

INCH-POUND

MIL-STD-1560C
w/CHANGE 2
6 December 2018
SUPERSEDING
MIL-STD-1560C
w/CHANGE 1
23 January 2017

DEPARTMENT OF DEFENSE INTERFACE STANDARD

INSERT ARRANGEMENTS
FOR MIL-DTL-38999, MIL-DTL-27599,
AND SAE-AS29600 SERIES A
ELECTRICAL CIRCULAR CONNECTORS



AMSC N/A

FSC 5935



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FOREWORD

1. This standard is approved for use by all Departments and Agencies of the Department of Defense.
2. Comments, suggestions, or questions on this document should be addressed to Commander, DLA Land and Maritime, ATTN: VAI, P.O. Box 3990, Columbus, Ohio, 43218-3990 or emailed to CircularConnector@dla.mil. Since contact information can change, you may want to verify the currency of this address information using the ASSIST Online database at <https://assist.dla.mil>.

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SUMMARY OF CHANGE 2 MODIFICATIONS

1. Pages 141 and page 143: Corrections to transcription errors in insert arrangements 25-20 and 25-21 as follows: In X/Y coordinate table, change lower case “w” to “W”.
2. Page 155: For contact position “B” in the X/Y coordinate table for insert arrangement 25-37, change X-axis dimension from .185 to .186.
3. Pages 166 and 168: In coordinate tables for insert arrangements 25-90 and 25-91, the underline under contact position “AA” has been removed to harmonize with the associated figures.
4. Pages 175 and 176: Correction to insert arrangements 10-13 and 10-35 as follows: To harmonize with 11-13 and 11-35, change from requiring marking of all contact cavities with contact identification numbers to requiring contact identification numbers for contact cavities 1, 5, 10 and 13 only.
5. Page 231: Add tracer line marking requirement around contact cavity “A” in insert arrangement 20-41. The new tracer line is intended as a visual aid for the user to more easily locate contact locations in this high density insert arrangement. This change will also harmonize arrangement 20-41 with identical layout 21-41 on page 97.

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1. SCOPE

1.1 Scope. This standard covers insert arrangements for use with MIL-DTL-38999 series I, II, III and IV; MIL-DTL-27599 series I and II; and SAE-AS29600 series A, circular, electrical connectors.

2. APPLICABLE DOCUMENTS

2.1 General. The documents listed in this section are specified in sections 3, 4, and 5 of this standard. This section does not include documents cited in other sections of this standard or recommended for additional information or as examples. While every effort has been made to ensure the completeness of this list, document users are cautioned that they must meet all specified requirements of documents cited in sections 3, 4, and 5 of this standard, whether or not they are listed.

2.2 Government documents.

2.2.1 Specifications, standards, and handbooks. The following specifications, standards, and handbooks form a part of this document to the extent specified herein. Unless otherwise specified, the issues of these documents are those cited in the solicitation or contract.

DEPARTMENT OF DEFENSE SPECIFICATIONS

- MIL-DTL-38999 - Connectors, Electrical, Circular, Miniature, High Density, Quick Disconnect (Bayonet, Threaded, and Breech Coupling), Environment Resistant, Removable Crimp and Hermetic Solder Contacts, General Specification for.
- MIL-DTL-27599 - Connectors, Electrical, Circular, Miniature, Quick Disconnect, Environment Resistant, Solder Contacts, General Specification for.

(Copies of these documents are available online at <https://quicksearch.dla.mil/>.)

2.2.2 Other Government documents, drawings and publications. The following other Government documents, drawings and publications form a part of this document to the extent specified herein. Unless otherwise specified, the issues of these documents are those cited in the solicitation or contract.

DRAWINGS

- 02003 - Contact Electrical Connector Concentric Twinax, Socket, Shielded, Size 12 (For MIL-DTL-38999 Series I, III, and IV connectors)
- 02004 - Contact Electrical Connector Concentric Twinax, Pin, Shielded, Size 12 (For MIL-DTL-38999 Series I, III, and IV connectors)

(Copies of DLA Land and Maritime drawings are available for download at internet web address <http://www.landandmaritime.dla.mil/programs/milspec/DocSearch.aspx>.)

2.2.3 Non-Government publications. The following documents form a part of this document to the extent specified herein. Unless otherwise specified, the issues of these documents are those cited in the solicitation or contract.

SAE INTERNATIONAL

- SAE-AS29600 - Connectors, Electrical, Circular, Miniature, Composite, High Density, Quick Coupling, Environment Resistant, Removable Crimp Contacts, Associated Hardware, General Specification for.
- SAE-AS39029/59 - Contacts, Electrical Connector, Socket, Crimp Removable, Shielded, Size 8 (for MIL-C-38999 Series I, III, and IV Connectors).

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- SAE-AS39029/60 - Contacts, Electrical Connector, Pin, Crimp Removable, Shielded, Size 8 (for MIL-C-38999 Series I, III, and IV Connectors).
- SAE-AS39029/90 - Contact, Electrical Connector, Concentric Twinax, Pin, Size 8.
- SAE-AS39029/91 - Contact, Electrical Connector, Concentric Twinax, Socket, Shielded, Size 8.
- SAE-AS39029/113 - Contact, Electrical Connector, Concentric Twinax, Pin, Size 8, MIL-DTL-38999 Series I, III and IV.
- SAE-AS39029/114 - Contact, Electrical Connector, Concentric Twinax, Socket, Size 8, MIL-DTL-38999 Series I, III and IV.
- SAE-AS39029/121 - Contacts, Electrical Connector, Socket, Crimp Removable, Expanded Performance, Sizes 10, 12, 16, 20, 22 and 23 (for MIL-DTL-38999 Series III Connectors).
- SAE-AS39029/122 - Contacts, Electrical Connector, Pin, Crimp Removable, Expanded Performance, Sizes 10, 12, 16, 20, 22 and 23 (for MIL-DTL-38999 Series III Connectors).

(Copies of these documents are available at <http://www.sae.org> or SAE International, 400 Commonwealth Drive, Warrendale, PA 15096-0001, and Tel: 877-606-7323 (inside USA and Canada) or 724-776-4970 (outside USA), or email: CustomerService@sae.org.)

2.3 Order of precedence. Unless otherwise noted herein or in the contract, in the event of a conflict between the text of this document and the references cited herein, the text of this document takes precedence. Nothing in this document, however, supersedes applicable laws and regulations unless a specific exemption has been obtained.

3. DEFINITIONS

3.1 Definitions. The terms used in this standard are generally accepted by the electrical and electronics industries and are commonly used in electrical connector engineering practice, except for the following terms:

a) Heat shrink sleeve. Shrink sleeves (also called “heat shrink boots”) supplied with shielded contacts are used for environmental sealing of the contact to the connector grommet cavity and to the cable. It is supplied with the contact, when specified. The sleeve is placed on the cable prior to terminating the contact. Once the cable is terminated, the shrink sleeve slides over the contact, and heat is applied to shrink the sleeve and melt the adhesive. Since the maximum temperature rating of a shrink sleeve is 175°C, a connector with a higher temperature rating will be derated to 175°C when twinax contacts with shrink sleeves are used.

b) Sealing boot. A sealing boot is a device that is used to environmentally seal a cable to a shielded electrical contact and the electrical contact to the grommet cavity within a connector insert. It is supplied with the contact, when specified. The boot is placed onto the cable prior to terminating the contact. Once the contact is installed into the connector, the boot slides forward into the grommet cavity to seal the contact to the connector. For this standard, a sealing boot may be required to be supplied with the connector for specified insert arrangements with size 8 shielded contacts. A heat shrink sleeve is not used with a size 8 shielded contact when a sealing boot is specified.

c) Inactive for new design. For this standard, insert arrangements that are specified as “inactive for new design” are not be used in new designs or equipment. An inactive arrangement may be used to support existing designs or equipment.

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4. GENERAL REQUIREMENTS

4.1 Recycled, recovered, environmentally preferable, or biobased materials. Recycled, recovered, environmentally preferable, or biobased materials should be used to the maximum extent possible, provided that the material meets or exceeds the operational and maintenance requirements, and promotes economically advantageous life cycle costs.

5. DETAILED REQUIREMENTS

5.1 Dimensions. Dimensions shall be in accordance with the applicable section of this standard and the following dimensional data:

- a. ↓ indicates C (center line) of insert arrangement.
- b. All dimensions are true position (TP). Dimensions are in inches, unless otherwise specified. Dimensions and markings: Front face of pin insert shown (socket insert opposite).
- c. Contact dimensions- socket cavity diameter and pin engaging end diameter for each contact size:

Dimensions, socket cavity diameter and pin engaging end diameter			
Contact size	Connector specification	Contacts, number of places as applicable	
		insert, socket contact, contact cavity diameter	pin contact, engaging end diameter
23-22	MIL-DTL-38999	.032 min	.0275 / .0260
22	MIL-DTL-27599 or MIL-DTL-38999	.036 min	.0300 ± .0005
22D	MIL-DTL-38999 or SAE-AS29600 series A	.035 min	.0300 ± .0005
22M	MIL-DTL-27599 or MIL-DTL-38999	.036 min	.0300 ± .0005
20	MIL-DTL-27599	.045 min	.040 ± .001
20	MIL-DTL-38999 or SAE-AS29600 series A	.049 min	.040 ± .001
16	MIL-DTL-27599	.067 min	.0625 ± .0010
16	MIL-DTL-38999 or SAE-AS29600 series A	.071 min	.0625 ± .0010
12	MIL-DTL-27599	.099 min	.094 ± .001
12	MIL-DTL-38999 or SAE-AS29600 series A	.103 min	.094 ± .001
10	MIL-DTL-38999	.134 min	.125 ± .001
8 coax or twinax	MIL-DTL-38999 or SAE-AS29600 series A	.227 min	.218 ± .001

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d. Receptacle and plug gauge features:

For MIL-DTL-38999 series I, II, and III, SAE AS29600 series A, and MIL-DTL-27599 series I and II receptacle connectors, functional gauge features for determining socket contact cavity locations or tip of pin contact locations shall be .002 smaller than H at MMC, and .006 smaller than GG at MMC.

For MIL-DTL-38999 series I, II, and III; SAE AS29600 series A and MIL-DTL-27599 series I and II plug connectors, functional gauge features for determining socket contact cavity locations or the tip of pin contact locations shall be .002 larger than W at MMC and .006 larger than GG at MMC.

Crimp removable contact tolerances shall be .015 at MMC (socket contact cavities) and .024 at MMC (tip of pin contacts). Fixed contact tolerances, including hermetically sealed contacts and MIL-DTL-27599 fixed contacts, shall be .004 at MMC.

e. Contact locations, geometric dimensioning and tolerancing requirements:

Note: Some datums referenced in the below tables are found in the interchangeability dimension figures in the associated connector specifications, including MIL-DTL-38999, MIL-DTL-27599 and SAE-AS29600. For example, datums B, H, W, G, GG, F, C and L are shown in MIL-DTL-38999. Primary datum B (series I through III) is established by the plane along the surface of the front face of the receptacle shell and the plane along the surface of the front face of the plug shell. Secondary datum H is established by the inside diameter of the receptacle shell and secondary datum W is established by the outside diameter of the plug shell. Datums G and GG, which are used to establish angular orientation around the datum axis, are the centerlines of the keys or keyways. For series IV only, datum B is the front face of the receptacle shell and datum E is the front face of the plug shell. Series IV, datums L and C are established by plug and receptacle diameters. Series IV, datums H and G are used to establish angular orientation.

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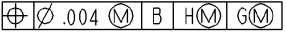
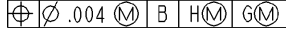

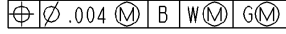
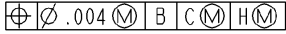
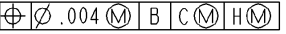
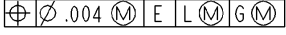
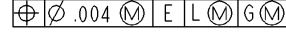
MIL-DTL-38999 Series I through IV (environmentally sealed with removable crimp contacts)

SERIES I AND II RECEPTACLE SOCKET $\oplus \varnothing .015 \text{ (M)} B H \text{ (M)} GG \text{ (M)}$	SERIES I AND II RECEPTACLE PIN $\oplus \varnothing .024 \text{ (M)} B H \text{ (M)} GG \text{ (M)}$	DATUM B IS THE FRONT FACE OF PLUG OR RECEPTACLE SHELLS
SERIES I AND II PLUG SOCKET $\oplus \varnothing .015 \text{ (M)} B W \text{ (M)} GG \text{ (M)}$	SERIES I AND II PLUG PIN $\oplus \varnothing .024 \text{ (M)} B W \text{ (M)} GG \text{ (M)}$	
SERIES III RECEPTACLE SOCKET $\oplus \varnothing .015 \text{ (M)} B H \text{ (M)} G \text{ (M)}$	SERIES III RECEPTACLE PIN $\oplus \varnothing .024 \text{ (M)} B H \text{ (M)} G \text{ (M)}$	DATUM B IS THE FRONT FACE OF PLUG OR RECEPTACLE SHELLS
SERIES III PLUG SOCKET $\oplus \varnothing .015 \text{ (M)} B W \text{ (M)} G \text{ (M)}$	SERIES III PLUG PIN $\oplus \varnothing .024 \text{ (M)} B W \text{ (M)} G \text{ (M)}$	
SERIES IV RECEPTACLE SOCKET $\oplus \varnothing .015 \text{ (M)} B C \text{ (M)} H \text{ (M)}$	SERIES IV RECEPTACLE PIN $\oplus \varnothing .024 \text{ (M)} B C \text{ (M)} H \text{ (M)}$	DATUM B IS THE FRONT FACE OF RECEPTACLE SHELL
SERIES IV PLUG SOCKET $\oplus \varnothing .015 \text{ (M)} E L \text{ (M)} G \text{ (M)}$	SERIES IV PLUG PIN $\oplus \varnothing .024 \text{ (M)} E L \text{ (M)} G \text{ (M)}$	DATUM E IS THE FRONT FACE OF PLUG SHELL

Note: The pattern of the socket cavity / pin locations within the insert arrangement is constant. The pattern of the socket cavity / pin locations may shift in one direction, but the MMC modifiers on the secondary and tertiary datums do not allow socket cavity / pin position deviations within the pattern.

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MIL-DTL-38999 Series I through IV (hermetically sealed with fixed contacts),
and MIL-DTL-27599 Series I and II (environmentally sealed with fixed contacts)

SERIES I AND II RECEPTACLE SOCKET 	SERIES I AND II RECEPTACLE PIN 	DATUM B IS THE FRONT FACE OF PLUG OR RECEPTACLE SHELLS
SERIES I AND II PLUG SOCKET 	SERIES I AND II PLUG PIN 	
SERIES III RECEPTACLE SOCKET 	SERIES III RECEPTACLE PIN 	DATUM B IS THE FRONT FACE OF PLUG OR RECEPTACLE SHELLS
SERIES III PLUG SOCKET 	SERIES III PLUG PIN 	
SERIES IV RECEPTACLE SOCKET 	SERIES IV RECEPTACLE PIN 	DATUM B IS THE FRONT FACE OF RECEPTACLE SHELL
SERIES IV PLUG SOCKET 	SERIES IV PLUG PIN 	DATUM E IS THE FRONT FACE OF PLUG SHELL

Note: The pattern of the socket cavity / pin locations within the insert arrangement is constant. The pattern of the socket cavity / pin locations may shift in one direction, but the MMC modifiers on the secondary and tertiary datums do not allow socket cavity / pin position deviations within the pattern.

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SAE-AS29600, Series A (environmentally sealed with removable crimp contacts)

<p>SERIES A RECEPTACLE SOCKET</p>	<p>SERIES A RECEPTACLE PIN</p>	<p>DATUM C IS THE FRONT FACE OF THE RECEPTACLE SHELL</p> <p>DATUM D IS THE FRONT FACE OF THE PLUG SHELL</p>
<p>SERIES A PLUG SOCKET</p>	<p>SERIES A PLUG PIN</p>	

Note: The pattern of the socket cavity / pin locations within the insert arrangement is constant. The pattern of the socket cavity / pin locations may shift in one direction, but the MMC modifiers on the secondary and tertiary datums do not allow socket cavity / pin position deviations within the pattern.

5.2 Contact location identification and marking. Marking shall be in accordance with MIL-DTL-38999, SAE-AS29600 series A, MIL-DTL-27599, and as shown in the applicable section of this standard. Sawtooth lines may be used in place of straight lines.

5.3 Drawing notes. The following information is applicable to all figures of this standard.

- Dimensions are in inches, unless otherwise specified.
- Metric equivalents are given for information only.
- Firewall applications: Insert arrangements using shielded contacts (e.g. coax, twinax, etc.), including 17-2, 17-3, 17-11, 19-18, 19-19, 21-75, 21-76, 25-7, 25-8, 25-9, 25-10, 25-20, 25-21, 25-46, 25-47, 25-90 and 25-91 shall not be used in firewall connector applications.
- SAE-AS39029 contacts: For application notes on SAE-AS39029 contacts, see MIL-DTL-38999, section 6.
- Each insert arrangement is shown using a conventional two-dimensional Cartesian system, with two perpendicular axes. The x-axis is always the horizontal axis, and the y-axis is always the vertical axis. The origin, or "0,0" point, is always where the two axes meet. The axes in each insert arrangement follow the standard two-dimensional, "positive" orientation, with the positive x-axis pointed to the right and the positive y-axis pointed up.

6. NOTES

(This section contains information of a general or explanatory nature that may be helpful, but is not mandatory.)

6.1 Intended use. This standard covers insert arrangements for use with MIL-DTL-38999 series I, II, III and IV; MIL-DTL-27599 series I and II; and SAE-AS29600 series A circular connectors. Information pertaining to shell size, arrangement number, number of contacts, size of contacts, service rating, contact location, and superseding information is contained in this document.

6.2 Cross-reference. See [table I](#) for a cross-reference of previous sections and current figures. See [table II](#) for a hyperlinked cross-reference to insert arrangement numbers by shell size. See [table III](#) for a cross-reference of superseded insert arrangements.

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TABLE I. Cross-reference of figures to sections.

Title	Current figure	Previous section	Document	Series
Insert arrangement, electrical connector, shell size 9	1	101	MIL-DTL-38999	I,III, IV
			MIL-DTL-27599	I
			SAE-AS29600	A
Insert arrangement, electrical connector, shell size 11	2	102	MIL-DTL-38999	I,III, IV
			MIL-DTL-27599	I
			SAE-AS29600	A
Insert arrangement, electrical connector, shell size 13	3	103	MIL-DTL-38999	I,III, IV
			MIL-DTL-27599	I
			SAE-AS29600	A
Insert arrangement, electrical connector, shell size 15	4	104	MIL-DTL-38999	I,III, IV
			MIL-DTL-27599	I
			SAE-AS29600	A
Insert arrangement, electrical connector, shell size 17	5	105	MIL-DTL-38999	I,III, IV
			MIL-DTL-27599	I
			SAE-AS29600	A
Insert arrangement, electrical connector, shell size 19	6	106	MIL-DTL-38999	I,III, IV
			MIL-DTL-27599	I
			SAE-AS29600	A
Insert arrangement, electrical connector, shell size 21	7	107	MIL-DTL-38999	I,III, IV
			MIL-DTL-27599	I
			SAE-AS29600	A
Insert arrangement, electrical connector, shell size 23	8	108	MIL-DTL-38999	I,III, IV
			MIL-DTL-27599	I
			SAE-AS29600	A
Insert arrangement, electrical connector, shell size 25	9	109	MIL-DTL-38999	I,III, IV
			MIL-DTL-27599	I
			SAE-AS29600	A
Insert arrangement, electrical connector, shell size 8	10	201	MIL-DTL-38999	II
			MIL-DTL-27599	II
Insert arrangement, electrical connector, shell size 10	11	202	MIL-DTL-38999	II
			MIL-DTL-27599	II
Insert arrangement, electrical connector, shell size 12	12	203	MIL-DTL-38999	II
			MIL-DTL-27599	II
Insert arrangement, electrical connector, shell size 14	13	204	MIL-DTL-38999	II
			MIL-DTL-27599	II
Insert arrangement, electrical connector, shell size 16	14	205	MIL-DTL-38999	II
			MIL-DTL-27599	II
Insert arrangement, electrical connector, shell size 18	15	206	MIL-DTL-38999	II
			MIL-DTL-27599	II
Insert arrangement, electrical connector, shell size 20	16	207	MIL-DTL-38999	II
			MIL-DTL-27599	II
Insert arrangement, electrical connector, shell size 22	17	208	MIL-DTL-38999	II
			MIL-DTL-27599	II
Insert arrangement, electrical connector, shell size 24	18	209	MIL-DTL-38999	II
			MIL-DTL-27599	II

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TABLE II. Cross-reference to insert arrangements by shell size.

Shell size 9, figure 1			
Insert arrangement	Page	Insert arrangement	Page
9-3	14	9-35	18
9-6 1/	15	9-44 1/	19
9-7	16	9-98	20
9-23	17	----	---

See footnotes at end of table.

Shell size 11, figure 2			
Insert arrangement	Page	Insert arrangement	Page
11-2	21	11-23	25
11-4	22	11-35	26
11-5	23	11-98	27
11-13 1/	24	11-99	28

See footnotes at end of table.

Shell size 13, figure 3			
Insert arrangement	Page	Insert arrangement	Page
13-4	29	13-23	32
13-8	30	13-35	34
13-22 1/	31	13-98	35

See footnotes at end of table.

Shell size 15, figure 4			
Insert arrangement	Page	Insert arrangement	Page
15-5	36	15-23	42
15-15	37	15-35	44
15-18	38	15-37 1/	46
15-19	39	15-97	48
15-21	40	----	---

See footnotes at end of table.

Shell size 17, figure 5			
Insert arrangement	Page	Insert arrangement	Page
17-2 1/	49	17-23	56
17-3 2/	51	17-26	58
17-6	53	17-35	59
17-8	54	17-55 1/	61
17-11	55	17-99	63

See footnotes at end of table.

MIL-STD-1560C
w/CHANGE 2TABLE II. Cross-reference to insert arrangements by shell size - Continued.

Shell size 19, figure 6			
Insert arrangement	Page	Insert arrangement	Page
19-11	64	19-32	72
19-18 1/	65	19-35	73
19-19 2/	66	19-45	75
19-23	67	19-66 1/	77
19-28	70	19-67 1/	79
19-30	71	----	---

See footnotes at end of table.

Shell size 21, figure 7			
Insert arrangement	Page	Insert arrangement	Page
21-1 1/	81	21-29	91
21-11	83	21-35	93
21-16	84	21-39	95
21-23	85	21-41	97
21-24	88	21-75 1/	98
21-25	89	21-76 2/	99
21-27	90	---	---

See footnotes at end of table.

Shell size 23, figure 8			
Insert arrangement	Page	Insert arrangement	Page
23-1 1/	100	23-35	112
23-2 1/	103	23-36	115
23-21	105	23-53	117
23-23	106	23-55	119
23-32	110	23-97	121
23-34	111	23-99	122

See footnotes at end of table.

Shell size 25, figure 9			
Insert arrangement	Page	Insert arrangement	Page
25-1 1/	123	25-23	145
25-2 1/	126	25-24	150
25-4	129	25-29	151
25-7 1/	131	25-35	152
25-8 1/	134	25-37	155
25-9 2/	135	25-43	157
25-10 2/	138	25-46 1/	159
25-11	139	25-47 2/	161
25-19	140	25-61	163
25-20 1/	141	25-90 1/	165
25-21 2/	143	25-91 2/	167

See footnotes at end of table.

MIL-STD-1560C
w/CHANGE 2TABLE II. Cross-reference to insert arrangements by shell size - Continued.

Shell size 8, figure 10			
Insert arrangement	Page	Insert arrangement	Page
8-3 1/	169	8-44 1/	172
8-6	170	8-98	173
8-35	171	----	----

See footnotes at end of table.

Shell size 10, figure 11			
Insert arrangement	Page	Insert arrangement	Page
10-5	174	10-98	177
10-13 1/	175	10-99	178
10-35	176	----	----

See footnotes at end of table.

Shell size 12, figure 12			
Insert arrangement	Page	Insert arrangement	Page
12-3	179	12-22 1/	182
12-4	180	12-35	183
12-8	181	12-98	184

See footnotes at end of table.

Shell size 14, figure 13			
Insert arrangement	Page	Insert arrangement	Page
14-5	185	14-35	188
14-15	186	14-37 1/	189
14-18	187	14-97	190

See footnotes at end of table.

Shell size 16, figure 14			
Insert arrangement	Page	Insert arrangement	Page
16-6/7	191	16-42 1/	196
16-8	192	16-55 1/	198
16-26	193	16-99	200
16-35	194	----	---

See footnotes at end of table.

Shell size 18, figure 15			
Insert arrangement	Page	Insert arrangement	Page
18-11	201	18-45	210
18-28	202	18-53 1/	212
18-30	204	18-66 1/	214
18-32	206	18-67 1/	216
18-35	208	18-96	218

See footnotes at end of table.

MIL-STD-1560C
w/CHANGE 2TABLE II. Cross-reference to insert arrangements by shell size - Continued.

Shell size 20, figure 16			
Insert arrangement	Page	Insert arrangement	Page
20-1 1/	219	20-27	226
20-2 1/	221	20-35	227
20-16	223	20-39	229
20-24	224	20-41	231
20-25	225	----	---

See footnotes at end of table.

Shell size 22, figure 17			
Insert arrangement	Page	Insert arrangement	Page
22-1 1/	232	22-36	244
22-2 1/	235	22-53	246
22-21	237	22-55	248
22-32	238	22-97	250
22-34	239	22-99	251
22-35	241	----	---

See footnotes at end of table.

Shell size 24, figure 18			
Insert arrangement	Page	Insert arrangement	Page
24-1 1/	252	24-24	261
24-2 1/	255	24-29	262
24-4	258	24-35	263
24-19	260	24-61	266

[1/](#) Inactive for new design.[2/](#) To ensure environmental sealing, size 8 shielded contacts for this insert arrangement require sealing boots in accordance with MIL-DTL-38999/62.

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w/CHANGE 2

TABLE III. Cross-reference of superseded insert arrangements. 1/

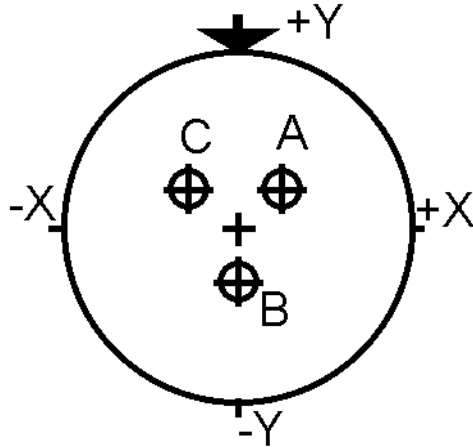
Superseded insert arrangement number <u>2/</u>	Superseded by insert arrangement number <u>3/</u>
17-2	17-3
19-18	19-19
21-75	21-76
25-7	25-9
25-8	25-10
25-46	25-47
25-90	25-91

- 1/ Superseded arrangements are inactive for new design, but are still available for use in existing designs.
- 2/ Inactive for new design. Note: To meet environmental sealing requirements, size 8 shielded contacts used with these insert arrangements may require separate, non-standard sealing boots that are furnished with the connector. For these insert arrangements, some connector grommet designs use a heat shrink sleeve only with specified size 8 shielded contacts to meet environmental sealing requirements. Heat shrink sleeves have a maximum temperature rating of 175°C maximum. When heat shrink sleeves are used, connectors rated to 200°C max are derated to 175°C max. When heat shrink sleeves are used, sealing boots are not used, and when sealing boots are used, heat shrink sleeves are not used.
- 3/ To ensure environmental sealing, size 8 shielded contacts for these insert arrangements require sealing boots in accordance with MIL-DTL-38999/62. Required sealing boots are furnished with the connector. When sealing boots are used, heat shrink sleeves are not used.

6.3 Subject term (key word) listing.

Coax
Contact
Heat shrink sleeve
Insert
Shell size
Sealing boot
Socket
Twinax
Pin

6.4 Changes from previous issue. The margins of this standard are marked with vertical lines to indicate where changes from the previous issue were made. 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 and relationship to the previous issue.

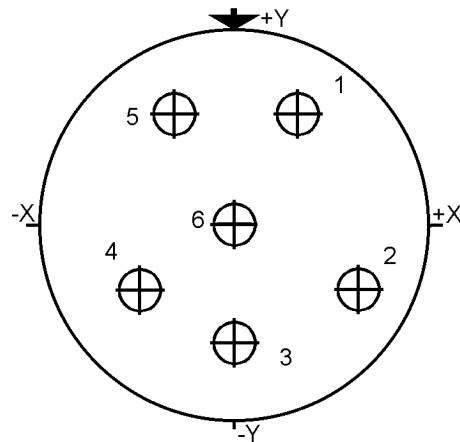
MIL-STD-1560C
w/CHANGE 2

Contacts (Insert arrangement 9-3)		
Contact position identification (ID)	Contact location	
	X-axis (mm)	Y-axis (mm)
A	+0.056 (1.42)	+0.018 (0.46)
B	+0.000 (0.00)	-0.079 (2.01)
C	-0.056 (1.42)	+0.018 (0.46)

(Applicable to MIL-DTL-27599 only)

Shell size	Arrangement no.	Number of contacts	Size contacts	Service rating	Contact location	Supersedes
9	-3	3	20	M	All	MS20049-3

FIGURE 1. Insert arrangement, electrical connector, shell size 9 (series I, III, IV of MIL-DTL-38999, series I of MIL-DTL-27599, and series A of SAE-AS29600).

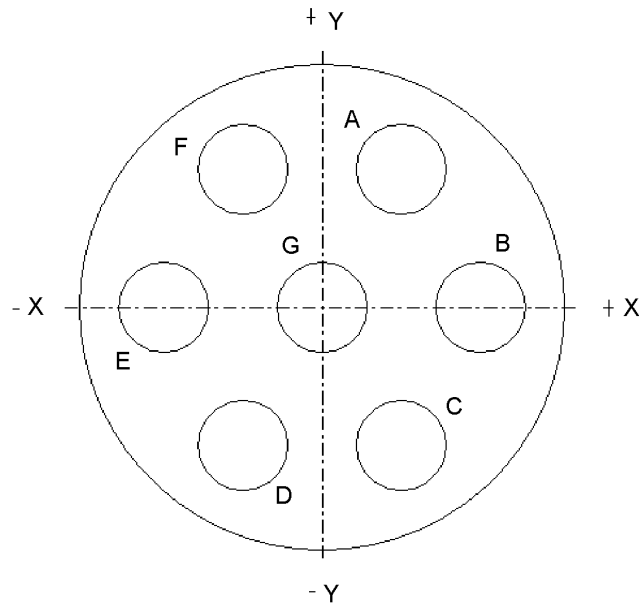
MIL-STD-1560C
w/CHANGE 2

Contacts (Insert arrangement 9-6)		
Contact position ID	Contact location	
	X-axis (mm)	Y-axis (mm)
1	+0.045 (1.14)	+0.078 (1.98)
2	+0.078 (1.98)	-0.045 (1.14)
3	+0.000 (0.00)	-0.090 (2.29)
4	-0.078 (1.98)	-0.045 (1.14)
5	-0.045 (1.14)	+0.078 (1.98)
6	+0.000 (0.00)	+0.000 (0.00)

(Inactive for new design for MIL-DTL-38999 and SAE-AS29600)

Shell size	Arrangement no.	Number of contacts	Size contacts	Service rating	Contact location	Supersedes
9	-6	6	22M	M	All	MS20049-6

FIGURE 1. Insert arrangement, electrical connector, shell size 9 (series I, III, IV of MIL-DTL-38999, series I of MIL-DTL-27599, and series A of SAE-AS29600) – Continued.

MIL-STD-1560C
w/CHANGE 2

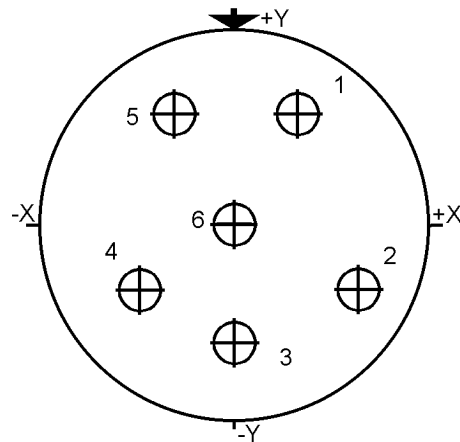
Contacts (Insert arrangement 9-7)		
Contact position ID	Contact location	
	X-axis mm (inches)	Y-axis mm (inches)
A	+1.18 (.046)	+2.06 (.081)
B	+ 2.36 (.093)	+0.00 (0.00)
C	+1.18 (.046)	- 2.06 (-.081)
D	- 1.18 (-.046)	- 2.06 (-.081)
E	- 2.36 (-.093)	- 0.00 (0.00)
F	-1.18 (- .046)	+2.06 (.081)
G	+.000 (0.00)	+.000 (0.00)

(Applicable to MIL-DTL-38999 only)

Shell size	Arrangement no.	Number of contacts	Size contacts	Service rating	Contact location
9	- 7	7	22D	M	All

FIGURE 1. Insert arrangement, electrical connector, shell size 9 (series I, III, IV of MIL-DTL-38999, series I of MIL-DTL-27599, and series A of SAE-AS29600) – Continued.

MIL-STD-1560C
w/CHANGE 2



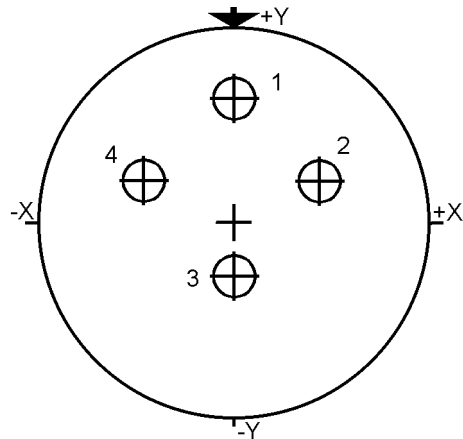
Contacts (Insert arrangement 9-35)		
Contact position ID	Contact location	
	X-axis (mm)	Y-axis (mm)
1	+0.045 (1.14)	+0.078 (1.98)
2	+0.078 (1.98)	-0.045 (1.14)
3	+0.000 (0.00)	-0.090 (2.29)
4	-0.078 (1.98)	-0.045 (1.14)
5	-0.045 (1.14)	+0.078 (1.98)
6	+0.000 (0.00)	+0.000 (0.00)

(Applicable to MIL-DTL-38999 and SAE-AS29600)

Shell size	Arrangement no.	Number of contacts	Size contacts	Service rating	Contact location	Supersedes
9	-35	6	22D	M	All	MS27525-35

FIGURE 1. Insert arrangement, electrical connector, shell size 9 (series I, III, IV of MIL-DTL-38999, series I of MIL-DTL-27599, and series A of SAE-AS29600) – Continued.

MIL-STD-1560C
w/CHANGE 2

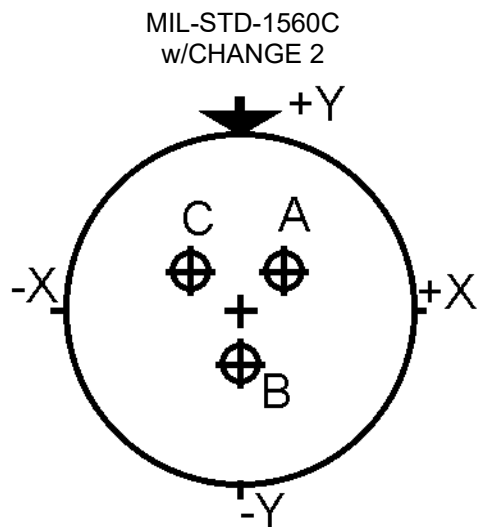


Contacts (Insert arrangement 9-44)		
Contact position ID	Contact location	
	X-axis (mm)	Y-axis (mm)
1	+0.000 (0.00)	+0.081 (2.06)
2	+0.080 (2.03)	+0.021 (0.53)
3	+0.000 (0.00)	-0.050 (1.27)
4	-0.080 (2.03)	+0.021 (0.53)

(Inactive for new design for MIL-DTL-38999 and SAE-AS29600)

Shell size	Arrangement no.	Number of contacts	Size contacts	Service rating	Contact location	Supersedes
9	-44	4	22	M	All	MS20049-44

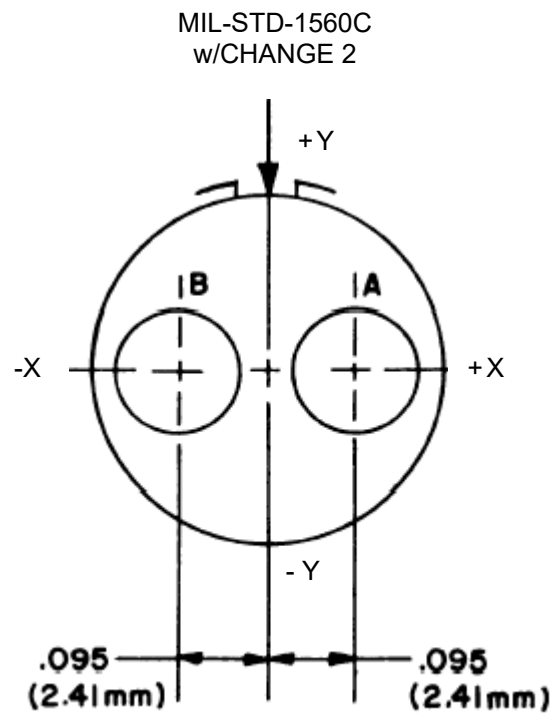
FIGURE 1. Insert arrangement, electrical connector, shell size 9 (series I, III, IV of MIL-DTL-38999, series I of MIL-DTL-27599, and series A of SAE-AS29600) – Continued.



Contacts (Insert arrangement 9-98)		
Contact position ID	Contact location	
	X-axis (mm)	Y-axis (mm)
A	+0.065 (1.65)	+0.038 (0.97)
B	+0.000 (0.00)	-0.075 (1.91)
C	-0.065 (1.65)	+0.038 (0.97)

Shell size	Arrangement no.	Number of contacts	Size contacts	Service rating	Contact location	Supersedes
9	-98	3	20	I	All	MS20049-98

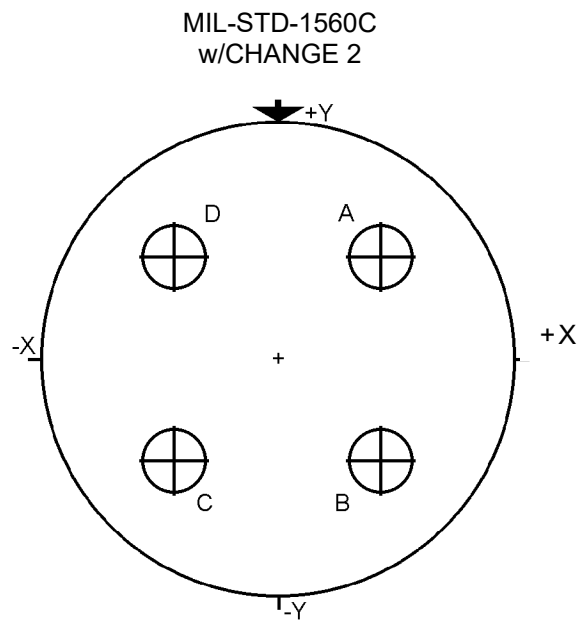
FIGURE 1. Insert arrangement, electrical connector, shell size 9 (series I, III, IV of MIL-DTL-38999, series I of MIL-DTL-27599, and series A of SAE-AS29600) – Continued.



Contacts (Insert arrangement 11-2)		
Contact position ID	Contact location	
	X-axis (mm)	Y-axis (mm)
A	+.095 (2.41)	+.000 (.00)
B	-.095 (2.41)	+.000 (.00)

Shell size	Arrangement no.	Number of contacts	Size contacts	Service rating	Contact location
11	-2	2	16	I	All

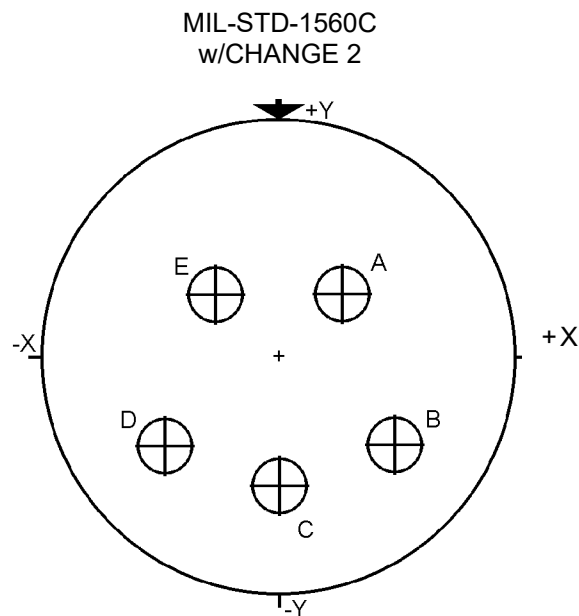
FIGURE 2. Insert arrangement, electrical connector, shell size 11 (series I, III, IV of MIL-DTL-38999, series I of MIL-DTL-27599, and series A of SAE-AS29600) – Continued.



Contacts (Insert arrangement 11-4)		
Contact position ID	Contact location	
	X-axis (mm)	Y-axis (mm)
A	+0.065 (1.65)	+0.065 (1.65)
B	+0.065 (1.65)	-0.065 (1.65)
C	-0.065 (1.65)	-0.065 (1.65)
D	-0.065 (1.65)	+0.065 (1.65)

Shell size	Arrangement no.	Number of contacts	Size contacts	Service rating	Contact location	Supersedes
11	-4	4	20	I	All	MS20050-4

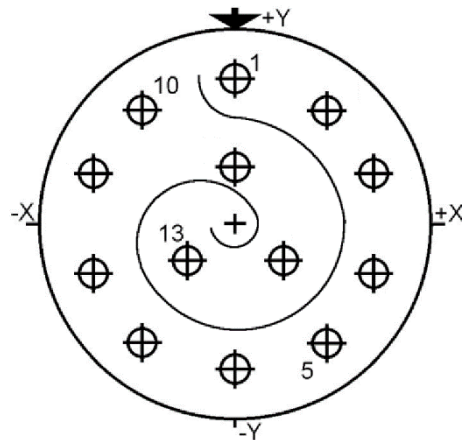
FIGURE 2. Insert arrangement, electrical connector, shell size 11 (series I, III, IV of MIL-DTL-38999, series I of MIL-DTL-27599, and series A of SAE-AS29600).



Contacts (Insert arrangement 11-5)		
Contact position ID	Contact location	
	X-axis (mm)	Y-axis (mm)
A	+.065 (1.65)	+.056 (1.42)
B	+.113 (2.87)	-.065 (1.65)
C	+.000 (0.00)	-.130 (3.30)
D	-.113 (2.87)	-.065 (1.65)
E	-.065 (1.65)	+.056 (1.42)

Shell size	Arrangement no.	Number of contacts	Size contacts	Service rating	Contact location	Supersedes
11	-5	5	20	I	All	MS20050-5

FIGURE 2. Insert arrangement, electrical connector, shell size 11 (series I, III, IV of MIL-DTL-38999, series I of MIL-DTL-27599, and series A of SAE-AS29600) – Continued.

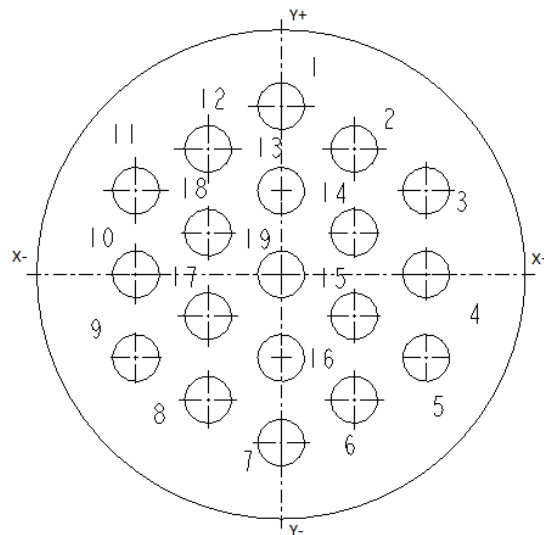
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Contacts (Insert arrangement 11-13)					
Contact position ID	Location		Contact position ID	Location	
	X-axis (mm)	Y-axis (mm)		X-axis (mm)	Y-axis (mm)
1	+.000 (0.00)	+.146 (3.71)	8	-.138 (3.51)	-.045 (1.14)
2	+.085 (2.16)	+.118 (3.00)	9	-.138 (3.51)	+.045 (1.14)
3	+.138 (3.51)	+.045 (1.14)	10	-.085 (2.16)	+.118 (3.00)
4	+.138 (3.51)	-.045 (1.14)	11	+.000 (0.00)	+.056 (1.42)
5	+.085 (2.16)	-.118 (3.00)	12	+.049 (1.24)	-.035 (0.89)
6	+.000 (0.00)	-.146 (3.71)	13	-.049 (1.24)	-.035 (0.89)
7	-.085 (2.16)	-.118 (3.00)	---	---	---

(Inactive for new design for MIL-DTL-38999)

Shell size	Arrangement no.	Number of contacts	Size contacts	Service rating	Contact location	Supersedes
11	-13	13	22M	M	ALL	MS20050-13

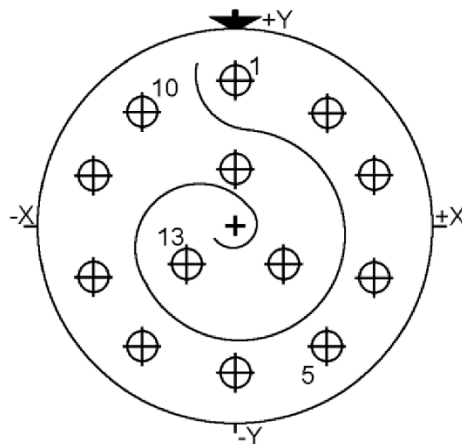
FIGURE 2. Insert arrangement, electrical connector, shell size 11 (series I, III, IV of MIL-DTL-38999, series I of MIL-DTL-27599, and series A of SAE-AS29600) – Continued.

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w/CHANGE 2

Contacts (Insert arrangement 11-23)					
Contact position ID	Location		Contact position ID	Location	
	X-axis (mm)	Y-axis (mm)		X-axis (mm)	Y-axis (mm)
1	+0.000 (0.00)	+0.161 (4.08)	11	-.139 (3.53)	+0.080 (2.04)
2	+0.070 (1.77)	+0.120 (3.06)	12	-.070 (1.77)	+0.120 (3.06)
3	+0.139 (3.53)	+0.080 (2.04)	13	+0.000 (0.00)	+0.080 (2.04)
4	+0.139 (3.53)	+0.000 (0.00)	14	+0.070 (1.77)	+0.040 (1.02)
5	+0.139 (3.53)	-.080 (2.04)	15	+0.070 (1.77)	-.040 (1.02)
6	+0.070 (1.77)	-.120 (3.06)	16	+0.000 (0.00)	-.080 (2.04)
7	+0.000 (0.00)	-.161 (4.08)	17	-.070 (1.77)	-.040 (1.02)
8	-.070 (1.77)	-.120 (3.06)	18	-.070 (1.77)	+0.040 (1.02)
9	-.139 (3.53)	-.080 (2.04)	19	+0.000 (0.00)	+0.000 (0.00)
10	-.139 (3.53)	+0.000 (0.00)	---	---	---

Shell size	Arrangement no.	Number of contacts	Size contacts	Service rating	Contact location	Standard contact	
						Pin	Socket
11	-23	19	23-22	N	ALL	M39029/122-670	M39029/121-663

FIGURE 2. Insert arrangement, electrical connector, shell size 11 (Series I, III, IV of MIL-DTL38999, Series I of MIL-DTL-27599, and Series A of SAE-AS29600) – Continued.

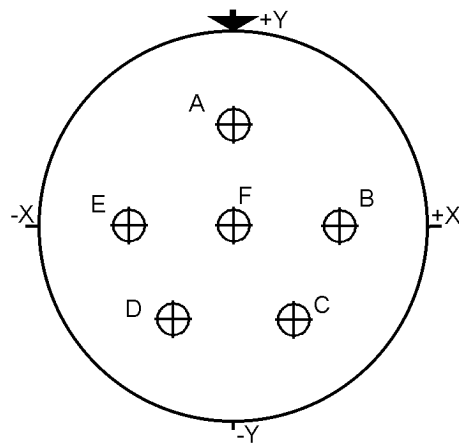
MIL-STD-1560C
w/CHANGE 2

Contacts (Insert arrangement 11-35)					
Contact position ID	Location		Contact position ID	Location	
	X-axis (mm)	Y-axis (mm)		X-axis (mm)	Y-axis (mm)
1	+.000 (0.00)	+.146 (3.71)	8	-.138 (3.51)	-.045 (1.14)
2	+.085 (2.16)	+.118 (3.00)	9	-.138 (3.51)	+.045 (1.14)
3	+.138 (3.51)	+.045 (1.14)	10	-.085 (2.16)	+.118 (3.00)
4	+.138 (3.51)	-.045 (1.14)	11	+.000 (0.00)	+.056 (1.42)
5	+.085 (2.16)	-.118 (3.00)	12	+.049 (1.24)	-.035 (0.89)
6	+.000 (0.00)	-.146 (3.71)	13	-.049 (1.24)	-.035 (0.89)
7	-.085 (2.16)	-.118 (3.00)	---	---	---

(Applicable to MIL-DTL-38999 only)

Shell size	Arrangement no.	Number of contacts	Size contacts	Service rating	Contact location	Supersedes
11	-35	13	22D	M	All	MS27526-35

FIGURE 2. Insert arrangement, electrical connector, shell size 11 (series I, III, IV of MIL-DTL-38999, series I of MIL-DTL-27599, and series A of SAE-AS29600) – Continued.

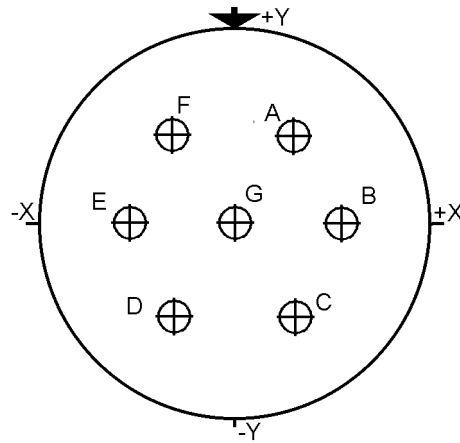
MIL-STD-1560C
w/CHANGE 2

Contacts (Insert arrangement 11-98)		
Contact position ID	Contact location	
	X-axis (mm)	Y-axis (mm)
A	+.000 (0.00)	+.130 (3.30)
B	+.130 (3.30)	+.000 (0.00)
C	+.065 (1.65)	-.113 (2.87)
D	-.065 (1.65)	-.113 (2.87)
E	-.130 (3.30)	+.000 (0.00)
F	+.000 (0.00)	+.000 (0.00)

Shell size	Arrangement no.	Number of contacts	Size contacts	Service rating	Contact location	Supersedes
11	-98	6	20	I	All	MS20050-98

FIGURE 2. Insert arrangement, electrical connector, shell size 11 (series I, III, IV of MIL-DTL-38999, series I of MIL-DTL-27599, and series A of SAE-AS29600) – Continued.

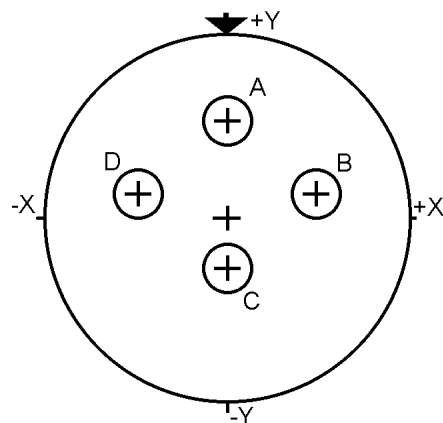
MIL-STD-1560C
w/CHANGE 2



Contacts (Insert arrangement 11-99)		
Contact position ID	Location	
	X-axis (mm)	Y-axis (mm)
A	+ .065 (1.65)	+ .113 (2.87)
B	+ .130 (3.30)	+ .000 (0.00)
C	+ .065 (1.65)	- .113 (2.87)
D	- .065 (1.65)	- .113 (2.87)
E	- .130 (3.30)	+ .000 (0.00)
F	- .065 (1.65)	+ .113 (2.87)
G	+ .000 (0.00)	+ .000 (0.00)

Shell size	Arrangement no.	Number of contacts	Size contacts	Service rating	Contact location	Supersedes
11	-99	7	20	I	All	MS20050-99

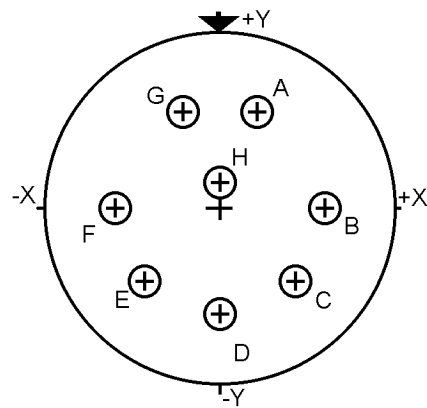
FIGURE 2. Insert arrangement, electrical connector, shell size 11 (series I, III, IV of MIL-DTL-38999, series I of MIL-DTL-27599, and series A of SAE-AS29600) – Continued.

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w/CHANGE 2

Contacts (Insert arrangement 13-4)		
Contact position ID	Location	
	X-axis (mm)	Y-axis (mm)
A	+.000 (0.00)	+.150 (3.81)
B	+.146 (3.71)	+.035 (0.89)
C	+.000 (0.00)	-.083 (2.11)
D	-.146 (3.71)	+.035 (0.89)

Shell size	Arrangement no.	Number of contacts	Size contacts	Service rating	Contact location	Supersedes
13	-4	4	16	I	All	MS20051-4

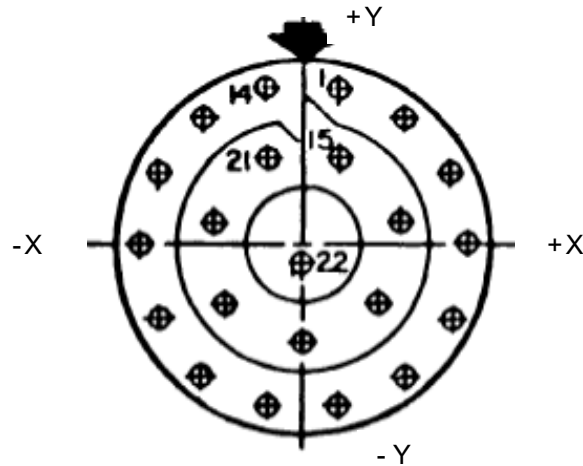
FIGURE 3. Insert arrangement, electrical connector, shell size 13 (series I, III, IV of MIL-DTL-38999, series I of MIL-DTL-27599, and series A of SAE-AS29600).

