

REV.  
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AS85049/31

FEDERAL SUPPLY CLASS  
5935

THE REQUIREMENTS FOR ACQUIRING THE PRODUCT DESCRIBED HEREIN SHALL CONSIST OF THIS SPECIFICATION SHEET AND THE LATEST ISSUE OF SAE AS85049.

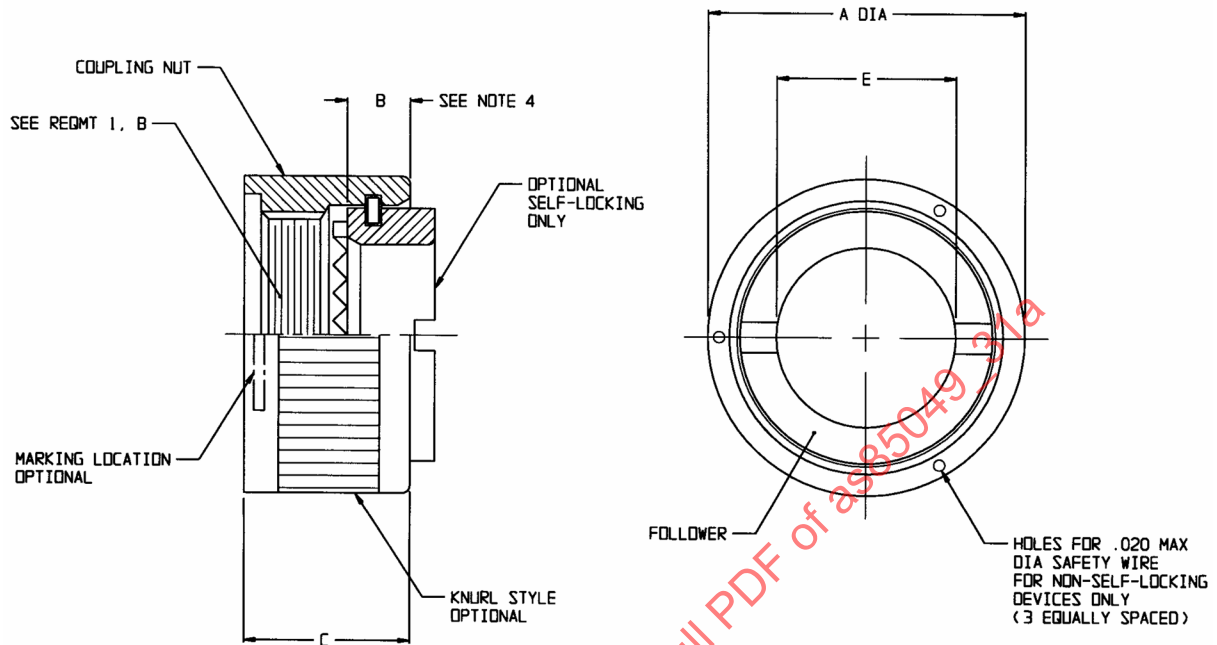
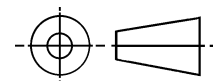


FIGURE 1 - CONFIGURATION AND DIMENSIONS

THIRD ANGLE PROJECTION



CUSTODIAN: SAE AE-8/AE-8C1

**SAE Aerospace**  
An SAE International Group

**AEROSPACE STANDARD**

(R) CONNECTOR ACCESSORIES, ELECTRICAL, BACKSHELL, NONENVIRONMENTAL, STRAIGHT, NON-SELF-LOCKING AND SELF-LOCKING, CATEGORY 3B (FOR MIL-DTL-5015 CRIMP, MIL-C-26482 SERIES 2, AS81703 SERIES 3, AND MIL-DTL-83723 SERIES III CONNECTORS)

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SHEET 1 OF 4

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TABLE 1 - DASH NUMBERS, SHELL SIZE AND DIMENSIONS

Dash Number	For Connection Shell Size (Ref)				Non-Self-Locking				Self-Locking			
	AS81703 Series 3	MIL-C-26482 Series 2	MIL-DTL-5015 Crimp	MIL-DTL-83723 Series III	A Max Dia	B Max	C Max	E Max	A Max Dia	B Max	C Max	E Max
-3	3				.669	.220	.540	.270				
-8		8	8S	8	.617			.270	.885	.39	.710	.270
-10		10	10S, 10SL	10	.734			.375	1.010			.375
-12	7	12	12S, 12	12	.858			.511	1.135			.511
-14	12	14	14S, 14	14	.984			.585	1.260			.585
-16	19	16	16S, 16	16	1.112			.710	1.385			.710
-18	27	18	18	18	1.218			.789	1.510			.784
-20	37	20	20	20	1.345			.914	1.635			.914
-22		22	22	22	1.468			1.039	1.760			1.039
-24		24	24	24	1.593		.540	1.154	1.885	.39	.710	1.154
-28			28		1.969		.702	1.389	2.135	.41	.890	1.389
-32			32		2.219			1.635	2.395			1.635
-36			36		2.469			1.850	2.635			1.850
-40			40		2.719			2.065	2.885			2.065
-44			44		2.969			2.320	3.135			2.320
-46			48		3.219		.702	2.570	3.385	.41	.890	2.570
-61	61				1.653	.220	.540	1.194				

