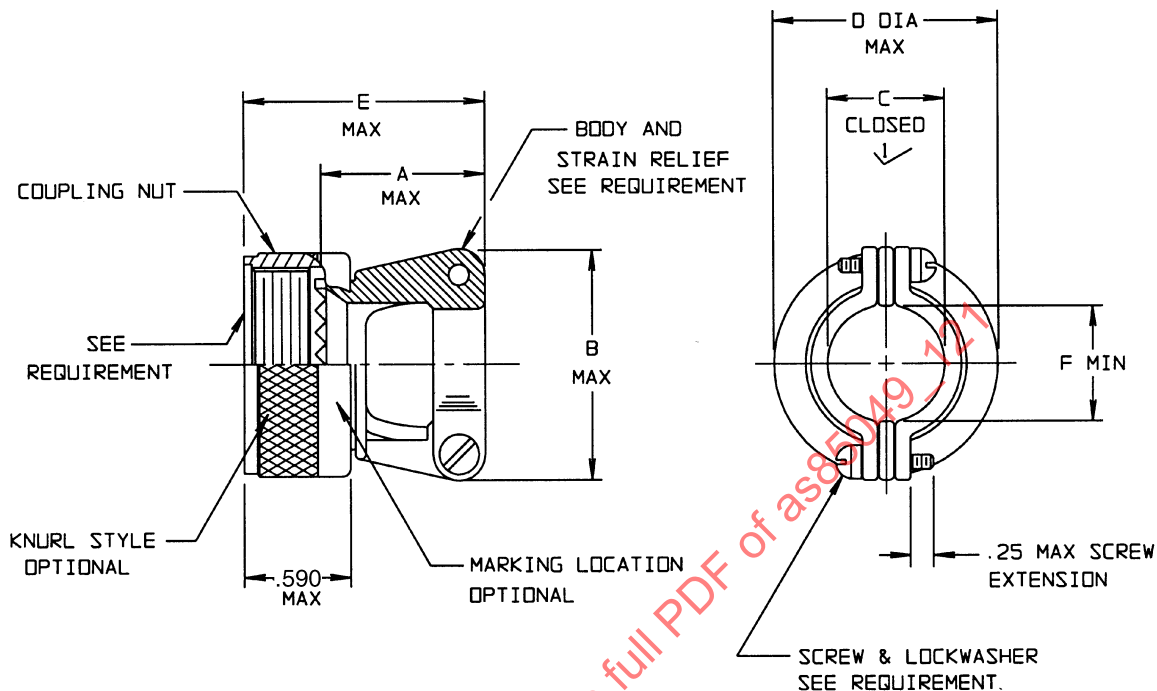


AS85049/121

FEDERAL SUPPLY CLASS  
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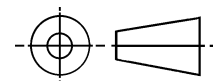
THE REQUIREMENTS FOR ACQUIRING THE ACCESSORIES DESCRIBED HEREIN SHALL CONSIST OF THIS SPECIFICATION AND THE LATEST ISSUE OF SAE AS85049.



1/ CABLE ENTRY IS MEASURED WITH SADDLE BARS CLOSED AND BOTTOMED ON CLAMP EARS

FIGURE 1. DIMENSION AND CONFIGURATION

THIRD ANGLE PROJECTION



ISSUED 2003-06

CUSTODIAN: SAE AE-8/AE-8C1

**SAE Aerospace**  
An SAE International Group

# AEROSPACE STANDARD

CONNECTOR ACCESSORIES, ELECTRICAL, STRAIN RELIEF,  
STRAIGHT SELF-LOCKING, AND NON-SELF-LOCKING,  
CATEGORY 4C (FOR MIL-DTL-38999 SERIES I AND II CONNECTORS)

