

REV.
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RATIONALE

CORRECTIONS TO THE DETAILS DIMENSIONS AND CHARACTERISTIC DEFINITION ARE REQUIRED, AND BETTER DEFINITION AND CLARIFICATION ON BRAID CONSTRUCTION ARE NECESSARY.

NOTICE

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

AS83519/3

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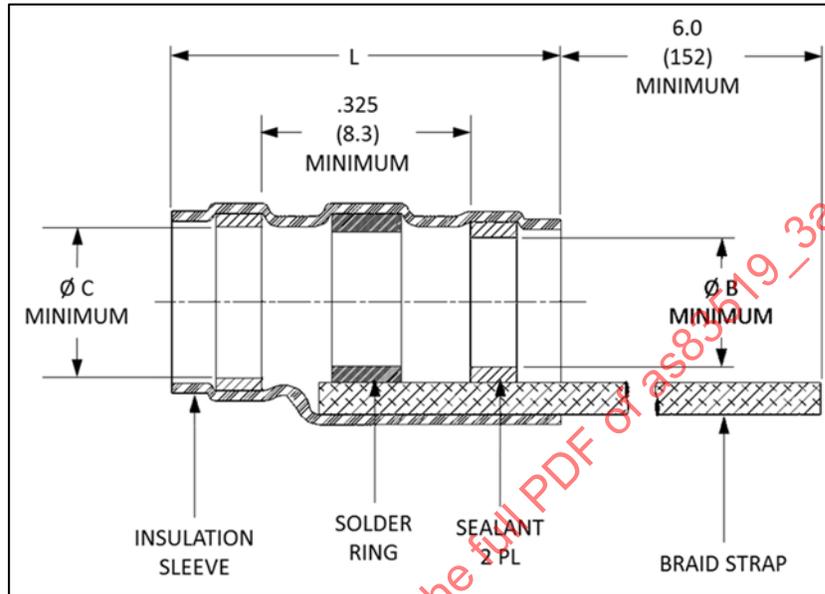


FIGURE 1 - SHIELD TERMINATION SPLICE CONSTRUCTION (SEE TABLE 1)

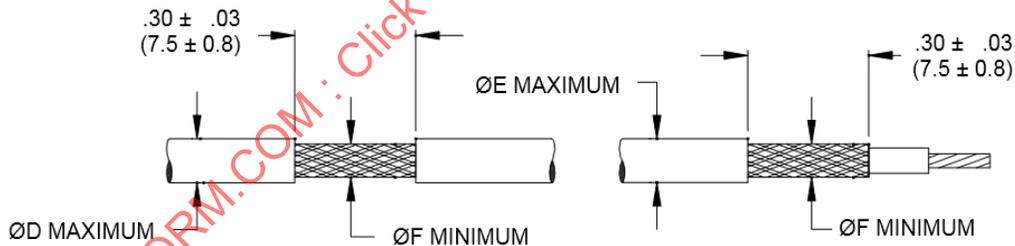
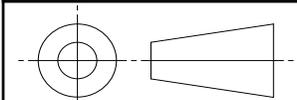


FIGURE 2 - SHIELD TERMINATION PREPARATION DETAIL (SEE TABLE 1)

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THIRD ANGLE PROJECTION



CUSTODIAN: AE-8/AE-8C2

PROCUREMENT SPECIFICATION: AS83519



AEROSPACE STANDARD

SHIELD TERMINATION, SOLDER STYLE, INSULATED, HEAT-SHRINKABLE, ENVIRONMENT RESISTANT WITH PREINSTALLED BRAID, CLASS 1, NON-ROHS

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SHEET 1 OF 4

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TABLE 1 - CONSTRUCTION DETAILS

