

INCH-POUND

MIL-T-29504/11  
W/AMENDMENT 1  
27 August 2024  
SUPERSEDING  
MIL-T-29504/11  
31 January 1989

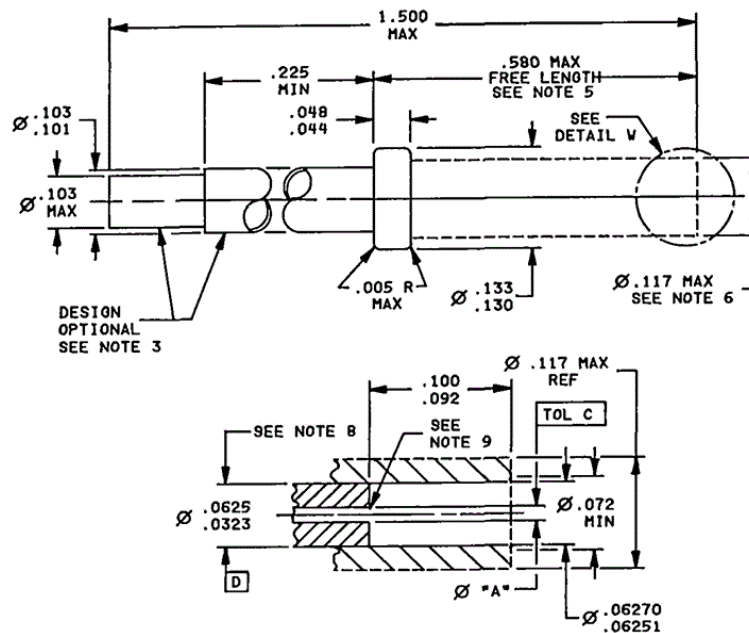
## DETAIL SPECIFICATION SHEET

TERMINI, FIBER OPTIC, ENVIRONMENT RESISTING, CLASS 5, TYPE II,  
STYLE A, SOCKET TERMINUS, SIZE 16, REAR RELEASE,  
MIL-DTL-83723, SERIES III, MIL-DTL-83733, MIL-DTL-26482, SERIES II

Inactive for new design after 17 August 1999.

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 and [MIL-PRF-29504](#).



DETAIL W Design optional  
See note 7

FIGURE 1. Socket terminus

AMSC N/A

DISTRIBUTION STATEMENT A. Approved for public release; distribution is unlimited.

FSC 6060



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| Inches | mm     | Inches | mm    |
|--------|--------|--------|-------|
| .005   | 0.13   | .101   | 2.57  |
| .0323  | 0.820  | .103   | 2.62  |
| .048   | 1.22   | .117   | 2.97  |
| .0625  | 1.588  | .130   | 3.30  |
| .06251 | 1.5878 | .133   | 3.38  |
| .06270 | 1.5926 | .225   | 5.72  |
| .072   | 1.83   | .580   | 14.73 |
| .092   | 2.34   | 1.500  | 38.10 |
| .100   | 2.54   |        |       |

NOTES:

1. Dimensions are in inches.
2. Metric equivalents are given for general information only.
3. All diameters to be concentric within 0.003 inch unless otherwise indicated.
4. Dimensions apply after plating.
5. Free length prior to installation in the connector.
6. Alignment sleeve and body design optional, not to exceed maximum envelope dimensions.
7. For alternate split sleeve design, engaging force shall be less than preload spring force (I.D. tolerance does not apply).
8. Alignment surface O.D. shall be concentric with "A" diameter in accordance with table I.
9. This measurement should be taken only after the complete termination procedure is completed and the alignment sleeve properly assembled.
10. "B" is defined as the tolerance on the "A" diameter hole.

FIGURE 1. Socket terminus - Continued.

REQUIREMENTS:

Design and construction:

Dimensions and configuration: See figure 1 and table I.

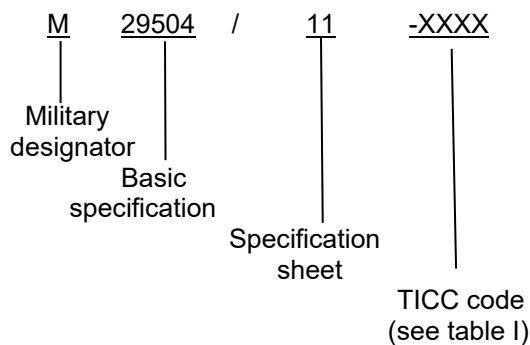
Weight: 100 grams.

Tools: See table II.

Mating termini: [MIL-T-29504/10](#)

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Part or identifying number (PIN): See figure 1 and table I, MIL-T-29504/11-(dash number from table I).



Marking: Part number or TICC designation shall be marked on the barrel of termini.

TABLE I. "A" diameter hole for optical waveguide fiber and part number designation.

| TICC      | “A” diameter  |                     | Tolerance               |                              | Fiber size     | Terminus |
|-----------|---------------|---------------------|-------------------------|------------------------------|----------------|----------|
| M29504/10 | μ             | Inch<br>(reference) | Circular<br>runout<br>* | Max<br>(B + C)/2<br>(inch) μ | Core/clad<br>μ | Size     |
| 4081      | 124.5+B<br>-0 | (.0049+B)<br>-0     | C                       | (.00059)<br>15               | 50/125         | 16       |
| 4082      | 127.0+B<br>-0 | (.0050+B)<br>-0     | C                       |                              |                | 16       |
| 4083      | 129.5+B<br>-0 | (.0051+B)<br>-0     | C                       |                              |                | 16       |
| 4084      | 139.5+B<br>-0 | (.0055+B)<br>-0     | C                       | (.00059)<br>15               | 100/140        | 16       |
| 4085      | 142.0+B<br>-0 | (.0056+B)<br>-0     | C                       |                              |                | 16       |
| 4086      | 145.0+B<br>-0 | (.0057+B)<br>-0     | C                       |                              |                | 16       |

Dimensions in ( ) are inches. \* as defined by ASME-Y14.5

TABLE II. Tools.

|          |                |              |
|----------|----------------|--------------|
| End size | Insertion tool | Removal tool |
| 16       | M81969/14-03   | M81969/14-03 |

Referenced documents. In addition to [MIL-PRF-29504](#), this specification references the following:

ASME-Y14.5                      MIL-T-29504/10

Amendment notations. The margins of this specification are marked with vertical lines to indicate modifications generated by this amendment. This was done as a convenience only and the Government assumes no liability whatsoever for any inaccuracies in these notations. Bidders and contractors are cautioned to evaluate the requirements of this document based on the entire content irrespective of the marginal notations.

#### CONCLUDING MATERIAL

Custodians:

Army - CR  
Navy - SH  
Air Force - 85  
DLA - CC

Preparing activity:

DLA - CC

(Project 6060-2024-014)

Review activities:

Air Force – 03, 19, 33, 93  
Navy – AS  
DIA - DI  
NASA - NA

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 <https://assist.dla.mil>