

METRIC

MIL-DTL-49292/4B

30 March 2006

SUPERSEDING

MIL-C-49492/4A

23 June 1989

DETAIL SPECIFICATION SHEET

CABLE ASSEMBLIES, NONPRESSURE PROOF, FIBER OPTIC, 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](#).

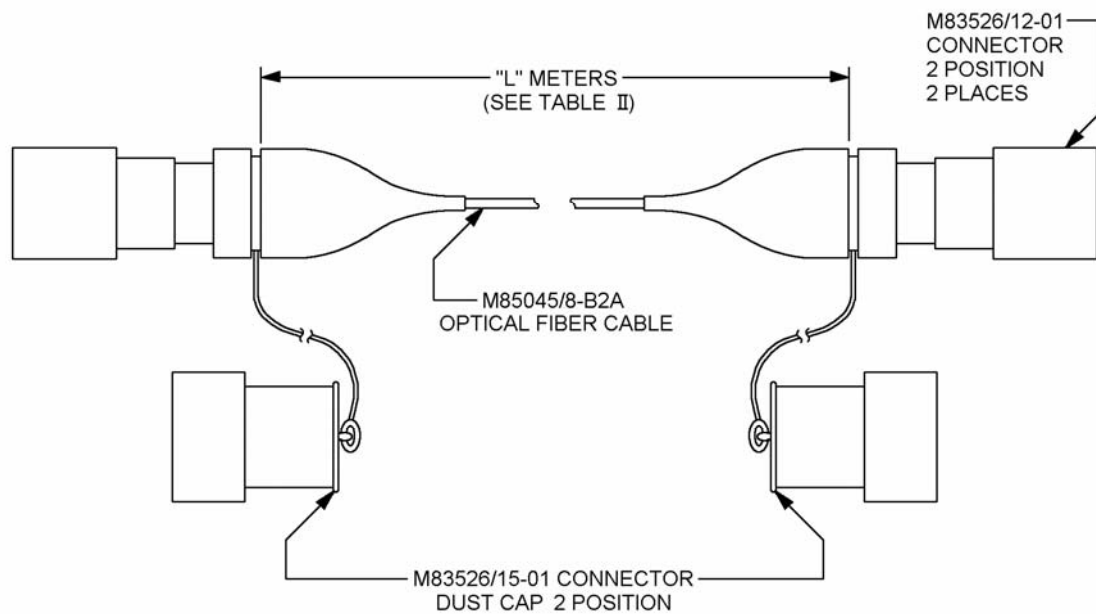


FIGURE 1. Outline drawing, cable assembly (hermaproditic) fiber optic.

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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 \pm 10 nm.

Test method B1.

<u>PIN</u>	<u>-46°C</u>	<u>+25°C</u>	<u>+71°C</u>
M49292/4-01	3.25 dB	2.75 dB	2.75 dB
M49292/4-02	2.5 dB	2.0 dB	2.0 dB
M49292/4-03	2.0 dB	1.5 dB	1.5 dB

Optical fiber bandwidth: \geq 400 MHz-km at 1,290 nm, \pm 10 nm.

Cable retention: Not applicable.

Cable seal flexing: Not applicable.

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Thermal shock: Not applicable.

Fluid immersion: Not applicable.

Temperature range:

Operating: -46°C to +71°C.

Storage: -57°C to +85°C.

Dust: Not applicable.

Life test: Not applicable.

Salt fog: Not applicable.

Storage temperature: 240 hours at each extreme for a total of 480 hours.

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

TABLE II. PINs.

Military PIN M49292/4-	Length "L" (meters)	Weight (kg) maximum	Fiber size μm
01	1,010 \pm 10	34.0	50/125
02	310 \pm 10	12.7	50/125
03	1.0 \pm 0.1	2.3	50/125

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

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

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

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TABLE III. First article inspection.

Inspection	Sample quantity
<u>Group I</u>	
Visual and mechanical	6 units
Insertion loss	6 units
<u>Group II</u>	
Bandwidth	6 units
Crosstalk	6 units
<u>Group III</u>	
Cable retention	6 units
Temperature cycling	6 units
Storage temperature	3 units
Humidity	2 units
Low pressure (altitude)	2 units
<u>Group IV</u>	
Vibration	2 units

TABLE IV. Group A inspection.

Inspection
Visual and mechanical
Insertion loss

TABLE V. Group B inspection.

Inspection
Bandwidth
Crosstalk

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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

Preparing activity:

DLA - CC

(Project 6020-0007)

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>.