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USED IN LIEU OF

MIL-C-85049/52

16 January 1980

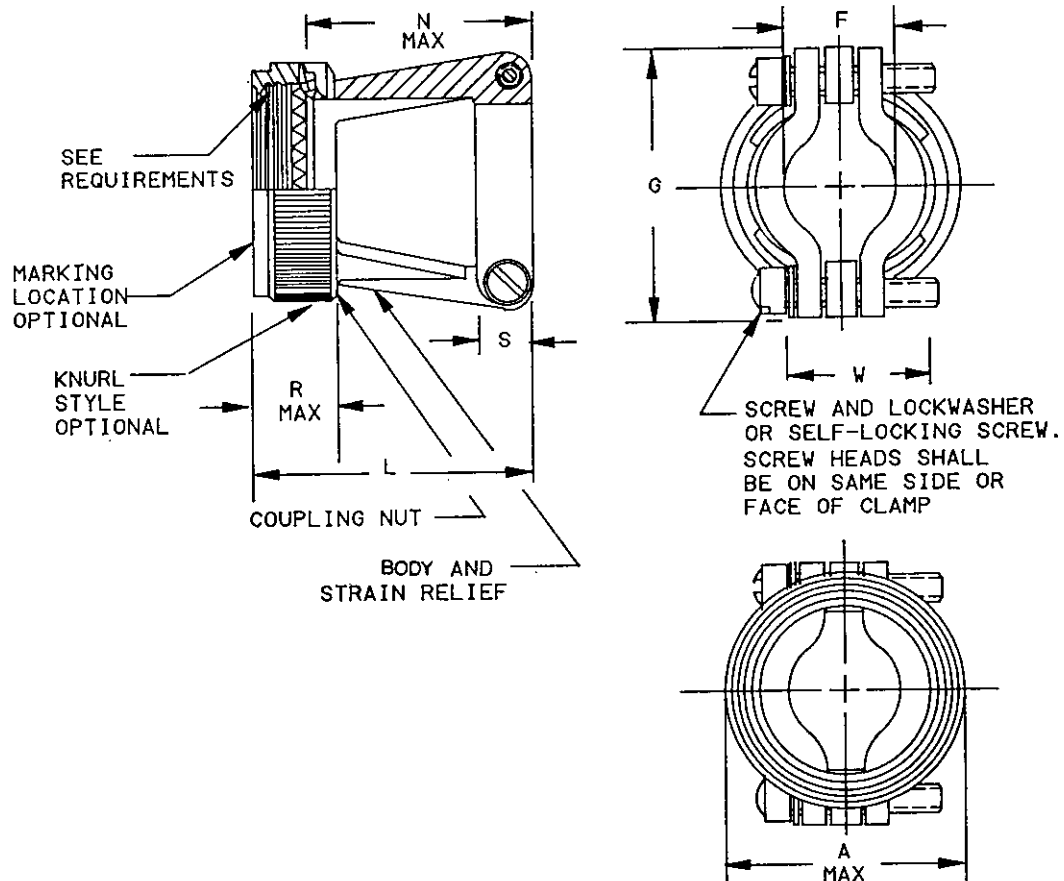
MILITARY SPECIFICATION SHEET

CONNECTOR ACCESSORIES, ELECTRICAL, STRAIN RELIEF,
STRAIGHT, SELF-LOCKING, CATEGORY 4B
(FOR MIL-C-5015 CRIMP, MIL-C-26482 SERIES 2, MIL-C-81703
SERIES 3 AND MIL-C-83723 SERIES III CONNECTORS)

This Military specification has been prepared by the Electronic Support Division of Air Force Logistics Command based upon currently available technical information but it has not been approved for promulgation as a coordinated revision of MIL-C-85049/52. It is subject to modification. However, pending its promulgation as a coordinated military specification, it may be used in acquisition.

The requirements for acquiring the accessories described herein shall consist of this specification and the latest issue of MIL-C-85049.

This document covers self-locking parts only. Non self-locking parts may be acquired under MIL-C-85049/52 and are acceptable for use in USAF systems.

FIGURE 1. Dimensions and configuration.

Dash numbers, shell size and dimensions

Dash number	For connector shell size (ref)				A max dia	Cable entry		G +.020
	MIL-C-81703 series 3	MIL-C-26482 series 2	MIL-C-5015 crimp	MIL-C-83723 series III		Open	Closed	
-8		8	8S	8	.885 (22.48)	.204 (5.18)	.125 (3.18)	.732 (18.59)
-10		10	10S, 10SL	10	1.010 (25.65)	.286 (7.26)	.187 (4.75)	.812 (20.62)
-12	7	12	12S, 12	12	1.135 (28.82)	.416 (10.57)	.291 (7.39)	.968 (24.59)
-14	12	14	14S, 14	14	1.260 (31.76)	.476 (12.09)	.351 (8.92)	1.026 (26.06)
-16	19	16	16S, 16	16	1.385 (35.17)	.625 (15.88)	.501 (12.72)	1.299 (32.99)
-18	27	18	18	18	1.510 (38.35)	.706 (17.93)	.518 (13.16)	1.431 (36.35)
-20	37	20	20	20	1.635 (41.52)	.831 (21.11)	.581 (14.76)	1.537 (39.04)
-22		22	22	22	1.760 (44.70)	.956 (24.28)	.644 (16.36)	1.633 (41.48)
-24		24	24	24	1.885 (47.88)	1.081 (27.46)	.706 (17.93)	1.755 (44.58)
-28			28		2.135 (54.23)	1.187 (30.14)	.750 (19.05)	2.000 (50.80)
-32			32		2.395 (60.83)	1.250 (31.75)	.875 (22.23)	2.366 (60.09)
-36			36		2.635 (66.93)	1.375 (34.93)	.938 (23.83)	2.476 (62.89)
-40			40		2.885 (73.27)	1.500 (38.10)	.938 (23.83)	2.546 (64.67)
-44			44		3.135 (79.63)	1.750 (44.45)	1.188 (30.18)	2.840 (72.14)
-48			48		3.385 (85.97)	1.875 (47.6)	1.312 (33.32)	3.324 (84.43)