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w/CHANGE 2

Contacts (Insert arrangement 13-8)		
Contact position ID	Contact location	
	X-axis (mm)	Y-axis (mm)
A	+.065 (1.65)	+.157 (3.99)
B	+.170 (4.32)	+.000 (0.00)
C	+.120 (3.05)	-.120 (3.05)
D	+.000 (0.00)	-.170 (4.32)
E	-.120 (3.05)	-.120 (3.05)
F	-.170 (4.32)	+.000 (0.00)
G	-.065 (1.65)	+.157 (3.99)
H	+.000 (0.00)	+.044 (1.12)

Shell size	Arrangement no.	Number of contacts	Size contacts	Service rating	Contact location	Supersedes
13	-8	8	20	I	All	MS20051-8

FIGURE 3. Insert arrangement, electrical connector, shell size 13 (series I, III, IV of MIL-DTL-38999, series I of MIL-DTL-27599, and series A of SAE-AS29600) – Continued.

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w/CHANGE 2

Contacts (Insert arrangement 13-22)					
Contact position ID	Location		Contact position ID	Location	
	X-axis (mm)	Y-axis (mm)		X-axis (mm)	Y-axis (mm)
1	+.045 (1.14)	+.197 (5.00)	12	-.182 (4.62)	+.088 (2.24)
2	+.126 (3.20)	+.158 (4.01)	13	-.126 (3.20)	+.158 (4.01)
3	+.182 (4.62)	+.088 (2.24)	14	-.045 (1.14)	+.197 (5.00)
4	+.203 (5.16)	+.000 (0.00)	15	+.045 (1.14)	+.107 (2.72)
5	+.182 (4.62)	-.088 (2.24)	16	+.117 (2.97)	+.026 (0.66)
6	+.126 (3.20)	-.158 (4.01)	17	+.093 (2.36)	-.075 (1.91)
7	+.045 (1.14)	-.197 (5.00)	18	+.000 (0.00)	-.120 (3.05)
8	-.045 (1.14)	-.197 (5.00)	19	-.093 (2.36)	-.075 (1.91)
9	-.126 (3.20)	-.158 (4.01)	20	-.117 (2.97)	+.026 (0.66)
10	-.182 (4.62)	-.088 (2.24)	21	-.045 (1.14)	+.107 (2.72)
11	-.203 (5.16)	+.000 (0.00)	22	+.000 (0.00)	-.030 (0.76)

(Inactive for new design for MIL-DTL-38999)

Shell size	Arrangement no.	Number of contacts	Size contacts	Service rating	Contact location	Supersedes
13	-22	22	22M	M	All	MS20051-22

FIGURE 3. Insert arrangement, electrical connector, shell size 13 (series I, III, IV of MIL-DTL-38999, series I of MIL-DTL-27599, and series A of SAE-AS29600) – Continued.

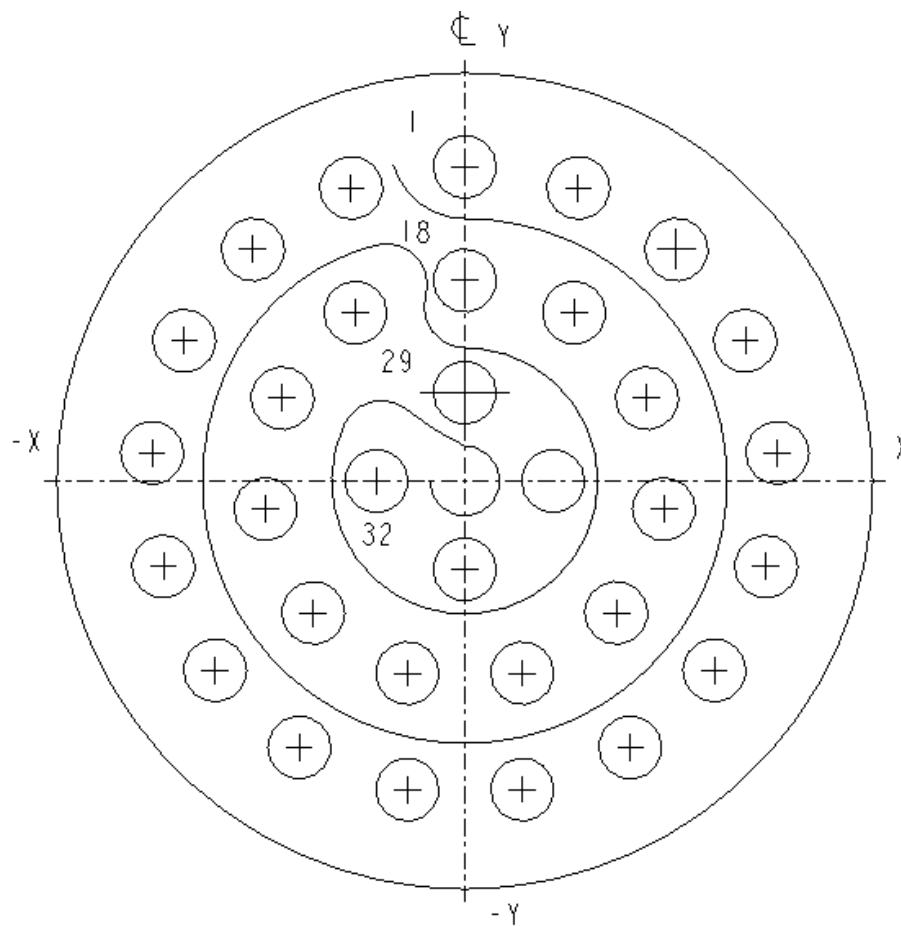
MIL-STD-1560C
w/CHANGE 2

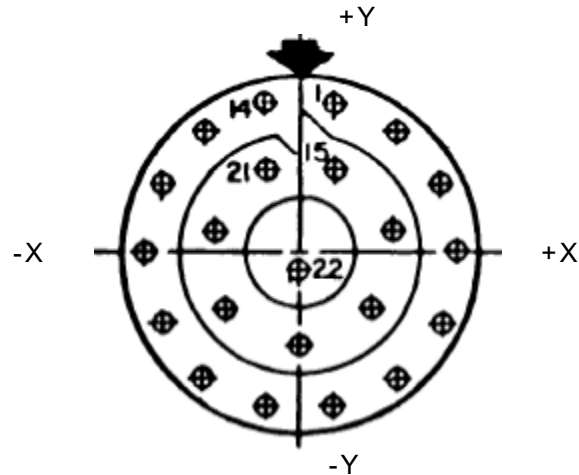
FIGURE 3. Insert arrangement, electrical connector, shell size 13 (series I, III, IV of MIL-DTL-38999, series I of MIL-DTL-27599, and series A of SAE-AS29600) – Continued.

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Contacts (Insert arrangement 13-23)					
Contact position ID	Location		Contact position ID	Location	
	X-axis (mm)	Y-axis (mm)		X-axis (mm)	Y-axis (mm)
1	+ .000 (0.00)	+ .224 (5.68)	17	- .081 (2.05)	+ .209 (5.30)
2	+ .081 (2.05)	+ .209 (5.30)	18	+ .000 (0.00)	+ .143 (3.64)
3	+ .151 (3.83)	+ .165 (4.20)	19	+ .078 (1.97)	+ .121 (3.06)
4	+ .200 (5.09)	+ .100 (2.53)	20	+ .130 (3.31)	+ .059 (1.51)
5	+ .223 (5.66)	+ .021 (0.52)	21	+ .142 (3.60)	- .021 (0.52)
6	+ .215 (5.46)	- .061 (1.55)	22	+ .108 (2.75)	- .094 (2.38)
7	+ .178 (4.53)	- .135 (3.42)	23	+ .041 (1.03)	- .137 (3.49)
8	+ .118 (2.99)	- .190 (4.83)	24	- .041 (1.03)	- .137 (3.49)
9	+ .041 (1.04)	- .220 (5.58)	25	- .108 (2.75)	- .094 (2.38)
10	- .041 (1.04)	- .220 (5.58)	26	- .142 (3.60)	- .021 (0.52)
11	- .118 (2.99)	- .190 (4.83)	27	- .130 (3.31)	+ .059 (1.51)
12	- .178 (4.53)	- .135 (3.42)	28	- .078 (1.97)	+ .121 (3.06)
13	- .215 (5.46)	- .061 (1.55)	29	+ .000 (0.00)	+ .063 (1.60)
14	- .223 (5.66)	+ .021 (0.52)	30	+ .063 (1.60)	+ .000 (0.00)
15	- .200 (5.09)	+ .100 (2.53)	31	+ .000 (0.00)	- .063 (1.60)
16	- .151 (3.83)	+ .165 (4.20)	32	- .063 (1.60)	+ .000 (0.00)

Shell size	Arrangement no.	Number of contacts	Size contacts	Service rating	Contact location	Standard contact	
						Pin	Socket
13	-23	32	23-22	N	All	M39029/122-670	M39029/121-663

FIGURE 3. Insert arrangement, electrical connector, shell size 13 (series I, III, IV of MIL-DTL-38999, series I of MIL-DTL-27599, and series A of SAE-AS29600) – Continued.

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w/CHANGE 2

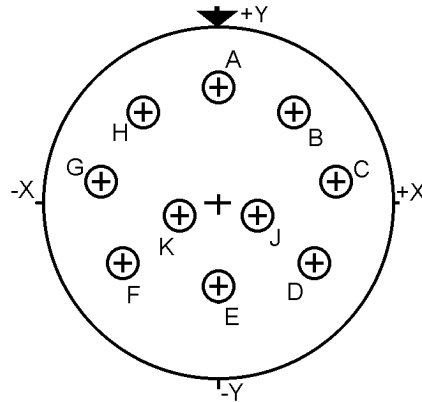
Contacts (Insert arrangement 13-35)					
Contact position ID	Location		Contact position ID	Location	
	X-axis (mm)	Y-axis (mm)		X-axis (mm)	Y-axis (mm)
1	+.045 (1.14)	+.197 (5.00)	12	-.182 (4.62)	+.088 (2.24)
2	+.126 (3.20)	+.158 (4.01)	13	-.126 (3.20)	+.158 (4.01)
3	+.182 (4.62)	+.088 (2.24)	14	-.045 (1.14)	+.197 (5.00)
4	+.203 (5.16)	+.000 (0.00)	15	+.045 (1.14)	+.107 (2.72)
5	+.182 (4.62)	-.088 (2.24)	16	+.117 (2.97)	+.026 (0.66)
6	+.126 (3.20)	-.158 (4.01)	17	+.093 (2.36)	-.075 (1.91)
7	+.045 (1.14)	-.197 (5.00)	18	+.000 (.00)	-.120 (3.05)
8	-.045 (1.14)	-.197 (5.00)	19	-.093 (2.36)	-.075 (1.91)
9	-.126 (3.20)	-.158 (4.01)	20	-.117 (2.97)	+.026 (0.66)
10	-.182 (4.62)	-.088 (2.24)	21	-.045 (1.14)	+.107 (2.72)
11	-.203 (5.16)	+.000 (0.00)	22	+.000 (.00)	-.030 (0.76)

(Applicable to MIL-DTL-38999 only)

Shell size	Arrangement no.	Number of contacts	Size contacts	Service rating	Contact location	Supersedes
13	-35	22	22D	M	All	MS27527-35

FIGURE 3. Insert arrangement, electrical connector, shell size 13 (series I, III, IV of MIL-DTL-38999, series I of MIL-DTL-27599, and series A of SAE-AS29600) – Continued.

MIL-STD-1560C
w/CHANGE 2

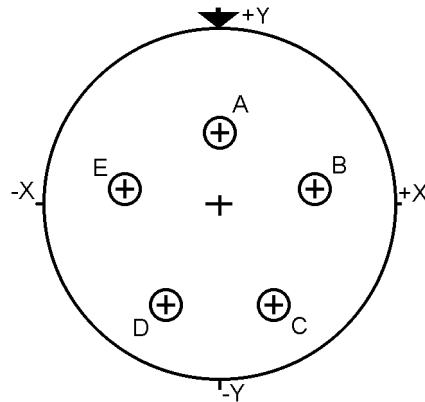


Contacts (Insert arrangement 13-98)		
Contact position ID	Location	
	X-axis (mm)	Y-axis (mm)
A	+0.000 (0.00)	+0.195 (4.95)
B	+0.125 (3.18)	+0.150 (3.81)
C	+0.193 (4.90)	+0.030 (0.76)
D	+0.164 (4.17)	-0.105 (2.67)
E	+0.000 (0.00)	-0.135 (3.43)
F	-0.164 (4.17)	-0.105 (2.67)
G	-0.193 (4.90)	+0.030 (0.76)
H	-0.125 (3.18)	+0.150 (3.81)
J	+0.065 (1.65)	-0.015 (0.38)
K	-0.065 (1.65)	-0.015 (0.38)

Shell size	Arrangement no.	Number of contacts	Size contacts	Service rating	Contact location	Supersedes
13	-98	10	20	I	All	MS20051-98

FIGURE 3. Insert arrangement, electrical connector, shell size 13 (series I, III, IV of MIL-DTL-38999, series I of MIL-DTL-27599, and series A of SAE-AS29600) – Continued.

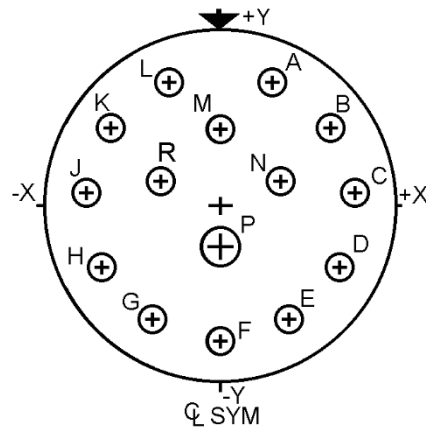
MIL-STD-1560C
w/CHANGE 2



Contacts (Insert arrangement 15-5)		
Contact position ID	Location	
	X-axis (mm)	Y-axis (mm)
A	+.000 (0.00)	+.100 (2.54)
B	+.174 (4.42)	+.024 (0.61)
C	+.094 (2.39)	-.148 (3.76)
D	-.094 (2.39)	-.148 (3.76)
E	-.174 (4.42)	+.024 (0.61)

Shell size	Arrangement no.	Number of contacts	Size contacts	Service rating	Contact location	Supersedes
15	-5	5	16	II	All	MS20052-5

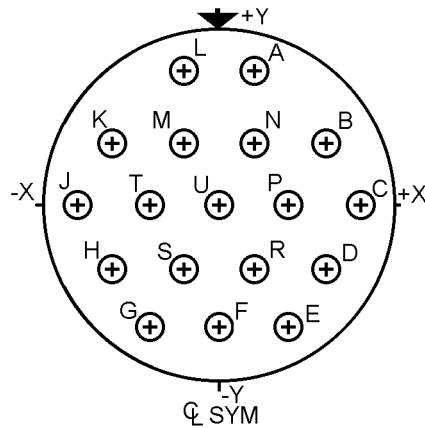
FIGURE 4. Insert arrangement, electrical connector, shell size 15 (series I, III, IV of MIL-DTL-38999, series I of MIL-DTL-27599, and series A of SAE-AS29600).

MIL-STD-1560C
w/CHANGE 2

Contacts (Insert arrangement 15-15)					
Contact position ID	Location		Contact position ID	Location	
	X-axis (mm)	Y-axis (mm)		X-axis (mm)	Y-axis (mm)
A	+.100 (2.54)	+.225 (5.72)	J	-.244 (6.20)	+.014 (0.36)
B	+.202 (5.13)	+.140 (3.56)	K	-.202 (5.13)	+.140 (3.56)
C	+.244 (6.20)	+.014 (0.36)	L	-.100 (2.54)	+.225 (5.72)
D	+.218 (5.54)	-.113 (2.87)	M	+.000 (.00)	+.140 (3.56)
E	+.126 (3.20)	-.209 (5.31)	N	+.110 (2.79)	+.040 (1.02)
F	+.000 (.00)	-.245 (6.22)	P	+.000 (.00)	-.077 (1.96)
G	-.126 (3.20)	-.209 (5.31)	R	-.110 (2.79)	+.040 (1.02)
H	-.218 (5.54)	-.113 (2.87)	---	---	---

Shell size	Arrangement no.	Number of contacts	Size contacts	Service rating	Contact location	Supersedes
15	-15	1	16	I	P	MS20052-15
		14	20		All other	

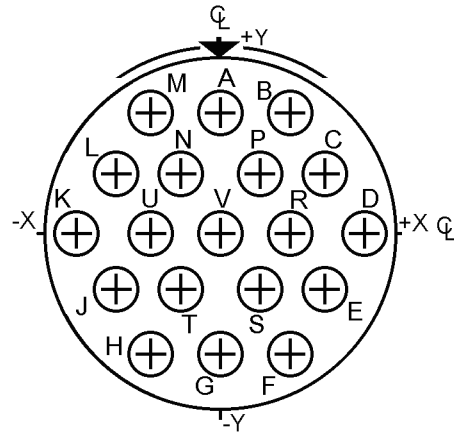
FIGURE 4. Insert arrangement, electrical connector, shell size 15 (series I, III, IV of MIL-DTL-38999, series I of MIL-DTL-27599, and series A of SAE-AS29600) – Continued.

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w/CHANGE 2

Contacts (Insert arrangement 15-18)					
Contact position ID	Location		Contact position ID	Location	
	X-axis (mm)	Y-axis (mm)		X-axis (mm)	Y-axis (mm)
A	+.065 (1.65)	+.252 (6.40)	K	-.195 (4.95)	+.113 (2.87)
B	+.195 (4.95)	+.113 (2.87)	L	-.065 (1.65)	+.252 (6.40)
C	+.260 (6.60)	+.000 (0.00)	M	-.065 (1.65)	+.113 (2.87)
D	+.195 (4.95)	-.113 (2.87)	N	+.065 (1.65)	+.113 (2.87)
E	+.130 (3.30)	-.225 (5.72)	P	+.130 (3.30)	+.000 (0.00)
F	+.000 (0.00)	-.225 (5.72)	R	+.065 (1.65)	-.113 (2.87)
G	-.130 (3.30)	-.225 (5.72)	S	-.065 (1.65)	-.113 (2.87)
H	-.195 (4.95)	-.113 (2.87)	T	-.130 (3.30)	+.000 (0.00)
J	-.260 (6.60)	+.000 (0.00)	U	+.000 (0.00)	+.000 (0.00)

Shell size	Arrangement no.	Number of contacts	Size contacts	Service rating	Contact location	Supersedes
15	-18	18	20	I	All	MS20052-18

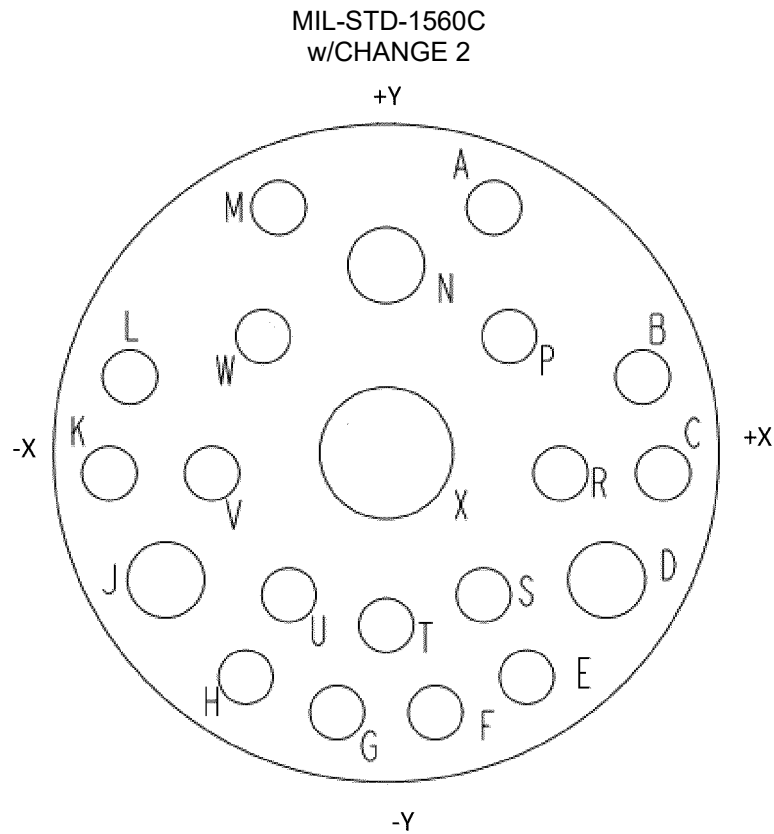
FIGURE 4. Insert arrangement, electrical connector, shell size 15 (series I, III, IV of MIL-DTL-38999, series I of MIL-DTL-27599, and series A of SAE-AS29600) – Continued.

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w/CHANGE 2

Contacts (Insert arrangement 15-19)					
Contact position ID	Location		Contact position ID	Location	
	X-axis (mm)	Y-axis (mm)		X-axis (mm)	Y-axis (mm)
A	+.000 (0.00)	+.225 (5.72)	L	-.195 (4.95)	+.113 (2.87)
B	+.130 (3.30)	+.225 (5.72)	M	-.130 (3.30)	+.225 (5.72)
C	+.195 (4.95)	+.113 (2.87)	N	-.065 (1.65)	+.113 (2.87)
D	+.260 (6.60)	+.000 (0.00)	P	+.065 (1.65)	+.113 (2.87)
E	+.195 (4.95)	-.113 (2.87)	R	+.130 (3.30)	+.000 (0.00)
F	+.130 (3.30)	-.225 (5.72)	S	+.065 (1.65)	-.113 (2.87)
G	+.000 (0.00)	-.225 (5.72)	T	-.065 (1.65)	-.113 (2.87)
H	-.130 (3.30)	-.225 (5.72)	U	-.130 (3.30)	+.000 (0.00)
J	-.195 (4.95)	-.113 (2.87)	V	+.000 (0.00)	+.000 (0.00)
K	-.260 (6.60)	+.000 (0.00)	---	---	---

Shell size	Arrangement no.	Number of contacts	Size contacts	Service rating	Contact location	Supersedes
15	-19	19	20	I	All	MS20052-19

FIGURE 4. Insert arrangement, electrical connector, shell size 15 (series I, III, IV of MIL-DTL-38999, series I of MIL-DTL-27599, and series A of SAE-AS29600) – Continued.



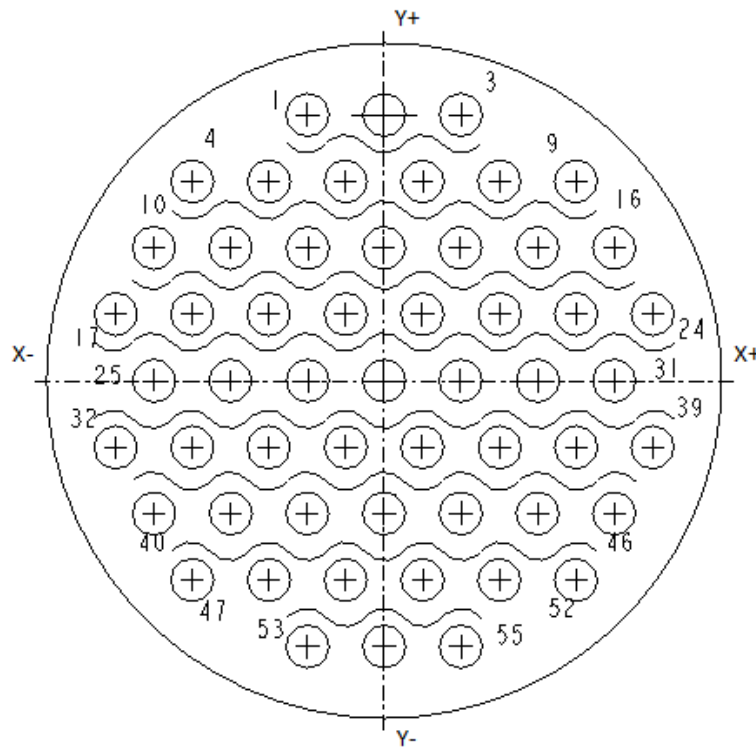
Contacts (Insert arrangement 15-21)					
Contact position ID	Location		Contact position ID	Location	
	X-axis (mm)	Y-axis (mm)		X-axis (mm)	Y-axis (mm)
A	+.105 (2.68)	+.242 (6.15)	M	-.105 (2.04)	+.242 (6.10)
B	+.250 (6.35)	+.075 (1.91)	N	+.000 (0.00)	+.185 (4.70)
C	+.270 (6.86)	-.020 (.051)	P	+.120 (3.05)	+.115 (2.92)
D	+.215 (5.46)	-.125 (3.18)	R	+.170 (4.32)	-.020 (0.51)
E	+.137 (3.48)	-.221 (5.61)	S	+.095 (2.41)	-.140 (3.56)
F	+.048 (1.22)	-.256 (6.50)	T	+.000 (0.00)	-.170 (4.32)
G	-.048 (1.22)	-.256 (6.50)	U	-.095 (2.41)	-.140 (3.56)
H	-.137 (3.48)	-.221 (5.61)	V	-.170 (4.32)	-.020 (0.51)
J	-.215 (5.46)	-.125 (3.18)	W	-.120 (3.05)	+.115 (2.92)
K	-.270 (6.86)	-.020 (0.51)	X	+.000 (0.00)	-.000 (0.00)
L	-.250 (6.35)	+.075 (1.91)	---	---	---

FIGURE 4. Insert arrangement, electrical connector, shell size 15 (Series I, III, IV of MIL-DTL-38999, Series I of MIL-DTL-27599, and Series A of SAE-AS29600) – Continued.

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Shell size	Arrangement no.	Number of contacts	Size contacts	Service rating	Contact position ID	Standard contact	
						Pin	Socket
15	-21	1	12	Coax	X	M39029/102-558	M39029/103-559
		3	20	I	D, J, N	M39029/58-363	M39029/56-351
		17	22D		All others	M39029/58-360	M39029/56-348

FIGURE 4. Insert arrangement, electrical connector, shell size 15 (Series I, III, IV of MIL-DTL-38999, Series I of MIL-DTL-27599, and Series A of SAE-AS29600) – Continued.

MIL-STD-1560C
w/CHANGE 2

Contacts (Insert arrangement 15-23)					
Contact position ID	Location		Contact position ID	Location	
	X-axis (mm)	Y-axis (mm)		X-axis (mm)	Y-axis (mm)
1	-.080 (2.04)	+.278 (7.07)	29	+.080 (2.04)	+.000 (0.00)
2	+.000 (0.00)	+.278 (7.07)	30	+.161 (4.08)	+.000 (0.00)
3	+.080 (2.04)	+.278 (7.07)	31	+.241 (6.12)	+.000 (0.00)
4	-.201 (5.10)	+.209 (5.30)	32	-.281 (7.14)	-.070 (1.77)
5	-.121 (3.06)	+.209 (5.30)	33	-.201 (5.10)	-.070 (1.77)
6	-.040 (1.02)	+.209 (5.30)	34	-.121 (3.06)	-.070 (1.77)
7	+.040 (1.02)	+.209 (5.30)	35	-.040 (1.02)	-.070 (1.77)
8	+.121 (3.06)	+.209 (5.30)	36	+.040 (1.02)	-.070 (1.77)
9	+.201 (5.10)	+.209 (5.30)	37	+.121 (3.06)	-.070 (1.77)
10	-.241 (6.12)	+.139 (3.53)	38	+.201 (5.10)	-.070 (1.77)
11	-.161 (4.08)	+.139 (3.53)	39	+.281 (7.14)	-.070 (1.77)

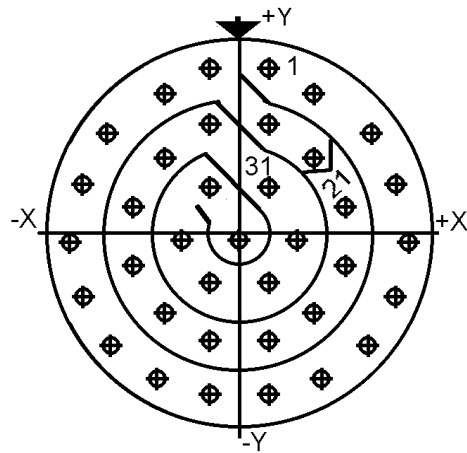
FIGURE 4. Insert arrangement, electrical connector, shell size 15 (series I, III, IV of MIL-DTL-38999, series I of MIL-DTL-27599, and series A of SAE-AS29600) – Continued.

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w/CHANGE 2

Contacts (Insert arrangement 15-23)					
Contact position ID	Location	Contact position ID	Location		
	X-axis (mm)	Y-axis (mm)		X-axis (mm)	Y-axis (mm)
12	-.080 (2.04)	+.139 (3.53)	40	-.241 (6.12)	-.139 (3.53)
13	+.000 (0.00)	+.139 (3.53)	41	-.161 (4.08)	-.139 (3.53)
14	+.080 (2.04)	+.139 (3.53)	42	-.080 (2.04)	-.139 (3.53)
15	+.161 (4.08)	+.139 (3.53)	43	+.000 (0.00)	-.139 (3.53)
16	+.241 (6.12)	+.139 (3.53)	44	+.080 (2.04)	-.139 (3.53)
17	-.281 (7.14)	+.070 (1.77)	45	+.161 (4.08)	-.139 (3.53)
18	-.201 (5.10)	+.070 (1.77)	46	+.241 (6.12)	-.139 (3.53)
19	-.121 (3.06)	+.070 (1.77)	47	-.201 (5.10)	-.209 (5.30)
20	-.040 (1.02)	+.070 (1.77)	48	-.121 (3.06)	-.209 (5.30)
21	+.040 (1.02)	+.070 (1.77)	49	-.040 (1.02)	-.209 (5.30)
22	+.121 (3.06)	+.070 (1.77)	50	+.040 (1.02)	-.209 (5.30)
23	+.201 (5.10)	+.070 (1.77)	51	+.121 (3.06)	-.209 (5.30)
24	+.281 (7.14)	+.070 (1.77)	52	+.201 (5.10)	-.209 (5.30)
25	-.241 (6.12)	+.000 (0.00)	53	-.080 (2.04)	-.278 (7.07)
26	-.161 (4.08)	+.000 (0.00)	54	+.000 (0.00)	-.278 (7.07)
27	-.080 (2.04)	+.000 (0.00)	55	+.080 (2.04)	-.278 (7.07)
28	+.000 (0.00)	+.000 (0.00)	---	---	---

Shell size	Arrangement no.	Number of contacts	Size contacts	Service rating	Contact location	Standard contact	
						Pin	Socket
15	-23	55	23-22	N	All	M39029/122-670	M39029/121-663

FIGURE 4. Insert arrangement, electrical connector, shell size 15 (series I, III, IV of MIL-DTL-38999, series I of MIL-DTL-27599, and series A of SAE-AS29600) – Continued.

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Contacts (Insert arrangement 15-35)					
Contact position ID	Location		Contact position ID	Location	
	X-axis (mm)	Y-axis (mm)		X-axis (mm)	Y-axis (mm)
1	+.045 (1.14)	+.262 (6.65)	20	+.123 (3.12)	+.119 (3.02)
2	+.123 (3.12)	+.217 (5.51)	21	+.170 (4.32)	+.040 (1.02)
3	+.211 (5.36)	+.160 (4.06)	22	+.170 (4.32)	-.050 (1.27)
4	+.254 (6.45)	+.080 (2.03)	23	+.123 (3.12)	-.127 (3.23)
5	+.266 (6.76)	-.010 (.25)	24	+.045 (1.14)	-.172 (4.37)
6	+.247 (6.27)	-.098 (2.49)	25	-.045 (1.14)	-.172 (4.37)
7	+.200 (5.08)	-.175 (4.45)	26	-.123 (3.12)	-.127 (3.23)
8	+.130 (3.30)	-.232 (5.89)	27	-.170 (4.32)	-.050 (1.27)
9	+.045 (1.14)	-.262 (6.65)	28	-.170 (4.32)	+.040 (1.02)
10	-.045 (1.14)	-.262 (6.65)	29	-.123 (3.12)	+.119 (3.02)
11	-.130 (3.30)	-.232 (5.89)	30	-.045 (1.14)	+.172 (4.37)
12	-.200 (5.08)	-.175 (4.45)	31	+.045 (1.14)	+.074 (1.88)
13	-.247 (6.27)	-.098 (2.49)	32	+.090 (2.29)	-.004 (0.10)
14	-.266 (6.76)	-.010 (.25)	33	+.045 (1.14)	-.082 (2.08)
15	-.254 (6.45)	+.080 (2.03)	34	-.045 (1.14)	-.082 (2.08)

FIGURE 4. Insert arrangement, electrical connector, shell size 15 (series I, III, IV of MIL-DTL-38999, series I of MIL-DTL-27599, and series A of SAE-AS29600) – Continued.

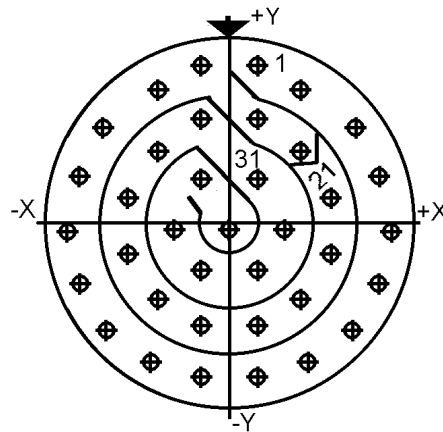
MIL-STD-1560C
w/CHANGE 2

Contacts (Insert arrangement 15-35)					
Contact position ID	Location		Contact position ID	Location	
	X-axis (mm)	Y-axis (mm)		X-axis (mm)	Y-axis (mm)
16	-.211 (5.36)	+.160 (4.06)	35	-.090 (2.29)	-.004 (0.10)
17	-.123 (3.12)	+.217 (5.51)	36	-.045 (1.14)	+.074 (1.88)
18	-.045 (1.14)	+.262 (6.65)	37	+.000 (0.00)	-.004 (0.10)
19	+.045 (1.14)	+.172 (4.37)	---	---	---

(Applicable to MIL-DTL-38999 only)

Shell size	Arrangement no.	Number of contacts	Size contacts	Service rating	Contact location	Supersedes
15	-35	37	22D	M	All	MS27528-35

FIGURE 4. Insert arrangement, electrical connector, shell size 15 (series I, III, IV of MIL-DTL-38999, series I of MIL-DTL-27599, and series A of SAE-AS29600) – Continued.

MIL-STD-1560C
w/CHANGE 2

Contacts (Insert arrangement 15-37)					
Contact position ID	Location		Contact position ID	Location	
	X-axis (mm)	Y-axis (mm)		X-axis (mm)	Y-axis (mm)
1	+.045 (1.14)	+.262 (6.65)	20	+.123 (3.12)	+.119 (3.02)
2	+.123 (3.12)	+.217 (5.51)	21	+.170 (4.32)	+.040 (1.02)
3	+.211 (5.36)	+.160 (4.06)	22	+.170 (4.32)	-.050 (1.27)
4	+.254 (6.45)	+.080 (2.03)	23	+.123 (3.12)	-.127 (3.23)
5	+.266 (6.76)	-.010 (0.25)	24	+.045 (1.14)	-.172 (4.37)
6	+.247 (6.27)	-.098 (2.49)	25	-.045 (1.14)	-.172 (4.37)
7	+.200 (5.08)	-.175 (4.45)	26	-.123 (3.12)	-.127 (3.23)
8	+.130 (3.30)	-.232 (5.89)	27	-.170 (4.32)	-.050 (1.27)
9	+.045 (1.14)	-.262 (6.65)	28	-.170 (4.32)	+.040 (1.02)
10	-.045 (1.14)	-.262 (6.65)	29	-.123 (3.12)	+.119 (3.02)
11	-.130 (3.30)	-.232 (5.89)	30	-.045 (1.14)	+.172 (4.37)
12	-.200 (5.08)	-.175 (4.45)	31	+.045 (1.14)	+.074 (1.88)
13	-.247 (6.27)	-.098 (2.49)	32	+.090 (2.29)	-.004 (0.10)
14	-.266 (6.76)	-.010 (0.25)	33	+.045 (1.14)	-.082 (2.08)
15	-.254 (6.45)	+.080 (2.03)	34	-.045 (1.14)	-.082 (2.08)

FIGURE 4. Insert arrangement, electrical connector, shell size 15 (series I, III, IV of MIL-DTL-38999, series I of MIL-DTL-27599, and series A of SAE-AS29600) – Continued.

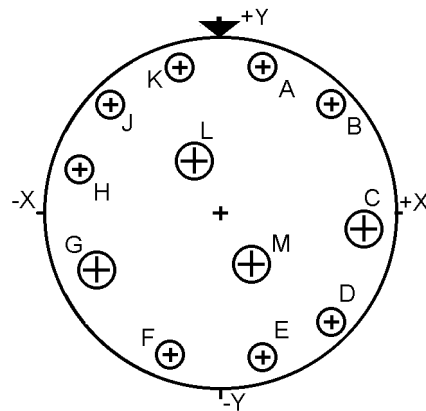
MIL-STD-1560C
w/CHANGE 2

Contacts (Insert arrangement 15-37)					
Contact position ID	Location		Contact position ID	Location	
	X-axis (mm)	Y-axis (mm)		X-axis (mm)	Y-axis (mm)
16	-.211 (5.36)	+.160 (4.06)	35	-.090 (2.29)	-.004 (0.10)
17	-.123 (3.12)	+.217 (5.51)	36	-.045 (1.14)	+.074 (1.88)
18	-.045 (1.14)	+.262 (6.65)	37	+.000 (0.00)	-.004 (0.10)
19	+.045 (1.14)	+.172 (4.37)	---	---	---

(Inactive for new design for MIL-DTL-38999)

Shell size	Arrangement no.	Number of contacts	Size contacts	Service rating	Contact location	Supersedes
15	-37	37	22M	M	All	MS20052-37

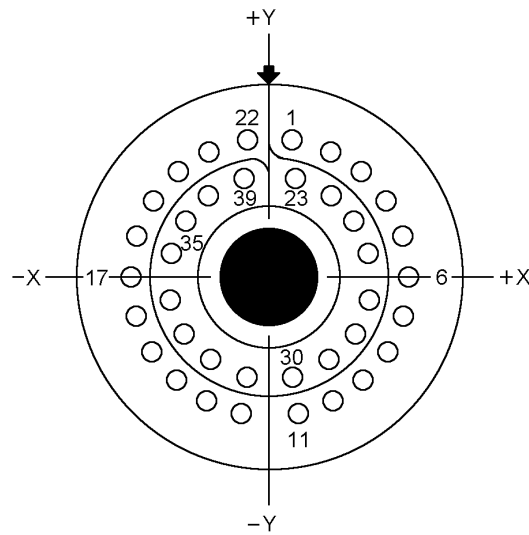
FIGURE 4. Insert arrangement, electrical connector, shell size 15 (series I, III, IV of MIL-DTL-38999, series I of MIL-DTL-27599, and series A of SAE-AS29600) – Continued.

MIL-STD-1560C
w/CHANGE 2

Contacts (Insert arrangement 15-97)					
Contact position ID	Location		Contact position ID	Location	
	X-axis (mm)	Y-axis (mm)		X-axis (mm)	Y-axis (mm)
A	+.065 (1.65)	+.234 (5.94)	G	-.207 (5.26)	-.095 (2.41)
B	+.178 (4.52)	+.178 (4.52)	H	-.234 (5.94)	+.065 (1.65)
C	+.230 (5.84)	-.023 (0.58)	J	-.178 (4.52)	+.178 (4.52)
D	+.178 (4.52)	-.178 (4.52)	K	-.065 (1.65)	+.234 (5.94)
E	+.065 (1.65)	-.234 (5.94)	L	-.047 (1.19)	+.081 (2.06)
F	-.089 (2.26)	-.235 (5.97)	M	+.047 (1.19)	-.081 (2.06)

Shell size	Arrangement no.	Number of contacts	Size contacts	Service rating	Contact location	Supersedes
15	-97	4	16	I	C, G, L, M	MS20052-97
		8	20		All others	

FIGURE 4. Insert arrangement, electrical connector, shell size 15 (series I, III, IV of MIL-DTL-38999, series I of MIL-DTL-27599, and series A of SAE-AS29600) – Continued.

MIL-STD-1560C
w/CHANGE 2

Contacts (Insert arrangement 17-2)					
Contact position ID	Location		Contact position ID	Location	
	X-axis (mm)	Y-axis (mm)		X-axis (mm)	Y-axis (mm)
1	+.046 (1.17)	+.325 (8.26)	21	-.133 (3.38)	+.299 (7.59)
2	+.133 (3.38)	+.299 (7.59)	22	-.046 (1.17)	+.325 (8.26)
3	+.211 (5.36)	+.251 (6.38)	23	+.046 (1.17)	+.231 (5.87)
4	+.272 (6.91)	+.183 (4.65)	24	+.129 (3.28)	+.197 (5.00)
5	+.312 (7.92)	+.101 (2.57)	25	+.194 (4.93)	+.133 (3.38)
6	+.328 (8.33)	+.011 (0.28)	26	+.230 (5.84)	+.050 (1.27)
7	+.318 (8.08)	-.079 (2.01)	27	+.232 (5.89)	-.040 (1.02)
8	+.284 (7.21)	-.164 (4.17)	28	+.200 (5.08)	-.125 (3.18)
9	+.228 (5.79)	-.236 (5.99)	29	+.137 (3.48)	-.191 (4.85)
10	+.154 (3.91)	-.289 (7.34)	30	+.055 (1.40)	-.229 (5.82)
11	+.068 (1.73)	-.321 (8.15)	31	-.055 (1.40)	-.229 (5.82)
12	-.068 (1.73)	-.321 (8.15)	32	-.137 (3.48)	-.191 (4.85)
13	-.154 (3.91)	-.289 (7.34)	33	-.200 (5.08)	-.125 (3.18)
14	-.228 (5.79)	-.236 (5.99)	34	-.232 (5.89)	-.040 (1.02)
15	-.284 (7.21)	-.164 (4.17)	35	-.230 (5.84)	+.050 (1.27)
16	-.318 (8.08)	-.079 (2.01)	36	-.194 (4.93)	+.133 (3.38)

FIGURE 5. Insert arrangement, electrical connector, shell size 17 (series I, III, IV of MIL-DTL-38999, series I of MIL-DTL-27599, and series A of SAE-AS29600) – Continued.

MIL-STD-1560C
w/CHANGE 2

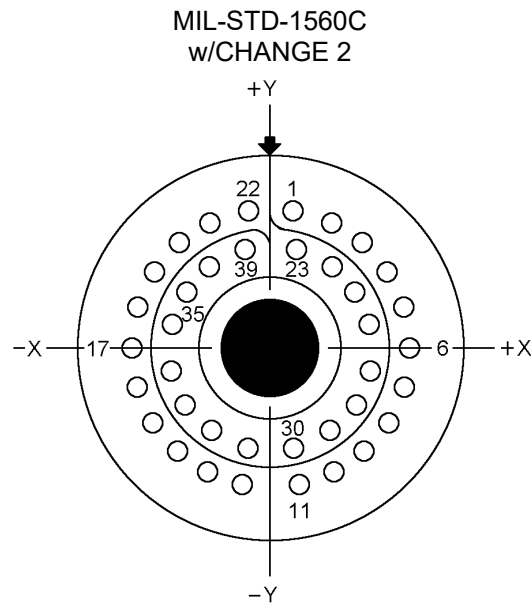
Contacts (Insert arrangement 17-2)					
Contact position ID	Location		Contact position ID	Location	
	X-axis (mm)	Y-axis (mm)		X-axis (mm)	Y-axis (mm)
17	-.328 (8.33)	+.011 (0.28)	37	-.129 (3.28)	+.197 (5.00)
18	-.312 (7.92)	+.101 (2.57)	38	-.046 (1.17)	+.231 (5.87)
19	-.272 (6.91)	+.183 (4.65)	39	+.000 (0.00)	-.000 (0.00)
20	-.211 (5.36)	+.251 (6.38)	---	---	---

(Inactive for new design for MIL-DTL-38999. For new design, use arrangement no. 17-3.)

Shell size	Arrangement no.	Number of contacts	Size contacts	Service rating	Contact position ID	Standard contact	
						Pin	Socket
17	-2	38	22D	M	All other	M39029/58-360	M39029/56-348
		1	8 (See note)	Twinax	39	M39029/90-529	M39029/91-530

NOTE: To meet environmental sealing requirements, size 8 shielded contacts used with this insert arrangement may require separate, non-standard sealing boots that are furnished with the connector. For this insert arrangement, some connector grommet designs use a heat shrink sleeve only with the size 8 shielded contacts to meet environmental sealing requirements. Heat shrink sleeves have a maximum temperature rating of 175°C maximum. When heat shrink sleeves are used, connectors rated to 200°C max are derated to 175°C max. When heat shrink sleeves are used, sealing boots are not used, and when sealing boots are used, heat shrink sleeves are not used.

FIGURE 5. Insert arrangement, electrical connector, shell size 17 (series I, III, IV of MIL-DTL-38999, series I of MIL-DTL-27599, and series A of SAE-AS29600) – Continued.



(INSERT ARRANGEMENT PATTERN IDENTICAL TO 17-2, EXCEPT 17-3
USES SEALING BOOT IN ACCORDANCE WITH MIL-DTL-38999/62)

Contacts (Insert arrangement 17-3)					
Contact position ID	Location		Contact position ID	Location	
	X-axis (mm)	Y-axis (mm)		X-axis (mm)	Y-axis (mm)
1	+.046 (1.17)	+.325 (8.26)	21	-.133 (3.38)	+.299 (7.59)
2	+.133 (3.38)	+.299 (7.59)	22	-.046 (1.17)	+.325 (8.26)
3	+.211 (5.36)	+.251 (6.38)	23	+.046 (1.17)	+.231 (5.87)
4	+.272 (6.91)	+.183 (4.65)	24	+.129 (3.28)	+.197 (5.00)
5	+.312 (7.92)	+.101 (2.57)	25	+.194 (4.93)	+.133 (3.38)
6	+.328 (8.33)	+.011 (0.28)	26	+.230 (5.84)	+.050 (1.27)
7	+.318 (8.08)	-.079 (2.01)	27	+.232 (5.89)	-.040 (1.02)
8	+.284 (7.21)	-.164 (4.17)	28	+.200 (5.08)	-.125 (3.18)
9	+.228 (5.79)	-.236 (5.99)	29	+.137 (3.48)	-.191 (4.85)
10	+.154 (3.91)	-.289 (7.34)	30	+.055 (1.40)	-.229 (5.82)
11	+.068 (1.73)	-.321 (8.15)	31	-.055 (1.40)	-.229 (5.82)
12	-.068 (1.73)	-.321 (8.15)	32	-.137 (3.48)	-.191 (4.85)
13	-.154 (3.91)	-.289 (7.34)	33	-.200 (5.08)	-.125 (3.18)
14	-.228 (5.79)	-.236 (5.99)	34	-.232 (5.89)	-.040 (1.02)
15	-.284 (7.21)	-.164 (4.17)	35	-.230 (5.84)	+.050 (1.27)
16	-.318 (8.08)	-.079 (2.01)	36	-.194 (4.93)	+.133 (3.38)

FIGURE 5. Insert arrangement, electrical connector, shell size 17 (series I, III, IV of MIL-DTL-38999, series I of MIL-DTL-27599, and series A of SAE-AS29600) – Continued.

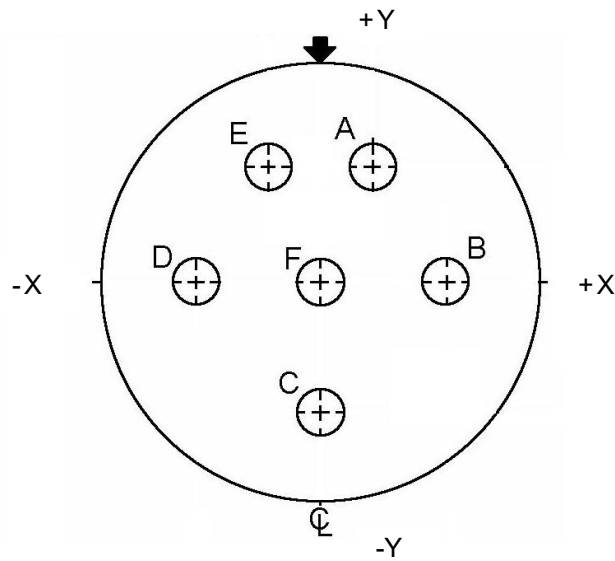
MIL-STD-1560C
w/CHANGE 2

Contacts (Insert arrangement 17-3)					
Contact position ID	Location		Contact position ID	Location	
	X-axis (mm)	Y-axis (mm)		X-axis (mm)	Y-axis (mm)
17	-.328 (8.33)	+.011 (0.28)	37	-.129 (3.28)	+.197 (5.00)
18	-.312 (7.92)	+.101 (2.57)	38	-.046 (1.17)	+.231 (5.87)
19	-.272 (6.91)	+.183 (4.65)	39	+.000 (0.00)	-.000 (0.00)
20	-.211 (5.36)	+.251 (6.38)	---	---	---

Shell size	Arrangement no.	Number of contacts	Size contacts	Service rating	Contact position ID	Standard contact	
						Pin	Socket
17	-3	38	22D	M	All other	M39029/58-360	M39029/56-348
		1	8 (See note)	Twinax	39	M39029/113- 625	M39029/114- 628

NOTE: For this insert arrangement, sealing boots in accordance with MIL-DTL-38999/62 shall be used to environmentally seal size 8 twinax contacts. Heat shrink sleeves are not used when sealing boots are used.

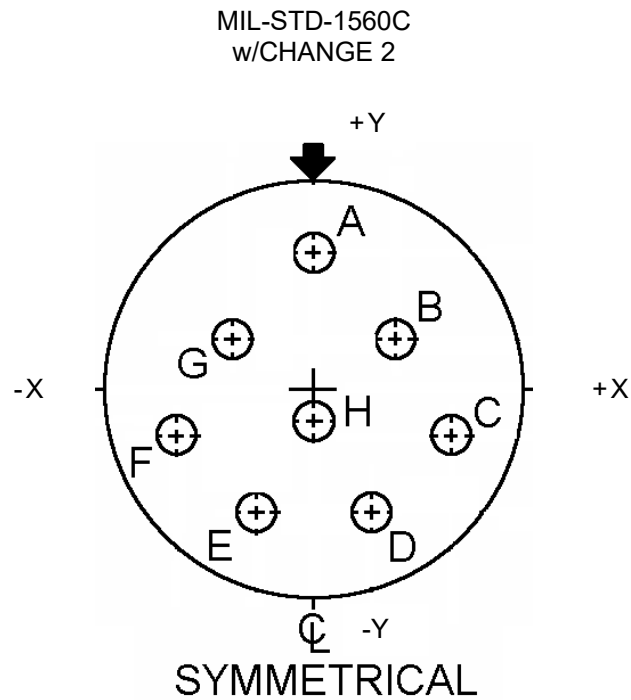
FIGURE 5. Insert arrangement, electrical connector, shell size 17 (series I, III, IV of MIL-DTL-38999, series I of MIL-DTL-27599, and series A of SAE-AS29600) – Continued.

MIL-STD-1560C
w/CHANGE 2

Contacts (Insert arrangement 17-6)		
Contact position ID	Location	
	X-axis (mm)	Y-axis (mm)
A	+ .121 (3.07)	+ .209 (5.31)
B	+ .241 (6.12)	+ .000 (0.00)
C	+ .000 (0.00)	- .241 (6.12)
D	- .241 (6.12)	+ .000 (0.00)
E	- .121 (3.07)	+ .209 (5.31)
F	+ .000 (0.00)	+ .000 (0.00)

Shell size	Arrangement no.	Number of contacts	Size contacts	Service rating	Contact location	Supersedes
17	-6	6	12	I	All	MS20053-6

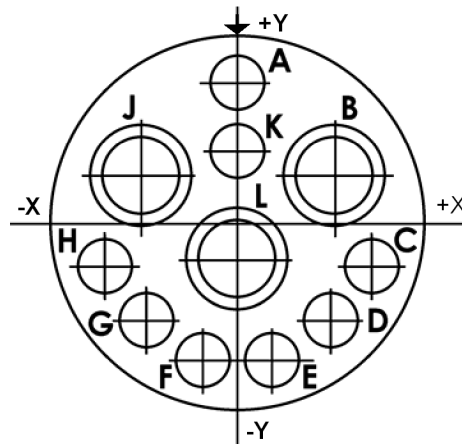
FIGURE 5. Insert arrangement, electrical connector, shell size 17 (series I, III, IV of MIL-DTL-38999, series I of MIL-DTL-27599, and series A of SAE-AS29600).



Contacts (Insert arrangement 17-8)		
Contact position ID	Location	
	X-axis (mm)	Y-axis (mm)
A	+ .000 (0.00)	+ .236 (5.99)
B	+ .128 (3.25)	+ .086 (2.18)
C	+ .230 (5.84)	- .078 (1.98)
D	+ .094 (2.39)	- .216 (5.49)
E	- .094 (2.39)	- .216 (5.49)
F	- .230 (5.84)	- .078 (1.98)
G	- .128 (3.25)	+ .086 (2.18)
H	+ .000 (0.00)	- .052 (1.32)

Shell size	Arrangement no.	Number of contacts	Size contacts	Service rating	Contact location	Supersedes
17	-8	8	16	II	All	MS20053-8

FIGURE 5. Insert arrangement, electrical connector, shell size 17 (series I, III, IV of MIL-DTL-38999, series I of MIL-DTL-27599, and series A of SAE-AS29600) – Continued.

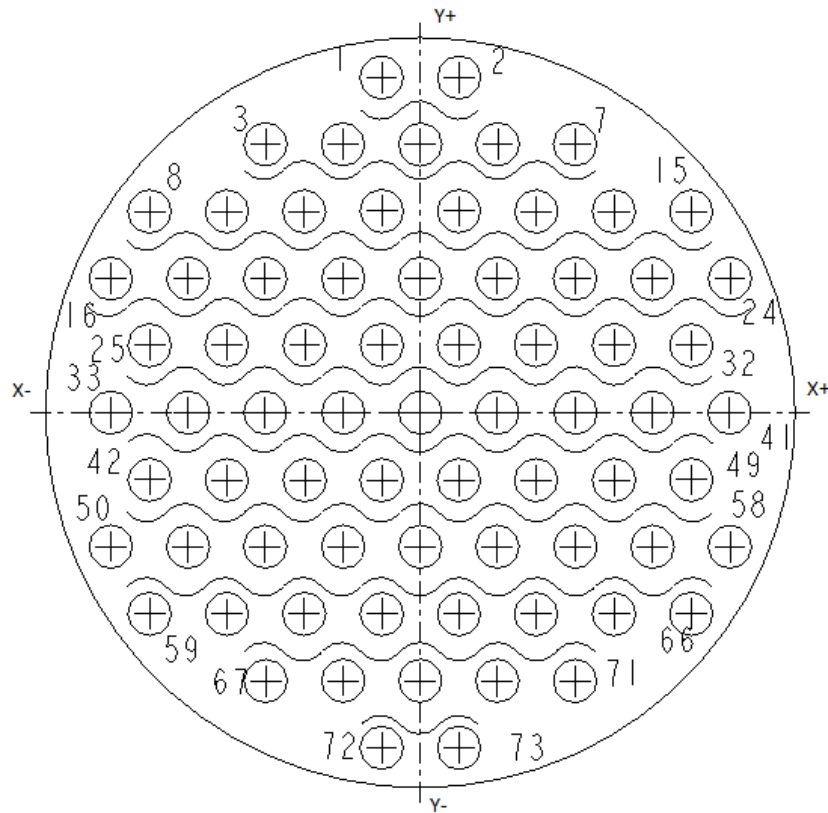
MIL-STD-1560C
w/CHANGE 2

Contacts (Insert arrangement 17-11)					
Contact position ID	Location		Contact position ID	Location	
	X-axis (mm)	Y-axis (mm)		X-axis (mm)	Y-axis (mm)
A	+.000 (0.00)	+.290 (7.37)	G	-.190 (4.83)	-.199 (5.05)
B	+.200 (5.08)	+.100 (2.54)	H	-.275 (6.99)	-.088 (2.24)
C	+.275 (6.99)	-.088 (2.24)	J	-.200 (5.08)	+.100 (2.54)
D	+.190 (4.83)	-.199 (5.05)	K	+.000 (0.00)	+.150 (3.81)
E	+.071 (1.80)	-.282 (7.16)	L	+.000 (0.00)	-.075 (1.91)
F	-.071 (1.80)	-.282 (7.16)	---	---	---

Shell size	Arrangement no.	Number of contacts	Size contacts	Service rating	Contact position ID	Standard contacts	
						Pin	Socket
17	-11	1	12	Coax	J	M39029/28-211	M39029/75-416
		2	12	Twinax	B, L	02004-936	02003-926
		8	20	N	A, C, D, E, F, G, H, K	M39029/58-363	M39029/56-351

(For twinax part numbers 02004-936 and 02003-926, see DLA Land and Maritime drawings 02004 and 02003.)

FIGURE 5. Insert arrangement, electrical connector, shell size 17 (series I, III, IV of MIL-DTL-38999, series I of MIL-DTL-27599, and series A of SAE-AS29600) – Continued.

MIL-STD-1560C
w/CHANGE 2

Contacts (Insert arrangement 17-23)					
Contact position ID	Location		Contact position ID	Location	
	X-axis (mm)	Y-axis (mm)		X-axis (mm)	Y-axis (mm)
1	-.040 (1.02)	+.348 (8.83)	38	+.080 (2.04)	+.000 (0.00)
2	+.040 (1.02)	+.348 (8.83)	39	+.161 (4.08)	+.000 (0.00)
3	-.161 (4.08)	+.278 (7.07)	40	+.241 (6.12)	+.000 (0.00)
4	-.080 (2.04)	+.278 (7.07)	41	+.321 (8.16)	+.000 (0.00)
5	+.000 (0.00)	+.278 (7.07)	42	-.281 (7.14)	-.070 (1.77)
6	+.080 (2.04)	+.278 (7.07)	43	-.201 (5.10)	-.070 (1.77)
7	+.161 (4.08)	+.278 (7.07)	44	-.121 (3.06)	-.070 (1.77)
8	-.281 (7.14)	+.209 (5.30)	45	-.040 (1.02)	-.070 (1.77)
9	-.201 (5.10)	+.209 (5.30)	46	+.040 (1.02)	-.070 (1.77)
10	-.121 (3.06)	+.209 (5.30)	47	+.121 (3.06)	-.070 (1.77)

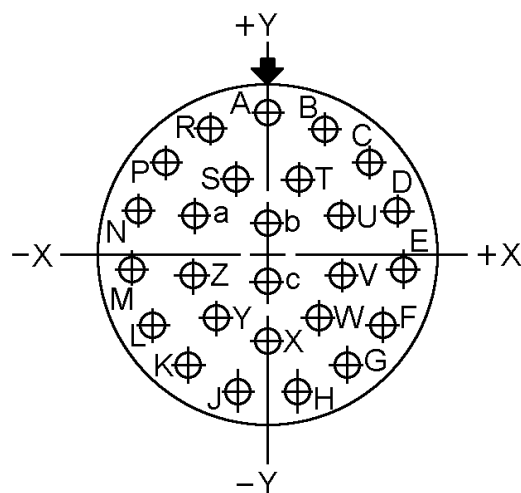
FIGURE 5. Insert arrangement, electrical connector, shell size 17 (Series I, III, IV of MIL-DTL-38999, Series I of MIL-DTL-27599, and Series A of SAE-AS29600) – Continued.

MIL-STD-1560C
w/CHANGE 2

Contacts (Insert arrangement 17-23)					
Contact position ID	Location		Contact position ID	Location	
	X-axis (mm)	Y-axis (mm)		X-axis (mm)	Y-axis (mm)
11	-.040 (1.02)	+.209 (5.30)	48	+.201 (5.10)	-.070 (1.77)
12	+.040 (1.02)	+.209 (5.30)	49	+.281 (7.14)	-.070 (1.77)
13	+.121 (3.06)	+.209 (5.30)	50	-.321 (8.16)	-.139 (3.53)
14	+.201 (5.10)	+.209 (5.30)	51	-.241 (6.12)	-.139 (3.53)
15	+.281 (7.14)	+.209 (5.30)	52	-.161 (4.08)	-.139 (3.53)
16	-.321 (8.16)	+.139 (3.53)	53	-.080 (2.04)	-.139 (3.53)
17	-.241 (6.12)	+.139 (3.53)	54	+.000 (0.00)	-.139 (3.53)
18	-.161 (4.08)	+.139 (3.53)	55	+.080 (2.04)	-.139 (3.53)
19	-.080 (2.04)	+.139 (3.53)	56	+.161 (4.08)	-.139 (3.53)
20	+.000 (0.00)	+.139 (3.53)	57	+.241 (6.12)	-.139 (3.53)
21	+.080 (2.04)	+.139 (3.53)	58	+.321 (8.16)	-.139 (3.53)
22	+.161 (4.08)	+.139 (3.53)	59	-.281 (7.14)	-.209 (5.30)
23	+.241 (6.12)	+.139 (3.53)	60	-.201 (5.10)	-.209 (5.30)
24	+.321 (8.16)	+.139 (3.53)	61	-.121 (3.06)	-.209 (5.30)
25	-.281 (7.14)	+.070 (1.77)	62	-.040 (1.02)	-.209 (5.30)
26	-.201 (5.10)	+.070 (1.77)	63	+.040 (1.02)	-.209 (5.30)
27	-.121 (3.06)	+.070 (1.77)	64	+.121 (3.06)	-.209 (5.30)
28	-.040 (1.02)	+.070 (1.77)	65	+.201 (5.10)	-.209 (5.30)
29	+.040 (1.02)	+.070 (1.77)	66	+.281 (7.14)	-.209 (5.30)
30	+.121 (3.06)	+.070 (1.77)	67	-.161 (4.08)	-.278 (7.07)
31	+.201 (5.10)	+.070 (1.77)	68	-.080 (2.04)	-.278 (7.07)
32	+.281 (7.14)	+.070 (1.77)	69	+.000 (0.00)	-.278 (7.07)
33	-.321 (8.16)	+.000 (0.00)	70	+.080 (2.04)	-.278 (7.07)
34	-.241 (6.12)	+.000 (0.00)	71	+.161 (4.08)	-.278 (7.07)
35	-.161 (4.08)	+.000 (0.00)	72	-.040 (1.02)	-.348 (8.83)
36	-.080 (2.04)	+.000 (0.00)	73	+.040 (1.02)	-.348 (8.83)
37	+.000 (0.00)	+.000 (0.00)	---	---	---

Shell size	Arrangement no.	Number of contacts	Size contacts	Service rating	Contact location	Standard contact	
17	-23	73	23-22	N	All	Pin	Socket
						M39029/122-670	M39029/121-663

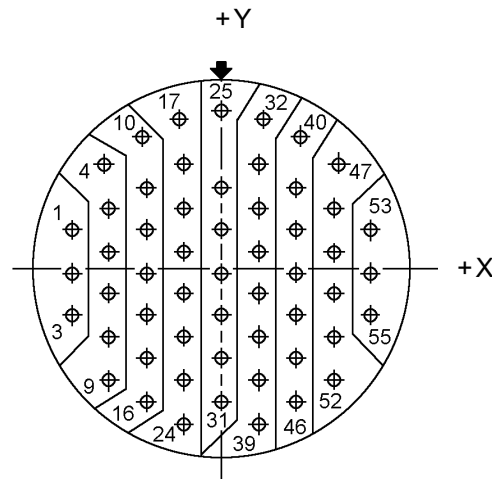
FIGURE 5. Insert arrangement, electrical connector, shell size 17 (Series I, III, IV of MIL-DTL-38999, Series I of MIL-DTL-27599, and Series A of SAE-AS29600) – Continued.

MIL-STD-1560C
w/CHANGE 2

Contacts (Insert arrangement 17-26)					
Contact position ID	Contact location		Contact position ID	Contact location	
	X-axis (mm)	Y-axis (mm)		X-axis (mm)	Y-axis (mm)
A	+0.000 (0.00)	+0.321 (8.15)	P	-.239 (6.07)	+0.214 (5.44)
B	+.131 (3.33)	+.293 (7.44)	R	-.131 (3.33)	+.293 (7.44)
C	+.239 (6.07)	+.214 (5.44)	S	-.070 (1.78)	+.177 (4.50)
D	+.305 (7.75)	+.099 (2.51)	T	+.070 (1.78)	+.177 (4.50)
E	+.319 (8.10)	-.034 (0.86)	U	+.175 (4.45)	+.094 (2.39)
F	+.278 (7.06)	-.161 (4.09)	V	+.178 (4.52)	-.036 (0.91)
G	+.189 (4.80)	-.260 (6.60)	W	+.119 (3.02)	-.151 (3.84)
H	+.067 (1.70)	-.314 (7.98)	X	+0.000 (0.00)	-.203 (5.16)
J	-.067 (1.70)	-.314 (7.98)	Y	-.119 (3.02)	-.151 (3.84)
K	-.189 (4.80)	-.260 (6.60)	Z	-.178 (4.52)	-.036 (0.91)
L	-.278 (7.06)	-.161 (4.09)	a	-.175 (4.45)	+.094 (2.39)
M	-.319 (8.10)	-.034 (0.86)	b	+0.000 (0.00)	+.065 (1.65)
N	-.305 (7.75)	+.099 (2.51)	c	+0.000 (0.00)	-.065 (1.65)

Shell size	Arrangement no.	Number of contacts	Size contacts	Service rating	Contact position ID	Supersedes
17	-26	26	20	I	All	MS20053-26

FIGURE 5. Insert arrangement, electrical connector, shell size 17 (series I, III, IV of MIL-DTL-38999, series I of MIL-DTL-27599, and series A of SAE-AS29600) – Continued.

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w/CHANGE 2

Contacts (Insert arrangement 17-35)					
Contact position ID	Location		Contact position ID	Location	
	X-axis (mm)	Y-axis (mm)		X-axis (mm)	Y-axis (mm)
1	-.312 (7.92)	+.086 (2.18)	29	.000 (0.00)	-.094 (2.39)
2	-.312 (7.92)	-.004 (0.10)	30	.000 (0.00)	-.184 (4.67)
3	-.312 (7.92)	-.094 (2.39)	31	.000 (0.00)	-.274 (6.96)
4	-.242 (6.15)	+.221 (5.61)	32	+.089 (2.26)	+.316 (8.03)
5	-.234 (5.94)	+.131 (3.33)	33	+.078 (1.98)	+.221 (5.61)
6	-.234 (5.94)	+.041 (1.04)	34	+.078 (1.98)	+.131 (3.33)
7	-.234 (5.94)	-.049 (1.24)	35	+.078 (1.98)	+.041 (1.04)
8	-.234 (5.94)	-.139 (3.53)	36	+.078 (1.98)	-.049 (1.24)
9	-.234 (5.94)	-.229 (5.82)	37	+.078 (1.98)	-.139 (3.53)
10	-.172 (4.37)	+.279 (7.09)	38	+.078 (1.98)	-.229 (5.82)
11	-.156 (3.96)	+.176 (4.47)	39	+.078 (1.98)	-.319 (8.10)
12	-.156 (3.96)	+.086 (2.18)	40	+.172 (4.37)	+.279 (7.09)
13	-.156 (3.96)	-.004 (0.10)	41	+.156 (3.96)	+.176 (4.47)
14	-.156 (3.96)	-.094 (2.39)	42	+.156 (3.96)	+.086 (2.18)
15	-.156 (3.96)	-.184 (4.67)	43	+.156 (3.96)	-.004 (0.10)
16	-.156 (3.96)	-.274 (6.96)	44	+.156 (3.96)	-.094 (2.39)
17	-.089 (2.26)	+.316 (8.03)	45	+.156 (3.96)	-.184 (4.67)
18	-.078 (1.98)	+.221 (5.61)	46	+.156 (3.96)	-.274 (6.96)

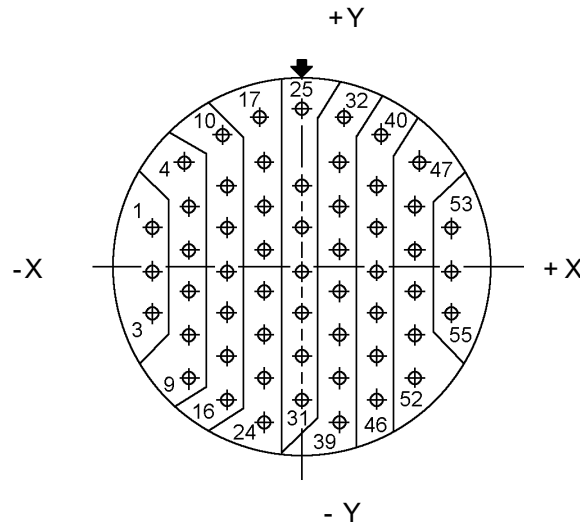
FIGURE 5. Insert arrangement, electrical connector, shell size 17 (series I, III, IV of MIL-DTL-38999, series I of MIL-DTL-27599, and series A of SAE-AS29600) – Continued.

MIL-STD-1560C
w/CHANGE 2

Contacts (Insert arrangement 17-35)					
Contact position ID	Location		Contact position ID	Location	
	X-axis (mm)	Y-axis (mm)		X-axis (mm)	Y-axis (mm)
19	-.078 (1.98)	+.131 (3.33)	47	+.242 (6.15)	+.221 (5.61)
20	-.078 (1.98)	+.041 (1.04)	48	+.234 (5.94)	+.131 (3.33)
21	-.078 (1.98)	-.049 (1.24)	49	+.234 (5.94)	+.041 (1.04)
22	-.078 (1.98)	-.139 (3.53)	50	+.234 (5.94)	-.049 (1.24)
23	-.078 (1.98)	-.229 (5.82)	51	+.234 (5.94)	-.139 (3.53)
24	-.078 (1.98)	-.319 (8.10)	52	+.234 (5.94)	-.229 (5.82)
25	.000 (0.00)	+.329 (8.36)	53	+.312 (7.92)	+.086 (2.18)
26	.000 (0.00)	+.176 (4.47)	54	+.312 (7.92)	-.004 (0.10)
27	.000 (0.00)	+.086 (2.18)	55	+.312 (7.92)	-.094 (2.39)
28	.000 (0.00)	-.004 (0.10)	---	---	---

Shell size	Arrangement no.	Number of contacts	Size contacts	Service rating	Contact location	Supersedes
17	-35	55	22D	M	All	MS27529-35

FIGURE 5. Insert arrangement, electrical connector, shell size 17 (series I, III, IV of MIL-DTL-38999, series I of MIL-DTL-27599, and series A of SAE-AS29600) – Continued.

MIL-STD-1560C
w/CHANGE 2

Contacts (Insert arrangement 17-55)					
Contact position ID	Location		Contact position ID	Location	
	X-axis (mm)	Y-axis (mm)		X-axis (mm)	Y-axis (mm)
1	-.312 (7.92)	+.086 (2.18)	29	+.000 (0.00)	-.094 (2.39)
2	-.312 (7.92)	-.004 (0.10)	30	+.000 (0.00)	-.184 (4.67)
3	-.312 (7.92)	-.094 (2.39)	31	+.000 (0.00)	-.274 (6.96)
4	-.242 (6.15)	+.221 (5.61)	32	+.089 (2.26)	+.316 (8.03)
5	-.234 (5.94)	+.131 (3.33)	33	+.078 (1.98)	+.221 (5.61)
6	-.234 (5.94)	+.041 (1.04)	34	+.078 (1.98)	+.131 (3.33)
7	-.234 (5.94)	-.049 (1.24)	35	+.078 (1.98)	+.041 (1.04)
8	-.234 (5.94)	-.139 (3.53)	36	+.078 (1.98)	-.049 (1.24)
9	-.234 (5.94)	-.229 (5.82)	37	+.078 (1.98)	-.139 (3.53)
10	-.172 (4.37)	+.279 (7.09)	38	+.078 (1.98)	-.229 (5.82)
11	-.156 (3.96)	+.176 (4.47)	39	+.078 (1.98)	-.319 (8.10)
12	-.156 (3.96)	+.086 (2.18)	40	+.172 (4.37)	+.279 (7.09)
13	-.156 (3.96)	-.004 (0.10)	41	+.156 (3.96)	+.176 (4.47)
14	-.156 (3.96)	-.094 (2.39)	42	+.156 (3.96)	+.086 (2.18)
15	-.156 (3.96)	-.184 (4.67)	43	+.156 (3.96)	-.004 (0.10)
16	-.156 (3.96)	-.274 (6.96)	44	+.156 (3.96)	-.094 (2.39)
17	-.089 (2.26)	+.316 (8.03)	45	+.156 (3.96)	-.184 (4.67)
18	-.078 (1.98)	+.221 (5.61)	46	+.156 (3.96)	-.274 (6.96)

FIGURE 5. Insert arrangement, electrical connector, shell size 17 (series I, III, IV of MIL-DTL-38999, series I of MIL-DTL-27599, and series A of SAE-AS29600) – Continued.

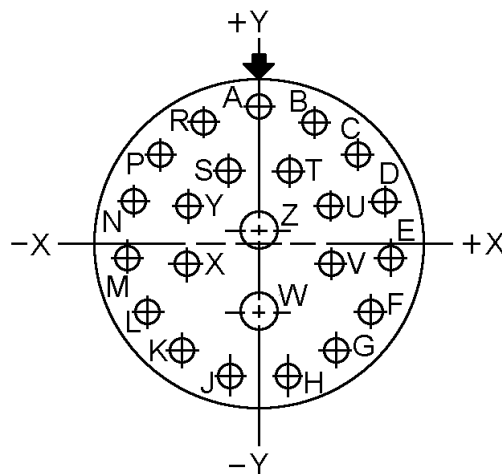
MIL-STD-1560C
w/CHANGE 2

(Inactive for new design)

Contacts (Insert arrangement 17-55)					
Contact position ID	Location		Contact position ID	Location	
	X-axis (mm)	Y-axis (mm)		X-axis (mm)	Y-axis (mm)
19	-.078 (1.98)	+.131 (3.33)	47	+.242 (6.15)	+.221 (5.61)
20	-.078 (1.98)	+.041 (1.04)	48	+.234 (5.94)	+.131 (3.33)
21	-.078 (1.98)	-.049 (1.24)	49	+.234 (5.94)	+.041 (1.04)
22	-.078 (1.98)	-.139 (3.53)	50	+.234 (5.94)	-.049 (1.24)
23	-.078 (1.98)	-.229 (5.82)	51	+.234 (5.94)	-.139 (3.53)
24	-.078 (1.98)	-.319 (8.10)	52	+.234 (5.94)	-.229 (5.82)
25	+.000 (0.00)	+.329 (8.36)	53	+.312 (7.92)	+.086 (2.18)
26	+.000 (0.00)	+.176 (4.47)	54	+.312 (7.92)	-.004 (0.10)
27	+.000 (0.00)	+.086 (2.18)	55	+.312 (7.92)	-.094 (2.39)
28	+.000 (0.00)	-.004 (0.10)	---	---	---

Shell size	Arrangement no.	Number of contacts	Size contacts	Service rating	Contact location	Supersedes
17	-55	55	22M	M	All	MS20053-55

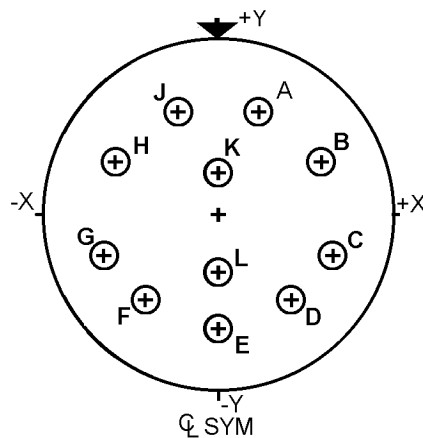
FIGURE 5. Insert arrangement, electrical connector, shell size 17 (series I, III, IV of MIL-DTL-38999, series I of MIL-DTL-27599, and series A of SAE-AS29600) – Continued.

MIL-STD-1560C
w/CHANGE 2

Contacts (Insert arrangement 17-99)					
Contact position ID	Contact location		Contact position ID	Contact location	
	X-axis (mm)	Y-axis (mm)		X-axis (mm)	Y-axis (mm)
A	.000 (0.00)	+.321 (8.15)	N	-.305 (7.75)	+.099 (2.51)
B	+.131 (3.33)	+.293 (7.44)	P	-.239 (6.07)	+.214 (5.44)
C	+.239 (6.07)	+.214 (5.44)	R	-.131 (3.33)	+.293 (7.44)
D	+.305 (7.75)	+.099 (2.51)	S	-.070 (1.78)	+.177 (4.50)
E	+.319 (8.10)	-.034 (0.86)	T	+.070 (1.78)	+.177 (4.50)
F	+.278 (7.06)	-.161 (4.09)	U	+.175 (4.45)	+.094 (2.39)
G	+.189 (4.80)	-.260 (6.60)	V	+.150 (3.81)	-.075 (1.91)
H	+.067 (1.70)	-.314 (7.98)	W	+.000 (0.00)	-.161 (4.09)
J	-.067 (1.70)	-.314 (7.98)	X	-.150 (3.81)	-.075 (1.91)
K	-.189 (4.80)	-.260 (6.60)	Y	-.175 (4.45)	+.094 (2.39)
L	-.278 (7.06)	-.161 (4.09)	Z	+.000 (0.00)	+.025 (0.64)
M	-.319 (8.10)	-.034 (0.86)			

Shell size	Arrangement no.	Number of contacts	Size contacts	Service rating	Contact position ID	Supersedes
17	-99	2	16	I	W, Z	MS20053-99
		21	20		All others	

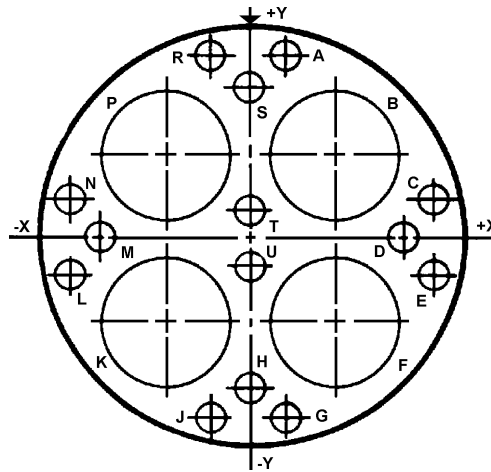
FIGURE 5. Insert arrangement, electrical connector, shell size 17 (series I, III, IV of MIL-DTL-38999, series I of MIL-DTL-27599, and series A of SAE-AS29600) – Continued.

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w/CHANGE 2

Contacts (Insert arrangement 19-11)					
Contact position ID	Location		Contact position ID	Location	
	X-axis (mm)	Y-axis (mm)		X-axis (mm)	Y-axis (mm)
A	+.105 (2.67)	+.260 (6.60)	G	-.275 (6.99)	-.053 (1.35)
B	+.250 (6.35)	+.132 (3.35)	H	-.250 (6.35)	+.132 (3.35)
C	+.275 (6.99)	-.053 (1.35)	J	-.105 (2.67)	+.260 (6.60)
D	+.179 (4.55)	-.215 (5.46)	K	+.000 (0.00)	+.105 (2.67)
E	+.000 (0.00)	-.281 (7.14)	L	+.000 (0.00)	-.092 (2.34)
F	-.179 (4.55)	-.215 (5.46)	---	---	---

Shell size	Arrangement no.	Number of contacts	Size contacts	Service rating	Contact location	Supersedes
19	-11	11	16	II	All	MS20054-11

FIGURE 6. Insert arrangement, electrical connector, shell size 19 (series I, III, IV of MIL-DTL-38999, series I of MIL-DTL-27599, and series A of SAE-AS29600).

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w/CHANGE 2

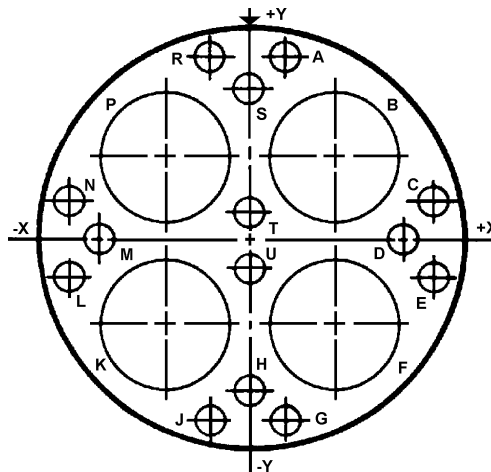
(Inactive for new design for MIL-DTL-38999. For new design, use arrangement no. 19-19.)

Contacts (Insert arrangement 19-18)					
Contact position ID	Location		Contact position ID	Location	
	X-axis (mm)	Y-axis (mm)		X-axis (mm)	Y-axis (mm)
A	+.068 (1.73)	+.380 (9.65)	K	-.180 (4.57)	-.180 (4.57)
B	+.180 (4.57)	+.180 (4.57)	L	-.377 (9.58)	-.065 (1.65)
C	+.377 (9.58)	+.065 (1.65)	M	-.317 (8.05)	+.000 (0.00)
D	+.317 (8.05)	+.000 (0.00)	N	-.377 (9.58)	+.065 (1.65)
E	+.377 (9.58)	-.065 (1.65)	P	-.180 (4.57)	+.180 (4.57)
F	+.180 (4.57)	-.180 (4.57)	R	-.068 (1.73)	+.380 (9.65)
G	+.068 (1.73)	-.380 (9.65)	S	+.000 (0.00)	+.319 (8.10)
H	+.000 (0.00)	-.319 (8.10)	T	+.000 (0.00)	+.044 (1.12)
J	-.068 (1.73)	-.380 (9.65)	U	+.000 (0.00)	-.044 (1.12)

Shell size	Arrangement No.	Number of contacts	Size contacts	Service rating	Contact location	Standard contact	
						Pin	Socket
19	18	4	8 (see note)	Twinax	B, F, K, P	M39029/90-529	M39029/91-530
		14	22D	M	All others	M39029/58	M39029/56

NOTE: To meet environmental sealing requirements, size 8 shielded contacts used with this insert arrangement may require separate, non-standard sealing boots that are furnished with the connector. For this insert arrangement, some connector grommet designs use a heat shrink sleeve only with the size 8 shielded contacts to meet environmental sealing requirements. Heat shrink sleeves have a maximum temperature rating of 175°C maximum. When heat shrink sleeves are used, connectors rated to 200°C max are derated to 175°C max. When heat shrink sleeves are used, sealing boots are not used, and when sealing boots are used, heat shrink sleeves are not used.

FIGURE 6. Insert arrangement, electrical connector, shell size 19 (series I, III, IV of MIL-DTL-38999, series I of MIL-DTL-27599, and series A of SAE-AS29600) – Continued.

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w/CHANGE 2

(INSERT ARRANGEMENT PATTERN IDENTICAL TO 19-18, EXCEPT 19-19
USES SEALING BOOT IN ACCORDANCE WITH MIL-DTL-38999/62)

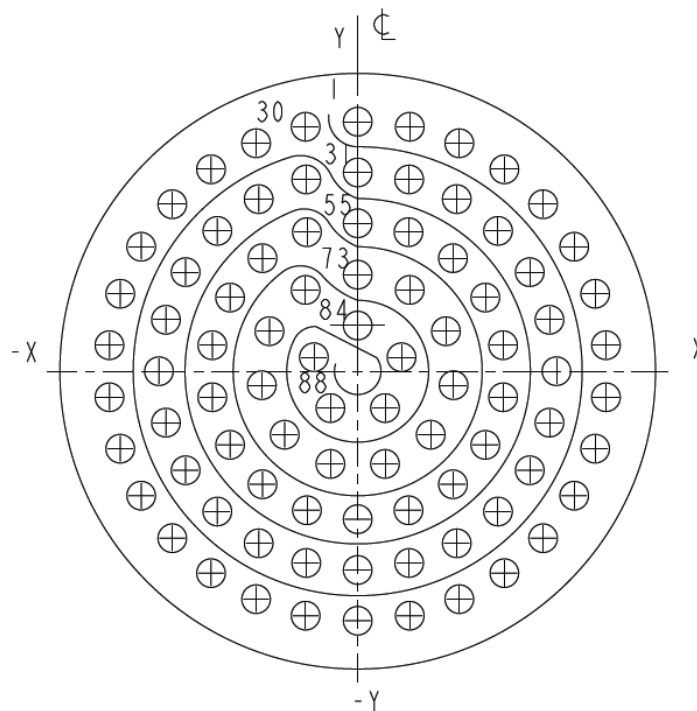
Contacts (Insert arrangement 19-19)					
Contact position ID	Location		Contact position ID	Location	
	X-axis (mm)	Y-axis (mm)		X-axis (mm)	Y-axis (mm)
A	+0.068 (1.73)	+0.380 (9.65)	K	-0.180 (4.57)	-0.180 (4.57)
B	+0.180 (4.57)	+0.180 (4.57)	L	-0.377 (9.58)	-0.065 (1.65)
C	+0.377 (9.58)	+0.065 (1.65)	M	-0.317 (8.05)	+0.000 (0.00)
D	+0.317 (8.05)	+0.000 (0.00)	N	-0.377 (9.58)	+0.065 (1.65)
E	+0.377 (9.58)	-0.065 (1.65)	P	-0.180 (4.57)	+0.180 (4.57)
F	+0.180 (4.57)	-0.180 (4.57)	R	-0.068 (1.73)	+0.380 (9.65)
G	+0.068 (1.73)	-0.380 (9.65)	S	+0.000 (0.00)	+0.319 (8.10)
H	+0.000 (0.00)	-0.319 (8.10)	T	+0.000 (0.00)	+0.044 (1.12)
J	-0.068 (1.73)	-0.380 (9.65)	U	+0.000 (0.00)	-0.044 (1.12)

Shell size	Arrangement no.	Number of contacts	Size contacts	Service rating	Contact location	Standard contact	
						Pin	Socket
19	-19	4	8 (see note)	Twinax	B,F,K,P	SAE-AS39029 /113-625	SAE-AS39029 /114-628
		14	22D	M	All others	SAE-AS39029 /58	SAE-AS39029 /56

NOTE: For this insert arrangement, sealing boots in accordance with MIL-DTL-38999/62 shall be used to environmentally seal size 8 twinax contacts. Heat shrink sleeves are not used when sealing boots are used.

FIGURE 6. Insert arrangement, electrical connector, shell size 19 (series I, III, IV of MIL-DTL-38999, series I of MIL-DTL-27599, and series A of SAE-AS29600) – Continued.

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w/CHANGE 2



Contacts (Insert arrangement 19-23)					
Contact position ID	Location		Contact position ID	Location	
	X-axis (mm)	Y-axis (mm)		X-axis (mm)	Y-axis (mm)
1	+ .000 (0.00)	+ .393 (9.99)	45	- .156 (3.97)	- .271 (6.88)
2	+ .082 (2.08)	+ .385 (9.77)	46	- .221 (5.62)	- .221 (5.62)
3	+ .160 (4.06)	+ .359 (9.12)	47	- .271 (6.88)	- .156 (3.97)
4	+ .231 (5.87)	+ .318 (8.08)	48	- .302 (7.67)	- .081 (2.06)
5	+ .292 (7.42)	+ .263 (6.68)	49	- .313 (7.95)	+ .000 (0.00)
6	+ .341 (8.65)	+ .197 (4.99)	50	- .302 (7.67)	+ .081 (2.06)
7	+ .374 (9.50)	+ .122 (3.09)	51	- .271 (6.88)	+ .156 (3.97)
8	+ .391 (9.93)	+ .041 (1.04)	52	- .221 (5.62)	+ .221 (5.62)

FIGURE 6. Insert arrangement, electrical connector, shell size 19 (Series I, III, IV of MIL-DTL-38999, Series I of MIL-DTL-27599, and Series A of SAE-AS29600) – Continued.

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w/CHANGE 2

Contacts (Insert arrangement 19-23)					
Contact position ID	Contact position ID		Contact position ID	Contact position ID	
	X-axis (mm)	Y-axis (mm)		X-axis (mm)	Y-axis (mm)
9	+.391 (9.93)	-.041 (1.04)	53	-.156 (3.97)	+.271 (6.88)
10	+.374 (9.50)	-.122 (3.09)	54	-.081 (2.06)	+.302 (7.67)
11	+.341 (8.65)	-.197 (4.99)	55	+.000 (0.00)	+.233 (5.91)
12	+.292 (7.42)	-.263 (6.68)	56	+.080 (2.02)	+.219 (5.55)
13	+.231 (5.87)	-.318 (8.08)	57	+.150 (3.80)	+.178 (4.52)
14	+.160 (4.06)	-.359 (9.12)	58	+.201 (5.11)	+.116 (2.95)
15	+.082 (2.08)	-.385 (9.77)	59	+.229 (5.82)	+.041 (1.03)
16	+.000 (0.00)	-.393 (9.99)	60	+.229 (5.82)	-.041 (1.03)
17	-.082 (2.08)	-.385 (9.77)	61	+.201 (5.11)	-.116 (2.95)
18	-.160 (4.06)	-.359 (9.12)	62	+.150 (3.80)	-.178 (4.52)
19	-.231 (5.87)	-.318 (8.08)	63	+.080 (2.02)	-.219 (5.55)
20	-.292 (7.42)	-.263 (6.68)	64	+.000 (0.00)	-.233 (5.91)
21	-.341 (8.65)	-.197 (4.99)	65	-.080 (2.02)	-.219 (5.55)
22	-.374 (9.50)	-.122 (3.09)	66	-.150 (3.80)	-.178 (4.52)
23	-.391 (9.93)	-.041 (1.04)	67	-.201 (5.11)	-.116 (2.95)
24	-.391 (9.93)	+.041 (1.04)	68	-.229 (5.82)	-.041 (1.03)
25	-.374 (9.50)	+.122 (3.09)	69	-.229 (5.82)	+.041 (1.03)
26	-.341 (8.65)	+.197 (4.99)	70	-.201 (5.11)	+.116 (2.95)
27	-.292 (7.42)	+.263 (6.68)	71	-.150 (3.80)	+.178 (4.52)
28	-.231 (5.87)	+.318 (8.08)	72	-.080 (2.02)	+.219 (5.55)
29	-.160 (4.06)	+.359 (9.12)	73	+.000 (0.00)	+.152 (3.87)
30	-.082 (2.08)	+.385 (9.77)	74	+.082 (2.09)	+.128 (3.25)
31	+.000 (0.00)	+.313 (7.95)	75	+.139 (3.52)	+.063 (1.61)
32	+.081 (2.06)	+.302 (7.67)	76	+.151 (3.83)	-.022 (0.55)
33	+.156 (3.97)	+.271 (6.88)	77	+.115 (2.92)	-.100 (2.53)
34	+.221 (5.62)	+.221 (5.62)	78	+.043 (1.09)	-.146 (3.71)
35	+.271 (6.88)	+.156 (3.97)	79	-.043 (1.09)	-.146 (3.71)

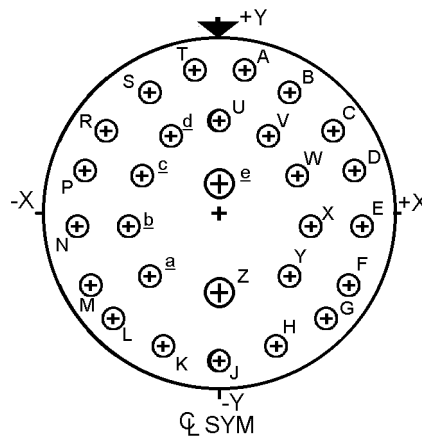
FIGURE 6. Insert arrangement, electrical connector, shell size 19 (Series I, III, IV of MIL-DTL-38999, Series I of MIL-DTL-27599, and Series A of SAE-AS29600) – Continued.

MIL-STD-1560C
w/CHANGE 2

Contacts (Insert arrangement 19-23)					
Contact position ID	Contact position ID		Contact position ID	Contact position ID	
	X-axis (mm)	Y-axis (mm)		X-axis (mm)	Y-axis (mm)
36	+.302 (7.67)	+.081 (2.06)	80	-.115 (2.92)	-.100 (2.53)
37	+.313 (7.95)	+.000 (0.00)	81	-.151 (3.83)	-.022 (0.55)
38	+.302 (7.67)	-.081 (2.06)	82	-.139 (3.52)	+.063 (1.61)
39	+.271 (6.88)	-.156 (3.97)	83	-.082 (2.09)	+.128 (3.25)
40	+.221 (5.62)	-.221 (5.62)	84	+.000 (0.00)	+.072 (1.83)
41	+.156 (3.97)	-.271 (6.88)	85	+.069 (1.74)	+.022 (0.56)
42	+.081 (2.06)	-.302 (7.67)	86	+.043 (1.09)	-.058 (1.48)
43	+.000 (0.00)	-.313 (7.95)	87	-.043 (1.09)	-.058 (1.48)
44	-.081 (2.06)	-.302 (7.67)	88	-.069 (1.74)	+.022 (0.56)

Shell size	Arrangement no.	Number of contacts	Size contacts	Service rating	Contact location	Standard contact	
						Pin	Socket
19	-23	88	23-22	N	All	M39029/122-670	M39029/121-663

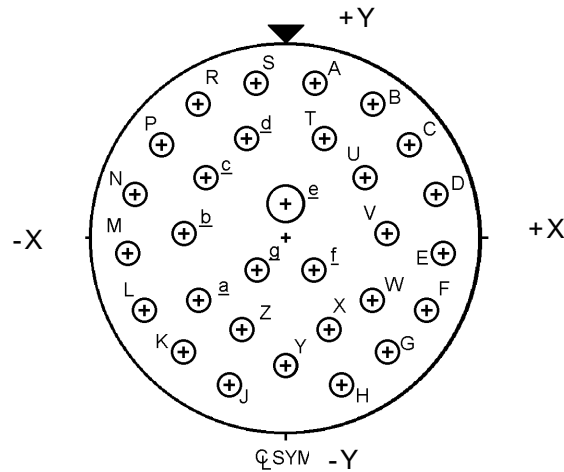
FIGURE 6. Insert arrangement, electrical connector, shell size 19 (Series I, III, IV of MIL-DTL-38999, Series I of MIL-DTL-27599, and Series A of SAE-AS29600) – Continued.

MIL-STD-1560C
w/CHANGE 2

Contacts (Insert arrangement 19-28)					
Contact position ID	Contact location		Contact position ID	Contact location	
	X-axis (mm)	Y-axis (mm)		X-axis (mm)	Y-axis (mm)
A	+.066 (1.68)	+.353 (8.97)	R	-.286 (7.26)	+.217 (5.51)
B	+.189 (4.80)	+.305 (7.75)	S	-.189 (4.80)	+.305 (7.75)
C	+.286 (7.26)	+.217 (5.51)	T	-.066 (1.68)	+.353 (8.97)
D	+.345 (8.76)	+.098 (2.49)	U	+.000 (0.00)	+.230 (5.84)
E	+.357 (9.07)	-.033 (0.84)	V	+.124 (3.15)	+.193 (4.90)
F	+.321 (8.15)	-.160 (4.06)	W	+.209 (5.31)	+.095 (2.41)
G	+.242 (6.15)	-.265 (6.73)	X	+.228 (5.79)	-.033 (0.84)
H	+.130 (3.30)	-.335 (8.51)	Y	+.174 (4.42)	-.151 (3.84)
J	+.000 (0.00)	-.359 (9.12)	Z	+.000 (0.00)	-.191 (4.85)
K	-.130 (3.30)	-.335 (8.51)	a	-.174 (4.42)	-.151 (3.84)
L	-.242 (6.15)	-.265 (6.73)	b	-.228 (5.79)	-.033 (0.84)
M	-.321 (8.15)	-.160 (4.06)	c	-.209 (5.31)	+.095 (2.41)
N	-.357 (9.07)	-.033 (0.84)	d	-.124 (3.15)	+.193 (4.90)
P	-.345 (8.76)	+.098 (2.49)	e	+.000 (0.00)	+.062 (1.57)

Shell size	Arrangement no.	Number of contacts	Size contacts	Service rating	Contact location	Supersedes
19	-28	2	16	I	e, Z	MS20054-28
		26	20		All others	

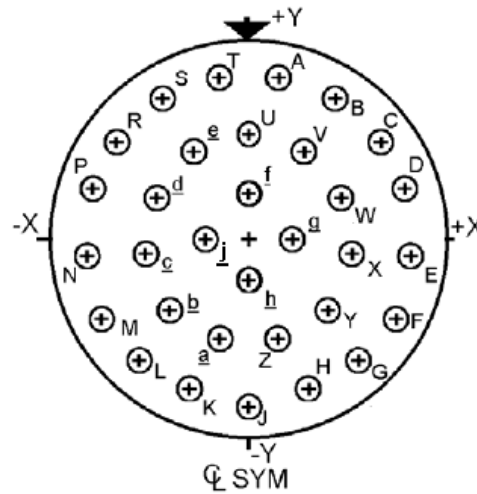
FIGURE 6. Insert arrangement, electrical connector, shell size 19 (series I, III, IV of MIL-DTL-38999, series I of MIL-DTL-27599, and series A of SAE-AS29600) – Continued.

MIL-STD-1560C
w/CHANGE 2

Contacts (Insert arrangement 19-30)					
Contact position ID	Contact location		Contact position ID	Contact location	
	X-axis (mm)	Y-axis (mm)		X-axis (mm)	Y-axis (mm)
A	+.065 (1.65)	+.346 (8.79)	S	-.065 (1.65)	+.346 (8.79)
B	+.186 (4.72)	+.299 (7.59)	T	+.084 (2.13)	+.217 (5.51)
C	+.282 (7.16)	+.210 (5.33)	U	+.181 (4.60)	+.129 (3.28)
D	+.340 (8.64)	+.093 (2.36)	V	+.228 (5.79)	+.008 (0.20)
E	+.351 (8.92)	-.033 (0.84)	W	+.193 (4.90)	-.117 (2.97)
F	+.315 (8.00)	-.158 (4.01)	X	+.096 (2.44)	-.203 (5.16)
G	+.236 (5.99)	-.261 (6.63)	Y	+.000 (0.00)	-.290 (7.37)
H	+.124 (3.15)	-.330 (8.38)	Z	-.096 (2.44)	-.203 (5.16)
J	-.124 (3.15)	-.330 (8.38)	a	-.193 (4.90)	-.117 (2.97)
K	-.236 (5.99)	-.261 (6.63)	b	-.228 (5.79)	+.008 (0.20)
L	-.315 (8.00)	-.158 (4.01)	c	-.181 (4.60)	+.129 (3.28)
M	-.351 (8.92)	-.033 (0.84)	d	-.084 (2.13)	+.217 (5.51)
N	-.340 (8.64)	+.093 (2.36)	e	+.000 (0.00)	+.072 (1.83)
P	-.282 (7.16)	+.210 (5.33)	f	+.069 (1.75)	-.076 (1.93)
R	-.186 (4.72)	+.299 (7.59)	g	-.069 (1.75)	-.076 (1.93)

Shell size	Arrangement no.	Number of contacts	Size contacts	Service rating	Contact location	Supersedes
19	-30	1	16	I	e	MS20054-30
		29	20		All others	

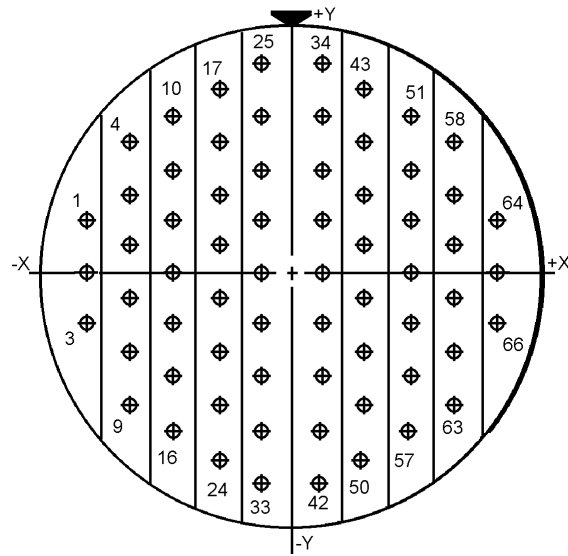
FIGURE 6. Insert arrangement, electrical connector, shell size 19 (series I, III, IV of MIL-DTL-38999, series I of MIL-DTL-27599, and series A of SAE-AS29600) – Continued.

MIL-STD-1560C
w/CHANGE 2

Contacts (Insert arrangement 19-32)					
Contact position ID	Contact location		Contact position ID	Contact location	
	X-axis (mm)	Y-axis (mm)		X-axis (mm)	Y-axis (mm)
A	+.066 (1.68)	+.353 (8.97)	T	-.066 (1.68)	+.353 (8.97)
B	+.189 (4.80)	+.305 (7.75)	U	+.000 (0.00)	+.230 (5.84)
C	+.286 (7.26)	+.217 (5.51)	V	+.124 (3.15)	+.193 (4.90)
D	+.345 (8.76)	+.098 (2.49)	W	+.209 (5.31)	+.095 (2.41)
E	+.357 (9.07)	-.033 (0.84)	X	+.228 (5.79)	-.033 (0.84)
F	+.321 (8.15)	-.160 (4.06)	Y	+.174 (4.42)	-.151 (3.84)
G	+.242 (6.15)	-.265 (6.73)	Z	+.065 (1.65)	-.221 (5.61)
H	+.130 (3.30)	-.335 (8.51)	a	-.065 (1.65)	-.221 (5.61)
J	-.000 (0.00)	-.359 (9.12)	b	-.174 (4.42)	-.151 (3.84)
K	-.130 (3.30)	-.335 (8.51)	c	-.228 (5.79)	-.033 (0.84)
L	-.242 (6.15)	-.265 (6.73)	d	-.209 (5.31)	+.095 (2.41)
M	-.321 (8.15)	-.160 (4.06)	e	-.124 (3.15)	+.193 (4.90)
N	-.357 (9.07)	-.033 (0.84)	f	+.000 (0.00)	+.096 (2.44)
P	-.345 (8.76)	+.098 (2.49)	g	+.096 (2.44)	+.000 (0.00)
R	-.286 (7.26)	+.217 (5.51)	h	+.000 (0.00)	-.096 (2.44)
S	-.189 (4.80)	+.305 (7.75)	i	-.096 (2.44)	+.000 (0.00)

Shell size	Arrangement no.	Number of contacts	Size contacts	Service rating	Contact location	Supersedes
19	-32	32	20	I	All	MS20054-32

FIGURE 6. Insert arrangement, electrical connector, shell size 19 (series I, III, IV of MIL-DTL-38999, series I of MIL-DTL-27599, and series A of SAE-AS29600) – Continued.

MIL-STD-1560C
w/CHANGE 2

Contacts (Insert arrangement 19-35)					
Contact position ID	Location		Contact position ID	Location	
	X-axis (mm)	Y-axis (mm)		X-axis (mm)	Y-axis (mm)
1	-.357 (9.07)	+.090 (2.29)	34	+.045 (1.14)	+.360 (9.14)
2	-.357 (9.07)	+.000 (0.00)	35	+.045 (1.14)	+.270 (6.86)
3	-.357 (9.07)	-.090 (2.29)	36	+.045 (1.14)	+.180 (4.57)
4	-.279 (7.09)	+.225 (5.72)	37	+.045 (1.14)	+.090 (2.29)
5	-.279 (7.09)	+.135 (3.43)	38	+.045 (1.14)	+.000 (0.00)
6	-.279 (7.09)	+.045 (1.14)	39	+.045 (1.14)	-.090 (2.29)
7	-.279 (7.09)	-.045 (1.14)	40	+.045 (1.14)	-.180 (4.57)
8	-.279 (7.09)	-.135 (3.43)	41	+.045 (1.14)	-.270 (6.86)
9	-.279 (7.09)	-.225 (5.72)	42	+.045 (1.14)	-.360 (9.14)
10	-.201 (5.11)	+.270 (6.86)	43	+.123 (3.12)	+.315 (8.00)
11	-.201 (5.11)	+.180 (4.57)	44	+.123 (3.12)	+.225 (5.72)
12	-.201 (5.11)	+.090 (2.29)	45	+.123 (3.12)	+.135 (3.43)
13	-.201 (5.11)	+.000 (0.00)	46	+.123 (3.12)	+.045 (1.14)
14	-.201 (5.11)	-.090 (2.29)	47	+.123 (3.12)	-.045 (1.14)
15	-.201 (5.11)	-.180 (4.57)	48	+.123 (3.12)	-.135 (3.43)
16	-.201 (5.11)	-.270 (6.86)	49	+.123 (3.12)	-.225 (5.72)
17	-.123 (3.12)	+.315 (8.00)	50	+.123 (3.12)	-.315 (8.00)

FIGURE 6. Insert arrangement, electrical connector, shell size 19 (series I, III, IV of MIL-DTL-38999, series I of MIL-DTL-27599, and series A of SAE-AS29600) – Continued.

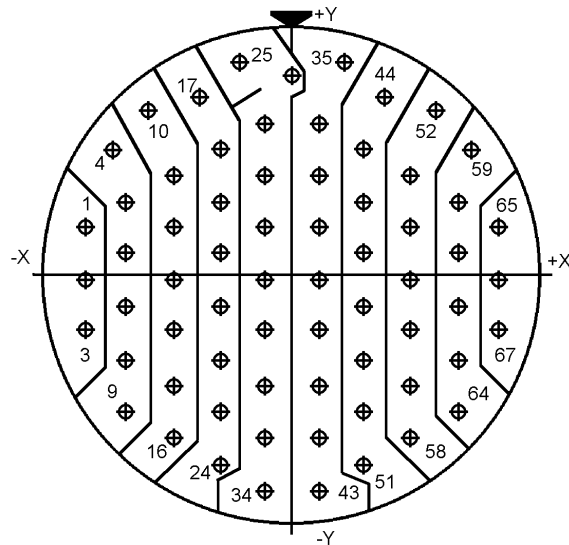
MIL-STD-1560C
w/CHANGE 2

Contacts (Insert arrangement 19-35)					
Contact position ID	Location		Contact position ID	Location	
	X-axis (mm)	Y-axis (mm)		X-axis (mm)	Y-axis (mm)
18	-.123 (3.12)	+.225 (5.72)	51	+.201 (5.11)	+.270 (6.86)
19	-.123 (3.12)	+.135 (3.43)	52	+.201 (5.11)	+.180 (4.57)
20	-.123 (3.12)	+.045 (1.14)	53	+.201 (5.11)	+.090 (2.29)
21	-.123 (3.12)	-.045 (1.14)	54	+.201 (5.11)	+.000 (0.00)
22	-.123 (3.12)	-.135 (3.43)	55	+.201 (5.11)	-.090 (2.29)
23	-.123 (3.12)	-.225 (5.72)	56	+.201 (5.11)	-.180 (4.57)
24	-.123 (3.12)	-.315 (8.00)	57	+.201 (5.11)	-.270 (6.86)
25	-.045 (1.14)	+.360 (9.14)	58	+.279 (7.09)	+.225 (5.72)
26	-.045 (1.14)	+.270 (6.86)	59	+.279 (7.09)	+.135 (3.43)
27	-.045 (1.14)	+.180 (4.57)	60	+.279 (7.09)	+.045 (1.14)
28	-.045 (1.14)	+.090 (2.29)	61	+.279 (7.09)	-.045 (1.14)
29	-.045 (1.14)	+.000 (0.00)	62	+.279 (7.09)	-.135 (3.43)
30	-.045 (1.14)	-.090 (2.29)	63	+.279 (7.09)	-.225 (5.72)
31	-.045 (1.14)	-.180 (4.57)	64	+.357 (9.07)	+.090 (2.29)
32	-.045 (1.14)	-.270 (6.86)	65	+.357 (9.07)	+.000 (0.00)
33	-.045 (1.14)	-.360 (9.14)	66	+.357 (9.07)	-.090 (2.29)

(Applicable to MIL-DTL-38999 only)

Shell size	Arrangement no.	Number of contacts	Size contacts	Service rating	Contact location	Supersedes
19	-35	66	22D	M	All	MS27530-35

FIGURE 6. Insert arrangement, electrical connector, shell size 19 (series I, III, IV of MIL-DTL-38999, series I of MIL-DTL-27599, and series A of SAE-AS29600) – Continued.

MIL-STD-1560C
w/CHANGE 2

Contacts (Insert arrangement 19-45)					
Contact position ID	Location		Contact position ID	Location	
	X-axis (mm)	Y-axis (mm)		X-axis (mm)	Y-axis (mm)
1	-.357 (9.07)	+.081 (2.06)	35	+.088 (2.24)	+.360 (9.14)
2	-.357 (9.07)	-.009 (0.23)	36	+.045 (1.14)	+.261 (6.63)
3	-.357 (9.07)	-.099 (2.51)	37	+.045 (1.14)	+.171 (4.34)
4	-.304 (7.72)	+.213 (5.41)	38	+.045 (1.14)	+.081 (2.06)
5	-.279 (7.09)	+.126 (3.20)	39	+.045 (1.14)	-.009 (.23)
6	-.279 (7.09)	+.036 (0.91)	40	+.045 (1.14)	-.099 (2.51)
7	-.279 (7.09)	-.054 (1.37)	41	+.045 (1.14)	-.189 (4.80)
8	-.279 (7.09)	-.144 (3.66)	42	+.045 (1.14)	-.279 (7.09)
9	-.279 (7.09)	-.234 (5.94)	43	+.045 (1.14)	-.369 (9.37)
10	-.244 (6.20)	+.280 (7.11)	44	+.156 (3.96)	+.301 (7.65)
11	-.201 (5.11)	+.171 (4.34)	45	+.123 (3.12)	+.216 (5.49)
12	-.201 (5.11)	+.081 (2.06)	46	+.123 (3.12)	+.126 (3.20)
13	-.201 (5.11)	-.009 (0.23)	47	+.123 (3.12)	+.036 (0.91)
14	-.201 (5.11)	-.099 (2.51)	48	+.123 (3.12)	-.054 (1.37)
15	-.201 (5.11)	-.189 (4.80)	49	+.123 (3.12)	-.144 (3.66)
16	-.201 (5.11)	-.279 (7.09)	50	+.123 (3.12)	-.234 (5.94)
17	-.156 (3.96)	+.301 (7.65)	51	+.123 (3.12)	-.324 (8.23)

FIGURE 6. Insert arrangement, electrical connector, shell size 19 (series I, III, IV of MIL-DTL-38999, series I of MIL-DTL-27599, and series A of SAE-AS29600) – Continued.