PART NUMBER	MARKING 1/	BRAID STRAP CMA (REF)	L ±0.070 (± 1.75)	B DIA 2/	C DIA 2/	D DIA 3/	E DIA 3/	F DIA 2/	TEMP RANGE (°C)	BRAID STRAP TYPE	SOLDER	FLUX	THERMAL INDICATOR TYPE
M83519/3-01	S0301X	640	.650 (16.50)	.075 (1.90)	.104 (2.65)	.075 (1.90)	.104 (2.65)	.035 (0.90)	-55 to 150	Sn/Cu	Sn63Pb37	ROL1	THERMO-CHROMIC
M83519/3-02	S0302X	640	.650 (16.50)	.104 (2.65)	.145 (3.68)	.104 (2.65)	.145 (3.68)	.055 (1.40)					
M83519/3-03	S0303X	640	.650 (16.50)	.169 (4.30)	.200 (5.08)	.169 (4.30)	.200 (5.08)	.085 (2.15)					
M83519/3-04	S0304X	640	.752 (19.10)	.234 (5.95)	.254 (6.45)	.234 (5.95)	.254 (6.45)	.130 (3.30)					
M83519/3-05	S0305X	640	.752 (19.10)	.276 (7.00)	.299 (7.60)	.276 (7.00)	.299 (7.60)	.169 (4.30)					
M83519/3-06	S0306X	640	.650 (16.50)	.075 (1.90)	.104 (2.65)	.075 (1.90)	.104 (2.65)	.035 (0.90)	-55 to 150	Ni/Cu	Sn63Pb37	ROL1	THERMO-CHROMIC
M83519/3-07	S0307X	640	.650 (16.50)	.104 (2.65)	.145 (3.68)	.104 (2.65)	.145 (3.68)	.055 (1.40)					
M83519/3-08	S0308X	640	.650 (16.50)	.169 (4.30)	.200 (5.08)	.169 (4.30)	.200 (5.08)	.085 (2.15)					
M83519/3-09	S0309X	640	.752 (19.10)	.234 (5.95)	.254 (6.45)	.234 (5.95)	.254 (6.45)	.130 (3.30)					
M83519/3-10	S0310X	640	.752 (19.10)	.276 (7.00)	.299 (7.60)	.276 (7.00)	.299 (7.60)	.169 (4.30)					
M83519/3-11	S0311X	640	.650 (16.50)	.075 (1.90)	.104 (2.65)	.075 (1.90)	.104 (2.65)	.035 (0.90)	-55 to 150	Sn/Cu	Sn63Pb37	ROL1	MELTABLE ALLOY
M83519/3-12	S0312X	640	.650 (16.50)	.104 (2.65)	.145 (3.68)	.104 (2.65)	.145 (3.68)	.055 (1.40)					
M83519/3-13	S0313X	640	.650 (16.50)	.169 (4.30)	.200 (5.08)	.169 (4.30)	.200 (5.08)	.085 (2.15)					
M83519/3-14	S0314X	640	.752 (19.10)	.234 (5.95)	.254 (6.45)	.234 (5.95)	.254 (6.45)	.130 (3.30)					
M83519/3-15	S0315X	640	.752 (19.10)	.276 (7.00)	.299 (7.60)	.276 (7.00)	.299 (7.60)	.169 (4.30)					
M83519/3-16	S0316X	1000	.650 (16.50)	.075 (1.90)	.104 (2.65)	.075 (1.90)	.104 (2.65)	.035 (0.90)	-55 to 150	Sn/Cu	Sn63Pb37	ROL1	THERMO-CHROMIC
M83519/3-17	S0317X	1000	.650 (16.50)	.104 (2.65)	.140 (3.55)	.104 (2.65)	.140 (3.55)	.055 (1.40)					
M83519/3-18	S0318X	1000	.650 (16.50)	.169 (4.30)	.197 (5.00)	.169 (4.30)	.197 (5.00)	.085 (2.15)					
M83519/3-19	S0319X	1000	.776 (19.70)	.234 (5.95)	.254 (6.45)	.234 (5.95)	.254 (6.45)	.130 (3.30)					
M83519/3-20	S0320X	1000	.776 (19.70)	.276 (7.00)	.299 (7.60)	.276 (7.00)	.299 (7.60)	.169 (4.30)					

DIMENSIONS ARE IN INCHES.

METRIC EQUIVALENTS (TO THE NEAREST 0.01 MM) ARE GIVEN FOR GENERAL INFORMATION ONLY AND ARE BASED UPON 1 INCH = 25.4 MM.

UNLESS OTHERWISE SPECIFIED, TOLERANCES ARE: ±.005 (0.13 MM) FOR THREE PLACE DECIMALS
±.01 (0.25 MM) FOR TWO PLACE DECIMALS

1/ "X", MANUFACTURER INDICATOR, SHALL BE DETERMINED FOR EACH MANUFACTURER AT THE TIME OF THE INITIAL QUALIFICATION.

2/ MINIMUM.

