FEDERAL SUPPLY CLASS
5935

RATIONALE

REVISION IS REQUIRED TO ADD THE STATEMENT THAT AS85049/121 IS RECOMMENDED FOR NEW DESIGN, TO CORRECT PART NUMBER EXAMPLE ERRORS, TO IMPROVE DRAWING QUALITY, TO UPDATE FINISH RESTRICTION WORDING, AND TO UPDATE DOCUMENT FORMAT TO LATEST SAE GUIDELINES.

NOTICE

THE COMPLETE REQUIREMENTS FOR PROCURING THE PRODUCT DESCRIBED HEREIN SHALL CONSIST OF THIS DOCUMENT AND THE LATEST ISSUE OF AS85049.

AS85049/121 IS RECOMMENDED FOR NEW DESIGN.

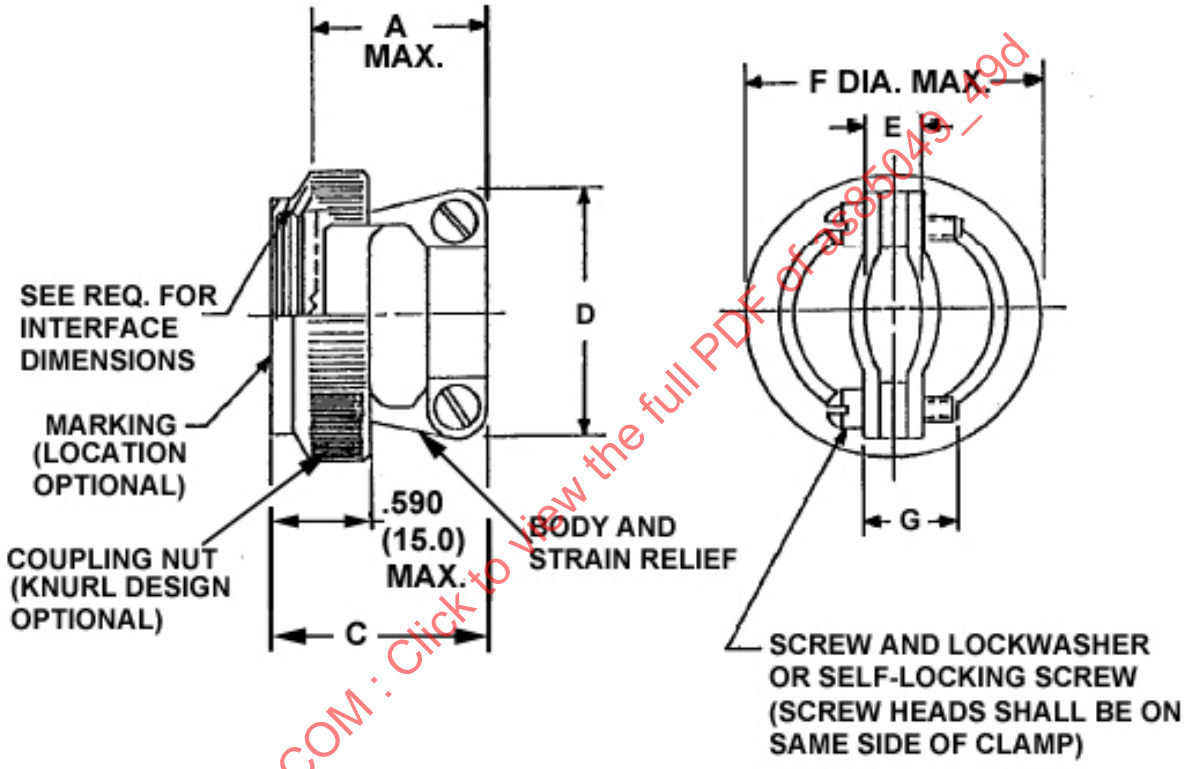
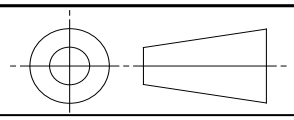