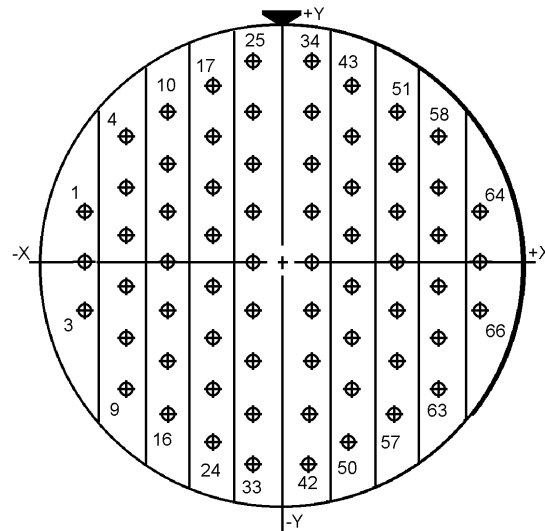
MIL-STD-1560C
w/CHANGE 2

Contacts (Insert arrangement 19-45)					
Contact position ID	Location		Contact position ID	Location	
	X-axis (mm)	Y-axis (mm)		X-axis (mm)	Y-axis (mm)
18	-.123 (3.12)	+.216 (5.49)	52	+.244 (6.20)	+.280 (7.11)
19	-.123 (3.12)	+.126 (3.20)	53	+.201 (5.11)	+.171 (4.34)
20	-.123 (3.12)	+.036 (0.91)	54	+.201 (5.11)	+.081 (2.06)
21	-.123 (3.12)	-.054 (1.37)	55	+.201 (5.11)	-.009 (0.23)
22	-.123 (3.12)	-.144 (3.66)	56	+.201 (5.11)	-.099 (2.51)
23	-.123 (3.12)	-.234 (5.94)	57	+.201 (5.11)	-.189 (4.80)
24	-.123 (3.12)	-.324 (8.23)	58	+.201 (5.11)	-.279 (7.09)
25	-.088 (2.24)	+.360 (9.14)	59	+.304 (7.72)	+.213 (5.41)
26	+.000 (0.00)	+.339 (8.61)	60	+.279 (7.09)	+.126 (3.20)
27	-.045 (1.14)	+.261 (6.63)	61	+.279 (7.09)	+.036 (0.91)
28	-.045 (1.14)	+.171 (4.34)	62	+.279 (7.09)	-.054 (1.37)
29	-.045 (1.14)	+.081 (2.06)	63	+.279 (7.09)	-.144 (3.66)
30	-.045 (1.14)	-.009 (0.23)	64	+.279 (7.09)	-.234 (5.94)
31	-.045 (1.14)	-.099 (2.51)	65	+.357 (9.07)	+.081 (2.06)
32	-.045 (1.14)	-.189 (4.80)	66	+.357 (9.07)	-.009 (0.23)
33	-.045 (1.14)	-.279 (7.09)	67	+.357 (9.07)	-.099 (2.51)
34	-.045 (1.14)	-.369 (9.37)	---	---	---

(Applicable to MIL-DTL-38999)

Shell size	Arrangement no.	Number of contacts	Size contacts	Service rating	Contact location	Supersedes
19	-45	67	22D	M	All	MS27530-45

FIGURE 6. Insert arrangement, electrical connector, shell size 19 (series I, III, IV of MIL-DTL-38999, series I of MIL-DTL-27599, and series A of SAE-AS29600) – Continued.

MIL-STD-1560C
w/CHANGE 2

Contacts (Insert arrangement 19-66)					
Contact position ID	Location		Contact position ID	Location	
	X-axis (mm)	Y-axis (mm)		X-axis (mm)	Y-axis (mm)
1	-.357 (9.07)	+.090 (2.29)	34	+.045 (1.14)	+.360 (9.14)
2	-.357 (9.07)	+.000 (0.00)	35	+.045 (1.14)	+.270 (6.86)
3	-.357 (9.07)	-.090 (2.29)	36	+.045 (1.14)	+.180 (4.57)
4	-.279 (7.09)	+.225 (5.72)	37	+.045 (1.14)	+.090 (2.29)
5	-.279 (7.09)	+.135 (3.43)	38	+.045 (1.14)	+.000 (0.00)
6	-.279 (7.09)	+.045 (1.14)	39	+.045 (1.14)	-.090 (2.29)
7	-.279 (7.09)	-.045 (1.14)	40	+.045 (1.14)	-.180 (4.57)
8	-.279 (7.09)	-.135 (3.43)	41	+.045 (1.14)	-.270 (6.86)
9	-.279 (7.09)	-.225 (5.72)	42	+.045 (1.14)	-.360 (9.14)
10	-.201 (5.11)	+.270 (6.86)	43	+.123 (3.12)	+.315 (8.00)
11	-.201 (5.11)	+.180 (4.57)	44	+.123 (3.12)	+.225 (5.72)
12	-.201 (5.11)	+.090 (2.29)	45	+.123 (3.12)	+.135 (3.43)
13	-.201 (5.11)	+.000 (0.00)	46	+.123 (3.12)	+.045 (1.14)
14	-.201 (5.11)	-.090 (2.29)	47	+.123 (3.12)	-.045 (1.14)
15	-.201 (5.11)	-.180 (4.57)	48	+.123 (3.12)	-.135 (3.43)
16	-.201 (5.11)	-.270 (6.86)	49	+.123 (3.12)	-.225 (5.72)
17	-.123 (3.12)	+.315 (8.00)	50	+.123 (3.12)	-.315 (8.00)

FIGURE 6. Insert arrangement, electrical connector, shell size 19 (series I, III, IV of MIL-DTL-38999, series I of MIL-DTL-27599, and series A of SAE-AS29600) – Continued.

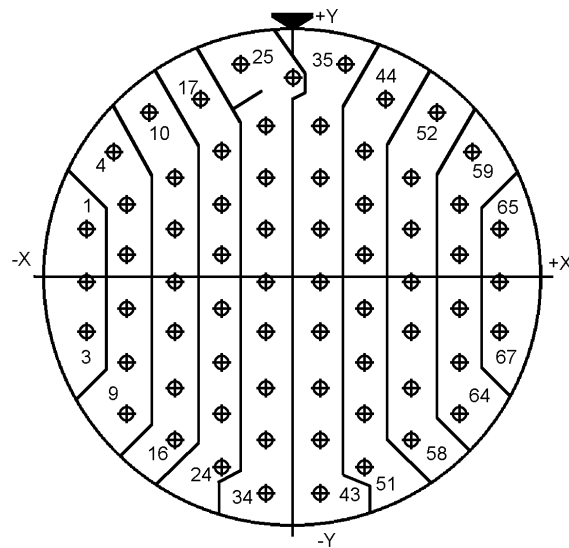
MIL-STD-1560C
w/CHANGE 2

Contacts (Insert arrangement 19-66)					
Contact position ID	Location		Contact position ID	Location	
	X-axis (mm)	Y-axis (mm)		X-axis (mm)	Y-axis (mm)
18	-.123 (3.12)	+.225 (5.72)	51	+.201 (5.11)	+.270 (6.86)
19	-.123 (3.12)	+.135 (3.43)	52	+.201 (5.11)	+.180 (4.57)
20	-.123 (3.12)	+.045 (1.14)	53	+.201 (5.11)	+.090 (2.29)
21	-.123 (3.12)	-.045 (1.14)	54	+.201 (5.11)	+.000 (0.00)
22	-.123 (3.12)	-.135 (3.43)	55	+.201 (5.11)	-.090 (2.29)
23	-.123 (3.12)	-.225 (5.72)	56	+.201 (5.11)	-.180 (4.57)
24	-.123 (3.12)	-.315 (8.00)	57	+.201 (5.11)	-.270 (6.86)
25	-.045 (1.14)	+.360 (9.14)	58	+.279 (7.09)	+.225 (5.72)
26	-.045 (1.14)	+.270 (6.86)	59	+.279 (7.09)	+.135 (3.43)
27	-.045 (1.14)	+.180 (4.57)	60	+.279 (7.09)	+.045 (1.14)
28	-.045 (1.14)	+.090 (2.29)	61	+.279 (7.09)	-.045 (1.14)
29	-.045 (1.14)	+.000 (0.00)	62	+.279 (7.09)	-.135 (3.43)
30	-.045 (1.14)	-.090 (2.29)	63	+.279 (7.09)	-.225 (5.72)
31	-.045 (1.14)	-.180 (4.57)	64	+.357 (9.07)	+.090 (2.29)
32	-.045 (1.14)	-.270 (6.86)	65	+.357 (9.07)	+.000 (0.00)
33	-.045 (1.14)	-.360 (9.14)	66	+.357 (9.07)	-.090 (2.29)

(Inactive for new design for MIL-DTL-38999)

Shell size	Arrangement no.	Number of contacts	Size contacts	Service rating	Contact location	Supersedes
19	-66	66	22M	M	All	MS20054-66

FIGURE 6. Insert arrangement, electrical connector, shell size 19 (series I, III, IV of MIL-DTL-38999, series I of MIL-DTL-27599, and series A of SAE-AS29600) – Continued.

MIL-STD-1560C
w/CHANGE 2

Contacts (Insert arrangement 19-67)					
Contact position ID	Location		Contact position ID	Location	
	X-axis (mm)	Y-axis (mm)		X-axis (mm)	Y-axis (mm)
1	-.357 (9.07)	+.081 (2.06)	35	+.088 (2.24)	+.360 (9.14)
2	-.357 (9.07)	-.009 (0.23)	36	+.045 (1.14)	+.261 (6.63)
3	-.357 (9.07)	-.099 (2.51)	37	+.045 (1.14)	+.171 (4.34)
4	-.304 (7.72)	+.213 (5.41)	38	+.045 (1.14)	+.081 (2.06)
5	-.279 (7.09)	+.126 (3.20)	39	+.045 (1.14)	-.009 (0.23)
6	-.279 (7.09)	+.036 (0.91)	40	+.045 (1.14)	-.099 (2.51)
7	-.279 (7.09)	-.054 (1.37)	41	+.045 (1.14)	-.189 (4.80)
8	-.279 (7.09)	-.144 (3.66)	42	+.045 (1.14)	-.279 (7.09)
9	-.279 (7.09)	-.234 (5.94)	43	+.045 (1.14)	-.369 (9.37)
10	-.244 (6.20)	+.280 (7.11)	44	+.156 (3.96)	+.301 (7.65)
11	-.201 (5.11)	+.171 (4.34)	45	+.123 (3.12)	+.216 (5.49)
12	-.201 (5.11)	+.081 (2.06)	46	+.123 (3.12)	+.126 (3.20)
13	-.201 (5.11)	-.009 (0.23)	47	+.123 (3.12)	+.036 (0.91)
14	-.201 (5.11)	-.099 (2.51)	48	+.123 (3.12)	-.054 (1.37)
15	-.201 (5.11)	-.189 (4.80)	49	+.123 (3.12)	-.144 (3.66)
16	-.201 (5.11)	-.279 (7.09)	50	+.123 (3.12)	-.234 (5.94)
17	-.156 (3.96)	+.301 (7.65)	51	+.123 (3.12)	-.324 (8.23)

FIGURE 6. Insert arrangement, electrical connector, shell size 19 (series I, III, IV of MIL-DTL-38999, series I of MIL-DTL-27599, and series A of SAE-AS29600) – Continued.

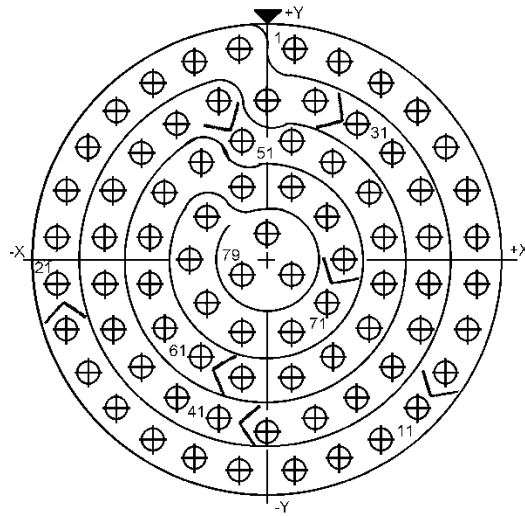
MIL-STD-1560C
w/CHANGE 2

Contacts (Insert arrangement 19-67)					
Contact position ID	Location		Contact position ID	Location	
	X-axis (mm)	Y-axis (mm)		X-axis (mm)	Y-axis (mm)
18	-.123 (3.12)	+.216 (5.49)	52	+.244 (6.20)	+.280 (7.11)
19	-.123 (3.12)	+.126 (3.20)	53	+.201 (5.11)	+.171 (4.34)
20	-.123 (3.12)	+.036 (0.91)	54	+.201 (5.11)	+.081 (2.06)
21	-.123 (3.12)	-.054 (1.37)	55	+.201 (5.11)	-.009 (.23)
22	-.123 (3.12)	-.144 (3.66)	56	+.201 (5.11)	-.099 (2.51)
23	-.123 (3.12)	-.234 (5.94)	57	+.201 (5.11)	-.189 (4.80)
24	-.123 (3.12)	-.324 (8.23)	58	+.201 (5.11)	-.279 (7.09)
25	-.088 (2.24)	+.360 (9.14)	59	+.304 (7.72)	+.213 (5.41)
26	-.000 (0.00)	+.339 (8.61)	60	+.279 (7.09)	+.126 (3.20)
27	-.045 (1.14)	+.261 (6.63)	61	+.279 (7.09)	+.036 (0.91)
28	-.045 (1.14)	+.171 (4.34)	62	+.279 (7.09)	-.054 (1.37)
29	-.045 (1.14)	+.081 (2.06)	63	+.279 (7.09)	-.144 (3.66)
30	-.045 (1.14)	-.009 (0.23)	64	+.279 (7.09)	-.234 (5.94)
31	-.045 (1.14)	-.099 (2.51)	65	+.357 (9.07)	+.081 (2.06)
32	-.045 (1.14)	-.189 (4.80)	66	+.357 (9.07)	-.009 (0.23)
33	-.045 (1.14)	-.279 (7.09)	67	+.357 (9.07)	-.099 (2.51)
34	-.045 (1.14)	-.369 (9.37)	---	---	---

(Inactive for new design for MIL-DTL-38999)

Shell size	Arrangement no.	Number of contacts	Size contacts	Service rating	Contact location	Supersedes
19	-67	67	22M	M	All	MS20054-67

FIGURE 6. Insert arrangement, electrical connector, shell size 19 (series I, III, IV of MIL-DTL-38999, series I of MIL-DTL-27599, and series A of SAE-AS29600) – Continued.

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w/CHANGE 2

Contacts (Insert arrangement 21-1)					
Contact position ID	Location		Contact position ID	Location	
	X-axis (mm)	Y-axis (mm)		X-axis (mm)	Y-axis (mm)
1	+.053 (1.35)	+.426 (10.82)	41	-.098 (2.49)	-.322 (8.18)
2	+.146 (3.71)	+.404 (10.26)	42	-.184 (4.67)	-.280 (7.11)
3	+.232 (5.89)	+.362 (9.19)	43	-.258 (6.55)	-.220 (5.59)
4	+.306 (7.77)	+.302 (7.67)	44	-.311 (7.90)	-.141 (3.58)
5	+.365 (9.27)	+.227 (5.77)	45	-.332 (8.43)	-.048 (1.22)
6	+.406 (10.31)	+.141 (3.58)	46	-.332 (8.43)	+.048 (1.22)
7	+.427 (10.85)	+.048 (1.22)	47	-.311 (7.90)	+.141 (3.58)
8	+.427 (10.85)	-.048 (1.22)	48	-.258 (6.55)	+.220 (5.59)
9	+.406 (10.31)	-.141 (3.58)	49	-.184 (4.67)	+.280 (7.11)
10	+.365 (9.27)	-.227 (5.77)	50	-.098 (2.49)	+.322 (8.18)
11	+.306 (7.77)	-.302 (7.67)	51	-.048 (1.22)	+.241 (6.12)
12	+.232 (5.89)	-.362 (9.19)	52	+.048 (1.22)	+.241 (6.12)
13	+.146 (3.71)	-.404 (10.26)	53	+.134 (3.40)	+.199 (5.05)
14	+.053 (1.35)	-.426 (10.82)	54	+.208 (5.28)	+.139 (3.53)
15	-.053 (1.35)	-.426 (10.82)	55	+.237 (6.02)	+.048 (1.22)
16	-.146 (3.71)	-.404 (10.26)	56	+.237 (6.02)	-.048 (1.22)
17	-.232 (5.89)	-.362 (9.19)	57	+.208 (5.28)	-.139 (3.53)
18	-.306 (7.77)	-.302 (7.67)	58	+.134 (3.40)	-.199 (5.05)

FIGURE 7. Insert arrangement, electrical connector, shell size 21 (series I, III, IV of MIL-DTL-38999, series I of MIL-DTL-27599, and series A of SAE-AS29600) – Continued.

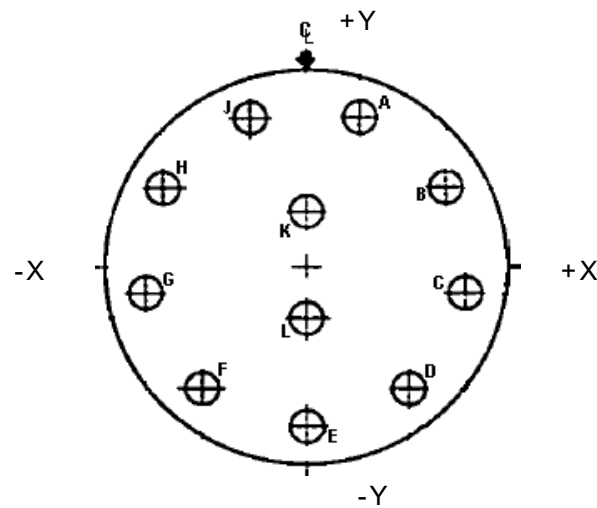
MIL-STD-1560C
w/CHANGE 2

Contacts (Insert arrangement 21-1)					
Contact position ID	Location		Contact position ID	Location	
	X-axis (mm)	Y-axis (mm)		X-axis (mm)	Y-axis (mm)
19	-.365 (9.27)	-.227 (5.77)	59	+.048 (1.22)	-.241 (6.12)
20	-.406 (10.31)	-.141 (3.58)	60	-.048 (1.22)	-.241 (6.12)
21	-.427 (10.85)	-.048 (1.22)	61	-.134 (3.40)	-.199 (5.05)
22	-.427 (10.85)	+.048 (1.22)	62	-.208 (5.28)	-.139 (3.53)
23	-.406 (10.31)	+.141 (3.58)	63	-.237 (6.02)	-.048 (1.22)
24	-.365 (9.27)	+.227 (5.77)	64	-.237 (6.02)	+.048 (1.22)
25	-.306 (7.77)	+.302 (7.67)	65	-.208 (5.28)	+.139 (3.53)
26	-.232 (5.89)	+.362 (9.19)	66	-.134 (3.40)	+.199 (5.05)
27	-.146 (3.71)	+.404 (10.26)	67	-.048 (1.22)	+.146 (3.71)
28	-.053 (1.35)	+.426 (10.82)	68	+.048 (1.22)	+.146 (3.71)
29	+.000 (0.00)	+.323 (8.20)	69	+.125 (3.18)	+.090 (2.29)
30	+.098 (2.49)	+.322 (8.18)	70	+.155 (3.94)	+.000 (0.00)
31	+.184 (4.67)	+.280 (7.11)	71	+.125 (3.18)	-.090 (2.29)
32	+.258 (6.55)	+.220 (5.59)	72	+.048 (1.22)	-.146 (3.71)
33	+.311 (7.90)	+.141 (3.58)	73	-.048 (1.22)	-.146 (3.71)
34	+.332 (8.43)	+.048 (1.22)	74	-.125 (3.18)	-.090 (2.29)
35	+.332 (8.43)	-.048 (1.22)	75	-.155 (3.94)	+.000 (0.00)
36	+.311 (7.90)	-.141 (3.58)	76	-.125 (3.18)	+.090 (2.29)
37	+.258 (6.55)	-.220 (5.59)	77	+.000 (0.00)	+.053 (1.35)
38	+.184 (4.67)	-.280 (7.11)	78	+.048 (1.22)	-.029 (0.74)
39	+.098 (2.49)	-.322 (8.18)	79	-.048 (1.22)	-.029 (0.74)
40	+.000 (0.00)	-.347 (8.81)	---	---	---

(Inactive for new design for MIL-DTL-38999)

Shell size	Arrangement no.	Number of contacts	Size contacts	Service rating	Contact location	Supersedes
21	-1	79	22M	M	79	MS20055-1

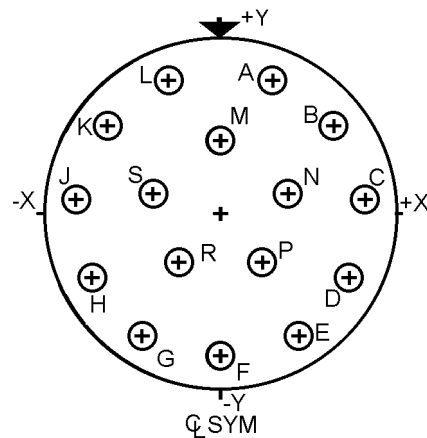
FIGURE 7. Insert arrangement, electrical connector, shell size 21 (series I, III, IV of MIL-DTL-38999, series I of MIL-DTL-27599, and series A of SAE-AS29600) – Continued.

MIL-STD-1560C
w/CHANGE 2

Contacts (Insert arrangement 21-11)					
Contact position ID	Location		Contact position ID	Location	
	X-axis (mm)	Y-axis (mm)		X-axis (mm)	Y-axis (mm)
A	+.121 (3.07)	+.332 (8.43)	G	-.348 (8.84)	-.061 (1.55)
B	+.306 (7.77)	+.177 (4.50)	H	-.306 (7.77)	+.177 (4.50)
C	+.348 (8.84)	-.061 (1.55)	J	-.121 (3.07)	+.332 (8.43)
D	+.227 (5.77)	-.270 (6.86)	K	+.000 (0.00)	+.123 (3.12)
E	+.000 (0.00)	-.353 (8.97)	L	+.000 (0.00)	-.115 (2.92)
F	-.227 (5.77)	-.270 (6.86)	---	---	---

Shell size	Arrangement no.	Number of contacts	Size contacts	Service rating	Contact location	Supersedes
21	-11	11	12	I	All	MS20055-11

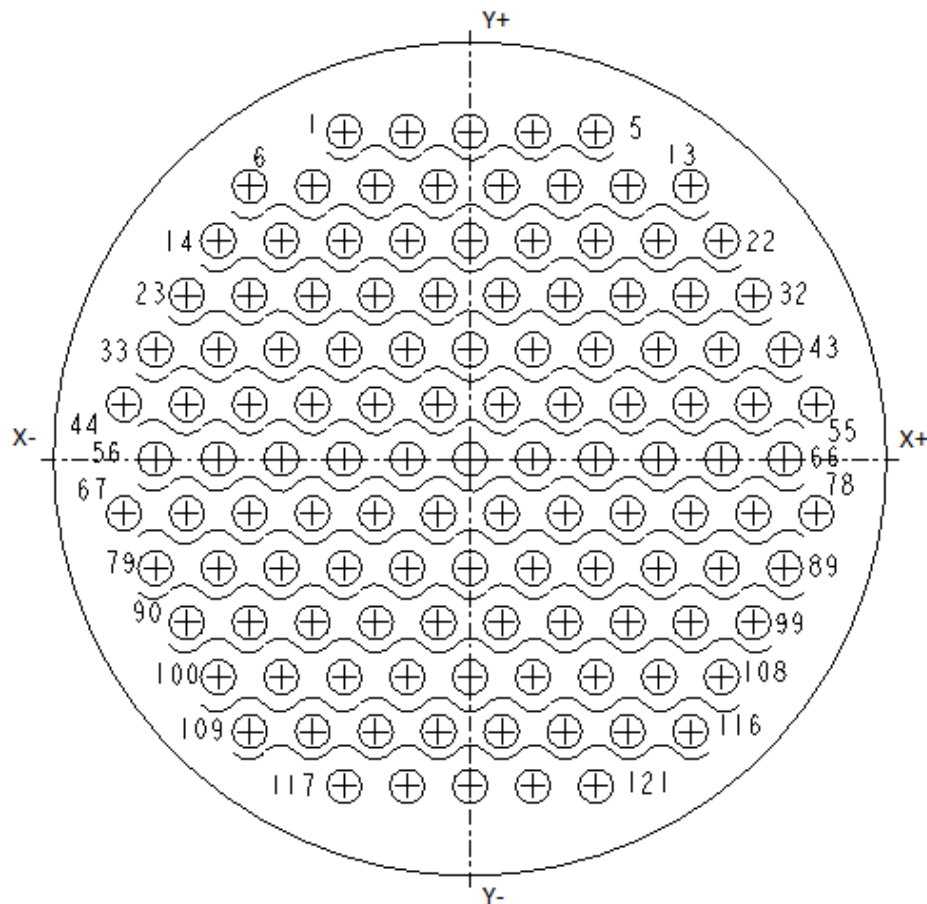
FIGURE 7. Insert arrangement, electrical connector, shell size 21 (series I, III, IV of MIL-DTL-38999, series I of MIL-DTL-27599, and series A of SAE-AS29600) – Continued.

MIL-STD-1560C
w/CHANGE 2

Contacts (Insert arrangement 21-16)					
Contact position ID	Location		Contact position ID	Location	
	X-axis	Y-axis		X-axis	Y-axis
A	+.118 (3.00)	+.322 (8.18)	J	-.341 (8.66)	+.036 (0.91)
B	+.271 (6.88)	+.211 (5.36)	K	-.271 (6.88)	+.211 (5.36)
C	+.341 (8.66)	+.036 (0.91)	L	-.118 (3.00)	+.322 (8.18)
D	+.308 (7.82)	-.150 (3.81)	M	+.000 (0.00)	+.175 (4.45)
E	+.182 (4.62)	-.290 (7.37)	N	+.154 (3.91)	+.062 (1.57)
F	+.000 (0.00)	-.343 (8.71)	P	+.094 (2.39)	-.122 (3.10)
G	-.182 (4.62)	-.290 (7.37)	R	-.094 (2.39)	-.122 (3.10)
H	-.308 (7.82)	-.150 (3.81)	S	-.154 (3.91)	+.062 (1.57)

Shell size	Arrangement no.	Number of contacts	Size contacts	Service rating	Contact location	Supersedes
21	-16	16	16	II	All	MS20055-16

FIGURE 7. Insert arrangement, electrical connector, shell size 21 (series I, III, IV of MIL-DTL-38999, series I of MIL-DTL-27599, and series A of SAE-AS29600) – Continued.

MIL-STD-1560C
w/CHANGE 2

Contacts (Insert arrangement 21-23)					
Contact position ID	Location		Contact position ID	Location	
	X-axis (mm)	Y-axis (mm)		X-axis (mm)	Y-axis (mm)
1	-.161 (4.08)	+.417 (10.60)	62	+.080 (2.04)	+.000 (0.00)
2	-.080 (2.04)	+.417 (10.60)	63	+.161 (4.08)	+.000 (0.00)
3	+.000 (0.00)	+.417 (10.60)	64	+.241 (6.12)	+.000 (0.00)
4	+.080 (2.04)	+.417 (10.60)	65	+.321 (8.16)	+.000 (0.00)
5	+.161 (4.08)	+.417 (10.60)	66	+.402 (10.20)	+.000 (0.00)
6	-.281 (7.14)	+.348 (8.83)	67	-.442 (11.22)	-.070 (1.77)

FIGURE 7. Insert arrangement, electrical connector, shell size 21 (series I, III, IV of MIL-DTL-38999, series I of MIL-DTL-27599, and series A of SAE-AS29600) – Continued.

MIL-STD-1560C
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Contacts (Insert arrangement 21-23)					
Contact position ID	Location		Contact position ID	Location	
	X-axis (mm)	Y-axis (mm)		X-axis (mm)	Y-axis (mm)
7	-.201 (5.10)	+.348 (8.83)	68	-.361 (9.18)	-.070 (1.77)
8	-.121 (3.06)	+.348 (8.83)	69	-.281 (7.14)	-.070 (1.77)
9	-.040 (1.02)	+.348 (8.83)	70	-.201 (5.10)	-.070 (1.77)
10	+.040 (1.02)	+.348 (8.83)	71	-.121 (3.06)	-.070 (1.77)
11	+.121 (3.06)	+.348 (8.83)	72	-.040 (1.02)	-.070 (1.77)
12	+.201 (5.10)	+.348 (8.83)	73	+.040 (1.02)	-.070 (1.77)
13	+.281 (7.14)	+.348 (8.83)	74	+.121 (3.06)	-.070 (1.77)
14	-.321 (8.16)	+.278 (7.07)	75	+.201 (5.10)	-.070 (1.77)
15	-.241 (6.12)	+.278 (7.07)	76	+.281 (7.14)	-.070 (1.77)
16	-.161 (4.08)	+.278 (7.07)	77	+.361 (9.18)	-.070 (1.77)
17	-.080 (2.04)	+.278 (7.07)	78	+.442 (11.22)	-.070 (1.77)
18	+.000 (0.00)	+.278 (7.07)	79	-.402 (10.20)	-.139 (3.53)
19	+.080 (2.04)	+.278 (7.07)	80	-.321 (8.16)	-.139 (3.53)
20	+.161 (4.08)	+.278 (7.07)	81	-.241 (6.12)	-.139 (3.53)
21	+.241 (6.12)	+.278 (7.07)	82	-.161 (4.08)	-.139 (3.53)
22	+.321 (8.16)	+.278 (7.07)	83	-.080 (2.04)	-.139 (3.53)
23	-.361 (9.18)	+.209 (5.30)	84	+.000 (0.00)	-.139 (3.53)
24	-.281 (7.14)	+.209 (5.30)	85	+.080 (2.04)	-.139 (3.53)
25	-.201 (5.10)	+.209 (5.30)	86	+.161 (4.08)	-.139 (3.53)
26	-.121 (3.06)	+.209 (5.30)	87	+.241 (6.12)	-.139 (3.53)
27	-.040 (1.02)	+.209 (5.30)	88	+.321 (8.16)	-.139 (3.53)
28	+.040 (1.02)	+.209 (5.30)	89	+.402 (10.20)	-.139 (3.53)
29	+.121 (3.06)	+.209 (5.30)	90	-.361 (9.18)	-.209 (5.30)
30	+.201 (5.10)	+.209 (5.30)	91	-.281 (7.14)	-.209 (5.30)
31	+.281 (7.14)	+.209 (5.30)	92	-.201 (5.10)	-.209 (5.30)
32	+.361 (9.18)	+.209 (5.30)	93	-.121 (3.06)	-.209 (5.30)
33	-.402 (10.20)	+.139 (3.53)	94	-.040 (1.02)	-.209 (5.30)
34	-.321 (8.16)	+.139 (3.53)	95	+.040 (1.02)	-.209 (5.30)
35	-.241 (6.12)	+.139 (3.53)	96	+.121 (3.06)	-.209 (5.30)
36	-.161 (4.08)	+.139 (3.53)	97	+.201 (5.10)	-.209 (5.30)

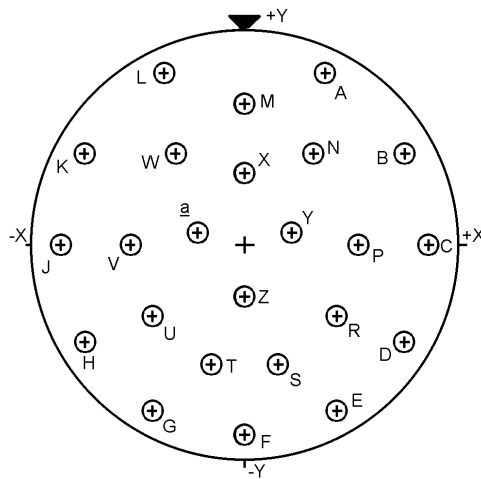
FIGURE 7. Insert arrangement, electrical connector, shell size 21 (series I, III, IV of MIL-DTL-38999, series I of MIL-DTL-27599, and series A of SAE-AS29600) – Continued.

MIL-STD-1560C
w/CHANGE 2

Contacts (Insert arrangement 21-23)					
Contact position ID	Location		Contact position ID	Location	
	X-axis (mm)	Y-axis (mm)		X-axis (mm)	Y-axis (mm)
37	-.080 (2.04)	+.139 (3.53)	98	+.281 (7.14)	-.209 (5.30)
38	+.000 (0.00)	+.139 (3.53)	99	+.361 (9.18)	-.209 (5.30)
39	+.080 (2.04)	+.139 (3.53)	100	-.321 (8.16)	-.278 (7.07)
40	+.161 (4.08)	+.139 (3.53)	101	-.241 (6.12)	-.278 (7.07)
41	+.241 (6.12)	+.139 (3.53)	102	-.161 (4.08)	-.278 (7.07)
42	+.321 (8.16)	+.139 (3.53)	103	-.080 (2.04)	-.278 (7.07)
43	+.402 (10.20)	+.139 (3.53)	104	+.000 (0.00)	-.278 (7.07)
44	-.442 (11.22)	+.070 (1.77)	105	+.080 (2.04)	-.278 (7.07)
45	-.361 (9.18)	+.070 (1.77)	106	+.161 (4.08)	-.278 (7.07)
46	-.281 (7.14)	+.070 (1.77)	107	+.241 (6.12)	-.278 (7.07)
47	-.201 (5.10)	+.070 (1.77)	108	+.321 (8.16)	-.278 (7.07)
48	-.121 (3.06)	+.070 (1.77)	109	-.281 (7.14)	-.348 (8.83)
49	-.040 (1.02)	+.070 (1.77)	110	-.201 (5.10)	-.348 (8.83)
50	+.040 (1.02)	+.070 (1.77)	111	-.121 (3.06)	-.348 (8.83)
51	+.121 (3.06)	+.070 (1.77)	112	-.040 (1.02)	-.348 (8.83)
52	+.201 (5.10)	+.070 (1.77)	113	+.040 (1.02)	-.348 (8.83)
53	+.281 (7.14)	+.070 (1.77)	114	+.121 (3.06)	-.348 (8.83)
54	+.361 (9.18)	+.070 (1.77)	115	+.201 (5.10)	-.348 (8.83)
55	+.442 (11.22)	+.070 (1.77)	116	+.281 (7.14)	-.348 (8.83)
56	-.402 (10.20)	+.000 (0.00)	117	-.161 (4.08)	-.417 (10.60)
57	-.321 (8.16)	+.000 (0.00)	118	-.080 (2.04)	-.417 (10.60)
58	-.241 (6.12)	+.000 (0.00)	119	+.000 (0.00)	-.417 (10.60)
59	-.161 (4.08)	+.000 (0.00)	120	+.080 (2.04)	-.417 (10.60)
60	-.080 (2.04)	+.000 (0.00)	121	+.161 (4.08)	-.417 (10.60)
61	+.000 (0.00)	+.000 (0.00)	---	---	---

Shell size	Arrangement no.	Number of contacts	Size contacts	Service rating	Contact location	Standard contact	
21	-23	121	23-22	N	All	Pin	Socket
						M39029/122-670	M39029/121-663

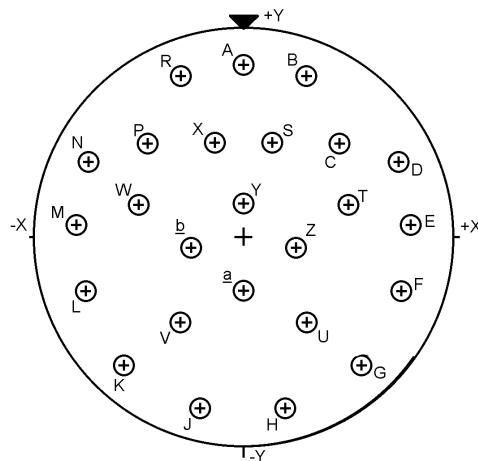
FIGURE 7. Insert arrangement, electrical connector, shell size 21 (series I, III, IV of MIL-DTL-38999, series I of MIL-DTL-27599, and series A of SAE-AS29600) – Continued.

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w/CHANGE 2

Contacts (Insert arrangement 21-24)					
Contact position ID	Contact location		Contact position ID	Contact location	
	X-axis (mm)	Y-axis (mm)		X-axis (mm)	Y-axis (mm)
A	+.175 (4.45)	+.375 (9.53)	N	+.150 (3.81)	+.200 (5.08)
B	+.350 (8.89)	+.200 (5.08)	P	+.250 (6.35)	+.000 (0.00)
C	+.400 (10.16)	+.000 (0.00)	R	+.200 (5.08)	-.150 (3.81)
D	+.350 (8.89)	-.200 (5.08)	S	+.075 (1.91)	-.250 (6.35)
E	+.200 (5.08)	-.350 (8.89)	T	-.075 (1.91)	-.250 (6.35)
F	+.000 (0.00)	-.400 (10.16)	U	-.200 (5.08)	-.150 (3.81)
G	-.200 (5.08)	-.350 (8.89)	V	-.250 (6.35)	+.000 (0.00)
H	-.350 (8.89)	-.200 (5.08)	W	-.150 (3.81)	+.200 (5.08)
J	-.400 (10.16)	+.000 (0.00)	X	+.000 (0.00)	+.150 (3.81)
K	-.350 (8.89)	+.200 (5.08)	Y	+.100 (2.54)	+.025 (0.64)
L	-.175 (4.45)	+.375 (9.53)	Z	+.000 (0.00)	-.100 (2.54)
M	+.000 (0.00)	+.300 (7.62)	a	-.100 (2.54)	+.025 (0.64)

Shell size	Arrangement no.	Number of contacts	Size contacts	Service rating	Contact location	Supersedes
21	-24	24	20	I	All	MS20055-24

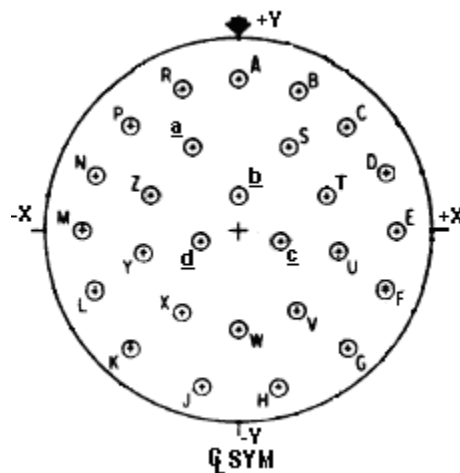
FIGURE 7. Insert arrangement, electrical connector, shell size 21 (series I, III, IV of MIL-DTL-38999, series I of MIL-DTL-27599, and series A of SAE-AS29600) – Continued.

MIL-STD-1560C
w/CHANGE 2

Contacts (Insert arrangement 21-25)					
Contact position ID	Contact location		Contact position ID	Contact location	
	X-axis (mm)	Y-axis (mm)		X-axis (mm)	Y-axis (mm)
A	+.000 (0.00)	+.400 (10.16)	P	-.225 (5.72)	+.225 (5.72)
B	+.150 (3.81)	+.375 (9.53)	R	-.150 (3.81)	+.375 (9.53)
C	+.225 (5.72)	+.225 (5.72)	S	+.075 (1.91)	+.225 (5.72)
D	+.375 (9.53)	+.175 (4.45)	T	+.250 (6.35)	+.075 (1.91)
E	+.400 (10.16)	+.025 (0.64)	U	+.150 (3.81)	-.200 (5.08)
F	+.375 (9.53)	-.125 (3.18)	V	-.150 (3.81)	-.200 (5.08)
G	+.275 (6.99)	-.300 (7.62)	W	-.250 (6.35)	+.075 (1.91)
H	+.100 (2.54)	-.400 (10.16)	X	-.075 (1.91)	+.225 (5.72)
J	-.100 (2.54)	-.400 (10.16)	Y	+.000 (0.00)	+.075 (1.91)
K	-.275 (6.99)	-.300 (7.62)	Z	+.125 (3.18)	-.025 (0.64)
L	-.375 (9.53)	-.125 (3.18)	a	+.000 (0.00)	-.125 (3.18)
M	-.400 (10.16)	+.025 (0.64)	b	-.125 (3.18)	-.025 (0.64)
N	-.375 (9.53)	+.175 (4.45)	---	---	---

Shell size	Arrangement no.	Number of contacts	Size contacts	Service rating	Contact location	Supersedes
21	-25	25	20	I	All	MS20055-25

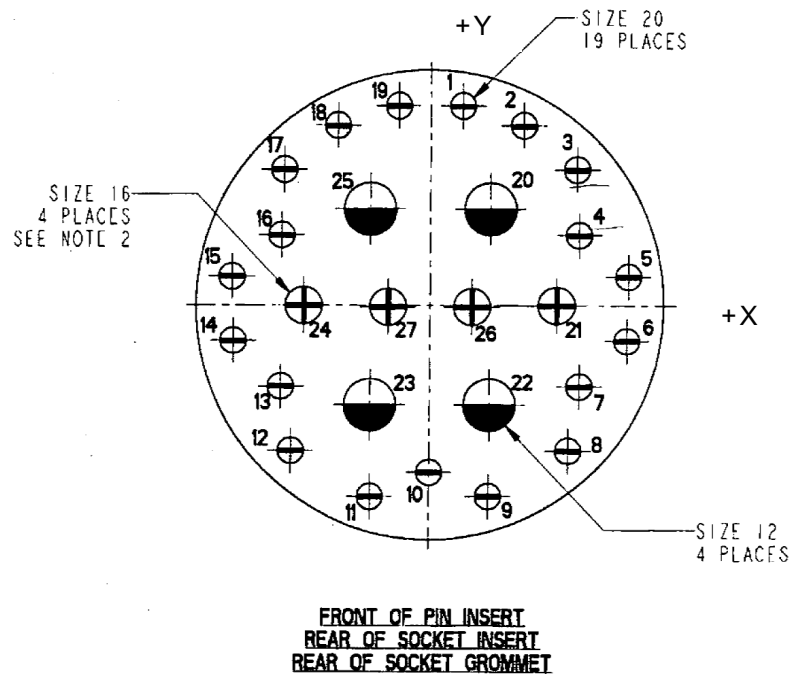
FIGURE 7. Insert arrangement, electrical connector, shell size 21 (series I, III, IV of MIL-DTL-38999, series I of MIL-DTL-27599, and series A of SAE-AS29600) – Continued.

MIL-STD-1560C
w/CHANGE 2

Contacts (Insert arrangement 21-27)					
Contact position ID	Contact location		Contact position ID	Contact location	
	X-axis	Y-axis		X-axis	Y-axis
A	+.000 (0.00)	+.400 (10.16)	R	-.150 (3.81)	+.375 (9.53)
B	+.150 (3.81)	+.375 (9.53)	S	+.125 (3.18)	+.225 (5.72)
C	+.275 (6.99)	+.275 (6.99)	T	+.225 (5.72)	+.100 (2.54)
D	+.375 (9.53)	+.150 (3.81)	U	+.250 (6.35)	-.050 (1.27)
E	+.400 (10.16)	+.000 (0.00)	V	+.150 (3.81)	-.200 (5.08)
F	+.375 (9.53)	-.150 (3.81)	W	+.000 (0.00)	-.250 (6.35)
G	+.275 (6.99)	-.300 (7.62)	X	-.150 (3.81)	-.200 (5.08)
H	+.100 (2.54)	-.400 (10.16)	Y	-.250 (6.35)	-.050 (1.27)
J	-.100 (2.54)	-.400 (10.16)	Z	-.225 (5.72)	+.100 (2.54)
K	-.275 (6.99)	-.300 (7.62)	a	-.125 (3.18)	+.225 (5.72)
L	-.375 (9.53)	-.150 (3.81)	b	+.000 (0.00)	+.100 (2.54)
M	-.400 (10.16)	+.000 (0.00)	c	+.100 (2.54)	-.025 (0.64)
N	-.375 (9.53)	+.150 (3.81)	d	-.100 (2.54)	-.025 (0.64)
P	-.275 (6.99)	+.275 (6.99)	---	---	---

Shell size	Arrangement no.	Number of contacts	Size contacts	Service rating	Contact location	Supersedes
21	-27	27	20	I	All	MS20055-27

FIGURE 7. Insert arrangement, electrical connector, shell size 21 (series I, III, IV of MIL-DTL-38999, series I of MIL-DTL-27599, and series A of SAE-AS29600) – Continued.

MIL-STD-1560C
w/CHANGE 2

Contacts (Insert arrangement 21-29)					
Contact position ID	Contact location		Contact position ID	Contact location	
	X-axis	Y-axis		X-axis	Y-axis
1	+.067 (1.70)	+.412 (10.46)	15	-.412(10.46)	+.060 (1.52)
2	+.194 (4.93)	+.372 (9.45)	16	-.310 (7.87)	+.146 (3.71)
3	+.305 (7.45)	+.281 (7.14)	17	-.305 (7.45)	+.281 (7.14)
4	+.310 (7.87)	+.146 (3.71)	18	-.194 (4.93)	+.372 (9.45)
5	+.412(10.46)	+.060 (1.52)	19	-.067 (1.70)	+.412 (10.46)
6	+.409 (10.39)	-.074 (1.88)	20	+.126 (3.20)	+.200 (5.08)
7	+.311 (7.90)	-.169 (4.29)	21	+.264 (6.71)	-.003 (0.08)
8	+.289 (7.34)	-.302 (7.67)	22	+.125 (3.18)	-.207 (5.26)
9	+.124 (3.15)	-.397 (10.08)	23	-.125 (3.18)	-.207 (5.26)
10	-.000 (0.00)	-.347 (8.81)	24	-.264 (6.71)	-.003 (0.08)
11	-.124 (3.15)	-.397 (10.08)	25	-.126 (3.20)	+.200 (5.08)
12	-.289 (7.34)	-.302 (7.67)	26	.088 (2.24)	-.003 0.08)
13	-.311 (7.90)	-.169 (4.29)	27	-.088 (2.24)	-.003 (0.08)
14	-.409 (10.39)	-.074 (1.88)	---	---	---

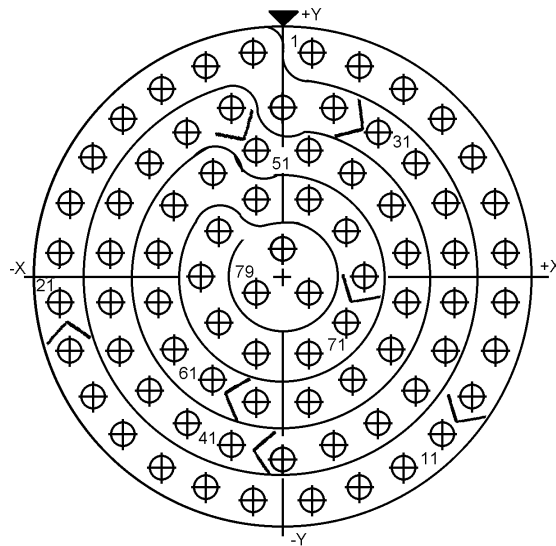
FIGURE 7. Insert arrangement, electrical connector, shell size 21 (series I, III, IV of MIL-DTL-38999, series I of MIL-DTL-27599, and series A of SAE-AS29600) – Continued.

MIL-STD-1560C
w/CHANGE 2

Shell size	Arrangement no.	Number of contacts	Size contacts	Service rating	Contact location
21	-29	4	12	I	20, 22, 23, 25
		4	16		21, 24, 26, 27
		19	20		All others

- NOTES: 1. Trademark and 21-29 shall appear in available space. Contact identifying letter shall be located so as to identify relative contact.
2. The size 16 contact cavities are not located on the centerline of the arrangement. The size 16 contact cavities are positioned .003 below the centerline.

FIGURE 7. Insert arrangement, electrical connector, shell size 21 (series I, III, IV of MIL-DTL-38999, series I of MIL-DTL-27599, and series A of SAE-AS29600) – Continued.

MIL-STD-1560C
w/CHANGE 2

Contacts (Insert arrangement 21-35)					
Contact position ID	Location		Contact position ID	Location	
	X-axis (mm)	Y-axis (mm)		X-axis (mm)	Y-axis (mm)
1	+.053 (1.35)	+.426 (10.82)	41	-.098 (2.49)	-.322 (8.18)
2	+.146 (3.71)	+.404 (10.26)	42	-.184 (4.67)	-.280 (7.11)
3	+.232 (5.89)	+.362 (9.19)	43	-.258 (6.55)	-.220 (5.59)
4	+.306 (7.77)	+.302 (7.67)	44	-.311 (7.90)	-.141 (3.58)
5	+.365 (9.27)	+.227 (5.77)	45	-.332 (8.43)	-.048 (1.22)
6	+.406 (10.31)	+.141 (3.58)	46	-.332 (8.43)	+.048 (1.22)
7	+.427 (10.85)	+.048 (1.22)	47	-.311 (7.90)	+.141 (3.58)
8	+.427 (10.85)	-.048 (1.22)	48	-.258 (6.55)	+.220 (5.59)
9	+.406 (10.31)	-.141 (3.58)	49	-.184 (4.67)	+.280 (7.11)
10	+.365 (9.27)	-.227 (5.77)	50	-.098 (2.49)	+.322 (8.18)
11	+.306 (7.77)	-.302 (7.67)	51	-.048 (1.22)	+.241 (6.12)
12	+.232 (5.89)	-.362 (9.19)	52	+.048 (1.22)	+.241 (6.12)
13	+.146 (3.71)	-.404 (10.26)	53	+.134 (3.40)	+.199 (5.05)
14	+.053 (1.35)	-.426 (10.82)	54	+.208 (5.28)	+.139 (3.53)
15	-.053 (1.35)	-.426 (10.82)	55	+.237 (6.02)	+.048 (1.22)
16	-.146 (3.71)	-.404 (10.26)	56	+.237 (6.02)	-.048 (1.22)
17	-.232 (5.89)	-.362 (9.19)	57	+.208 (5.28)	-.139 (3.53)

FIGURE 7. Insert arrangement, electrical connector, shell size 21 (series I, III, IV of MIL-DTL-38999, series I of MIL-DTL-27599, and series A of SAE-AS29600) – Continued.

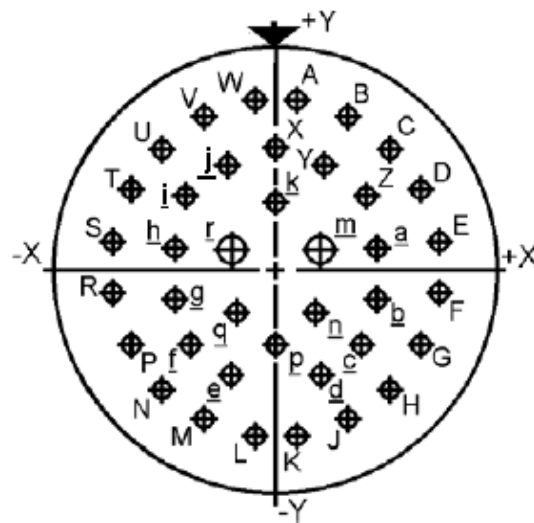
MIL-STD-1560C
w/CHANGE 2

Contacts (Insert arrangement 21-35)					
Contact position ID	Location		Contact position ID	Location	
	X-axis (mm)	Y-axis (mm)		X-axis (mm)	Y-axis (mm)
18	-.306 (7.77)	-.302 (7.67)	58	+.134 (3.40)	-.199 (5.05)
19	-.365 (9.27)	-.227 (5.77)	59	+.048 (1.22)	-.241 (6.12)
20	-.406 (10.31)	-.141 (3.58)	60	-.048 (1.22)	-.241 (6.12)
21	-.427 (10.85)	-.048 (1.22)	61	-.134 (3.40)	-.199 (5.05)
22	-.427 (10.85)	+.048 (1.22)	62	-.208 (5.28)	-.139 (3.53)
23	-.406 (10.31)	+.141 (3.58)	63	-.237 (6.02)	-.048 (1.22)
24	-.365 (9.27)	+.227 (5.77)	64	-.237 (6.02)	+.048 (1.22)
25	-.306 (7.77)	+.302 (7.67)	65	-.208 (5.28)	+.139 (3.53)
26	-.232 (5.89)	+.362 (9.19)	66	-.134 (3.40)	+.199 (5.05)
27	-.146 (3.71)	+.404 (10.26)	67	-.048 (1.22)	+.146 (3.71)
28	-.053 (1.35)	+.426 (10.82)	68	+.048 (1.22)	+.146 (3.71)
29	+.000 (.00)	+.323 (8.20)	69	+.125 (3.18)	+.090 (2.29)
30	+.098 (2.49)	+.322 (8.18)	70	+.155 (3.94)	+.000 (0.00)
31	+.184 (4.67)	+.280 (7.11)	71	+.125 (3.18)	-.090 (2.29)
32	+.258 (6.55)	+.220 (5.59)	72	+.048 (1.22)	-.146 (3.71)
33	+.311 (7.90)	+.141 (3.58)	73	-.048 (1.22)	-.146 (3.71)
34	+.332 (8.43)	+.048 (1.22)	74	-.125 (3.18)	-.090 (2.29)
35	+.332 (8.43)	-.048 (1.22)	75	-.155 (3.94)	+.000 (0.00)
36	+.311 (7.90)	-.141 (3.58)	76	-.125 (3.18)	+.090 (2.29)
37	+.258 (6.55)	-.220 (5.59)	77	+.000 (0.00)	+.053 (1.35)
38	+.184 (4.67)	-.280 (7.11)	78	+.048 (1.22)	-.029 (0.74)
39	+.098 (2.49)	-.322 (8.18)	79	-.048 (1.22)	-.029 (0.74)
40	+.000 (0.00)	-.347 (8.81)	---	---	---

(Applicable to MIL-DTL-38999 only)

Shell size	Arrangement no.	Number of contacts	Size contacts	Service rating	Contact location	Supersedes
21	-35	79	22D	M	ALL	MS27531-35

FIGURE 7. Insert arrangement, electrical connector, shell size 21 (series I, III, IV of MIL-DTL-38999, series I of MIL-DTL-27599, and series A of SAE-AS29600) – Continued.

MIL-STD-1560C
w/CHANGE 2

Contacts (Insert arrangement 21-39)					
Contact position ID	Location		Contact position ID	Location	
	X-axis (mm)	Y-axis (mm)		X-axis (mm)	Y-axis (mm)
A	+.065 (1.65)	+.411 (10.44)	X	+.000 (0.00)	+.295 (7.49)
B	+.189 (4.80)	+.371 (9.42)	Y	+.126 (3.20)	+.256 (6.50)
C	+.294 (7.47)	+.294 (7.47)	Z	+.232 (5.89)	+.179 (4.55)
D	+.371 (9.42)	+.189 (4.80)	a	+.280 (7.11)	+.057 (1.45)
E	+.411 (10.44)	+.065 (1.65)	b	+.280 (7.11)	-.074 (1.88)
F	+.411 (10.44)	-.065 (1.65)	c	+.217 (5.51)	-.189 (4.80)
G	+.371 (9.42)	-.189 (4.80)	d	+.112 (2.84)	-.265 (6.73)
H	+.294 (7.47)	-.294 (7.47)	e	-.112 (2.84)	-.265 (6.73)
J	+.189 (4.80)	-.371 (9.42)	f	-.217 (5.51)	-.189 (4.80)
K	+.065 (1.65)	-.411 (10.44)	g	-.280 (7.11)	-.074 (1.88)
L	-.065 (1.65)	-.411 (10.44)	h	-.280 (7.11)	+.057 (1.45)
M	-.189 (4.80)	-.371 (9.42)	i	-.232 (5.89)	+.179 (4.55)
N	-.294 (7.47)	-.294 (7.47)	j	-.126 (3.20)	+.256 (6.50)
P	-.371 (9.42)	-.189 (4.80)	k	+.000 (0.00)	+.164 (4.17)
R	-.411 (10.44)	-.065 (1.65)	m	+.114 (2.90)	+.048 (1.22)

FIGURE 7. Insert arrangement, electrical connector, shell size 21 (series I, III, IV of MIL-DTL-38999, series I of MIL-DTL-27599, and series A of SAE-AS29600) – Continued.