3/ MAXIMUM.

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	SHIELD TERMINATION, SOLDER STYLE, INSULATED, HEAT-SHRINKABLE, ENVIRONMENT RESISTANT WITH PREINSTALLED BRAID, CLASS 1, NON-ROHS		

REQUIREMENTS:

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

TEMPERATURE RATING: SEE TABLE 1.

MATERIAL:

- 1. INSULATION SLEEVE: HEAT SHRINKABLE, TRANSPARENT POLYVINYLIDENE FLUORIDE PER THE PERFORMANCE REQUIREMENTS OF AMS-DTL-23053/8.
- 2. SOLDER RING:
 - SOLDER: SEE TABLE 1 PER IPC-J-STD-006
 - FLUX: SEE TABLE 1 PER IPC-J-STD-004
 - THERMAL INDICATOR: SEE TABLE 1 – MELTABLE ALLOY CONTAINS TWO DIFFERENT SOLDER ALLOYS OF WHICH ONE OF THE ALLOYS IS USED TO INDICATE SOLDERING TEMPERATURE. THERMOCHROMIC INDICATOR CHANGES FROM COLOR TO COLORLESS WHEN THE SOLDERING TEMPERATURE IS REACHED.
- 3. SEALING MATERIAL: MELTABLE THERMOPLASTIC
- 4. BRAID
 - PER A-A-59569 FLAT CONFIGURATION EXCEPT THE FOLLOWING BRAIDING DETAILS SHALL APPLY TO MEET CMA AS LISTED IN TABLE 1:
 - FOR CMA 640:
 - STRAND WIRE SIZE: 38 AWG
 - NUMBER OF ENDS: 40
 - NUMBER OF CARRIERS: 8
 - FOR CMA 1000:
 - STRAND WIRE SIZE: 36 AWG
 - NUMBER OF ENDS: 40
 - NUMBER OF CARRIERS: 8
 - MATERIAL: PD-135 (UNS NUMBER: C18135)

ADDITIONAL REQUIREMENTS:

- 1. CONTOUR: CONTOUR MAY VARY FROM THAT SHOWN.
- 2. NO ETCHING OR SOLVENT TREATING OF THE ASSOCIATED WIRE INSULATION SHALL BE PERMITTED.
- 3. QUALIFICATION:
 - 3.1 INITIAL AND RETENTION OF QUALIFICATION

INITIAL AND RETENTION OF QUALIFICATION SHALL BE PERFORMED ON THE SPECIMENS SPECIFIED IN TABLE 2 WITHOUT A BRAID. IN ADDITION THE AIR PRESSURE TEST SHALL BE PERFORMED ON SPECIMENS IN TABLE 2 WITH A BRAID IN LIEU OF ANY COMBINATION OF THE INSULATION RESISTANCE TEST, THE DIELECTRIC TEST AND ALTITUDE IMMERSION TEST. THE SPECIMENS WITHOUT A BRAID ARE NOT REQUIRED FOR GROUP I, II, III, IV, AND GROUP VIII OF SUPPLIER QUALIFICATION INSPECTIONS.
 - 3.2 QUALITY CONFORMANCE GROUP B INSPECTION

QUALITY CONFORMANCE GROUP B INSPECTION SHALL BE THE VOLTAGE DROP TEST ON EACH LOT WITH A BRAID. IN ADDITION, AN AIR PRESSURE TEST SHALL BE PERFORMED ON EACH LOT WITHOUT A BRAID.
 - 3.3 AIR PRESSURE TEST METHOD

THE AIR PRESSURE TEST SHALL BE PERFORMED BY APPLYING AIR PRESSURE SOURCE TO BOTH ENDS OF THE TEST SPECIMEN WITH A BRAID. THE SPECIMEN SHALL BE SUBMERGED IN ROOM TEMPERATURE WATER AT A DEPTH OF 1 INCH MINIMUM. 2.5 TO 3 PSIG AND A REGULATED AIR PRESSURE SHALL BE APPLIED TO BOTH ENDS OF THE SPECIMEN OR ONE END WITH THE OTHER END SEALED OFF. OBSERVATION SHALL BE MADE FOR ANY AIR LEAKAGE (I.E., ESCAPING BUBBLES) FOR AT LEAST 5 MINUTES. MULTIPLE SPECIMENS MAY BE TESTED SIMULTANEOUSLY.

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