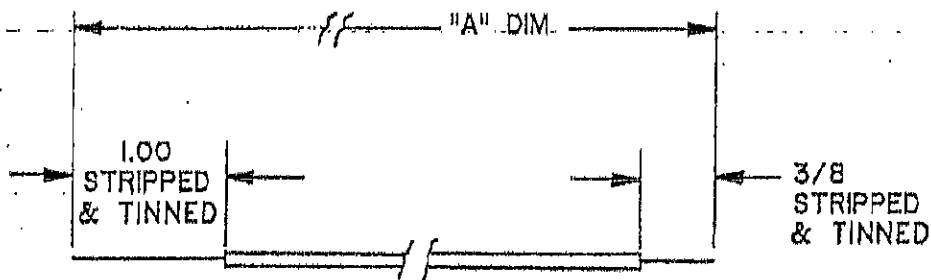


| APPLICATION | | REVISIONS | | | |
|-------------|---------|-----------|---------------------|---------|----------|
| NEXT ASSY | USED ON | REV | DESCRIPTION | DATE | APPROVED |
| | 807432 | - | 50028432 ORIGINATED | 31MAY91 | DWL M |
| | | A | SCO 533II DWP | 3/20/02 | MEF |
| | | B | SCO 54861 DWP | 6/21/05 | MEF |

DWG NO G520880



| PART NUMBER | "A" DIMENSION |
|---------------|-------------------|
| X G520880-001 | 7-1/2 <i>C.A.</i> |
| G520880-002 | 4-5/8 |

MAKE PART(S) FROM T73-4-20P9

NOTE: TIN PER QQ-S-571 USING SN60

(M16878/5-BGE-9) X

INTERPRET DRAWING IN ACCORDANCE WITH DOD-STD-100, ANSI Y14.5M-1982

| | | | |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------|--------------------------------------------------------|------------------|
| UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE IN <input checked="" type="checkbox"/> INCHES <input type="checkbox"/> MILLIMETERS TOL: ANGLES ± WHOLE NUMBERS ± 1 PLACE DECIMALS ±.03 2 PLACE DECIMALS ±.03 3 PLACE DECIMALS ± | CONTR. NO. DR. V. <i>[Signature]</i> 5-31-91 CHK. | Raytheon Raytheon Company Lexington MA 02173 | |
| | APPROVED BY DIRECTION OF | DRAWING TITLE LEADWIRE | SIZE A |
| MATERIAL: | | DRAWING NO. G520880 | SCALE <i>1/1</i> |
| | | SHEET 1 OF 1 | |

| | | | | | | | | | |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|-------------|----|--------------------------|-----|-----------------------|----|------|-----|
| RAYTHEON RAYTHEON COMPANY LEXINGTON MA 02173 | | | | FSCM NO. 49956 | | SPEC NO. T73-4 | | | |
| | | | | SHEET 1 OF 6 | | REV 10 | | | |
| TYPE OF SPEC PURCHASE SPECIFICATION | | | | | | | | | |
| TITLE OF SPEC TEFLON INSULATED LEAD WIRE (DO NOT CONFUSE WITH 73-4) | | | | | | | | | |
| FUNCTION | | APPROVED | | DATE | | FUNCTION | | DATE | |
| WRITER | | J. Ahearn | | 2/14/68 | | | | | |
| | | R. E. Foley | | 2/14/68 | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| REVISIONS | | | | | | | | | |
| CHK | DESCRIPTION | | | REV | CHK | DESCRIPTION | | | REV |
| WR | SCO 51315 DWP 7/3/97 | | | 7 | | | | | |
| | SCO 52083 DWP 8/9/99 | | | 8 | | | | | |
| WR | SCO 53185 DWP 11/27/01 | | | 9 | | | | | |
| | SCO 53319 Rev DWP 02/27/02 | | | 10 | | | | | |
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| REVISION | | | | | | | | | |
| SHEET NO. | | | | | | | | | |
| REV STATUS OF SHEETS | REVISION | 10 | 10 | 10 | 10 | 10 | 10 | | |
| | SHEET NO. | 1 | 2 | 3 | 4 | 5 | 6 | | |

| | | | |
|------------------------------------------------------|--------------------------|-----------------------|--------|
| Raytheon Raytheon Company Lexington, MA | FSCM NO. 49956 | Spec No. T73-4 | |
| | | SHEET 2 OF 6 | REV 10 |

Ref. GOVERNMENT SPEC: MIL-STD-104, MIL-W-16878/5, TYPE EE, MIL-STD-681B.