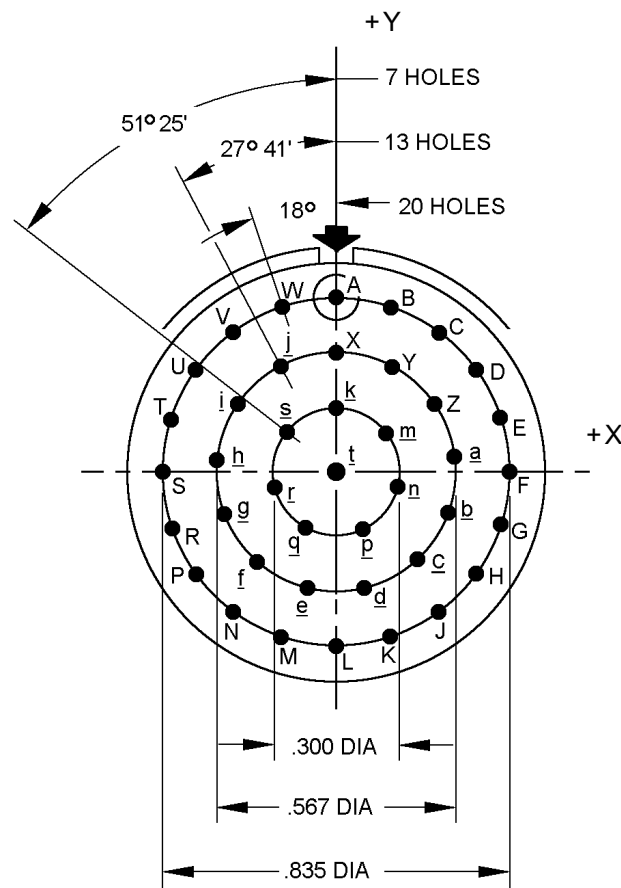
MIL-STD-1560C
w/CHANGE 2

Contacts (Insert arrangement 21-39)					
Contact position ID	Location		Contact position ID	Location	
	X-axis (mm)	Y-axis (mm)		X-axis (mm)	Y-axis (mm)
S	-.411 (10.44)	+.065 (1.65)	n	+.106 (2.69)	-.107 (2.72)
T	-.371 (9.42)	+.189 (4.80)	p	+.000 (0.00)	-.189 (4.80)
U	-.294 (7.47)	+.294 (7.47)	q	-.106 (2.69)	-.107 (2.72)
V	-.189 (4.80)	+.371 (9.42)	r	-.114 (2.90)	+.048 (1.09)
W	-.065 (1.65)	+.411 (10.44)	---	---	---

Shell size	Arrangement no.	Number of contacts	Size contacts	Service rating	Contact location	Supersedes
21	-39	2	16	I	r, m	MS20055-39
		37	20		All others	

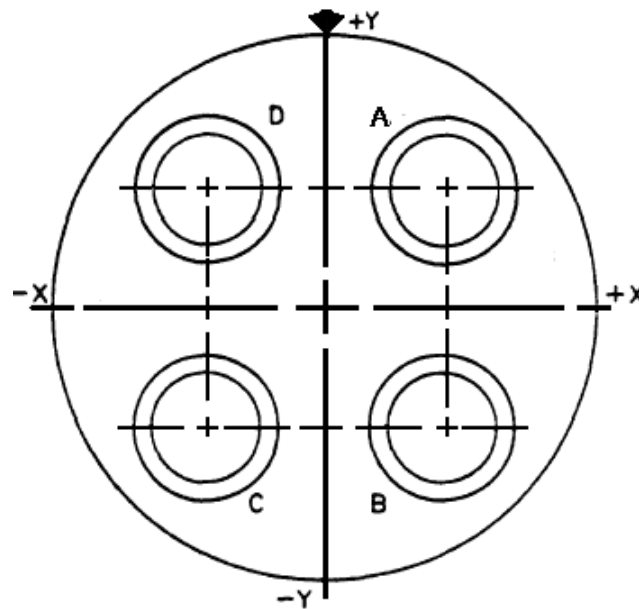
FIGURE 7. Insert arrangement, electrical connector, shell size 21 (series I, III, IV of MIL-DTL-38999, series I of MIL-DTL-27599, and series A of SAE-AS29600) – Continued.

MIL-STD-1560C
w/CHANGE 2



Insert arrangement 21-41						
Shell size	Arrangement no.	Number of contacts	Size contacts	Service rating	Contact location	Supersedes
21	-41	41	20	I	All	MS20055-41

FIGURE 7. Insert arrangement, electrical connector, shell size 21 (series I, III, IV of MIL-DTL-38999, series I of MIL-DTL-27599, and series A of SAE-AS29600) – Continued.

MIL-STD-1560C
w/CHANGE 2

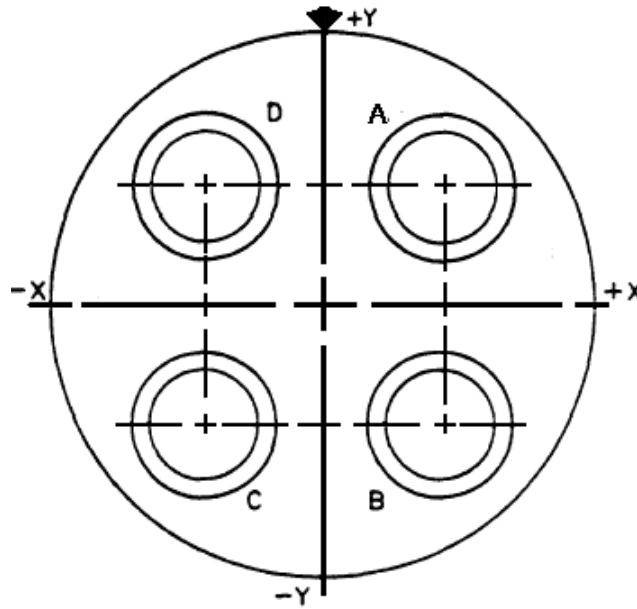
(Inactive for new design for MIL-DTL-38999. For new design, use arrangement no. 21-76.)

Contacts (Insert arrangement 21-75)		
Contact position ID	Location	
	X axis	Y axis
A	+.180 (4.57)	+.180 (4.57)
B	+.180 (4.57)	-.180 (4.57)
C	-.180 (4.57)	-.180 (4.57)
D	-.180 (4.57)	+.180 (4.57)

Shell size	Arrangement no.	Number of contacts	Size contacts	Service rating	Contact location	Standard contact	
						Pin	Socket
21	-75	4	8 (see note)	Twinax	All	M39029/90-529	M39029/91-530

NOTE: To meet environmental sealing requirements, size 8 shielded contacts used with this insert arrangement may require separate, non-standard sealing boots that are furnished with the connector. For this insert arrangement, some connector grommet designs use a heat shrink sleeve only with the size 8 shielded contacts to meet environmental sealing requirements. When heat shrink sleeves are used, sealing boots are not used, and when sealing boots are used, heat shrink sleeves are not used. Heat shrink sleeves have a maximum temperature rating of 175°C maximum. When heat shrink sleeves are used, connectors rated to 200°C max are derated to 175°C max.

FIGURE 7. Insert arrangement, electrical connector, shell size 21 (series I, III, IV of MIL-DTL-38999, series I of MIL-DTL-27599, and series A of SAE-AS29600) – Continued.

MIL-STD-1560C
w/CHANGE 2

(INSERT ARRANGEMENT PATTERN IDENTICAL TO 21-75, EXCEPT 21-76
USES SEALING BOOTS IN ACCORDANCE WITH MIL-DTL-38999/62)

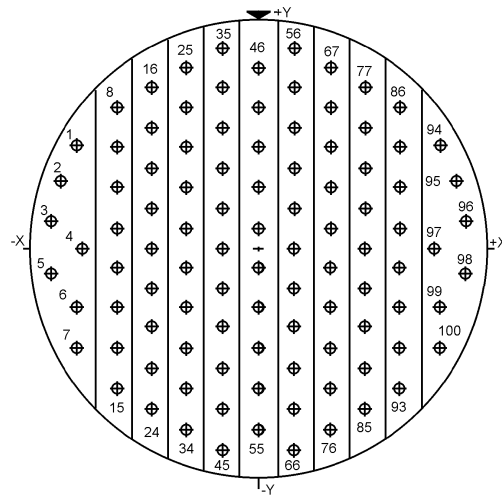
Contacts (Insert arrangement 21-76)		
Contact position ID	Location	
	X axis	Y axis
A	+ .180 (4.57)	+ .180 (4.57)
B	+ .180 (4.57)	- .180 (4.57)
C	- .180 (4.57)	- .180 (4.57)
D	- .180 (4.57)	+ .180 (4.57)

Shell size	Arrangement No.	Number of contacts	Size contacts	Service rating	Contact location	Standard contact	
						Pin	Socket
21	-76	4	8 (see note)	Twinax	All	M39029/113-625	M39029/114-628

NOTE: For this insert arrangement, sealing boots in accordance with MIL-DTL-38999/62 shall be used to environmentally seal size 8 twinax contacts. Heat shrink sleeves are not used with size 8 twinax contacts when sealing boots are used.

FIGURE 7. Insert arrangement, electrical connector, shell size 21 (series I, III, IV of MIL-DTL-38999, series I of MIL-DTL-27599, and series A of SAE-AS29600) – Continued.

MIL-STD-1560C
w/CHANGE 2



Contacts (Insert arrangement 23-1)					
Contact position ID	Location		Contact position ID	Location	
	X-axis (mm)	Y-axis (mm)		X-axis (mm)	Y-axis (mm)
1	-.428 (10.87)	+.241 (6.12)	51	+.000 (0.00)	-.047 (1.19)
2	-.467 (11.86)	+.154 (3.91)	52	+.000 (0.00)	-.142 (3.61)
3	-.488 (12.40)	+.061 (1.55)	53	+.000 (0.00)	-.237 (6.02)
4	-.415 (10.54)	+.000 (0.00)	54	+.000 (0.00)	-.332 (8.43)
5	-.488 (12.40)	-.061 (1.55)	55	+.000 (0.00)	-.427 (10.85)
6	-.428 (10.87)	-.142 (3.61)	56	+.083 (2.11)	+.475 (12.07)
7	-.428 (10.87)	-.237 (6.02)	57	+.083 (2.11)	+.380 (9.65)
8	-.332 (8.43)	+.333 (8.46)	58	+.083 (2.11)	+.285 (7.24)
9	-.332 (8.43)	+.238 (6.05)	59	+.083 (2.11)	+.190 (4.83)
10	-.332 (8.43)	+.143 (3.63)	60	+.083 (2.11)	+.095 (2.41)
11	-.332 (8.43)	+.048 (1.22)	61	+.083 (2.11)	+.000 (0.00)
12	-.332 (8.43)	-.047 (1.19)	62	+.083 (2.11)	-.095 (2.41)
13	-.332 (8.43)	-.142 (3.61)	63	+.083 (2.11)	-.190 (4.83)
14	-.332 (8.43)	-.237 (6.02)	64	+.083 (2.11)	-.285 (7.24)
15	-.332 (8.43)	-.332 (8.43)	65	+.083 (2.11)	-.380 (9.65)
16	-.249 (6.32)	+.380 (9.65)	66	+.083 (2.11)	-.475 (12.07)
17	-.249 (6.32)	+.285 (7.24)	67	+.166 (4.22)	+.428 (10.87)

FIGURE 8. Insert arrangement, electrical connector, shell size 23 (series I, III, IV of MIL-DTL-38999, series I of MIL-DTL-27599, and series A of SAE-AS29600).

MIL-STD-1560C
w/CHANGE 2

Contacts (Insert arrangement 23-1)					
Contact position ID	Location		Contact position ID	Location	
	X-axis (mm)	Y-axis (mm)		X-axis (mm)	Y-axis (mm)
18	-.249 (6.32)	+.190 (4.83)	68	+.166 (4.22)	+.333 (8.46)
19	-.249 (6.32)	+.095 (2.41)	69	+.166 (4.22)	+.238 (6.05)
20	-.249 (6.32)	+.000 (0.00)	70	+.166 (4.22)	+.143 (3.63)
21	-.249 (6.32)	-.095 (2.41)	71	+.166 (4.22)	+.048 (1.22)
22	-.249 (6.32)	-.190 (4.83)	72	+.166 (4.22)	-.047 (1.19)
23	-.249 (6.32)	-.285 (7.24)	73	+.166 (4.22)	-.142 (3.61)
24	-.249 (6.32)	-.380 (9.65)	74	+.166 (4.22)	-.237 (6.02)
25	-.166 (4.22)	+.428 (10.87)	75	+.166 (4.22)	-.332 (8.43)
26	-.166 (4.22)	+.333 (8.46)	76	+.166 (4.22)	-.427 (10.85)
27	-.166 (4.22)	+.238 (6.05)	77	+.249 (6.32)	+.380 (9.65)
28	-.166 (4.22)	+.143 (3.63)	78	+.249 (6.32)	+.285 (7.24)
29	-.166 (4.22)	+.048 (1.22)	79	+.249 (6.32)	+.190 (4.83)
30	-.166 (4.22)	-.047 (1.19)	80	+.249 (6.32)	+.095 (2.41)
31	-.166 (4.22)	-.142 (3.61)	81	+.249 (6.32)	+.000 (0.00)
32	-.166 (4.22)	-.237 (6.02)	82	+.249 (6.32)	-.095 (2.41)
33	-.166 (4.22)	-.332 (8.43)	83	+.249 (6.32)	-.190 (4.83)
34	-.166 (4.22)	-.427 (10.85)	84	+.249 (6.32)	-.285 (7.24)
35	-.083 (2.11)	+.475 (12.07)	85	+.249 (6.32)	-.380 (9.65)
36	-.083 (2.11)	+.380 (9.65)	86	+.332 (8.43)	+.333 (8.46)
37	-.083 (2.11)	+.285 (7.24)	87	+.332 (8.43)	+.238 (6.05)
38	-.083 (2.11)	+.190 (4.83)	88	+.332 (8.43)	+.143 (3.63)
39	-.083 (2.11)	+.095 (2.41)	89	+.332 (8.43)	+.048 (1.22)
40	-.083 (2.11)	+.000 (0.00)	90	+.332 (8.43)	-.047 (1.19)
41	-.083 (2.11)	-.095 (2.41)	91	+.332 (8.43)	-.142 (3.61)
42	-.083 (2.11)	-.190 (4.83)	92	+.332 (8.43)	-.237 (6.02)
43	-.083 (2.11)	-.285 (7.24)	93	+.332 (8.43)	-.332 (8.43)
44	-.083 (2.11)	-.380 (9.65)	94	+.428 (10.87)	+.241 (6.12)
45	-.083 (2.11)	-.475 (12.07)	95	+.467 (11.86)	+.154 (3.91)
46	+.000 (0.00)	+.428 (10.87)	96	+.488 (12.40)	+.061 (1.55)

FIGURE 8. Insert arrangement, electrical connector, shell size 23 (series I, III, IV of MIL-DTL-38999, series I of MIL-DTL-27599, and series A of SAE-AS29600) – Continued.

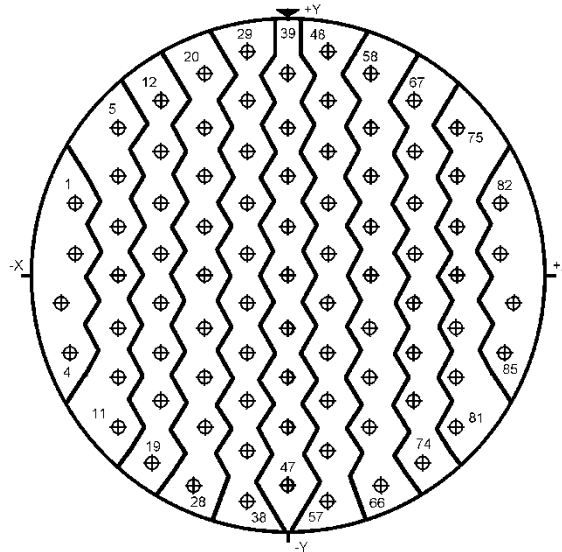
MIL-STD-1560C
w/CHANGE 2

Contacts (Insert arrangement 23-1)					
Contact position ID	Location		Contact position ID	Location	
	X-axis (mm)	Y-axis (mm)		X-axis (mm)	Y-axis (mm)
47	+.000 (0.00)	+.333 (8.46)	97	+.415 (10.54)	+.000 (0.00)
48	+.000 (0.00)	+.238 (6.05)	98	+.488 (12.40)	-.061 (1.55)
49	+.000 (0.00)	+.143 (3.63)	99	+.428 (10.87)	-.142 (3.61)
50	+.000 (0.00)	+.048 (1.22)	100	+.428 (10.87)	-.237 (6.02)

(Inactive for new design for MIL-DTL-38999)

Shell size	Arrangement no.	Number of contacts	Size contacts	Service rating	Contact location	Supersedes
23	-1	100	22M	M	All	MS20056-1

FIGURE 8. Insert arrangement, electrical connector, shell size 23 (series I, III, IV of MIL-DTL-38999, series I of MIL-DTL-27599, and series A of SAE-AS29600) – Continued.

MIL-STD-1560C
w/CHANGE 2

Contacts (Insert arrangement 23-2)					
Contact position ID	Location		Contact position ID	Location	
	X-axis (mm)	Y-axis (mm)		X-axis (mm)	Y-axis (mm)
1	-.455 (11.56)	+.159 (4.04)	44	+.000 (0.00)	-.106 (2.69)
2	-.455 (11.56)	+.053 (1.35)	45	+.000 (0.00)	-.212 (5.38)
3	-.482 (12.24)	-.053 (1.35)	46	+.000 (0.00)	-.318 (8.08)
4	-.455 (11.56)	-.159 (4.04)	47	+.000 (0.00)	-.424 (10.77)
5	-.364 (9.25)	+.318 (8.08)	48	+.091 (2.31)	+.477 (12.12)
6	-.364 (9.25)	+.212 (5.38)	49	+.091 (2.31)	+.371 (9.42)
7	-.364 (9.25)	+.106 (2.69)	50	+.091 (2.31)	+.265 (6.73)
8	-.364 (9.25)	+.000 (0.00)	51	+.091 (2.31)	+.159 (4.04)
9	-.364 (9.25)	-.106 (2.69)	52	+.091 (2.31)	+.053 (1.35)
10	-.364 (9.25)	-.212 (5.38)	53	+.091 (2.31)	-.053 (1.35)
11	-.364 (9.25)	-.318 (8.08)	54	+.091 (2.31)	-.159 (4.04)
12	-.273 (6.93)	+.371 (9.42)	55	+.091 (2.31)	-.265 (6.73)
13	-.273 (6.93)	+.265 (6.73)	56	+.091 (2.31)	-.371 (9.42)
14	-.273 (6.93)	+.159 (4.04)	57	+.091 (2.31)	-.477 (12.12)
15	-.273 (6.93)	+.053 (1.35)	58	+.182 (4.62)	+.424 (10.77)
16	-.273 (6.93)	-.053 (1.35)	59	+.182 (4.62)	+.318 (8.08)
17	-.273 (6.93)	-.159 (4.04)	60	+.182 (4.62)	+.212 (5.38)

FIGURE 8. Insert arrangement, electrical connector, shell size 23 (series I, III, IV of MIL-DTL-38999, series I of MIL-DTL-27599, and series A of SAE-AS29600) – Continued.

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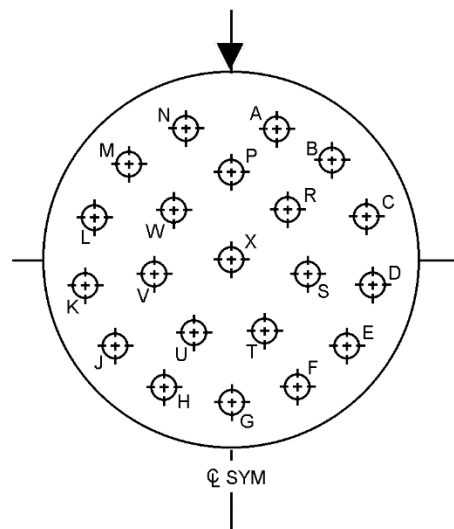
Contacts (Insert arrangement 23-2)					
Contact position ID	Location		Contact position ID	Location	
	X-axis (mm)	Y-axis (mm)		X-axis (mm)	Y-axis (mm)
18	-.273 (6.93)	-.265 (6.73)	61	+.182 (4.62)	+.106 (2.69)
19	-.287 (7.29)	-.390 (9.91)	62	+.182 (4.62)	+.000 (0.00)
20	-.182 (4.62)	+.424 (10.77)	63	+.182 (4.62)	-.106 (2.69)
21	-.182 (4.62)	+.318 (8.08)	64	+.182 (4.62)	-.212 (5.38)
22	-.182 (4.62)	+.212 (5.38)	65	+.182 (4.62)	-.318 (8.08)
23	-.182 (4.62)	+.106 (2.69)	66	+.192 (4.88)	-.446 (11.33)
24	-.182 (4.62)	+.000 (0.00)	67	+.273 (6.93)	+.371 (9.42)
25	-.182 (4.62)	-.106 (2.69)	68	+.273 (6.93)	+.265 (6.73)
26	-.182 (4.62)	-.212 (5.38)	69	+.273 (6.93)	+.159 (4.04)
27	-.182 (4.62)	-.318 (8.08)	70	+.273 (6.93)	+.053 (1.35)
28	-.192 (4.88)	-.446 (11.33)	71	+.273 (6.93)	-.053 (1.35)
29	-.091 (2.31)	+.477 (12.12)	72	+.273 (6.93)	-.159 (4.04)
30	-.091 (2.31)	+.371 (9.42)	73	+.273 (6.93)	-.265 (6.73)
31	-.091 (2.31)	+.265 (6.73)	74	+.287 (7.29)	-.390 (9.91)
32	-.091 (2.31)	+.159 (4.04)	75	+.364 (9.25)	+.318 (8.08)
33	-.091 (2.31)	+.053 (1.35)	76	+.364 (9.25)	+.212 (5.38)
34	-.091 (2.31)	-.053 (1.35)	77	+.364 (9.25)	+.106 (2.69)
35	-.091 (2.31)	-.159 (4.04)	78	+.364 (9.25)	+.000 (0.00)
36	-.091 (2.31)	-.265 (6.73)	79	+.364 (9.25)	-.106 (2.69)
37	-.091 (2.31)	-.371 (9.42)	80	+.364 (9.25)	-.212 (5.38)
38	-.091 (2.31)	-.477 (12.12)	81	+.364 (9.25)	-.318 (8.08)
39	+.000 (0.00)	+.424 (10.77)	82	+.455 (11.56)	+.159 (4.04)
40	+.000 (0.00)	+.318 (8.08)	83	+.455 (11.56)	+.053 (1.35)
41	+.000 (0.00)	+.212 (5.38)	84	+.482 (12.24)	-.053 (1.35)
42	+.000 (0.00)	+.106 (2.69)	85	+.455 (11.56)	-.159 (4.04)
43	+.000 (0.00)	+.000 (0.00)	---	---	---

(Inactive for new design for MIL-DTL-38999)

Shell size	Arrangement no.	Number of contacts	Size contacts	Service rating	Contact location	Supersedes
23	-2	85	22	M	All	MS20056-2

FIGURE 8. Insert arrangement, electrical connector, shell size 23 (series I, III, IV of MIL-DTL-38999, series I of MIL-DTL-27599, and series A of SAE-AS29600) – Continued.

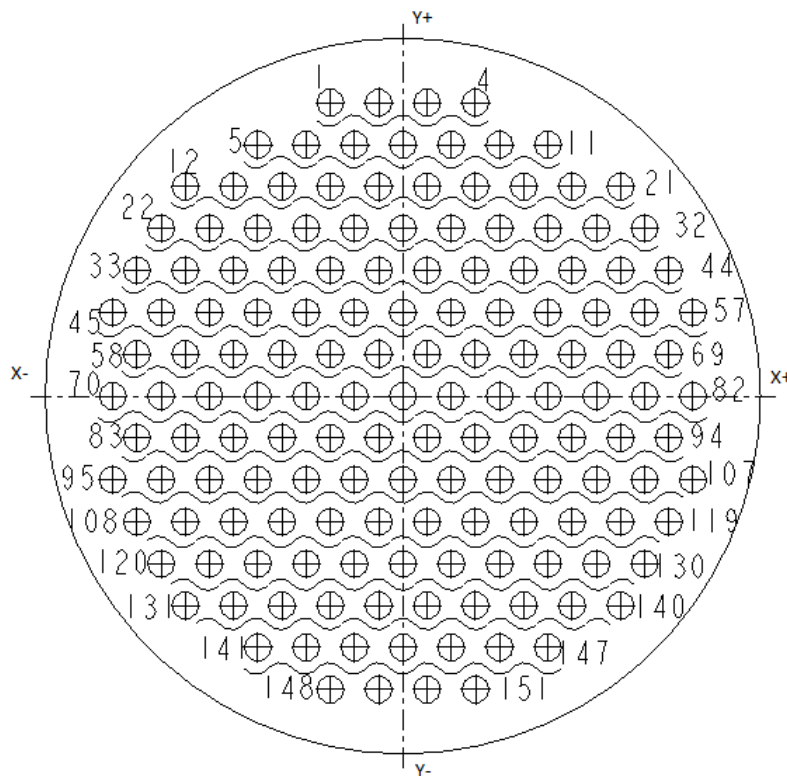
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Contacts (Insert arrangement 23-21)					
Contact position ID	Location		Contact position ID	Location	
	X-axis (mm)	Y-axis (mm)		X-axis (mm)	Y-axis (mm)
A	+.128 (3.25)	+.385 (9.78)	M	-.289 (7.34)	+.285 (7.24)
B	+.289 (7.34)	+.285 (7.24)	N	-.128 (3.25)	+.385 (9.78)
C	+.386 (9.80)	+.123 (3.12)	P	+.000 (0.00)	+.245 (6.22)
D	+.400 (10.16)	-.065 (1.65)	R	+.160 (4.06)	+.146 (3.71)
E	+.328 (8.33)	-.239 (6.07)	S	+.214 (5.44)	-.035 (0.89)
F	+.183 (4.65)	-.362 (9.19)	T	+.094 (2.39)	-.194 (4.93)
G	+.000 (0.00)	-.406 (10.31)	U	-.094 (2.39)	-.194 (4.93)
H	-.183 (4.65)	-.362 (9.19)	V	-.214 (5.44)	-.035 (0.89)
J	-.328 (8.33)	-.239 (6.07)	W	-.160 (4.06)	+.146 (3.71)
K	-.400 (10.16)	-.065 (1.65)	X	+.000 (0.00)	+.000 (0.00)
L	-.386 (9.80)	+.123 (3.12)	---	---	---

Shell size	Arrangement no.	Number of contacts	Size contacts	Service rating	Contact location	Supersedes
23	-21	21	16	II	All	MS20056-21

FIGURE 8. Insert arrangement, electrical connector, shell size 23 (series I, III, IV of MIL-DTL-38999, series I of MIL-DTL-27599, and series A of SAE-AS29600) – Continued.

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Contacts (Insert arrangement 23-23)					
Contact position ID	Location		Contact position ID	Location	
	X-axis (mm)	Y-axis (mm)		X-axis (mm)	Y-axis (mm)
1	-.121 (3.06)	+.487 (12.37)	77	+.080 (2.04)	+.000 (0.00)
2	-.040 (1.02)	+.487 (12.37)	78	+.161 (4.08)	+.000 (0.00)
3	+.040 (1.02)	+.487 (12.37)	79	+.241 (6.12)	+.000 (0.00)
4	+.121 (3.06)	+.487 (12.37)	80	+.321 (8.16)	+.000 (0.00)
5	-.241 (6.12)	+.417 (10.60)	81	+.402 (10.20)	+.000 (0.00)
6	-.161 (4.08)	+.417 (10.60)	82	+.482 (12.24)	+.000 (0.00)
7	-.080 (2.04)	+.417 (10.60)	83	-.442 (11.22)	-.070 (1.77)
8	+.000 (0.00)	+.417 (10.60)	84	-.361 (9.18)	-.070 (1.77)
9	+.080 (2.04)	+.417 (10.60)	85	-.281 (7.14)	-.070 (1.77)

FIGURE 8. Insert arrangement, electrical connector, shell size 23 (series I, III, IV of MIL-DTL-38999, series I of MIL-DTL-27599, and series A of SAE-AS29600) – Continued.

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Contacts (Insert arrangement 23-23)					
Contact position ID	Location		Contact position ID	Location	
	X-axis (mm)	Y-axis (mm)		X-axis (mm)	Y-axis (mm)
10	+.161 (4.08)	+.417 (10.60)	86	-.201 (5.10)	-.070 (1.77)
11	+.241 (6.12)	+.417 (10.60)	87	-.121 (3.06)	-.070 (1.77)
12	-.361 (9.18)	+.348 (8.83)	88	-.040 (1.02)	-.070 (1.77)
13	-.281 (7.14)	+.348 (8.83)	89	+.040 (1.02)	-.070 (1.77)
14	-.201 (5.10)	+.348 (8.83)	90	+.121 (3.06)	-.070 (1.77)
15	-.121 (3.06)	+.348 (8.83)	91	+.201 (5.10)	-.070 (1.77)
16	-.040 (1.02)	+.348 (8.83)	92	+.281 (7.14)	-.070 (1.77)
17	+.040 (1.02)	+.348 (8.83)	93	+.361 (9.18)	-.070 (1.77)
18	+.121 (3.06)	+.348 (8.83)	94	+.442 (11.22)	-.070 (1.77)
19	+.201 (5.10)	+.348 (8.83)	95	-.482 (12.24)	-.139 (3.53)
20	+.281 (7.14)	+.348 (8.83)	96	-.402 (10.20)	-.139 (3.53)
21	+.361 (9.18)	+.348 (8.83)	97	-.321 (8.16)	-.139 (3.53)
22	-.402 (10.20)	+.278 (7.07)	98	-.241 (6.12)	-.139 (3.53)
23	-.321 (8.16)	+.278 (7.07)	99	-.161 (4.08)	-.139 (3.53)
24	-.241 (6.12)	+.278 (7.07)	100	-.080 (2.04)	-.139 (3.53)
25	-.161 (4.08)	+.278 (7.07)	101	+.000 (0.00)	-.139 (3.53)
26	-.080 (2.04)	+.278 (7.07)	102	+.080 (2.04)	-.139 (3.53)
27	+.000 (0.00)	+.278 (7.07)	103	+.161 (4.08)	-.139 (3.53)
28	+.080 (2.04)	+.278 (7.07)	104	+.241 (6.12)	-.139 (3.53)
29	+.161 (4.08)	+.278 (7.07)	105	+.321 (8.16)	-.139 (3.53)
30	+.241 (6.12)	+.278 (7.07)	106	+.402 (10.20)	-.139 (3.53)
31	+.321 (8.16)	+.278 (7.07)	107	+.482 (12.24)	-.139 (3.53)
32	+.402 (10.20)	+.278 (7.07)	108	-.442 (11.22)	-.209 (5.30)
33	-.442 (11.22)	+.209 (5.30)	109	-.361 (9.18)	-.209 (5.30)
34	-.361 (9.18)	+.209 (5.30)	110	-.281 (7.14)	-.209 (5.30)
35	-.281 (7.14)	+.209 (5.30)	111	-.201 (5.10)	-.209 (5.30)
36	-.201 (5.10)	+.209 (5.30)	112	-.121 (3.06)	-.209 (5.30)
37	-.121 (3.06)	+.209 (5.30)	113	-.040 (1.02)	-.209 (5.30)
38	-.040 (1.02)	+.209 (5.30)	114	+.040 (1.02)	-.209 (5.30)
39	+.040 (1.02)	+.209 (5.30)	115	+.121 (3.06)	-.209 (5.30)
40	+.121 (3.06)	+.209 (5.30)	116	+.201 (5.10)	-.209 (5.30)

FIGURE 8. Insert arrangement, electrical connector, shell size 23 (series I, III, IV of MIL-DTL-38999, series I of MIL-DTL-27599, and series A of SAE-AS29600) – Continued.

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Contacts (Insert arrangement 23-23)					
Contact position ID	Location		Contact position ID	Location	
	X-axis (mm)	Y-axis (mm)		X-axis (mm)	Y-axis (mm)
41	+.201 (5.10)	+.209 (5.30)	117	+.281 (7.14)	-.209 (5.30)
42	+.281 (7.14)	+.209 (5.30)	118	+.361 (9.18)	-.209 (5.30)
43	+.361 (9.18)	+.209 (5.30)	119	+.442 (11.22)	-.209 (5.30)
44	+.442 (11.22)	+.209 (5.30)	120	-.402 (10.20)	-.278 (7.07)
45	-.482 (12.24)	+.139 (3.53)	121	-.321 (8.16)	-.278 (7.07)
46	-.402 (10.20)	+.139 (3.53)	122	-.241 (6.12)	-.278 (7.07)
47	-.321 (8.16)	+.139 (3.53)	123	-.161 (4.08)	-.278 (7.07)
48	-.241 (6.12)	+.139 (3.53)	124	-.080 (2.04)	-.278 (7.07)
49	-.161 (4.08)	+.139 (3.53)	125	+ .000 (0.00)	-.278 (7.07)
50	-.080 (2.04)	+.139 (3.53)	126	+ .080 (2.04)	-.278 (7.07)
51	+ .000 (0.00)	+.139 (3.53)	127	+ .161 (4.08)	-.278 (7.07)
52	+ .080 (2.04)	+.139 (3.53)	128	+ .241 (6.12)	-.278 (7.07)
53	+ .161 (4.08)	+.139 (3.53)	129	+ .321 (8.16)	-.278 (7.07)
54	+ .241 (6.12)	+.139 (3.53)	130	+ .402 (10.20)	-.278 (7.07)
55	+ .321 (8.16)	+.139 (3.53)	131	-.361 (9.18)	-.348 (8.83)
56	+ .402 (10.20)	+.139 (3.53)	132	-.281 (7.14)	-.348 (8.83)
57	+ .482 (12.24)	+.139 (3.53)	133	-.201 (5.10)	-.348 (8.83)
58	-.442 (11.22)	+ .070 (1.77)	134	-.121 (3.06)	-.348 (8.83)
59	-.361 (9.18)	+ .070 (1.77)	135	-.040 (1.02)	-.348 (8.83)
60	-.281 (7.14)	+ .070 (1.77)	136	+ .040 (1.02)	-.348 (8.83)
61	-.201 (5.10)	+ .070 (1.77)	137	+ .121 (3.06)	-.348 (8.83)
62	-.121 (3.06)	+ .070 (1.77)	138	+ .201 (5.10)	-.348 (8.83)
63	-.040 (1.02)	+ .070 (1.77)	139	+ .281 (7.14)	-.348 (8.83)
64	+ .040 (1.02)	+ .070 (1.77)	140	+ .361 (9.18)	-.348 (8.83)
65	+ .121 (3.06)	+ .070 (1.77)	141	-.241 (6.12)	-.417 (10.60)
66	+ .201 (5.10)	+ .070 (1.77)	142	-.161 (4.08)	-.417 (10.60)
67	+ .281 (7.14)	+ .070 (1.77)	143	-.080 (2.04)	-.417 (10.60)
68	+ .361 (9.18)	+ .070 (1.77)	144	+ .000 (0.00)	-.417 (10.60)
69	+ .442 (11.22)	+ .070 (1.77)	145	+ .080 (2.04)	-.417 (10.60)
70	-.482 (12.24)	+ .000 (0.00)	146	+ .161 (4.08)	-.417 (10.60)

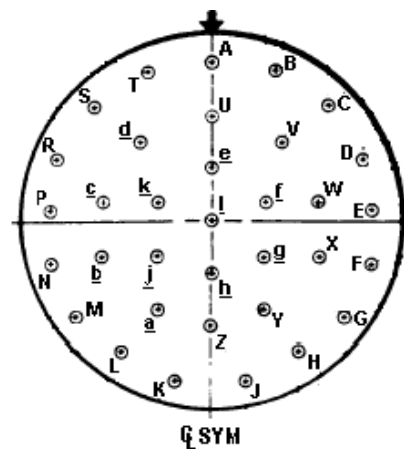
FIGURE 8. Insert arrangement, electrical connector, shell size 23 (series I, III, IV of MIL-DTL-38999, series I of MIL-DTL-27599, and series A of SAE-AS29600) – Continued.

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Contacts (Insert arrangement 23-23)					
Contact position ID	Location		Contact position ID	Location	
	X-axis (mm)	Y-axis (mm)		X-axis (mm)	Y-axis (mm)
71	-.402 (10.20)	+.000 (0.00)	147	+.241 (6.12)	-.417 (10.60)
72	-.321 (8.16)	+.000 (0.00)	148	-.121 (3.06)	-.487 (12.37)
73	-.241 (6.12)	+.000 (0.00)	149	-.040 (1.02)	-.487 (12.37)
74	-.161 (4.08)	+.000 (0.00)	150	+.040 (1.02)	-.487 (12.37)
75	-.080 (2.04)	+.000 (0.00)	151	+.121 (3.06)	-.487 (12.37)
76	+.000 (0.00)	+.000 (0.00)	---	---	---

Shell size	Arrangement no.	Number of contacts	Size contacts	Service rating	Contact location	Standard contact	
						Pin	Socket
23	-23	151	23-22	N	All	M39029/122-670	M39029/121-663

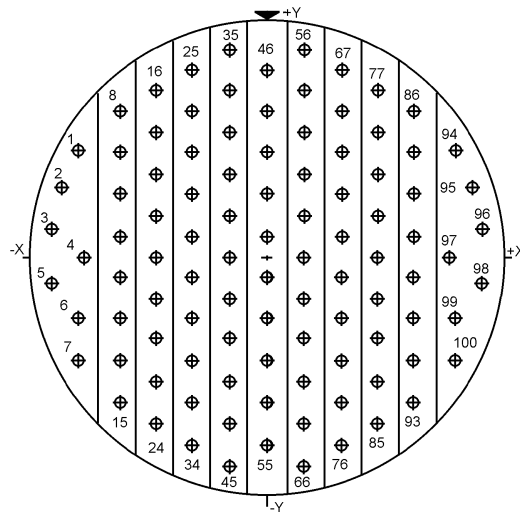
FIGURE 8. Insert arrangement, electrical connector, shell size 23 (series I, III, IV of MIL-DTL-38999, series I of MIL-DTL-27599, and series A of SAE-AS29600) – Continued.

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Contacts (Insert arrangement 23-34)					
Contact position ID	Location		Contact position ID	Location	
	X-axis (mm)	Y-axis (mm)		X-axis (mm)	Y-axis (mm)
A	+.000 (0.00)	+.450 (11.43)	U	+.000 (.00)	+.300 (7.62)
B	+.175 (4.45)	+.425 (10.80)	V	+.200 (5.08)	+.225 (5.72)
C	+.325 (8.26)	+.325 (8.26)	W	+.300 (7.62)	+.050 (1.27)
D	+.425 (10.80)	+.175 (4.45)	X	+.300 (7.62)	-.100 (2.54)
E	+.450 (11.43)	+.025 (0.64)	Y	+.150 (3.81)	-.250 (6.35)
F	+.450 (11.43)	-.125 (3.18)	Z	+.000 (0.00)	-.300 (7.62)
G	+.375 (9.53)	-.275 (6.99)	a	-.150 (3.81)	-.250 (6.35)
H	+.250 (6.35)	-.375 (9.53)	b	-.300 (7.62)	-.100 (2.54)
J	+.100 (2.54)	-.450 (11.43)	c	-.300 (7.62)	+.050 (1.27)
K	-.100 (2.54)	-.450 (11.43)	d	-.200 (5.08)	+.225 (5.72)
L	-.250 (6.35)	-.375 (9.53)	e	+.000 (0.00)	+.150 (3.81)
M	-.375 (9.53)	-.275 (6.99)	f	+.150 (3.81)	+.050 (1.27)
N	-.450 (11.43)	-.125 (3.18)	g	+.150 (3.81)	-.100 (2.54)
P	-.450 (11.43)	+.025 (0.64)	h	+.000 (0.00)	-.150 (3.81)
R	-.425 (10.80)	+.175 (4.45)	i	-.150 (3.81)	-.100 (2.54)
S	-.325 (8.26)	+.325 (8.26)	k	-.150 (3.81)	+.050 (1.27)
T	-.175 (4.45)	+.425 (10.80)	l	+.000 (0.00)	+.000 (0.00)

Shell size	Arrangement no.	Number of contacts	Size contacts	Service rating	Contact location	Supersedes
23	-34	34	20	I	All	MS20056-34

FIGURE 8. Insert arrangement, electrical connector, shell size 23 (series I, III, IV of MIL-DTL-38999, series I of MIL-DTL-27599, and series A of SAE-AS29600) – Continued.

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Contacts (Insert arrangement 23-35)					
Contact position ID	Location		Contact position ID	Location	
	X-axis (mm)	Y-axis (mm)		X-axis (mm)	Y-axis (mm)
1	-.428 (10.87)	+.241 (6.12)	51	+.000 (0.00)	-.047 (1.19)
2	-.467 (11.86)	+.154 (3.91)	52	+.000 (0.00)	-.142 (3.61)
3	-.488 (12.40)	+.061 (1.55)	53	+.000 (0.00)	-.237 (6.02)
4	-.415 (10.54)	+.000 (0.00)	54	+.000 (0.00)	-.332 (8.43)
5	-.488 (12.40)	-.061 (1.55)	55	+.000 (0.00)	-.427 (10.85)
6	-.428 (10.87)	-.142 (3.61)	56	+.083 (2.11)	+.475 (12.07)
7	-.428 (10.87)	-.237 (6.02)	57	+.083 (2.11)	+.380 (9.65)
8	-.332 (8.43)	+.333 (8.46)	58	+.083 (2.11)	+.285 (7.24)
9	-.332 (8.43)	+.238 (6.05)	59	+.083 (2.11)	+.190 (4.83)
10	-.332 (8.43)	+.143 (3.63)	60	+.083 (2.11)	+.095 (2.41)
11	-.332 (8.43)	+.048 (1.22)	61	+.083 (2.11)	+.000 (0.00)
12	-.332 (8.43)	-.047 (1.19)	62	+.083 (2.11)	-.095 (2.41)
13	-.332 (8.43)	-.142 (3.61)	63	+.083 (2.11)	-.190 (4.83)
14	-.332 (8.43)	-.237 (6.02)	64	+.083 (2.11)	-.285 (7.24)
15	-.332 (8.43)	-.332 (8.43)	65	+.083 (2.11)	-.380 (9.65)
16	-.249 (6.32)	+.380 (9.65)	66	+.083 (2.11)	-.475 (12.07)
17	-.249 (6.32)	+.285 (7.24)	67	+.166 (4.22)	+.428 (10.87)
18	-.249 (6.32)	+.190 (4.83)	68	+.166 (4.22)	+.333 (8.46)

FIGURE 8. Insert arrangement, electrical connector, shell size 23 (series I, III, IV of MIL-DTL-38999, series I of MIL-DTL-27599, and series A of SAE-AS29600) – Continued.

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Contacts (Insert arrangement 23-35)					
Contact position ID	Location		Contact position ID	Location	
	X-axis (mm)	Y-axis (mm)		X-axis (mm)	Y-axis (mm)
19	-.249 (6.32)	+.095 (2.41)	69	+.166 (4.22)	+.238 (6.05)
20	-.249 (6.32)	+.000 (0.00)	70	+.166 (4.22)	+.143 (3.63)
21	-.249 (6.32)	-.095 (2.41)	71	+.166 (4.22)	+.048 (1.22)
22	-.249 (6.32)	-.190 (4.83)	72	+.166 (4.22)	-.047 (1.19)
23	-.249 (6.32)	-.285 (7.24)	73	+.166 (4.22)	-.142 (3.61)
24	-.249 (6.32)	-.380 (9.65)	74	+.166 (4.22)	-.237 (6.02)
25	-.166 (4.22)	+.428 (10.87)	75	+.166 (4.22)	-.332 (8.43)
26	-.166 (4.22)	+.333 (8.46)	76	+.166 (4.22)	-.427 (10.85)
27	-.166 (4.22)	+.238 (6.05)	77	+.249 (6.32)	+.380 (9.65)
28	-.166 (4.22)	+.143 (3.63)	78	+.249 (6.32)	+.285 (7.24)
29	-.166 (4.22)	+.048 (1.22)	79	+.249 (6.32)	+.190 (4.83)
30	-.166 (4.22)	-.047 (1.19)	80	+.249 (6.32)	+.095 (2.41)
31	-.166 (4.22)	-.142 (3.61)	81	+.249 (6.32)	+.000 (0.00)
32	-.166 (4.22)	-.237 (6.02)	82	+.249 (6.32)	-.095 (2.41)
33	-.166 (4.22)	-.332 (8.43)	83	+.249 (6.32)	-.190 (4.83)
34	-.166 (4.22)	-.427 (10.85)	84	+.249 (6.32)	-.285 (7.24)
35	-.083 (2.11)	+.475 (12.07)	85	+.249 (6.32)	-.380 (9.65)
36	-.083 (2.11)	+.380 (9.65)	86	+.332 (8.43)	+.333 (8.46)
37	-.083 (2.11)	+.285 (7.24)	87	+.332 (8.43)	+.238 (6.05)
38	-.083 (2.11)	+.190 (4.83)	88	+.332 (8.43)	+.143 (3.63)
39	-.083 (2.11)	+.095 (2.41)	89	+.332 (8.43)	+.048 (1.22)
40	-.083 (2.11)	+.000 (0.00)	90	+.332 (8.43)	-.047 (1.19)
41	-.083 (2.11)	-.095 (2.41)	91	+.332 (8.43)	-.142 (3.61)
42	-.083 (2.11)	-.190 (4.83)	92	+.332 (8.43)	-.237 (6.02)
43	-.083 (2.11)	-.285 (7.24)	93	+.332 (8.43)	-.332 (8.43)
44	-.083 (2.11)	-.380 (9.65)	94	+.428 (10.87)	+.241 (6.12)
45	-.083 (2.11)	-.475 (12.07)	95	+.467 (11.86)	+.154 (3.91)
46	+.000 (0.00)	+.428 (10.87)	96	+.488 (12.40)	+.061 (1.55)

FIGURE 8. Insert arrangement, electrical connector, shell size 23 (series I, III, IV of MIL-DTL-38999, series I of MIL-DTL-27599, and series A of SAE-AS29600) – Continued.

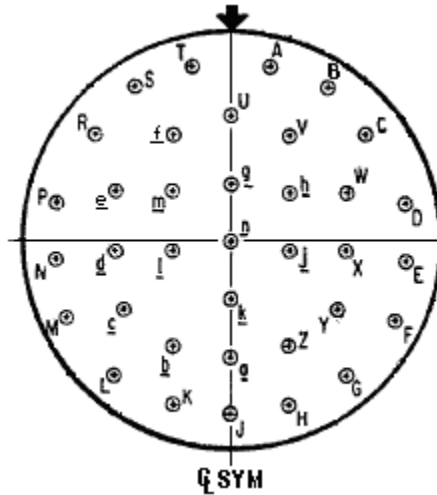
MIL-STD-1560C
w/CHANGE 2

Contacts (Insert arrangement 23-35)					
Contact position ID	Location		Contact position ID	Location	
	X-axis (mm)	Y-axis (mm)		X-axis (mm)	Y-axis (mm)
47	+0.000 (0.00)	+0.333 (8.46)	97	+0.415 (10.54)	+0.000 (0.00)
48	+0.000 (0.00)	+0.238 (6.05)	98	+0.488 (12.40)	-0.061 (1.55)
49	+0.000 (0.00)	+0.143 (3.63)	99	+0.428 (10.87)	-0.142 (3.61)
50	+0.000 (0.00)	+0.048 (1.22)	100	+0.428 (10.87)	-0.237 (6.02)

(Applicable to MIL-DTL-38999 only)

Shell size	Arrangement no.	Number of contacts	Size contacts	Service rating	Contact location	Supersedes
23	-35	100	22D	M	All	MS27532- 35

FIGURE 8. Insert arrangement, electrical connector, shell size 23 (series I, III, IV of MIL-DTL-38999, series I of MIL-DTL-27599, and series A of SAE-AS29600) – Continued.

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Contacts (Insert arrangement 23-36)					
Contact position ID	Location		Contact position ID	Location	
	X-axis (mm)	Y-axis (mm)		X-axis (mm)	Y-axis (mm)
A	+.100 (2.54)	+.450 (11.43)	V	+.150 (3.81)	+.275 (6.99)
B	+.250 (6.35)	+.400 (10.16)	W	+.300 (7.62)	+.125 (3.18)
C	+.350 (8.89)	+.275 (6.99)	X	+.300 (7.62)	-.025 (0.64)
D	+.450 (11.43)	+.100 (2.54)	Y	+.275 (6.99)	-.175 (4.45)
E	+.450 (11.43)	-.050 (1.27)	Z	+.150 (3.81)	-.275 (6.99)
F	+.425 (10.80)	-.200 (5.08)	a	+.000 (0.00)	-.300 (7.62)
G	+.300 (7.62)	-.350 (8.89)	b	-.150 (3.81)	-.275 (6.99)
H	+.150 (3.81)	-.425 (10.80)	c	-.275 (6.99)	-.175 (4.45)
J	+.000 (0.00)	-.450 (11.43)	d	-.300 (7.62)	-.025 (0.64)
K	-.150 (3.81)	-.425 (10.80)	e	-.300 (7.62)	+.125 (3.18)
L	-.300 (7.62)	-.350 (8.89)	f	-.150 (3.81)	+.275 (6.99)
M	-.425 (10.80)	-.200 (5.08)	g	+.000 (.00)	+.150 (3.81)
N	-.450 (11.43)	-.050 (1.27)	h	+.150 (3.81)	+.125 (3.18)
P	-.450 (11.43)	+.100 (2.54)	i	+.150 (3.81)	-.025 (0.64)

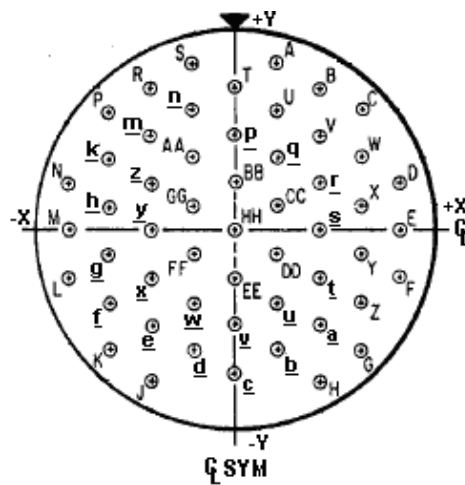
FIGURE 8. Insert arrangement, electrical connector, shell size 23 (series I, III, IV of MIL-DTL-38999, series I of MIL-DTL-27599, and series A of SAE-AS29600) – Continued.

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Contacts (Insert arrangement 23-36)					
Contact position ID	Location		Contact position ID	Location	
	X-axis (mm)	Y-axis (mm)		X-axis (mm)	Y-axis (mm)
R	-.350 (8.89)	+.275 (6.99)	<u>k</u>	+.000 (0.00)	-.150 (3.81)
S	-.250 (6.35)	+.400 (10.16)	<u>l</u>	-.150 (3.81)	-.025 (0.64)
T	-.100 (2.54)	+.450 (11.43)	<u>m</u>	-.150 (3.81)	+.125 (3.18)
U	+.000 (0.00)	+.325 (8.26)	<u>n</u>	+.000 (0.00)	+.000 (0.00)

Shell size	Arrangement no.	Number of contacts	Size contacts	Service rating	Contact location	Supersedes
23	-36	36	20	I	All	MS20056-36

FIGURE 8. Insert arrangement, electrical connector, shell size 23 (series I, III, IV of MIL-DTL-38999, series I of MIL-DTL-27599, and series A of SAE-AS29600) – Continued.

MIL-STD-1560C
w/CHANGE 2

Contacts (Insert arrangement 23-53)					
Contact position ID	Location		Contact position ID	Location	
	X-axis (mm)	Y-axis (mm)		X-axis (mm)	Y-axis (mm)
A	+.112 (2.84)	+.455 (11.56)	e	-.225 (5.72)	-.260 (6.60)
B	+.225 (5.72)	+.390 (9.91)	f	-.336 (8.53)	-.195 (4.95)
C	+.336 (8.53)	+.325 (8.26)	g	-.336 (8.53)	-.065 (1.65)
D	+.450 (11.43)	+.130 (3.30)	h	-.336 (8.53)	+.065 (1.65)
E	+.450 (11.43)	+.000 (0.00)	k	-.336 (8.53)	+.195 (4.95)
F	+.450 (11.43)	-.130 (3.30)	m	-.225 (5.72)	+.260 (6.60)
G	+.336 (8.53)	-.325 (8.26)	n	-.112 (2.84)	+.325 (8.26)
H	+.225 (5.72)	-.410 (10.41)	p	+.000 (0.00)	+.260 (6.60)
J	-.225 (5.72)	-.410 (10.41)	q	+.112 (2.84)	+.195 (4.95)
K	-.336 (8.53)	-.325 (8.26)	r	+.225 (5.72)	+.130 (3.30)
L	-.450 (11.43)	-.130 (3.30)	s	+.225 (5.72)	+.000 (0.00)
M	-.450 (11.43)	+.000 (0.00)	t	+.225 (5.72)	-.130 (3.30)
N	-.450 (11.43)	+.130 (3.30)	u	+.112 (2.84)	-.195 (4.95)
P	-.336 (8.53)	+.325 (8.26)	v	+.000 (0.00)	-.260 (6.60)
R	-.225 (5.72)	+.390 (9.91)	w	-.112 (2.84)	-.195 (4.95)
S	-.112 (2.84)	+.455 (11.56)	x	-.225 (5.72)	-.130 (3.30)
T	+.000 (0.00)	+.390 (9.91)	y	-.225 (5.72)	+.000 (0.00)
U	+.112 (2.84)	+.325 (8.26)	z	-.225 (5.72)	+.130 (3.30)
V	+.225 (5.72)	+.260 (6.60)	AA	-.112 (2.84)	+.195 (4.95)

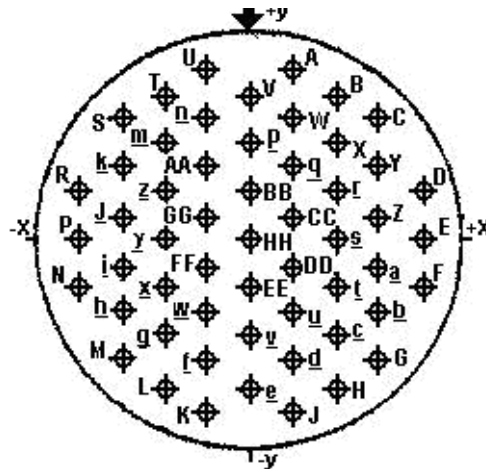
FIGURE 8. Insert arrangement, electrical connector, shell size 23 (series I, III, IV of MIL-DTL-38999, series I of MIL-DTL-27599, and series A of SAE-AS29600) – Continued.

