

INCH-POUND

MIL-C-28876/27C  
9 JULY 1992  
SUPERSEDING  
MIL-C-28876/27B  
15 June 1988

MILITARY SPECIFICATION SHEET

CONNECTORS, FIBER OPTIC, CIRCULAR, PLUG AND RECEPTACLE STYLE,  
MULTIPLE REMOVABLE TERMINI, SCREW THREADS, STRAIGHT  
BACKSHELL, STRAIN RELIEF, ENVIRONMENT RESISTING

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 the issue of the following specification listed in that issue of the Department of Defense Index of Specifications and Standards (DODISS) specified in the solicitation: MIL-C-28876.

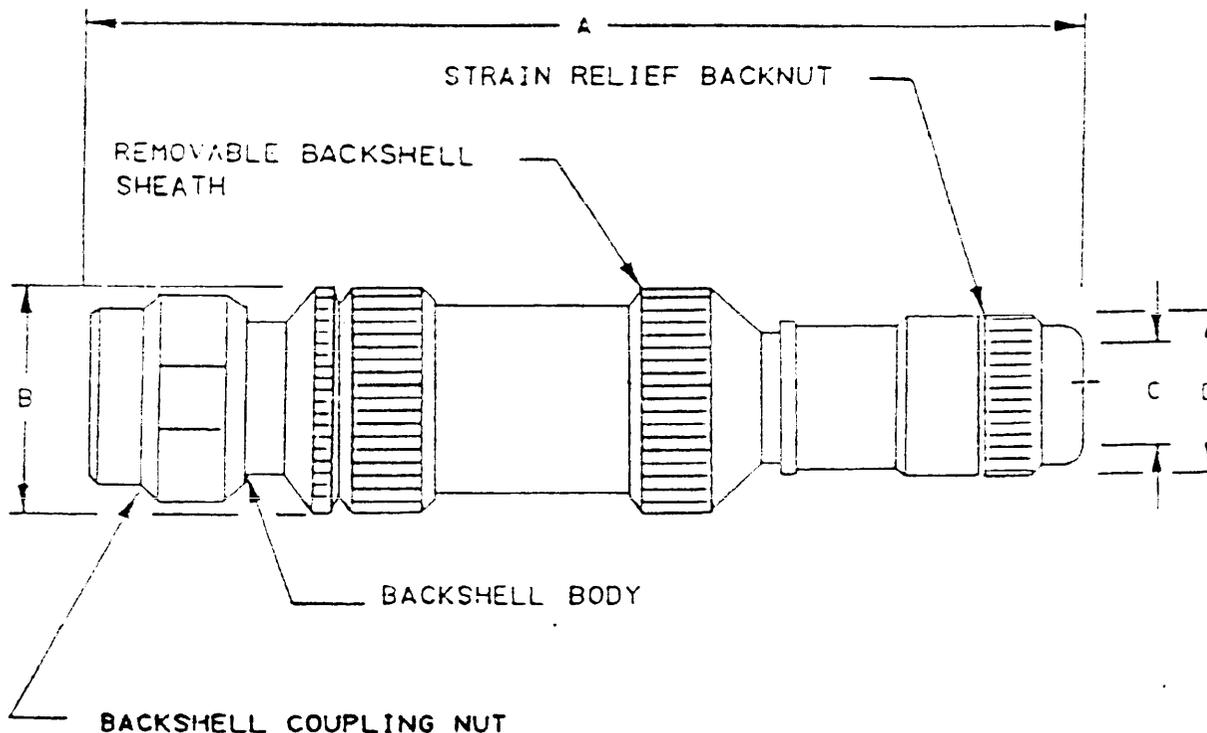


FIGURE 1. Backshell with strain relief.

AMSC N/A

1 of 4

FSC 6060

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

MIL-C-28876/27C

| Shell size | Designator | Backshell dash number | Dimension A<br>MAXIMUM | Dimension B<br>MAXIMUM | Dimension C<br>cable range | Dimension D<br>MAXIMUM |
|------------|------------|-----------------------|------------------------|------------------------|----------------------------|------------------------|
| 11         | A          | 1L, 2L,<br>3L         | 5.0<br>(127)           | 1.03<br>(26.2)         | See<br>table I             | See<br>table I         |
|            |            | 1, 2, 3               | 4.0<br>(102)           | 1.03<br>(26.2)         |                            |                        |
| 13         | B          | 1L, 2L                | 5.0<br>(127)           | 1.15<br>(29.2)         | See<br>table I             | See<br>table I         |
|            |            | 1, 2                  | 4.0<br>(102)           | 1.15<br>(29.2)         |                            |                        |
| 15         | C          | 1L, 2L,<br>3L         | 5.7<br>(145)           | 1.5<br>(38)            | See<br>table I             | See<br>table I         |
|            |            | 1, 2, 3               | 4.7<br>(119)           | 1.5<br>(38)            |                            |                        |

