

REV	DESCRIPTION	DATE	APPROVED
A	INCORPORATE ECN C25052	94-10-21	LAD
B	UPDATE DOCUMENT TO L-3 FORMAT DELETED OBSOLETE PART NUMBERS UPDATED OBSOLETE SPECIFICATIONS	08-07-11	L TARVER M JOHNSON

ALL SHEETS ARE THE SAME REVISION STATUS.

GEN USAGE	USED ON
DASH	NEXT ASSY
APPLICATION	

UNLESS OTHERWISE SPECIFIED

- INTERPRET DRAWING IN ACCORDANCE WITH ASME Y14.100.
- DIMENSIONING AND TOLERANCING PER ASME Y14.5M-1994 IN INCH STANDARD AND INCLUDE APPLIED FINISHES.
- TOLERANCES
 - 2 PLACE DECIMAL - ± .03
 - 3 PLACE DECIMAL - ± .010
 - ANGULAR - ± 0°30"
 TOLERANCES FOR DRAWN or EXTRUDED ALUMINUM RAW MATERIAL per ANSI H35.2

DISTRIBUTION STATEMENT A.
APPROVED FOR PUBLIC RELEASE;
DISTRIBUTION IS UNLIMITED

VENDOR ITEM CONTROL DRAWING

CONTRACT NUMBER



APPROVED	J.LOVE	93-05-11
ENGR	N.LORENZO	93-05-05
ENGR	K.SCHELLER	93-05-03
CHECK	D.CAMPOS	93-05-11
DRAWN	J.M.SPENCER	93-05-03
SPRT ENGR	E.MARURI	93-05-05

DRAWING TITLE

SHIELD, CABLE, DOUBLE BRAID, TUBULAR
WITH EXPANDABLE WOVEN BRAID SLEEVING

SIZE	CAGE CODE	DWG NO.	REV
A	0GCL4	JW000023	B
Prepared by Waco		Scale: None	SHEET 1 OF 8

L-3 employees shall maintain the confidentiality of information entrusted to them by the Company, and any other confidential information about the Company, its products, services, or operations, and shall not disclose such information to any other person, in any form, by any means, without the prior written consent of the Company. This obligation shall survive the termination or expiration of the employment relationship. Information shall be in accordance with applicable company policy.
STATE 3 - ENGINEERING RELEASE 2012-01-18

1. **SCOPE**

1.1 **Scope.** This drawing detail the requirements for EMI / RFI shielding, double braided tubular construction, to provide shielding in general aircraft electronic shielding.

1.2 **Part Number.** The complete part number shall be as shown in the following example.

JW000023 -XXX
Drawing Number Dash Number

2. **APPLICABLE DOCUMENTS**

2.1 **Government specifications, standard and handbook.** Unless otherwise specified, the following specification(s), standard(s) and handbook(s), of the issue listed in the Department of Defense Index of Specifications and Standards as specified in the solicitation, form a part of this drawing to the extent specified herein.

Standards

Military

MIL-C-12000 Cable, Cord, and Wire, Electric, Packaging of
NEMA WC 27500 Cable, Electrical, Shielded and Unshielded, Aerospace

Standards

MIL-STD-129 Marking for Shipment or Storage

Federal

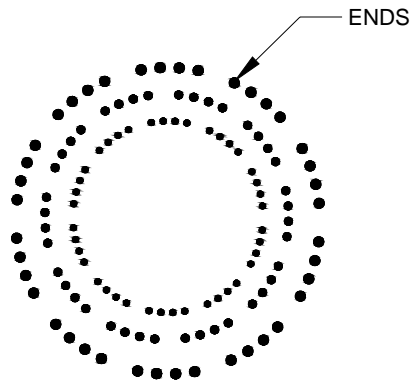
FED-STD-228 Cable and Wire, Insulated, Methods of Testing
A-A-59551 Wire, Electrical, Copper Uninsulated
A-A-59569B Braid, Wire (Copper, Tin-coated, or Silver Coated, Tubular, or Flat)
ASTM B33 Tinned Soft of Annealed Copper Wire for Electrical Purposes.
Specifications for

Federal Aviation Regulations

FAR PART 25 Airworthiness Standards; Transport Category Airplanes

(Copies of the specification, standard, and handbook required by manufacturers in connection with specific acquisition function should be obtained from the contracting activity or as directed by the contracting activity.)

