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| REVISIONS | | | | |
|---|---|---|---|---|
| ZONE | LTR | DESCRIPTION | DATE | APPROVED |
| - | - | ORIGINATED-REISE PER WECO40217 | - | - |
| - | A | REVISED PER SPCO W17Z+20 | 790CT79 | |
| - | B | REVISED PER ECP MI-82015 | 83APR83 | |
| - | C | REVISED PER ECP MI-87228 | 5JAN84 | |
| - | D | REVISED PER ECP MI-H3410 | 03APR90 | |
| - | E | SEE MI-N3403 | 05-06-02 | JSG |
| - | F | SEE MI-N11166 | 09-05-17 | JLM |

NOTES:

1. DESCRIPTION: CABLE, RADIO FREQUENCY, TWINAX, 78 OHMS.

2. THE CABLE SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF MIL-C-17/45-RG108 WITH THE FOLLOWING MODIFICATIONS:

2.1 MATERIALS AND FINISHES:

2.1.1 INNER CONDUCTORS: TWO CONDUCTORS, STRANDED, MINIMUM 7 STRANDS OF SILVER PLATED COPPER, NO 28 AWG WIRE (0.0378 DIAMETER EACH).

2.1.2 DIELECTRIC CORES: SOLID, POLYTETRAFLUOROETHYLENE (PTFE) CONFORMING TO ASTM D4894, .074 ±.003 INCH IN DIAMETER. TWO CORES, TWISTED TOGETHER WITH A RIGHT-HAND LAY OF 2.00 ±0.50 INCHES. .148 OD NOMINAL OVER PAIR. INDIVIDUAL DIELECTRIC CORE COLORS SHALL BE CLEAR OR SEMI-TRANSPARENT ON ONE CONDUCTOR AND OPAQUE WHITE ON THE OTHER.

2.1.3 SHIELD: SINGLE BRAIDED SHIELD OF NO. 36 AWG TINNED COPPER WIRE. .170 INCH NOMINAL DIAMETER, AND SHALL HAVE A 95 PERCENT MINIMUM COVERAGE.

2.1.4 JACKET: FLEXIBLE, FLUORINATED ETHYLENE PROPYLENE (FEP-140). COLOR TRANSPARENT BROWN IN ACCORDANCE WITH ASTM D2116, TYPE I. .204 ±.010 INCH OVERALL DIAMETER. FILLERS SHOULD BE USED IN ACCORDANCE WITH MIL-DTL-27072, AS NEEDED, TO PERMIT COMPLIANCE WITH ROUNDNESS REQUIREMENT SPECIFIED HEREIN. "PVC FILLER MATERIAL PROHIBITED".

2.2 ELECTRICAL REQUIREMENTS:

2.2.1 IMPEDANCE: 78 OHMS ±7 OHMS, FROM CONDUCTOR TO CONDUCTOR.

2.2.2 DIELECTRIC WITHSTANDING VOLTAGE: 2,000 VOLTS RMS AT SEA LEVEL.

2.2.3 CAPACITANCE: 21.0 PICOFARADS PER FOOT, NOMINAL, FROM CONDUCTOR TO CONDUCTOR.

2.2.4 OPERATING VOLTAGE: 1000 VOLTS RMS, MAXIMUM.

2.2.5 VELOCITY OF PROPAGATION: 69.5 PERCENT NOMINAL

3. CABLE SHALL BE CAPABLE OF BEING SUBMERGED PERMANENTLY IN ASTM D3487 OIL WITHOUT CAUSING ANY ADVERSE EFFECTS TO THE MATERIALS OR ELECTRICAL CHARACTERISTICS OF THE CABLE.

4. THERMAL LIMITS: MINUS 65.6 DEGREES CELSIUS TO PLUS 71 DEGREES CELSIUS.

5. WORKMANSHIP: CABLE SHALL BE PROCESSED IN SUCH A MANNER AS TO BE UNIFORM IN QUALITY AND SHALL BE FREE FROM ANY DEFECTS THAT AFFECT LIFE, SERVICEABILITY OR APPEARANCE AND SHALL BE IN ACCORDANCE WITH MIL-HDBK-454, GUIDELINE 9.

