INCH-POUND
MIL-PRF-64266/10A
10 January 2012
SUPERSEDING
MIL-PRF-64266/10
25 November 2008

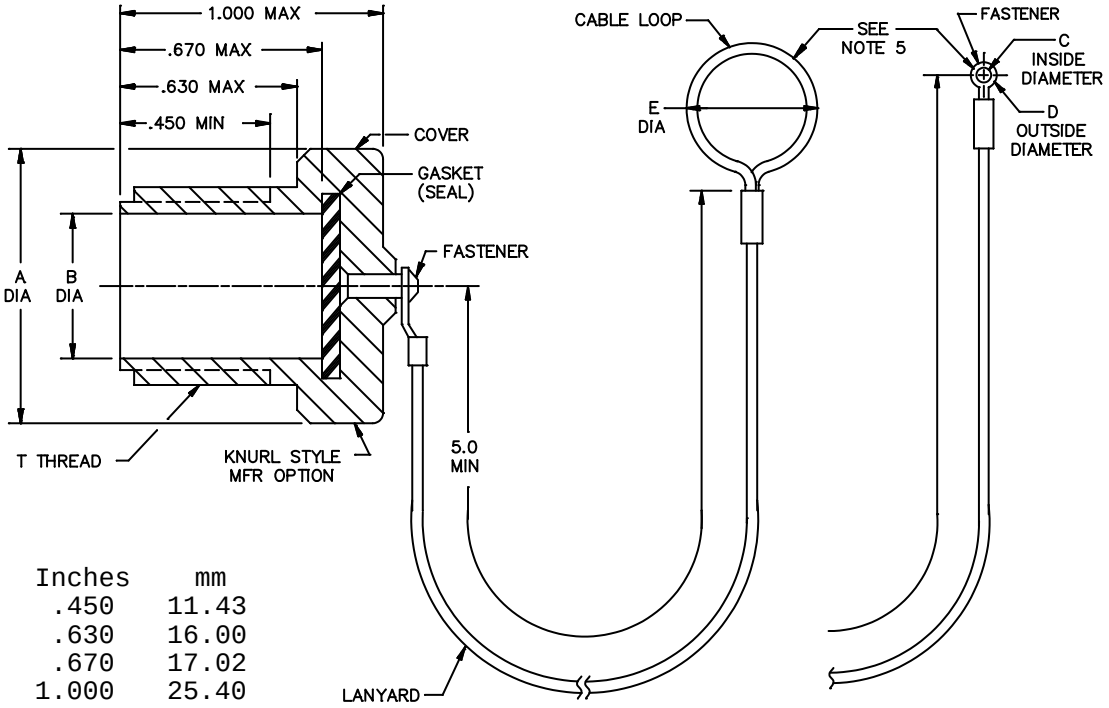
PERFORMANCE SPECIFICATION SHEET

CONNECTORS, FIBER OPTIC, CIRCULAR, PLUG STYLE, MULTIPLE REMOVABLE TERMINI, DUST COVER, SCREW THREADS, ENVIRONMENT RESISTING

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

The requirements for acquiring fiber optic connectors described herein shall consist of this specification sheet and MIL-PRF-64266.

Dust covers for MIL-PRF-64266 receptacles shall be in accordance with MIL-PRF-64266/11.



Inches	mm
.450	11.43
.630	16.00
.670	17.02
1.000	25.40

FIGURE 1. Plug dust cover.

Shell size	T thread Class 2A	A dia max		B dia		C dia inside 6/ 7/		D dia outside 6/ 7/		E dia outside	
		Inches	mm	Inches	mm	Inches	mm	Inches	mm	Inches	mm
11	.750-.1P-.2L-D.S.	1.028	26.11	.581 .569	14.75 14.45					.606 .600	15.6 15.0
13	.875-.1P-.2L-D.S.	1.141	28.98	.705 .693	17.90 17.60	.125 .110	3.17 2.79	.210 .170	5.44 4.32	.733 .710	18.6 18.0
15	1.062-.1P-.2L-D.S.	1.263	32.08	.877 .865	22.27 21.97					.890 .870	22.6 22.0
23	1.500-.1P-.2L-D.S.	1.705	43.26	1.299 1.287	32.99 32.69	.152 .173	3.87 3.48	.280 .240	7.11 6.10	1.36 1.33	34.6 34.0

NOTES:
1. Dimensions are in inches.
2. Metric equivalents are given for general information only.
3. Dimensions apply to plated/finished part.
4. The connector plug interface dimensions shall be in accordance with figure A-1 of MIL-PRF-64266.
5. Optional configuration (see PIN). For attachment to solid backshell, use cable loop. For attachment to split backshell, use fastener.
6. Fastener hole diameter is sized for captive screws fastened using a 3/32 inch (2.38 mm) hex wrench for shell sizes 11, 13, and 15.
7. Fastener hole diameter is sized for captive screws fastened using a 7/64 inch (3.57 mm) hex wrench for shell size 23.

