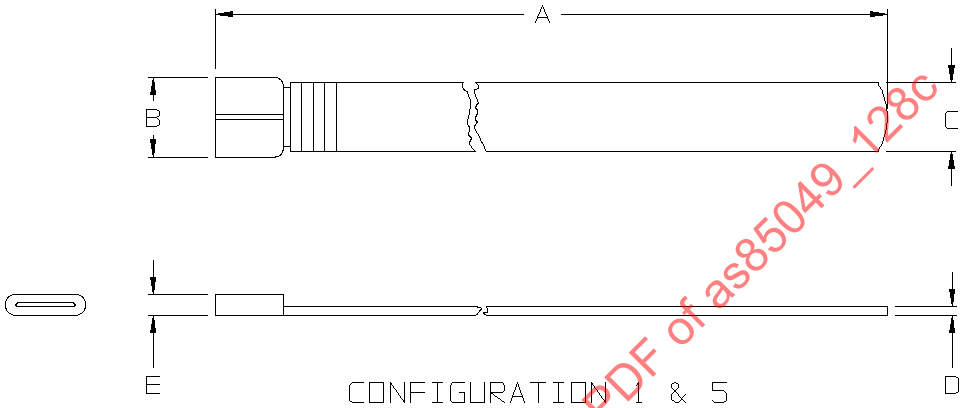
FEDERAL SUPPLY CLASS
5935

RATIONALE

REVISION IS REQUIRED TO CHANGE THE A DIMENSION FOR CONFIGURATIONS 1, 3, 5, 7 AND THE C DIMENSION FOR CONFIGURATIONS 3 AND 7 TO ENSURE PROPER FIT WITH THE BANDING TOOL AND ELIMINATE REPORTED FIELD USAGE ISSUES.

NOTICE

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



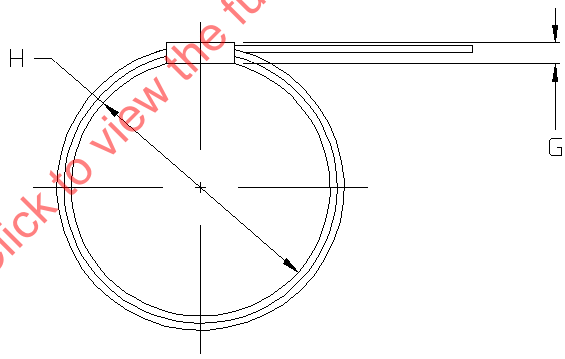
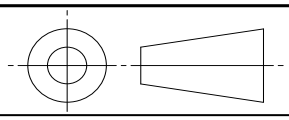


FIGURE 1 - CONFIGURATION

THIRD ANGLE PROJECTION



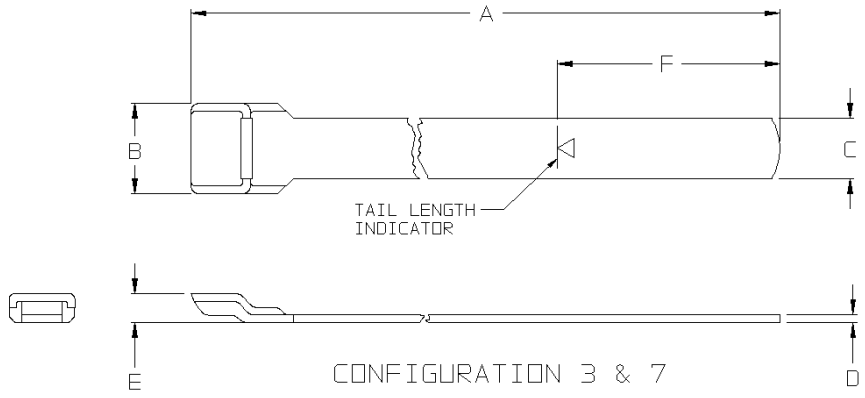
ISSUED 2003-06 REVISED 2012-11

CUSTODIAN: AE-8/AE-8C1

SAE Aerospace
An SAE International Group

AEROSPACE STANDARD

CONNECTOR ACCESSORIES, ELECTRICAL
BACKSHELL, SHIELD BAND, CATEGORY 7
(FOR AS85049/82 - /90, /93, /109 - /117 ACCESSORIES)



