

REV.
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SAE AS85049/49

FEDERAL SUPPLY CLASS
5935

RATIONALE

REVISED TO INCLUDE COMMENTS RECEIVED BY THE GOVERNMENT AND INDUSTRY, REMOVE GOVERNMENT JARGON, INCORPORATE AMENDMENTS, AND UP-DATE SPECIFICATION REFERENCES.

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

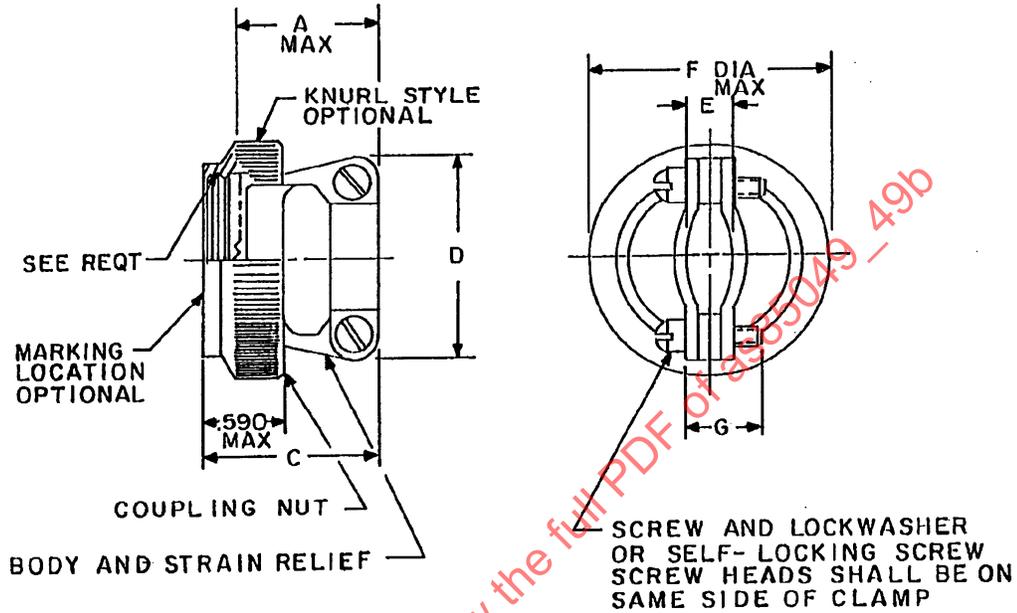
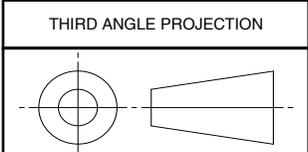


FIGURE 1 - DIMENSIONS AND CONFIGURATION (SELF-LOCKING ONLY)

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CUSTODIAN: AE-8/AE-8C1

PROCUREMENT SPECIFICATION: AS85049

SAE Aerospace
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AEROSPACE STANDARD
CONNECTOR ACCESSORIES, ELECTRICAL, STRAIN RELIEF, STRAIGHT, SELF-LOCKING AND NON-SELF-LOCKING, CATEGORY 4B (MIL-DTL-38999 SERIES I AND II CONNECTORS)

SAE AS85049/49
SHEET 1 OF 5

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ISSUED 2000-05 REVISED 2009-08

TABLE 1A - SHELL SIZES AND DIMENSIONS (SELF-LOCKING ONLY)

DASH NUMBER	CONNECTOR SHELL SIZE		A MAX (SEE NOTE 6)	C MAX	D MAX	E WIRE BUNDLE ACCOMMODATION RANGE (SEE NOTE 5)		F MAX DIA	G +.000 -.062 SCREW LENGTH	SCREW SIZE
	SERIES II	SERIES I				MIN	MAX			
8	8	9	.91 (23.1)	1.15 (29.2)	.85 (21.6)	.098 (2.49)	.234 (5.94)	.859 (21.82)	.500 (12.70)	6-32
10	10	11	.91 (23.1)	1.15 (29.2)	.90 (22.9)	.153 (3.89)	.234 (5.94)	.984 (24.99)	.500 (12.70)	6-32
12	12	13	1.01 (25.7)	1.25 (31.8)	1.10 (27.9)	.190 (4.83)	.328 (8.33)	1.156 (29.36)	.625 (15.88)	6-32
14	14	15	1.06 (26.9)	1.30 (33.0)	1.15 (29.2)	.260 (6.60)	.457 (11.61)	1.281 (32.54)	.750 (19.05)	6-32
16	16	17	1.16 (29.5)	1.40 (35.6)	1.30 (33.0)	.283 (7.19)	.614 (15.60)	1.406 (35.71)	.750 (19.05)	6-32
18	18	19	1.41 (35.8)	1.65 (41.9)	1.50 (38.1)	.325 (8.26)	.684 (16.10)	1.516 (38.51)	.750 (19.05)	8-32
20	20	21	1.51 (38.4)	1.75 (44.5)	1.60 (40.6)	.343 (8.71)	.698 (17.73)	1.641 (41.68)	.875 (22.23)	8-32
22	22	23	1.66 (42.2)	1.90 (48.3)	1.70 (43.2)	.381 (9.68)	.823 (20.90)	1.766 (44.86)	1.000 (25.40)	8-32
24	24	25	1.76 (44.7)	2.00 (50.8)	1.80 (45.7)	.418 (10.62)	.853 (21.67)	1.891 (48.03)	1.125 (28.58)	8-32

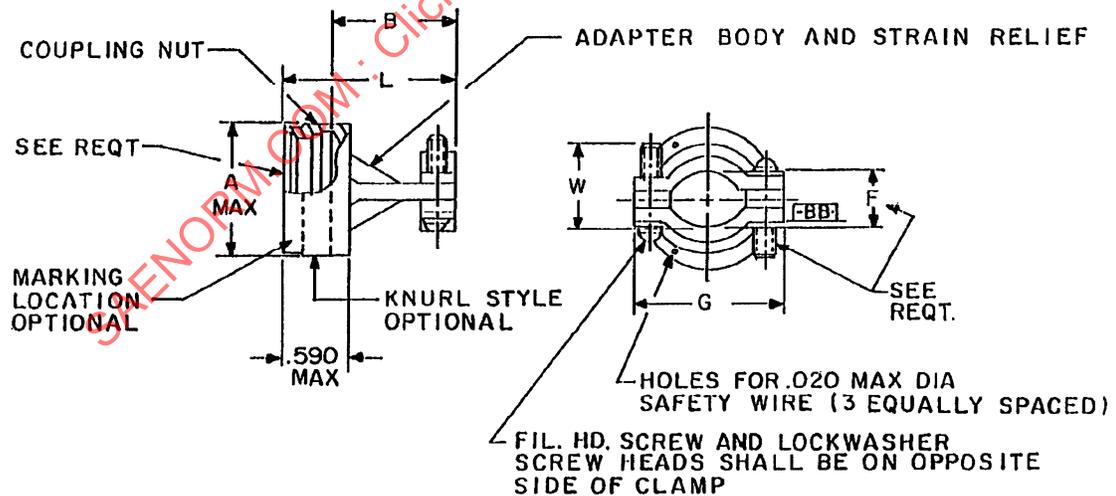


FIGURE 2 - DIMENSIONS AND CONFIGURATIONS (NON-SELF-LOCKING ONLY)

TABLE 1B - SHELL SIZES AND DIMENSIONS (NON-SELF-LOCKING ONLY)

