10S, 10SL	10	.734 (18.64)	1.534 (38.96)	1.204 (30.58)	
-12	7	12	12S, 12	12	.858 (21.79)	1.608 (40.84)	1.278 (32.46)	
-14	12	14	14S, 14	14	.984 (24.99)	1.650 (41.91)	1.320 (33.53)	
-16	19	16	16S, 16	16	1.112 (28.24)	1.756 (44.60)	1.426 (36.22)	
-18	27	18	18	18	1.218 (30.94)	1.874 (47.60)	1.544 (39.22)	
-20	37	20	20	20	1.345 (34.16)	1.918 (48.72)	1.588 (40.34)	
-22		22	22	22	1.468 (37.29)	1.962 (49.83)	1.632 (41.45)	↓
-24		24	24	24	1.593 (40.46)	2.006 (50.95)	1.676 (42.57)	.540 (13.72)
-28			28		1.969 (50.01)	2.301 (58.45)	1.801 (45.75)	.702 (17.83)
-32			32		2.219 (56.36)	2.389 (60.68)	1.889 (47.98)	↑
-36			36		2.469 (62.71)	2.433 (61.80)	1.933 (49.10)	
-40			40		2.719 (69.06)	2.434 (61.82)	1.934 (49.12)	
-44			44		2.969 (75.41)	2.700 (68.58)	2.200 (55.88)	↓
-48			48		3.219 (81.76)	2.788 (70.82)	2.288 (58.12)	.702 (17.83)
-61	61				1.653 (41.99)	2.006 (50.95)	1.676 (42.57)	.540 (13.72)

TABLE 1B - DIMENSIONS (SELF-LOCKING ONLY)

DASH NUMBER	FOR CONNECTOR SHELL SIZE (REF)				SELF-LOCKING			
	AS81703 SERIES 3	MIL-DTL- 26482 SERIES 2	MIL-DTL-5015 CRIMP	MIL-DTL- 83723 SERIES III	A MAX DIA	L MAX CLOSED	M MAX	R MAX
-3 /1	3							
-8		8	8S	8	.885 (22.48)	1.650 (41.91)	1.320 (33.53)	.710 (18.03)
-10		10	10S, 10SL	10	1.010 (25.65)	1.694 (43.03)	1.364 (34.65)	↑
-12	7	12	12S, 12	12	1.135 (28.83)	1.768 (44.91)	1.438 (36.53)	
-14	12	14	14S, 14	14	1.260 (32.00)	1.810 (45.97)	1.480 (37.59)	
-16	19	16	16S, 16	16	1.385 (35.18)	1.916 (48.67)	1.586 (40.28)	
-18	27	18	18	18	1.510 (38.35)	2.034 (51.67)	1.704 (43.28)	
-20	37	20	20	20	1.635 (41.53)	2.078 (52.78)	1.748 (44.40)	↓
-22		22	22	22	1.760 (44.70)	2.122 (53.90)	1.792 (45.52)	↓
-24		24	24	24	1.885 (47.88)	2.166 (55.02)	1.836 (46.63)	.710 (18.03)
-28			28		2.135 (54.23)	2.461 (62.51)	1.961 (49.81)	.890 (22.61)
-32			32		2.395 (60.83)	2.549 (64.74)	2.049 (52.04)	↑
-36			36		2.635 (66.93)	2.593 (65.86)	2.093 (53.16)	
-40			40		2.885 (73.28)	2.599 (66.01)	2.094 (53.19)	
-44			44		3.135 (79.63)	2.860 (72.64)	2.360 (59.94)	↓
-48			48		3.385 (85.98)	2.948 (74.88)	2.448 (62.18)	.890 (22.61)
-61 /1	61							

_1/1 NOT AVAILABLE ON SELF-LOCKING CONFIGURATION

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TABLE IC. DIMENSIONS (SELF-LOCKING AND NON-SELF-LOCKING, CONTINUED).

