FEDERAL SUPPLY CLASS
5935

RATIONALE

REVISION IS REQUIRED TO IMPROVE DRAWINGS, MOVE NOTES TO DESIGN PARAGRAPH TO FOLLOW C1 AS STANDARD FORMAT, REMOVE IMAGES, CLARIFY RESTRICTIONS, ADD A METRIC TABLE TO ADDRESS LISTED DIMENSIONS SHOWN ON FIGURE 1.

NOTICE

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

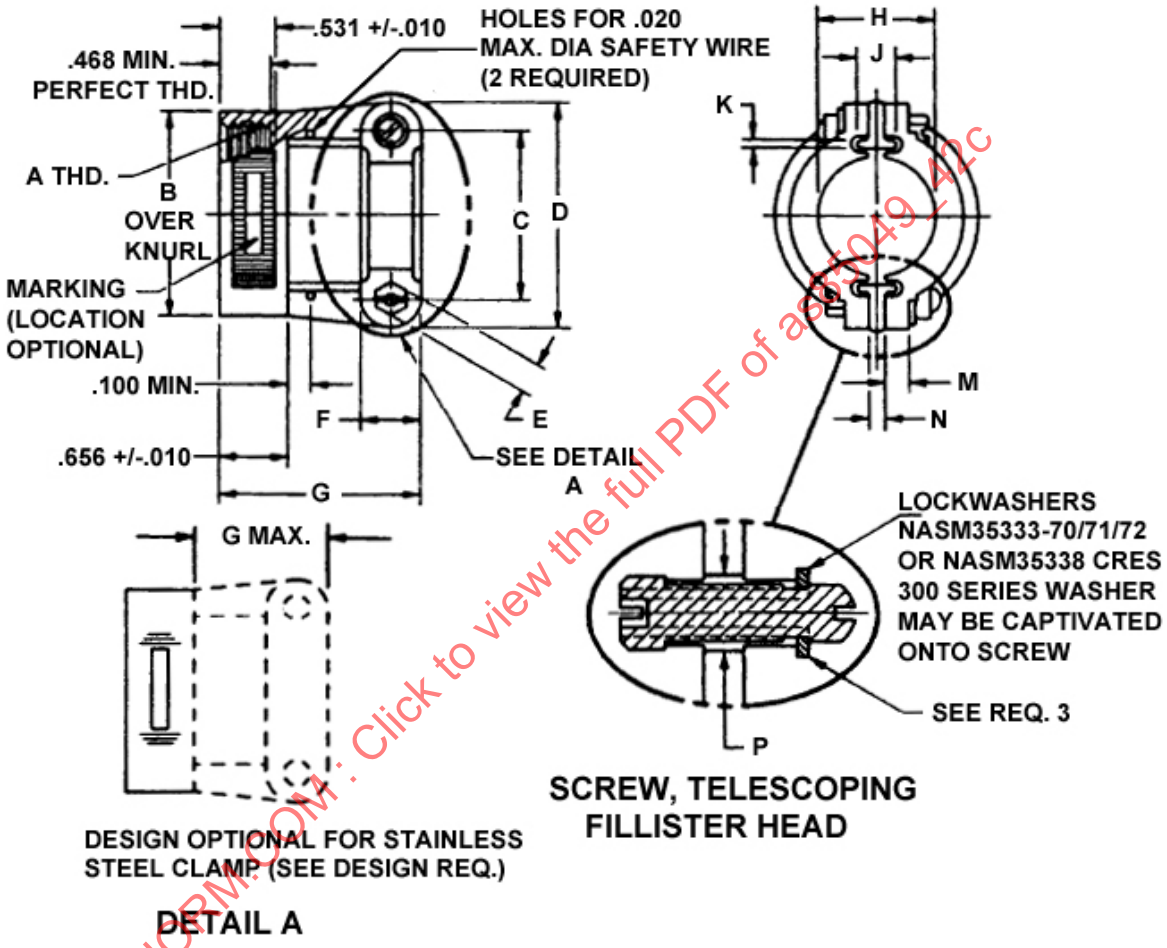
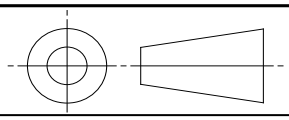


