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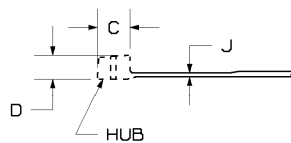
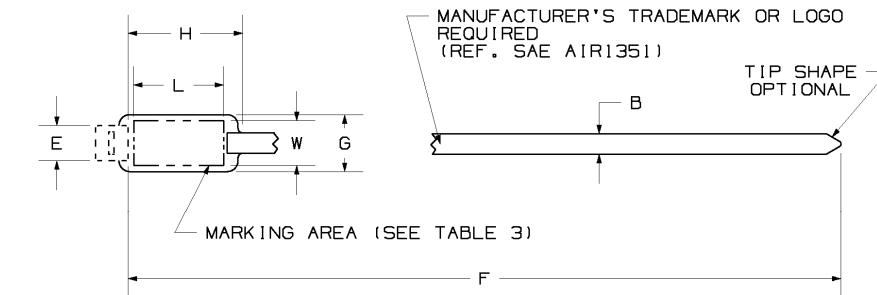
REV.
E

AS33681™

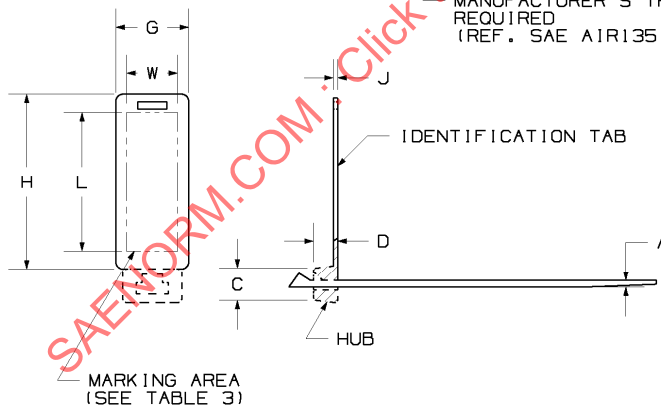
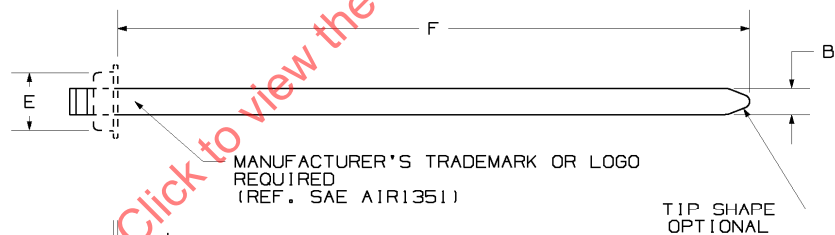
FEDERAL SUPPLY CLASS
5975

RATIONALE

ADDED -17 MATERIAL CLASSIFICATION AND CLARIFIED -0 MATERIAL CLASSIFICATION.



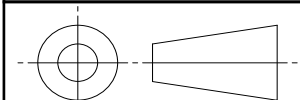
STYLE A



STYLE B

For more information on this standard, visit
<https://www.sae.org/standards/content/AS33681E/>

