

SAE Technical Standards Board Rules provide that: "This report is published by SAE to advance the state of technical and engineering sciences. The use of this report is entirely voluntary, and its applicability and suitability for any particular use, including any patent infringement arising therefrom, is the sole responsibility of the user."

SAE reviews each technical report at least every five years at which time it may be reaffirmed, revised, or cancelled. SAE invites your written comments and suggestions.

AS85049/23

FEDERAL SUPPLY CLASS
5935

NOTICE

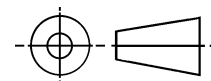
THIS DOCUMENT HAS BEEN TAKEN DIRECTLY FROM U.S. MILITARY SPECIFICATION MIL-C-85049/23A AND CONTAINS ONLY MINOR EDITORIAL AND FORMAT CHANGES REQUIRED TO BRING IT INTO CONFORMANCE WITH THE PUBLISHING REQUIREMENTS OF SAE TECHNICAL STANDARDS. THE INITIAL RELEASE OF THIS DOCUMENT IS INTENDED TO REPLACE MIL-C-85049/23A. ANY PART NUMBERS ESTABLISHED BY THE ORIGINAL SPECIFICATION REMAIN UNCHANGED.

THE ORIGINAL MILITARY SPECIFICATION WAS ADOPTED AS AN SAE STANDARD UNDER THE PROVISIONS OF THE SAE TECHNICAL STANDARDS BOARD (TSB) RULES AND REGULATIONS (TSB 001) PERTAINING TO ACCELERATED ADOPTION OF GOVERNMENT SPECIFICATIONS AND STANDARDS. TSB RULES PROVIDE FOR (A) THE PUBLICATION OF PORTIONS OF UNREVISED GOVERNMENT SPECIFICATIONS AND STANDARDS WITHOUT CONSENSUS VOTING AT THE SAE COMMITTEE LEVEL, AND (B) THE USE OF THE EXISTING GOVERNMENT SPECIFICATION OR STANDARD FORMAT.

UNDER DEPARTMENT OF DEFENSE POLICIES AND PROCEDURES, ANY QUALIFICATION REQUIREMENTS AND ASSOCIATED QUALIFIED PRODUCTS LISTS ARE MANDATORY FOR DOD CONTRACTS. ANY REQUIREMENT RELATING TO QUALIFIED PRODUCTS LISTS (QPL'S) HAS NOT BEEN ADOPTED BY SAE AND IS NOT PART OF THIS TECHNICAL REPORT.

SAENORM.COM : Click to view the full PDF of as85049-23

THIRD ANGLE PROJECTION



ISSUED 1998-08 REAFFIRMED 2004-11

PREPARED BY SUBCOMMITTEE AE-8C1

SAE Aerospace
An SAE International Group

AEROSPACE STANDARD

CONNECTOR ACCESSORIES, ELECTRICAL, BACKSHELL,
NONENVIRONMENTAL, 45°, SHIELD TERMINATION, CATEGORY 3A
(FOR MIL-C-5015 CRIMP, MIL-C-26482 SERIES 2, MIL-C-81703
SERIES 3, AND MIL-C-83723 SERIES III CONNECTORS)

AS85049/23
SHEET 1 OF 13

Copyright © 2004 SAE International
All rights reserved. No part of this publication may be reproduced, stored in a retrieval system or transmitted, in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the prior written permission of SAE.

TO PLACE A DOCUMENT ORDER: Tel: 877-606-7323 (inside USA and Canada)
Fax: 724-776-0790

Tel: 724-776-4970 (outside USA)
Email: custsvc@sae.org

SAE WEB ADDRESS: <http://www.sae.org>

THE REQUIREMENTS FOR ACQUIRING THE PRODUCT DESCRIBED HEREIN SHALL CONSIST OF THIS SPECIFICATION SHEET AND THE ISSUE OF THE FOLLOWING SPECIFICATION LISTED IN THAT ISSUE OF THE DEPARTMENT OF DEFENSE INDEX OF SPECIFICATIONS AND STANDARDS (DODISS) SPECIFIED IN THE SOLICITATION: MIL-C-85049.