FIGURE 1 – ACCESSORY CONFIGURATION AND DIMENSIONS

ISSUED 1998-08 REVISED 2016-10 REAFFIRMED 2021-05

For more information on this standard, visit
https://www.sae.org/standards/content/AS85049/42C

THIRD ANGLE PROJECTION



CUSTODIAN: AE-8/AE-8C1

PROCUREMENT SPECIFICATION: AS85049

SAE INTERNATIONAL

AEROSPACE STANDARD

(R) CONNECTOR ACCESSORIES, ELECTRICAL, NONENVIRONMENTAL, STRAIN RELIEF, STRAIGHT, CATEGORY 4A (FOR AS50151 SOLDER TYPE, V THREAD OF MS310X CLASSES A. B. C. OR K CONNECTORS)

TABLE 1 – FIGURE 1 METRIC EQUIVALENTS

INCHES	MILLIMETERS	INCHES	MILLIMETERS	INCHES	MILLIMETERS
.010	0.25	.100	2.54	.531	13.49
.020	0.51	.468	11.89	.656	16.66

TABLE 2 – FIGURE 1 DIMENSIONS

DASH NO.	A THREAD CLASS 2B	B DIA MAX	C ±.010 (0.25) ±.032 (0.813, FOR SIZE 8D ONLY)	D ±.020 (0.51)	E +.000 -.007 (0.18)	F ±.010 (0.25) ±.026 (0.660 FOR SIZE 8D ONLY)	G ±.020 (0.51)	H (SEE REQ. 4) WIRE BUNDLE ACCOMMODATION RANGE	
								MIN	MAX
-4D	.625-24UNEF	.937 (23.80)	.637 (16.18)	.937 (23.80)	.250 (6.35)	.312 (7.92)	1.281 (32.54)	.125 (3.18)	.312 (7.92)
-6D	.750-20UNEF	1.031 (26.19)	.763 (19.38)	1.125 (28.58)	.250 (6.35)	.375 (9.53)	1.281 (32.54)	.250 (6.35)	.437 (11.10)
-8D	.875-20UNEF	1.250 (31.75)	.942 (23.93)	1.312 (33.32)	.250 (6.35)	.422 (10.72)	1.281 (32.54)	.312 (7.92)	.562 (14.27)
-10D	1.000-20UNEF	1.250 (31.75)	.964 (24.49)	1.312 (33.32)	.250 (6.35)	.437 (11.10)	1.281 (32.54)	.350 (8.89)	.625 (15.88)
-12D	1.1875-18UNEF	1.437 (36.50)	1.130 (28.70)	1.531 (38.89)	.250 (6.35)	.437 (11.10)	1.312 (33.32)	.500 (12.70)	.750 (19.05)
-16D	1.4375-18UNEF	1.688 (42.88)	1.375 (34.93)	1.750 (44.45)	.250 (6.35)	.531 (13.49)	1.406 (35.71)	.625 (15.88)	.937 (23.80)
-20D	1.750-18UNS	2.000 (50.80)	1.703 (43.26)	2.093 (53.16)	.312 (7.92)	.531 (13.49)	1.593 (40.46)	.875 (22.23)	1.250 (31.75)
-24D	2.000-18UNS	2.250 (57.15)	1.906 (48.41)	2.343 (59.51)	.312 (7.92)	.531 (13.49)	1.625 (41.28)	1.000 (25.40)	1.375 (34.93)
-28D	2.250-16UN	2.500 (63.50)	2.218 (56.34)	2.750 (69.85)	.312 (7.92)	.812 (20.62)	1.900 (48.26)	1.250 (31.75)	1.625 (41.28)
-32D	2.500-16UN	2.750 (69.85)	2.500 (63.50)	3.000 (76.20)	.312 (7.92)	.812 (20.62)	1.900 (48.26)	1.437 (36.50)	1.875 (47.63)

TABLE 2 – FIGURE 1 DIMENSIONS (CONTINUED)

