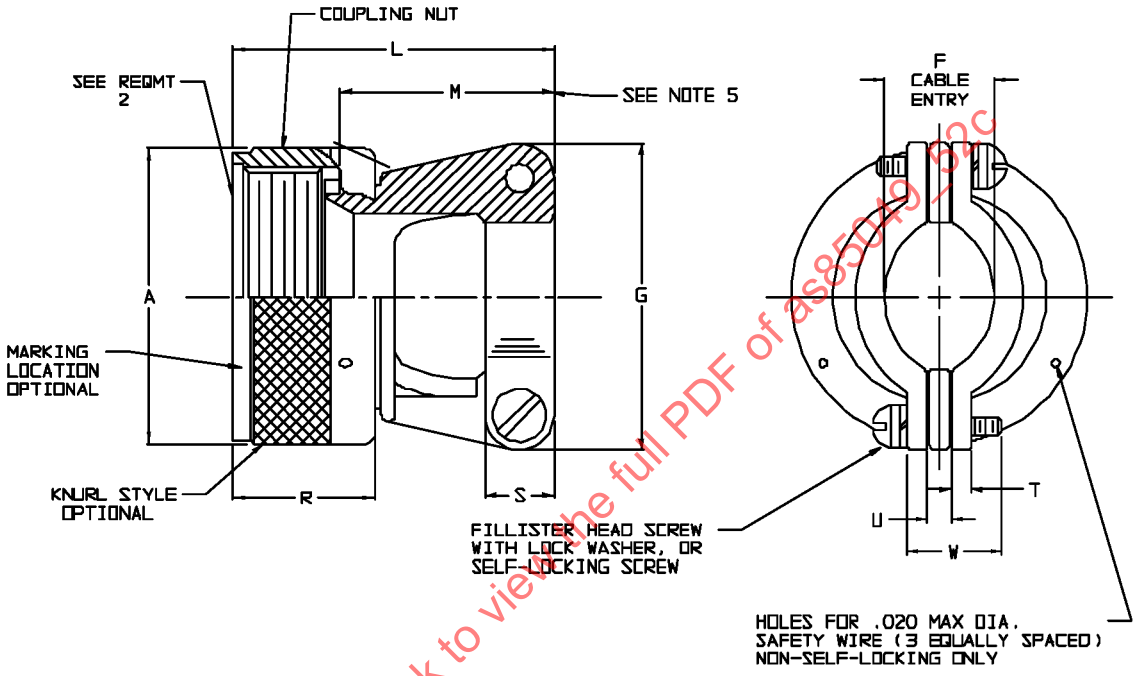
FEDERAL SUPPLY CLASS
5935

RATIONALE

REVISED TO CORRECT THE PROCURMENT PART NUMBER EXAMPLE AND ALIGNED SPECIFICATION TO COMPLY WITH SAE GUIDELINES.

NOTICE

THE REQUIREMENTS FOR PROCURING THE PRODUCT DESCRIBED HEREIN SHALL CONSIST OF THIS SPECIFICATION SHEET AND THE LATEST ISSUE OF SAE AS85049. AS85049/118 IS RECOMMENDED FOR NEW DESIGN.

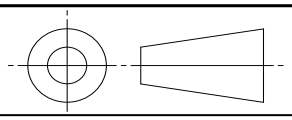


NON-SELF-LOCKING OR SELF-LOCKING COUPLING

FIGURE 1 - CONFIGURATION AND DIMENSIONS

ISSUED 1998-08 REVISED 2011-01

THIRD ANGLE PROJECTION



SAE values your input. To provide feedback on this Technical Report, please visit
http://www.sae.org/technical/standards/AS85049/52C

CUSTODIAN: AE-8/AE-8C1

PROCUREMENT SPECIFICATION: AS85049

SAE Aerospace
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AEROSPACE STANDARD

CONNECTOR ACCESSORIES, ELECTRICAL, STRAIN RELIEF, NONENVIRONMENTAL, SELF-LOCKING AND NON-SELF-LOCKING, STRAIGHT, CATEGORY 4B (FOR AS50151 CRIMP, MIL-DTL-26482 SERIES 2, AS81703 SERIES 3, AND MIL-DTL-83723 SERIES III CONNECTORS)

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

DASH NUMBER	FOR CONNECTOR SHELL SIZE (REF)				NONSELF-LOCKING			
	AS81703 SERIES 3	MIL-DTL-26482 SERIES 2	AS50151 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	AS50151 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 (N0N-SELF-LOCKING AND SELF-LOCKING, CONTINUED)

NON-SELF-LOCKING AND SELF LOCKING								
DASH NUMBER	F (SEE NOTE 4) WIRE BUNDLE ACCOMMODATION RANGE		G MAX	S ±.020	T MAX	U MAX	W +.000 -.062 SCREW LENGTH	SCREW SIZE
	MAX	MIN						
-3 1/	.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/	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

1/ NOT AVAILABLE ON SELF-LOCKING CONFIGURATION.

NOTES

1. DIMENSIONS ARE IN INCHES.
2. 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.
3. DIMENSIONS APPLY AFTER PLATING.
4. "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.
5. MEASURED FROM THE ROOT OF THE TOOTH TO THE BACK OF THE CLAMP.

REQUIREMENTS

1. CONNECTOR ACCESSORY DESIGN AND CONSTRUCTION

   DIMENSIONS AND CONFIGURATION: SEE FIGURE 1 AND TABLE 1.

2. INTERFACE DIMENSIONS: IN ACCORDANCE WITH SAE AS85049, FIGURE 4 OR 4A.
3. ACCESSORIES CONSIST OF A COUPLING NUT AND STRAIN RELIEF.
4. DETENTED SELF-LOCKING PROVIDES A POSITIVE AUDIBLE DETENTED COUPLING. OPTION "N" IS A FREE SPINNING SELF-LOCKING COUPLING.

5. THE STRAIN RELIEF ACCOMMODATES SAE AS85049/127 BUSHING STRIP.

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. ACCESSORIES ARE NOT RECOMMENDED FOR CONNECTORS USING COAX, DATA BUS, SIZES 8, 6, 4 OR 0 CONDUCTORS. USE SAE AS85049/118. WHEN USED WITH MAXIMUM DENSITY ARRANGEMENTS, CLAMP MAY OPEN OUTER WIRE SEALS.

11. QUALIFICATION: SEE SAE AS85049, CATEGORY 4B.

12. PART OR IDENTIFYING NUMBER (PIN):

EXAMPLE: M85049/ 52 S 10 W

BASIC PART NUMBER

SPECIFICATION SHEET

CONFIGURATIONS; "S" FOR DETENTED SELF-LOCKING (SEE REQM'T 4)

"N" FOR NON-DETENTED SELF-LOCKING

"-1-" (DASH) FOR NON-SELF-LOCKING

DASH NUMBER

FINISH (SEE TABLE 2)