THIRD ANGLE PROJECTION



CUSTODIAN: AE-8C2

PROCUREMENT SPECIFICATION: AS23190



AEROSPACE STANDARD

STRAP, TIEDOWN, ELECTRICAL COMPONENTS,
IDENTIFICATION, ADJUSTABLE, SELF-CLINCHING,
PLASTIC, TYPE II, CLASS 1

AS33681™
SHEET 1 OF 5

REV.
E

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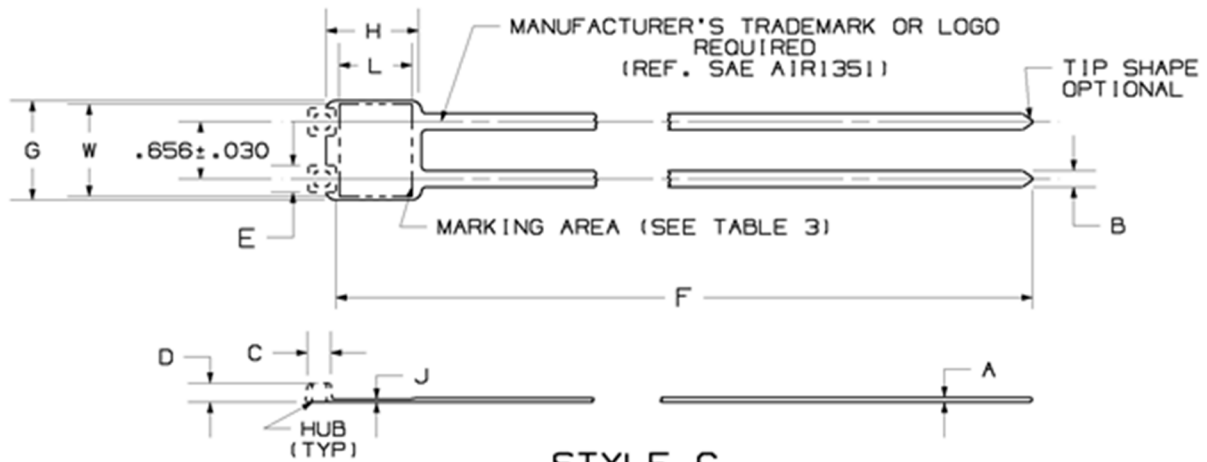
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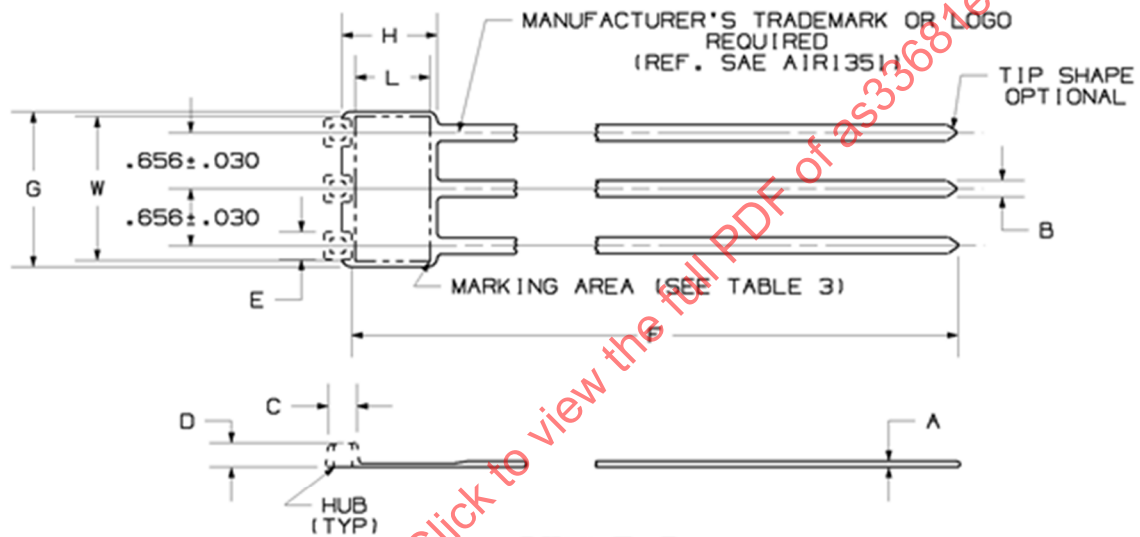
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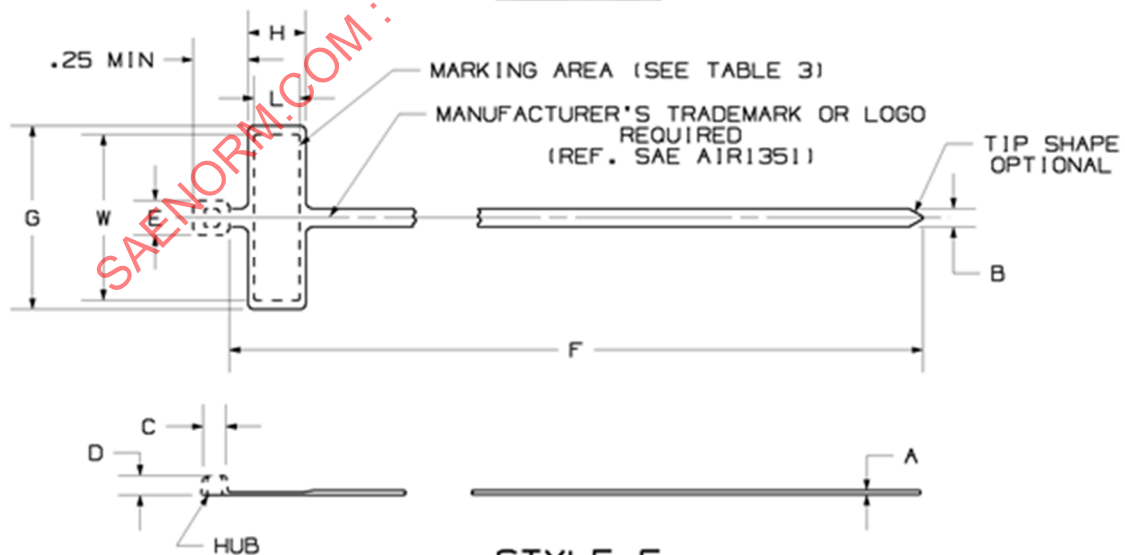
ISSUED 1997-08 REAFFIRMED 2013-07 REVISED 2022-08