DASH NO.	J DIA ±.010	K ±.010	M ±.010 (0.25) ±.018 (0.46, FOR SIZE 8D ONLY)	N ±.010	P ±.005	SCREW TELESCOPING, FILLISTER. HEAD
-4D	.218 (5.54)	.062 (1.57)	.156 (3.96)	.109 (2.77)	.166 (4.22)	#4-40 UNC-2*
-6D	.281 (7.14)	.062 (1.57)	.175 (4.45)	.125 (3.18)	.166 (4.22)	#4-40 UNC-2*
-8D	.312 (7.92)	.062 (1.57)	.211 (5.36)	.125 (3.18)	.166 (4.22)	#4-40 UNC-2*
-10D	.312 (7.92)	.062 (1.57)	.218 (5.54)	.125 (3.18)	.166 (4.22)	#4-40 UNC-2*
-12D	.375 (9.53)	.062 (1.57)	.250 (6.35)	.156 (3.96)	.192 (4.88)	#6-32 UNC-2*
-16D	.375 (9.53)	.062 (1.57)	.250 (6.35)	.188 (4.78)	.192 (4.88)	#6-32 UNC-2*
-20D	.475 (12.07)	.078 (1.98)	.312 (7.92)	.188 (4.78)	.217 (5.51)	#8-32 UNC-2*
-24D	.500 (12.70)	.093 (2.36)	.312 (7.92)	.250 (6.35)	.217 (5.51)	#8-32 UNC-2*
-28D	.625 (15.88)	.093 (2.36)	.312 (7.92)	.375 (9.53)	.217 (5.51)	#8-32 UNC-2*
-32D	.675 (17.15)	.125 (3.18)	.312 (7.92)	.375 (9.53)	.217 (5.51)	#8-32 UNC-2*

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

1. DESIGN AND CONSTRUCTION:

   ACCESSORIES SHALL BE DESIGNED IN ACCORDANCE WITH FIGURE 1 AND TABLE 2. DIMENSIONS ARE IN INCHES AND APPLY AFTER PLATING. UNLESS OTHERWISE SPECIFIED, TOLERANCES SHALL BE: .XX = ±.01; .XXX = ±.005; ANGULAR: X DEGREES = ±1 DEGREE 00'; X DEGREES XX' = ±0 DEGREES 30'. METRIC EQUIVALENTS ARE IN PARENTHESES, ARE GIVEN FOR GENERAL INFORMATION ONLY AND ARE BASED UPON 1 INCH = 25.4 MM (SEE TABLES 1 AND 2).

   FOR THE STAINLESS STEEL CLAMP, THE DIMENSIONS F, G, J, K, M, N, P AND .656 ±.010 SHALL BE OPTIONAL, BUT SHALL NOT EXCEED THE DIMENSIONS LISTED IN TABLE 1.

2. THE AS85049/42 CLAMP IS USED TO PROVIDE STRAIN RELIEF FOR THE CONNECTOR ACCESSORIES AS85049/6, /7, /8, /9, /10, /11, /23, /24 AND /25.

3. WHEN THE CLAMP IS IN THE FULLY CLOSED POSITION THE TELESCOPING SCREW AND NUT SHALL NOT BE FULLY MATED.

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.

5. MATERIAL AND FINISH: AS SPECIFIED IN TABLE 3 AND AS LISTED BELOW.

   CLAMP ASSEMBLY SCREWS - CORROSION RESISTANT STEEL IN ACCORDANCE WITH SAE AS85049, PASSIVATED.

TABLE 3 - MATERIAL AND FINISH

COMPONENT	MATERIAL	FINISH
BODY	ALUMINUM ALLOY IN ACCORDANCE WITH AS85049	1/ N, 2/ W, X, Y, 2/ Z
BODY	CORROSION RESISTANT STEEL IN ACCORDANCE WITH AS85049	2/ B, S, XS, YS, 2/ ZS

1/ N FINISH NOT RECOMMENDED FOR USE IN APPLICATIONS THAT MAY BE SUSCEPTIBLE TO SALT WATER CORROSION.
2/ W, Z, B AND ZS FINISHES NOT RECOMMENDED FOR USE IN APPLICATIONS THAT MAY BE SUSCEPTIBLE TO OUT GASSING (ALSO SEE SPECIFICATION NOTES).

6. QUALIFICATION: IN ACCORDANCE WITH AS85049, CATEGORY 4A.