INCH	mm	INCH	mm	INCH	mm
0.010	0.25	0.734	18.64	1.635	41.53
0.020	0.51	0.784	19.91	1.653	41.53
0.030	0.76	0.789	20.04	1.760	44.70
0.045	1.14	0.858	21.79	1.850	46.99
0.062	1.57	0.885	22.48	1.885	47.88
0.125	3.18	0.890	22.60	1.969	50.01
0.220	5.58	0.914	23.22	2.065	52.45
0.250	6.35	0.984	24.99	2.135	54.23
0.270	6.86	1.010	25.65	2.219	56.36
0.320	8.13	1.039	26.39	2.320	58.93
0.340	8.64	1.112	28.24	2.395	60.83
0.375	9.53	1.135	28.83	2.469	62.71
0.380	9.65	1.154	29.31	2.570	65.28
0.390	9.90	1.194	30.33	2.615	66.42
0.410	10.41	1.218	30.94	2.635	66.93
0.511	12.98	1.260	32.00	2.719	69.06
0.540	13.72	1.345	34.16	2.885	73.28
0.585	14.86	1.385	35.18	2.969	75.41
0.617	15.67	1.389	35.28	3.135	79.63
0.669	16.99	1.468	37.29	3.219	81.76
0.702	17.83	1.510	38.35	3.385	85.98
0.710	18.03	1.593	40.46		

## REQUIREMENTS:

## 1. DESIGN AND CONSTRUCTION:

DIMENSIONS AND CONFIGURATIONS: SEE FIGURE 1 AND TABLE 1.

## 2. INTERFACE DIMENSIONS: IN ACCORDANCE WITH SAE AS85049, FIGURE 4.

## 3. ACCESSORY: CONSISTS OF A COUPLING NUT AND FOLLOWER. COUPLING NUT SHALL BE CAPTIVATED TO THE FOLLOWER AND ROTATABLE.

## 4. DETENTED SELF-LOCKING PROVIDES A POSITIVE AUDIBLE DETENTED COUPLING.

## 5. MATERIAL AND FINISH: SEE TABLE 2.

TABLE 2 - MATERIAL AND FINISH

Figure	Material	Finish
1	Aluminum alloy in accordance with MIL-C-85049	<u>1</u> / N, <u>2</u> / W A

1/ Not for Navy use. Restricted to Air Force Space applications only.2/ W finish is not for use in space application.

## 6. SELF-LOCKING DEVICES DESIGN AND CONSTRUCTION: COUPLINGS WITH SELF-LOCKING DEVICES SHALL MEET ALL THE REQUIREMENTS SPECIFIED HEREIN FOR ITS SPECIFIC CATEGORY AND THE FOLLOWING ADDITIONAL TESTS:

a. LIFE CYCLE: SEE SAE AS85049, PARAGRAPH 3.5.13.

b. VIBRATION: SEE SAE AS85049, PARAGRAPH 3.5.4.1.

## 7. QUALIFICATION: SEE SAE AS85049, CATEGORY 3B. BENDING MOMENT AND CABLE PULLOUT NOT APPLICABLE.

## 8. QUALIFICATION IS REQUIRED FOR U.S. GOVERNMENT PROCUREMENT. THE QPL EVALUATING ACTIVITY, FOR U.S. DEPARTMENT OF DEFENSE PROCUREMENT PURPOSES, NAVAL AIR SYSTEMS COMMAND (CODE 4.4.4.3), 48142 SHAW ROAD, BLDG. 3197, SUITE E, PATUXENT RIVER, MD 20670.

## 9. PART NUMBER: SEE EXAMPLE BELOW:

AS85049/31 S 10 W

Military designator \_\_\_\_\_

Specification sheet \_\_\_\_\_

Configurations "S" for detented self-locking  
(see Requirement 4)

Configurations "N" for non-detented self-locking  
"-" for non-self-locking

Dash number \_\_\_\_\_

Finish (see Table 2) \_\_\_\_\_