

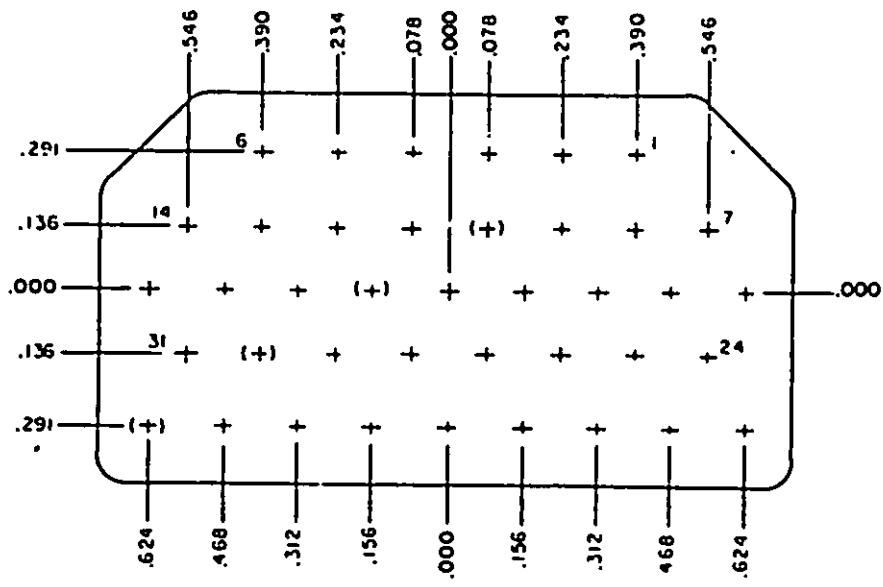
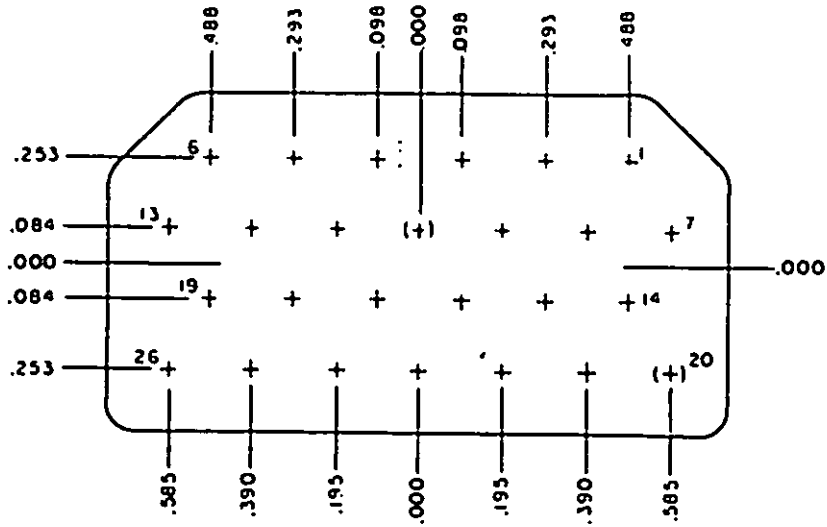
FED. SUP CLASS
5935

APPROVED 21 Jul 71 REVISED (A) 16 Dec 71 (B) 1 Mar 73 (C) 2 August 1976 (D) 23 June 83

User activities: ARMY -
NAVY -
AIR FORCE -

Review activities: ARMY -
NAVY - EC, OS
AIR FORCE - 11, 80

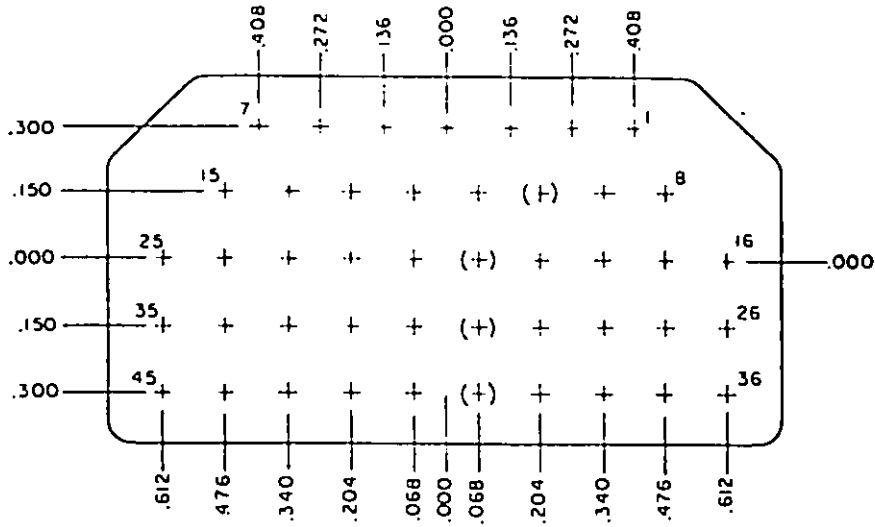
This military standard is approved for use by all Departments and Agencies of the Department of Defense. Selection for all new engineering and design applications and for repetitive use shall be made from this document when applicable.



