

REVISIONS

LTR	DESCRIPTION	DATE	APVD
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1. SCOPE: ETCHED, STRANDED CONDUCTOR, TEFLON INSULATED, ELECTRICAL WIRE WITH OVERALL SHIELDING BRAID AND OUTER INSULATING JACKET. THE INSULATED WIRE SHALL BE IN ACCORDANCE WITH MIL-W-16878, TYPE E-26 EXCEPT CONDUCTOR. THE OUTSIDE DIAMETER OF THE JACKET IS ETCHED FOR BONDABILITY AND ADHESION OF MARKING.

THE PART NUMBER IS THE SEVEN (7) DIGIT DRAWING NUMBER PLUS THE APPLICABLE DASH NUMBER AS SPECIFIED IN TABLE I.

REV	SHEET	'20'	'21'	'22'	'23'	'24'	'25'	'26'	'27'	'28'	'29'	'30'	'31'	'32'	'33'	'34'	'35'	'36'	'37'	'38'	'39'	'40'	'41'	'42'
REV STATUS	REV	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
OF SHEETS	SHEET	'1'	'2'	'3'	'4'	'5'	'6'	'7'	'8'	'9'	'10'	'11'	'12'	'13'	'14'	'15'	'16'	'17'	'18'	'19'				

TENSOLITE CO., BUCHANAN, NY	AR	92607	SEE TABLE I
SURPRENANT WIRE AND CABLE INC., CLINTON, MA	AR	90484	SEE TABLE I

SUGGESTED SOURCES OF SUPPLY

CAL	CAGE	VENDOR	ITEM NO.
CAL DATE 90-05-23	SPECIFICATION CONTROL DRAWING		
CIC 021	UM	FEET (02)	
CONTRACT NO.	ROCKWELL INTERNATIONAL CORPORATION COLLINS AVIONICS GROUP - COMMERCIAL CEDAR RAPIDS, IA 52498		

PREP 90-05-22 P.J.BARNHART WIRE, ELECTRICAL, INSULATED

CHK 90-05-22 R.C.WALSH

APVD	SIZE	CAGE	DWG. NO.	REV
90-05-22 R.S.CAMPBELL	A	4V792	858-0011	LTR -

SCALE 1467J/0076J SHEET 1 OF 6

2. APPLICABLE DOCUMENTS: THE FOLLOWING DOCUMENTS, OF THE ISSUE IN EFFECT ON THE DATE OF INVITATION FOR BID, FORM A PART OF THIS SPECIFICATION TO THE EXTENT SPECIFIED HEREIN.

MILITARY SPECIFICATIONS

- MIL-W-16878 WIRE, ELECTRICAL, INSULATED, HIGH TEMPERATURE
- MIL-W-16878/4 WIRE, ELECTRICAL POLYTETRAFLUOROETHYLENE (PTFE INSULATED, 200 DEG C, 600 VOLTS, EXTRUDED INSULATION)

COLLINS SPECIFICATION

- 580-8025 GENERAL REQUIREMENTS FOR COMPONENT SPECIFICATIONS UTILIZED BY COLLINS COMMERCIAL AVIONICS DIVISIONS

3. REQUIREMENTS:

- 3.1 GENERAL: THE WIRE SHALL BE DESIGNED TO MEET THE REQUIREMENTS OF MIL-W-16878, WHERE APPLICABLE FOR MATERIAL, CONSTRUCTION, WORKMANSHIP, AND OTHER REQUIREMENTS SPECIFIED HEREIN.

- 3.2 ELECTRICAL/MECHANICAL REQUIREMENTS: SEE TABLE II.

4. QUALITY ASSURANCE PROVISIONS: PER 580-8025-002.

- 4.1 QUALITY CONFORMANCE INSPECTION: PER 580-8025-006.

5. PREPARATION FOR DELIVERY: PER 580-8025-004.

6. NOTES:

- 6.1 TO ASSURE PROPER ETCH, CUT A 4" TO 6" PIECE OF WIRE AND BOND TO PC BOARD WITH CPN 821-0166-000. CURE AT 80°C FOR 2 HOURS. PULL WIRE PARALLEL TO PCB. WIRE SHOULD NOT PULL OFF WITH LESS THAN 0.8 LBS.

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ROCKWELL INTERNATIONAL CORPORATION			
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- 6.2       TEFLON WIRE, CPN 439-2163/2164 MAY BE USED IN PLACE OF THIS WIRE PROVIDED IT IS ETCHED PER 580-5029-000.
- 6.3       WIRES FOUND WITHIN THIS SPECIFICATION SHOULD BE STORED OUT OF CONTACT WITH ULTRAVIOLET (UV) LIGHT TO PROTECT THE ETCHED SURFACE.
- 6.4       SHELF LIFE FOR WIRE EXPOSED TO NORMAL LIGHTING CONDITIONS IS APPROXIMATELY 2-3 YEARS. SHELF LIFE FOR WIRE STORED OUT OF CONTACT WITH UV LIGHT IS APPROXIMATELY 5-6 YEARS.

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TABLE I

<u>DASH NO.</u>	<u>COLOR</u>	<u>TENSOLITE PART NUMBER</u>	<u>SURPRENANT PART NUMBER</u>
010	BLACK	TB26447/X29X-1	1AS-WTE734A-CW-JTM(E)
020	BROWN	TB26447/X29X-1	1AS-WTE734A-CW-JTM(E)

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TABLE II

ELECTRICAL/MECHANICAL REQUIREMENTS

VOLTAGE RATING: 600 VRMS, MAXIMUM FOR THE INSULATED CONDUCTOR

DIELECTRIC WITHSTANDING VOLTAGE: 2200 VRMS, MINIMUM FOR THE INSULATED CONDUCTOR

CONDUCTOR MATERIAL: COPPER-COVERED STEEL (COPPER WELD) WIRE, STRANDED, SILVER PLATED WITH A 40% MINIMUM CONDUCTIVITY

CONDUCTOR STRANDING: 7 STRANDS OF 34 AWG, MINIMUM

WIRE SIZE (NEAREST): 26 AWG

INSULATION: POLYTETRAFLUOROETHYLENE (PTFE)

INSULATION COLOR: PER TABLE I

INSULATION OUTER DIAMETER: .035-.043

SHIELDING: SINGLE BRAID, 38 AWG SILVER-PLATED SOFT OR DRAWN AND ANNEALED COPPER WIRE WITH A 90% MINIMUM COVERAGE.

CARRIERS	16
ENDS PER CARRIER	3
PICKS PER INCH	22 ± 3

OUTER DIAMETER OVER SHIELDING: .055 INCH NOMINAL

JACKET MATERIAL: EXTRUDED FLUORINATED ETHYLENE PROPYLENE (TEFLON 100), .010 INCH MINIMUM WALL THICKNESS

JACKET COLOR: WHITE (ETCHING PROCESS MAY DISCOLOR WHITE TO A LIGHT TAN COLOR)

FINISHED CABLE OUTER DIAMETER: .090 INCH, MAXIMUM

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TABLE II (CON'T)

ELECTRICAL/MECHANICAL REQUIREMENTS

ETCHING: MEDIUM ETCH, SODIUM ETCHING PROCESS

TEMPERATURE RANGE: -54°C TO +200°C

MARKING: THE MANUFACTURERS NAME, TRADEMARK OR SYMBOL, THE MANUFACTURERS PART NUMBER AND THE DATE OF ETCH SHALL BE PERMANENTLY AND LEGIBLY MARKED ON THE WIRE OR IMMEDIATE PACKAGING.

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