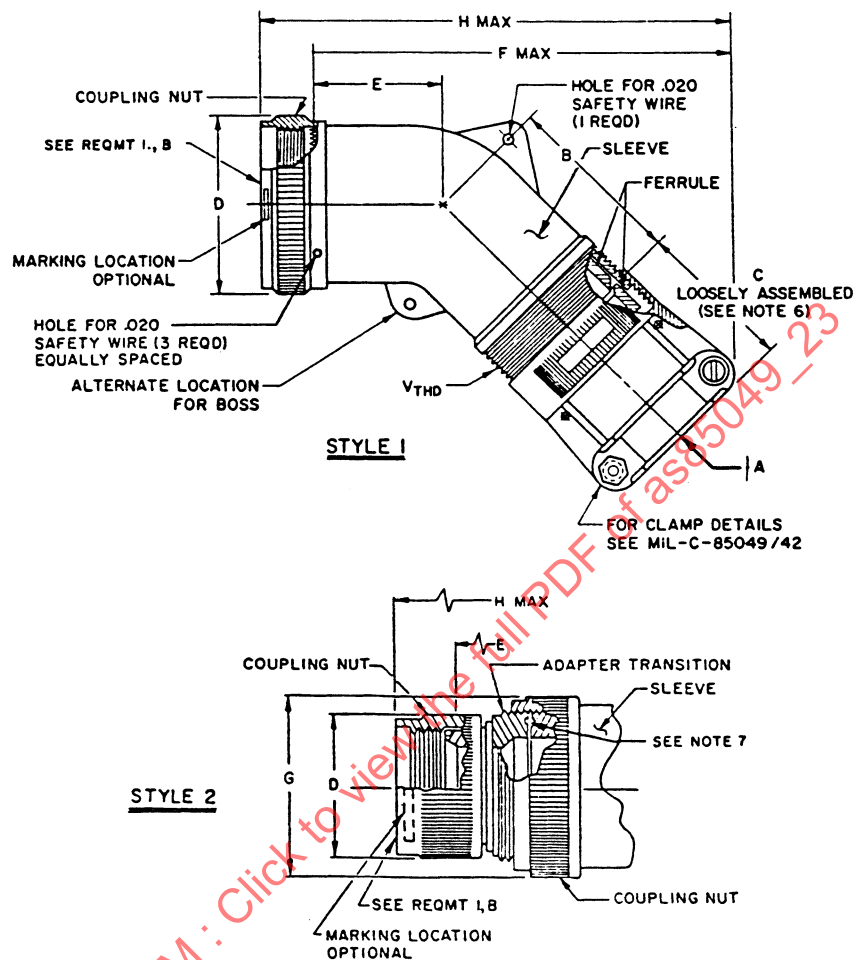


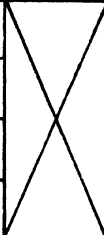
FIGURE 1. CONFIGURATION AND DIMENSIONS.

TABLE I. DIMENSIONS.

Dash No.	Fits Shell of Connector				Clamp Size	A (see note 6) Wire Bundle Accommodation Range		Style	B +.125	C Ref	D Dia Max
	MIL-C-81703 Ser 3	MIL-C-26482 Ser 2	MIL-C-5015 Crimp	MIL-C-83723 Ser III		Min	Max				
1	3				4	.125	.250	1	1.790	1.027	.669
2					6	.250	.437	2	1.910	1.027	.669
3		8	8S	8	4	.125	.250	1	1.182	1.027	.617
4		10	10S, 10SL	10	4	.125	.312	1	1.850	1.027	.734
5					6	.250	.375	1	1.245	1.027	.734
6	7	12	12,12S	12	4	.125	.312	1	1.910	1.027	.858
7					6	.250	.437	1	1.910	1.027	.858
8					10	.350	.500	1	1.910	1.027	.858
9	12	14	14,14S	14	6	.250	.437	1	2.000	1.027	.984
10					10	.350	.575	1	1.655	1.027	.984

Dash No.	E +.125	V Thread Class 2A	F Max	G Dia Max	H Max
1	.561	.625-24 UNEF	3.00	-	3.39
2	1.375	.750-20 UNEF	3.97	.858	4.36
3	.500	.625-24 UNEF	2.52	-	2.91
4	.561	.625-24 UNEF	3.05	-	3.44
5	.561	.750-20 UNEF	2.69	-	3.08
6	.625	.625-24 UNEF	3.16	-	3.55
7	.625	.750-20 UNEF	3.22	-	3.61
8	.625	1.000-20 UNEF	3.29	-	3.68
9	.688	.750-20 UNEF	3.35	-	3.74
10	.688	1.000-20 UNEF	3.17	-	3.56

TABLE I. DIMENSIONS (CONTINUED).

