

RATIONALE

THIS DOCUMENT PROVIDES THE REQUIREMENTS FOR A NEW ENVIRONMENT RESISTANT SPLICE FOR SINGLE OR MULTIPLE CONDUCTOR SPLICING.

NOTICE

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

AS83519/5

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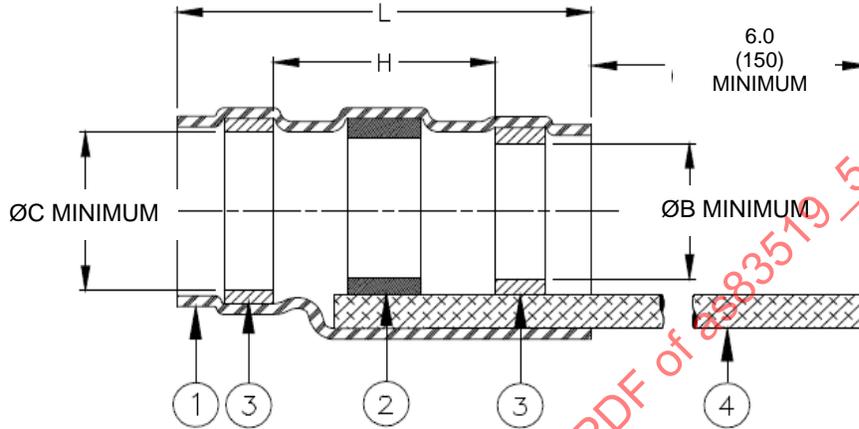


FIGURE 1 - SHIELD TERMINATION SPLICE CONSTRUCTION (SEE TABLE 1)

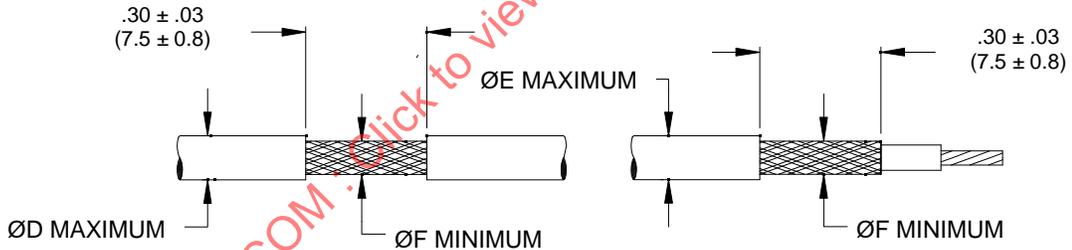
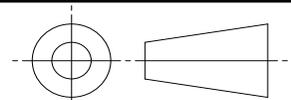


FIGURE 2 - SHIELD TERMINATION PREPARATION DETAIL (SEE TABLE 1)

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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, NI PLATED, CLASS I, ROHS

