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REV.
B

AS83519™/2

FEDERAL SUPPLY CLASS
5940

RATIONALE

GRAPHICS PLACEMENT CORRECTION; ADDITION OF METRIC DIMENSIONS; RESTATE AND FORMAT PER SAE TECHNICAL REPORT GUIDELINES.

NOTICE

THE COMPLETE REQUIREMENTS FOR PROCURING THE PRODUCT DESCRIBED HEREIN SHALL CONSIST OF THIS DOCUMENT AND THE LATEST ISSUE OF AS83519.

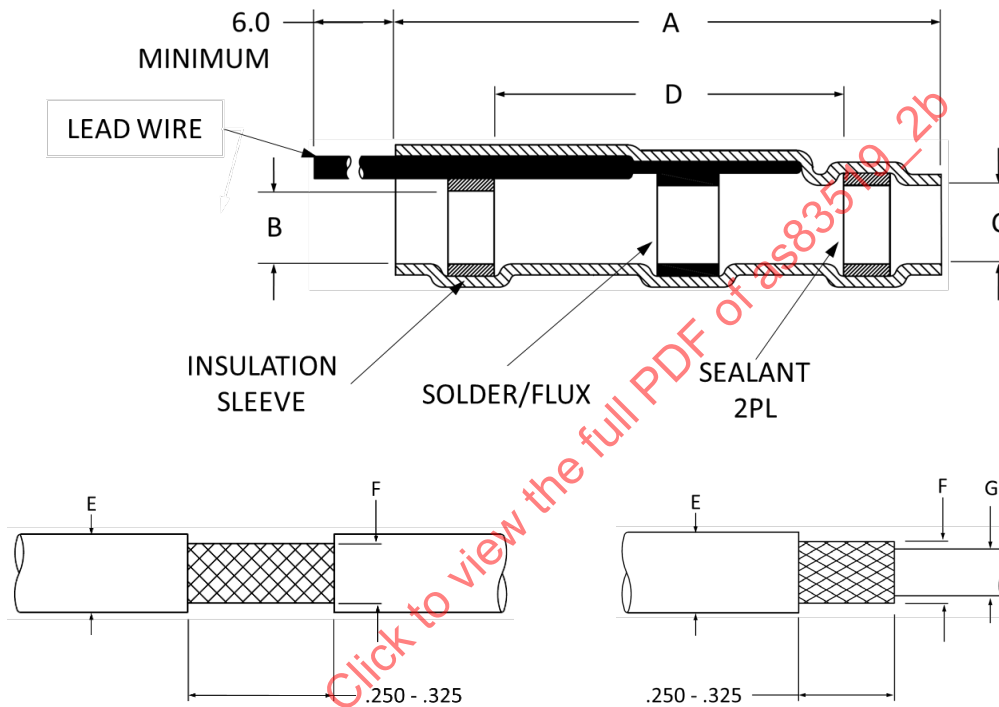
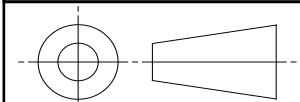


FIGURE 1 - CABLE DIAMETER RANGE AND PREPARATION MEASUREMENTS

For more information on this standard, visit
<https://www.sae.org/standards/content/AS83519/2B/>

THIRD ANGLE PROJECTION



CUSTODIAN: AE-8C2

PROCUREMENT SPECIFICATION: AS83519



AEROSPACE STANDARD

(R) SHIELD TERMINATION, SOLDER STYLE, INSULATED, HEAT-SHRINKABLE, ENVIRONMENT RESISTANT WITH PRE-INSTALLED LEADS FOR CABLES HAVING TIN OR SILVER PLATED SHIELDS (CLASS I)

AS83519™/2
SHEET 1 OF 5

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ISSUED 1998-07 REAFFIRMED 2009-04 REVISED 2025-02