Dash No.	Fits Shell of Connector				Clamp Size	A (see note 6) Wire Bundle Accommodation Range		Style	B +.125	C Ref	D Dia Max
	MIL-C-81703 Ser 3	MIL-C-26482 Ser 2	MIL-C-5015 Crimp	MIL-C-83723 Ser III		Min	Max				
11	19	16	16,16S	16	6	.250	.437	1	2.110	1.027	1.112
12					12	.500	.700	1	1.750	1.059	1.112
13	27	18	18	18	10	.350	.625	1	2.300	1.027	1.218
14					16	.625	.779	1	1.938	1.156	1.218
15	37	20	20	20	10	.350	.625	1	2.300	1.027	1.345
16					16	.625	.904	1	1.938	1.156	1.345
17		22	22	22	12	.500	.750	1	2.450	1.059	1.468
18					20	.875	1.029	1	2.093	1.375	1.468
19		24	24	24	12	.500	.750	1	2.450	1.069	1.593
20					20	.875	1.144	1	2.093	1.375	1.593

Dash No.	E +.125	V Thread Class 2A	F Max	G Dia Max	H Max
11	.781	.750-20 UNEF	3.52	-	3.91
12	.781	1.1875-18 UNEF	3.43	-	3.82
13	.968	1.000-20 UNEF	3.91	-	4.30
14	.968	1.4375-18 UNEF	3.90	-	4.29
15	.968	1.000-20 UNEF	3.91	-	4.30
16	.968	1.4375-18 UNEF	3.90	-	4.29
17	1.063	1.1875-18 UNEF	4.21	-	4.60
18	1.063	1.750-10 UNS	4.38	-	4.77
19	1.063	1.1875-18 UNEF	4.21	-	4.60
20	1.063	1.750-18 UNS	4.38	-	4.77

TABLE I. DIMENSIONS (CONTINUED).

Dash No.	Fits Shell of Connector				Clamp Size	A (see note 6) Wire Bundle Accommodation Range		Style	B +.125	C Ref	D Dia Max
	MIL-C-81703 Ser 3	MIL-C-26482 Ser 2	MIL-C-5015 Crimp	MIL-C-83723 Ser III		Min	Max				
21			28		16	.625	.937	1	2.500	1.156	1.969
22					24	1.000	1.375	1	2.156	1.500	1.969
23			32		16	.625	.937	1	2.600	1.156	2.219
24					20	.875	1.250	1	2.600	1.375	2.219
25					28	1.250	1.625	1	2.250	1.781	2.219
26			36		16	.625	.937	1	2.690	1.156	2.469
27					24	1.000	1.375	1	2.690	1.500	2.469
28					32	1.437	1.840	1	2.344	1.830	2.489
29			40		16	.625	.937	1	2.690	1.156	2.719
30					24	1.000	1.375	1	2.690	1.500	2.719

Dash No.	E +.125	V Thread Class 2A	F Max	G Dia Max	H Max
21	1.188	1.4375-18 UNEF	4.52	-	5.05
22	1.188	2.000-18 UNS	4.72	-	5.23
23	1.250	1.4375-18 UNEF	4.65	-	5.18
24	1.250	1.750-18 UNS	4.92	-	5.45
25	1.250	2.250-16 UN	5.19	-	5.72
26	1.281	1.4375-18 UNEF	4.74	-	5.27
27	1.281	2.000-18 UNS	5.19	-	5.72
28	1.281	2.500-18 UN	5.41	-	5.94
29	2.031	1.4375-18 UNEF	5.49	-	6.02
30	2.031	2.000-18 UNS	5.94	-	6.47

TABLE I. DIMENSIONS (CONTINUED).