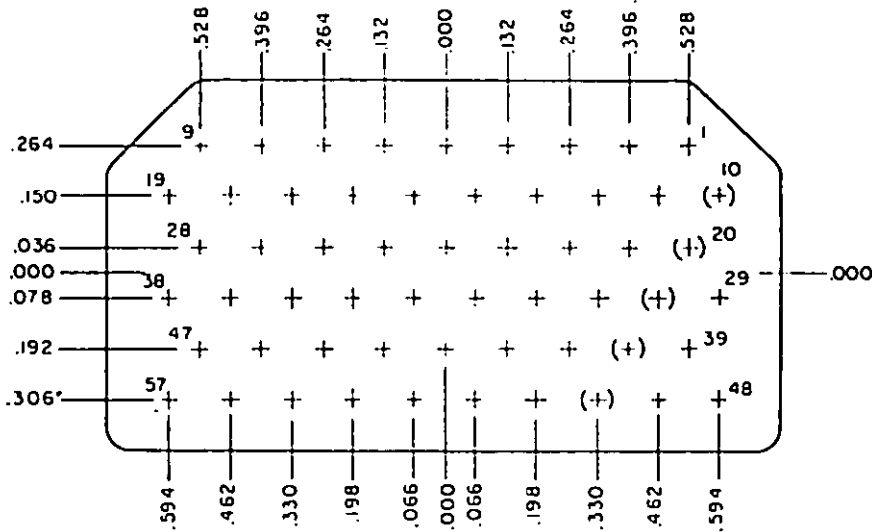
(D) Denotes change

P. A.	AS	International interest	TITLE	MILITARY STANDARD
Other Cust	CR 85		INSERT ARRANGEMENTS, MIL-C-81659 ELECTRIC CONNECTOR, SERIES 1 AND 2	MS3157
Passure and Specification	MIL-C-81659	SUPERSEDES	MS3421 AND MS3423	PAGE 1 OF 13

FED. SUP CLASS
5935



45 POSITION INSERT ARRANGEMENT
45 SIZE 20 CONTACTS
SHELL DESIGNATOR A - SERVICE RATING B



57 POSITION INSERT ARRANGEMENT
57 SIZE 20 CONTACTS
SHELL DESIGNATOR A - SERVICE RATING B

User activities: ARMY -
NAVY -
AIR FORCE -

Review activities: ARMY -
NAVY -
AIR FORCE -

This military standard is approved for use by all Departments and Agencies of the Department of Defense. Selection for all new engineering and design applications and for repetitive use shall be made from this document when applicable.

APPROVED 21 Jul 71 REVISED (D) For change see page 3

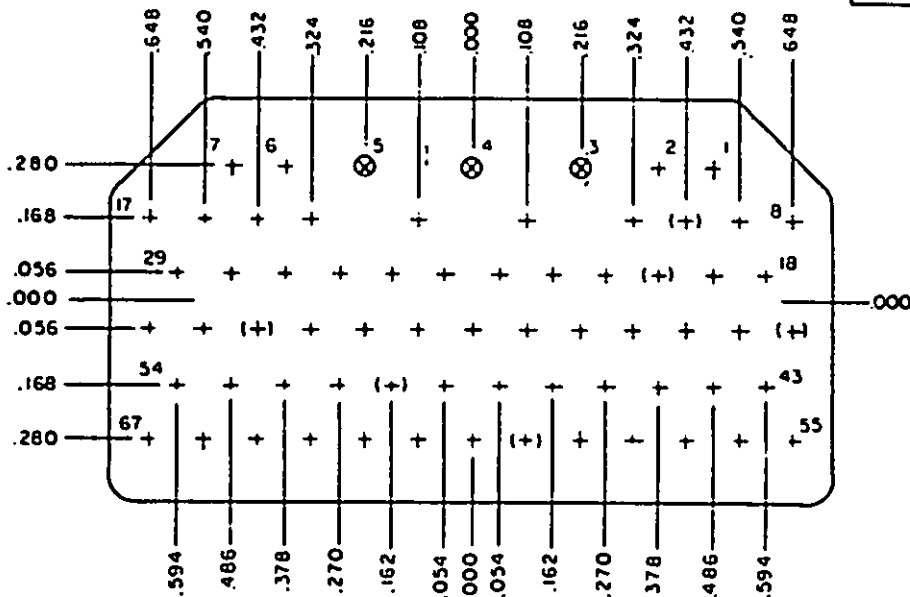
P.O. AS Other Cust CR 85	International Interest	TITLE INSERT ARRANGEMENTS, MIL-C-81659 ELECTRIC CONNECTOR, SERIES 1 AND 2	MILITARY STANDARD
			MS 3157
MIL-C-81659		MS3421 AND MS3423	PAGE 2 OF 13

FED. SUP CLASS
5935

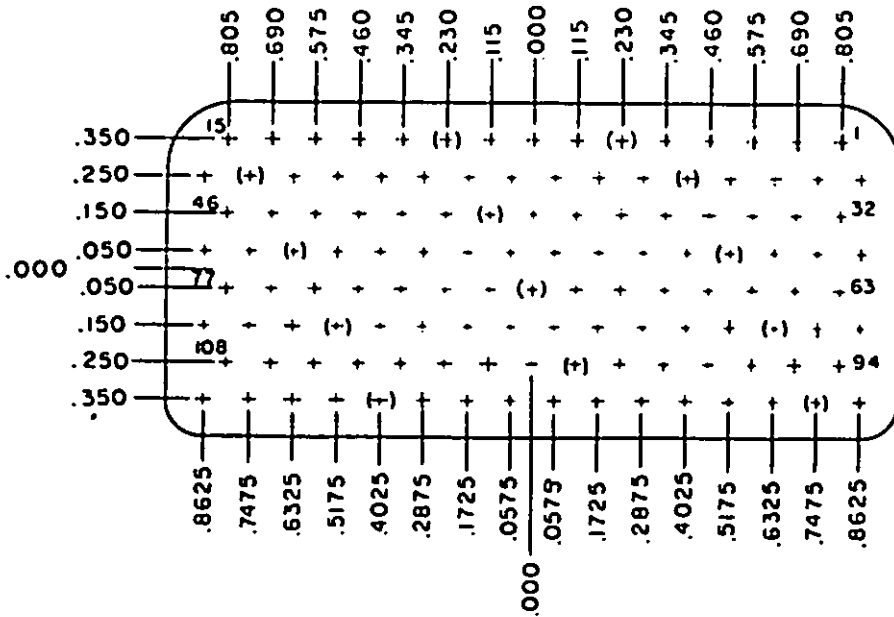
User activities: ARMY -
NAVY -
AIR FORCE -

Review activities: ARMY -
NAVY -
AIR FORCE - 11, 80

This military standard is approved for use by all Departments and Agencies of the Department of Defense. Selection for all new engineering and design applications is required. For repetitive use shall be made from this document when applicable.