STYLE C



STYLE D



STYLE E

TABLE 1
STYLE A, B, C, D, & E

MS3388 DASH NUMBER	STYLE	BUNDLE DIA. INCH		A MAX	B MAX	C MAX	D MAX	E MAX	F MIN	G MIN	H MAX	J MAX	MIN. TENSILE STRENGTH LB.	STRAP ID CODE (SEE NOTE 9)	MS INSTALLATION TOOL	TOOL TENSION SETTING RANGE (SEE NOTES 5 & 10)
		MIN.	MAX.													
-1	A & B	3/8 (SEE NOTE 3)	1-3/4	.055	.190	.275	.240	.425	6.30	.50	1.125 1/	.035	50	STD (STANDARD)	MS90387-1	6 TO 8
-2	A & B	3/4 (SEE NOTE 3)	4	.065	.190	.275	.240	.425	13.35	.50	2.312	.048	50	STD (STANDARD)	MS90387-1	6 TO 8
-3	C	3/8	1-3/4	.055	.190	.275	.240	.425	6.30	1.12	1.125	.035	50 (SEE NOTE 8)	STD (STANDARD)	MS90387-1	6 TO 8
-4	D	3/8	1-3/4	.055	.190	.275	.240	.425	6.30	1.78	1.125	.035	50 (SEE NOTE 8)	STD (STANDARD)	MS90387-1	6 TO 8
-5	E	3/16	5/8	.046	.100	.175	.170	.360	2.72	.96	.34	.035	18	MIN (MINIATURE)	MS90387-1	1 TO 3

1/ FOR DASH 1, STYLE B, THE "H" DIMENSION SHALL BE 1.187 MAX IN LIEU OF 1.125.

TABLE 2

COLOR DASH NUMBER	COLOR	COLOR DASH NUMBER	COLOR
-0	BLACK 2/	-5	GREEN
-1	BROWN	-6	BLUE
-2	RED	-7	PURPLE
-3	ORANGE	-8	GRAY
-4	YELLOW	-9	NATURAL
		-17	BLACK 3/

2/ SEE REQUIREMENTS: 1. A. (1); 1. B. (2)

3/ SEE REQUIREMENTS: 1. A. (2); 1. B. (2)

