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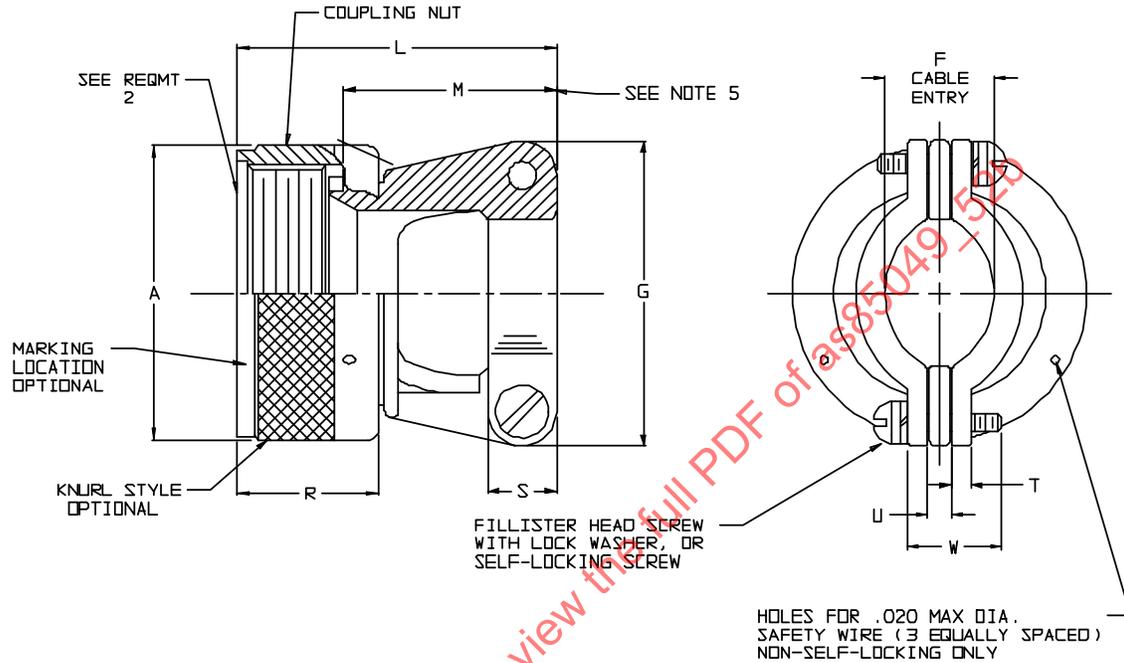
SAE AS85049/52

RATIONALE

REVISED TO INCLUDE COMMENTS RECEIVED BY THE GOVERNMENT AND INDUSTRY, REMOVE GOVERNMENT JARGON, INCORPORATE AMENDMENTS, AND UP-DATE SPECIFICATION REFERENCES.

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

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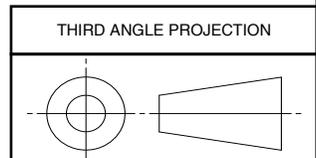


NON-SELF-LOCKING OR SELF-LOCKING COUPLING

FIGURE 1 - CONFIGURATION AND DIMENSIONS

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CUSTODIAN: AE-8C1

PROCUREMENT SPECIFICATION: NONE

SAE Aerospace
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AEROSPACE STANDARD

CONNECTOR ACCESSORIES, ELECTRICAL, STRAIN RELIEF, NONENVIRONMENTAL, SELF-LOCKING AND NON-SELF-LOCKING, STRAIGHT, CATEGORY 4B (FOR MIL-DTL-5015 CRIMP, MIL-DTL-26482 SERIES 2, AS81703 SERIES 3, AND MIL-DTL-83723 SERIES III CONNECTORS)

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ISSUED 1998-08 REVISED 2009-08

TABLE 1A - DIMENSIONS (NON-SELF-LOCKING ONLY)

DASH NUMBER	FOR CONNECTOR SHELL SIZE (REF)				NONSELF-LOCKING			
	AS81703 SERIES 3	MIL-DTL-26482 SERIES 2	MIL-DTL-5015 CRIMP	MIL-DTL-83723 SERIES III	A MAX DIA	L ± .062	M MAX (SEE NOTE 5)	R MAX
-3	3				.669 (16.99)	.890 (22.61)	.63 (16.0)	.540 (13.72)
-8		8	8S	8	.617 (15.67)	.890 (22.61)	.63 (16.0)	↑
-10		10	10S, 10SL	10	.734 (18.64)	1.000 (25.40)	.74 (18.8)	
-12	7	12	12S, 12	12	.858 (21.79)	1.125 (28.58)	.86 (21.8)	
-14	12	14	14S, 14	14	.984 (24.99)	1.125 (28.58)	.86 (21.8)	
-16	19	16	16S, 16	16	1.112 (28.24)	1.250 (31.75)	.99 (25.2)	
-18	27	18	18	18	1.218 (30.94)	1.500 (38.10)	1.24 (31.5)	
-20	37	20	20	20	1.345 (34.16)	1.625 (41.28)	1.36 (34.5)	
-22		22	22	22	1.468 (37.29)	1.750 (44.45)	1.49 (37.8)	↓
-24		24	24	24	1.593 (40.46)	1.875 (47.63)	1.61 (40.9)	.540 (13.72)
-28			28		1.969 (50.01)	2.187 (55.55)	1.76 (44.7)	.702 (17.83)
-32			32		2.219 (56.36)	2.375 (60.33)	1.95 (49.5)	↑
-36			36		2.469 (62.71)	2.750 (69.85)	2.33 (59.2)	
-40			40		2.719 (69.06)	2.938 (74.63)	2.51 (63.8)	↓
-44			44		2.969 (75.41)	3.312 (84.12)	2.89 (73.4)	
-48			48		3.219 (81.76)	3.687 (93.65)	3.26 (82.8)	.702 (17.83)
-61	61				1.653 (41.99)	1.875 (47.63)	1.61 (40.9)	.540 (13.72)