67 POSITION INSERT ARRANGEMENT
64 SIZE 20 CONTACTS
3 SIZE 16 CONTACTS (3, 4, 5)
SHELL DESIGNATOR A - SERVICE RATING A



124 POSITION INSERT ARRANGEMENT
124 SIZE 20 CONTACTS
SHELL DESIGNATOR B - SERVICE RATING A

(D)

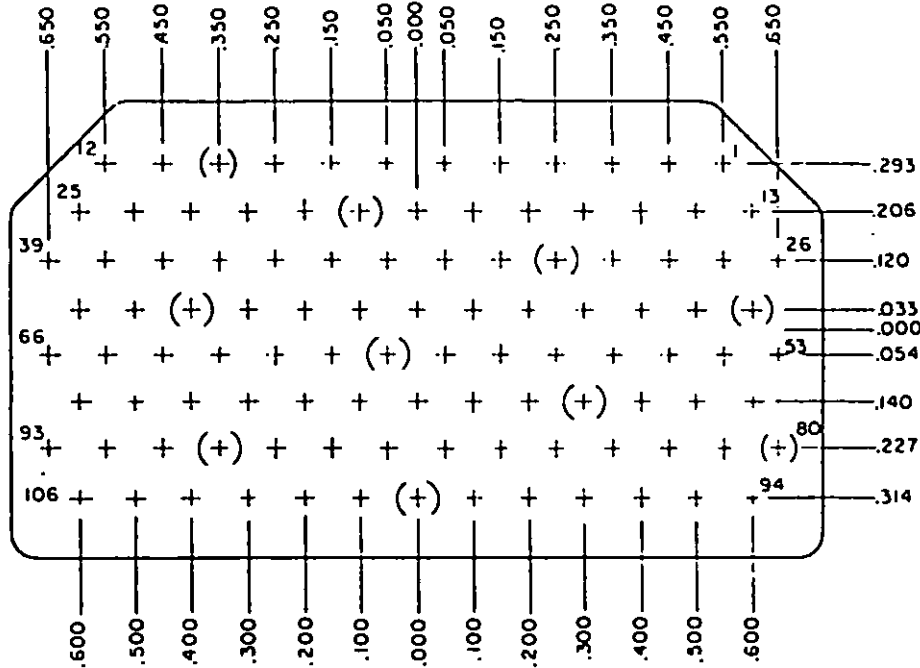
P A	AS	International interest	TITLE	MILITARY STANDARD
Other Cust	CR 85		INSERT ARRANGEMENTS, MIL-C-81659 ELECTRIC CONNECTOR, SERIES 1 AND 2	MS3157
MIL-C-81659			SUPPLEMENTS MS3421 AND MS3423	PAGE 3 OF 13

APPROVED 21 Jul 71 REVISED (D) For change see page 3

User activities: ARMY -
NAVY -
AIR FORCE -

Review activities: ARMY -
NAVY -
AIR FORCE -

This military standard is approved for use by all Departments and Agencies of the Department of Defense. Selection for all new engineering and design applications and for repetitive use shall be made from this document when applicable.



106 POSITION INSERT ARRANGEMENT
106 SIZE 22 CONTACTS
SHELL DESIGNATOR A - SERVICE RATING A

APPROVED 21 Jul 71 REVISED (D) For change see page 3

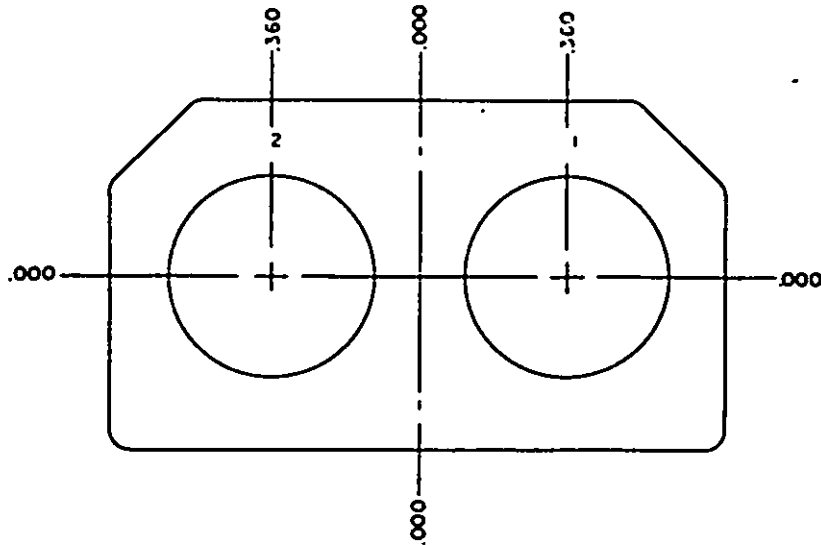
P.A	AS	International interest	TITLE INSERT ARRANGEMENTS, MIL-C-81659 ELECTRIC CONNECTOR, SERIES 1 AND 2	MILITARY STANDARD
Other Cust	CR 85			MS3157
Procurement Specification MIL-C-81659		SUPERSEDES: MS3421 AND MS3423		PAGE 4 OF 13