**AS85049/121**  
SHEET 1 OF 4

TABLE I. SHELL SIZES AND DIMENSIONS

| DASH<br>NO | CONNECTOR<br>SHELL SIZE |        | A<br>MAX<br>LENGTH<br>↓ | B<br>MAX         | C<br>D .031<br>DIM<br>2 | D<br>MAX<br>DIA    | E<br>MAX<br>OVERALL<br>LENGTH | F<br>MIN        | SCREW<br>SIZE<br>( REF ) |
|------------|-------------------------|--------|-------------------------|------------------|-------------------------|--------------------|-------------------------------|-----------------|--------------------------|
|            | SER. II                 | SER. I |                         |                  |                         |                    |                               |                 |                          |
| 08         | 8                       | 9      | .77<br>( 19.6 )         | .88<br>( 22.4 )  | .219<br>( 5.56 )        | .858<br>( 21.79 )  | .96<br>( 24.4 )               | .22<br>( 5.6 )  | 6-32                     |
| 10         | 10                      | 11     | .89<br>( 22.6 )         | .94<br>( 23.9 )  | .264<br>( 6.71 )        | .984<br>( 24.99 )  | 1.08<br>( 27.4 )              | .27<br>( 6.9 )  | 6-32                     |
| 12         | 12                      | 13     | 1.01<br>( 25.7 )        | 1.12<br>( 28.4 ) | .344<br>( 8.74 )        | 1.157<br>( 29.39 ) | 1.20<br>( 30.5 )              | .35<br>( 8.9 )  | 6-32                     |
| 14         | 14                      | 15     | 1.01<br>( 25.7 )        | 1.19<br>( 30.2 ) | .460<br>( 11.68 )       | 1.279<br>( 32.49 ) | 1.20<br>( 30.5 )              | .47<br>( 11.9 ) | 6-32                     |
| 16         | 16                      | 17     | 1.13<br>( 28.7 )        | 1.44<br>( 36.6 ) | .545<br>( 13.84 )       | 1.406<br>( 35.71 ) | 1.32<br>( 33.5 )              | .55<br>( 14.0 ) | 6-32                     |
| 18         | 18                      | 19     | 1.38<br>( 35.1 )        | 1.56<br>( 39.6 ) | .615<br>( 15.62 )       | 1.516<br>( 34.50 ) | 1.57<br>( 39.9 )              | .62<br>( 15.7 ) | 8-32                     |
| 20         | 20                      | 21     | 1.51<br>( 38.4 )        | 1.69<br>( 42.9 ) | .698<br>( 17.73 )       | 1.642<br>( 41.70 ) | 1.70<br>( 43.2 )              | .70<br>( 17.8 ) | 8-32                     |
| 22         | 22                      | 23     | 1.63<br>( 41.4 )        | 1.75<br>( 44.5 ) | .780<br>( 19.81 )       | 1.768<br>( 44.91 ) | 1.82<br>( 46.2 )              | .78<br>( 19.8 ) | 8-32                     |
| 24         | 24                      | 25     | 1.76<br>( 44.7 )        | 1.88<br>( 47.8 ) | .850<br>( 21.59 )       | 1.869<br>( 47.98 ) | 1.95<br>( 49.5 )              | .85<br>( 21.6 ) | 8-32                     |

1. THE "A" DIMENSION IS MEASURED FROM THE BOTTOM OF THE ACCESSORY TEETH TO THE END OF THE STRAIN RELIEF
2. CABLE ENTRY IS MEASURED WITH SADDLE BARS CLOSED AND BOTTOMED ON CLAMP EARS.

## NOTES:

- DIMENSIONS ARE IN INCHES.
- DIMENSIONS APPLY AFTER PLATING.
- METRIC EQUIVALENTS ARE GIVEN FOR GENERAL INFORMATION ONLY AND ARE BASED ON 25.4 mm = 1 INCH.
- MILLIMETERS ARE IN PARENTHESES.
- IF SCREWS WITH WIRE HOLES ARE REQUIRED PROCURER MAY REPLACE WITH MS35275 SCREWS AND MS35338 LOCKWASHERS.

## REQUIREMENTS:

## CONNECTOR ACCESSORY DESIGN AND CONSTRUCTION:

1. DIMENSIONS AND CONFIGURATION: SEE FIGURE 1 AND TABLE I.
2. INTERFACE DIMENSIONS SHALL CONFORM TO SAE AS85049, FIGURE 2
3. ACCESSORIES CONSIST OF A COUPLING NUT, BODY AND STRAIN RELIEF THE COUPLING NUT SHALL BE CAPTIVATED TO, AND ROTABLE ON THE BODY.
4. DETENTED SELF-LOCKING PROVIDES A POSITIVE AUDIBLE DETENTED COUPLING.
5. THE STRAIN RELIEF SHALL ACCOMMODATE SAE AS85049/127 BUSHING STRIP
6. CLAMPS SHALL HAVE NO PROTRUSIONS OR SHARP EDGES WHICH MAY PINCH CABLE.
7. MATERIAL AND FINISH: SEE TABLE II. ACCESSORIES SHALL BE AS SHOWN IN TABLE II.
8. CLAMP AND SCREWS: 300 SERIES CORROSION-RESISTANT STEEL, PASSIVATE.
9. SELF-LOCKING DEVICE: CORROSION RESISTANT MATERIAL.

TABLE II. MATERIAL AND FINISH

| FIGURE | MATERIAL  | FINISH         |
|--------|---|----------------|
| 1      | ALUMINUM ALLOY IN ACCORDANCE WITH SAE-AS85049                       | A N 1/<br>W 2/ |
|        | CORROSION RESISTANT STEEL 300 SERIES IN ACCORDANCE WITH SAE-AMS-763 | S              |

- 1/ NOT FOR NAVY USE. AIR FORCE USE IS FOR SPACE APPLICATIONS ONLY. W IS THE PREFERRED FINISH.
- 2/ W IS NOT FOR USE IN SPACE APPLICATION.

## SELF-LOCKING DEVICES DESIGN AND CONSTRUCTION:

1. COUPLINGS WITH SELF-LOCKING DEVICES SHALL MEET ALL THE REQUIREMENTS SPECIFIED HEREIN FOR ITS SPECIFIC CATEGORY AND THE FOLLOWING ADDITIONAL TEST:
  - A. LIFE CYCLE: SEE AS85049 PARA 4.6.15
  - B. VIBRATION: SEE AS85049 PARA 3.5.4.1