DASH NUMBER	CONNECTOR SHELL SIZE		A MAX (DIAMETER OF COUPLING RING)	B MAX (SEE NOTE 6)	F WIRE BUNDLE ACCOMMODATION RANGE (SEE NOTE 5)		G MAX	L MAX	W +.000 -.062 SCREW LENGTH	SCREW SIZE
	SERIES II	SERIES I			MIN	MAX				
8	8	9	.75 (19.1)	.91 (23.1)	.098 (2.49)	.234 (5.94)	.85 (21.6)	1.10 (27.9)	.500 (12.70)	6-32
10	10	11	.85 (21.6)	.91 (23.1)	.153 (3.89)	.234 (5.94)	.90 (22.9)	1.10 (27.9)	.500 (12.70)	6-32
12	12	13	1.00 (25.4)	1.01 (25.7)	.190 (4.83)	.328 (8.33)	1.10 (27.9)	1.20 (30.5)	.625 (15.88)	6-32
14	14	15	1.10 (27.9)	1.06 (26.9)	.260 (6.60)	.457 (11.61)	1.15 (29.2)	1.25 (31.8)	.750 (19.05)	6-32
16	16	17	1.25 (31.8)	1.16 (29.5)	.283 (7.19)	.614 (15.60)	1.30 (33.0)	1.36 (34.5)	.750 (19.05)	6-32
18	18	19	1.40 (35.6)	1.41 (35.8)	.325 (8.26)	.634 (16.10)	1.50 (38.1)	1.60 (40.6)	.750 (19.05)	8-32
20	20	21	1.50 (38.1)	1.51 (38.4)	.343 (8.71)	.698 (17.73)	1.60 (40.6)	1.70 (43.2)	.875 (22.23)	8-32
22	22	23	1.65 (41.9)	1.66 (42.2)	.381 (9.68)	.823 (20.90)	1.70 (43.2)	1.85 (47.0)	1.000 (25.40)	8-32
24	24	25	1.75 (44.5)	1.76 (44.7)	.418 (10.62)	.853 (21.67)	1.80 (45.7)	1.95 (49.5)	1.125 (28.58)	8-32

NOTES:

- DIMENSIONS ARE IN INCHES.
- DIMENSIONS APPLY AFTER PLATING.
- METRIC EQUIVALENTS ARE GIVEN FOR GENERAL INFORMATION ONLY.
- MILLIMETERS ARE IN PARENTHESES.
- WIRE BUNDLE ACCOMMODATION RANGE DIMENSION IS DEFINED AS THE ENVELOPE AREA OF THE WIRE BUNDLE. THIS DIMENSION IS NOT MEANT TO DEFINE THE CLAMP HARDWARE LIMITS.
- THE DIMENSION IS MEASURED FROM THE BOTTOM OF THE ACCESSORY TEETH TO THE END OF THE CLAMP.

REQUIREMENTS:

1. DESIGN AND CONSTRUCTION:

DIMENSIONS AND CONFIGURATION: SEE FIGURES 1 AND 2.

2. INTERFACE DIMENSIONS: IN ACCORDANCE WITH SAE AS85049, FIGURE 2.

3. ACCESSORY: CONSISTS OF A COUPLING NUT AND BODY. THE COUPLING NUT SHALL BE CAPTIVATED TO AND SHALL BE ROTATEABLE.

4. CLAMP SHALL HAVE NO PROTRUSIONS OR SHARP EDGES WHICH MAY PINCH CABLE.

5. DETENTED SELF-LOCKING PROVIDES A POSITIVE AUDIBLE DETENTED COUPLING.

6. MATERIAL AND FINISH: SEE TABLE 2. ACCESSORIES SHALL BE AS SHOWN IN TABLE 2.

TABLE 2 - MATERIAL AND FINISH

FIGURE	MATERIAL	FINISH
1 & 2	ALUMINUM ALLOY IN ACCORDANCE WITH SAE AS85049	A N ^{1/} W ^{2/}
1 & 2	CORROSION RESISTANT STEEL 300 SERIES IN ACCORDANCE WITH SAE AS85049	S

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

^{2/} W IS NOT FOR USE IN SPACE APPLICATION. ALSO SEE SPECIFICATION NOTE

7. CLAMP SCREW AND LOCKWASHERS: 300 SERIES CORROSION-RESISTANT STEEL, PASSIVATE.

8. 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.

9. QUALIFICATION: SEE SAE AS85049, CATEGORY 4B.

10. ACCESSORIES ARE NOT RECOMMENDED FOR CONNECTORS USING CO-AX, DATA BUS, NO. 8 CONDUCTORS. WHEN USED WITH MAXIMUM DENSITY ARRANGEMENTS, CLAMP MAY OPEN OUTER WIRE SEALS.

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