ED. SUP CLASS
5935

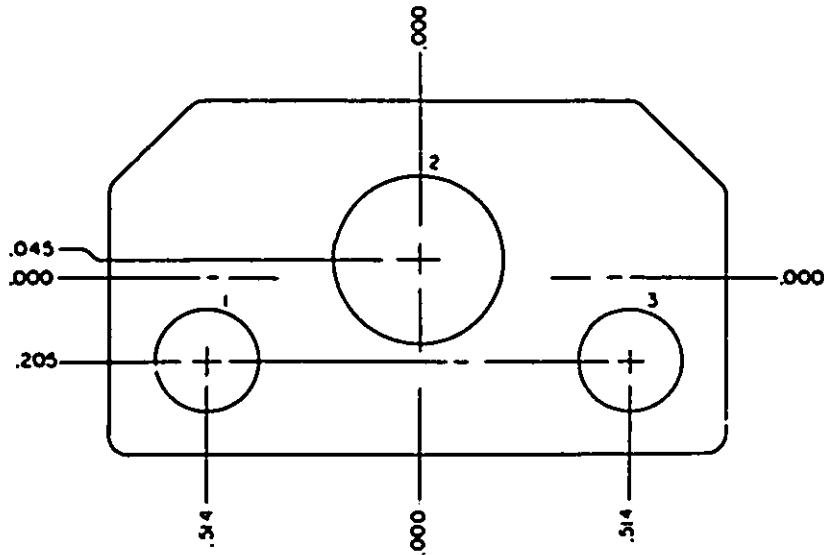
User activities: ARMY -
NAVY -
AIR FORCE -

Review activities: ARMY -
NAVY - EC, 05
AIR FORCE - 11, 80

This military standard is approved for use by all Departments and Agencies of the Department of Defense. Selection for all new engineering and design applications and for repetitive use shall be made from this document when applicable.



C2 POSITION INSERT ARRANGEMENT
2 SIZE 1 COAX CONTACTS
SHELL DESIGNATOR A - SERVICE RATING A

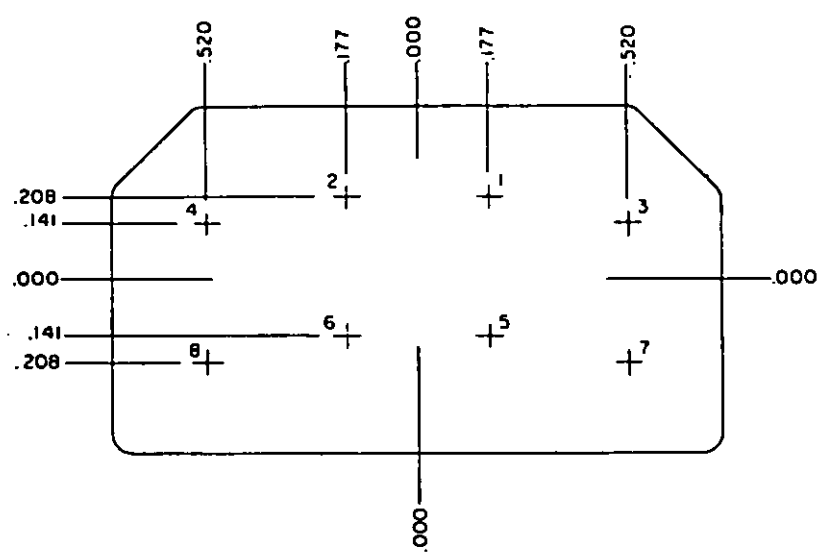


C3 POSITION INSERT ARRANGEMENT
2 SIZE 7 COAX CONTACTS
1 SIZE 3 COAX CONTACT (2)
SHELL DESIGNATOR A - SERVICE RATING A

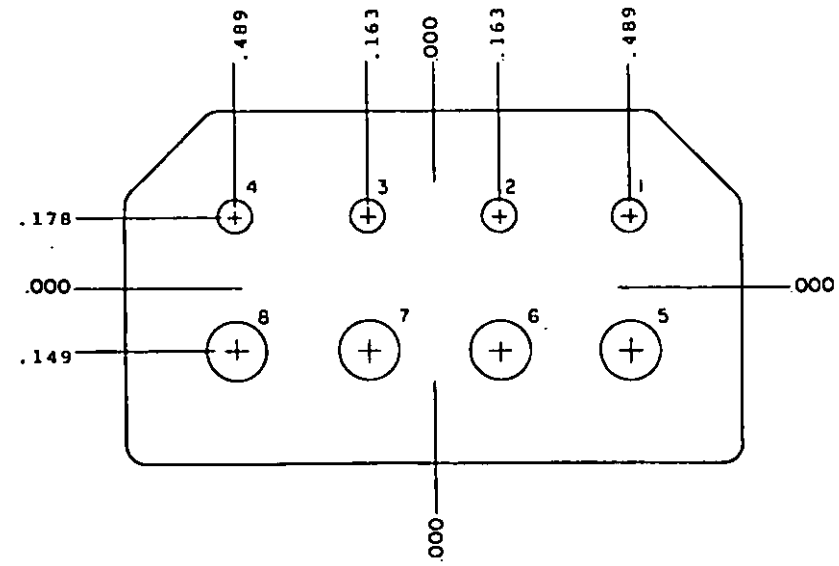
APPROVED 21 Jul 71 REVISED (D) For change see page 3

P.A. AS Other Cust CR 85	MIL-C-81659	TITLE INSERT ARRANGEMENTS, MIL-C-81659 ELECTRIC CONNECTOR, SERIES 1 AND 2	MILITARY STANDARD
			MS3157
Program Specification MIL-C-81659	SUPERSEDES: MS3421 AND MS3423	PAGE 5 OF 13	

FED. SUP CLASS
5935



C8 POSITION INSERT ARRANGEMENT
8 SIZE 9 COAX CONTACTS
SHELL DESIGNATOR A - SERVICE RATING A



D8 POSITION INSERT ARRANGEMENT
4 SIZE 16 CONTACTS
4 SIZE 12 CONTACTS (5, 6, 7, 8)
SHELL DESIGNATOR A - SERVICE RATING B

User activities: ARMY -
NAVY -
AIR FORCE -

Review activities: ARMY -
NAVY - EC, OS
AIR FORCE - 11, 80

This military standard is approved for use by all Departments and Agencies of the Department of Defense. Selection for all new engineering and design applications and for repetitive use shall be made from this document when applicable.

