

REV.
E

AS85049™/103

RATIONALE

REVISED TO INCLUDE NATURAL COLOR FOR COMPOSITE NONCONDUCTIVE FINISH AS COLOR OPTION CODE.

NOTICE

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

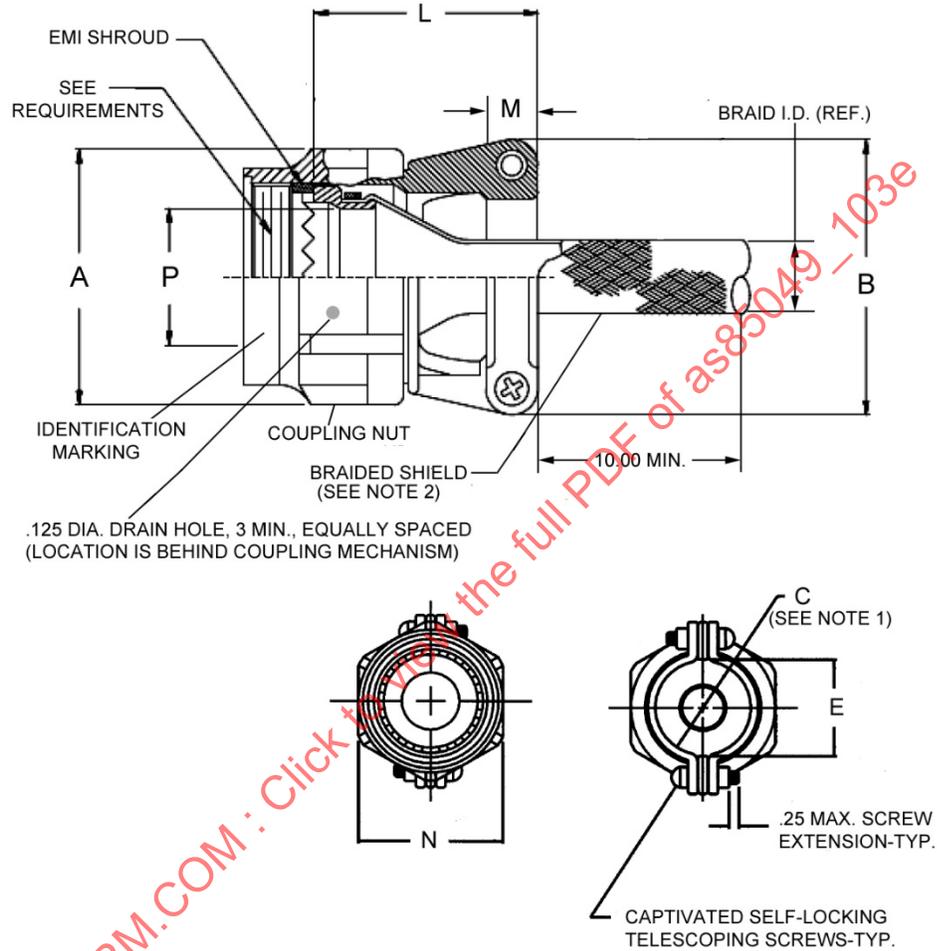
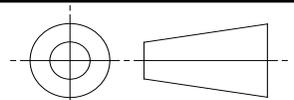


FIGURE 1 - CONFIGURATION AND DIMENSIONS

For more information on this standard, visit
<https://www.sae.org/standards/content/AS85049/103E/>

THIRD ANGLE PROJECTION



CUSTODIAN: AE-8C1

PROCUREMENT SPECIFICATION: AS85049



AEROSPACE STANDARD

CONNECTORS, ACCESSORIES, COMPOSITE,
RF/EMI, ELECTRICAL, STRAIN RELIEF, STRAIGHT,
SELF-LOCKING, CATEGORY 3C
(FOR MIL-DTL-38999 SERIES III AND IV CONNECTORS)

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SHEET 1 OF 3

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TABLE 1 - SHELL SIZES AND DIMENSIONS

SHELL SIZE	A MAX DIA	B MAX	C DIA ±.031 (SEE REQ 2)	E MIN	L
09	.858 (21.79)	.98 (24.89)	.265 (6.73)	.229 (5.82)	.780/ .939 (19.81/23.85)
11	.984 (24.99)	1.05 (26.67)	.310 (7.87)	.274 (6.96)	.860/1.059 (21.84/26.90)
13	1.157 (29.39)	1.20 (30.48)	.390 (9.91)	.354 (8.99)	.950/1.199 (24.13/30.45)
15	1.280 (32.51)	1.30 (33.02)	.506 (12.85)	.470 (11.94)	.950/1.199 (24.13/30.45)
17	1.406 (35.71)	1.44 (36.58)	.591 (15.01)	.555 (14.10)	1.080/1.329 (27.43/33.75)
19	1.516 (38.51)	1.56 (39.62)	.661 (16.79)	.625 (15.88)	1.140/1.509 (28.96/38.33)
21	1.642 (41.71)	1.69 (42.92)	.744 (18.90)	.708 (17.98)	1.200/1.609 (30.48/40.87)
23	1.768 (44.91)	1.77 (44.96)	.826 (20.98)	.790 (20.07)	1.330/1.759 (33.78/44.68)
25	1.890 (48.01)	1.89 (48.01)	.896 (22.76)	.860 (21.84)	1.450/1.859 (36.83/47.22)