NOTES:

1. Dimensions are in inches.
2. Metric equivalents are given for general information only.
3. Dimensions apply after plating.
4. Metric equivalents (mm) are in parentheses.
5. For mating key dimensions, see figure 10 of MIL-C-28876.
6. Each backshell shall be legibly and permanently marked in accordance with MIL-STD-1285.

FIGURE 1. Backshell with strain relief - Continued.

REQUIREMENTS:

Temperature: Range 1 (-54°C to +65°C operating, -62°C to +71°C storage).

Dimensions and configurations: See figure 1 herein and MIL-C-28876, figure 10.

Weight: 6.4 ounces, maximum.

Fiber optic cable:

Cable diameter: 0.315 inch (8.00 mm) or 0.423 inch (10.75 mm) ± 10 percent.

Fiber type: MIL-F-49291/3, MIL-F-49291/4, MIL-F-49291/6, and MIL-F-49291/7.

Cleaning procedures: Dampen lens tissue (paper wipe or cotton swab) with a small amount of isopropyl alcohol (minimum 90 percent strength). Gently wipe the face of the connector, removing any debris, particularly around the optical fiber, using clean lint-free lens tissue (paper wipe or cotton swab). Carefully dry the contact with a clean, dry, lint-free tissue.

MIL-C-28876/27C

Marking:

PIN: Marked on the coupling nut of the backshell (see table I).

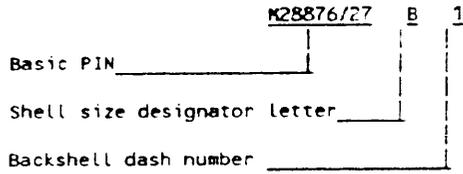


TABLE I. PIN designators.

| Shell size | Designator | Backshell dash number | Dimension C cable range        | Dimension D maximum |
|------------|------------|-----------------------|--------------------------------|---------------------|
| 11         | A          | 1L                    | .240 - .250<br>(6.09 - 6.35)   | .800<br>(20.32)     |
|            |            | 1                     |                                |                     |
|            |            | 2L                    | .280 - .315<br>(7.11 - 8.00)   | .925<br>(23.50)     |
|            |            | 2                     |                                |                     |
|            |            | 3L                    | .315 - .346<br>(8.00 - 8.80)   | .925<br>(23.50)     |
|            |            | 3                     |                                |                     |
| 13         | B          | 1L                    | .280 - .315<br>(7.11 - 8.00)   | .925<br>(23.50)     |
|            |            | 1                     |                                |                     |
|            |            | 2L                    | .315 - .346<br>(8.00 - 8.80)   | .925<br>(23.50)     |
|            |            | 2                     |                                |                     |
| 15         | C          | 1L                    | .495 - .515<br>(12.57 - 13.08) | 1.10<br>(27.94)     |
|            |            | 1                     |                                |                     |
|            |            | 2L                    | .380 - .423<br>(9.65 - 10.74)  | .925<br>(23.50)     |
|            |            | 2                     |                                |                     |
|            |            | 3L                    | .424 - .465<br>(10.77 - 11.81) | 1.10<br>(27.94)     |
|            |            | 3                     |                                |                     |

1/ Cable shall be in accordance with performance requirements of DOD-C-85045.

MIL-C-28876/27C

Mating counterpart: Backshell mates with MIL-C-28876/1 receptacle, MIL-C-28876/6 plug, and MIL-C-28876/11 receptacle.

Installation and removal tools: Adjustable or 1.25 inches (31.8 mm) open end wrench, strap wrench and scissors.

Revision letters are not used to denote changes due to the extensiveness of the changes.

CONCLUDING MATERIAL

Custodians:

Army - CR  
Navy - SH  
Air Force - 85  
NASA - NA

Preparing activity:

Navy - SH

Agent:

DLA - ES

Review activities:

Army - M1  
Navy - AS, MC  
Air Force - 17, 19, 80, 90, 99  
DLA - ES

(Project 6060-0093-16)

User activities:

Navy - OS, YD  
Air Force - 13, 14