DASH NUMBER	F (SEE NOTE 4)		S ±.020	T ±.015	SCREW SIZE	Z MAX	W +.000 -.062 SCREW LENGTH	G MAX
	WIRE BUNDLE ACCOMMODATION RANGE							
	MAX	MIN						
-3	.204 (5.18)	.125 (3.18)	.250 (6.35)	.125 (3.18)	6-32	.772 (19.61)	.500 (12.70)	.782 (19.86)
-8	.204 (5.18)	.125 (3.18)	↑	↑	↑	.772 (19.61)	.500 (12.70)	.782 (19.86)
-10	.286 (7.26)	.187 (4.75)				.803 (20.40)	.500 (12.70)	.862 (21.89)
-12	.416 (10.57)	.291 (7.39)				.866 (22.00)	.625 (15.88)	1.018 (25.86)
-14	.476 (12.09)	.351 (8.92)	↓	↓	↓	.928 (23.57)	.625 (15.88)	1.076 (27.33)
-16	.625 (15.88)	.501 (12.73)	.250 (6.35)	.125 (3.18)	6-32	.991 (25.17)	.625 (15.88)	1.349 (34.26)
-18	.706 (17.93)	.518 (13.16)	.375 (9.53)	.156 (3.96)	8-32	1.110 (28.19)	.750 (19.05)	1.481 (37.62)
-20	.831 (21.11)	.581 (14.76)	↑	↑	↑	1.172 (29.77)	.875 (22.23)	1.587 (40.31)
-22	.956 (24.28)	.644 (16.36)	↓	↓		1.235 (31.37)	1.000 (25.40)	1.688 (42.88)
-24	1.081 (27.46)	.706 (17.93)	.375 (9.53)	.156 (3.96)	↓	1.297 (32.94)	1.125 (28.58)	1.805 (45.85)
-28	1.187 (30.15)	.750 (19.05)	.500 (12.70)	.188 (4.78)	8-32	1.543 (39.19)	1.250 (31.75)	2.050 (52.07)
-32	1.250 (31.75)	.875 (22.23)	↑	↑	¼-20	1.668 (42.37)	1.250 (31.75)	2.416 (61.37)
-36	1.375 (34.93)	.938 (23.83)	↓		↑	1.793 (45.54)	1.500 (38.10)	2.526 (64.16)
-40	1.500 (38.10)	.938 (23.83)	.500 (12.70)			1.918 (48.72)	1.500 (38.10)	2.596 (65.94)
-44	1.750 (44.45)	1.188 (30.18)	.625 (15.88)	↓	↓	2.132 (54.15)	1.750 (44.45)	2.890 (73.41)
-48	1.875 (47.63)	1.312 (33.32)	.625 (15.88)	.188 (4.78)	¼-20	2.257 (57.33)	2.000 (50.80)	3.374 (85.70)
-61	1.081 (27.46)	.706 (17.93)	.375 (9.53)	.156 (3.96)	8-32	1.204 (30.58)	1.125 (28.58)	1.805 (45.85)

NOTES:

1. DIMENSIONS ARE IN INCHES.
2. DIMENSIONS APPLY AFTER PLATING.
3. METRIC EQUIVALENTS ARE GIVEN FOR GENERAL INFORMATION ONLY AND ARE BASED UPON 1.00 INCH = 25.4 MM.
4. "WIRE BUNDLE ACCOMMODATION RANGE" DIMENSION IS DEFINED AS THE ENVELOPE AREA FOR THE WIRE BUNDLE. THIS DIMENSION IS NOT MEANT TO DEFINE THE CLAMP HARDWARE LIMITS.



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REQUIREMENTS:

CONNECTOR ACCESSORY DESIGN AND CONSTRUCTION:

1. DIMENSIONS AND CONFIGURATION: SEE FIGURE 1 AND TABLE 1.
2. INTERFACE DIMENSIONS SHALL CONFORM TO SAE AS85049, FIGURE 4 OR 4A.
3. ACCESSORIES CONSIST OF A COUPLING NUT AND STRAIN RELIEF. THE COUPLING NUT SHALL BE CAPTIVATED TO THE STRAIN RELIEF AND ROTATABL.
4. DETENTED SELF-LOCKING PROVIDES A POSITIVE AUDIBLE DETENTED COUPLING.
5. THE STRAIN RELIEF ACCOMMODATES SAE AS85049/127 BUSHING STRIP.
6. CLAMPS SHALL HAVE NO PROTRUSIONS OR SHARP EDGES WHICH MAY PINCH CABLE.
7. MATERIAL AND FINISH: SEE TABLE 2. ACCESSORIES SHALL BE AS SHOWN IN TABLE 2.
8. CLAMPS, SCREWS AND LOCK WASHERS: 300 SERIES CORROSION-RESISTANT STEEL, PASSIVATE.
9. SELF-LOCKING DEVICE: CORROSION RESISTANT MATERIAL.

TABLE 2. MATERIAL AND FINISH

FIGURE	MATERIAL	FINISH
1	ALUMINUM ALLOY IN ACCORDANCE WITH SAE AS85049	A N 1/ W 2/ X, Y Z 2/

1/ NOT FOR NAVY USE. AIR FORCE USE IS FOR SPACE APPLICATIONS ONLY. W IS THE PREFERRED FINISH.

2/ W & Z ARE NOT FOR USE IN SPACE APPLICATION. ALSO SEE SPECIFICATION NOTE

SELF-LOCKING DEVICES DESIGN AND CONSTRUCTION: COUPLINGS WITH SELF-LOCKING DEVICES SHALL MEET ALL THE REQUIREMENTS SPECIFIED HEREIN FOR ITS SPECIFIC CATEGORY AND THE FOLLOWING ADDITIONAL TESTS

- a. LIFE CYCLE: SEE SAE AS85049, PARAGRAPH 4.6.15.
 - b. VIBRATION: SEE SAE AS85049, PARAGRAPH 3.5.4.1.
10. QUALIFICATION: SEE SAE AS85049, CATEGORY 4B
 11. ACCESSORIES WILL NOT ACCOMMODATE CONNECTORS USING CO-AX, DATA BUS NO. 8, 6, 4 AND 0 CONDUCTORS. WHEN USED WITH MAXIMUM DENSITY ARRANGEMENTS, CLAMP MAY OPEN OUTER WIRE SEALS.



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