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Scale: None			SHEET 2



END VIEW

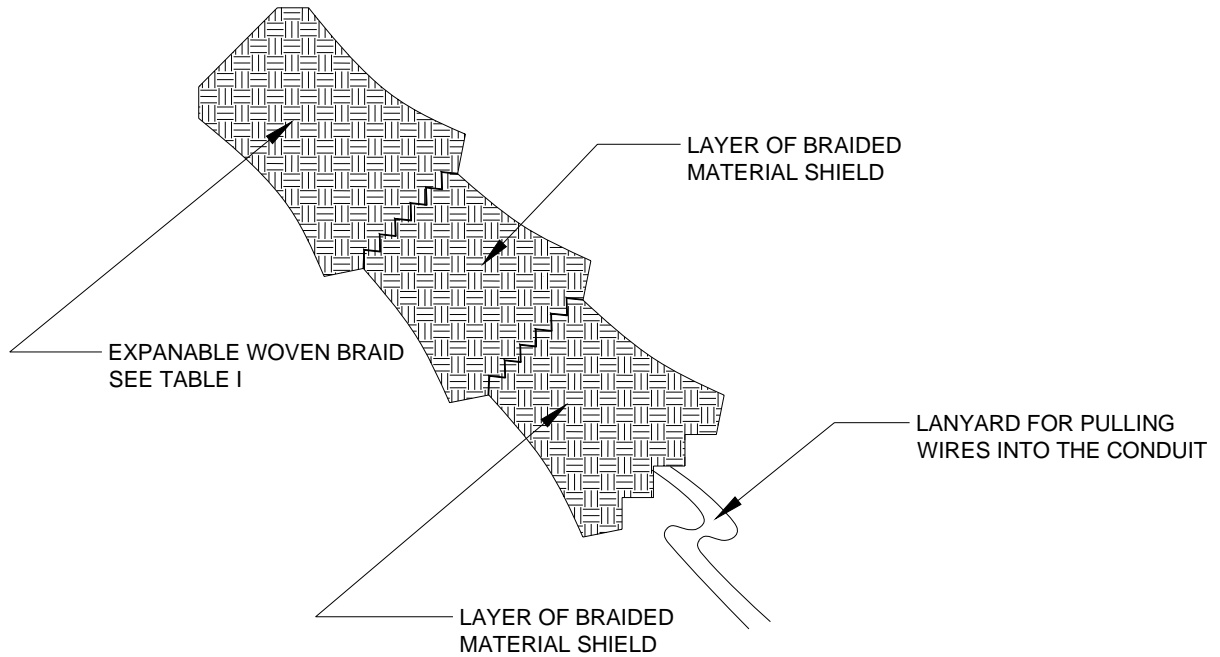


Figure 1. Shielding - Physical Characteristics.

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Scale: None		SHEET 4	

315 employees shall maintain the confidentiality of information entrusted to them by the Company and any other confidential information about the Company, its products, services, operations, and financial information. All transmission of confidential or proprietary information shall be in accordance with applicable company policy.

3.6 Supporting data. Suppliers of items disclosed herein shall have available upon request supporting data providing evidence of compliance with performance characteristics specified herein.

3.7 Marking. Part markings shall meet the requirements of MIL-STD-130.

3.8 Notification of Change. Notification of change to the items depicted in this drawing shall be made to the procuring activity's purchasing department, in writing, prior to acceptance of a purchase order for this item. For definitive purposes of this drawing, "change to the Item" is intended to include, but not be limited to, changes that affect performance, physical and / or functionally interchangeability, quality, or reliability of the item.

4. QUALITY ASSURANCE PROVISIONS

4.1 Sampling and Inspection. The manufacturer is responsible for the performance of all tests and requirements specified herein in order to ensure the delivery of a product that conforms to this drawing. Sampling for visual and dimensional examinations shall be in accordance with MIL-STD-1916, Level I.

4.2 Coverage (tubular braid only). The percent of coverage shall be determined by using the following formula per NEMA WC 27500.

$$K=100 (2 F-F^2)$$

$$F= \frac{NPW}{CSINA}$$

$$\tan A= \frac{2\pi (d + 2W) P}{C}$$

Where

- K = percent coverage of braided shields
- A = braid angle
- C = number of carriers (Table I)
- D = inside diameter in inches (Table I)
- N = total number of ends (Table I)
- P = picks per inch
- W = diameter of individual braid wires in inches

There shall be no evidence of holes in shielding and the coverage shall be 90% minimum.

4.3 Rejected Lots. Rejected lots shall not be resubmitted for inspection without furnishing full particulars concerning previous rejections and means taken to correct the defects.

4.4 Inspections of packaging. The sampling and inspection of the preservation, packing and container marking shall be in accordance with the requirements of MIL-C-12000.