AS83519/5
SHEET 1 OF 4

ISSUED 2014-07

TABLE 1 - CONSTRUCTION DETAILS

PART NUMBER	MARKING 1/	BRAID STRAP CMA (REF)	L ±.070 (±1.75)	H 2/	B DIA 2/	C DIA 2/	D DIA 2/	E DIA 3/	F DIA 2/	TEMP RANGE (°C)	BRAID	SOLDER	FLUX	THERMAL INDICATOR TYPE
M83519/5-01	S0501X	600	.650 (16.51)	.325 (8.25)	.075 (1.91)	.105 (2.67)	.075 (1.91)	.105 (2.67)	.035 (0.89)	-65 to 200	Ni/Cu	Sn96.5 Ag3Cu.5	ROM1	MELTABLE ALLOY
M83519/5-02	S0502X	600	.650 (16.51)	.325 (8.25)	.105 (2.67)	.145 (3.68)	.105 (2.67)	.145 (3.68)	.055 (1.40)					
M83519/5-03	S0503X	600	.650 (16.51)	.325 (8.25)	.170 (4.32)	.200 (5.08)	.170 (4.32)	.200 (5.08)	.085 (2.16)					
M83519/5-04	S0504X	600	.750 (19.05)	.325 (8.25)	.255 (6.48)	.225 (5.72)	.235 (5.97)	.255 (6.48)	.130 (3.30)					
M83519/5-05	S0505X	600	.750 (19.05)	.325 (8.25)	.275 (6.99)	.300 (7.62)	.275 (6.99)	.300 (7.62)	.170 (4.32)					
M83519/5-06	S0506X	640	.650 (16.51)	.325 (8.25)	.070 (1.78)	.105 (2.67)	.075 (1.91)	.105 (2.67)	.035 (.89)	-55 to 175	Ni/Cu	Sn96.5 Ag3Cu.5	ROM1	THERMO-CHROMIC
M83519/5-07	S0507X	640	.650 (16.51)	.325 (8.25)	.105 (2.67)	.140 (3.56)	.105 (2.67)	.140 (3.56)	.055 (1.40)					
M83519/5-08	S0508X	640	.650 (16.51)	.325 (8.25)	.170 (4.32)	.195 (4.95)	.170 (4.32)	.195 (4.95)	.085 (2.16)					
M83519/5-09	S0509X	640	.775 (19.69)	.325 (8.25)	.235 (5.97)	.255 (6.48)	.235 (5.97)	.255 (6.48)	.130 (3.30)					
M83519/5-10	S0510X	640	.775 (19.69)	.325 (8.25)	.277 (7.04)	.300 (7.62)	.277 (7.04)	.300 (7.62)	.170 (4.32)					
M83519/5-11	S0511X	1200	.650 (16.51)	.325 (8.25)	.075 (1.91)	.105 (2.67)	.075 (1.91)	.105 (2.67)	.035 (0.89)	-65 to 200	Ni/Cu	Sn96.5 Ag3Cu.5	ROM1	MELTABLE ALLOY
M83519/5-12	S0512X	1200	.650 (16.51)	.325 (8.25)	.105 (2.67)	.145 (3.68)	.105 (2.67)	.145 (3.68)	.055 (1.40)					
M83519/5-13	S0513X	1200	.650 (16.51)	.325 (8.25)	.170 (4.32)	.200 (5.08)	.170 (4.32)	.200 (5.08)	.085 (2.16)					
M83519/5-14	S0514X	1200	.750 (19.05)	.325 (8.25)	.255 (6.48)	.225 (5.72)	.235 (5.97)	.255 (6.48)	.130 (3.30)					
M83519/5-15	S0515X	1200	.750 (19.05)	.325 (8.25)	.275 (6.99)	.300 (7.62)	.275 (6.99)	.300 (7.62)	.170 (4.32)					
M83519/5-16	S0516X	1200	.650 (16.51)	.325 (8.25)	.075 (1.91)	.105 (2.67)	.075 (1.91)	.105 (2.67)	.035 (0.89)	-65 to 200	Ni/Cu	Sn96.5 Ag3Cu.5	ROM1	THERMO-CHROMIC
M83519/5-17	S0517X	1200	.650 (16.51)	.325 (8.25)	.105 (2.67)	.145 (3.68)	.105 (2.67)	.145 (3.68)	.055 (1.40)					
M83519/5-18	S0518X	1200	.650 (16.51)	.325 (8.25)	.170 (4.32)	.200 (5.08)	.170 (4.32)	.200 (5.08)	.085 (2.16)					
M83519/5-19	S019X	1200	.750 (19.05)	.325 (8.25)	.255 (6.48)	.225 (5.72)	.235 (5.97)	.255 (6.48)	.130 (3.30)					
M83519/5-20	S0520X	1200	.750 (19.05)	.325 (8.25)	.275 (6.99)	.300 (7.62)	.275 (6.99)	.300 (7.62)	.170 (4.32)					

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.

	AEROSPACE STANDARD	AS83519/5 SHEET 2 OF 4
	SHIELD TERMINATION, SOLDER STYLE, INSULATED, HEAT-SHRINKABLE, ENVIRONMENT RESISTANT WITH PREINSTALLED BRAID, NI PLATED, CLASS I, ROHS	

REQUIREMENTS:

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

TEMPERATURE RATING: SEE TABLE 1.

MATERIAL: SEE CIRCLED NUMBERS IN FIGURE 1.

- 1. INSULATION SLEEVE:
 - 01 TO -05: HEAT SHRINKABLE, TRANSPARENT FLUOROPOLYMER MODIFIED TO WITHSTAND THE TEMPERATURE REQUIREMENT
 - 06 TO -10: HEAT SHRINKABLE, TRANSPARENT POLYVINYLIDENE FLUORIDE PER THE PERFORMANCE REQUIREMENTS OF AMS-DTL-23053/8
 - 011 TO -20: HEAT SHRINKABLE, TRANSPARENT FLUOROPOLYMER MODIFIED TO WITHSTAND THE TEMPERATURE REQUIREMENT
- 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 AA59569 FLAT CONFIGURATION TO MEET CMA AS LISTED IN TABLE 1.
 - FOR CMA 640: AA59569F34N0062
 - FOR CMA 600: AA59569F36N0031
 - FOR CMA 1200: AA59569F36N0062

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.
 - 3.4. QUALIFICATION AND QUALITY CONFORMANCE SPECIMENS

INITIAL QUALIFICATION, RETENTION OF QUALIFICATION, AND QUALITY CONFORMANCE SPECIMENS SHALL BE THE FINAL FINISHED PRODUCT AS PROVIDED BY THE SUPPLIER TO A USER. THE SUPPLIER SHALL CAREFULLY REMOVE THE BRAID FOR THE AIR PRESSURE TEST. THE REQUIRED AS83519 SPECIMENS WITH AND WITHOUT THE BRAID SHALL BE SUBMITTED TO THE QUALIFYING ACTIVITY.

FOR QUALIFICATION AND RETENTION OF QUALIFICATION TESTING, THE SPECIMENS SHALL BE INSTALLED ON THE END OF THE CABLE ASSEMBLY WITH THE CABLES SPECIFIED IN TABLE 2. THE NUMBER OF SPECIMENS WITH THE BRAID AND WITHOUT THE BRAID SHALL BE IN ACCORDANCE WITH AS83519 AND INSTALLED IN ACCORDANCE WITH AS83519.

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	SHIELD TERMINATION, SOLDER STYLE, INSULATED, HEAT-SHRINKABLE, ENVIRONMENT RESISTANT WITH PREINSTALLED BRAID, NI PLATED, CLASS I, ROHS		