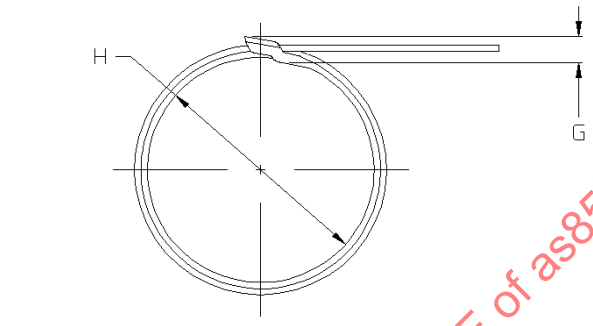


FIGURE 2 - CONFIGURATION AND DIMENSIONS

TABLE 1 - FIGURE 1 AND 2 CONFIGURATIONS AND DIMENSIONS

CONFIG	FIGURE	A ±.060	B ±.031	C ±.010	D REF	E REF	F REF	G MAX	H REF
1	1	13.94 (354.07) 14.31 (363.47)	.328 (8.33)	.245 (6.22)	.019 (0.48)	.100 (2.54)	---	---	---
2		---	---	---	---	---	---	.140 (3.56)	1.750 (44.46)
3	2	14.19 (360.42) 14.31 (363.47)	.350 (8.89)	.245 (6.22)	.020 (0.51)	.130 (3.30)	2.031 (51.59)	----	---
4		---	---	---	---	---	---	.150 (3.81)	1.750 (44.45)
5	1	9.44 (239.77) 9.56 (242.82)	.198 (4.95)	.118 (3.00)	.015 (0.38)	.080 (2.03)	---	---	---
6		---	---	---	---	---	---	.120 (3.05)	1.12 (28.45)
7	2	8.06 (204.72) 8.18 (207.77)	.195 (4.95)	.115 (2.92)	.015 (0.38)	.053 (1.35)	2.031 (51.59)	---	---
8		---	---	---	---	---	---	.073 (1.85)	.860 (21.8)

NOTES:

1. THE INSTALLATION BAND SHALL BE PRE-COILED (DOUBLE WRAPPED) AND PROVIDED AS SHOWN. DIMENSIONS OF THE PRE-COILED VERSION (-2, -4, -6 & -8) SHALL BE THE SAME AS THE UNCOILED VERSION (-1, -3, -5 & -7) RESPECTIVELY. THE PRE-COILED VERSION PROVIDES THE INSTALLATION HEIGHT OF THE BAND.

2. DIMENSIONS ARE IN INCHES.

3. UNLESS OTHERWISE SPECIFIED TOLERANCES SHALL BE .XX = ±.03, .XXX = ±.015

4. METRIC EQUIVALENTS ARE GIVEN FOR GENERAL INFORMATION ONLY AND ARE BASED UPON 1.00 INCH (25.4 MM).

5. MILLIMETERS ARE IN PARENTHESES

6. A BAND OVER 8 INCHES LONG MAY BE A TWO PIECE WELDED CONSTRUCTION.

7. BANDS TO BE BULK PACKAGED AND IDENTIFIED PER MIL-STD-1285, BAG AND TAG (INDIVIDUAL BAND IDENTIFICATION AT MANUFACTURER'S OPTION).

REQUIREMENTS:

1. DESIGN AND CONSTRUCTION.

2. DIMENSION AND CONFIGURATION: FIGURE 1 AND 2 AND TABLE 1.

3. MATERIAL AND FINISH: BAND SHALL BE CORROSION RESISTANT STEEL AS SPECIFIED IN ASTM A 240/A2 40M (S30400) AND PASSIVATED IN ACCORDANCE WITH AMS-QQ-P-35, AMS2700 OR ASTM A 967.

4. TOOL: TOOL USED TO ATTACH THE BAND TO A CONNECTOR ACCESSORY SHALL BE IN ACCORDANCE WITH TABLE 2.

TABLE 2 - BAND INSTALLATION TOOL DATA

CONFIGURATION	FIGURE	BAND INSTALLATION TOOL REQUIREMENT	
		ONE STEP METHOD	TWO STEP METHOD
1	1		M81306/2-01
2			
3	2	M81306/1-01	
4			
5	1		M81306/2-02
6			
7	2	M81306/1-02	
8			

PART OR IDENTIFYING NUMBER (PIN):

EXAMPLE: M85049/ 128 - 3

BASIC PART NUMBER

SPECIFICATION SHEET

CONFIGURATION

QUALIFICATION: SAE AS85049 CATEGORY 7 AND AS STATED HEREIN.