TABLE 1B - DIMENSIONS (SELF-LOCKING ONLY)

DASH NUMBER	FOR CONNECTOR SHELL SIZE (REF)				SELF-LOCKING			
	AS81703 SERIES 3	MIL-DTL-26482 SERIES 2	MIL-DTL-5015 CRIMP	MIL-DTL-83723 SERIES III	A MAX	L MAX	M MAX (SEE NOTE 5)	R MAX
-3 /1	3							
-8		8	8S	8	.885 (22.48)	1.04 (26.42)	.73 (18.54)	.710 (18.03)
-10		10	10S, 10SL	10	1.010 (25.65)	1.16 (29.46)	.85 (21.59)	.710 (18.03)
-12	7	12	12S, 12	12	1.135 (28.83)	1.29 (32.77)	.98 (24.89)	.710 (18.03)
-14	12	14	14S, 14	14	1.260 (32.00)	1.29 (32.77)	.98 (24.89)	.710 (18.03)
-16	19	16	16S, 16	16	1.385 (35.18)	1.41 (35.81)	1.10 (27.94)	.710 (18.03)
-18	27	18	18	18	1.510 (38.35)	1.66 (42.16)	1.35 (34.29)	.710 (18.03)
-20	37	20	20	20	1.635 (41.53)	1.79 (45.47)	1.48 (37.59)	.710 (18.03)
-22		22	22	22	1.760 (44.70)	1.91 (48.51)	1.60 (40.64)	.710 (18.03)
-24		24	24	24	1.885 (47.88)	2.04 (51.82)	1.73 (43.94)	.710 (18.03)
-28			28		2.135 (54.23)	2.35 (59.69)	1.88 (47.75)	.890 (22.61)
-32			32		2.395 (60.83)	2.60 (66.04)	2.13 (54.10)	.890 (22.61)
-36			36		2.635 (66.93)	2.91 (73.91)	2.44 (61.98)	.890 (22.61)
-40			40		2.885 (73.28)	3.10 (78.74)	2.63 (66.80)	.890 (22.61)
-44			44		3.135 (79.63)	3.47 (88.14)	3.00 (76.20)	.890 (22.61)
-48			48		3.385 (85.98)	3.87 (98.30)	3.40 (86.36)	.890 (22.61)
-61 /1	61							

/1 NOT AVAILABLE ON SELF-LOCKING CONFIGURATION.

TABLE 1C - DIMENSIONS (NON-SELF-LOCKING AND SELF-LOCKING, CONTINUED)