FIGURE 1. Plug dust cover - Continued.

REQUIREMENTS:

Dimensions and configurations: See figure 1 herein and MIL-PRF-64266, figure A-1.

Weight: Weight shall not exceed the specified value in table I for the applicable shell size. Weight includes lanyard and ring.

TABLE I. Dust cover weights.

Shell size	Composite		Aluminum		Stainless steel	
	ounces	grams	ounces	grams	ounces	grams
11	0.28	8.0	0.49	14.0	1.27	36.0
13	0.35	10.0	0.56	16.0	1.59	45.0
15	0.42	12.0	0.71	20.0	1.94	55.0
23	0.63	18.0	1.06	30.0	3.17	90.0

Qualification: Qualification shall consist of performing testing specified as listed in table II. The tests in this initial qualification table are applicable when performed only for the dust covers. When testing the connector plug and connector receptacle, the dust cover shall be included as part of the initial qualification of these components and not tested separately. In either case, the dust cover shall meet the requirements for the same inspections as listed in table II.

Table II. Qualification inspections

Test performed 7/, 11/	Initial qualification	For change in				
		Seal material	Sealing integrity	Plating	Shell size	Lanyard
	1/	2/	3/	4/	5/	6/
GROUP 1 (6 mated pairs)						
Interoperability (not applicable)						
Visual & Mechanical						
Size	X			X	X	
Weight	X			X	X	
Identification marking	X			X	X	
Screw threads	X			X		
Workmanship	X	X	X	X	X	X
Functional						
Connector coupling engagement and disengagement torque	X	X	X	X	X	
Dust cover mating durability	X	X	X	X		
Connector coupling engagement and disengagement torque	X	X	X	X		
Water pressure 14/	X	X	X	X		
Optical						
None						
GROUP 2 (2 mated pairs)						
Backshell-to-connector mating torque						
Cable pull out force (retention)						
External bending moment						
Cable seal flexing						
Twist						
Impact	X				X	X
Crush	X		X		X	
Vibration: Swept sine						
Vibration: Random						
Shock: MIL-S-901 12/	X					X
Water pressure 14/	X				X	
Modified SO2/salt spray	X	X	X	X		X
Connector coupling engagement and disengagement force	X	X	X	X		X

Table II. Qualification inspections – Continued.

Test performed 7/, 11/	Initial qualification	For change in				
		Seal material	Sealing integrity	Plating	Shell size	Lanyard
	1/	2/	3/	4/	5/	6/
GROUP 3 (2 mated pairs)						
Thermal shock	X	X		X		X
Temperature/humidity cycling						
Temperature cycling						
Life aging (Temperature	X	X		X		X
Freezing water						
Sand & dust	X	X	X	X		
Identification marking	X	X		X		
Connector coupling engagement and disengagement torque	X	X	X	X		
Water pressure 14/	X	X	X	X		
Group 4 (2 mated pair + parts) 7/						
Electromagnetic effects (2 mated pair) 9/ 13/	X			X		
Fluid immersion (2 mated pair)	X	X		X		X
Shell to shell conductivity (initial)	X			X		
Salt spray (2 mated pair) 8/	X	X		X		
Shell to shell conductivity (post salt spray)	X			X		
Connector coupling engagement and disengagement torque	X	X		X		
Flammability (1 mated pair)						
Fungus resistance (parts) 10/	X	X				X
Ozone exposure (parts) 10/	X	X				X

1/ Test sample configuration. Unless otherwise specified, the connector plug dust cover shall be mated to the connector receptacle dust cover for each of the tests/inspections. When testing the connector plug and connector receptacle as part of the initial qualification, one end of each dust cover lanyard shall be affixed to the connector.

2/ Seal material. Tests in this column may be excluded if other components that use the same seal material are qualified to this defense specification.