APPROVED 21 Jul 71 REVISED (D) For change see page 3

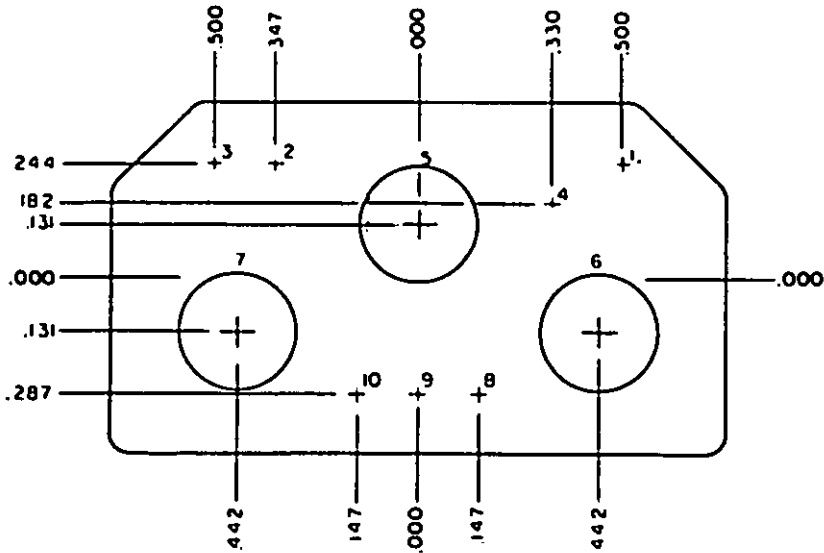
P.A.	AS	International interest	TITLE	MILITARY STANDARD
Other Cost	CR 85		INSERT ARRANGEMENTS, MIL-C-81659 ELECTRIC CONNECTOR, SERIES 1 AND 2	MS3157
Procurement Specification MIL-C-81659		SUPERSEDES:		PAGE 6 OF 13
		MS3421 AND MS3423		

FED. SUP CLASS
5415

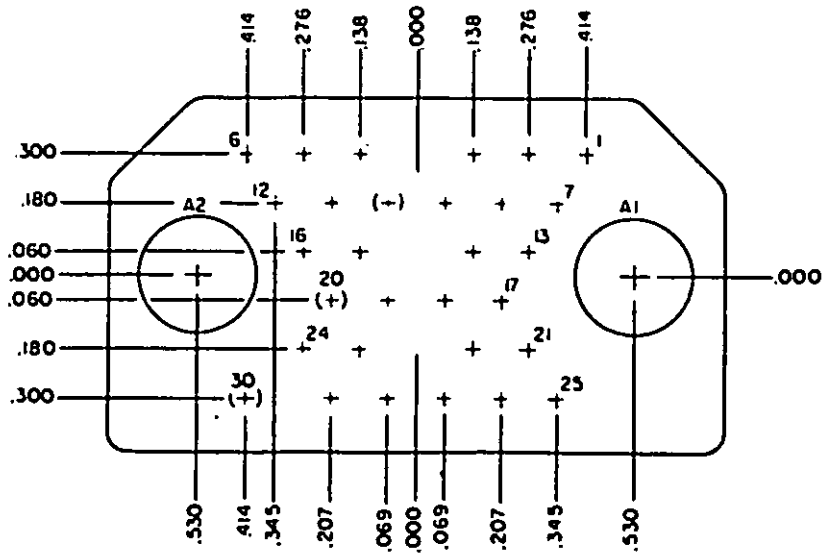
User activities: ARMY -
NAVY -
AIR FORCE -

Review activities: ARMY -
NAVY - EC, OS
AIR FORCE - 11, 80

This military standard is approved for use by U.S. Departments and Agencies of the Department of Defense. Selection for all new engineering and design applications and for repetitive use shall be made from this document when applicable.



10C3 POSITION INSERT ARRANGEMENT
7 SIZE 20 CONTACTS
3 SIZE 11 COAX CONTACTS (5, 6, 7)
SHELL DESIGNATOR A - SERVICE RATING A



32C2 POSITION INSERT ARRANGEMENT
30 SIZE 20 CONTACTS
2 SIZE 5 COAX CONTACTS (A1, A2)
SHELL DESIGNATOR A - SERVICE RATING A

APPROVED 21 Jul 71 REVISED (D) For change see page 3

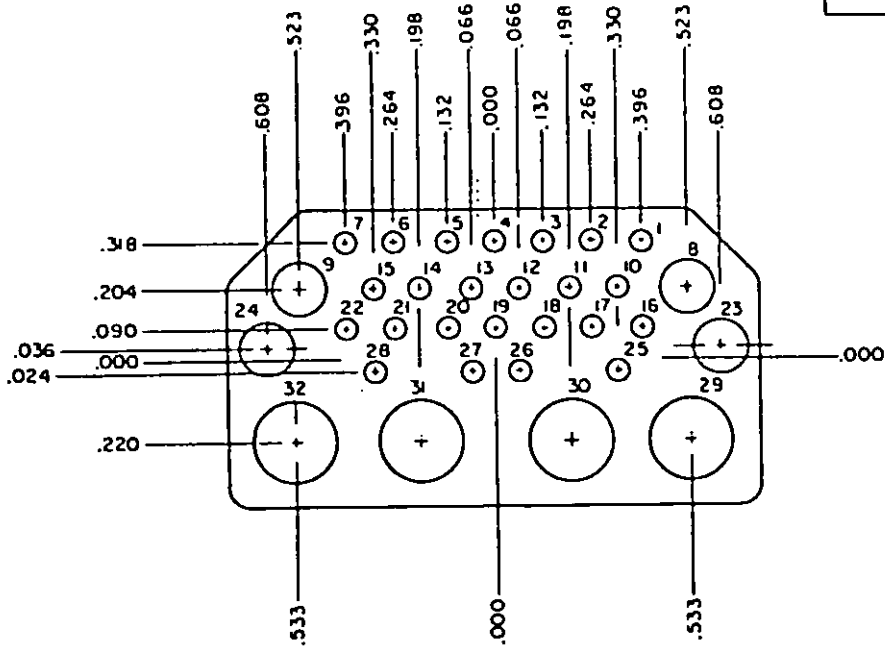
P.A.	AS	International Interest	TITLE INSERT ARRANGEMENTS, MIL-C-81659 ELECTRIC CONNECTOR, SERIES 1 AND 2	MILITARY STANDARD
Other Cust	CR 85			MS3157
Performance Identification MIL-C-81659		SUPERSEDES: MS3421 AND MS3423		PAGE 7 OF 13