TABLE 1 - CONSTRUCTION DETAILS 1/

PART NUMBER	MARKING CODE	LEAD WIRE	A ± .070 (±1.78)	C MIN	C MIN	D MIN	E MIN	F MIN	G MIN
M83519/2-1	S0201X	M22759/32-20	.650 (16.51)	.075 (1.91)	.105 (2.67)	.325 (8.26)	.105 (2.67)	.035 (0.89)	.020 (0.51)
M83519/2-2	S0202X		.650 (16.51)	.105 (2.67)	.145 (3.68)		.145 (3.68)	.055 (1.40)	.030 (0.76)
M83519/2-3	S0203X		.650 (16.51)	.170 (4.32)	.200 (5.08)		.200 (5.08)	.085 (2.16)	.050 (1.27)
M83519/2-4	S0204X		.750 (19.05)	.235 (5.97)	.255 (6.48)		.255 (6.48)	.130 (3.30)	.070 (1.78)
M83519/2-5	S0205X		.750 (19.05)	.275 (6.99)	.300 (7.62)		.300 (7.62)	.170 (4.32)	.100 (2.54)
M83519/2-6	S0206X	M22759/32-22	.650 (16.51)	.075 (1.91)	.105 (2.67)		.105 (2.67)	.035 (0.89)	.020 (0.51)
M83519/2-7	S0207X		.650 (16.51)	.105 (2.67)	.145 (3.68)		.145 (3.68)	.055 (1.40)	.030 (0.76)
M83519/2-8	S0208X		.650 (16.51)	.170 (4.32)	.200 (5.08)		.200 (5.08)	.085 (2.16)	.050 (1.27)
M83519/2-9	S0209X		.750 (19.05)	.235 (5.97)	.255 (6.48)		.255 (6.48)	.130 (3.30)	.070 (1.78)
M83519/2-10	S0210X		.750 (19.05)	.275 (6.99)	.300 (7.62)		.300 (7.62)	.170 (4.32)	.100 (2.54)
M83519/2-11	S0211X	M22759/32-24	.650 (16.51)	.075 (1.91)	.105 (2.67)		.105 (2.67)	.035 (0.89)	.020 (0.51)
M83519/2-12	S0212X		.650 (16.51)	.105 (2.67)	.145 (3.68)		.145 (3.68)	.055 (1.40)	.030 (0.76)
M83519/2-13	S0213X		.650 (16.51)	.170 (4.32)	.200 (5.08)		.200 (5.08)	.085 (2.16)	.050 (1.27)
M83519/2-14	S0214X		.750 (19.05)	.235 (5.97)	.255 (6.48)		.255 (6.48)	.130 (3.30)	.070 (1.78)
M83519/2-15	S0215X		.750 (19.05)	.275 (6.99)	.300 (7.62)		.300 (7.62)	.170 (4.32)	.100 (2.54)
M83519/2-16	S0216X	M22759/32-26	.650 (16.51)	.075 (1.91)	.105 (2.67)		.105 (2.67)	.035 (0.89)	.020 (0.51)
M83519/2-17	S0217X		.650 (16.51)	.105 (2.67)	.145 (3.68)		.145 (3.68)	.055 (1.40)	.030 (0.76)
M83519/2-18	S0218X		.650 (16.51)	.170 (4.32)	.200 (5.08)		.200 (5.08)	.085 (2.16)	.050 (1.27)
M83519/2-19	S0219X		.750 (19.05)	.235 (5.97)	.255 (6.48)		.255 (6.48)	.130 (3.30)	.070 (1.78)
M83519/2-20	S0220X		.750 (19.05)	.275 (6.99)	.300 (7.62)		.300 (7.62)	.170 (4.32)	.100 (2.54)

1/ ALL DIMENSIONS ARE IN INCHES. METRIC DIMENSIONS IN PARENTHESES ARE FOR REFERENCE ONLY AND SHALL NOT BE USED TO INSPECT PARTS.

REQUIREMENTS: ALL REQUIREMENTS SHALL CONSIST OF THIS DOCUMENT AND THE LATEST ISSUE OF AS83519.

1. CONFIGURATION 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. IN THE EVENT OF A CONFLICT, ENGLISH UNITS TAKE PRECEDENCE.
2. INSULATION SLEEVE SHALL BE HEAT-SHRINKABLE, TRANSPARENT POLYVINYLIDENE FLUORIDE PER THE REQUIREMENTS OF AS23053/8 EXCEPT THE DIMENSIONS SHALL BE AS SPECIFIED HEREIN.
3. SOLDER PREFORM AND FLUX SHALL BE TYPE SN63PB37 AND ROL1 OR ROL0 PER IPC J-STD-006 AND IPC J-STD-004, RESPECTIVELY.
4. THERMAL INDICATOR SHALL BE COLOR TO COLORLESS.
5. PRE-INSTALLED LEAD SHALL BE PER TABLE 1 AND THE COLOR SHALL BE WHITE WITH BLACK STRIPE (90).
6. TEMPERATURE RATING SHALL BE FROM -55 TO +150 °C (-67 TO 302 °F).