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Contacts (Insert arrangement 23-53)					
Contact position ID	Location		Contact position ID	Location	
	X-axis (mm)	Y-axis (mm)		X-axis (mm)	Y-axis (mm)
W	+.336 (8.53)	+.195 (4.95)	BB	+.000 (0.00)	+.130 (3.30)
X	+.336 (8.53)	+.065 (1.65)	CC	+.112 (2.84)	+.065 (1.65)
Y	+.336 (8.53)	-.065 (1.65)	DD	+.112 (2.84)	-.065 (1.65)
Z	+.336 (8.53)	-.195 (4.95)	EE	+.000 (0.00)	-.130 (3.30)
<u>a</u>	+.225 (5.72)	-.260 (6.60)	FF	-.112 (2.84)	-.065 (1.65)
<u>b</u>	+.112 (2.84)	-.325 (8.26)	GG	-.112 (2.84)	+.065 (1.65)
c	+.000 (0.00)	-.390 (9.91)	HH	+.000 (0.00)	+.000 (0.00)
<u>d</u>	-.112 (2.84)	-.325 (8.26)	---	---	---

Shell size	Arrangement no.	Number of contacts	Size contacts	Service rating	Contact location	Supersedes
23	-53	53	20	I	All	MS20056-53

FIGURE 8. Insert arrangement, electrical connector, shell size 23 (series I, III, IV of MIL-DTL-38999, series I of MIL-DTL-27599, and series A of SAE-AS29600) – Continued.

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w/CHANGE 2

Contacts (Insert arrangement 23-55)					
Contact position ID	Location		Contact position ID	Location	
	X-axis (mm)	Y-axis (mm)		X-axis (mm)	Y-axis (mm)
A	+.112 (2.84)	+.455 (11.56)	f	-.112 (2.84)	-.325 (8.26)
B	+.225 (5.72)	+.390 (9.91)	g	-.225 (5.72)	-.260 (6.60)
C	+.336 (8.53)	+.325 (8.26)	h	-.336 (8.53)	-.195 (4.95)
D	+.450 (11.43)	+.130 (3.30)	i	-.336 (8.53)	-.065 (1.65)
E	+.450 (11.43)	+.000 (0.00)	j	-.336 (8.53)	+.065 (1.65)
F	+.450 (11.43)	-.130 (3.30)	k	-.336 (8.53)	+.195 (4.95)
G	+.336 (8.53)	-.325 (8.26)	m	-.225 (5.72)	+.260 (6.60)
H	+.225 (5.72)	-.390 (9.91)	n	-.112 (2.84)	+.325 (8.26)
J	+.112 (2.84)	-.455 (11.56)	p	+.000 (0.00)	+.260 (6.60)
K	-.112 (2.84)	-.455 (11.56)	q	+.112 (2.84)	+.195 (4.95)
L	-.225 (5.72)	-.390 (9.91)	r	+.225 (5.72)	+.130 (3.30)
M	-.336 (8.53)	-.325 (8.26)	s	+.225 (5.72)	+.000 (0.00)
N	-.450 (11.43)	-.130 (3.30)	t	+.225 (5.72)	-.130 (3.30)
P	-.450 (11.43)	+.000 (0.00)	u	+.112 (2.84)	-.195 (4.95)
R	-.450 (11.43)	+.130 (3.30)	v	+.000 (0.00)	-.260 (6.60)
S	-.336 (8.53)	+.325 (8.26)	w	-.112 (2.84)	-.195 (4.95)
T	-.225 (5.72)	+.390 (9.91)	x	-.225 (5.72)	-.130 (3.30)
U	-.112 (2.84)	+.455 (11.56)	y	-.225 (5.72)	+.000 (0.00)
V	+.000 (0.00)	+.390 (9.91)	z	-.225 (5.72)	+.130 (3.30)

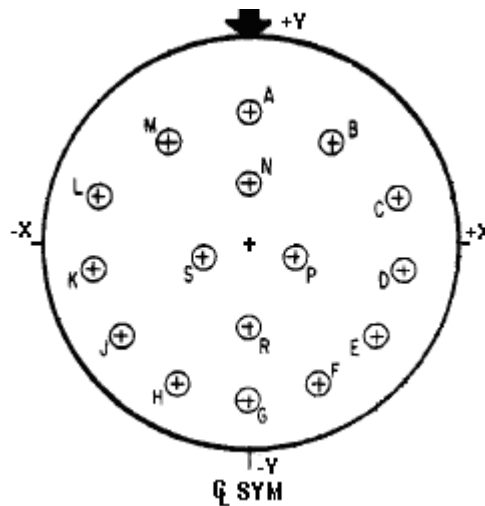
FIGURE 8. Insert arrangement, electrical connector, shell size 23 (series I, III, IV of MIL-DTL-38999, series I of MIL-DTL-27599, and series A of SAE-AS29600) – Continued.

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Contacts (Insert arrangement 23-55)					
Contact position ID	Location		Contact position ID	Location	
	X-axis (mm)	Y-axis (mm)		X-axis (mm)	Y-axis (mm)
W	+ .112 (2.84)	+ .325 (8.26)	AA	- .112 (2.84)	+ .195 (4.95)
X	+ .225 (5.72)	+ .260 (6.60)	BB	+ .000 (0.00)	+ .130 (3.30)
Y	+ .336 (8.53)	+ .195 (4.95)	CC	+ .112 (2.84)	+ .065 (1.65)
Z	+ .336 (8.53)	+ .065 (1.65)	DD	+ .112 (2.84)	- .065 (1.65)
a	+ .336 (8.53)	- .065 (1.65)	EE	+ .000 (0.00)	- .130 (3.30)
b	+ .336 (8.53)	- .195 (4.95)	FF	- .112 (2.84)	- .065 (1.65)
c	+ .225 (5.72)	- .260 (6.60)	GG	- .112 (2.84)	+ .065 (1.65)
d	+ .112 (2.84)	- .325 (8.26)	HH	+ .000 (0.00)	+ .000 (0.00)
e	+ .000 (0.00)	- .390 (9.91)	---	---	---

Shell size	Arrangement no.	Number of contacts	Size contacts	Service rating	Contact location	Supersedes
23	-55	55	20	I	All	----

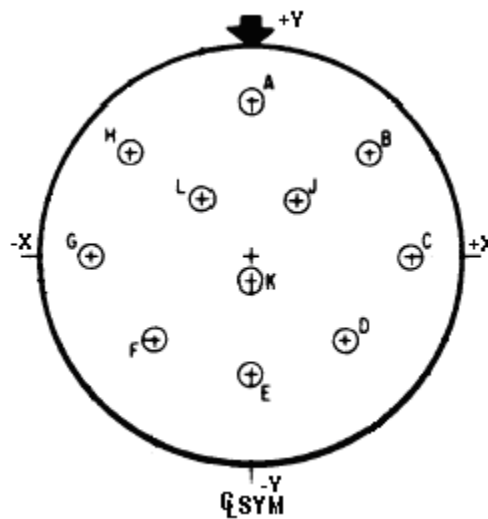
FIGURE 8. Insert arrangement, electrical connector, shell size 23 (series I, III, IV of MIL-DTL-38999, series I of MIL-DTL-27599, and series A of SAE-AS29600) – Continued.

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Contacts (Insert arrangement 23-97)					
Contact position ID	Location		Contact position ID	Location	
	X-axis (mm)	Y-axis (mm)		X-axis (mm)	Y-axis (mm)
A	+.000 (0.00)	+.344 (8.74)	J	-.328 (8.33)	-.239 (6.07)
B	+.210 (5.33)	+.270 (6.86)	K	-.400 (10.16)	-.065 (1.65)
C	+.386 (9.80)	+.123 (3.12)	L	-.386 (9.80)	+.123 (3.12)
D	+.400 (10.16)	-.065 (1.65)	M	-.210 (5.33)	+.270 (6.86)
E	+.328 (8.33)	-.239 (6.07)	N	+.000 (0.00)	+.156 (3.96)
F	+.183 (4.65)	-.362 (9.19)	P	+.120 (3.05)	-.030 (0.76)
G	+.000 (0.00)	-.406 (10.31)	R	+.000 (0.00)	-.218 (5.54)
H	-.183 (4.65)	-.362 (9.19)	S	-.120 (3.05)	-.030 (0.76)

Shell size	Arrangement no.	Number of contacts	Size contacts	Service rating	Contact location	Supersedes
23	-97	16	16	I	All	MS20056-97

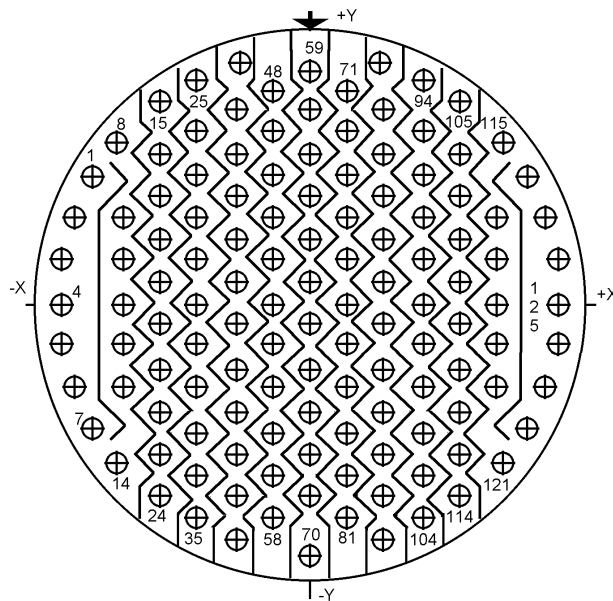
FIGURE 8. Insert arrangement, electrical connector, shell size 23 (series I, III, IV of MIL-DTL-38999, series I of MIL-DTL-27599, and series A of SAE-AS29600) – Continued.

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Contacts (Insert arrangement 23-99)					
Contact position ID	Location		Contact position ID	Location	
	X-axis (mm)	Y-axis (mm)		X-axis (mm)	Y-axis (mm)
A	+.000 (0.00)	+.404 (10.26)	G	-.404 (10.26)	+.000 (0.00)
B	+.300 (7.62)	+.270 (6.86)	H	-.300 (7.62)	+.270 (6.86)
C	+.404 (10.26)	+.000 (0.00)	J	+.120 (3.05)	+.150 (3.81)
D	+.240 (6.10)	-.210 (5.33)	K	+.000 (0.00)	-.060 (1.52)
E	+.000 (0.00)	-.300 (7.62)	L	-.120 (3.05)	+.150 (3.81)
F	-.240 (6.10)	-.210 (5.33)	---	---	---

Shell size	Arrangement no.	Number of contacts	Size contacts	Service rating	Contact location	Supersedes
23	-99	11	16	II	All	MS20056-99

FIGURE 8. Insert arrangement, electrical connector, shell size 23 (series I, III, IV of MIL-DTL-38999, series I of MIL-DTL-27599, and series A of SAE-AS29600) – Continued.

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Contacts (Insert arrangement 25-1)					
Contact position ID	Location		Contact position ID	Location	
	X-axis (mm)	Y-axis (mm)		X-axis (mm)	Y-axis (mm)
1	-.479 (12.17)	+.279 (7.09)	65	+.000 (0.00)	-.047 (1.19)
2	-.520 (13.21)	+.190 (4.83)	66	+.000 (0.00)	-.142 (3.61)
3	-.546 (13.87)	+.095 (2.41)	67	+.000 (0.00)	-.237 (6.02)
4	-.555 (14.10)	+.000 (0.00)	68	+.000 (0.00)	-.332 (8.43)
5	-.546 (13.87)	-.095 (2.41)	69	+.000 (0.00)	-.427 (10.85)
6	-.520 (13.21)	-.190 (4.83)	70	+.000 (0.00)	-.555 (14.10)
7	-.479 (12.17)	-.279 (7.09)	71	+.083 (2.11)	+.475 (12.07)
8	-.424 (10.77)	+.357 (9.07)	72	+.083 (2.11)	+.380 (9.65)
9	-.415 (10.54)	+.190 (4.83)	73	+.083 (2.11)	+.285 (7.24)
10	-.415 (10.54)	+.095 (2.41)	74	+.083 (2.11)	+.190 (4.83)
11	-.415 (10.54)	+.000 (0.00)	75	+.083 (2.11)	+.095 (2.41)
12	-.415 (10.54)	-.095 (2.41)	76	+.083 (2.11)	+.000 (0.00)
13	-.415 (10.54)	-.190 (4.83)	77	+.083 (2.11)	-.095 (2.41)
14	-.424 (10.77)	-.357 (9.07)	78	+.083 (2.11)	-.190 (4.83)
15	-.332 (8.43)	+.444 (11.28)	79	+.083 (2.11)	-.285 (7.24)
16	-.332 (8.43)	+.332 (8.43)	80	+.083 (2.11)	-.380 (9.65)

FIGURE 9. Insert arrangement, electrical connector, shell size 25 (series I, III, IV of MIL-DTL-38999, series I of MIL-DTL-27599, and series A of SAE-AS29600).

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Contacts (Insert arrangement 25-1)					
Contact position ID	Location		Contact position ID	Location	
	X-axis (mm)	Y-axis (mm)		X-axis (mm)	Y-axis (mm)
17	-.332 (8.43)	+.237 (6.02)	81	+.083 (2.11)	-.475 (12.07)
18	-.332 (8.43)	+.142 (3.61)	82	+.160 (4.06)	+.531 (13.49)
19	-.332 (8.43)	+.047 (1.19)	83	+.166 (4.22)	+.427 (10.85)
20	-.332 (8.43)	-.047 (1.19)	84	+.166 (4.22)	+.332 (8.43)
21	-.332 (8.43)	-.142 (3.61)	85	+.166 (4.22)	+.237 (6.02)
22	-.332 (8.43)	-.237 (6.02)	86	+.166 (4.22)	+.142 (3.61)
23	-.332 (8.43)	-.332 (8.43)	87	+.166 (4.22)	+.047 (1.19)
24	-.332 (8.43)	-.427 (10.85)	88	+.166 (4.22)	-.047 (1.19)
25	-.249 (6.32)	+.496 (12.60)	89	+.166 (4.22)	-.142 (3.61)
26	-.249 (6.32)	+.380 (9.65)	90	+.166 (4.22)	-.237 (6.02)
27	-.249 (6.32)	+.285 (7.24)	91	+.166 (4.22)	-.332 (8.43)
28	-.249 (6.32)	+.190 (4.83)	92	+.166 (4.22)	-.427 (10.85)
29	-.249 (6.32)	+.095 (2.41)	93	+.166 (4.22)	-.522 (13.26)
30	-.249 (6.32)	+.000 (0.00)	94	+.249 (6.32)	+.496 (12.60)
31	-.249 (6.32)	-.095 (2.41)	95	+.249 (6.32)	+.380 (9.65)
32	-.249 (6.32)	-.190 (4.83)	96	+.249 (6.32)	+.285 (7.24)
33	-.249 (6.32)	-.285 (7.24)	97	+.249 (6.32)	+.190 (4.83)
34	-.249 (6.32)	-.380 (9.65)	98	+.249 (6.32)	+.095 (2.41)
35	-.249 (6.32)	-.475 (12.07)	99	+.249 (6.32)	+.000 (0.00)
36	-.160 (4.06)	+.531 (13.49)	100	+.249 (6.32)	-.095 (2.41)
37	-.166 (4.22)	+.427 (10.85)	101	+.249 (6.32)	-.190 (4.83)
38	-.166 (4.22)	+.332 (8.43)	102	+.249 (6.32)	-.285 (7.24)
39	-.166 (4.22)	+.237 (6.02)	103	+.249 (6.32)	-.380 (9.65)
40	-.166 (4.22)	+.142 (3.61)	104	+.249 (6.32)	-.475 (12.07)
41	-.166 (4.22)	+.047 (1.19)	105	+.332 (8.43)	+.444 (11.28)
42	-.166 (4.22)	-.047 (1.19)	106	+.332 (8.43)	+.332 (8.43)
43	-.166 (4.22)	-.142 (3.61)	107	+.332 (8.43)	+.237 (6.02)
44	-.166 (4.22)	-.237 (6.02)	108	+.332 (8.43)	+.142 (3.61)
45	-.166 (4.22)	-.332 (8.43)	109	+.332 (8.43)	+.047 (1.19)
46	-.166 (4.22)	-.427 (10.85)	110	+.332 (8.43)	-.047 (1.19)
47	-.166 (4.22)	-.522 (13.26)	111	+.332 (8.43)	-.142 (3.61)
48	-.083 (2.11)	+.475 (12.07)	112	+.332 (8.43)	-.237 (6.02)
49	-.083 (2.11)	+.380 (9.65)	113	+.332 (8.43)	-.332 (8.43)

FIGURE 9. Insert arrangement, electrical connector, shell size 25 (series I, III, IV of MIL-DTL-38999, series I of MIL-DTL-27599, and series A of SAE-AS29600) – Continued.

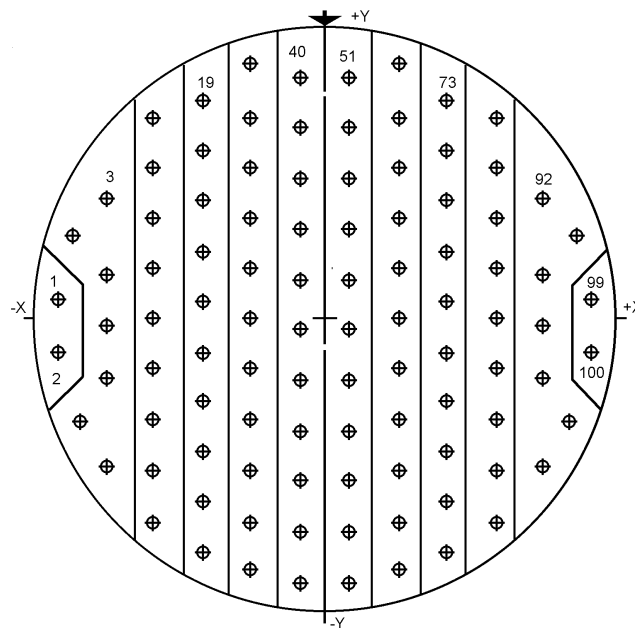
MIL-STD-1560C
w/CHANGE 2

Contacts (Insert arrangement 25-1)					
Contact position ID	Location		Contact position ID	Location	
	X-axis (mm)	Y-axis (mm)		X-axis (mm)	Y-axis (mm)
50	-.083 (2.11)	+.285 (7.24)	114	+.332 (8.43)	-.427 (10.85)
51	-.083 (2.11)	+.190 (4.83)	115	+.424 (10.77)	+.357 (9.07)
52	-.083 (2.11)	+.095 (2.41)	116	+.415 (10.54)	+.190 (4.83)
53	-.083 (2.11)	+.000 (0.00)	117	+.415 (10.54)	+.095 (2.41)
54	-.083 (2.11)	-.095 (2.41)	118	+.415 (10.54)	+.000 (0.00)
55	-.083 (2.11)	-.190 (4.83)	119	+.415 (10.54)	-.095 (2.41)
56	-.083 (2.11)	-.285 (7.24)	120	+.415 (10.54)	-.190 (4.83)
57	-.083 (2.11)	-.380 (9.65)	121	+.424 (10.77)	-.357 (9.07)
58	-.083 (2.11)	-.475 (12.07)	122	+.479 (12.17)	+.279 (7.09)
59	+.000 (0.00)	+.522 (13.26)	123	+.520 (13.21)	+.190 (4.83)
60	+.000 (0.00)	+.427 (10.85)	124	+.546 (13.87)	+.095 (2.41)
61	+.000 (0.00)	+.332 (8.43)	125	+.555 (14.10)	+.000 (0.00)
62	+.000 (0.00)	+.237 (6.02)	126	+.546 (13.87)	-.095 (2.41)
63	+.000 (0.00)	+.142 (3.61)	127	+.520 (13.21)	-.190 (4.83)
64	+.000 (0.00)	+.047 (1.19)	128	+.479 (12.17)	-.279 (7.09)

(Inactive for new design for MIL-DTL-38999)

Shell size	Arrangement no.	Number of contacts	Size contacts	Service rating	Contact location	Supersedes
25	-1	128	22M	M	All	MS20057-1

FIGURE 9. Insert arrangement, electrical connector, shell size 25 (series I, III, IV of MIL-DTL-38999, series I of MIL-DTL-27599, and series A of SAE-AS29600) – Continued.

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Contacts (Insert arrangement 25-2)					
Contact position ID	Location		Contact position ID	Location	
	X-axis (mm)	Y-axis (mm)		X-axis (mm)	Y-axis (mm)
1	-.550 (13.97)	+.039 (.99)	51	+.053 (1.35)	+.502 (12.75)
2	-.550 (13.97)	-.068 (1.73)	52	+.053 (1.35)	+.397 (10.08)
3	-.459 (11.66)	+.253 (6.43)	53	+.053 (1.35)	+.292 (7.42)
4	-.523 (13.28)	+.175 (4.45)	54	+.053 (1.35)	+.187 (4.75)
5	-.459 (11.66)	+.092 (2.34)	55	+.053 (1.35)	+.082 (2.08)
6	-.459 (11.66)	-.014 (0.36)	56	+.053 (1.35)	-.023 (0.58)
7	-.459 (11.66)	-.122 (3.10)	57	+.053 (1.35)	-.128 (3.25)
8	-.509 (12.93)	-.215 (5.46)	58	+.053 (1.35)	-.233 (5.92)
9	-.459 (11.66)	-.307 (7.80)	59	+.053 (1.35)	-.338 (8.59)
10	-.354 (8.99)	+.420 (10.67)	60	+.053 (1.35)	-.443 (11.25)
11	-.354 (8.99)	+.315 (8.00)	61	+.053 (1.35)	-.548 (13.92)
12	-.354 (8.99)	+.210 (5.33)	62	+.154 (3.91)	+.525 (13.34)
13	-.354 (8.99)	+.105 (2.67)	63	+.154 (3.91)	+.420 (10.67)
14	-.354 (8.99)	+.000 (0.00)	64	+.154 (3.91)	+.315 (8.00)
15	-.354 (8.99)	-.105 (2.67)	65	+.154 (3.91)	+.210 (5.33)
16	-.354 (8.99)	-.210 (5.33)	66	+.154 (3.91)	+.105 (2.67)

FIGURE 9. Insert arrangement, electrical connector, shell size 25 (series I, III, IV of MIL-DTL-38999, series I of MIL-DTL-27599, and series A of SAE-AS29600) – Continued.

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w/CHANGE 2

Contacts (Insert arrangement 25-2)					
Contact position ID	Location		Contact position ID	Location	
	X-axis (mm)	Y-axis (mm)		X-axis (mm)	Y-axis (mm)
17	-.354 (8.99)	-.315 (8.00)	67	+.154 (3.91)	+.000 (0.00)
18	-.354 (8.99)	-.420 (10.67)	68	+.154 (3.91)	-.105 (2.67)
19	-.255 (6.48)	+.457 (11.61)	69	+.154 (3.91)	-.210 (5.33)
20	-.255 (6.48)	+.352 (8.94)	70	+.154 (3.91)	-.315 (8.00)
21	-.255 (6.48)	+.247 (6.27)	71	+.154 (3.91)	-.420 (10.67)
22	-.255 (6.48)	+.142 (3.61)	72	+.154 (3.91)	-.525 (13.34)
23	-.255 (6.48)	+.037 (0.94)	73	+.255 (6.48)	+.457 (11.61)
24	-.255 (6.48)	-.068 (1.73)	74	+.255 (6.48)	+.352 (8.94)
25	-.255 (6.48)	-.173 (4.39)	75	+.255 (6.48)	+.247 (6.27)
26	-.255 (6.48)	-.278 (7.06)	76	+.255 (6.48)	+.142 (3.61)
27	-.255 (6.48)	-.383 (9.73)	77	+.255 (6.48)	+.037 (0.94)
28	-.255 (6.48)	-.488 (12.40)	78	+.255 (6.48)	-.068 (1.73)
29	-.154 (3.91)	+.525 (13.34)	79	+.255 (6.48)	-.173 (4.39)
30	-.154 (3.91)	+.420 (10.67)	80	+.255 (6.48)	-.278 (7.06)
31	-.154 (3.91)	+.315 (8.00)	81	+.255 (6.48)	-.383 (9.73)
32	-.154 (3.91)	+.210 (5.33)	82	+.255 (6.48)	-.488 (12.40)
33	-.154 (3.91)	+.105 (2.67)	83	+.354 (8.99)	+.420 (10.67)
34	-.154 (3.91)	+.000 (0.00)	84	+.354 (8.99)	+.315 (8.00)
35	-.154 (3.91)	-.105 (2.67)	85	+.354 (8.99)	+.210 (5.33)
36	-.154 (3.91)	-.210 (5.33)	86	+.354 (8.99)	+.105 (2.67)
37	-.154 (3.91)	-.315 (8.00)	87	+.354 (8.99)	+.000 (0.00)
38	-.154 (3.91)	-.420 (10.67)	88	+.354 (8.99)	-.105 (2.67)
39	-.154 (3.91)	-.525 (13.34)	89	+.354 (8.99)	-.210 (5.33)
40	-.053 (1.35)	+.502 (12.75)	90	+.354 (8.99)	-.315 (8.00)
41	-.053 (1.35)	+.397 (10.08)	91	+.354 (8.99)	-.420 (10.67)
42	-.053 (1.35)	+.292 (7.42)	92	+.459 (11.66)	+.253 (6.43)
43	-.053 (1.35)	+.187 (4.75)	93	+.523 (13.28)	+.175 (4.45)
44	-.053 (1.35)	+.082 (2.08)	94	+.459 (11.66)	+.092 (2.34)
45	-.053 (1.35)	-.023 (0.58)	95	+.459 (11.66)	-.014 (0.36)

FIGURE 9. Insert arrangement, electrical connector, shell size 25 (series I, III, IV of MIL-DTL-38999, series I of MIL-DTL-27599, and series A of SAE-AS29600) – Continued.

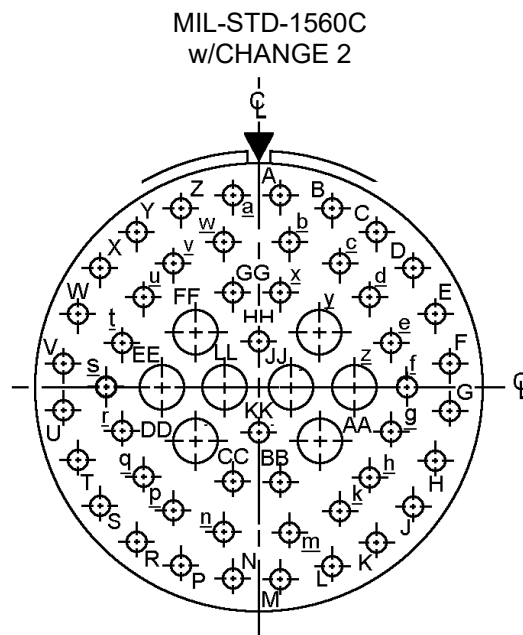
MIL-STD-1560C
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Contacts (Insert arrangement 25-2)					
Contact position ID	Location		Contact position ID	Location	
	X-axis (mm)	Y-axis (mm)		X-axis (mm)	Y-axis (mm)
46	-.053 (1.35)	-.128 (3.25)	96	+.459 (11.66)	-.122 (3.10)
47	-.053 (1.35)	-.233 (5.92)	97	+.509 (12.93)	-.215 (5.46)
48	-.053 (1.35)	-.338 (8.59)	98	+.459 (11.66)	-.307 (7.80)
49	-.053 (1.35)	-.443 (11.25)	99	+.550 (13.97)	+.039 (0.99)
50	-.053 (1.35)	-.548 (13.92)	100	+.550 (13.97)	-.068 (1.73)

(Inactive for new design for MIL-DTL-38999)

Shell size	Arrangement no.	Number of contacts	Size contacts	Service rating	Contact location	Supersedes
25	-2	100	22	M	All	MS20057-2

FIGURE 9. Insert arrangement, electrical connector, shell size 25 (series I, III, IV of MIL-DTL-38999, series I of MIL-DTL-27599, and series A of SAE-AS29600) – Continued.



Contacts (Insert arrangement 25-4)					
Contact position ID	Location		Contact position ID	Location	
	X-axis (mm)	Y-axis (mm)		X-axis (mm)	Y-axis (mm)
A	+.069 (1.75)	+.531 (13.49)	f	+.412 (10.46)	+.000 (0.00)
B	+.203 (5.16)	+.495 (12.57)	g	+.377 (9.58)	-.132 (3.35)
C	+.324 (8.23)	+.425 (10.80)	h	+.311 (7.90)	-.251 (6.38)
D	+.424 (10.77)	+.326 (8.28)	k	+.212 (5.38)	-.344 (8.74)
E	+.493 (12.52)	+.205 (5.21)	m	+.086 (2.18)	-.397 (10.08)
F	+.531 (13.49)	+.069 (1.75)	n	-.086 (2.18)	-.397 (10.08)
G	+.531 (13.49)	-.069 (1.75)	p	-.212 (5.38)	-.344 (8.74)
H	+.493 (12.52)	-.205 (5.21)	q	-.311 (7.90)	-.251 (6.38)
J	+.424 (10.77)	-.326 (8.28)	r	-.377 (9.58)	-.132 (3.35)
K	+.324 (8.23)	-.425 (10.80)	s	-.412 (10.46)	+.000 (0.00)
L	+.203 (5.16)	-.495 (12.57)	t	-.377 (9.58)	+.132 (3.35)
M	+.069 (1.75)	-.531 (13.49)	u	-.311 (7.90)	+.251 (6.38)
N	-.069 (1.75)	-.531 (13.49)	v	-.212 (5.38)	+.344 (8.74)
P	-.203 (5.16)	-.495 (12.57)	w	-.086 (2.18)	+.397 (10.08)
R	-.324 (8.23)	-.425 (10.80)	x	+.069 (1.75)	+.263 (6.68)
S	-.424 (10.77)	-.326 (8.28)	y	+.172 (4.37)	+.149 (3.78)
T	-.493 (12.52)	-.205 (5.21)	z	+.258 (6.55)	+.000 (0.00)
U	-.531 (13.49)	-.069 (1.75)	AA	+.172 (4.37)	-.149 (3.78)
V	-.531 (13.49)	+.069 (1.75)	BB	+.069 (1.75)	-.263 (6.68)
W	-.493 (12.52)	+.205 (5.21)	CC	-.069 (1.75)	-.263 (6.68)

FIGURE 9. Insert arrangement, electrical connector, shell size 25 (series I, III, IV of MIL-DTL-38999, series I of MIL-DTL-27599, and series A of SAE-AS29600) – Continued.

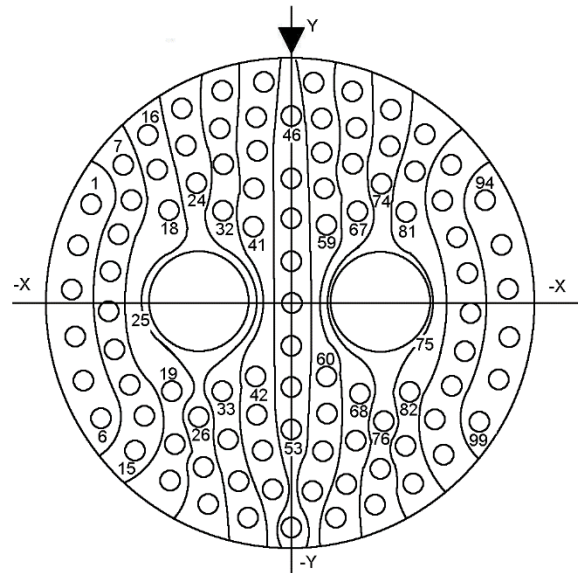
MIL-STD-1560C
w/CHANGE 2

Contacts (Insert arrangement 25-4)					
Contact position ID	Location		Contact position ID	Location	
	X-axis (mm)	Y-axis (mm)		X-axis (mm)	Y-axis (mm)
X	-.424 (10.77)	+.326 (8.28)	DD	-.172 (4.37)	-.149 (3.78)
Y	-.324 (8.23)	+.425 (10.80)	EE	-.258 (6.55)	+.000 (0.00)
Z	-.203 (5.16)	+.495 (12.57)	FF	-.172 (4.37)	+.149 (3.78)
a	-.069 (1.75)	+.531 (13.49)	GG	-.069 (1.75)	+.263 (6.68)
b	+.086 (2.18)	+.397 (10.08)	HH	+.000 (0.00)	+.132 (3.35)
c	+.212 (5.38)	+.344 (8.74)	JJ	+.086 (2.18)	+.000 (0.00)
d	+.311 (7.90)	+.251 (6.38)	KK	+.000 (0.00)	-.132 (3.35)
e	+.377 (9.58)	+.132 (3.35)	LL	-.086 (2.18)	+.000 (0.00)

Shell size	Arrangement no.	Number of contacts	Size contacts	Service rating	Contact location	Supersedes
25	-4	8	16	I	y, z, AA, DD, EE, FF, LL, JJ	MS20057-4
		48	20		All others	

FIGURE 9. Insert arrangement, electrical connector, shell size 25 (series I, III, IV of MIL-DTL-38999, series I of MIL-DTL-27599, and series A of SAE-AS29600) – Continued.

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(Inactive for new design for MIL-DTL-38999. For new design, use arrangement no. 25-9.)

Contacts (Insert arrangement 25-7)					
Contact position ID	Location		Contact position ID	Location	
	X-axis (mm)	Y-axis (mm)		X-axis (mm)	Y-axis (mm)
1	-.494 (12.55)	+.242 (6.15)	51	+.000 (0.00)	-.106 (2.69)
2	-.533 (13.54)	+.138 (3.51)	52	+.000 (0.00)	-.212 (5.38)
3	-.550 (13.97)	+.028 (0.71)	53	+.000 (0.00)	-.310 (7.87)
4	-.544 (13.82)	-.083 (2.11)	54	+.000 (0.00)	-.551 (14.00)
5	-.516 (13.11)	-.191 (4.85)	55	+.056 (1.42)	+.548 (13.92)
6	-.467 (11.86)	-.292 (7.42)	56	+.095 (2.41)	+.461 (11.71)
7	-.435 (11.05)	+.337 (8.56)	57	+.068 (1.73)	+.370 (9.40)
8	-.399 (10.13)	+.249 (6.32)	58	+.092 (2.34)	+.278 (7.06)
9	-.441 (11.20)	+.163 (4.14)	59	+.095 (2.41)	+.183 (4.65)
10	-.465 (11.81)	+.071 (1.80)	60	+.089 (2.26)	-.178 (4.52)
11	-.470 (11.94)	-.024 (0.61)	61	+.094 (2.39)	-.277 (7.04)
12	-.456 (11.58)	-.118 (3.00)	62	+.069 (1.75)	-.376 (9.55)
13	-.423 (10.74)	-.207 (5.26)	63	+.048 (1.22)	-.468 (11.89)
14	-.372 (9.45)	-.288 (7.32)	64	+.165 (4.19)	+.525 (13.34)

FIGURE 9. Insert arrangement, electrical connector, shell size 25 (series I, III, IV of MIL-DTL-38999, series I of MIL-DTL-27599, and series A of SAE-AS29600) – Continued.

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w/CHANGE 2

Contacts (Insert arrangement 25-7)					
Contact position ID	Location		Contact position ID	Location	
	X-axis (mm)	Y-axis (mm)		X-axis (mm)	Y-axis (mm)
15	-.399 (10.13)	-.379 (9.63)	65	+.186 (4.72)	+.433 (11.00)
16	-.359 (9.12)	+.418 (10.62)	66	+.164 (4.17)	+.340 (8.64)
17	-.341 (8.66)	+.324 (8.23)	67	+.181 (4.60)	+.225 (5.72)
18	-.308 (7.82)	+.222 (5.64)	68	+.172 (4.37)	-.223 (5.66)
19	-.303 (7.70)	-.223 (5.66)	69	+.159 (4.04)	-.347 (8.81)
20	-.307 (7.80)	-.357 (9.07)	70	+.141 (3.58)	-.449 (11.40)
21	-.314 (7.98)	-.452 (11.48)	71	+.111 (2.82)	-.539 (13.69)
22	-.267 (6.78)	+.481 (12.22)	72	+.267 (6.78)	+.481 (12.22)
23	-.269 (6.83)	+.386 (9.80)	73	+.269 (6.83)	+.386 (9.80)
24	-.247 (6.27)	+.294 (7.47)	74	+.247 (6.27)	+.294 (7.47)
25	-.238 (6.05)	+.000 (0.00)	75	+.238 (6.05)	+.000 (0.00)
26	-.237 (6.02)	-.292 (7.42)	76	+.237 (6.02)	-.292 (7.42)
27	-.228 (5.79)	-.412 (10.46)	77	+.228 (5.79)	-.412 (10.46)
28	-.217 (5.51)	-.506 (12.85)	78	+.217 (5.51)	-.506 (12.85)
29	-.165 (4.19)	+.525 (13.34)	79	+.359 (9.12)	+.418 (10.62)
30	-.186 (4.72)	+.433 (11.00)	80	+.341 (8.66)	+.324 (8.23)
31	-.164 (4.17)	+.340 (8.64)	81	+.308 (7.82)	+.222 (5.64)
32	-.181 (4.60)	+.225 (5.72)	82	+.303 (7.70)	-.223 (5.66)
33	-.172 (4.37)	-.223 (5.66)	83	+.307 (7.80)	-.357 (9.07)
34	-.159 (4.04)	-.347 (8.81)	84	+.314 (7.98)	-.452 (11.48)
35	-.141 (3.58)	-.449 (11.40)	85	+.435 (11.05)	+.337 (8.56)
36	-.111 (2.82)	-.539 (13.69)	86	+.399 (10.13)	+.249 (6.32)
37	-.056 (1.42)	+.548 (13.92)	87	+.441 (11.20)	+.163 (4.14)
38	-.095 (2.41)	+.461 (11.71)	88	+.465 (11.81)	+.071 (1.80)
39	-.068 (1.73)	+.370 (9.40)	89	+.470 (11.94)	-.024 (.61)
40	-.092 (2.34)	+.278 (7.06)	90	+.456 (11.58)	-.118 (3.00)
41	-.095 (2.41)	+.183 (4.65)	91	+.423 (10.74)	-.207 (5.26)
42	-.089 (2.26)	-.178 (4.52)	92	+.372 (9.45)	-.288 (7.32)

FIGURE 9. Insert arrangement, electrical connector, shell size 25 (series I, III, IV of MIL-DTL-38999, series I of MIL-DTL-27599, and series A of SAE-AS29600) – Continued.

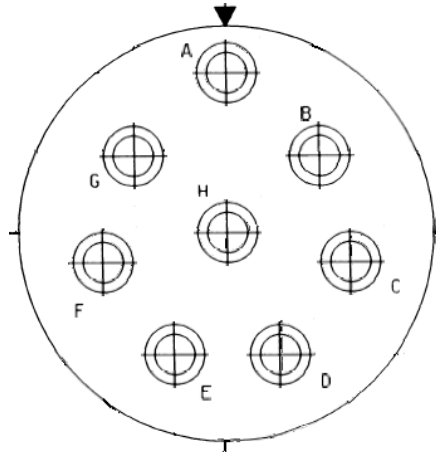
MIL-STD-1560C
w/CHANGE 2

Contacts (Insert arrangement 25-7)					
Contact position ID	Location		Contact position ID	Location	
	X-axis (mm)	Y-axis (mm)		X-axis (mm)	Y-axis (mm)
43	-.094 (2.39)	-.277 (7.04)	93	+.399 (10.13)	-.379 (9.63)
44	-.069 (1.75)	-.376 (9.55)	94	+.494 (12.55)	+.242 (6.15)
45	-.048 (1.22)	-.468 (11.89)	95	+.533 (13.54)	+.138 (3.51)
46	+.000 (0.00)	+.471 (11.96)	96	+.550 (13.97)	+.028 (0.71)
47	+.000 (0.00)	+.303 (7.70)	97	+.544 (13.82)	-.083 (2.11)
48	+.000 (0.00)	+.208 (5.28)	98	+.516 (13.11)	-.191 (4.85)
49	+.000 (0.00)	+.104 (2.64)	99	+.467 (11.86)	-.292 (7.42)
50	+.000 (0.00)	+.000 (0.00)	---	---	---

Shell size	Arrange-ment no.	Number of contacts	Size contacts	Service rating	Contact location	Standard contact	
						Pin	Socket
25	-7	2	8 (See note)	Twinax	25, 75	M39029/90-529	M39029/91-530
		97	22D	M	All others	M39029/58-360	M39029/56-348

NOTE: To meet environmental sealing requirements, size 8 shielded contacts used with this insert arrangement may require separate, non-standard sealing boots that are furnished with the connector. For this insert arrangement, some connector grommet designs use a heat shrink sleeve only with the size 8 shielded contacts to meet environmental sealing requirements. When heat shrink sleeves are used, sealing boots are not used, and when sealing boots are used, heat shrink sleeves are not used. Heat shrink sleeves have a maximum temperature rating of 175°C maximum. When heat shrink sleeves are used, connectors rated to 200°C max are derated to 175°C max.

FIGURE 9. Insert arrangement, electrical connector, shell size 25 (series I, III, IV of MIL-DTL-38999, series I of MIL-DTL-27599, and series A of SAE-AS29600) – Continued.

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w/CHANGE 2

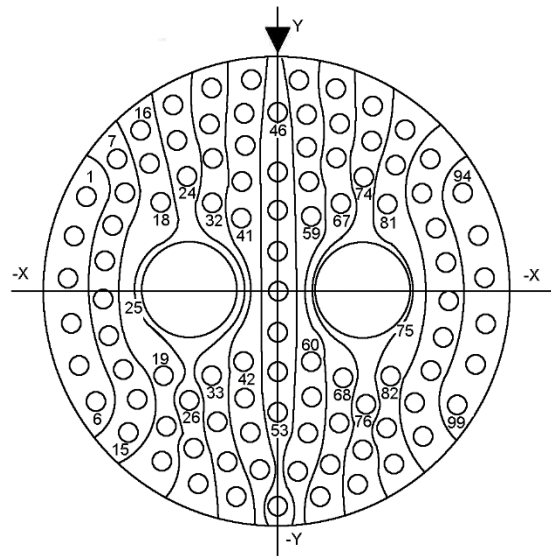
(Inactive for new design for MIL-DTL-38999. For new design, use arrangement no. 25-10.)

Contacts (Insert arrangement 25-8)		
Contact position ID	Contact location	
	X-axis (mm)	Y-axis (mm)
A	+0.000 (0.00)	+0.426 (10.82)
B	+0.333 (8.46)	+0.266 (6.76)
C	+0.415 (10.54)	-0.095 (2.41)
D	+0.185 (4.70)	-0.384 (9.75)
E	-0.185 (4.70)	-0.384 (9.75)
F	-0.415 (10.54)	-0.095 (2.41)
G	-0.333 (8.46)	+0.266 (6.76)
H	+0.000 (0.00)	+0.000 (0.00)

Shell size	Arrangement no.	Number of contacts	Size contacts	Service rating	Contact location	Standard contact	
						Pin	Socket
25	-8	8	8	Twinsax	All	M39029/90-529	M39029/91-530

NOTE: To meet environmental sealing requirements, size 8 shielded contacts used with this insert arrangement may require separate, non-standard sealing boots that are furnished with the connector. For this insert arrangement, some connector grommet designs use a heat shrink sleeve only with the size 8 shielded contacts to meet environmental sealing requirements. When heat shrink sleeves are used, sealing boots are not used, and when sealing boots are used, heat shrink sleeves are not used. When heat shrink sleeves are used, connectors rated to 200°C max are derated to 175°C max.

FIGURE 9. Insert arrangement, electrical connector, shell size 25 (series I, III, IV of MIL-DTL-38999, series I of MIL-DTL-27599, and series A of SAE-AS29600) – Continued.

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(INSERT ARRANGEMENT PATTERN IDENTICAL TO 25-7, EXCEPT 25-9
USES SEALING BOOT IN ACCORDANCE WITH MIL-DTL-38999/62)

Contacts (Insert arrangement 25-9)					
Contact position ID	Location		Contact position ID	Location	
	X-axis (mm)	Y-axis (mm)		X-axis (mm)	Y-axis (mm)
1	-.494 (12.55)	+.242 (6.15)	51	+.000 (0.00)	-.106 (2.69)
2	-.533 (13.54)	+.138 (3.51)	52	+.000 (0.00)	-.212 (5.38)
3	-.550 (13.97)	+.028 (0.71)	53	+.000 (0.00)	-.310 (7.87)
4	-.544 (13.82)	-.083 (2.11)	54	+.000 (0.00)	-.551 (14.00)
5	-.516 (13.11)	-.191 (4.85)	55	+.056 (1.42)	+.548 (13.92)
6	-.467 (11.86)	-.292 (7.42)	56	+.095 (2.41)	+.461 (11.71)
7	-.435 (11.05)	+.337 (8.56)	57	+.068 (1.73)	+.370 (9.40)
8	-.399 (10.13)	+.249 (6.32)	58	+.092 (2.34)	+.278 (7.06)
9	-.441 (11.20)	+.163 (4.14)	59	+.095 (2.41)	+.183 (4.65)
10	-.465 (11.81)	+.071 (1.80)	60	+.089 (2.26)	-.178 (4.52)
11	-.470 (11.94)	-.024 (0.61)	61	+.094 (2.39)	-.277 (7.04)
12	-.456 (11.58)	-.118 (3.00)	62	+.069 (1.75)	-.376 (9.55)
13	-.423 (10.74)	-.207 (5.26)	63	+.048 (1.22)	-.468 (11.89)
14	-.372 (9.45)	-.288 (7.32)	64	+.165 (4.19)	+.525 (13.34)

FIGURE 9. Insert arrangement, electrical connector, shell size 25 (series I, III, IV of MIL-DTL-38999, series I of MIL-DTL-27599, and series A of SAE-AS29600) – Continued.

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Contacts (Insert arrangement 25-9)					
Contact position ID	Location		Contact position ID	Location	
	X-axis (mm)	Y-axis (mm)		X-axis (mm)	Y-axis (mm)
15	-.399 (10.13)	-.379 (9.63)	65	+.186 (4.72)	+.433 (11.00)
16	-.359 (9.12)	+.418 (10.62)	66	+.164 (4.17)	+.340 (8.64)
17	-.341 (8.66)	+.324 (8.23)	67	+.181 (4.60)	+.225 (5.72)
18	-.308 (7.82)	+.222 (5.64)	68	+.172 (4.37)	-.223 (5.66)
19	-.303 (7.70)	-.223 (5.66)	69	+.159 (4.04)	-.347 (8.81)
20	-.307 (7.80)	-.357 (9.07)	70	+.141 (3.58)	-.449 (11.40)
21	-.314 (7.98)	-.452 (11.48)	71	+.111 (2.82)	-.539 (13.69)
22	-.267 (6.78)	+.481 (12.22)	72	+.267 (6.78)	+.481 (12.22)
23	-.269 (6.83)	+.386 (9.80)	73	+.269 (6.83)	+.386 (9.80)
24	-.247 (6.27)	+.294 (7.47)	74	+.247 (6.27)	+.294 (7.47)
25	-.238 (6.05)	+.000 (0.00)	75	+.238 (6.05)	+.000 (0.00)
26	-.237 (6.02)	-.292 (7.42)	76	+.237 (6.02)	-.292 (7.42)
27	-.228 (5.79)	-.412 (10.46)	77	+.228 (5.79)	-.412 (10.46)
28	-.217 (5.51)	-.506 (12.85)	78	+.217 (5.51)	-.506 (12.85)
29	-.165 (4.19)	+.525 (13.34)	79	+.359 (9.12)	+.418 (10.62)
30	-.186 (4.72)	+.433 (11.00)	80	+.341 (8.66)	+.324 (8.23)
31	-.164 (4.17)	+.340 (8.64)	81	+.308 (7.82)	+.222 (5.64)
32	-.181 (4.60)	+.225 (5.72)	82	+.303 (7.70)	-.223 (5.66)
33	-.172 (4.37)	-.223 (5.66)	83	+.307 (7.80)	-.357 (9.07)
34	-.159 (4.04)	-.347 (8.81)	84	+.314 (7.98)	-.452 (11.48)
35	-.141 (3.58)	-.449 (11.40)	85	+.435 (11.05)	+.337 (8.56)
36	-.111 (2.82)	-.539 (13.69)	86	+.399 (10.13)	+.249 (6.32)
37	-.056 (1.42)	+.548 (13.92)	87	+.441 (11.20)	+.163 (4.14)
38	-.095 (2.41)	+.461 (11.71)	88	+.465 (11.81)	+.071 (1.80)
39	-.068 (1.73)	+.370 (9.40)	89	+.470 (11.94)	-.024 (.61)
40	-.092 (2.34)	+.278 (7.06)	90	+.456 (11.58)	-.118 (3.00)
41	-.095 (2.41)	+.183 (4.65)	91	+.423 (10.74)	-.207 (5.26)
42	-.089 (2.26)	-.178 (4.52)	92	+.372 (9.45)	-.288 (7.32)

FIGURE 9. Insert arrangement, electrical connector, shell size 25 (series I, III, IV of MIL-DTL-38999, series I of MIL-DTL-27599, and series A of SAE-AS29600) – Continued.

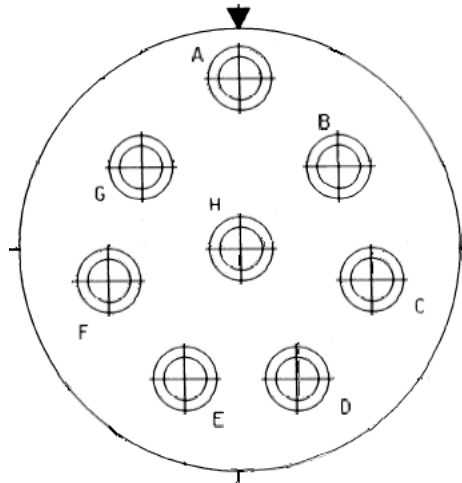
MIL-STD-1560C
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Contacts (Insert arrangement 25-9)					
Contact position ID	Location		Contact position ID	Location	
	X-axis (mm)	Y-axis (mm)		X-axis (mm)	Y-axis (mm)
43	-.094 (2.39)	-.277 (7.04)	93	+.399 (10.13)	-.379 (9.63)
44	-.069 (1.75)	-.376 (9.55)	94	+.494 (12.55)	+.242 (6.15)
45	-.048 (1.22)	-.468 (11.89)	95	+.533 (13.54)	+.138 (3.51)
46	+.000 (0.00)	+.471 (11.96)	96	+.550 (13.97)	+.028 (0.71)
47	+.000 (0.00)	+.303 (7.70)	97	+.544 (13.82)	-.083 (2.11)
48	+.000 (0.00)	+.208 (5.28)	98	+.516 (13.11)	-.191 (4.85)
49	+.000 (0.00)	+.104 (2.64)	99	+.467 (11.86)	-.292 (7.42)
50	+.000 (0.00)	+.000 (0.00)	---	---	---

Shell size	Arrange-ment no.	Number of contacts	Size contacts	Service rating	Contact location	Standard contact	
						Pin	Socket
25	-9	2	8 (See note)	Twinax	25, 75	M39029/113-625	M39029/114-628
		97	22D	M	All others	M39029/58-360	M39029/56-348

NOTE: For this insert arrangement, sealing boots in accordance with MIL-DTL-38999/62 shall be used to environmentally seal size 8 twinax contacts. Heat shrink sleeves are not used when MIL-DTL-38999/62 sealing boots are used.

FIGURE 9. Insert arrangement, electrical connector, shell size 25 (series I, III, IV of MIL-DTL-38999, series I of MIL-DTL-27599, and series A of SAE-AS29600) – Continued.

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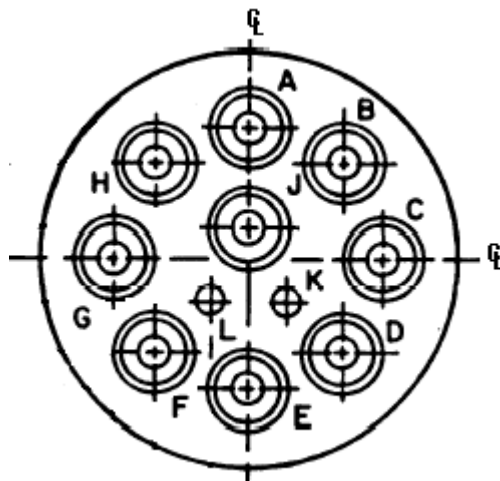
(INSERT ARRANGEMENT PATTERN IDENTICAL TO 25-8, EXCEPT 25-10
USES SEALING BOOT IN ACCORDANCE WITH MIL-DTL-38999/62)

Contacts (Insert arrangement 25-10)		
Contact position ID	Contact location	
	X-axis (mm)	Y-axis (mm)
A	+0.000 (0.00)	+0.426 (10.82)
B	+0.333 (8.46)	+0.266 (6.76)
C	+0.415 (10.54)	-0.095 (2.41)
D	+0.185 (4.70)	-0.384 (9.75)
E	-0.185 (4.70)	-0.384 (9.75)
F	-0.415 (10.54)	-0.095 (2.41)
G	-0.333 (8.46)	+0.266 (6.76)
H	+0.000 (0.00)	+0.000 (0.00)

Shell size	Arrange- ment no.	Number of contacts	Size contacts	Service rating	Contact location	Standard contact	
						Pin	Socket
25	-10	8	8	Twinax	All	M39029/113-625	M39029/114-628

NOTE: For this insert arrangement, sealing boots in accordance with MIL-DTL-38999/62 shall be used to environmentally seal size 8 twinax contacts. Heat shrink sleeves are not used when MIL-DTL-38999/62 sealing boots are used.

FIGURE 9. Insert arrangement, electrical connector, shell size 25 (series I, III, IV of MIL-DTL-38999, series I of MIL-DTL-27599, and series A of SAE-AS29600) – Continued.