FED. SUP CLASS
5935

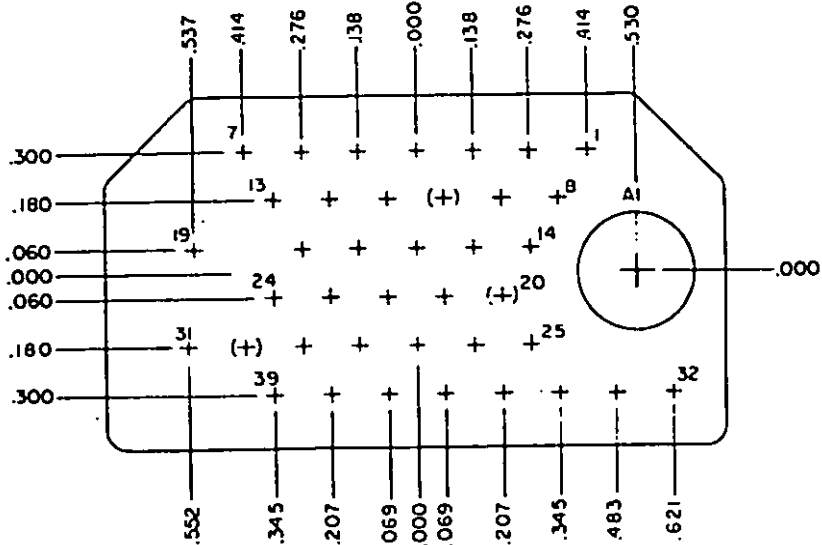
User activities: ARMY -
NAVY -
AIR FORCE -

Review activities: ARMY -
NAVY -
AIR FORCE -

EC, OS
11, 80



32C4 POSITION INSERT ARRANGEMENT
24 SIZE 20 CONTACTS
4 SIZE 16 CONTACTS (8, 9, 23, 24)
4 SIZE 9 COAX CONTACTS (29, 30, 31, 32)
SHELL DESIGNATOR A - SERVICE RATING B



40C1 POSITION INSERT ARRANGEMENT
39 SIZE 20 CONTACTS
1 SIZE 5 COAX CONTACT (A1)
SHELL DESIGNATOR A - SERVICE RATING B

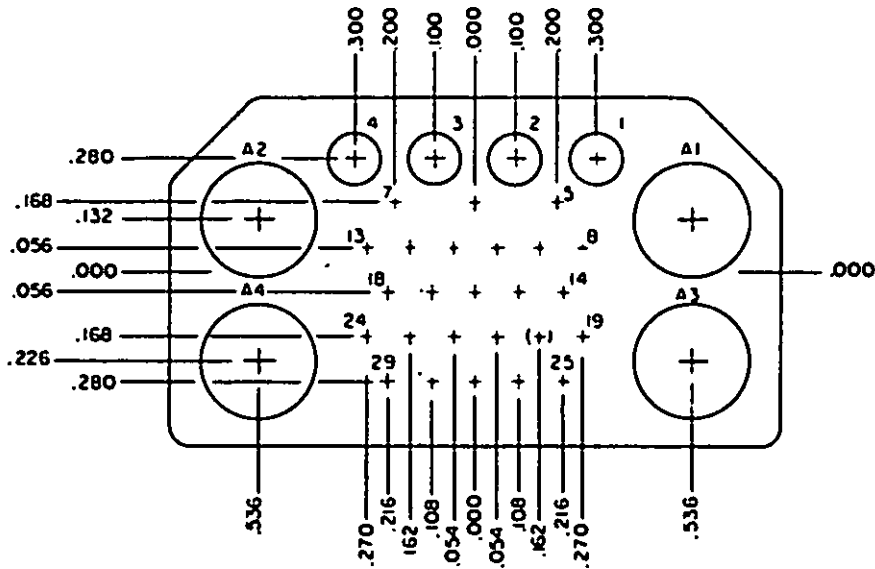
APPROVED 21 Jul 71 REVISED (D) For change see page 3

P.A.	AS	International Interest	TITLE INSERT ARRANGEMENTS, MIL-C-81659 ELECTRIC CONNECTOR, SERIES 1 AND 2	MILITARY STANDARD
Other Cust	CR 85			MS 3157
Procurement Specification MIL-C-81659		SUPERSEDES: MS3421 AND MS3423		PAGE 8 OF 13

User activities: ARMY -
NAVY -
AIR FORCE -

Review activities: ARMY -
NAVY -
AIR FORCE - 11, 80
EC, 05

This military standard is approved for use by all Departments and Agencies of the Department of Defense. Selection for all new engineering and design applications and for repetitive use shall be made from this document when applicable.



33C4 POSITION INSERT ARRANGEMENT
25 SIZE 20 CONTACTS
4 SIZE 16 CONTACTS (1, 2, 3, 4)
4 SIZE 5 COAX CONTACTS (A1, A2, A3, A4)
SHELL DESIGNATOR A - SERVICE RATING A

APPROVED 21 Jul 71 REVISED (D) For change see page 3

P.A. AS Other Cust CR 85	International interest	TITLE INSERT ARRANGEMENTS, MIL-C-81659 ELECTRIC CONNECTOR, SERIES 1 AND 2	MILITARY STANDARD
Procurement Specification MIL-C-81659		SUPERSEDES: MS3421 AND MS3423	MS3157
			PAGE 9 OF 13

TABLE 1 - INSERT DESIGNATION

INSERT DESIGNATION NUMBER	SHELL INSERT PLACEMENT			
	A	B	C	D
0001	26 P			
0002	26 S			
0003	26 P	26 P ¹		
0004	26 S	26 S		
0005	26 P	26 P	26 P	
0006	26 S	26 S	26 S	
0007	26 P	26 P	26 P	26 P
0008	26 S	26 S	26 S	26 S
0009	40 P			
0010	40 S			
0011	40 P	40 P		
0012	40 S	40 S		
0013	40 P	40 P	40 P	
0014	40 S	40 S	40 S	
0015	40 P	40 P	40 P	40 P
0016	40 S	40 S	40 S	40 S
0017	45 P			
0018	45 S			
0019	45 P	45 P		
0020	45 S	45 S		
0021	45 P	45 P	45 P	
0022	45 S	45 S	45 S	
0023	45 P	45 P	45 P	45 P
0024	45 S	45 S	45 S	45 S
0025	57 P			
0026	57 S			
0027	57 P	57 P		
0028	57 S	57 S		
0029	57 P	57 P	57 P	
0030	57 S	57 S	57 S	
0031	57 P	57 P	57 P	57 P
0032	57 S	57 S	57 S	57 S
0033	67 P			
0034	67 S			
0035	67 P	67 P		
0036	67 S	67 S		
0037	67 P	67 P	67 P	
0038	67 S	67 S	67 S	
0039	67 P	67 P	67 P	67 P
0040	67 S	67 S	67 S	67 S
0041	106 P			
0042	106 S			
0043	106 P	106 P		
0044	106 S	106 S		
0045	106 P	106 P	106 P	
0046	106 S	106 S	106 S	
0047	106 P	106 P	106 P	106 P
0048	106 S	106 S	106 S	106 S
0049	124 P			
0050	124 S			
0051	124 P	124 P		
0052	124 S	124 S		
0053	124 P	124 P	124 P	
0054	124 S	124 S	124 S	
0055	124 P	124 P	124 P	124 P
0056	124 S	124 S	124 S	124 S

User activities: ARMY -
NAVY -
AIR FORCE -

Review activities: EC, OS
AIR FORCE - 11, 80

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APPROVED 21 Jul 71 REVISED (D) For change see page 3

P.A.	AS	International Interest	TITLE INSERT ARRANGEMENTS, MIL-C-81659 ELECTRIC CONNECTOR, SERIES 1 AND 2	MILITARY STANDARD
Other Cust	CR 85			MS3157
Prescription Specification MIL-C-81659			SUPERSEDES MS3421 AND MS3423	PAGE 10 OF 13

TABLE I - INSERT DESIGNATION - CONTINUED.

INSERT DESIGNATION NUMBER	SHELL INSERT PLACEMENT			
	A	B	C	D
0057	106 S	26 P		
0058	106 P	26 S		
0059	26 P	106 S		
0060	26 S	106 P		
0061	26 P	26 P		
0062	26 S	26 S	26 P	26 S
0063	10 C3P	10 C3P	26 S	67 P
0064	10 C3S	10 C3S	C8P	67 P
0065	C8P	C8P	C8S	67 S
0066	C8S	C8S	C8P	
0067	C8P	C8P	C8S	
0068	C8S	C8S	106 S	
0069	C8P	33 C4P	106 P	
0070	C8S	33 C4S		
0071	67 P	106 S		
0072	67 S	106 P		
0073	67 P	67 P		
0074	67 S	67 S	C8P	
0075	67 P	67 P	C8S	
0076	67 S	67 S	106 S	
0077	67 P	67 S	106 P	
0078	67 S	106 P	33 C4P	
0079	67 P	106 S	33 C4S	
0080	67 S	106 P	67 P	
0081	67 P	106 P	67 S	
0082	67 S	67 S	33 C4P	33 C4P
0083	D8P		33 C4S	33 C4S
0084	D8S			
0085	C8P	C8P	67 P	67 P
0086	C8S	C8S	67 S	67 S
0087	106 S	C8P		
0088	106 P	C8S		
0089	106 S	67 P		
0090	106 P	67 S		
0091	106 S	106 S	67 P	
0092	106 P	106 P	67 S	
0093	106 S	106 S	33 C4P	
0094	106 P	106 P	33 C4S	
0095	106 S	C8P	106 S	106 S
0096	106 P	C8S	106 P	106 P
0097	106 S	67 P	106 S	C8P
0098	106 P	67 S	106 P	C8S
0099	106 S	67 P	C8P	C8P
0100	106 P	67 S	C8S	C8S
0101	106 S	106 S	67 P	67 P
0102	106 P	106 P	67 S	67 S
0103	33 C4P			
0104	33 C4S			
0105	33 C4P	106 S		
0106	33 C4S	106 P		
0107	33 C4P	C8P		
0108	33 C4S	C8S		
0109	C2P	40 C1P		
0110	C2S	40 C1S		
0111	C2P	57 P		
0112	C2S	57 S		

APPROVED 21 Jul 71 REVISED (D) For change see page 3

Review activities: ARMY - Over activities. ARMY - NAVY - AIR FORCE - EC, OS AIR FORCE - 11, 80
 This military standard is approved for use by all Departments and Agencies of the Department of Defense. Selection for all new engineering and design applications and for repetitive use shall be made from this document when applicable.

P.A	AS	International Interest	TITLE	MILITARY STANDARD
Other Cust	CR		INSERT ARRANGEMENTS, MIL-C-81659 ELECTRIC CONNECTOR, SERIES 1 AND 2	
	BS			MS3157
Procurement Specification MIL-C-81659			SUPERSEDES:	PAGE 11 OF 13
			MS3421 AND MS3423	

TABLE I - INSERT DESIGNATION - CONTINUED.