Description:
 This specification covers extruded Teflon coated stranded silver plated copper lead wire suitable for use at operating temperatures from -90° to 200° C. and working voltages to 1000 RMS.

1. Requirements:

1.1 Wire purchased to this specification shall meet the requirements of Government Specification MIL-W-16878/5, Type EE. Color of insulation shall be in accordance with MIL-STD-104 and MIL-STD-681B.

1.2 Materials

1.2.1 Conductor - Silver plated copper with stranding, dimensions and resistance, as specified in Table 1.

1.2.2 Insulation - Extruded polytetrafluoroethylene, minimum dielectric strength 3000 volts RMS, dimensions as specified in Table 1.

2. Packaging and Marking

2.1 Wire shall be supplied on 500 foot or 1000 foot spools.

2.2 Spools shall be marked with manufacturer's name, wire type, wire size and footage.

2.3 Spools shall be packaged in cartons of sufficient strength and tightness to prevent physical damage to the wire and keep it clean and dry during shipment.

2.4 Cartons shall be marked with manufacturer's name, product identification, Raytheon purchase order number and Raytheon Purchase Specification number.

3. Raytheon Part Numbering System

3.1 Lead wire specified herein shall be identified as T73-4, followed by a number indicating equivalent AWG wire size and an additional number representing the color of the insulation. If no color is specified, color shall be white.

EXAMPLE:

| | | | | | |
|----------|------------|---|---------|---|---|
| T73 | 4 | - | 20 | - | 9 |
| WIRE P/N | WIRE SIZE | | COLOR | | |
| | (20 GAUGE) | | (WHITE) | | |

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| Raytheon | | Raytheon Company Lexington, MA | | FSCM NO. 49956 | Spec No. T73-4 | |
|-------------------------------------------------------------------------------------------------------------------------|-------------------|-----------------------------------|----------------------------------|-------------------|-------------------|--------|
| | | | | | SHEET 3 OF 6 | REV 10 |
| <p>LISTED IN FIGURE 1 ARE THE FIRST 25 PREFERRED COLOR SEQUENCE FOR SINGLE WIRES, SYSTEM 1 PER MIL-STD-681.</p> | | | | | | |
| <u>COLOR NO.</u> | <u>BASE COLOR</u> | <u>FIRST STRIPE OR BAND</u> | <u>SECOND STRIPE OR BAND</u> | | | |
| 0 | Black | | | | | |
| 1 | Brown | | | | | |
| 2 | Red | | | | | |
| 3 | Orange | | | | | |
| 4 | Yellow | | | | | |
| 5 | Green | | | | | |
| 6 | Blue | | | | | |
| 7 | Violet | | | | | |
| 8 | Gray | | | | | |
| 9 | White | | | | | |
| 90 | White | Black | | | | |
| 91 | White | Brown | | | | |
| 92 | White | Red | | | | |
| 93 | White | Orange | | | | |
| 94 | White | Yellow | | | | |
| 95 | White | Green | | | | |
| 96 | White | Blue | | | | |
| 97 | White | Violet | | | | |
| 98 | White | Gray | | | | |
| 901 | White | Black | Brown | | | |
| 902 | White | Black | Red | | | |
| 903 | White | Black | Orange | | | |
| 904 | White | Black | Yellow | | | |
| 905 | White | Black | Green | | | |
| 906 | White | Black | Blue | | | |
| <p>FIGURE 1</p> | | | | | | |

