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METRIC

MIL-DTL-49292/7B
30 March 2006
SUPERSEDING
MIL-C-49492/7A
23 June 1989

DETAIL SPECIFICATION SHEET

# CABLE ASSEMBLIES, NONPRESSURE PROOF, FIBER OPTIC, TEST, METRIC

This specification is approved for use by all Departments and Agencies of the Department of Defense.

The requirements for acquiring the product described herein shall consist of this specification sheet and MIL-DTL-49292.

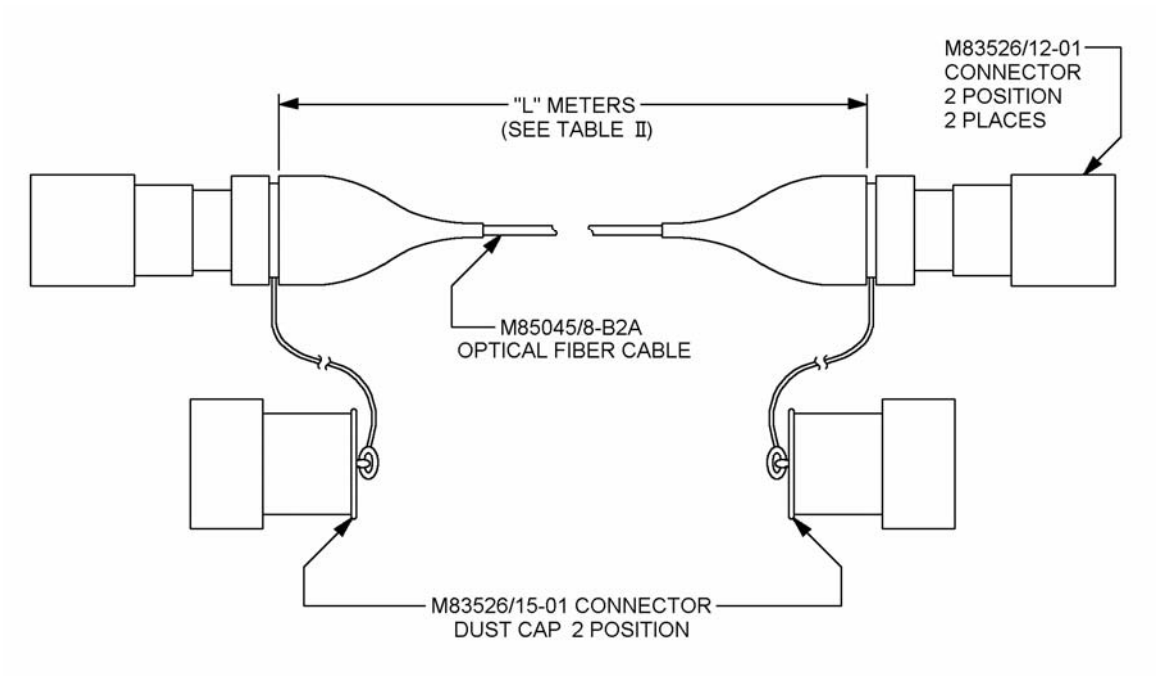


FIGURE 1. Outline drawing, cable assembly (hermaphroditic) fiber optic, test.

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REQUIREMENTS:

Color: Colors for coding of fibers within the cable assembly shall be blue and orange (see table I).

TABLE I. Color-coded termination configuration.

| Termini | Buffer color | Terminal |
|---|---|---|
| 1 | Blue | 2 |
| 2 | Orange | 1 |

Component parts:

Connectors shall be in accordance with the following:

M83526/12-01, two required.

Dust cover assemblies: Shall be in accordance with the following:

M83526/15-01, two required.

Cable shall be in accordance with the following: M85045/8-B2A.

Assembly: In accordance with figure 1, and tables I and II.

Length: In accordance with table II.

Weight: In accordance with table II.

Performance:

Optical requirements:

Insertion loss (maximum assembly attenuation):

Measurements made at 1,290 nm ±10 nm. Test method B1.

| PIN | |
|---|---|
| M49292/7-01 | 2.75 dB ±0.5 dB |
| M49292/7-02 | 8.25 dB ±0.5 dB |

1/ Test cable insertion loss shall include cable loss, connector loss and the loss of any required optical attenuation element(s) within each connector.

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Optical fiber bandwidth: Not applicable.

Crosstalk: Not applicable.

Cable seal flexing: Not applicable.

Thermal shock: Not applicable.

Cable retention: Not applicable.

Fluid immersion: Not applicable.

Temperature range:

Operating: 0°C to +52°C.

Storage: -46°C to +71°C.

Dust: Not applicable.

Storage temperature: Not applicable.

Life test: Not applicable.

Salt fog: Not applicable.

Part or Identifying Number (PIN): See table II.

TABLE II. PINs.

| Military PIN M49292/7- | Length "L" (meters) | Weight (kg) maximum |
|---|---|---|
| 01 | 10.0 ±0.5 | 3.2 |
| 02 | 10.0 ±0.5 | 3.2 |

Temperature cycling: The test cable assembly shall be tested in accordance with the following:

Low temperature: MIL-STD-810, method 502, procedures I and II.

High temperature: MIL-STD-810, method 501, procedures I and II (constant temperature).

NOTE: The minimum soak time at each storage and operating temperature shall be 2 hours.

First article inspection shall consist of performing the inspections and optical tests specified in table III herein, in the sequence shown.

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TABLE III. First article inspection.

| Inspection | Sample quantity |
|---|---|
| Group I | |
| Visual and mechanical | 5 units |
| Insertion loss | 5 units |
| Group II | |
| Not applicable | |
| Group III | |
| Temperature cycling | 2 units |
| Humidity | 1 unit |
| Low pressure (altitude) | 1 unit |
| Group IV | |
| Vibration | 1 unit |

Group A inspection shall consist of performing the inspections and optical tests specified in table IV herein, in the sequence shown.

TABLE IV. Group A inspection.

| Inspection |
|---|
| Visual and mechanical |
| Insertion loss |

Group B inspection: Not applicable.

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Reference documents: In addition to MIL-DTL-49292, this document references the following:

MIL-STD-810

Marginal notations are not used in this revision to identify changes with respect to the previous issue due to the extent of the changes.

Custodians:
Army - CR
Navy - SH
Air Force - 11
DLA - CC

Review activities:
Army - AR, AV, MI
Navy - AS, CG, EC, MC
Air Force - 99

Preparing activity:
DLA - CC

(Project 6020-0008)

NOTE: The activities listed above were interested in this document as of the date of this document. Since organizations and responsibilities can change, you should verify the currency of the information above using the ASSIST Online database at http://assist.daps.dla.mil.