

INCH-POUND

MS27501H  
 15 June 2012  
 SUPERSEDING  
 MS27501G  
 12 July 2002

## DETAIL SPECIFICATION SHEET

CONNECTORS, ELECTRICAL, CIRCULAR, COVER,  
 PROTECTIVE, PLUG, BAYONET COUPLING, SERIES I

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-38999.

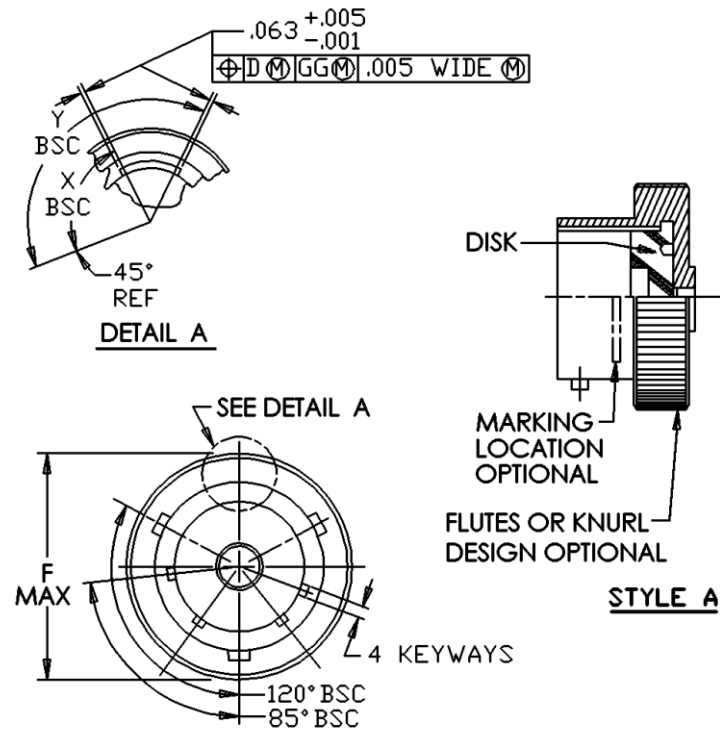
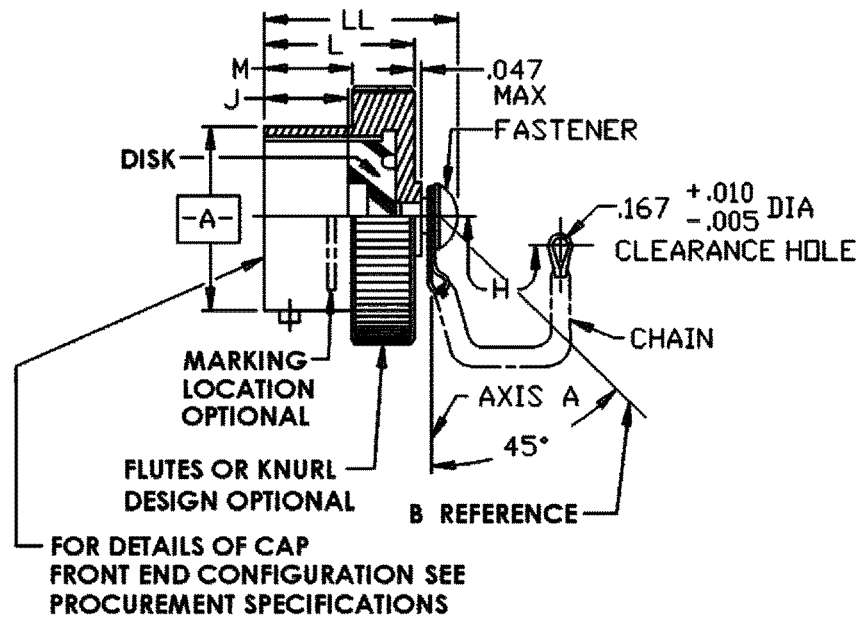


FIGURE 1. Cover.