QUALIFICATION:

1. FOR QUALIFICATION AND PERIODIC TESTING, PART NUMBERS M83519/2-1 THROUGH M83519/2-5 AND M83519/2-16 THROUGH M83519/2-20 SHALL HAVE CABLE INSTALLED. THE CABLES SHALL BE IN ACCORDANCE WITH TABLE 2. THE TERMINATIONS SHALL BE INSTALLED PER THE "ASSEMBLY TO CABLES" PARAGRAPH IN AS83519 USING THE APPLICABLE CONVECTION OR INFRARED HEAT SOURCES.

TABLE 2 - QUALIFICATION TEST CABLES

PART NUMBER	MINIMUM	MAXIMUM
M83519/2-1, 16	M27500-30SB1T23	M27500-26NK1T11
M83519/2-2, 17	M27500-26NK1T05	M27500-18TG1T14
M83519/2-3, 18	M27500-18TG1T14	M27500-20SB3T23
M83519/2-4, 19	M27500-20SB3T23	M27500-16NK4T11
M83519/2-5, 20	M27500-16NK4T11	M27500-16SB6T14

APPLICATION NOTES:

1. WHEN PERFORMING END STRIPPED CABLE SEALING, THE BEST RESULTS ARE OBTAINED WHEN THE SMALLEST SIZE TERMINATION FOR THE CABLE/LEAD WIRE COMBINED IS USED. SEALING ABILITY ON CABLES WITH MORE THAN THREE PRIMARIES OF 22 AWG AND LARGER REQUIRES SPECIAL PRECAUTIONS.
2. THE SPLICE IS RECOMMENDED FOR CABLES RATED AT 105 °C (221 °F) IF SPECIAL PRECAUTIONS ARE TAKEN TO ISOLATE THE HEAT SOURCE FROM THE INSULATION.
3. COMPATIBLE CABLE JACKETS: WHEN INSTALLED ON CABLES LISTED BELOW, THESE TERMINATIONS SHALL PROVIDE ENVIRONMENTAL RESISTANCE:
 - a. NEMA-WC27500 JACKET TYPES: 05, 08, 09, 10, 11, 12, 14, 15, 23, AND THEIR DOUBLE JACKET EQUIVALENTS.
 - b. NEMA-WC27500 /1, /3, /8, /9, /10.

NOTE: THE ABOVE CABLE LIST IS A LEGACY LIST FROM THE MILITARY SPECIFICATIONS. THERE ARE OTHER CABLE JACKETS THE SPLICE PROVIDES ENVIRONMENTAL RESISTANCE. THE USERS ARE ADVISED TO VERIFY THE ENVIRONMENTAL RESISTANCE IN THEIR SPECIFIC APPLICATION, CABLE JACKET, AND SPLICE OF CHOICE.

	AEROSPACE STANDARD	AS83519™/2 SHEET 3 OF 5	REV. B
	(R) SHIELD TERMINATION, SOLDER STYLE, INSULATED, HEAT-SHRINKABLE, ENVIRONMENT RESISTANT WITH PRE-INSTALLED LEADS FOR CABLES HAVING TIN OR SILVER PLATED SHIELDS (CLASS I)		

SUPERSESSION: TABLE 3 LISTS SUPERSESSION INFORMATION.

TABLE 3 - SUPERSESSION AND CROSS-REFERENCE

MILITARY PART NUMBER	SUPERSEDED NUMBERS		CANCELLED MILITARY PART NUMBER M83519/2
	CAGE 1/ 06090		
M83519/2-1			-21 & -41
M83519/2-2	D-100-13 D-100-14 D-100-35 D-100-36 D-146-22	D-100-0090 D-100-17 D-100-19 D-100-03 D-146-0145	-22 & -42
M83519/2-3	D-101-13 D-101-14 D-101-35 D-101-36 D-101-23	D-101-17 D-101-19 D-101-03 D-146-0146 D-101-0090	-23 & -43
M83519/2-4	D-107-35 D-107-36 D-146-0147		-24 & -44
M83519/2-5	D-103-13 D-103-14 D-103-35 D-103-36 D-146-24	D-103-17 D-103-19 D-103-03 D-146-0148 D-103-0090	-25 & -45
M83519/2-6			-26 & -46
M83519/2-7	D-146-0158 D-146-0125 D-100-0083 D-100-10 D-100-11 D-100-12 D-100-33	D-100-34 D-146-00 D-100-15 D-100-16 D-146-78 D-100-0088 D-146-81	-27 & -47

(CONTINUED ON THE NEXT PAGE)

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