6. MARKING: IDENTIFY IN ACCORDANCE WITH MIL-STD-130 WITH MANUFACTURER'S NAME OR SYMBOL AND PART NUMBER. MARKING TO BE ON MARKER TAPE BENEATH CABLE JACKET. ADDITIONAL MARKING AT MANUFACTURER'S OPTION.

7. QUALITY ASSURANCE PROVISIONS:

7.1 ACCEPTANCE INSPECTION: ACCEPTANCE INSPECTION SHALL BE PER MIL-STD-105, AQL OF 1.0 PERCENT, LEVEL II. ALL DIMENSIONS, MATERIALS AND ELECTRICAL REQUIREMENTS SHALL CONFORM.

8. ITEMS FURNISHED TO THIS DRAWING SHALL BE REPRESENTATIVE OF A PRODUCT WHICH HAS BEEN ACCEPTED BY THE PROCURING ACTIVITY. NO SUBSTITUTION OF MATERIAL AND PROCESSES OR CHANGE IN DESIGN SHALL BE MADE WITHOUT PRIOR APPROVAL OF THE PROCURING ACTIVITY. THE MANUFACTURER SHALL SUPPLY A LETTER OF CONFORMANCE WITH EACH PURCHASE ORDER.

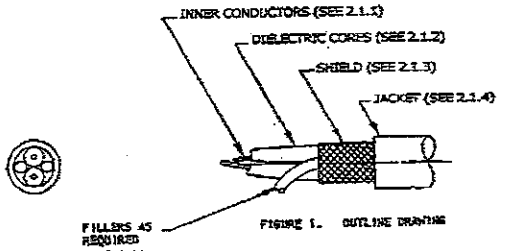


FIGURE 1. OUTLINE DRAWING

SUGGESTED SOURCE(S) OF SUPPLY:

| | | |
|---|---|---|
| STORM PRODUCTS CO.<br>CAGE CODE 57500<br>HINSDALE, IL 60521<br>PART NUMBER: 11464169 | ITT SURPRENANT<br>CAGE CODE 90484<br>CLINTON, MA 01510<br>PART NUMBER: 11464169 | W.L. GORE & ASSOCIATES, INC.<br>CAGE CODE 17217<br>WAKEFIELD, MA 01880<br>PART NUMBER: 11464169 |
| BRAND-REX CO<br>CAGE CODE 71124<br>WILLIMANTIC, CT 06226<br>PART NUMBER: 11464169 | BELDEN CDT ELECTRONIC DIVISION<br>CAGE CODE 24733<br>RICHMOND, IN 47374<br>PART NUMBER: 9049108 | |

SOURCE INFORMATION IS FOR THE CONVENIENCE OF THE PROCURING ACTIVITY. IT IS NOT TO BE CONSTRUED AS RESTRICTING QUALIFIED SOURCES OF PROCUREMENT.

COMPUTERIZED DATABASE PREPARED DRAWING—RASTER

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PREPARED IN ACCORDANCE WITH MIL-STD-100

SPECIFICATION CONTROL DRAWING PART NO. 11464169

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|---|---|
| 11440249 | |
| 11440250 | |
| 11440247 | |
| 11440248 | PATRIOT |
| NEXT ASSY | USED ON |
| APPLICATION | |

MATERIAL

CONTRACT NO. DAAH01-90-C-0007
DATE 18 JUN 92
PREPARED
CHECKED
ENGINEER
SUBMITTED
APPROVED J.W. CREPEAU

U.S. ARMY MISSILE RESEARCH & DEVELOPMENT COMMAND REDSTONE ARSENAL, ALABAMA

CABLE, RADIO FREQUENCY, TWINAX

SIZE D | FSCM NO. 55717 | DRAWING NO. 11464169

SCALE NONE | SHEET 1 OF 1

Ref ID: 11464169

Ray Reed