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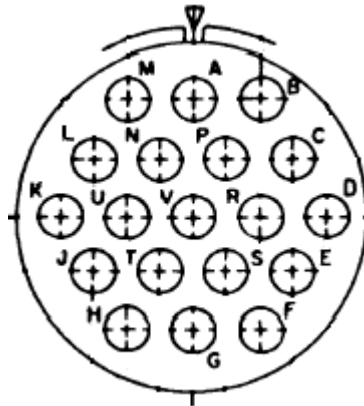
Contacts (Insert arrangement 25-11)					
Contact position ID	Location		Contact position ID	Location	
	X-axis (mm)	Y-axis (mm)		X-axis (mm)	Y-axis (mm)
A	+.000 (0.00)	+.431 (10.95)	G	-.431 (10.95)	+.000 (0.00)
B	+.304 (7.72)	+.304 (7.72)	H	-.304 (7.72)	+.304 (7.72)
C	+.431 (10.95)	+.000 (0.00)	J	+.000 (0.00)	+.102 (2.59)
D	+.304 (7.72)	-.304 (7.72)	K	+.092 (2.34)	-.160 (4.06)
E	+.000 (0.00)	-.431 (10.95)	L	-.092 (2.34)	-.160 (4.06)
F	-.304 (7.72)	-.304 (7.72)	---	---	---

NOTES:

1. All dimensions are true position.
2. Front face of pin insert shown.

Shell size	Arrangement no.	Number of contacts	Size contacts	Service rating	Contact location
25	-11	9	10	N	A,B,C,D,E,F, G,H,J
		2	20		L,K

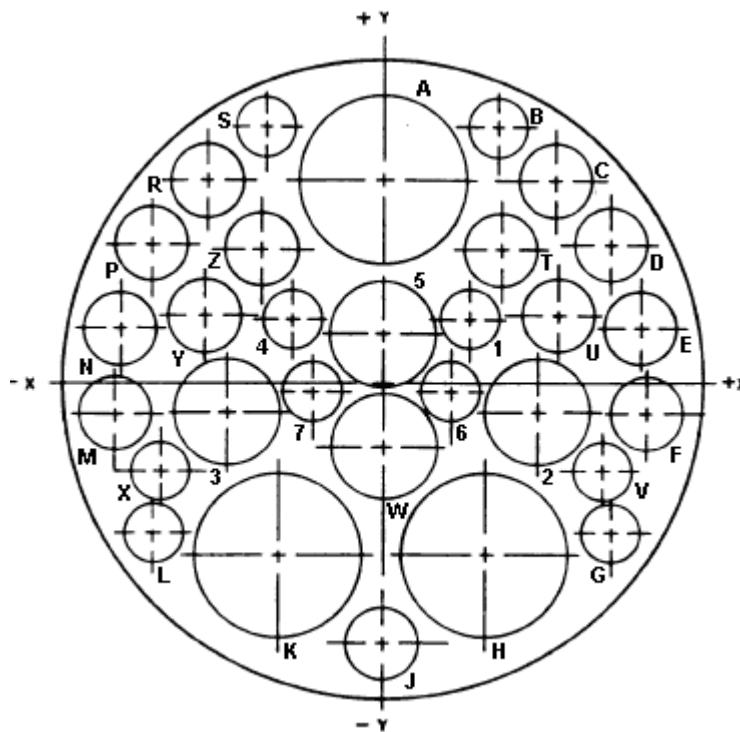
FIGURE 9. Insert arrangement, electrical connector, shell size 25 (series I, III, IV of MIL-DTL-38999, series I of MIL-DTL-27599, and series A of SAE-AS29600) – Continued.

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Contacts (Insert arrangement 25-19)					
Contact position ID	Location		Contact position ID	Location	
	X-axis (mm)	Y-axis (mm)		X-axis (mm)	Y-axis (mm)
A	+.000 (0.00)	+.409 (10.39)	L	-.354 (8.99)	+.205 (5.21)
B	+.236 (5.99)	+.409 (10.39)	M	-.236 (5.99)	+.409 (10.39)
C	+.354 (8.99)	+.205 (5.21)	N	-.118 (3.00)	+.205 (5.21)
D	+.472 (11.99)	+.000 (0.00)	P	+.118 (3.00)	+.205 (5.21)
E	+.354 (8.99)	-.205 (5.21)	R	+.236 (5.99)	+.000 (0.00)
F	+.236 (5.99)	-.409 (10.39)	S	+.118 (3.00)	-.205 (5.21)
G	+.000 (.00)	-.409 (10.39)	T	-.118 (3.00)	-.205 (5.21)
H	-.236 (5.99)	-.409 (10.39)	U	-.236 (5.99)	+.000 (0.00)
J	-.354 (8.99)	-.205 (5.21)	V	+.000 (0.00)	+.000 (0.00)
K	-.472 (11.99)	+.000 (0.00)	---	---	---

Shell size	Arrangement no.	Number of contacts	Size contacts	Service rating	Contact location	Supersedes
25	-19	19	12	I	All	MS20057-19

FIGURE 9. Insert arrangement, electrical connector, shell size 25 (series I, III, IV of MIL-DTL-38999, series I of MIL-DTL-27599, and series A of SAE-AS29600) – Continued.

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Contacts (Insert arrangement 25-20)					
Contact position ID	Location		Contact position ID	Location	
	X-axis (mm)	Y-axis (mm)		X-axis (mm)	Y-axis (mm)
A	+.000 (0.00)	+.407 (10.34)	S	-.234 (5.94)	+.511 (12.98)
B	+.234 (5.94)	+.511 (12.98)	T	+.243 (6.17)	+.270 (6.86)
C	+.352 (8.94)	+.411 (10.44)	U	+.357 (9.07)	+.136 (3.45)
D	+.466 (11.84)	+.275 (6.99)	V	+.450 (11.43)	-.183 (4.65)
E	+.530 (13.46)	+.111 (2.82)	W	+.000 (0.00)	-.131 (3.33)
F	+.537 (13.64)	-.060 (1.52)	X	-.450 (11.43)	-.183 (4.65)
G	+.467 (11.86)	-.312 (7.92)	Y	-.357 (9.07)	+.136 (3.45)
H	+.208 (5.28)	-.353 (8.97)	Z	-.243 (6.17)	+.270 (6.86)
J	+.000 (0.00)	-.541 (13.74)	1	+.195 (4.95)	+.115 (2.92)
K	-.208 (5.28)	-.353 (8.97)	2	+.317 (8.05)	-.061 (1.55)
L	-.467 (11.86)	-.312 (7.92)	3	-.317 (8.05)	-.061 (1.55)
M	-.537 (13.64)	-.060 (1.52)	4	-.195 (4.95)	+.115 (2.92)

FIGURE 9. Insert arrangement, electrical connector, shell size 25 (series I, III, IV of MIL-DTL-38999, series I of MIL-DTL-27599, and series A of SAE-AS29600) – Continued.

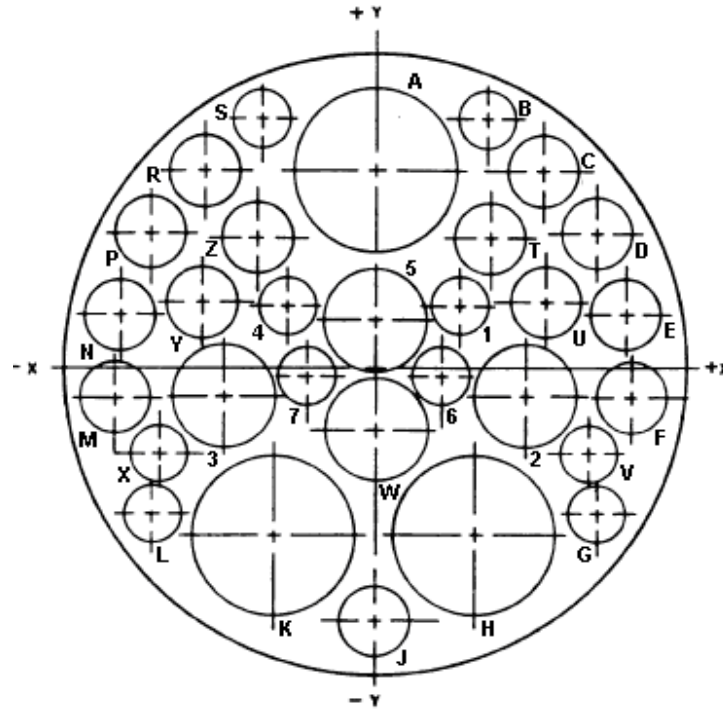
MIL-STD-1560C
w/CHANGE 2

Contacts (Insert arrangement 25-20)					
Contact position ID	Location		Contact position ID	Location	
	X-axis (mm)	Y-axis (mm)		X-axis (mm)	Y-axis (mm)
N	-.530 (13.46)	+.111 (2.82)	5	+.000 (0.00)	+.099 (2.51)
P	-.466 (11.84)	+.275 (6.99)	6	+.141 (3.58)	-.018 (0.46)
R	-.352 (8.94)	+.411 (10.44)	7	-.141 (3.58)	-.018 (0.46)

Shell size	Arrangement no.	Number of contacts	Size contacts	Service rating	Contact location	Standard contact	
						Pin	Socket
25	-20	3	8	Twinax	A,H,K	M39029/90-529	M39029/91-530
		4	12	Coax	2,3	M39029/28-211	M39029/75-416
					W, 5	M39029/102-558	M39029/103-559
		13	16	N	C,D,E,F, J,M,N,P, R,T,U,Y, Z	M39029/58-364	M39029/56-352
		10	20		B,G,L,S, V,X,1,4, 6, 7	M39029/58-363	M39029/56-351

NOTE: For this insert arrangement, size 8 twinax contacts are intended to be used with a heat shrink sleeve to effect environmental sealing to the connector and cable. Heat shrink sleeves used with size 8 twinax contacts are rated to 175°C maximum. Connectors rated to 200°C max are derated to 175°C max when heat shrink sleeves are used. For environmental sealing and prevention of splaying, some 25-20 insert arrangement grommet designs may use a separate, non-standard boot that is supplied with the connector for use with size 8 twinax contacts. If a heat shrink sleeve is used, then a sealing boot is not used. If a sealing boot is used, then a heat shrink sleeve is not used.

FIGURE 9. Insert arrangement, electrical connector, shell size 25 (series I, III, IV of MIL-DTL-38999, series I of MIL-DTL-27599, and series A of SAE-AS29600) – Continued.

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(This insert arrangement pattern is identical to arrangement 25-20, except this arrangement is designed to use MIL-DTL-38999/62 sealing boots with size 8 twinax contacts.)

Contacts (Insert arrangement 25-21)					
Contact position ID	Location		Contact position ID	Location	
	X-axis (mm)	Y-axis (mm)		X-axis (mm)	Y-axis (mm)
A	+0.000 (0.00)	+4.07 (10.34)	S	-.234 (5.94)	+5.11 (12.98)
B	+.234 (5.94)	+5.11 (12.98)	T	+.243 (6.17)	+.270 (6.86)
C	+.352 (8.94)	+4.11 (10.44)	U	+.357 (9.07)	+.136 (3.45)
D	+.466 (11.84)	+.275 (6.99)	V	+.450 (11.43)	-.183 (4.65)
E	+.530 (13.46)	+.111 (2.82)	W	+0.000 (0.00)	-.131 (3.33)
F	+.537 (13.64)	-.060 (1.52)	X	-.450 (11.43)	-.183 (4.65)
G	+.467 (11.86)	-.312 (7.92)	Y	-.357 (9.07)	+.136 (3.45)
H	+.208 (5.28)	-.353 (8.97)	Z	-.243 (6.17)	+.270 (6.86)
J	+0.000 (0.00)	-.541 (13.74)	1	+.195 (4.95)	+.115 (2.92)
K	-.208 (5.28)	-.353 (8.97)	2	+.317 (8.05)	-.061 (1.55)
L	-.467 (11.86)	-.312 (7.92)	3	-.317 (8.05)	-.061 (1.55)
M	-.537 (13.64)	-.060 (1.52)	4	-.195 (4.95)	+.115 (2.92)

FIGURE 9. Insert arrangement, electrical connector, shell size 25 (series I, III, IV of MIL-DTL-38999, series I of MIL-DTL-27599, and series A of SAE-AS29600) – Continued.

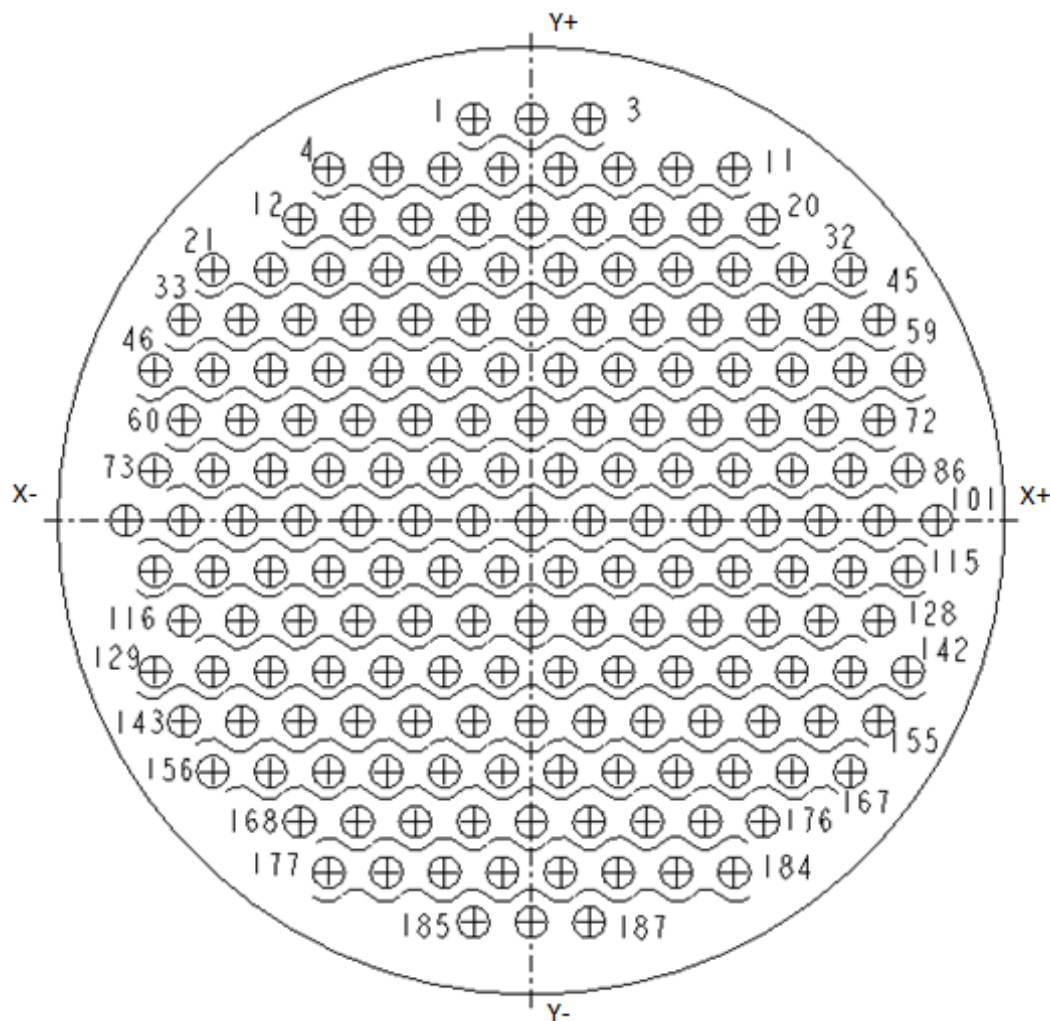
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Contacts (Insert arrangement 25-21)					
Contact position ID	Location		Contact position ID	Location	
	X-axis (mm)	Y-axis (mm)		X-axis (mm)	Y-axis (mm)
N	-.530 (13.46)	+.111 (2.82)	5	+.000 (0.00)	+.099 (2.51)
P	-.466 (11.84)	+.275 (6.99)	6	+.141 (3.58)	-.018 (0.46)
R	-.352 (8.94)	+.411 (10.44)	7	-.141 (3.58)	-.018 (0.46)

Shell size	Arrange-ment no.	Number of contacts	Size contacts	Service rating	Contact location	Standard contact	
						Pin	Socket
25	-21	3	8	Twinax	A,H,K	M39029/113-625	M39029/114-628
		4	12	Coax	2 ,3	M39029/28-211	M39029/75-416
					W, 5	M39029/102-558	M39029/103-559
		13	16	N	C,D,E,F, J,M,N,P, R,T,U,Y, Z	M39029/58-364	M39029/56-352
		10	20		B,G,L,S, V,X,1,4, 6, 7	M39029/58-363	M39029/56-351

NOTE: For this insert arrangement, sealing boots in accordance with MIL-DTL-38999/62 shall be used to environmentally seal size 8 twinax contacts. Heat shrink sleeves are not used when MIL-DTL-38999/62 sealing boots are used.

FIGURE 9. Insert arrangement, electrical connector, shell size 25 (series I, III, IV of MIL-DTL-38999, series I of MIL-DTL-27599, and series A of SAE-AS29600) – Continued.

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Contacts (Insert arrangement 25-23)					
Contact position ID	Location		Contact position ID	Location	
	X-axis (mm)	Y-axis (mm)		X-axis (mm)	Y-axis (mm)
1	-.080 (2.04)	+.556 (14.13)	95	+.080 (2.04)	+.000 (0.00)
2	+.000 (0.00)	+.556 (14.13)	96	+.161 (4.08)	+.000 (0.00)
3	+.080 (2.04)	+.556 (14.13)	97	+.241 (6.12)	+.000 (0.00)

FIGURE 9. Insert arrangement, electrical connector, shell size 25 (Series I, III, IV of MIL-DTL-38999, Series I of MIL-DTL-27599, and Series A of SAE-AS29600) – Continued.

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Contacts (Insert arrangement 25-23)					
Contact position ID	Location		Contact position ID	Location	
	X-axis (mm)	Y-axis (mm)		X-axis (mm)	Y-axis (mm)
4	-.281 (7.14)	+.487 (12.37)	98	+.321 (8.16)	+.000 (0.00)
5	-.201 (5.10)	+.487 (12.37)	99	+.402 (10.20)	+.000 (0.00)
6	-.121 (3.06)	+.487 (12.37)	100	+.482 (12.24)	+.000 (0.00)
7	-.040 (1.02)	+.487 (12.37)	101	+.562 (14.28)	+.000 (0.00)
8	+.040 (1.02)	+.487 (12.37)	102	-.522 (13.26)	-.070 (1.77)
9	+.121 (3.06)	+.487 (12.37)	103	-.442 (11.22)	-.070 (1.77)
10	+.201 (5.10)	+.487 (12.37)	104	-.361 (9.18)	-.070 (1.77)
11	+.281 (7.14)	+.487 (12.37)	105	-.281 (7.14)	-.070 (1.77)
12	-.321 (8.16)	+.417 (10.60)	106	-.201 (5.10)	-.070 (1.77)
13	-.241 (6.12)	+.417 (10.60)	107	-.121 (3.06)	-.070 (1.77)
14	-.161 (4.08)	+.417 (10.60)	108	-.040 (1.02)	-.070 (1.77)
15	-.080 (2.04)	+.417 (10.60)	109	+.040 (1.02)	-.070 (1.77)
16	+.000 (0.00)	+.417 (10.60)	110	+.121 (3.06)	-.070 (1.77)
17	+.080 (2.04)	+.417 (10.60)	111	+.201 (5.10)	-.070 (1.77)
18	+.161 (4.08)	+.417 (10.60)	112	+.281 (7.14)	-.070 (1.77)
19	+.241 (6.12)	+.417 (10.60)	113	+.361 (9.18)	-.070 (1.77)
20	+.321 (8.16)	+.417 (10.60)	114	+.442 (11.22)	-.070 (1.77)
21	-.442 (11.22)	+.348 (8.83)	115	+.522 (13.26)	-.070 (1.77)
22	-.361 (9.18)	+.348 (8.83)	116	-.482 (12.24)	-.139 (3.53)
23	-.281 (7.14)	+.348 (8.83)	117	-.402 (10.20)	-.139 (3.53)
24	-.201 (5.10)	+.348 (8.83)	118	-.321 (8.16)	-.139 (3.53)
25	-.121 (3.06)	+.348 (8.83)	119	-.241 (6.12)	-.139 (3.53)
26	-.040 (1.02)	+.348 (8.83)	120	-.161 (4.08)	-.139 (3.53)
27	+.040 (1.02)	+.348 (8.83)	121	-.080 (2.04)	-.139 (3.53)
28	+.121 (3.06)	+.348 (8.83)	122	+.000 (0.00)	-.139 (3.53)
29	+.201 (5.10)	+.348 (8.83)	123	+.080 (2.04)	-.139 (3.53)
30	+.281 (7.14)	+.348 (8.83)	124	+.161 (4.08)	-.139 (3.53)

FIGURE 9. Insert arrangement, electrical connector, shell size 25 (Series I, III, IV of MIL-DTL-38999, Series I of MIL-DTL-27599, and Series A of SAE-AS29600) – Continued.

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w/CHANGE 2

Contacts (Insert arrangement 25-23)					
Contact position ID	Location		Contact position ID	Location	
	X-axis (mm)	Y-axis (mm)		X-axis (mm)	Y-axis (mm)
31	+.361 (9.18)	+.348 (8.83)	125	+.241 (6.12)	-.139 (3.53)
32	+.442 (11.22)	+.348 (8.83)	126	+.321 (8.16)	-.139 (3.53)
33	-.482 (12.24)	+.278 (7.07)	127	+.402 (10.20)	-.139 (3.53)
34	-.402 (10.20)	+.278 (7.07)	128	+.482 (12.24)	-.139 (3.53)
35	-.321 (8.16)	+.278 (7.07)	129	-.522 (13.26)	-.209 (5.30)
36	-.241 (6.12)	+.278 (7.07)	130	-.442 (11.22)	-.209 (5.30)
37	-.161 (4.08)	+.278 (7.07)	131	-.361 (9.18)	-.209 (5.30)
38	-.080 (2.04)	+.278 (7.07)	132	-.281 (7.14)	-.209 (5.30)
39	+.000 (0.00)	+.278 (7.07)	133	-.201 (5.10)	-.209 (5.30)
40	+.080 (2.04)	+.278 (7.07)	134	-.121 (3.06)	-.209 (5.30)
41	+.161 (4.08)	+.278 (7.07)	135	-.040 (1.02)	-.209 (5.30)
42	+.241 (6.12)	+.278 (7.07)	136	+.040 (1.02)	-.209 (5.30)
43	+.321 (8.16)	+.278 (7.07)	137	+.121 (3.06)	-.209 (5.30)
44	+.402 (10.20)	+.278 (7.07)	138	+.201 (5.10)	-.209 (5.30)
45	+.482 (12.24)	+.278 (7.07)	139	+.281 (7.14)	-.209 (5.30)
46	-.522 (13.26)	+.209 (5.30)	140	+.361 (9.18)	-.209 (5.30)
47	-.442 (11.22)	+.209 (5.30)	141	+.442 (11.22)	-.209 (5.30)
48	-.361 (9.18)	+.209 (5.30)	142	+.522 (13.26)	-.209 (5.30)
49	-.281 (7.14)	+.209 (5.30)	143	-.482 (12.24)	-.278 (7.07)
50	-.201 (5.10)	+.209 (5.30)	144	-.402 (10.20)	-.278 (7.07)
51	-.121 (3.06)	+.209 (5.30)	145	-.321 (8.16)	-.278 (7.07)
52	-.040 (1.02)	+.209 (5.30)	146	-.241 (6.12)	-.278 (7.07)
53	+.040 (1.02)	+.209 (5.30)	147	-.161 (4.08)	-.278 (7.07)
54	+.121 (3.06)	+.209 (5.30)	148	-.080 (2.04)	-.278 (7.07)
55	+.201 (5.10)	+.209 (5.30)	149	+.000 (0.00)	-.278 (7.07)
56	+.281 (7.14)	+.209 (5.30)	150	+.080 (2.04)	-.278 (7.07)
57	+.361 (9.18)	+.209 (5.30)	151	+.161 (4.08)	-.278 (7.07)
58	+.442 (11.22)	+.209 (5.30)	152	+.241 (6.12)	-.278 (7.07)
59	+.522 (13.26)	+.209 (5.30)	153	+.321 (8.16)	-.278 (7.07)

FIGURE 9. Insert arrangement, electrical connector, shell size 25 (Series I, III, IV of MIL-DTL-38999, Series I of MIL-DTL-27599, and Series A of SAE-AS29600) – Continued.

MIL-STD-1560C
w/CHANGE 2

Contacts (Insert arrangement 25-23)					
Contact position ID	Location		Contact position ID	Location	
	X-axis (mm)	Y-axis (mm)		X-axis (mm)	Y-axis (mm)
60	-.482 (12.24)	+.139 (3.53)	154	+.402 (10.20)	-.278 (7.07)
61	-.402 (10.20)	+.139 (3.53)	155	+.482 (12.24)	-.278 (7.07)
62	-.321 (8.16)	+.139 (3.53)	156	-.442 (11.22)	-.348 (8.83)
63	-.241 (6.12)	+.139 (3.53)	157	-.361 (9.18)	-.348 (8.83)
64	-.161 (4.08)	+.139 (3.53)	158	-.281 (7.14)	-.348 (8.83)
65	-.080 (2.04)	+.139 (3.53)	159	-.201 (5.10)	-.348 (8.83)
66	+.000 (0.00)	+.139 (3.53)	160	-.121 (3.06)	-.348 (8.83)
67	+.080 (2.04)	+.139 (3.53)	161	-.040 (1.02)	-.348 (8.83)
68	+.161 (4.08)	+.139 (3.53)	162	+.040 (1.02)	-.348 (8.83)
69	+.241 (6.12)	+.139 (3.53)	163	+.121 (3.06)	-.348 (8.83)
70	+.321 (8.16)	+.139 (3.53)	164	+.201 (5.10)	-.348 (8.83)
71	+.402 (10.20)	+.139 (3.53)	165	+.281 (7.14)	-.348 (8.83)
72	+.482 (12.24)	+.139 (3.53)	166	+.361 (9.18)	-.348 (8.83)
73	-.522 (13.26)	+.070 (1.77)	167	+.442 (11.22)	-.348 (8.83)
74	-.442 (11.22)	+.070 (1.77)	168	-.321 (8.16)	-.417 (10.60)
75	-.361 (9.18)	+.070 (1.77)	169	-.241 (6.12)	-.417 (10.60)
76	-.281 (7.14)	+.070 (1.77)	170	-.161 (4.08)	-.417 (10.60)
77	-.201 (5.10)	+.070 (1.77)	171	-.080 (2.04)	-.417 (10.60)
78	-.121 (3.06)	+.070 (1.77)	172	+.000 (0.00)	-.417 (10.60)
79	-.040 (1.02)	+.070 (1.77)	173	+.080 (2.04)	-.417 (10.60)
80	+.040 (1.02)	+.070 (1.77)	174	+.161 (4.08)	-.417 (10.60)
81	+.121 (3.06)	+.070 (1.77)	175	+.241 (6.12)	-.417 (10.60)
82	+.201 (5.10)	+.070 (1.77)	176	+.321 (8.16)	-.417 (10.60)
83	+.281 (7.14)	+.070 (1.77)	177	-.281 (7.14)	-.487 (12.37)
84	+.361 (9.18)	+.070 (1.77)	178	-.201 (5.10)	-.487 (12.37)
85	+.442 (11.22)	+.070 (1.77)	179	-.121 (3.06)	-.487 (12.37)
86	+.522 (13.26)	+.070 (1.77)	180	-.040 (1.02)	-.487 (12.37)
87	-.562 (14.28)	+.000 (0.00)	181	+.040 (1.02)	-.487 (12.37)
88	-.482 (12.24)	+.000 (0.00)	182	+.121 (3.06)	-.487 (12.37)
89	-.402 (10.20)	+.000 (0.00)	183	+.201 (5.10)	-.487 (12.37)

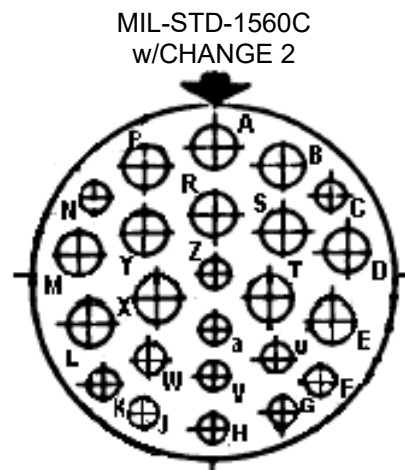
FIGURE 9. Insert arrangement, electrical connector, shell size 25 (Series I, III, IV of MIL-DTL-38999, Series I of MIL-DTL-27599, and Series A of SAE-AS29600) – Continued.

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w/CHANGE 2

Contacts (Insert arrangement 25-23)					
Contact position ID	Location		Contact position ID	Location	
	X-axis (mm)	Y-axis (mm)		X-axis (mm)	Y-axis (mm)
90	-.321 (8.16)	+.000 (0.00)	184	+.281 (7.14)	-.487 (12.37)
91	-.241 (6.12)	+.000 (0.00)	185	-.080 (2.04)	-.556 (14.13)
92	-.161 (4.08)	+.000 (0.00)	186	+.000 (0.00)	-.556 (14.13)
93	-.080 (2.04)	+.000 (0.00)	187	+.080 (2.04)	-.556 (14.13)
94	+.000 (0.00)	+.000 (0.00)	---	---	---

Shell size	Arrangement no.	Number of contacts	Size contacts	Service rating	Contact location	Standard contact	
						Pin	Socket
25	-23	187	23-22	N	All	M39029/122-670	M39029/121-663

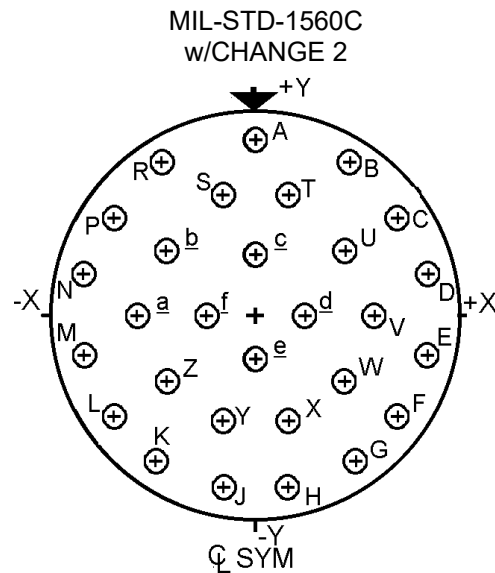
FIGURE 9. Insert arrangement, electrical connector, shell size 25 (Series I, III, IV of MIL-DTL-38999, Series I of MIL-DTL-27599, and Series A of SAE-AS29600) – Continued.



Contacts (Insert arrangement 25-24)					
Contact position ID	Location		Contact position ID	Location	
	X-axis	Y-axis		X-axis	Y-axis
A	+.000 (0.00)	+.472 (11.99)	N	-.403 (10.24)	+.298 (7.57)
B	+.230 (5.84)	+.410 (10.41)	P	-.230 (5.84)	+.410 (10.41)
C	+.403 (10.24)	+.298 (7.57)	R	+.000 (0.00)	+.234 (5.94)
D	+.461 (11.71)	+.100 (2.54)	S	+.230 (5.84)	+.172 (4.37)
E	+.413 (10.49)	-.134 (3.40)	T	+.186 (4.72)	-.062 (1.57)
F	+.370 (9.40)	-.336 (8.53)	U	+.211 (5.36)	-.267 (6.78)
G	+.230 (5.84)	-.441 (11.20)	V	+.000 (0.00)	-.323 (8.20)
H	+.000 (0.00)	-.495 (12.57)	W	-.211 (5.36)	-.267 (6.78)
J	-.230 (5.84)	-.441 (11.20)	X	-.186 (4.72)	-.062 (1.57)
K	-.370 (9.40)	-.336 (8.53)	Y	-.230 (5.84)	+.172 (4.37)
L	-.413 (10.49)	-.134 (3.40)	Z	+.000 (0.00)	+.028 (0.71)
M	-.461 (11.71)	+.100 (2.54)	a	+.000 (0.00)	-.151 (3.84)

Shell size	Arrangement no.	Number of contacts	Size contacts	Service rating	Contact location
25	-24	12	12	I	A,B,D,E,LM P,R,S,T,X,Y
		12	16		All others

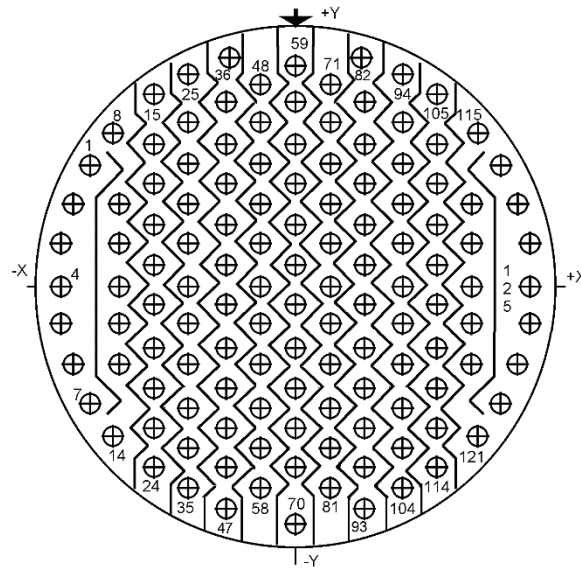
FIGURE 9. Insert arrangement, electrical connector, shell size 25 (series I, III, IV of MIL-DTL-38999, series I of MIL-DTL-27599, and series A of SAE-AS29600) – Continued.



Contacts (Insert arrangement 25-29)					
Contact position ID	Location		Contact position ID	Location	
	X-axis (mm)	Y-axis (mm)		X-axis (mm)	Y-axis (mm)
A	+.000 (0.00)	+.481 (12.22)	S	-.091 (2.31)	+.321 (8.15)
B	+.258 (6.55)	+.406 (10.31)	T	+.091 (2.31)	+.321 (8.15)
C	+.395 (10.03)	+.277 (7.04)	U	+.228 (5.79)	+.194 (4.93)
D	+.469 (11.91)	+.109 (2.77)	V	+.319 (8.10)	+.000 (0.00)
E	+.469 (11.91)	-.109 (2.77)	W	+.240 (6.10)	-.181 (4.60)
F	+.395 (10.03)	-.277 (7.04)	X	+.091 (2.31)	-.290 (7.37)
G	+.263 (6.68)	-.406 (10.31)	Y	-.091 (2.31)	-.290 (7.37)
H	+.091 (2.31)	-.472 (11.99)	Z	-.240 (6.10)	-.181 (4.60)
J	-.091 (2.31)	-.472 (11.99)	a	-.319 (8.10)	+.000 (0.00)
K	-.263 (6.68)	-.406 (10.31)	b	-.228 (5.79)	+.194 (4.93)
L	-.395 (10.03)	-.277 (7.04)	c	+.000 (0.00)	+.161 (4.09)
M	-.469 (11.91)	-.109 (2.77)	d	+.134 (3.40)	+.000 (0.00)
N	-.469 (11.91)	+.109 (2.77)	e	+.000 (0.00)	-.130 (3.30)
P	-.395 (10.03)	+.277 (7.04)	f	-.134 (3.40)	+.000 (0.00)
R	-.258 (6.55)	+.406 (10.31)	---	---	---

Shell size	Arrangement no.	Number of contacts	Size contacts	Service rating	Contact location	Supersedes
25	-29	29	16	I	All	MS20057-29

FIGURE 9. Insert arrangement, electrical connector, shell size 25 (series I, III, IV of MIL-DTL-38999, series I of MIL-DTL-27599, and series A of SAE-AS29600) – Continued.

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Contacts (Insert arrangement 25-35)					
Contact position ID	Location		Contact position ID	Location	
	X-axis (mm)	Y-axis (mm)		X-axis (mm)	Y-axis (mm)
1	-.479 (12.17)	+.279 (7.09)	65	+.000 (0.00)	-.047 (1.19)
2	-.520 (13.21)	+.190 (4.83)	66	+.000 (0.00)	-.142 (3.61)
3	-.546 (13.87)	+.095 (2.41)	67	+.000 (0.00)	-.237 (6.02)
4	-.555 (14.10)	+.000 (0.00)	68	+.000 (0.00)	-.332 (8.43)
5	-.546 (13.87)	-.095 (2.41)	69	+.000 (0.00)	-.427 (10.85)
6	-.520 (13.21)	-.190 (4.83)	70	+.000 (0.00)	-.555 (14.10)
7	-.479 (12.17)	-.279 (7.09)	71	+.083 (2.11)	+.475 (12.07)
8	-.424 (10.77)	+.357 (9.07)	72	+.083 (2.11)	+.380 (9.65)
9	-.415 (10.54)	+.190 (4.83)	73	+.083 (2.11)	+.285 (7.24)
10	-.415 (10.54)	+.095 (2.41)	74	+.083 (2.11)	+.190 (4.83)
11	-.415 (10.54)	.000 (0.00)	75	+.083 (2.11)	+.095 (2.41)
12	-.415 (10.54)	-.095 (2.41)	76	+.083 (2.11)	+.000 (0.00)
13	-.415 (10.54)	-.190 (4.83)	77	+.083 (2.11)	-.095 (2.41)
14	-.424 (10.77)	-.357 (9.07)	78	+.083 (2.11)	-.190 (4.83)
15	-.332 (8.43)	+.444 (11.28)	79	+.083 (2.11)	-.285 (7.24)
16	-.332 (8.43)	+.332 (8.43)	80	+.083 (2.11)	-.380 (9.65)
17	-.332 (8.43)	+.237 (6.02)	81	+.083 (2.11)	-.475 (12.07)

FIGURE 9. Insert arrangement, electrical connector, shell size 25 (series I, III, IV of MIL-DTL-38999, series I of MIL-DTL-27599, and series A of SAE-AS29600) – Continued.

MIL-STD-1560C
w/CHANGE 2

Contacts (Insert arrangement 25-35)					
Contact position ID	Location		Contact position ID	Location	
	X-axis (mm)	Y-axis (mm)		X-axis (mm)	Y-axis (mm)
18	-.332 (8.43)	+.142 (3.61)	82	+.160 (4.06)	+.531 (13.49)
19	-.332 (8.43)	+.047 (1.19)	83	+.166 (4.22)	+.427 (10.85)
20	-.332 (8.43)	-.047 (1.19)	84	+.166 (4.22)	+.332 (8.43)
21	-.332 (8.43)	-.142 (3.61)	85	+.166 (4.22)	+.237 (6.02)
22	-.332 (8.43)	-.237 (6.02)	86	+.166 (4.22)	+.142 (3.61)
23	-.332 (8.43)	-.332 (8.43)	87	+.166 (4.22)	+.047 (1.19)
24	-.332 (8.43)	-.427 (10.85)	88	+.166 (4.22)	-.047 (1.19)
25	-.249 (6.32)	+.496 (12.60)	89	+.166 (4.22)	-.142 (3.61)
26	-.249 (6.32)	+.380 (9.65)	90	+.166 (4.22)	-.237 (6.02)
27	-.249 (6.32)	+.285 (7.24)	91	+.166 (4.22)	-.332 (8.43)
28	-.249 (6.32)	+.190 (4.83)	92	+.166 (4.22)	-.427 (10.85)
29	-.249 (6.32)	+.095 (2.41)	93	+.166 (4.22)	-.522 (13.26)
30	-.249 (6.32)	+.000 (0.00)	94	+.249 (6.32)	+.496 (12.60)
31	-.249 (6.32)	-.095 (2.41)	95	+.249 (6.32)	+.380 (9.65)
32	-.249 (6.32)	-.190 (4.83)	96	+.249 (6.32)	+.285 (7.24)
33	-.249 (6.32)	-.285 (7.24)	97	+.249 (6.32)	+.190 (4.83)
34	-.249 (6.32)	-.380 (9.65)	98	+.249 (6.32)	+.095 (2.41)
35	-.249 (6.32)	-.475 (12.07)	99	+.249 (6.32)	+.000 (0.00)
36	-.160 (4.06)	+.531 (13.49)	100	+.249 (6.32)	-.095 (2.41)
37	-.166 (4.22)	+.427 (10.85)	101	+.249 (6.32)	-.190 (4.83)
38	-.166 (4.22)	+.332 (8.43)	102	+.249 (6.32)	-.285 (7.24)
39	-.166 (4.22)	+.237 (6.02)	103	+.249 (6.32)	-.380 (9.65)
40	-.166 (4.22)	+.142 (3.61)	104	+.249 (6.32)	-.475 (12.07)
41	-.166 (4.22)	+.047 (1.19)	105	+.332 (8.43)	+.444 (11.28)
42	-.166 (4.22)	-.047 (1.19)	106	+.332 (8.43)	+.332 (8.43)
43	-.166 (4.22)	-.142 (3.61)	107	+.332 (8.43)	+.237 (6.02)
44	-.166 (4.22)	-.237 (6.02)	108	+.332 (8.43)	+.142 (3.61)
45	-.166 (4.22)	-.332 (8.43)	109	+.332 (8.43)	+.047 (1.19)
46	-.166 (4.22)	-.427 (10.85)	110	+.332 (8.43)	-.047 (1.19)
47	-.166 (4.22)	-.522 (13.26)	111	+.332 (8.43)	-.142 (3.61)
48	-.083 (2.11)	+.475 (12.07)	112	+.332 (8.43)	-.237 (6.02)
49	-.083 (2.11)	+.380 (9.65)	113	+.332 (8.43)	-.332 (8.43)
50	-.083 (2.11)	+.285 (7.24)	114	+.332 (8.43)	-.427 (10.85)

FIGURE 9. Insert arrangement, electrical connector, shell size 25 (series I, III, IV of MIL-DTL-38999, series I of MIL-DTL-27599, and series A of SAE-AS29600) – Continued.

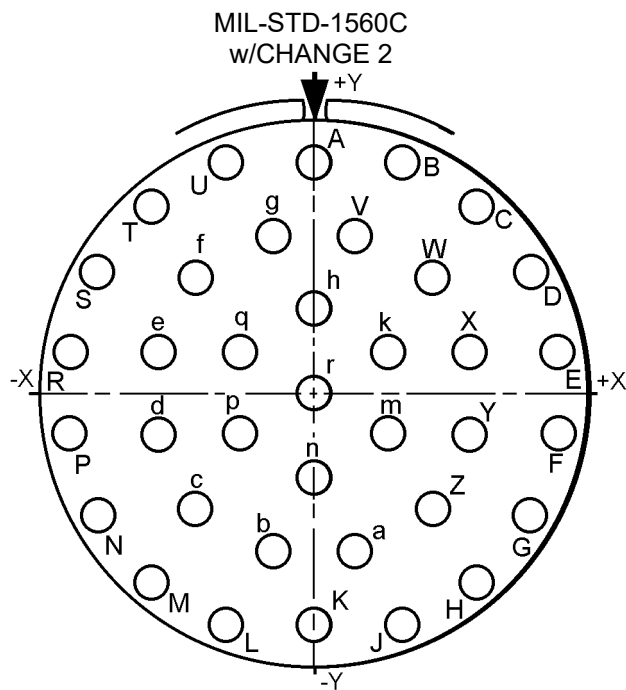
MIL-STD-1560C
w/CHANGE 2

Contacts (Insert arrangement 25-35)					
Contact position ID	Location		Contact position ID	Location	
	X-axis (mm)	Y-axis (mm)		X-axis (mm)	Y-axis (mm)
51	-.083 (2.11)	+.190 (4.83)	115	+.424 (10.77)	+.357 (9.07)
52	-.083 (2.11)	+.095 (2.41)	116	+.415 (10.54)	+.190 (4.83)
53	-.083 (2.11)	+.000 (0.00)	117	+.415 (10.54)	+.095 (2.41)
54	-.083 (2.11)	-.095 (2.41)	118	+.415 (10.54)	+.000 (0.00)
55	-.083 (2.11)	-.190 (4.83)	119	+.415 (10.54)	-.095 (2.41)
56	-.083 (2.11)	-.285 (7.24)	120	+.415 (10.54)	-.190 (4.83)
57	-.083 (2.11)	-.380 (9.65)	121	+.424 (10.77)	-.357 (9.07)
58	-.083 (2.11)	-.475 (12.07)	122	+.479 (12.17)	+.279 (7.09)
59	+.000 (0.00)	+.522 (13.26)	123	+.520 (13.21)	+.190 (4.83)
60	+.000 (0.00)	+.427 (10.85)	124	+.546 (13.87)	+.095 (2.41)
61	+.000 (0.00)	+.332 (8.43)	125	+.555 (14.10)	+.000 (0.00)
62	+.000 (0.00)	+.237 (6.02)	126	+.546 (13.87)	-.095 (2.41)
63	+.000 (0.00)	+.142 (3.61)	127	+.520 (13.21)	-.190 (4.83)
64	+.000 (0.00)	+.047 (1.19)	128	+.479 (12.17)	-.279 (7.09)

(Applicable to MIL-DTL-38999 only)

Shell size	Arrangement no.	Number of contacts	Size contacts	Service rating	Contact location	Supersedes
25	-35	128	22D	M	All	MS27533-35

FIGURE 9. Insert arrangement, electrical connector, shell size 25 (series I, III, IV of MIL-DTL-38999, series I of MIL-DTL-27599, and series A of SAE-AS29600) – Continued.



Contacts (Insert arrangement 25-37)					
Contact position ID	Location		Contact position ID	Location	
	X-axis (mm)	Y-axis (mm)		X-axis (mm)	Y-axis (mm)
A	+.000 (.00)	+.472 (11.99)	W	+.242 (6.15)	+.236 (5.99)
B	+.186 (4.72)	+.472 (11.99)	X	+.326 (8.28)	+.086 (2.18)
C	+.333 (8.46)	+.382 (9.70)	Y	+.326 (8.28)	-.086 (2.18)
D	+.441 (11.20)	+.249 (6.32)	Z	+.242 (6.15)	-.236 (5.99)
E	+.500 (12.70)	+.086 (2.18)	a	+.086 (2.18)	-.320 (8.13)
F	+.500 (12.70)	-.086 (2.18)	b	-.086 (2.18)	-.320 (8.13)
G	+.441 (11.20)	-.249 (6.32)	c	-.242 (6.15)	-.236 (5.99)
H	+.333 (8.46)	+.382 (9.70)	d	-.326 (8.28)	-.086 (2.18)
J	+.186 (4.72)	-.472 (11.99)	e	-.326 (8.28)	+.086 (2.18)
K	+.000 (.00)	-.472 (11.99)	f	-.242 (6.15)	+.236 (5.99)
L	-.186 (4.72)	-.472 (11.99)	g	-.086 (2.18)	+.320 (8.13)
M	-.333 (8.46)	-.382 (9.70)	h	+.000 (.00)	+.172 (4.37)
N	-.441 (11.20)	-.249 (6.32)	k	+.154 (3.91)	+.086 (2.18)
P	-.500 (12.70)	-.086 (2.18)	m	+.154 (3.91)	-.086 (2.18)
R	-.500 (12.70)	+.086 (2.18)	n	+.000 (.00)	-.172 (4.37)

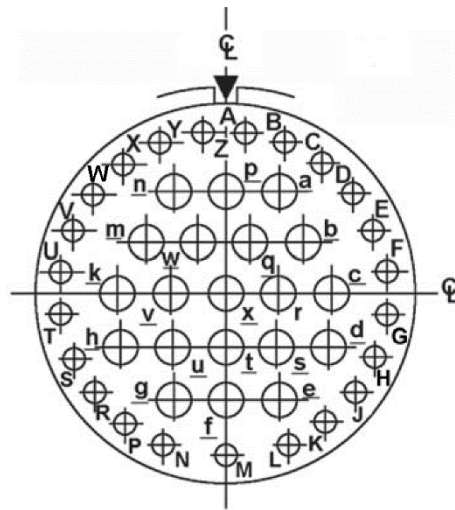
FIGURE 9. Insert arrangement, electrical connector, shell size 25 (series I, III, IV of MIL-DTL-38999, series I of MIL-DTL-27599, and series A of SAE-AS29600) – Continued.

MIL-STD-1560C
w/CHANGE 2

Contacts (Insert arrangement 25-37)					
Contact position ID	Location		Contact position ID	Location	
	X-axis (mm)	Y-axis (mm)		X-axis (mm)	Y-axis (mm)
S	-.441 (11.20)	+.249 (6.32)	p	-.154 (3.91)	-.086 (2.18)
T	-.333 (8.46)	+.382 (9.70)	q	-.154 (3.91)	+.086 (2.18)
U	-.186 (4.72)	+.472 (11.99)	r	+.000 (.00)	+.000 (.00)
V	+.086 (2.18)	+.320 (8.13)	---	---	---

Shell size	Arrangement no.	Number of contacts	Size contacts	Service rating	Contact location	Supersedes
25	-37	37	16	II	All	-----

FIGURE 9. Insert arrangement, electrical connector, shell size 25 (series I, III, IV of MIL-DTL-38999, series I of MIL-DTL-27599, and series A of SAE-AS29600) – Continued.

MIL-STD-1560C
w/CHANGE 2

Contacts (Insert arrangement 25-43)					
Contact position ID	Location		Contact position ID	Location	
	X-axis (mm)	Y-axis (mm)		X-axis (mm)	Y-axis (mm)
A	+0.069 (1.75)	+0.531 (13.49)	Z	-0.069 (1.75)	+0.531 (13.49)
B	+0.203 (5.16)	+0.495 (12.57)	a	+0.172 (4.37)	+0.344 (8.74)
C	+0.324 (8.23)	+0.425 (10.80)	b	+0.258 (6.55)	+0.172 (4.37)
D	+0.424 (10.77)	+0.326 (8.28)	c	+0.344 (8.74)	+0.000 (0.00)
E	+0.493 (12.52)	+0.205 (5.21)	d	+0.344 (8.74)	-0.172 (4.37)
F	+0.531 (13.49)	+0.069 (1.75)	e	+0.172 (4.37)	-0.344 (8.74)
G	+0.531 (13.49)	-0.069 (1.75)	f	+0.000 (0.00)	-0.344 (8.74)
H	+0.493 (12.52)	-0.205 (5.21)	g	-0.172 (4.37)	-0.344 (8.74)
J	+0.424 (10.77)	-0.326 (8.28)	h	-0.344 (8.74)	-0.172 (4.37)
K	+0.324 (8.23)	-0.425 (10.80)	k	-0.344 (8.74)	+0.000 (0.00)
L	+0.203 (5.16)	-0.495 (12.57)	m	-0.258 (6.55)	+0.172 (4.37)
M	+0.000 (0.00)	-0.531 (13.49)	n	-0.172 (4.37)	+0.344 (8.74)
N	-0.203 (5.16)	-0.495 (12.57)	p	+0.000 (0.00)	+0.344 (8.74)
P	-0.324 (8.23)	-0.425 (10.80)	q	+0.086 (2.18)	+0.172 (4.37)
R	-0.424 (10.77)	-0.326 (8.28)	r	+0.172 (4.37)	+0.000 (0.00)
S	-0.493 (12.52)	-0.205 (5.21)	s	+0.172 (4.37)	-0.172 (4.37)
T	-0.531 (13.49)	-0.069 (1.75)	t	+0.000 (0.00)	-0.172 (4.37)
U	-0.531 (13.49)	+0.069 (1.75)	u	-0.172 (4.37)	-0.172 (4.37)

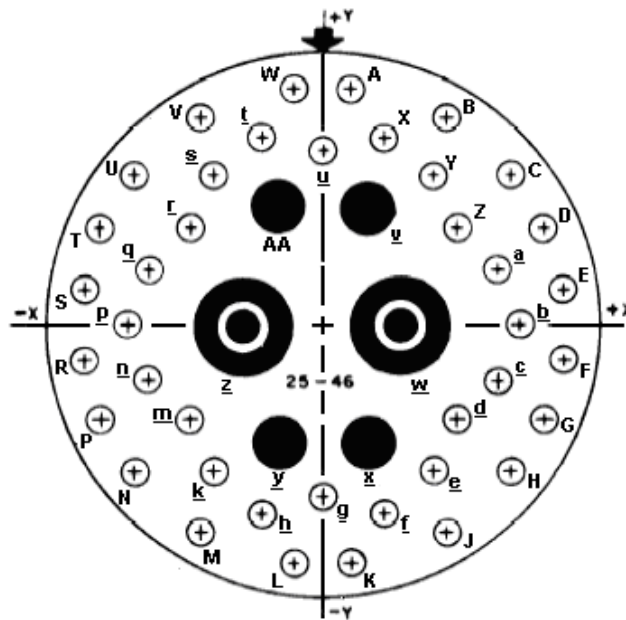
FIGURE 9. Insert arrangement, electrical connector, shell size 25 (series I, III, IV of MIL-DTL-38999, series I of MIL-DTL-27599, and series A of SAE-AS29600) – Continued.

MIL-STD-1560C
w/CHANGE 2

Contacts (Insert arrangement 25-43)					
Contact position ID	Location		Contact position ID	Location	
	X-axis (mm)	Y-axis (mm)		X-axis (mm)	Y-axis (mm)
V	-.493 (12.52)	+.205 (5.21)	<u>v</u>	-.172 (4.37)	+.000 (0.00)
W	-.424 (10.77)	+.326 (8.28)	<u>w</u>	-.086 (2.18)	+.172 (4.37)
X	-.324 (8.23)	+.425 (10.80)	<u>x</u>	+.000 (0.00)	+.000 (0.00)
Y	-.203 (5.16)	+.495 (12.57)			

Shell size	Arrangement no.	Number of contacts	Size contacts	Service rating	Contact location	Supersedes
25	-43	20	16	I	<u>a,b,c,d,e,f,g,h,k,m,</u> <u>n,p,q,r,s,t,u,v,w,x</u>	MS20057-43
		23	20		All others	

FIGURE 9. Insert arrangement, electrical connector, shell size 25 (series I, III, IV of MIL-DTL-38999, series I of MIL-DTL-27599, and series A of SAE-AS29600) – Continued.

MIL-STD-1560C
w/CHANGE 2

(Inactive for new design for MIL-DTL-38999. For new design, use arrangement no. 25-47.)

Contacts (Insert arrangement 25-46)					
Contact position ID	Location		Contact position ID	Location	
	X-axis (mm)	Y-axis (mm)		X-axis (mm)	Y-axis (mm)
A	+.065 (1.65)	+.533 (13.54)	a	+.404 (10.26)	+.125 (3.18)
B	+.275 (6.99)	+.466 (11.84)	b	+.437 (11.10)	+.000 (0.00)
C	+.420 (10.67)	+.337 (8.56)	c	+.404 (10.26)	-.125 (3.18)
D	+.490 (12.45)	+.227 (5.77)	d	+.314 (7.98)	-.221 (5.61)
E	+.531 (13.49)	+.093 (2.36)	e	+.245 (6.22)	-.337 (8.56)
F	+.531 (13.49)	-.093 (2.36)	f	+.136 (3.45)	-.424 (10.77)
G	+.490 (12.45)	-.227 (5.77)	g	+.000 (0.00)	-.395 (10.03)
H	+.420 (10.67)	-.337 (8.56)	h	-.136 (3.45)	-.424 (10.77)
J	+.275 (6.99)	-.466 (11.84)	k	-.245 (6.22)	-.337 (8.56)
K	+.065 (1.65)	-.533 (13.54)	m	-.314 (7.98)	-.221 (5.61)
L	-.065 (1.65)	-.533 (13.54)	n	-.404 (10.26)	-.125 (3.18)
M	-.275 (6.99)	-.466 (11.84)	p	-.437 (11.10)	+.000 (0.00)
N	-.420 (10.67)	-.337 (8.56)	q	-.404 (10.26)	+.125 (3.18)
P	-.490 (12.45)	-.227 (5.77)	r	-.314 (7.98)	+.221 (5.61)

FIGURE 9. Insert arrangement, electrical connector, shell size 25 (series I, III, IV of MIL-DTL-38999, series I of MIL-DTL-27599, and series A of SAE-AS29600) – Continued.