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**STYLE C**

Shell size	A dia +.001 -.005	F dia max	H +.500 / -.250 Standard chain length	J +.010 -.015	L max	M min	X	Y	LL max
9	.572	.82	3.0	.567	.9	.58	77°	113°	1.16
11	.700	.94					67°	123°	
13	.850	1.07	3.5				63°	127°	
15	.975	1.19					61°	129°	
17	1.100	1.32					65°	125°	
19	1.207	1.44							
21	1.332	1.57	4.0				69°	121°	
23	1.457	1.69							
25	1.582	1.82							

FIGURE 1. Cover – Continued.

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Inches	mm	Inches	mm	Inches	mm	Inches	mm
.001	0.03	.567	14.40	1.075	27.2	1.57	39.9
.005	0.13	.572	14.53	1.100	27.94	1.582	40.18
.010	0.25	.58	14.7	1.16	29.5	1.69	42.9
.015	0.38	.700	17.78	1.19	30.2	1.82	46.2
.047	1.19	.82	20.8	1.207	30.66	3.0	76.0
.063	1.60	.850	21.59	1.32	33.5	3.5	89.0
.167	4.24	.9	22.9	1.332	33.83	4.0	102.0
.250	6.35	.94	23.9	1.44	36.6	5.0	127.0
.500	12.70	.975	24.76	1.457	37.01	6.0	152.0
						7.0	178.0

## NOTES:

1. Dimensions are in inches.
2. Metric equivalents are given for information only.
3. Finish: See MIL-DTL-38999.
4. BSC dimensions apply at Maximum Material Condition (MMC).
5. The gauge features for GG shall be .004 inches (0.10 mm) smaller than MMC size at basic location.
6. Not for space born applications.

FIGURE 1. Cover – Continued.

## REQUIREMENTS:

Dimensions and configuration: See figure 1.

Interface dimensions shall conform to MIL-DTL-38999.

## Material:

Cap - Impact extruded or machined aluminum alloy.

Disk - Silicone or fluorosilicone elastomer.

Chain - Stainless steel, passivated, conforming to RR-C-271, type II, class 3.

Fastener - Stainless steel, passivated.

Mating connectors: MIL-DTL-38999 series I, and MIL-DTL-27599 series I.

Disk shall be bonded to cover, or mechanically retained.

Chain shall rotate freely on fastener.

The protective cover and chain assembly shall withstand a static tensile load of 35 pounds applied along the B reference line for 5 minutes.

Fastener tensile strength: Both axial and longitudinal directions shall be 25 pounds. The load shall be applied to the end of the chain.

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## Qualification:

Examination of product.  
 Mating and unmating forces.  
 Humidity.  
 Salt spray (corrosion).  
 Fastener tensile strength (see requirement).  
 Altitude immersion.

Group A sampling inspection. 100% inspection is not applicable. Sampling inspection shall be in accordance with table I:

TABLE I. Group A sampling plan.

Lot size	Sample size
1 to 13	100 percent
14 to 150	13 units
151 to 280	20 units
281 to 500	29 units
501 to 1,200	34 units
1,201 to 3,200	42 units

Part or Identifying Number (PIN) example:

MS27501 B 11 C L

MS number \_\_\_\_\_

Finish \_\_\_\_\_

Shell size \_\_\_\_\_

Style \_\_\_\_\_

C – Chain  
 A – Without chain

Length \_\_\_\_\_

(Omit for style A or style C with standard chain length)  
 (tolerance: +.500, -.250)

L – 5 inch chain in lieu of standard length  
 M – 6 inch chain in lieu of standard length  
 N – 7 inch chain in lieu of standard length

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

Referenced documents. In addition to MIL-DTL-38999, this document references the following:

MIL-DTL-27599  
RR-C-271

## CONCLUDING MATERIAL

### Custodians:

Army - CR  
Navy - AS  
Air Force – 85  
DLA - CC

### Preparing activity:

DLA - CC

(Project 5935-2012-041)

### Review activities:

Army - AR, MI  
Navy - EC, MC, OS  
Air Force - 19, 99

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>.