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|------------------|-------------------|-----------------------------------|------------------------------|-------------------|----------------|--------|
| | | | | SHEET 4 OF 6 | | REV 10 |
| <u>COLOR NO.</u> | <u>BASE COLOR</u> | <u>FIRST STRIPE OR BAND</u> | <u>SECOND STRIPE OR BAND</u> | | | |
| 907 | White | Black | Violet | | | |
| 908 | White | Black | Gray | | | |
| 912 | White | Brown | Red | | | |
| 913 | White | Brown | Orange | | | |
| 914 | White | Brown | Yellow | | | |
| 915 | White | Brown | Green | | | |
| 916 | White | Brown | Blue | | | |
| 917 | White | Brown | Violet | | | |
| 918 | White | Brown | Gray | | | |
| 923 | White | Red | Orange | | | |
| 924 | White | Red | Yellow | | | |
| 928 | White | Red | Green | | | |
| 926 | White | Red | Blue | | | |
| 927 | White | Red | Violet | | | |
| 928 | White | Red | Gray | | | |
| 934 | White | Orange | Yellow | | | |
| 935 | White | Orange | Green | | | |
| 936 | White | Orange | Blue | | | |
| 937 | White | Orange | Violet | | | |
| 938 | White | Orange | Gray | | | |
| 945 | White | Yellow | Green | | | |
| 946 | White | Yellow | Blue | | | |
| 947 | White | Yellow | Violet | | | |
| 948 | White | Yellow | Gray | | | |
| 956 | White | Green | Blue | | | |
| 957 | White | Green | Violet | | | |
| 958 | White | Green | Gray | | | |
| 967 | White | Blue | Violet | | | |
| 968 | White | Blue | Gray | | | |
| 978 | White | Violet | Gray | | | |

FIGURE 2

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| | | | | | |
|------------------|-------------------|-----------------------------------|----------------------------------|---------------------------------|-------------------|
| Raytheon | | Raytheon Company Lexington, MA | | FSCM NO. 49956 | Spec No. T73-4 |
| | | | | SHEET 5 OF 6 | REV 10 |
| <u>COLOR NO.</u> | <u>BASE COLOR</u> | <u>FIRST STRIPE OR BAND</u> | <u>SECOND STRIPE OR BAND</u> | <u>THIRD STRIPE OR BAND</u> | |
| 9012 | White | Black | Brown | Red | |
| 9013 | White | Black | Brown | Orange | |
| 9014 | White | Black | Brown | Yellow | |
| 9015 | White | Black | Brown | Green | |
| 9016 | White | Black | Brown | Blue | |
| 9017 | White | Black | Brown | Violet | |
| 9018 | White | Black | Brown | Gray | |
| 9023 | White | Black | Red | Orange | |
| 9024 | White | Black | Red | Yellow | |
| 9025 | White | Black | Red | Green | |
| 9026 | White | Black | Red | Blue | |
| 9027 | White | Black | Red | Violet | |
| 9028 | White | Black | Red | Gray | |

FIGURE 3

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| | | | | |
|-----------------|-----------------------------------|-------------------|-------------------|-----------|
| Raytheon | Raytheon Company Lexington, MA | FSCM NO. 49956 | Spec No. T73-4 | |
| | | | SHEET 6 OF 6 | REV 10 |

TABLE 1 DIMENSIONS

| EQUIVALENT AWG SIZE | CONDUCTOR | | DIAMETER OVER CONDUCTOR (Nominal, Inch) | DIAMETER OVER INSULATION | | CONDUCTOR D. C. RESISTANCE, MAX. OHMS/1000 FT. AT 25 DEG. C. |
|---------------------------|----------------------|--------------------|-----------------------------------------------|-----------------------------|--------------|-----------------------------------------------------------------------|
| | Number of Strands | Strand AWG Size | | Min. Inch | Max. Inch | |
| 32 | 7 | 40 | .009 | .035 | .043 | 178 |
| 30 | 7 | 38 | .012 | .038 | .046 | 111 |
| 28 | 7 | 36 | .015 | .041 | .049 | 69.0 |
| 26 | 7 | 34 | .019 | .045 | .053 | 42.9 |
| 24 | 19 | 36 | .024 | .050 | .058 | 26.8 |
| 22 | 19 | 34 | .030 | .055 | .064 | 16.7 |
| 20 | 19 | 32 | .038 | .064 | .072 | 10.5 |
| 18 | 19 | 30 | .048 | .074 | .084 | 6.57 |
| 16 | 19 | 29 | .057 | .083 | .095 | 4.85 |
| 14 | 19 | 27 | .071 | .097 | .113 | 3.05 |
| 12 | 19 | 25 | .090 | .115 | .132 | 1.92 |
| 10 | 37 | 25 | .112 | .137 | .153 | 1.24 |
| 8 | 133 | 29 | .169 | .199 | .219 | .671 |
| 6 | 133 | 27 | .213 | .253 | .273 | .426 |

4.0 Approved Vendors

4.1 Wire may be purchased from any vendor offering:

- a) Source inspection.
- b) Certificates of Compliance to be supplied with each shipment.

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