1. INSTALLATION TEST: INSTALL TWO UNCOILED BANDS AS FOLLOWS:

   a. SLIDE THE END OF BAND THROUGH A .021-INCH SLOTTED FIXTURE FOR CONFIGURAITONS 1 AND 3 AND THROUGH A .016-INCH SLOTTED FIXTURE FOR CONFIGURATIONS 5 AND 7. MOUNT THE FIXTURE TO A FORCE GAGE. APPLY A 210-POUND MINIMUM LINEAR FORCE FOR CONFIGURATIONS 1 AND 3 AND A 140-POUND MINIMUM LINEAR FORCE FOR CONFIGURATIONS 5 AND 7 ON THE BUCKLE BY PULLING ON THE END OF THE BAND. THE BAND BUCKLE SHALL NOT FAIL OR BECOME DAMAGED.

   b. ATTACH THE APPLICABLE AS81306/*-** TOOL (SEE TABLE 2) TO THE END OF THE BAND. MEASURE THE TOOL'S LINEAR PULL FORCE ON THE BAND. THE FORCE SHALL BE 138 POUNDS MINIMUM TO 160 POUNDS MAXIMUM FOR CONFIGURATIONS 1 AND 3 AND 70 POUNDS MINIMUM TO 90 POUNDS MAXIMUM FOR CONFIGURATIONS 5 AND 7.

   c. MOUNT THE BAND ON A .20-INCH MANDREL. SLIDE THE BAND THROUGH THE BUCKLE TWO TIMES WHILE PULLING ON THE END WITH A FORCE GAGE. THE FORCE REQUIRED TO SLIDE THE BAND THROUGH THE BUCKLE SHALL NOT EXCEED 7 POUNDS.

   d. SECURE THE BAND TO A .25-INCH MANDREL WITH THE BAND INSTALLATION TOOL IN ACCORDANCE WITH TABLE 2 AS DEFINED IN THE QUALIFIED MANUFACTURER'S TOOL INSTRUCTIONS.

      EXAMINE THE MANDREL FOR VOIDS BETWEEN THE BAND AND THE MANDREL. THERE SHALL BE NO MORE THAN ONE VOID AREA GREATER THAN .03 INCH WHEN TRANSITIONING FROM THE BUCKLE EDGE TO THE MANDREL.

   e. EXAMINE THE BAND LOCKING MECHANISM. THE END OF THE BAND SHALL BE LOCKED OVER THE BUCKLE WITH A 45-DEGREE MINIMUM BEND.

2. BAND TERMINATION TEST (CONFIGURATION 2 & 4 ONLY): FOR EACH DASH NUMBER TO BE QUALIFIED, PERFORM THE FOLLOWING TESTS ON TWO BAND SPECIMENS FOR EACH ACCESSORY SHELL SIZE FOR A TOTAL OF SIX SPECIMENS. A 6-INCH BRAID SHALL BE CLAMPED BY EACH SPECIMEN TO THE ACCESSORY. THE BRAID SHALL BE TIN COATED COPPER IN ACCORDANCE WITH A-A-59569 WITH A 90% COVERAGE. TWO SPECIMENS EACH SHALL BE CLAMPED TO AN M85049/82-10*03, M85049/82-18*03, AND M85049/82-28*03 ACCESSORY RESPECTIVELY. THE BAND SHALL BE ASSEMBLED TO THE ACCESSORY WITH THE APPLICABLE BAND INSTALLATION TOOL IN ACCORDANCE WITH TABLE 2.

   a. BRAID RETENTION: WITH ACCESSORY SUITABLY ASSEMBLED WITH BRAID, PULL THE BRAID AT A RATE OF 1 INCH PER MINUTE TO A FORCE OF 100 POUNDS MINIMUM FOR BRAID .50 INCH AND UNDER AND 150 POUNDS MINIMUM FOR BRAID OVER .50 INCH. THE BRAID SHALL NOT PULL OUT. BAND SLIPPAGE SHALL NOT EXCEED .025 INCH WHEN MEASURED FROM A FIXED POINT ON THE ADAPTER. BRAID BREAKAGE DUE TO TENSILE LOAD WILL NOT BE VIEWED AS A FAILURE.

   b. THERMAL AGING: THERMALLY EXPOSE THE ACCESSORY TO 150 DEGREES CELSIUS FOR 168 HOURS FOLLOWED BY AN ELECTRICAL RESISTANCE MEASUREMENT AT ROOM TEMPERATURE. THE APPLIED CURRENT SHALL BE 100 MILLI-AMPS ± 10 MILLI-AMPS AT A MAXIMUM OF 1.50 DC VOLTS. THE MEASUREMENT SHALL BE TAKEN FROM A POINT ON THE BRAID, WITHIN 1.0+.00/-.50 INCH BEYOND THE END OF THE ADAPTER, AND A POINT ON THE ADAPTER AT THE OPPOSITE SIDE OF THE BAND. THE ELECTRICAL RESISTANCE SHALL NOT EXCEED 1.0 MILLI-OHM.