DASH NUMBER	NON-SELF-LOCKING AND SELF LOCKING							SCREW SIZE
	F (SEE NOTE 4) WIRE BUNDLE ACCOMMODATION RANGE		G MAX	S ±.020	T MAX	U MAX	W +.000 -.062 SCREW LENGTH	
	MAX	MIN						
-3	.204 (5.18)	.125 (3.18)	.782 (19.86)	.250 (6.35)	.140 (3.56)	.145 (3.68)	.500 (12.70)	6-32
-8	.204 (5.18)	.125 (3.18)	.782 (19.86)	↑	↑	↑	.500 (12.70)	↑
-10	.286 (7.26)	.187 (4.75)	.862 (21.89)				.500 (12.70)	
-12	.416 (10.57)	.291 (7.39)	1.003 (25.48)				.625 (15.88)	
-14	.476 (12.09)	.351 (8.92)	1.061 (26.95)	↓	↓	↓	.625 (15.88)	↓
-16	.625 (15.88)	.501 (12.73)	1.334 (33.88)	.250 (6.35)	.140 (3.56)	.145 (3.68)	.625 (15.88)	6-32
-18	.706 (17.93)	.518 (13.16)	1.466 (37.24)	.375 (9.53)	.171 (4.34)	.176 (4.47)	.750 (19.05)	8-32
-20	.831 (21.11)	.581 (14.76)	1.572 (39.93)	↑	↑	.176 (4.47)	.875 (22.23)	
-22	.956 (24.28)	.644 (16.36)	1.688 (42.88)	↓	↓	.176 (4.47)	1.000 (25.40)	↑
-24	1.081 (27.46)	.706 (17.93)	1.790 (45.47)	.375 (9.53)	.171 (4.34)	.208 (5.28)	1.125 (28.58)	↓
-28	1.187 (30.15)	.750 (19.05)	2.035 (51.69)	.500 (12.70)	.203 (5.16)	.270 (6.86)	1.250 (31.75)	8-32
-32	1.250 (31.75)	.875 (22.23)	2.386 (60.60)	↑	↑	.270 (6.86)	1.250 (31.75)	¼-20
-36	1.375 (34.93)	.938 (23.83)	2.496 (63.40)	↓		.395 (10.03)	1.500 (38.10)	↑
-40	1.500 (38.10)	.938 (23.83)	2.566 (65.18)	.500 (12.70)		↑	1.500 (38.10)	
-44	1.750 (44.45)	1.188 (30.18)	2.860 (72.64)	.625 (15.88)	↓	↓	1.750 (44.45)	↓
-48	1.875 (47.63)	1.312 (33.32)	3.344 (84.94)	.625 (15.88)	.203 (5.16)	.395 (10.03)	2.000 (50.80)	¼-20
-61	1.081 (27.46)	.706 (17.93)	1.775 (45.09)	.375 (9.53)	.171 (4.34)	.208 (5.28)	1.125 (28.58)	8-32

NOTES

- DIMENSIONS ARE IN INCHES.
- METRIC EQUIVALENTS ARE BASED UPON 1.00 INCH = 25.4 MM AND SHALL BE IN ACCORDANCE WITH ASTM E 380, PARAGRAPH 4.5, METHOD A AND ASTM E 29, ROUNDING-OFF METHOD.
- DIMENSIONS APPLY AFTER PLATING.
- "WIRE BUNDLE ACCOMMODATION RANGE" DIMENSION IS DEFINED AS THE ENVELOPE AREA OF THE WIRE BUNDLE. THIS DIMENSION IS NOT MEANT TO DEFINE THE CLAMP HARDWARE LIMITS.
- MEASURED FROM THE ROOT OF THE TOOTH TO THE BACK OF THE CLAMP.

REQUIREMENTS

- CONNECTOR ACCESSORY DESIGN AND CONSTRUCTION
DIMENSIONS AND CONFIGURATION: SEE FIGURE 1 AND TABLE 1.
- INTERFACE DIMENSIONS: IN ACCORDANCE WITH SAE AS85049, FIGURE 4 OR 4A.
- ACCESSORIES CONSIST OF A COUPLING NUT AND STRAIN RELIEF.
- DETENTED SELF-LOCKING PROVIDES A POSITIVE AUDIBLE DETENTED COUPLING.
- THE STRAIN RELIEF ACCOMMODATES SAE AS85049/127 BUSHING STRIP.

 An SAE International Group	AEROSPACE STANDARD CONNECTOR ACCESSORIES, ELECTRICAL, STRAIN RELIEF, NONENVIRONMENTAL, SELF-LOCKING AND NON-SELF-LOCKING, STRAIGHT, CATEGORY 4B (FOR MIL-DTL-5015 CRIMP, MIL-DTL-26482 SERIES 2, AS81703 SERIES 3, AND MIL-DTL-83723 SERIES III CONNECTORS)	SAE AS85049/52 SHEET 3 OF 5	REV. B

- 6. CLAMPS SHALL HAVE NO PROTRUSIONS OR SHARP EDGES WHICH MAY PINCH CABLE.
- 7. MATERIAL AND FINISH: SEE TABLE 2. ACCESSORIES SHALL BE AS SHOWN IN TABLE 2.

TABLE 2 - MATERIAL AND FINISH

FIGURE	MATERIAL	FINISH
1	ALUMINUM ALLOY IN ACCORDANCE WITH SAE AS85049	A N ^{1/} W ^{2/}
1	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. ALSO SEE SPECIFICATION NOTE

- 8. CLAMPS, SCREWS AND LOCK WASHERS: 300 SERIES CORROSION-RESISTANT STEEL, PASSIVATE.
- 9. SELF-LOCKING DEVICE: CORROSION RESISTANT MATERIAL.
- 10. 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 4.6.15.
 - b. VIBRATION: SEE SAE AS85049, PARAGRAPH 3.5.4.1.
- 11. ACCESSORIES ARE NOT RECOMMENDED FOR CONNECTORS USING CO-AX, DATA BUS, NO. 8, 6, 4 OR 0 CONDUCTORS. WHEN USED WITH MAXIMUM DENSITY ARRANGEMENTS, CLAMP MAY OPEN OUTER WIRE SEALS.
- 12. QUALIFICATION: SEE SAE AS85049, CATEGORY 4B.
- 13. PART NUMBER: SEE EXAMPLE BELOW:

