

INCH-POUND

MS24288E
w/Amendment 1
21 April 2023
SUPERSEDING
MS24288E
14 July 2005

DETAIL SPECIFICATION SHEET
INSERT ARRANGEMENTS, ELECTRICAL,
CONNECTOR, RACK AND PANEL

Inactive for new design after 8 June 1999.

This specification is approved for use by all Departments and Agencies of the Department of Defense.

The requirements for acquiring the product described herein shall consist of this specification sheet and MIL-DTL-83733.

The Qualified Products List (QPL) associated with this inactive for new design specification will be maintained until acquisition of the product is no longer required, where upon the specification and QPL will be canceled.

REQUIREMENTS:

Dimensions and configuration see figure 1.

This is a design specification. Not to be used as a part number.

Arrangement designator	Contact size/quantity				Connector			
	20	16	12	Coax	Style	PIN 1/	Style	PIN
A1	102				Pin	MS24286RA1	Socket	MS24285RA1
A1	102				Pin	MS24286HA1	Socket	MS27399RA1
B1	52				Pin	MS24286RB1	Socket	MS24285RB1
B1	52				Pin	MS24286HB1	Socket	MS27399RB1
A2	65		12		Pin	MS24286RA2	Socket	MS24285RA2
A2	65		12		Pin	MS24286HA2	Socket	MS27399RA2
A3	82	10			Pin	MS24286RA3	Socket	MS24285RA3
A3	82	10			Pin	MS24286HA3	Socket	MS27399RA3
B2	36	4		1	Pin	MS24286RB2	Socket	MS24285RB2
B2	36	4		1	Pin	MS24286HB2	Socket	MS27399RB2
B3			18		Pin	MS24286RB3	Socket	MS24285RB3
B3			18		Pin	MS24286HB3	Socket	MS27399RB3
A4	33			9	Pin	MS24286RA4	Socket	MS24285RA4
A4	33			9	Pin	MS24286HA4	Socket	MS27399RA4
A5		50			Pin	MS24286RA5	Socket	MS24285RA5
A5		50			Pin	MS24286HA5	Socket	MS27399RA5
B4		26			Pin	MS24286RB4	Socket	MS24285RB4

1/ Part or Identifying Number (PIN).

AMSC N/A

FSC 5935

DISTRIBUTION STATEMENT A. Approved for public release. Distribution is unlimited.



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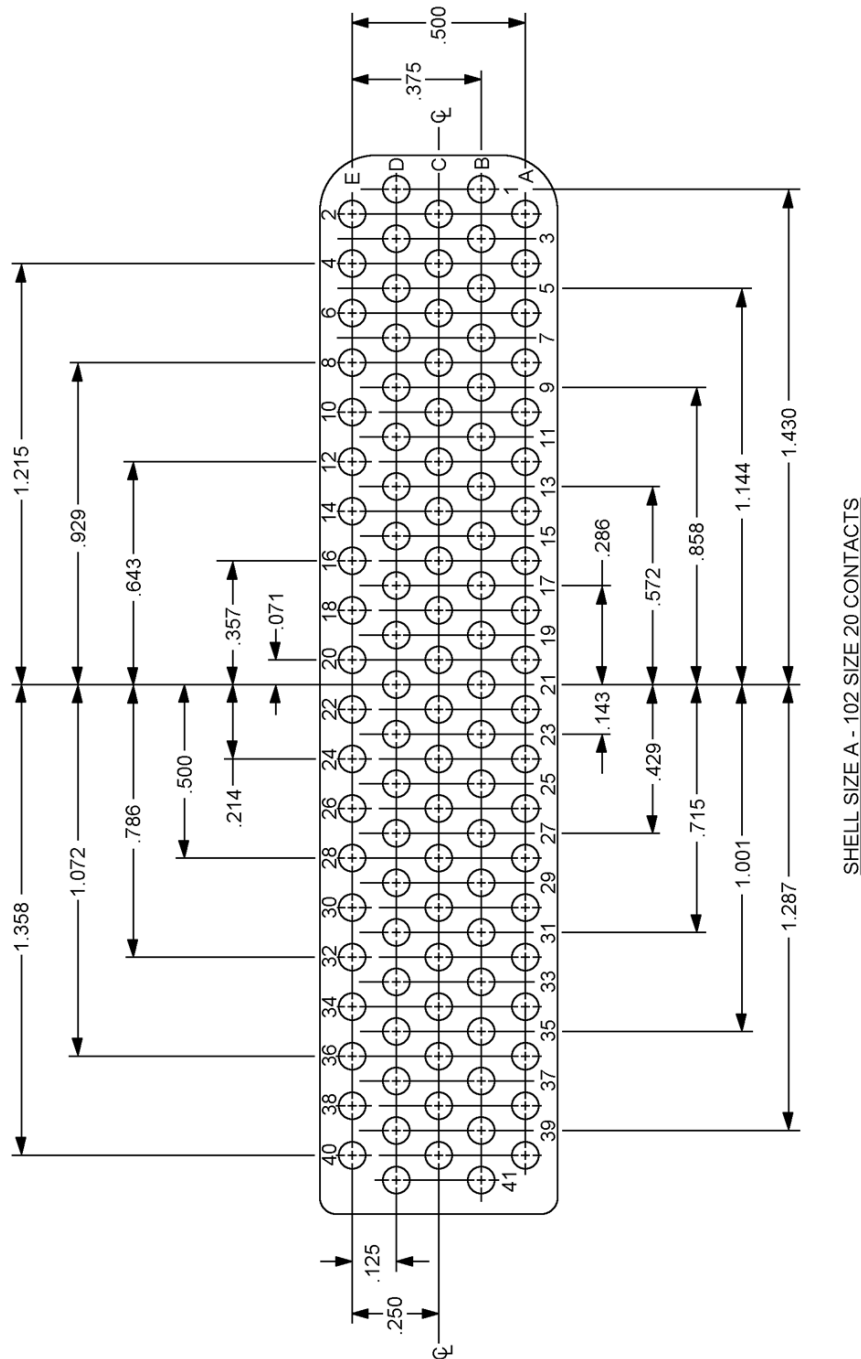


FIGURE 1. Shell size A1.

FIGURE 1. Connector mating and mounting details.

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Inches	mm	Inches	mm
.071	1.80	.643	16.33
.125	3.18	.715	18.16
.143	3.63	.786	19.96
.214	5.44	.858	21.79
.250	6.35	.929	23.60
.286	7.26	1.001	25.43
.357	9.07	1.072	27.23
.375	9.53	1.144	29.06
.429	10.90	1.215	30.86
.500	12.70	1.287	32.69
.572	14.53	1.358	34.49
		1.430	36.32

NOTES

1. Dimensions are in inches
2. Metric equivalents are given for information only.
3. Unless otherwise specified the tolerance is ± 0.002 (0.05 mm).
4. Rear face of pin insert shown socket insert opposite.
5. Contact identification shall be marked on rear surfaces. Characters shown are for rear face of pin insert.
6. The A2 contact shall be marked on face of the socket insert and the E2 contact shall be marked on the face of the pin insert.

FIGURE 1. Connector mating and mounting details - Continued.

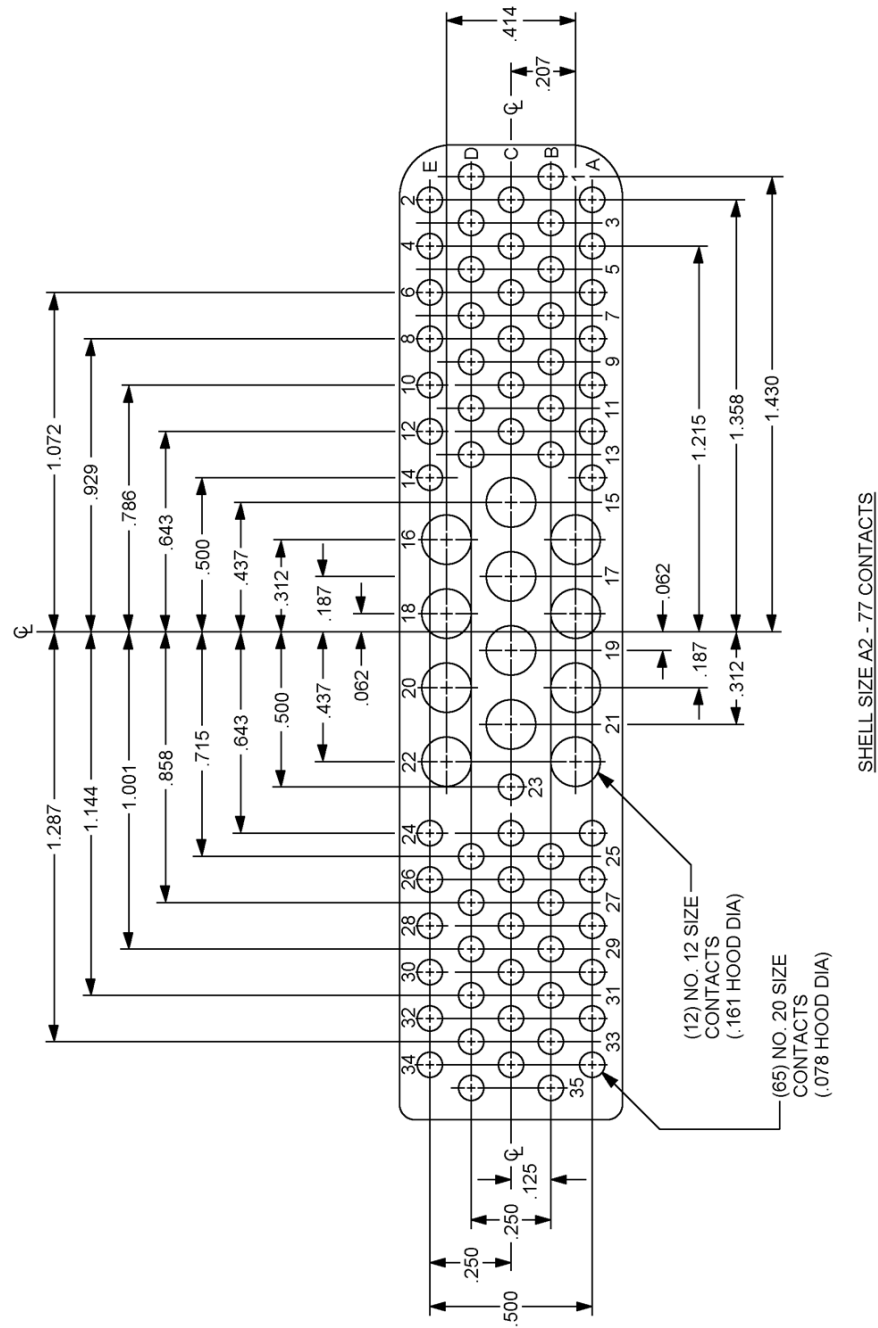
[illegible]

Inches	mm
.071	1.80
.125	3.18
.143	3.63
.214	5.44
.250	6.35
.286	7.26
.357	9.07
.375	9.53
.429	10.90
.500	12.70
.572	14.53
.643	16.33
.715	18.16

1. Dimensions are in inches
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3. Unless otherwise specified the tolerance is ± 0.002 (0.05 mm).
4. Rear face of pin insert shown socket insert opposite.
5. Contact identification shall be marked on rear surfaces. Characters shown are for rear face of pin insert.
6. The A2 contact shall be marked on face of the socket insert and the E2 contact shall be marked on the face of the pin insert.

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12 size 12 contacts and 65 size 20 contacts.

FIGURE 3. Shell size A2.

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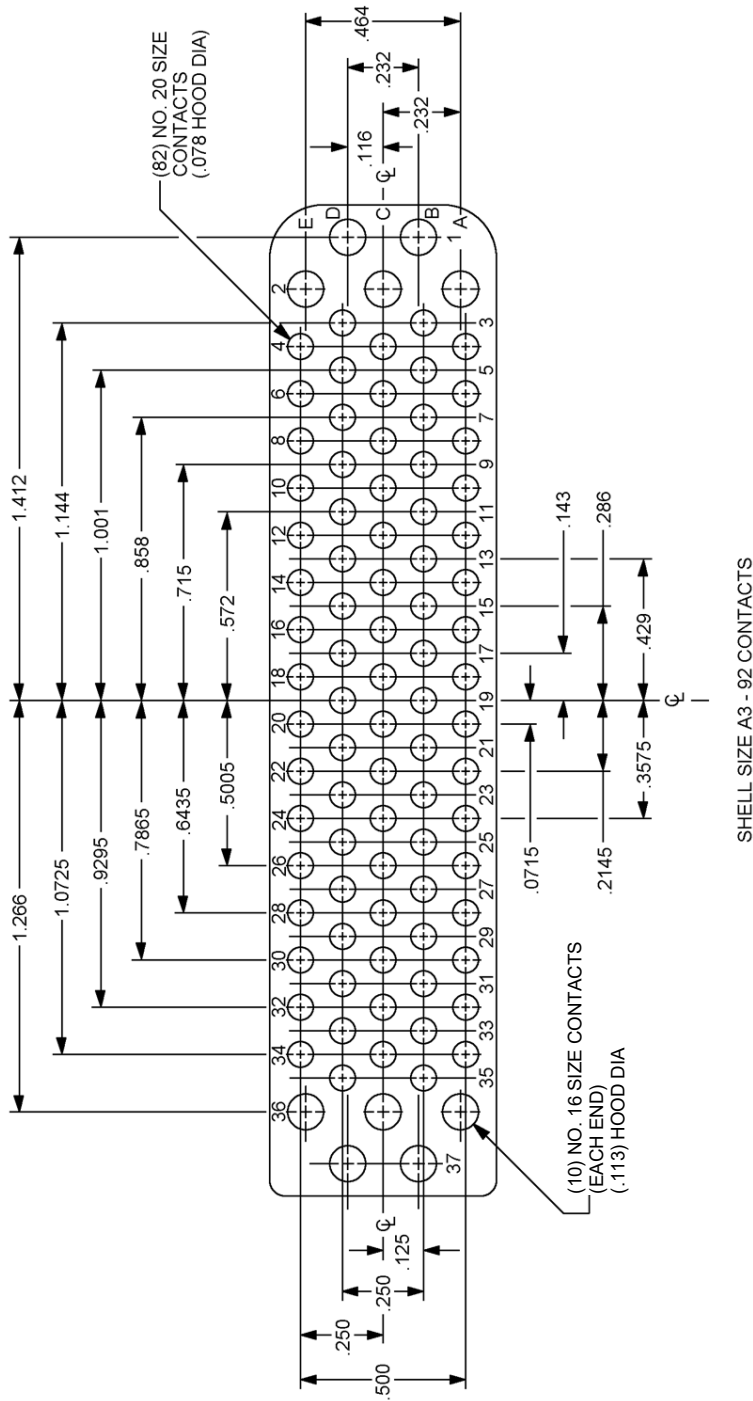
Inches	mm	Inches	mm
.062	1.57	.643	16.33
.078	1.98	.715	18.16
.125	3.18	.786	19.96
.161	4.09	.858	21.79
.187	4.75	.929	23.60
.207	5.26	1.001	25.43
.250	6.35	1.072	27.23
.312	7.92	1.144	29.06
.414	10.52	1.215	30.86
.437	11.10	1.287	32.69
.500	12.70	1.358	34.49
		1.430	36.32

NOTES

1. Dimensions are in inches
2. Metric equivalents are given for information only.
3. Unless otherwise specified the tolerance is ± 0.002 (0.05 mm).
4. Rear face of pin insert shown socket insert opposite.
5. Contact identification shall be marked on rear surfaces. Characters shown are for rear face of pin insert.
6. The A2 contact shall be marked on face of the socket insert and the E2 contact shall be marked on the face of the pin insert.

FIGURE 3. Shell size A2 - Continued.

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Inches	mm
.0715	1.816
.078	1.98
.113	2.87
.116	2.95
.125	3.18
.143	3.63
.2145	5.448
.232	5.89
.250	6.35
.286	7.26
.3575	9.080
.429	10.90
.464	11.79
.500	12.70
.5005	12.712
.572	14.53
.6435	16.345
.715	18.16
.7865	19.977
.858	21.79
.9295	23.609
1.001	25.42
1.0725	27.241
1.144	29.06
1.266	32.16
1.412	35.86

5 size 16 contacts and 82 size 20 contacts.

FIGURE 4. Shell size A3.

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NOTES

1. Dimensions are in inches
2. Metric equivalents are given for information only.
3. Unless otherwise specified the tolerance is ± 0.002 (0.05 mm).
4. Rear face of pin insert shown socket insert opposite.
5. Contact identification shall be marked on rear surfaces. Characters shown are for rear face of pin insert.
6. The A2 contact shall be marked on face of the socket insert and the E2 contact shall be marked on the face of the pin insert.

FIGURE 4. Shell size A3 – Continued.

(1) COAX, SAME AS NO. 12 SIZE CONTACT WITH (.161) HOOD DIA

(4) NO. 16 SIZE CONTACTS (.113) HOOD DIA

(36) NO. 20 SIZE CONTACTS (.078 HOOD DIA)

SHELL SIZE B2 - 41 CONTACTS

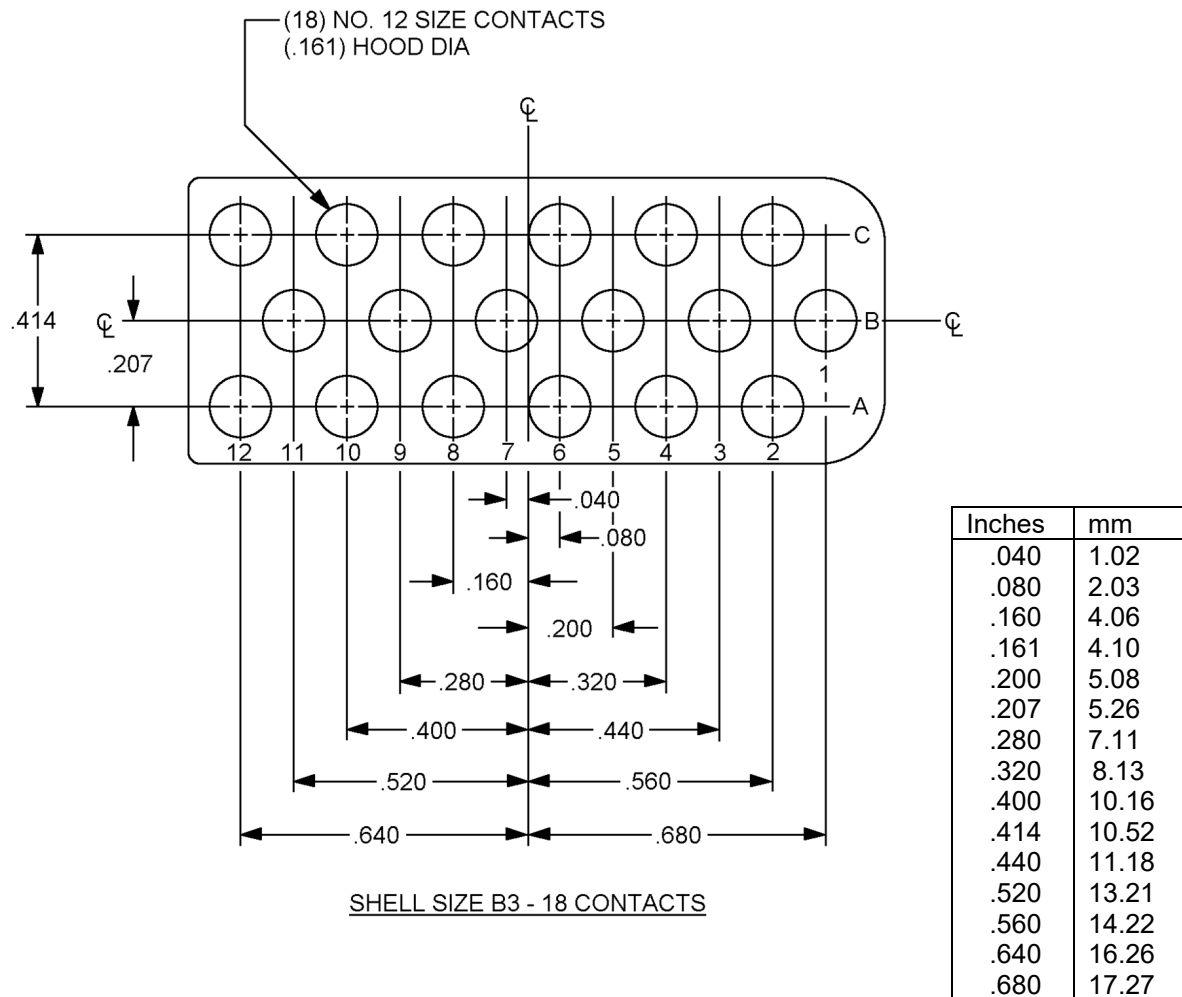
Inches	mm	Inches	mm
.113	2.87	.3575	9.080
.120	3.05	.376	9.55
.125	3.18	.429	10.90
.161	4.09	.500	12.70
.188	4.78	.5005	12.712
.2145	5.448	.572	14.53
.250	6.35	.6435	16.345
.286	7.26	.715	18.16

NOTES

1. Dimensions are in inches
2. Metric equivalents are given for information only.
3. Unless otherwise specified the tolerance is ± 0.002 (0.05 mm).
4. Rear face of pin insert shown socket insert opposite.
5. Contact identification shall be marked on rear surfaces. Characters shown are for rear face of pin insert.
6. The A2 contact shall be marked on face of the socket insert and the E2 contact shall be marked on the face of the pin insert.

FIGURE 5. Shell size B2.

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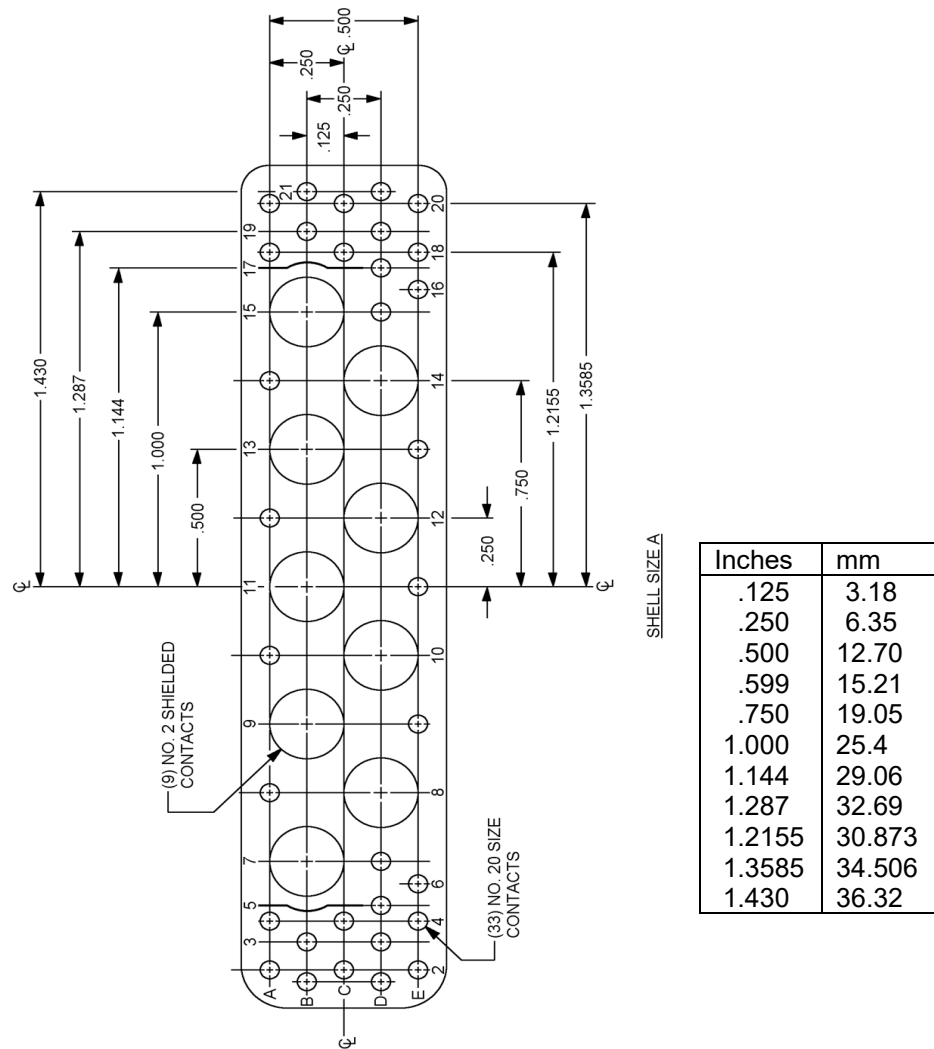
18 size 12 contacts

NOTES

1. Dimensions are in inches
2. Metric equivalents are given for information only.
3. Unless otherwise specified the tolerance is ± 0.002 (0.05 mm).
4. Rear face of pin insert shown socket insert opposite.
5. Contact identification shall be marked on rear surfaces. Characters shown are for rear face of pin insert.
6. The A2 contact shall be marked on face of the socket insert and the C2 contact shall be marked on the face of the pin insert
7. Use SAE-AS39029/54, SAE-AS39029/55, or MS27399 as applicable.

FIGURE 6. Shell size B3.

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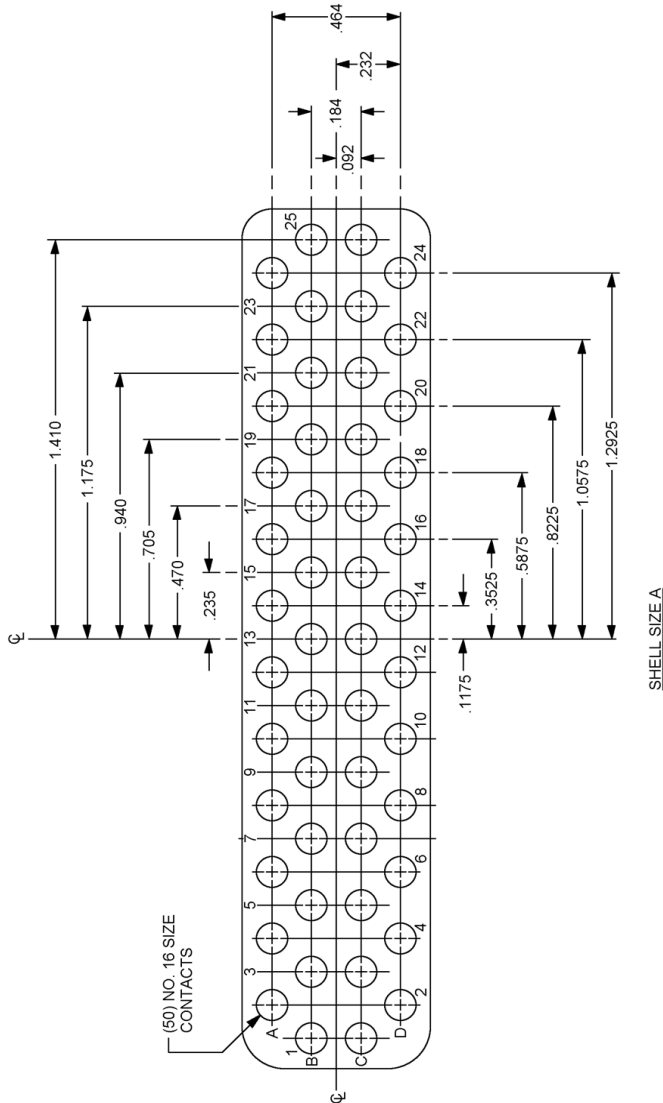
33 size 20 and 9 coax contacts

NOTES

1. Dimensions are in inches
2. Metric equivalents are given for information only.
3. Unless otherwise specified the tolerance is ± 0.002 (0.05 mm).
4. Rear face of pin insert shown socket insert opposite.
5. Contact identification shall be marked on rear surfaces. Characters shown are for rear face of pin insert.
6. The A2 contact shall be marked on face of the socket insert and the E2 contact shall be marked on the face of the pin insert.
7. Use SAE-AS39029/54, SAE-AS39029/55, or MS27399 as applicable.

FIGURE 7. Shell size A4.

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Inches	mm
.092	2.34
.1175	2.984
.184	4.67
.232	5.89
.235	5.97
.3525	8.95
.464	11.79
.470	11.94
.5875	14.92
.8225	20.89
.940	23.88
1.0575	26.86
1.175	29.85
1.2925	32.830
1.410	35.81

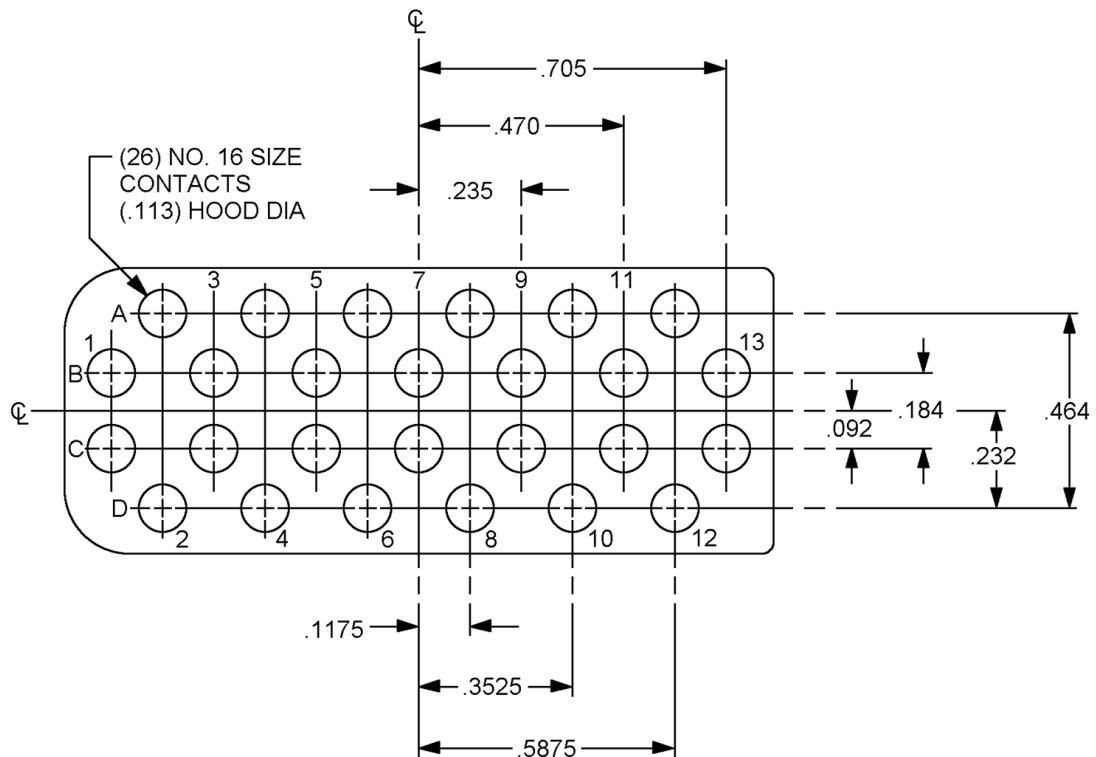
59 size 16 contacts

NOTES

1. Dimensions are in inches
2. Metric equivalents are given for information only.
3. Unless otherwise specified the tolerance is $\pm .002$ (0.05 mm).
4. Rear face of pin insert shown socket insert opposite.
5. Contact identification shall be marked on rear surfaces. Characters shown are for rear face of pin insert.
6. The A2 contact shall be marked on face of the socket insert and the D2 contact shall be marked on the face of the pin insert.
7. Use SAE-AS39029/54, SAE-AS39029/55, or MS27399 as applicable.

FIGURE 8. Shell size A5.

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26 size 16 contacts

Inches	mm
.092	2.34
.113	2.87
.1175	2.98
.184	4.67
.232	5.89
.235	5.97
.3525	8.95
.464	11.79
.470	11.94
.5875	14.923
.705	19.05

NOTES

1. Dimensions are in inches
2. Metric equivalents are given for information only.
3. Unless otherwise specified the tolerance is ± 0.002 (0.05 mm).
4. Rear face of pin insert shown socket insert opposite.
5. Contact identification shall be marked on rear surfaces. Characters shown are for rear face of pin insert.
6. The A2 contact shall be marked on face of the socket insert and the C2 contact shall be marked on the face of the pin insert.

FIGURE 9. Shell size B4.

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Referenced documents: In addition to MIL-DTL-83733 this document references the following:

MS27399
SAE-AS39029/54
SAE-AS39029/55

Amendment notations. The margins of this specification are marked with vertical lines to indicate modifications generated by this amendment by this amendment. This was done as a convenience only and the Government assumes no liability whatsoever for any inaccuracies in these notations. Bidders and contractors are cautioned to evaluate the requirements of this document based on the entire content irrespective of the marginal notations.

CONCLUDING MATERIAL

Custodians:
Air Force – 85
DLA - CC

Preparing activity:
DLA - CC

(Project 5935-2023-033)

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