TABLE 1 - SHELL SIZES AND DIMENSIONS (CONTINUED)

SHELL SIZE	M ±.03	N HEX	P MIN	BRAID ID REF	SCREW SIZE
09	.375 (9.53)	.750/ .736 (19.05/18.69)	.264 (6.71)	.375 (9.53)	4-40
11	.375 (9.53)	.875/ .860 (22.23/21.84)	.390 (9.91)	.375 (9.53)	4-40
13	.406 (10.31)	1.000/ .980 (25.40/24.89)	.504 (12.80)	.500 (12.70)	6-32
15	.406 (10.31)	1.125/1.100 (28.58/27.94)	.630 (16.00)	.500 (12.70)	6-32
17	.406 (10.31)	1.250/1.224 (31.75/31.09)	.756 (19.20)	.781 (19.84)	6-32
19	.406 (10.31)	1.375/1.348 (34.93/34.24)	.843 (21.41)	.781 (19.84)	6-32
21	.406 (10.31)	1.500/1.469 (38.10/37.31)	.969 (24.61)	1.000 (25.40)	6-32
23	.406 (10.31)	1.625/1.581 (41.28/40.16)	1.091 (27.71)	1.000 (25.40)	6-32
25	.406 (10.31)	1.750/1.690 (44.45/42.93)	1.217 (30.91)	1.250 (31.75)	6-32

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

1. CONNECTOR ACCESSORY DESIGN AND CONSTRUCTION: DIMENSIONS AND CONFIGURATIONS SHALL BE IN ACCORDANCE WITH FIGURE 1 AND TABLE 1. DIMENSIONS ARE IN INCHES. METRIC EQUIVALENTS IN PARENTHESES ARE FOR GENERAL INFORMATION ONLY AND ARE BASED ON 1 INCH = 25.4 MM. DIMENSIONS APPLY AFTER PLATING. UNLESS OTHERWISE SPECIFIED, TOLERANCES SHALL BE: .XX = ±.03 AND .XXX = ±.015 ANGULAR TOLERANCES X = ±2°.
2. CABLE ENTRY SHALL BE MEASURED WITH SADDLE BARS CLOSED AND BOTTOMED ON CLAMP EARS.
3. FOR SHIELD SPLICE/TERMINATION, AS85049/93 SPLIT SUPPORT RING SHALL BE USED.
4. DETENTED SELF-LOCKING SHALL HAVE A POSITIVE AUDIBLE, DETENTED COUPLING. OPTION "N" SHALL BE A FREE SPINNING SELF-LOCKING COUPLING.
5. INTERFACE DIMENSIONS SHALL BE IN ACCORDANCE WITH AS85049, FIGURE 3.
6. ACCESSORIES SHALL CONSIST OF A COUPLING NUT, STRAIGHT CLAMP STRAIN RELIEF, BRAIDED SHIELD, AND SADDLE BARS. THE COUPLING NUT SHALL BE CAPTIVATED TO THE CLAMP AND FREE TO ROTATE.
7. CLAMP SHALL HAVE NO PROTRUSIONS OR SHARP EDGES WHICH MAY PINCH CABLE.
8. MATERIAL AND FINISH SHALL BE IN ACCORDANCE WITH AS85049.
 - A. CLAMP BODY, COUPLING, AND SADDLE CLAMPS SHALL BE COMPOSITE (NONCONDUCTIVE NO FINISH).
 - B. SELF-LOCKING TELESCOPING SCREWS AND WASHERS SHALL BE 300 SERIES CORROSION-RESISTANT STEEL/PASSIVATED SILVER PLATE OPTIONAL.
 - C. BRAID SHALL BE 34 GAUGE WIRE, COPPER, NICKEL PLATED, 50 MICROINCHES MINIMUM THICKNESS.
 - D. BRAID CONSTRUCTION SHALL BE SIMILAR TO AA59569 34 AWG CARRIERS AND ENDS MAY VARY TO OBTAIN 90% MINIMUM COVERAGE.
 - E. INTERFACE AND SHROUD SHALL BE BRASS, NICKEL PLATED.
 - F. BRAID RETENTION DEVICE SHALL BE ALUMINUM/IRIDITE PER MIL-DTL-5541 OR 300 SERIES CORROSION-RESISTANT STEEL/PASSIVATED OR COPPER/TIN PLATED.