FIGURE 1. Dimensions and configuration - Continued.

Dash numbers, shell sizes and dimensions.

Dash number	L ±.062	N Max	R Max	S ±.020	W ±.032 Screw length	Screw size
-8	.890 (22.61)	.63 (16.0)	.710 (18.03)	.250 (6.35)	.500 (12.70)	6-32
-10	1.000 (25.40)	.74 (18.8)	.710 (18.03)	.250 (6.35)	.500 (12.70)	6-32
-12	1.125 (28.58)	.86 (21.8)	.710 (18.03)	.250 (6.35)	.625 (15.88)	6-32
-14	1.125 (28.58)	.86 (21.8)	.710 (18.03)	.250 (6.35)	.625 (15.88)	6-32
-16	1.250 (31.75)	.99 (25.1)	.710 (18.03)	.250 (6.35)	.625 (15.88)	6-32
-18	1.500 (38.10)	1.24 (31.5)	.710 (18.03)	.375 (9.52)	.750 (19.05)	8-32
-20	1.625 (41.28)	1.36 (34.5)	.710 (18.03)	.375 (9.52)	.875 (22.22)	8-32
-22	1.750 (44.50)	1.49 (37.8)	.710 (18.03)	.375 (9.52)	1.000 (25.4)	8-32
-24	1.875 (47.63)	1.62 (41.1)	.710 (18.03)	.375 (9.52)	1.125 (28.58)	8-32
-28	2.187 (55.55)	1.85 (47.0)	.890 (22.60)	.500 (12.70)	1.250 (31.75)	8-32
-32	2.375 (60.33)	2.03 (51.6)	.890 (22.60)	.500 (12.70)	1.250 (31.75)	1/4-20
-36	2.750 (69.85)	2.41 (61.2)	.890 (22.60)	.500 (12.70)	1.500 (38.10)	1/4-20
-40	2.938 (74.63)	2.60 (66.0)	.890 (22.60)	.500 (12.70)	1.500 (38.10)	1/4-20
-44	3.312 (84.12)	2.97 (75.4)	.890 (22.60)	.625 (15.88)	1.750 (44.45)	1/4-20
-48	3.687 (93.65)	3.35 (85.1)	.890 (22.60)	.625 (15.88)	2.000 (50.80)	1/4-20

NOTES:

1. Dimensions are in inches.
2. Dimensions apply after plating.
3. Metric equivalents are given for general information only.
4. Millimeters are in parentheses.

FIGURE 1. Dimensions and configuration - Continued.

REQUIREMENTS:**Design and construction:**

Dimensions and configuration: See figure 1.

Accessories consist of a coupling nut and body. The coupling nut shall be captivated to, and free to rotate on the body.

Interface dimensions shall conform to MS3155.

Material and finish: See table 1.

Accessories will not accommodate connectors using size 8, 4, or 0 contacts.

TABLE 1. Material and finish

Figure	Material	Finish
1	Aluminum alloy in accordance with MIL-C-85049	W 1/ N
1	Corrosion resistant steel 300 series in accordance with QQ-S-763	S

1/ Not for Navy use. Air Force use is for space applications only.

Self locking device within the coupling nut shall be corrosion resistant metal and shall provide a positive detent. Couplings with self-locking devices shall meet all the performance requirements specified herein for its specific category and the following additional tests.

Life cycle: The coupling with the locking device engaged shall be rotated sixty full turns in a clockwise direction and sixty full turns counter clockwise, prior to standard qualification testing. Cycle speed shall not exceed one full turn per second.

Locking: Coupling nut torque shall be 80 percent of coupling thread strength values given for medium and light duty accessories as specified in table III of MIL-C-85049. In table III when N/A appears, the values shall be 80 percent of those values used in qualification testing for coupling thread strength. Tolerance shall be ± 5 inch pounds.

Vibration: Backshells shall be subjected to test parameters of applicable connector specifications. The coupling torque shall be within ± 20 inch pounds of the initial value.

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Part number: See example below:

	M85049/	52	S	10	W
Military designator					
Specification sheet					
Self-locking					
Dash number					
Finish					

QUALIFICATION:

See MIL-C-85049, category 4B.

QPL evaluating activity: Naval Avionics Center, Code B/714, 6000 East 21st Street, Indianapolis, Indiana 46219-2189.

Revision letters are not used to denote changes due to the extensiveness of the changes.

Custodian:
Air Force - 85

Review activities:
Air Force - 11, 15, 19, 99
DLA - ES

Preparing activity:
Air Force - 85

Agent:
DLA - ES
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