Dash No.	Fits Shell of Connector				Clamp Size	A (see note 6) Wire Bundle Accommodation Range		Style	B +.125	C Ref	D Dia Max
	MIL-C-81703 Ser 3	MIL-C-26482 Ser 2	MIL-C-5015 Crimp	MIL-C-83723 Ser III		Min	Max				
31			40		32	1.437	1.875	1	2.344	1.830	2.719
32			44		16	.625	.937	1	2.690	1.156	2.969
33					24	1.000	1.375	1	2.690	1.500	2.969
34					32	1.437	1.875	1	2.344	1.830	2.969
35			48		16	.625	.937	1	2.690	1.156	3.219
36					24	1.000	1.375	1	2.690	1.500	3.219
37					32	1.437	1.875	1	2.344	1.830	3.219
38	61				12	.500	.750	1	2.450	1.059	1.653
39					20	.875	1.184	1	2.093	1.375	1.653
40	19	16	16,16S	16	10	.350	.625	1	2.110	1.027	1.112

Dash No.	E +.125	V Thread Class 2A	F Max	G Dia Max	H Max
31	2.031	2.500-16 UN	6.16	-	6.69
32	2.031	1.437-18 UNEF	5.49	-	6.02
33	2.031	2.000-18 UNS	5.94	-	6.47
34	2.031	2.500-16 UN	6.16	-	6.69
35	2.031	1.4375-18 UNEF	5.49	-	6.02
36	2.031	2.000-18 UNS	5.94	-	6.47
37	2.031	2.500-16 UN	6.16	-	6.69
38	1.063	1.1875-18 UNEF	4.21	-	4.60
39	1.063	1.750-18 UNS	4.38	-	4.77
40	.781	1.000-20 UNEF	3.59	-	3.98

TABLE I. DIMENSIONS (CONTINUED).

Dash No.	Fits Shell of Connector				Clamp Size	A (see note 6) Wire Bundle Accommodation Range		Style	B	C	D Dia
	MIL-C-81703 Ser 3	MIL-C-26482 Ser 2	MIL-C-5015 Crimp	MIL-C-83723 Ser III		+ .125	Ref		Max		
										Min	Max
41	27	18	18	18	4	.125	.312	1	2.300	1.027	1.218
42					6	.250	.437	1	2.300	1.027	1.218
43	37	20	20	20	6	.250	.437	1	2.300	1.027	1.345
44		22	22	22	4	.125	.312	1	2.450	1.027	1.488
45					6	.250	.437	1	2.450	1.027	1.468
46		24	24	24	10	.350	.625	1	2.450	1.027	1.593
47			36		12	.500	.750	1	2.690	1.059	2.469
48			40		12	.500	.750	1	2.690	1.059	2.719
49		10	10S, 10SL	10	6	.250	.437	2	1.910	1.027	.734
50	12	14	14, 14S	14	12	.500	.750	2	2.300	1.059	.984

Dash No.	E $\pm .125$	V Thread Class 2A	F Max	G Dia Max	H Max
41	.968	.625-24 UNEF	3.80	-	4.19
42	.968	.750-20 UNEF	3.84	-	4.23
43	.968	.750-20 UNEF	3.84	-	4.23
44	1.063	.625-24 UNEF	3.98	-	4.37
45	1.063	.750-20 UNEF	4.04	-	4.43
46	1.063	1.000-20 UNEF	4.11	-	4.50
47	1.281	1.1875-18 UNEF	4.60	-	5.13
48	2.031	1.1875-18 UNEF	5.35	-	5.88
49	1.375	.750-20 UNEF	3.97	.858	4.36
50	1.717	1.1875-18 UNEF	4.76	1.218	5.15

TABLE I. DIMENSIONS (CONTINUED).

Dash No.	Fits Shell of Connector				Clamp Size	A (see note 6) Wire Bundle Accommodation Range		Style	B +.125	C Ref	D Dia Max
	MIL-C-81703 Ser 3	MIL-C-26482 Ser 2	MIL-C-5015 Crimp	MIL-C-83723 Ser III		Min	Max				
51	19	16	16,16S	16	16	.625	.937	2	2.450	1.156	1.112
52	27	18	18	18	12	.500	.750	1	2.300	1.059	1.218
53	61				16	.625	.937	1	2.450	1.156	1.653
54	37	20	20	20	12	.500	.750	1	2.300	1.059	1.345
55					20	.875	1.250	2	2.500	1.375	1.345
56		22	22	22	10	.350	.625	1	2.450	1.027	1.468
57					16	.625	.937	1	2.450	1.156	1.468
58					20	.875	1.250	2	2.500	1.375	1.468
59		24	24	24	16	.625	.937	1	2.450	1.156	1.593
60				28		12	.500	.750	1	2.500	1.059