FIGURE 1 - DIMENSIONS AND CONFIGURATION (SELF-LOCKING ONLY)

For more information on this standard, visit
https://www.sae.org/standards/content/AS85049/49D/

THIRD ANGLE PROJECTION



ISSUED 2000-05 REVISED 2016-06 REAFFIRMED 2021-01

CUSTODIAN: AE-8C1

PROCUREMENT SPECIFICATION: AS85049

SAE INTERNATIONAL

AEROSPACE STANDARD

(R) CONNECTOR ACCESSORIES, ELECTRICAL, STRAIN RELIEF, STRAIGHT, SELF-LOCKING AND NON-SELF-LOCKING, CATEGORY 4C
(MIL-DTL-38999 SERIES I AND II CONNECTORS)

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

DASH NUMBER	CONNECTOR SHELL SIZE		A MAX. (SEE REQ.)	C MAX.	D MAX.	E WIRE BUNDLE ACCOMMODATION RANGE (SEE REQ.)		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)	.634 (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

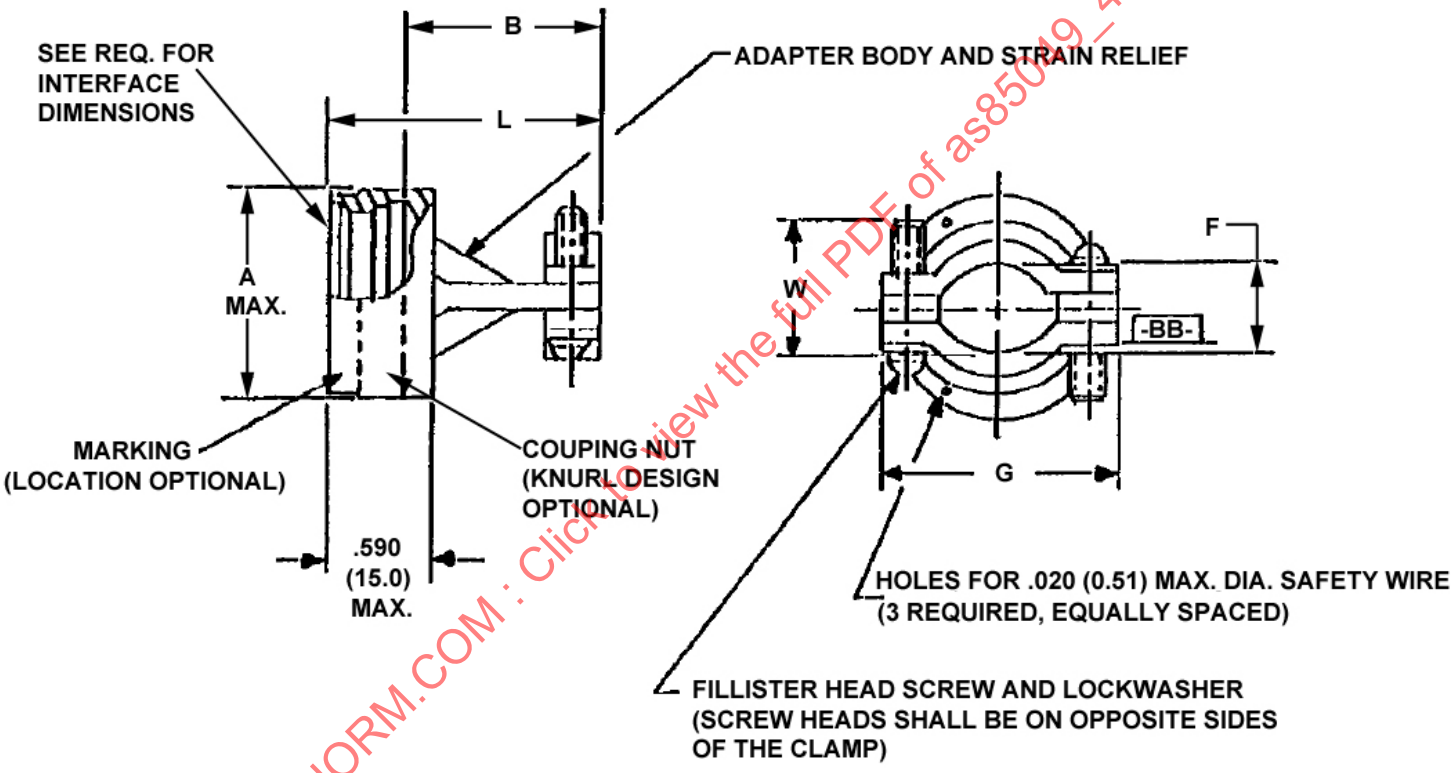


FIGURE 2 - DIMENSIONS AND CONFIGURATIONS (NON-SELF-LOCKING ONLY)

TABLE 2 - SHELL SIZES AND DIMENSIONS (NON-SELF-LOCKING ONLY)

DASH NUMBER	CONNECTOR SHELL SIZE		A MAX. (DIAMETER OF COUPLING RING)	B MAX (SEE REQ.)	F WIRE BUNDLE ACCOMMODATION RANGE (SEE REQ.)		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

REQUIREMENTS: ALL REQUIREMENTS SHALL CONSIST OF THIS SPECIFICATION AND THE LATEST ISSUE OF AS85049.

1. DESIGN AND CONSTRUCTION:

   ACCESSORIES SHALL BE DESIGNED IN ACCORDANCE WITH FIGURES 1 AND 2, AND TABLES 1 AND 2. DIMENSIONS ARE IN INCHES AND APPLY AFTER PLATING. METRIC EQUIVALENTS ARE IN PARENTHESIS, ARE GIVEN FOR GENERAL INFORMATION ONLY AND ARE BASED UPON 1 INCH = 25.4 MILLIMETERS. THE A DIMENSION IN FIGURE 1 AND THE B DIMENSION IN FIGURE 2 ARE MEASURED FROM THE BOTTOM OF THE ACCESSORY TEETH TO THE END OF THE CLAMP.

2. INTERFACE DIMENSIONS SHALL BE IN ACCORDANCE WITH AS85049, FIGURE 2.

3. THE ACCESSORY SHALL CONSIST OF A COUPLING NUT AND BODY. THE COUPLING NUT SHALL BE CAPTIVATED TO AND SHALL BE ROTATABLE ON THE BODY.

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

5. DETENTED SELF-LOCKING PROVIDES A POSITIVE AUDIBLE DETENTED COUPLING. OPTION “N” IS A FREE SPINNING SELF-LOCKING COUPLING.

6. WIRE BUNDLE ACCOMMODATION RANGE DIMENSION (F) IS DEFINED AS THE ENVELOPE AREA OF THE WIRE BUNDLE. THIS DIMENSION IS NOT MEANT TO DEFINE THE CLAMP HARDWARE LIMITS.

7. MATERIAL AND FINISH: ACCESSORIES SHALL BE AS SHOWN IN TABLE 3. CLAMP SCREW AND LOCKWASHERS: 300 SERIES CORROSION-RESISTANT STEEL, PASSIVATE.

TABLE 3 - MATERIAL AND FINISH

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

1/ N FINISH NOT RECOMMENDED FOR USE IN APPLICATIONS THAT MAY BE SUSCEPTIBLE TO SALT WATER CORROSION.
2/ W FINISH IS NOT RECOMMENDED FOR USE IN APPLICATIONS THAT MAY BE SUSCEPTIBLE TO OUT-GASSING (ALSO SEE SPECIFICATION NOTES)

8. QUALIFICATION: SEE AS85049, CATEGORY 4C.