INSERT DESIGNATION NUMBER	SHELL INSERT PLACEMENT			
	A	B	C	D
0113	C3P	67 P		
0114	C3S	67 S		
0115	C3P	106 S		
0116	C3S	106 P		
0117	C8P	106 S		
0118	C8S	106 P		
0119	10 C3P	32 C2P		
0120	10 C3S	32 C2S		
0121	32 C2P	40 C1P		
0122	32 C2S	40 C1S		
0123	32 C2P	45 P		
0124	32 C2S	45 S		
0125	32 C2P	57 P		
0126	32 C2S	57 S		
0127	32 C2P	67 P		
0128	32 C2S	67 S		
0129	32 C2P	106 S		
0130	32 C2S	106 P		
0131	40 C1P	40 C1P		
0132	40 C1S	40 C1S		
0133	57 P	106 S		
0134	57 S	106 P		
0135	C8P			
0136	C8S			
0137	10 C3P			
0138	10 C3S			
0139	32 C2P			
0140	32 C2S			
0141	40 C1P			
0142	40 C1S			
0143	67 C3P			
0144	67 C3S			
0145	C8P	57 P		
0146	C8S	57 S		
0147	57 P	26 P		
0148	57 S	26 S		
0149	32 C4P			
0150	32 C4S			
0151	32 C4P	106 S		
0152	32 C4S	106 P		
0153	67 C3P	67 C3P	32 C4P	32 C4P
0154	67 C3S	67 C3S	32 C4S	32 C4S
0155	C8P	32 C4P		
0156	C8S	32 C4S		
0157	106 S	106 S	32 C4P	
0158	106 P	106 P	32 C4S	
0159	32 C4P	C8P		
0160	32 C4S	C8S		
0161	67 C3P	106 S	32 C4P	
0162	67 C3S	106 P	32 C4S	

User activities: ARMY -
 NAVY -
 ATR FORCE -
 Review activities: ARMY - EC, OS
 NAVY -
 ATR FORCE - 11, 80
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APPROVED 21 Jul 71 REVISED (D) For change see page 3

P.A.	AS	Interconnect Interiors	TITLE INSERT ARRANGEMENTS, MIL-C-81659 ELECTRIC CONNECTOR, SERIES 1 AND 2	MILITARY STANDARD
Other Cust	CR 85			MS3157
Procurement Specification MIL-C-81659		SUPERSEDES: MS3421 AND MS3423		PAGE 12 OF 13

NOTES:

1. Dimensions are in inches.
2. Dimensions are basic. See MIL-C-81659 Interchangeability Control Dimensions For Tolerances.
3. Metric equivalents (to the nearest .01 mm) are given for general information only and are based upon 1 inch = 25.4 mm.
4. This is a design standard and not to be used as a part number.
5. For design feature purposes, this standard takes precedence over procurement documents referenced herein.
6. Referenced documents shall be of the issue in effect on date of invitations for bid.
7. Dimensions and markings shown are for engaging face of pin insert (socket insert opposite).

ARMY -
NAVY -
AIR FORCE -

User activities

ARMY - CC, OS
NAVY -
AIR FORCE - 11, 80

Review activities:

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INCHES	MM	INCHES	MM	INCHES	MM	INCHES	MM	INCHES	MM
.024	.61	.140	3.56	.226	5.74	.347	8.81	.523	13.28
.033	.84	.141	3.58	.227	5.76	.350	8.89	.528	13.41
.036	.91	.147	3.73	.230	5.84	.360	9.14	.530	13.46
.045	1.14	.149	3.78	.234	5.94	.378	9.60	.533	13.54
.050	1.27	.150	3.81	.244	6.20	.390	9.91	.536	13.61
.054	1.37	.156	3.96	.250	6.35	.396	10.06	.537	13.64
.056	1.42	.162	4.11	.253	6.43	.400	10.16	.540	13.72
.0575	1.46	.163	4.14	.264	6.70	.4025	10.22	.546	13.87
.060	1.52	.168	4.27	.270	6.86	.408	10.36	.550	13.97
.066	1.68	.1725	4.38	.272	6.91	.414	10.52	.552	14.02
.068	1.73	.177	4.50	.276	7.01	.432	10.97	.575	14.60
.069	1.75	.178	4.52	.280	7.11	.442	11.23	.585	14.86
.078	1.98	.180	4.57	.287	7.29	.450	11.43	.594	15.09
.084	2.13	.182	4.62	.2875	7.30	.460	11.68	.600	15.24
.090	2.29	.195	4.95	.291	7.39	.462	11.73	.608	15.44
.098	2.49	.198	5.03	.293	7.44	.468	11.89	.612	15.54
.100	2.54	.200	5.08	.300	7.62	.476	12.09	.624	15.85
.108	2.74	.204	5.18	.312	7.92	.486	12.34	.6325	16.06
.115	2.92	.205	5.21	.314	7.98	.488	12.40	.648	16.46
.120	3.05	.206	5.23	.318	8.08	.489	12.42	.650	16.51
.131	3.33	.207	5.26	.324	8.23	.500	12.70	.690	17.53
.132	3.35	.208	5.28	.330	8.38	.514	13.06	.7475	18.99
.136	3.45	.216	5.49	.340	8.64	.5175	13.14	.805	20.45
.138	3.50	.220	5.59	.345	8.76	.520	13.21	.8625	21.91

APPROVED 21 Jul 71 REVISED (D) For change see page 3

P.A.	AS	Introduction	TITLE	MILITARY STANDARD
Other Cust	CR	85	INSERT ARRANGEMENTS, MIL-C-81659 ELECTRIC CONNECTOR, SERIES 1 AND 2	MS 3157
Procurement Specification MIL-C-81659			SUPERSEDES MS3421 AND MS3423	PAGE 13 OF 13