Dash No.	E +.125	V Thread Class 2A	F Max	G Dia Max	H Max
51	1.812	1.4375-18 UNEF	5.11	1.468	5.50
52	.968	1.1875-18 UNEF	4.01	-	4.40
53	1.063	1.4375-18 UNEF	4.36	-	4.75
54	.968	1.1875-18 UNEF	4.01	-	4.40
55	1.936	1.750-18 UNS	5.54	1.969	5.93
56	1.063	1.000-20 UNEF	4.11	-	4.50
57	1.063	1.4375-18 UNEF	4.36	-	4.75
58	1.936	1.750-18 UNS	5.54	1.969	5.93
59	1.063	1.4375-18 UNEF	4.36	--	4.75
60	1.188	1.1875-18 UNEF	4.37	--	4.90

TABLE I. DIMENSIONS (CONTINUED).

Dash No.	Fits Shell of Connector				Clamp Size	A (see note 6) Wire Bundle Accommodation Range		Style	B +.125	C Ref	D Dia Max
	MIL-C-81703 Ser 3	MIL-C-26482 Ser 2	MIL-C-5015 Crimp	MIL-C-83723 Ser III		Min	Max				
61			28		20	.875	1.250	1	2.500	1.375	1.969
62			32		24	1.000	1.375	1	2.600	1.500	2.219
63			36		20	.875	1.250	1	2.690	1.375	2.469
64					28	1.250	1.625	1	2.690	1.781	2.469
65			40		20	.875	1.250	1	2.690	1.375	2.719
66					28	1.250	1.625	1	2.690	1.781	2.719
67			44		20	.875	1.250	1	2.690	1.375	2.969
68					28	1.250	1.625	1	2.690	1.781	2.969
69			48		20	.875	1.250	1	2.690	1.375	3.219
70					28	1.250	1.625	1	2.690	1.781	3.219

Dash No.	E $\pm .125$	V Thread Class 2A	F Max	G Dia Max	H Max
61	1.188	1.750-18 UNS	4.79	-	5.32
62	1.250	2.000-18 UNS	5.10	-	5.63
63	1.281	1.750-18 UNS	5.02	-	5.55
64	1.281	2.250-16 UN	5.54	-	6.07
65	2.031	1.750-18 UNS	5.77	-	6.30
66	2.031	2.250-16 UN	6.29	-	6.82
67	2.031	1.750-18 UNS	5.77	-	6.30
68	2.031	2.250-16 UN	6.29	-	6.82
69	2.031	1.750-18 UNS	5.77	-	6.30
70	2.031	2.250-16 UN	6.29	-	6.82

TABLE I. DIMENSIONS (CONTINUED).

Dash No.	Fits Shell of Connector				Clamp Size	A (see note 6)		Style	B +.125	C Ref	D Dia Max
	MIL-C-81703 Ser 3	MIL-C-26482 Ser 2	MIL-C-5015 Crimp	MIL-C-83723 Ser III		Wire Bundle Accommodation Range					
						Min	Max				
71	7	12	12,12S	12	10	.350	.625	2	2.110	1.027	.858
72	27	18	18	18	16	.625	.937	2	2.450	1.156	1.218
73		24	24	24	20	.875	1.250	2	2.500	1.375	1.593
74	12	14	14,14S	14	4	.125	.312	1	2.000	1.027	.984
75	19	16	16,16S	16	4	.125	.312	1	2.110	1.027	1.112

Dash No.	E +.125	V Thread Class 2A	F Max	G Dia Max	H Max
71	1.529	1.000-20 UNEF	4.33	1.112	4.72
72	1.812	1.4375-18 UNEF	5.10	1.468	5.49
73	1.936	1.750-18 UNS	5.53	1.969	5.92
74	.688	.625-24 UNEF	3.28	-	3.67
75	.781	.625-24 UNEF	3.45	-	3.84