3/ Seal integrity. These tests verify the sealing integrity, verify aspects unique to the dust cover configuration, and so shall be performed as part of a dust cover qualification for a change in seal material or dust cover design.

4/ Plating. Tests in this column other than those for group 1 visual and mechanical inspection may be excluded if other components that use the same plating are qualified to this defense specification with one provision: The other components must contain the same knurl or other style gripping surface as dust covers being qualified.

Table II. Qualification inspections – Continued.

5/ Shell size. With the exception of those tests listed in group 1, tests in this column can be excluded for smaller shell sizes once dust covers for larger shell sizes are qualified to this defense specification.
6/ Lanyard attachment. Lanyard attachment shall consist of a coated stainless steel wire rope with ring. This column applies when a material or configuration (such as attachment method to dust cover) is changed.
7/ Group 1 mated pair are to be used for Groups 2 and 3 tests. Group 4 may be performed before Group 1, and, except for electromagnetic effects, with separate samples.
8/ Salt spray. Two options: a. Use same two mated pair from the fluid immersion test. b. Use separate mated pair.
9/ Electromagnetic effects. Two (2) mated pair from the fluid immersion, salt spray, or Group 2/3 samples after that Group's test completion may be used.
10/ Parts only, assembly not required.
11/ Specific test practices for physical, mechanical, environmental and material tests, including clarifications and further details, are found in MIL-STD-1678-3.
12/ Shock test. Mated dust covers shall be affixed to standard shock fixture 4A for bulkhead mounting in the same manner as the dust covers are affixed to the connector. There shall be no damage or loosening of parts and mated dust covers shall not become a missile hazard.
13/ For receptacle dust cover only. Two of the six mated pair from Group 1 shall be used. Test sample configuration shall consist of a receptacle dust cover mated to a connector receptacle.
14/ Water pressure. When test is performed with a dust cover mated to a connector and the dust cover is removed for the post test water penetration inspection, orient the connector so that it is facing away from the center of the earth. This orientation will prevent water that may have penetrated threads prior to seals from entering the connector (resulting in a false positive for water penetration).

Maintenance aging: Not applicable.

Twist: Not applicable.

Mating durability: Not applicable.

Dust cover mating durability: Dust covers shall be mated then de-mated for 500 cycles to the applicable connector plug or connector receptacle. Dust cover seals shall not be rendered unfit for sealing (as determined by no wear, no displacement, and no penetration after the succeeding water pressure test). Threads shall not exhibit signs of wear. Plating shall remain intact to extent that dust cover can be mated and de-mated after performance of sand and dust and after salt spray.

Water pressure: Applicable except immerse in fresh water to equivalent depth of 3 feet (0.9 m) for a period of 30 minutes. Next, the dust covers shall be removed, externally cleaned and dried, and visually examined for water penetration into each dust cover. No water penetration past the sealed surfaces of the dust cover interior shall occur.

Gasket: Gasket shall be bonded to cover or mechanically retained.

Lanyard: Lanyard shall be free to rotate on fastener affixed to dust cover. A fastener shall be affixed to other end of lanyard for dust covers to be used with split backshells. A cable loop shall be affixed to other end of lanyard for dust covers to be used with solid backshells and other configurations without screw retention availability. Lanyard attachment shall consist of a coated stainless steel wire rope with fastener or with cable loop. The inside diameter of the cable loop at a right angle to the crimp sleeve shall meet the values specified for dimension C (see figure 1).

Marking:

Part or Identification Number (PIN): Marked dust cover.

M64266/10 X X X

Basic PIN

Shell size designator letter
- B = Shell size 11
- C = Shell size 13
- D = Shell size 15
- H = Shell size 23

Material designator letter
- A = Aluminum with cadmium electrolytic compatible plating
- B = Composite with cadmium electrolytic compatible plating
- C = Stainless steel, passivated

Lanyard attachment designator number
- 1 = Lanyard with fastener (for split backshells with screw available for retention)
- 2 = Lanyard with cable loop (for solid backshells)

PIN example: M64266/10BA2

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Referenced documents. In addition to MIL-PRF-64266, this specification sheet references the following document:

MIL-PRF-64266/11

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

Preparing activity:
DLA - CC

(Project 6060-2011-010)

Review activities:
Army - MI
Navy - AS
Air Force - 13, 19, 93, 99
NASA - NA

NOTE: The activities listed above were interested in this document on 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.daps.dla.mil.