TABLE 3

DASH NO.	STYLE	MARKING AREA	
		L MIN.	W MIN.
1	A	.85	.41
1	B	.96	.42
2	A	1.93	.41
2	B	.96	.42
3	C	.87	1.07
4	D	.87	1.75
5	E	.24	.91

REQUIREMENTS:

1. MATERIAL:

- a. STRAP: NYLON 66 (-1 THRU -9) PER ASTM D4066 TYPE PA0111, COLOR BLACK SHALL BE WEATHER RESISTANT AS FOLLOWS.
- (1) FOR -0 WEATHER STABILIZED NYLON 66 TYPE PA0191 > 1.9% CARBON.
 - (2) FOR -17 WEATHER STABILIZED NYLON 66 TYPE PA0111 < 1.9% CARBON.
- b. STRAP LOCK: (1) METAL TYPE PER ASTM A240/A240M, ASTM A666 AND ASTM A580/580M CLASS 304 OR 316 (REFER TO AS23190), SEE NOTE 4.
- (2) PLASTIC TYPE PER ASTM D4066 (REFER TO AS23190), SEE NOTE 4.
- c. COLOR: (1) COLOR SHALL CONFORM TO EIA 359, EXCEPT NATURAL AND BLACK.
- (2) A CONTRASTING COLOR SHALL BE USED WHEN MARKING IDENTIFICATION CABLE STRAP IN "MARKING" AREA.

2. THE MANUFACTURER'S TRADEMARK OR LOGO IS REQUIRED ON THE PRODUCT AND MUST BE REGISTERED IN AIR1351.

NOTES:

- 1. ALL DIMENSIONS ARE IN INCHES.
- 2. THE EDGES OF THE STRAP SHALL BE SMOOTH AND WELL ROUNDED SO AS NOT TO CUT OR ABRASE WIRES, CABLES, OR THE USER OF THE DEVICE.
- 3. WHEN IDENTIFICATION TAB FOR THE STYLE B DESIGN IS IN THE "FLAG" POSITION, MINIMUM BUNDLE DIAMETER MAY BE 1/16.
- 4. LOCKING DEVICES OF ANY DESIGN ARE ACCEPTABLE PROVIDED THEY MEET PERFORMANCE REQUIREMENTS OF THE PROCUREMENT SPECIFICATION AS23190. WHEN METAL LOCKING DEVICES ARE USED, THEY MUST BE SECURELY ANCHORED AND SHALL NOT BE EXPOSED OUTSIDE OF THE HUB OR HUBS.
- 5. TYPE II TIEDOWN STRAPS MAY BE USED ON WIRE BUNDLES CONTAINING SOLID DIELECTRIC COAXIAL CABLES PROVIDED THAT THE TENSION SETTING ON THE MS90387 INSTALLING TOOL IS NOT GREATER THAN THAT REQUIRED TO PREVENT AXIAL SLIPPAGE.
- 6. MINIMUM TENSILE STRENGTH APPLIES TO EACH LEG OF STRAP.
- 7. CONTOUR INDICATED BY PHANTOM LINES MAY VARY FROM THAT SHOWN TO SUIT INDIVIDUAL MANUFACTURER'S DESIGN. SLIGHT MOLDING TAPER IS PERMITTED.
- 8. IF THE MANUFACTURER ELECTS TO INCLUDE THE PART NUMBER ON THE PRODUCT, THE PART NUMBER IS TO BE PLACED NEAR OR AROUND THE MANUFACTURER'S LOGO OR TRADEMARK SUCH THAT WHEN THE STRAP IS CUT OFF, AFTER IT IS APPLIED, THE PART NUMBER REMAINS INTACT.

EXAMPLE OF PART NUMBER:

MS3368 - 1 - 9 A

STYLE

COLOR DASH NO.

DASH NO.

BASIC PART NO.

	AEROSPACE STANDARD	AS33681™ SHEET 4 OF 5	REV. E
	STRAP, TIEDOWN, ELECTRICAL COMPONENTS, IDENTIFICATION, ADJUSTABLE, SELF-CLINCHING, PLASTIC, TYPE II, CLASS 1		