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Table I. Physical Characteristics

DASH NO.	NOMINAL I.D. WHEN ROUNDED		BRAID CONSTRUCTION			BRAID MATERIAL	OUTER JACKET MATERIAL
	INCHES	MM	AWG OF INDIVIDUAL ENDS	CARRIERS	TOTALNUMBER OF INDIVIDUAL ENDS		
001	3/8	9.53	36	48	384	Tin Copper	Polyethylene Terephthalate
002	1/2	12.70	36	48	528		
003	3/4	19.05	36	48	864		
004	1	25.40	36	64	768		
005	1 1/2	37.10	36	72	936		
006	1/4	6.35	36	24	384		
007	5/8	15.88	36	48	720		
008	7/8	22.23	36	64	640		
101	3/8	9.53	36	48	384		PPS/PEEK or E-CTFE 1/
102	1/2	12.70	36	48	528		
103	3/4	19.05	36	48	864		
104	1	25.40	36	64	768		
105	1 1/2	38.10	36	72	936		
106	1/4	6.35	36	24	384		
107	5/8	15.88	36	48	720		
108	7/8	22.23	36	64	640		

1/ Burn test IAW Appendix F. Paragraph 7 of FAR Part 25 required.

Table II. Braid Lengths Versus Splices.

BRAID DIAMETER (INCHES)	LENGTHS	
	90% NOMINAL	10% MINIMUM
≤ .171	250 ft.	40 ft.
≥ .203	100 ft.	25 ft.

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5. PREPARATION FOR DELIVERY

5.1 Packaging requirements. Parts delivered to this drawing shall be packaged in such a manner as to ensure their ability to withstand normal shipping and handling without damage by a common carrier.

5.1.1 Marking of Spools and Reels. In addition to the marking requirements of MIL-C-12000, each spool and reel shall be marked with the following information.

- a. Federal part number (in lieu of manufacturer' part number and Cage Code).
- b. Net Weight (in pounds)
- c. Date (Month, Day and Year) and number of inspections.
- d. Date (Month, Day and Year) of manufacture.
- e. Manufacturer's name of trademark.

6. NOTES

6.1 Ordering data. Purchaser should exercise any desired options offered herein and procurement documents should specify the following:

- a. Title, number, and date of this specification
- b. Length
- c. Color
 - 1. White
 - 2. Black
 - 3. White with black tracers
 - 4. Black with white tracers

6.2 Exterior covering and metal braid. Exterior covering and metal braid shall be supplied assembled.

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7.0 SUGGESTED SOURCE(S) OF SUPPLY.

Identification of the suggested source(s) of supply herein is not to be construed as a guarantee of the present or continued availability as a source of supply for the items described in this drawing.

Source 1

Continental Cordage Corp.
75 Burton Street
Cazenovia, NY 13035

Cage Code: 4U897

Source 2

GlenAir, Inc.
1211 Airway
Glendale, CA 91201

Cage Code: 06324

Source 3

Bunker Sales and Marketing
303 North Nursery
Irving, TX 75061

Cage Code: 0EXL9

¹Table III. **SOURCE(S) OF SUPPLY**

L-3/IS Part Number	Manufacturer's Part Number - Source 1	Manufacturer's Part Number - Source 2	Manufacturer's Part Number - Source 3	Figure No.
001	ES172-3/8	103-001A375LP	BPT-GLTC-3/8	
002	ES174-1/2	103-001A500LP	BPT-GLTC-1/2	
003	ES176-3/4	103-001A781LP	BPT-GLTC-3/4	
004	ES178-1	103-001A1000LP	BPT-GLTC-1	
005	ES182-1 1/2	103-001A1500LP	BPT-GLTC-1 1/2	
006	ES171-1/4	103-001A250LP	BPT-GLTC-1/4	
007	ES175-5/8	103-001A625LP	BPT-GLTC-5/8	
008	ES177-7/8	103-001A937LP	BPT-GLTC-7/8	
101		103-001A375LH	BDM-GLTC-3/8	
102		103-001A500LH	BDM-GLTC-1/2	
103		103-001A781LH	BDM-GLTC-3/4	
104		103-001A1000LH	BDM-GLTC-1 1/2	
105		103-001A1500LH	BDM-GLTC-1/4	
106		103-001A250LH	BDM-GLTC-1/4	
107		103-001A625LH	BDM-GLTC-5/8	
108		103-001A937LH	BDM-GLTC-7/8	

¹Strikethrough denotes Obsolete part(s).

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