MIL-STD-1560C
w/CHANGE 2

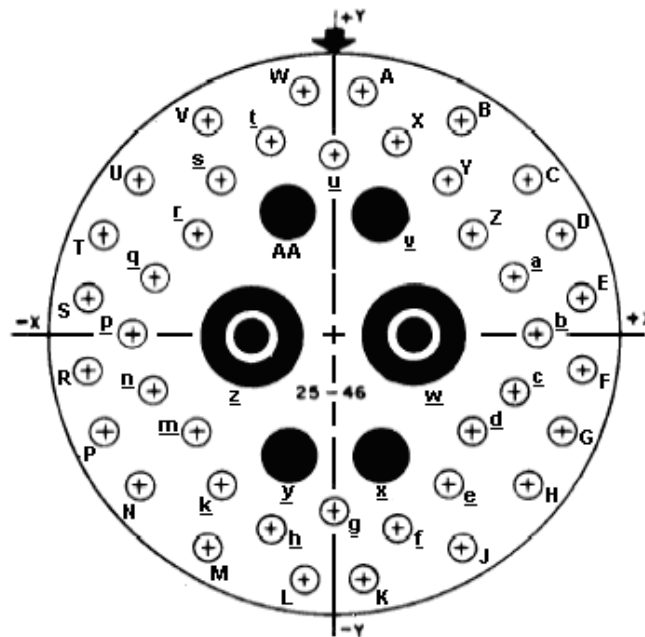
Contacts (Insert arrangement 25-46)					
Contact position ID	Location		Contact position ID	Location	
	X-axis (mm)	Y-axis (mm)		X-axis (mm)	Y-axis (mm)
R	-.531 (13.49)	-.093 (2.36)	<u>s</u>	-.245 (6.22)	+.337 (8.56)
S	-.531 (13.49)	+.093 (2.36)	<u>t</u>	-.136 (3.45)	+.424 (10.77)
T	-.490 (12.45)	+.227 (5.77)	<u>u</u>	+.000 (0.00)	+.395 (10.03)
U	-.420 (10.67)	+.337 (8.56)	<u>v</u>	+.097 (2.46)	+.265 (6.73)
V	-.275 (6.99)	+.466 (11.84)	<u>w</u>	+.180 (4.57)	+.000 (0.00)
W	-.065 (1.65)	+.533 (13.54)	<u>x</u>	+.097 (2.46)	-.265 (6.73)
X	+.136 (3.45)	+.424 (10.77)	<u>y</u>	-.097 (2.46)	-.265 (6.73)
Y	+.245 (6.22)	+.337 (8.56)	<u>z</u>	-.180 (4.57)	+.000 (0.00)
Z	+.314 (7.98)	+.221 (5.61)	AA	-.097 (2.46)	+.265 (6.73)

Shell size	Arrangement no.	Number of contacts	Size contacts	Service rating	Contact location	Standard contact	
						Pin	Socket
25	-46	2	8 (see note)	Coax	z, w	M39029/60-367	M39029/59-366
		4	16	I	AA, v, x, y	M39029/58-364	M39029/56-352
		40	20		All others	M39029/58-363	M39029/56-351

NOTES:

1. To meet environmental sealing requirements, size 8 shielded contacts used with this insert arrangement may require separate, non-standard sealing boots that are furnished with the connector. For this insert arrangement, some connector grommet designs use a heat shrink sleeve only with the size 8 shielded contacts to meet environmental sealing requirements. When heat shrink sleeves are used, sealing boots are not used, and when sealing boots are used, heat shrink sleeves are not used. Heat shrink sleeves have a maximum temperature rating of 175°C maximum. When heat shrink sleeves are used, connectors rated to 200°C max are derated to 175°C max.
2. If an identical insert arrangement / contact pattern is required which uses SAE-AS39029/90 and /91 size 8 twinax contacts, use insert arrangement 25-90. If an identical insert arrangement / contact pattern is required with uses SAE-AS39029/113 and /114 size 8 twinax contacts, use insert arrangement 25-91.

FIGURE 9. Insert arrangement, electrical connector, shell size 25 (series I, III, IV of MIL-DTL-38999, series I of MIL-DTL-27599, and series A of SAE-AS29600) – Continued.

MIL-STD-1560C
w/CHANGE 2

(INSERT ARRANGEMENT PATTERN IDENTICAL TO 25-46, EXCEPT 25-47
USES SEALING BOOT IN ACCORDANCE WITH MIL-DTL-38999/62)

Contacts (Insert arrangement 25-47)					
Contact position ID	Location		Contact position ID	Location	
	X-axis (mm)	Y-axis (mm)		X-axis (mm)	Y-axis (mm)
A	+.065 (1.65)	+.533 (13.54)	a	+.404 (10.26)	+.125 (3.18)
B	+.275 (6.99)	+.466 (11.84)	b	+.437 (11.10)	+.000 (0.00)
C	+.420 (10.67)	+.337 (8.56)	c	+.404 (10.26)	-.125 (3.18)
D	+.490 (12.45)	+.227 (5.77)	d	+.314 (7.98)	-.221 (5.61)
E	+.531 (13.49)	+.093 (2.36)	e	+.245 (6.22)	-.337 (8.56)
F	+.531 (13.49)	-.093 (2.36)	f	+.136 (3.45)	-.424 (10.77)
G	+.490 (12.45)	-.227 (5.77)	g	+.000 (0.00)	-.395 (10.03)
H	+.420 (10.67)	-.337 (8.56)	h	-.136 (3.45)	-.424 (10.77)
J	+.275 (6.99)	-.466 (11.84)	k	-.245 (6.22)	-.337 (8.56)
K	+.065 (1.65)	-.533 (13.54)	m	-.314 (7.98)	-.221 (5.61)
L	-.065 (1.65)	-.533 (13.54)	n	-.404 (10.26)	-.125 (3.18)
M	-.275 (6.99)	-.466 (11.84)	p	-.437 (11.10)	+.000 (0.00)
N	-.420 (10.67)	-.337 (8.56)	q	-.404 (10.26)	+.125 (3.18)
P	-.490 (12.45)	-.227 (5.77)	r	-.314 (7.98)	+.221 (5.61)

FIGURE 9. Insert arrangement, electrical connector, shell size 25 (series I, III, IV of MIL-DTL-38999, series I of MIL-DTL-27599, and series A of SAE-AS29600) – Continued.

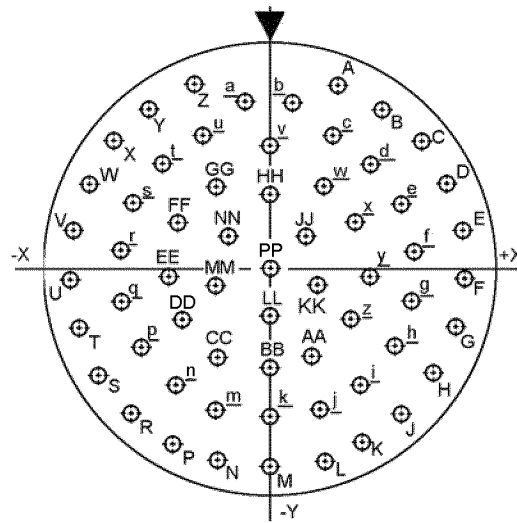
MIL-STD-1560C
w/CHANGE 2

Contacts (Insert arrangement 25-47)					
Contact position ID	Location		Contact position ID	Location	
	X-axis (mm)	Y-axis (mm)		X-axis (mm)	Y-axis (mm)
R	-.531 (13.49)	-.093 (2.36)	<u>s</u>	-.245 (6.22)	+.337 (8.56)
S	-.531 (13.49)	+.093 (2.36)	<u>t</u>	-.136 (3.45)	+.424 (10.77)
T	-.490 (12.45)	+.227 (5.77)	<u>u</u>	+.000 (0.00)	+.395 (10.03)
U	-.420 (10.67)	+.337 (8.56)	<u>v</u>	+.097 (2.46)	+.265 (6.73)
V	-.275 (6.99)	+.466 (11.84)	<u>w</u>	+.180 (4.57)	+.000 (0.00)
W	-.065 (1.65)	+.533 (13.54)	<u>x</u>	+.097 (2.46)	-.265 (6.73)
X	+.136 (3.45)	+.424 (10.77)	<u>y</u>	-.097 (2.46)	-.265 (6.73)
Y	+.245 (6.22)	+.337 (8.56)	<u>z</u>	-.180 (4.57)	+.000 (0.00)
Z	+.314 (7.98)	+.221 (5.61)	AA	-.097 (2.46)	+.265 (6.73)

Shell size	Arrange-ment no.	Number of contacts	Size contacts	Service rating	Contact location	Standard contact	
						Pin	Socket
25	-47	2	8 (see note)	Coax	z, w	M39029/60-367	M39029/59-366
		4	16	I	AA, v, x, y	M39029/58-364	M39029/56-352
		40	20		All others	M39029/58-363	M39029/56-351

NOTE: For this insert arrangement, sealing boots in accordance with MIL-DTL-38999/62 shall be used to environmentally seal the size 8 coax contacts required by this arrangement. Heat shrink sleeves are not used when sealing boots in accordance with MIL-DTL-38999/62 are used. For an identical insert arrangement pattern for connectors supplied with size 8 twinax contacts, see insert arrangement 25-91. 25-91 uses size 8 twinax contacts in accordance with SAE-AS39029/113 or /114, and it uses sealing boots in accordance with MIL-DTL-38999/62.

FIGURE 9. Insert arrangement, electrical connector, shell size 25 (series I, III, IV of MIL-DTL-38999, series I of MIL-DTL-27599, and series A of SAE-AS29600) – Continued.

MIL-STD-1560C
w/CHANGE 2

Contacts (Insert arrangement 25-61)					
Contact position ID	Location		Contact position ID	Location	
	X-axis (mm)	Y-axis (mm)		X-axis (mm)	Y-axis (mm)
A	+.196 (4.98)	+.500 (12.70)	i	+.251 (6.38)	-.314 (7.98)
B	+.314 (7.98)	+.435 (11.05)	j	+.133 (3.38)	-.379 (9.63)
C	+.413 (10.49)	+.343 (8.71)	k	+.000 (0.00)	-.402 (10.21)
D	+.485 (12.32)	+.230 (5.84)	m	-.133 (3.38)	-.379 (9.63)
E	+.527 (13.39)	+.101 (2.57)	n	-.251 (6.38)	-.314 (7.98)
F	+.536 (13.61)	-.030 (0.76)	p	-.341 (8.66)	-.213 (5.41)
G	+.511 (12.98)	-.164 (4.17)	q	-.392 (9.96)	-.088 (2.24)
H	+.454 (11.53)	-.287 (7.29)	r	-.399 (10.13)	+.046 (1.17)
J	+.368 (9.35)	-.391 (9.93)	s	-.362 (9.19)	+.175 (4.45)
K	+.259 (6.58)	-.470 (11.94)	t	-.285 (7.24)	+.283 (7.19)
L	+.134 (3.40)	-.519 (13.18)	u	-.173 (4.39)	+.363 (9.22)
M	+.000 (0.00)	-.537 (13.64)	v	+.000 (0.00)	+.338 (8.59)
N	-.134 (3.40)	-.519 (13.18)	w	+.147 (3.73)	+.223 (5.66)
P	-.259 (6.58)	-.470 (11.94)	x	+.237 (6.02)	+.122 (3.10)
R	-.368 (9.35)	-.391 (9.93)	y	+.267 (6.78)	-.010 (0.25)
S	-.454 (11.53)	-.287 (7.29)	z	+.228 (5.79)	-.139 (3.53)
T	-.511 (12.98)	-.164 (4.17)	AA	+.131 (3.33)	-.233 (5.92)
U	-.536 (13.61)	-.030 (0.76)	BB	+.000 (0.00)	-.267 (6.78)

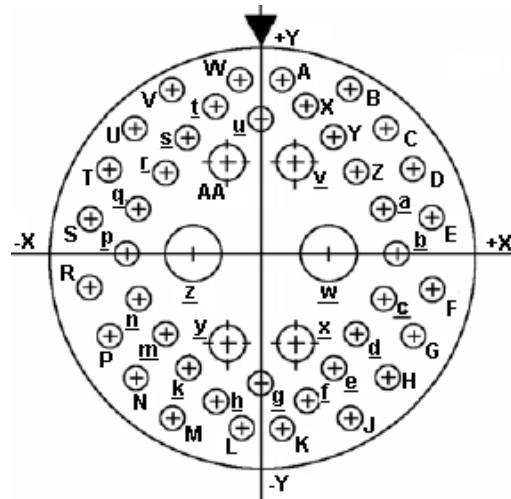
FIGURE 9. Insert arrangement, electrical connector, shell size 25 (series I, III, IV of MIL-DTL-38999, series I of MIL-DTL-27599, and series A of SAE-AS29600) – Continued.

MIL-STD-1560C
w/CHANGE 2

Contacts (Insert arrangement 25-61)						
Contact position ID	Location		Contact position ID	Location		
	X-axis (mm)	Y-axis (mm)		X-axis (mm)	Y-axis (mm)	
V	-.527 (13.39)	+.101 (2.57)	CC	-.131 (3.33)	-.233 (5.92)	
W	-.485 (12.32)	+.230 (5.84)	DD	-.228 (5.79)	-.139 (3.53)	
X	-.413 (10.49)	+.343 (8.71)	EE	-.267 (6.78)	-.010 (0.25)	
Y	-.314 (7.98)	+.435 (11.05)	FF	-.237 (6.02)	+.122 (3.10)	
Z	-.196 (4.98)	+.500 (12.70)	GG	-.147 (3.73)	+.223 (5.66)	
<u>a</u>	-.068 (1.73)	+.454 (11.53)	HH	+.000 (0.00)	+.200 (5.08)	
<u>b</u>	+.068 (1.73)	+.454 (11.53)	JJ	+.105 (2.67)	+.094 (2.39)	
<u>c</u>	+.173 (4.39)	+.363 (9.22)	KK	+.135 (3.43)	-.041 (1.04)	
<u>d</u>	+.285 (7.24)	+.283 (7.19)	LL	+.000 (0.00)	-.132 (3.35)	
<u>e</u>	+.362 (9.19)	+.175 (4.45)	MM	-.135 (3.43)	-.041 (1.04)	
<u>f</u>	+.399 (10.13)	+.046 (1.17)	NN	-.105 (2.67)	+.094 (2.39)	
<u>g</u>	+.392 (9.96)	-.088 (2.24)	PP	+.000 (0.00)	+.000 (0.00)	
<u>h</u>	+.341 (8.66)	-.213 (5.41)	---	---	---	

Shell size	Arrangement no.	Number of contacts	Size contacts	Service rating	Contact location	Supersedes
25	-61	61	20	I	All	MS20057-61

FIGURE 9. Insert arrangement, electrical connector, shell size 25 (series I, III, IV of MIL-DTL-38999, series I of MIL-DTL-27599, and series A of SAE-AS29600) – Continued.

MIL-STD-1560C
w/CHANGE 2

(Inactive for new design for MIL-DTL-38999. For new design, use arrangement no. 25-91.)

Contacts (Insert arrangement 25-90)					
Contact position ID	Location		Contact position ID	Location	
	X-axis (mm)	Y-axis (mm)		X-axis (mm)	Y-axis (mm)
A	+.065 (1.65)	+.533 (13.54)	a	+.404 (10.26)	+.125 (3.18)
B	+.275 (6.99)	+.466 (11.84)	b	+.437 (11.10)	+.000 (0.00)
C	+.420 (10.67)	+.337 (8.56)	c	+.404 (10.26)	-.125 (3.18)
D	+.490 (12.45)	+.227 (5.77)	d	+.314 (7.98)	-.221 (5.61)
E	+.531 (13.49)	+.093 (2.36)	e	+.245 (6.22)	-.337 (8.56)
F	+.531 (13.49)	-.093 (2.36)	f	+.136 (3.45)	-.424 (10.77)
G	+.490 (12.45)	-.227 (5.77)	g	+.000 (0.00)	-.395 (10.03)
H	+.420 (10.67)	-.337 (8.56)	h	-.136 (3.45)	-.424 (10.77)
J	+.275 (6.99)	-.466 (11.84)	j	-.245 (6.22)	-.337 (8.56)
K	+.065 (1.65)	-.533 (13.54)	k	-.314 (7.98)	-.221 (5.61)
L	-.065 (1.65)	-.533 (13.54)	l	-.404 (10.26)	-.125 (3.18)
M	-.275 (6.99)	-.466 (11.84)	m	-.437 (11.10)	+.000 (0.00)
N	-.420 (10.67)	-.337 (8.56)	n	-.404 (10.26)	+.125 (3.18)
P	-.490 (12.45)	-.227 (5.77)	p	-.314 (7.98)	+.221 (5.61)
R	-.531 (13.49)	-.093 (2.36)	r	-.245 (6.22)	+.337 (8.56)
S	-.531 (13.49)	+.093 (2.36)	s	-.136 (3.45)	+.424 (10.77)
T	-.490 (12.45)	+.227 (5.77)	t	+.000 (0.00)	+.395 (10.03)
U	-.420 (10.67)	+.337 (8.56)	u	+.097 (2.46)	+.265 (6.73)

FIGURE 9. Insert arrangement, electrical connector, shell size 25 (series I, III, IV of MIL-DTL-38999, series I of MIL-DTL-27599, and series A of SAE-AS29600) – Continued.

MIL-STD-1560C
w/CHANGE 2

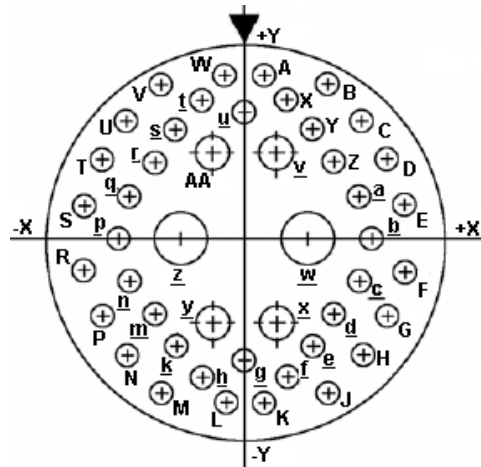
Contacts (Insert arrangement 25-90)					
Contact position ID	Location		Contact position ID	Location	
	X-axis (mm)	Y-axis (mm)		X-axis (mm)	Y-axis (mm)
V	-.275 (6.99)	+.466 (11.84)	w	+.180 (4.57)	+.000 (.00)
W	-.065 (1.65)	+.533 (13.54)	x	+.097 (2.46)	-.265 (6.73)
X	+.136 (3.45)	+.424 (10.77)	y	-.097 (2.46)	-.265 (6.73)
Y	+.245 (6.22)	+.337 (8.56)	z	-.180 (4.57)	+.000 (0.00)
Z	+.314 (7.98)	+.221 (5.61)	AA	-.097 (2.46)	+.265 (6.73)

Shell size	Arrange-ment no.	Number of contacts	Size contacts	Service rating	Contact location	Standard contact	
						Pin	Socket
25	-90	2	8 (see note)	Twinax	w, z	M39029/90-529	M39029/91-530
		4	16	I	v, x, y, AA	M39029/58-364	M39029/56-352
		40	20		All others	M39029/58-363	M39029/56-351

NOTE: To meet environmental sealing requirements, size 8 shielded contacts used with this insert arrangement may require separate, non-standard sealing boots that are furnished with the connector. For this insert arrangement, some connector grommet designs use a heat shrink sleeve only with the size 8 shielded contacts to meet environmental sealing requirements. When heat shrink sleeves are used, sealing boots are not used, and when sealing boots are used, heat shrink sleeves are not used. Heat shrink sleeves have a maximum temperature rating of 175°C maximum. When heat shrink sleeves are used, connectors rated to 200°C max are derated to 175°C max.

FIGURE 9. Insert arrangement, electrical connector, shell size 25 (series I, III, IV of MIL-DTL-38999, series I of MIL-DTL-27599, and series A of SAE-AS29600) – Continued.

MIL-STD-1560C
w/CHANGE 2



(INSERT ARRANGEMENT PATTERN IDENTICAL TO 25-90, EXCEPT 25-91
USES SEALING BOOTS IN ACCORDANCE WITH MIL-DTL-38999/62)

Contacts (Insert arrangement 25-91)					
Contact position ID	Location		Contact position ID	Location	
	X-axis (mm)	Y-axis (mm)		X-axis (mm)	Y-axis (mm)
A	+.065 (1.65)	+.533 (13.54)	a	+.404 (10.26)	+.125 (3.18)
B	+.275 (6.99)	+.466 (11.84)	b	+.437 (11.10)	+.000 (0.00)
C	+.420 (10.67)	+.337 (8.56)	c	+.404 (10.26)	-.125 (3.18)
D	+.490 (12.45)	+.227 (5.77)	d	+.314 (7.98)	-.221 (5.61)
E	+.531 (13.49)	+.093 (2.36)	e	+.245 (6.22)	-.337 (8.56)
F	+.531 (13.49)	-.093 (2.36)	f	+.136 (3.45)	-.424 (10.77)
G	+.490 (12.45)	-.227 (5.77)	g	+.000 (0.00)	-.395 (10.03)
H	+.420 (10.67)	-.337 (8.56)	h	-.136 (3.45)	-.424 (10.77)
J	+.275 (6.99)	-.466 (11.84)	k	-.245 (6.22)	-.337 (8.56)
K	+.065 (1.65)	-.533 (13.54)	m	-.314 (7.98)	-.221 (5.61)
L	-.065 (1.65)	-.533 (13.54)	n	-.404 (10.26)	-.125 (3.18)
M	-.275 (6.99)	-.466 (11.84)	p	-.437 (11.10)	+.000 (0.00)
N	-.420 (10.67)	-.337 (8.56)	q	-.404 (10.26)	+.125 (3.18)
P	-.490 (12.45)	-.227 (5.77)	r	-.314 (7.98)	+.221 (5.61)
R	-.531 (13.49)	-.093 (2.36)	s	-.245 (6.22)	+.337 (8.56)
S	-.531 (13.49)	+.093 (2.36)	t	-.136 (3.45)	+.424 (10.77)
T	-.490 (12.45)	+.227 (5.77)	u	+.000 (0.00)	+.395 (10.03)
U	-.420 (10.67)	+.337 (8.56)	v	+.097 (2.46)	+.265 (6.73)

FIGURE 9. Insert arrangement, electrical connector, shell size 25 (series I, III, IV of MIL-DTL-38999, series I of MIL-DTL-27599, and series A of SAE-AS29600) – Continued.

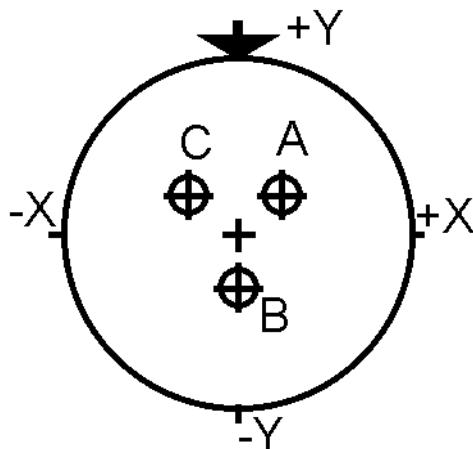
MIL-STD-1560C
w/CHANGE 2

Contacts (Insert arrangement 25-91)					
Contact position ID	Location		Contact position ID	Location	
	X-axis (mm)	Y-axis (mm)		X-axis (mm)	Y-axis (mm)
V	-.275 (6.99)	+.466 (11.84)	<u>w</u>	+.180 (4.57)	+.000 (.00)
W	-.065 (1.65)	+.533 (13.54)	<u>x</u>	+.097 (2.46)	-.265 (6.73)
X	+.136 (3.45)	+.424 (10.77)	<u>y</u>	-.097 (2.46)	-.265 (6.73)
Y	+.245 (6.22)	+.337 (8.56)	<u>z</u>	-.180 (4.57)	+.000 (0.00)
Z	+.314 (7.98)	+.221 (5.61)	AA	-.097 (2.46)	+.265 (6.73)

Shell size	Arrange ment no.	Number of contacts	Size contacts	Service rating	Contact location	Standard contact	
						Pin	Socket
25	-91	2	8 (see note)	Twinax	<u>w</u> , <u>z</u>	M39029/113	M39029/114
		4	16	I	<u>v</u> , <u>x</u> , <u>y</u> , AA	M39029/58-364	M39029/56-352
		40	20		All others	M39029/58-363	M39029/56-351

NOTE: For this arrangement, sealing boots in accordance with MIL-DTL-38999/62 shall be used to environmentally seal size 8 twinax contacts. Heat shrink sleeves are not used when sealing boots in accordance with MIL-DTL-38999/62 are used.

FIGURE 9. Insert arrangement, electrical connector, shell size 25 (series I, III, IV of MIL-DTL-38999, series I of MIL-DTL-27599, and series A of SAE-AS29600) – Continued.

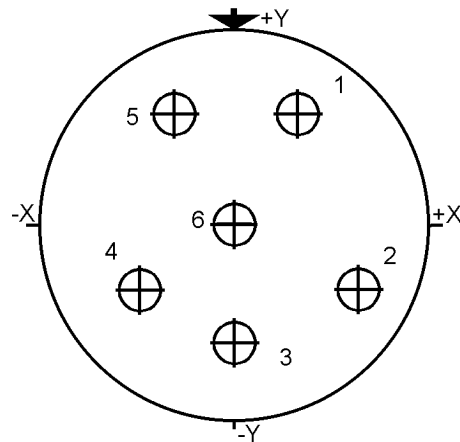
MIL-STD-1560C
w/CHANGE 2

Contacts (Insert arrangement 8-3)		
Contact position ID	Contact location	
	X-axis (mm)	Y-axis (mm)
A	+0.056 (1.42)	+0.018 (0.46)
B	+0.000 (0.00)	-0.079 (2.01)
C	-0.056 (1.42)	+0.018 (0.46)

(Applicable to MIL-DTL-27599 only)

Shell size	Arrangement no.	Number of contacts	Size contacts	Service rating	Contact location	Supersedes
8	-3	3	20	M	All	MS27343-3

FIGURE 10. Insert arrangement, electrical connector, shell size 8 (series II of MIL-DTL-38999 and series II of MIL-DTL-27599).

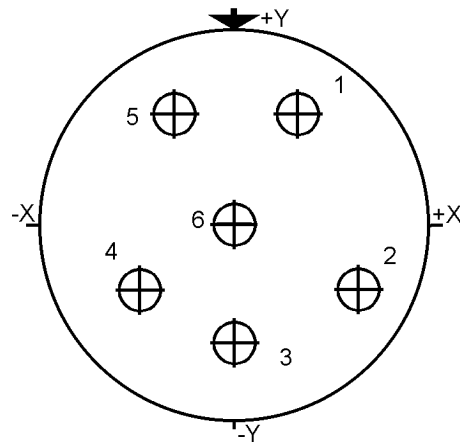
MIL-STD-1560C
w/CHANGE 2

Contacts (Insert arrangement 8-6)		
Contact position ID	Contact location	
	X-axis (mm)	Y-axis (mm)
1	+0.045 (1.14)	+0.078 (1.98)
2	+0.078 (1.98)	-0.045 (1.14)
3	+0.000 (0.00)	-0.090 (2.29)
4	-0.078 (1.98)	-0.045 (1.14)
5	-0.045 (1.14)	+0.078 (1.98)
6	+0.000 (0.00)	+0.000 (0.00)

(Inactive for new design for MIL-DTL-38999)

Shell size	Arrangement no.	Number of contacts	Size contacts	Service rating	Contact location	Supersedes
8	-6	6	22M	M	All	MS27343-6

FIGURE 10. Insert arrangement, electrical connector, shell size 8 (series II of MIL-DTL-38999 and series II of MIL-DTL-27599) – Continued.

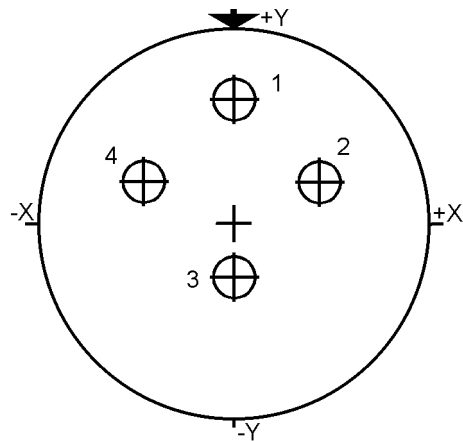
MIL-STD-1560C
w/CHANGE 2

Contacts (Insert arrangement 8-35)		
Contact position ID	Contact location	
	X-axis (mm)	Y-axis (mm)
1	+0.045 (1.14)	+0.078 (1.98)
2	+0.078 (1.98)	-0.045 (1.14)
3	+0.000 (0.00)	-0.090 (2.29)
4	-0.078 (1.98)	-0.045 (1.14)
5	-0.045 (1.14)	+0.078 (1.98)
6	+0.000 (0.00)	+0.000 (0.00)

(Applicable to MIL-DTL-38999 only)

Shell size	Arrangement no.	Number of contacts	Size contacts	Service rating	Contact location	Supersedes
8	-35	6	22D	M	All	MS27516-35

FIGURE 10. Insert arrangement, electrical connector, shell size 8 (series II of MIL-DTL-38999 and series II of MIL-DTL-27599) – Continued.

MIL-STD-1560C
w/CHANGE 2

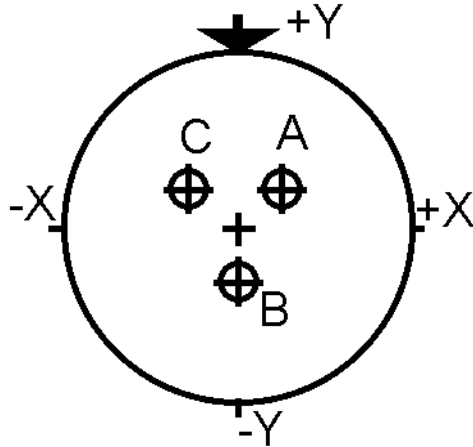
Contacts (Insert arrangement 8-44)		
Contact position ID	Contact location	
	X-axis (mm)	Y-axis (mm)
1	+ .000 (0.00)	+ .081 (2.06)
2	+ .080 (2.03)	+ .021 (0.53)
3	+ .000 (0.00)	- .050 (1.27)
4	- .080 (2.03)	+ .021 (0.53)

(Applicable to MIL-DTL-27599 only. Inactive for new design.)

Shell size	Arrangement no.	Number of contacts	Size contacts	Service rating	Contact location	Supersedes
8	-44	4	22	M	All	MS27343-44

FIGURE 10. Insert arrangement, electrical connector, shell size 8 (series II of MIL-DTL-38999 and series II of MIL-DTL-27599) – Continued.

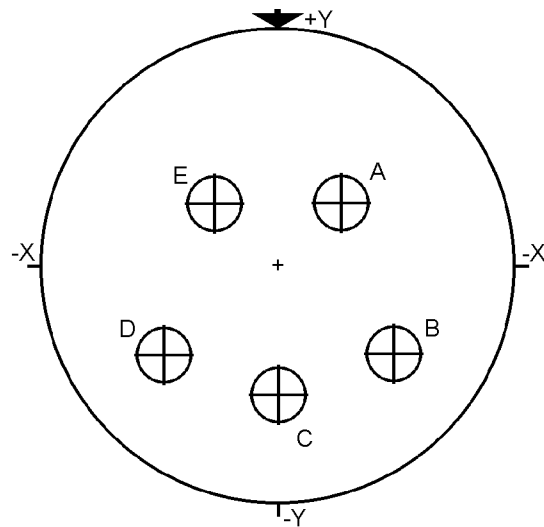
MIL-STD-1560C
w/CHANGE 2



Contacts (Insert arrangement 8-98)		
Contact position ID	Contact location	
	X-axis (mm)	Y-axis (mm)
A	+0.065 (1.65)	+0.038 (0.97)
B	+0.000 (0.00)	-0.075 (1.91)
C	-0.065 (1.65)	+0.038 (0.97)

Shell size	Arrangement no.	Number of contacts	Size contacts	Service rating	Contact location	Supersedes
8	-98	3	20	I	All	MS27343-98

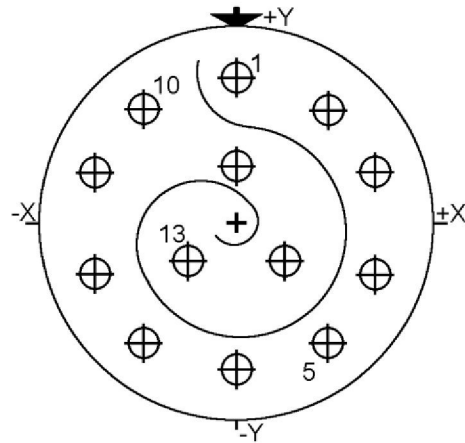
FIGURE 10. Insert arrangement, electrical connector, shell size 8 (series II of MIL-DTL-38999 and series II of MIL-DTL-27599) – Continued.

MIL-STD-1560C
w/CHANGE 2

Contacts (Insert arrangement 10-5)		
Contact position ID	Contact location	
	X-axis (mm)	Y-axis (mm)
A	+0.065 (1.65)	+0.056 (1.42)
B	+0.113 (2.87)	-0.065 (1.65)
C	+0.000 (0.00)	-0.130 (3.30)
D	-0.113 (2.87)	-0.065 (1.65)
E	-0.065 (1.65)	+0.056 (1.42)

Shell size	Arrangement no.	Number of contacts	Size contacts	Service rating	Contact location	Supersedes
10	-5	5	20	I	All	MS27344-5

FIGURE 11. Insert arrangement, electrical connector, shell size 10 (series II of MIL-DTL-38999 and series II of MIL-DTL-27599).

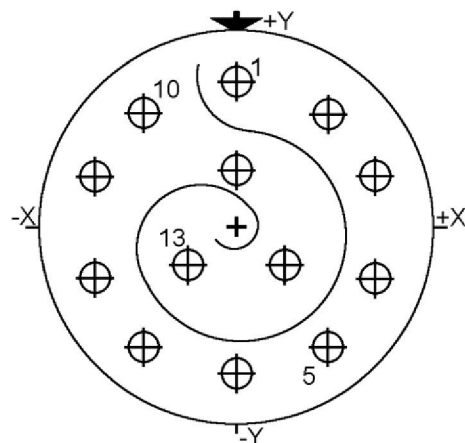
MIL-STD-1560C
w/CHANGE 2

Contacts (Insert arrangement 10-13)					
Contact position ID	Location		Contact position ID	Location	
	X-axis (mm)	Y-axis (mm)		X-axis (mm)	Y-axis (mm)
1	+.000 (0.00)	+.146 (3.71)	8	-.138 (3.51)	-.045 (1.14)
2	+.085 (2.16)	+.118 (3.00)	9	-.138 (3.51)	+.045 (1.14)
3	+.138 (3.51)	+.045 (1.14)	10	-.085 (2.16)	+.118 (3.00)
4	+.138 (3.51)	-.045 (1.14)	11	+.000 (0.00)	+.056 (1.42)
5	+.085 (2.16)	-.118 (3.00)	12	+.049 (1.24)	-.035 (0.89)
6	+.000 (0.00)	-.146 (3.71)	13	-.049 (1.24)	-.035 (0.89)
7	-.085 (2.16)	-.118 (3.00)	---	---	---

(Inactive for new design for MIL-DTL-38999)

Shell size	Arrangement no.	Number of contacts	Size contacts	Service rating	Contact location	Supersedes
10	-13	13	22M	M	All	MS27344-13

FIGURE 11. Insert arrangement, electrical connector, shell size 10 (series II of MIL-DTL-38999 and series II of MIL-DTL-27599) – Continued.

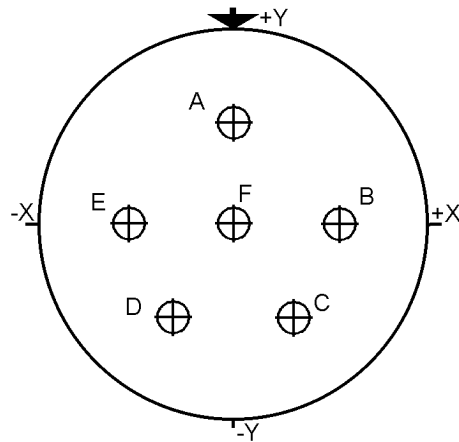
MIL-STD-1560C
w/CHANGE 2

Contacts (Insert arrangement 10-35)					
Contact position ID	Location		Contact position ID	Location	
	X-axis (mm)	Y-axis (mm)		X-axis (mm)	Y-axis (mm)
1	+.000 (0.00)	+.146 (3.71)	8	-.138 (3.51)	-.045 (1.14)
2	+.085 (2.16)	+.118 (3.00)	9	-.138 (3.51)	+.045 (1.14)
3	+.138 (3.51)	+.045 (1.14)	10	-.085 (2.16)	+.118 (3.00)
4	+.138 (3.51)	-.045 (1.14)	11	+.000 (0.00)	+.056 (1.42)
5	+.085 (2.16)	-.118 (3.00)	12	+.049 (1.24)	-.035 (0.89)
6	+.000 (0.00)	-.146 (3.71)	13	-.049 (1.24)	-.035 (0.89)
7	-.085 (2.16)	-.118 (3.00)	---	---	---

(Applicable to MIL-DTL-38999 only)

Shell size	Arrangement no.	Number of contacts	Size contacts	Service rating	Contact location	Supersedes
10	-35	13	22D	M	All	MS27517-35

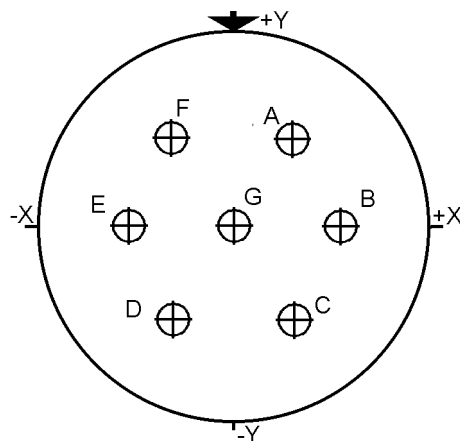
FIGURE 11. Insert arrangement, electrical connector, shell size 10 (series II of MIL-DTL-38999 and series II of MIL-DTL-27599) – Continued.

MIL-STD-1560C
w/CHANGE 2

Contacts (Insert arrangement 10-98)		
Contact position ID	Contact location	
	X-axis (mm)	Y-axis (mm)
A	+ .000 (0.00)	+ .130 (3.30)
B	+ .130 (3.30)	+ .000 (0.00)
C	+ .065 (1.65)	- .113 (2.87)
D	- .065 (1.65)	- .113 (2.87)
E	- .130 (3.30)	+ .000 (0.00)
F	+ .000 (0.00)	+ .000 (0.00)

Shell size	Arrangement no.	Number of contacts	Size contacts	Service rating	Contact location	Supersedes
10	-98	6	20	I	All	MS27344-98

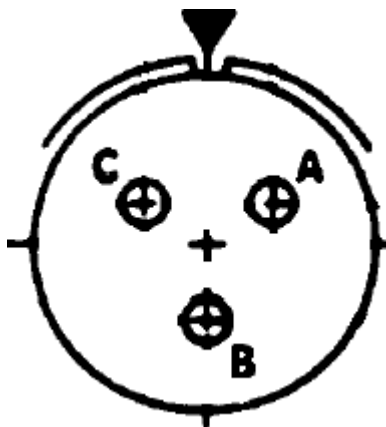
FIGURE 11. Insert arrangement, electrical connector, shell size 10 (series II of MIL-DTL-38999 and series II of MIL-DTL-27599) – Continued.

MIL-STD-1560C
w/CHANGE 2

Contacts (Insert arrangement 10-99)		
Contact position ID	Contact location	
	X-axis (mm)	Y-axis (mm)
A	+.065 (1.65)	+.113 (2.87)
B	+.130 (3.30)	+.000 (0.00)
C	+.065 (1.65)	-.113 (2.87)
D	-.065 (1.65)	-.113 (2.87)
E	-.130 (3.30)	+.000 (0.00)
F	-.065 (1.65)	+.113 (2.87)
G	+.000 (0.00)	+.000 (0.00)

Shell size	Arrangement no.	Number of contacts	Size contacts	Service rating	Contact location	Supersedes
10	-99	7	20	I	All	MS27344-99

FIGURE 11. Insert arrangement, electrical connector, shell size 10 (series II of MIL-DTL-38999 and series II of MIL-DTL-27599) – Continued.

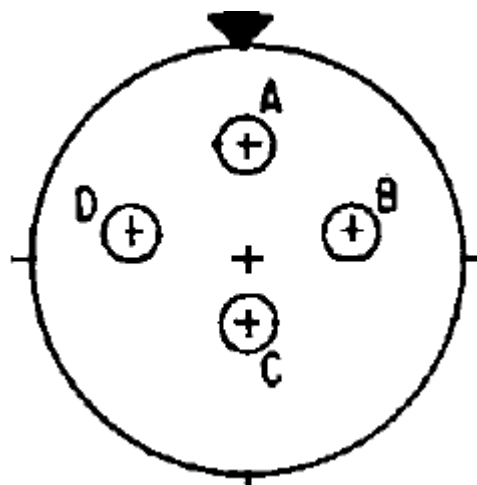
MIL-STD-1560C
w/CHANGE 2

Contacts (Insert arrangement 12-3)		
Contact position ID	Contact location	
	X-axis (mm)	Y-axis (mm)
A	+ .094 (2.39)	+ .058 (1.47)
B	+ .000 (0.00)	- .111 (2.82)
C	- .094 (2.39)	+ .058 (1.47)

Shell size	Arrangement no.	Number of contacts	Size contacts	Service rating	Contact location	Supersedes
12	-3	3	16	II	All	MS27345-3

FIGURE 12. Insert arrangement, electrical connector, shell size 12 (series II of MIL-DTL-38999 and series II of MIL-DTL-27599) – Continued.

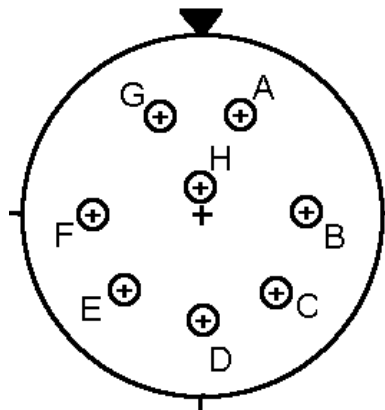
MIL-STD-1560C
w/CHANGE 2



Contacts (Insert arrangement 12-4)		
Contact position ID	Contact location	
	X-axis (mm)	Y-axis (mm)
A	+ .000 (0.00)	+ .150 (3.81)
B	+ .146 (3.71)	+ .035 (0.89)
C	+ .000 (0.00)	- .083 (2.11)
D	- .146 (3.71)	+ .035 (0.89)

Shell size	Arrangement no.	Number of contacts	Size contacts	Service rating	Contact location	Supersedes
12	-4	4	16	I	All	MS27345-4

FIGURE 12. Insert arrangement, electrical connector, shell size 12 (series II of MIL-DTL-38999 and series II of MIL-DTL-27599) – Continued.

MIL-STD-1560C
w/CHANGE 2

Contacts (Insert arrangement 12-8)		
Contact position ID	Contact location	
	X-axis (mm)	Y-axis (mm)
A	+0.065 (1.65)	+0.157 (3.99)
B	+0.170 (4.32)	+0.000 (0.00)
C	+0.120 (3.05)	-0.120 (3.05)
D	+0.000 (0.00)	-0.170 (4.32)
E	-0.120 (3.05)	-0.120 (3.05)
F	-0.170 (4.32)	+0.000 (0.00)
G	-0.065 (1.65)	+0.157 (3.99)
H	+0.000 (0.00)	+0.044 (1.12)

Shell size	Arrangement no.	Number of contacts	Size contacts	Service rating	Contact location	Supersedes
12	-8	8	20	I	All	MS27345-8

FIGURE 12. Insert arrangement, electrical connector, shell size 12 (series II of MIL-DTL-38999 and series II of MIL-DTL-27599) – Continued.

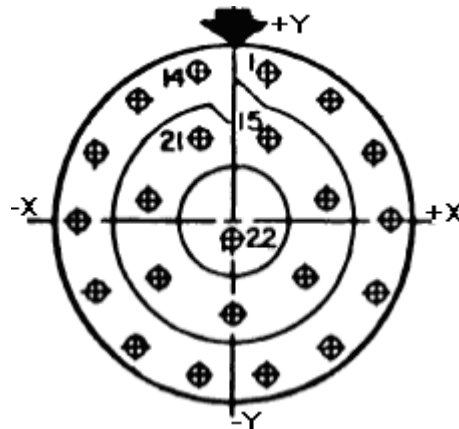
MIL-STD-1560C
w/CHANGE 2

Contacts (Insert arrangement 12-22)					
Contact position ID	Location		Contact position ID	Location	
	X-axis (mm)	Y-axis (mm)		X-axis (mm)	Y-axis (mm)
1	+.045 (1.14)	+.197 (5.00)	12	-.182 (4.62)	+.088 (2.24)
2	+.126 (3.20)	+.158 (4.01)	13	-.126 (3.20)	+.158 (4.01)
3	+.182 (4.62)	+.088 (2.24)	14	-.045 (1.14)	+.197 (5.00)
4	+.203 (5.16)	+.000 (0.00)	15	+.045 (1.14)	+.107 (2.72)
5	+.182 (4.62)	-.088 (2.24)	16	+.117 (2.97)	+.026 (0.66)
6	+.126 (3.20)	-.158 (4.01)	17	+.093 (2.36)	-.075 (1.91)
7	+.045 (1.14)	-.197 (5.00)	18	+.000 (0.00)	-.120 (3.05)
8	-.045 (1.14)	-.197 (5.00)	19	-.093 (2.36)	-.075 (1.91)
9	-.126 (3.20)	-.158 (4.01)	20	-.117 (2.97)	+.026 (0.66)
10	-.182 (4.62)	-.088 (2.24)	21	-.045 (1.14)	+.107 (2.72)
11	-.203 (5.16)	+.000 (0.00)	22	+.000 (0.00)	-.030 (0.76)

(Inactive for new design for MIL-DTL-38999)

Shell size	Arrangement no.	Number of contacts	Size contacts	Service rating	Contact location	Supersedes
12	-22	22	22M	M	All	MS27345-22

FIGURE 12. Insert arrangement, electrical connector, shell size 12 (series II of MIL-DTL-38999 and series II of MIL-DTL-27599).

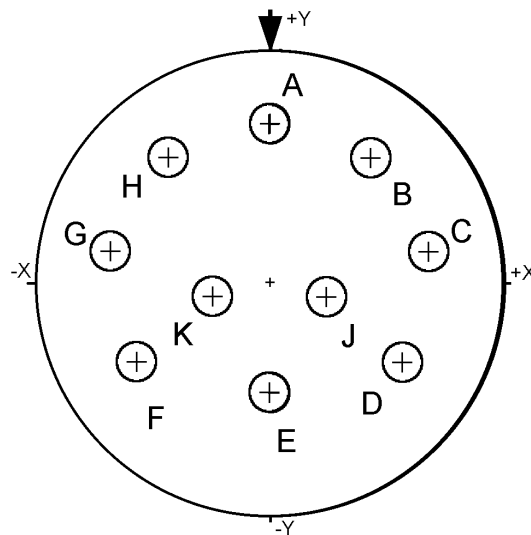
MIL-STD-1560C
w/CHANGE 2

Contacts (Insert arrangement 12-35)					
Contact position ID	Location		Contact position ID	Location	
	X-axis (mm)	Y-axis (mm)		X-axis (mm)	Y-axis (mm)
1	+.045 (1.14)	+.197 (5.00)	12	-.182 (4.62)	+.088 (2.24)
2	+.126 (3.20)	+.158 (4.01)	13	-.126 (3.20)	+.158 (4.01)
3	+.182 (4.62)	+.088 (2.24)	14	-.045 (1.14)	+.197 (5.00)
4	+.203 (5.16)	+.000 (0.00)	15	+.045 (1.14)	+.107 (2.72)
5	+.182 (4.62)	-.088 (2.24)	16	+.117 (2.97)	+.026 (0.66)
6	+.126 (3.20)	-.158 (4.01)	17	+.093 (2.36)	-.075 (1.91)
7	+.045 (1.14)	-.197 (5.00)	18	+.000 (0.00)	-.120 (3.05)
8	-.045 (1.14)	-.197 (5.00)	19	-.093 (2.36)	-.075 (1.91)
9	-.126 (3.20)	-.158 (4.01)	20	-.117 (2.97)	+.026 (0.66)
10	-.182 (4.62)	-.088 (2.24)	21	-.045 (1.24)	+.107 (2.72)
11	-.203 (5.16)	+.000 (0.00)	22	+.000 (0.00)	-.030 (0.76)

(Applicable to MIL-DTL-38999 only)

Shell size	Arrangement no.	Number of contacts	Size contacts	Service rating	Contact location	Supersedes
12	-35	22	22D	M	All	MS27518-35

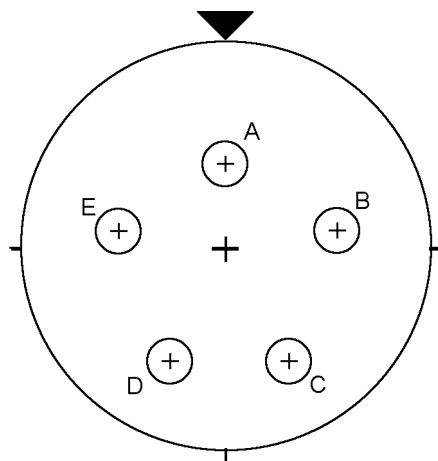
FIGURE 12. Insert arrangement, electrical connector, shell size 12 (series II of MIL-DTL-38999 and series II of MIL-DTL-27599) – Continued.

MIL-STD-1560C
w/CHANGE 2

Contacts (Insert arrangement 12-98)					
Contact position ID	Location		Contact position ID	Location	
	X-axis (mm)	Y-axis (mm)		X-axis (mm)	Y-axis (mm)
A	+.000 (0.00)	+.195 (4.95)	F	-.164 (4.17)	-.105 (2.67)
B	+.125 (3.18)	+.150 (3.81)	G	-.193 (4.90)	+.030 (0.76)
C	+.193 (4.90)	+.030 (0.76)	H	-.125 (3.18)	+.150 (3.81)
D	+.164 (4.17)	-.105 (2.67)	J	+.065 (1.65)	-.015 (0.38)
E	+.000 (0.00)	-.135 (3.43)	K	-.065 (1.65)	-.015 (0.38)

Shell size	Arrangement no.	Number of contacts	Size contacts	Service rating	Contact location	Supersedes
12	-98	10	20	I	All	MS27345-98

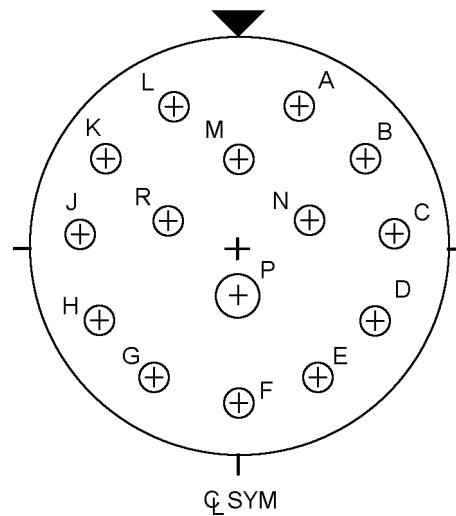
FIGURE 12. Insert arrangement, electrical connector, shell size 12 (series II of MIL-DTL-38999 and series II of MIL-DTL-27599) – Continued.

MIL-STD-1560C
w/CHANGE 2

Contacts (Insert arrangement 14-5)		
Contact position ID	Contact location	
	X-axis (mm)	Y-axis (mm)
A	+ .000 (0.00)	+ .100 (2.54)
B	+ .174 (4.42)	+ .024 (0.61)
C	+ .094 (2.39)	- .148 (3.76)
D	- .094 (2.39)	- .148 (3.76)
E	- .174 (4.42)	+ .024 (0.61)

Shell size	Arrangement no.	Number of contacts	Size contacts	Service rating	Contact location	Supersedes
14	-5	5	16	II	All	MS27346-5

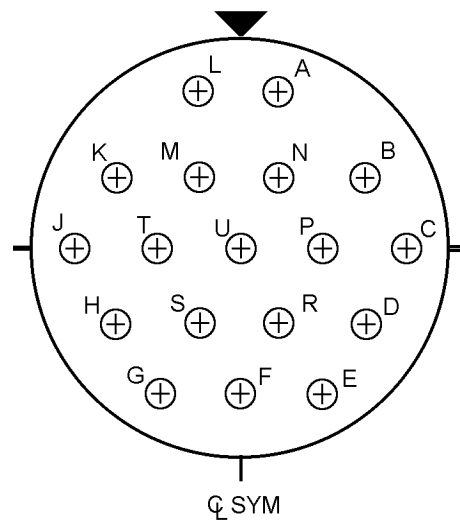
FIGURE 13. Insert arrangement, electrical connector, shell size 14 (series II of MIL-DTL-38999 and series II of MIL-DTL-27599).

MIL-STD-1560C
w/CHANGE 2

Contacts (Insert arrangement 14-15)					
Contact position ID	Location		Contact position ID	Location	
	X-axis (mm)	Y-axis (mm)		X-axis (mm)	Y-axis (mm)
A	+.100 (2.54)	+.225 (5.72)	J	-.244 (6.20)	+.014 (0.36)
B	+.202 (5.13)	+.140 (3.56)	K	-.202 (5.13)	+.140 (3.56)
C	+.244 (6.20)	+.014 (0.36)	L	-.100 (2.54)	+.225 (5.72)
D	+.218 (5.54)	-.113 (2.87)	M	+.000 (0.00)	+.140 (3.56)
E	+.126 (3.20)	-.209 (5.31)	N	+.110 (2.79)	+.040 (1.02)
F	+.000 (0.00)	-.245 (6.22)	P	+.000 (0.00)	-.077 (1.96)
G	-.126 (3.20)	-.209 (5.18)	R	-.110 (2.79)	+.040 (1.02)
H	-.218 (5.54)	-.113 (2.87)			

Shell size	Arrangement no.	Number of contacts	Size contacts	Service rating	Contact location	Supersedes
14	-15	1	16	I	P	MS27346-15
		14	20		All others	

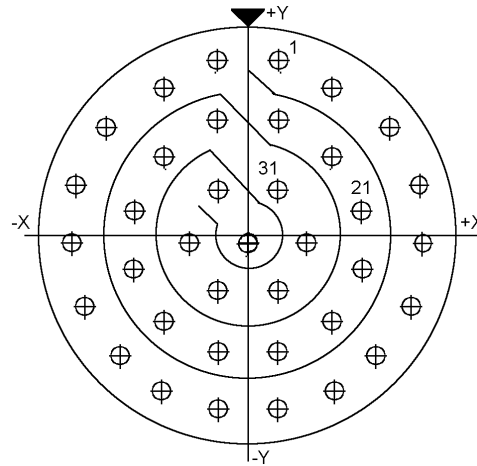
FIGURE 13. Insert arrangement, electrical connector, shell size 14 (series II of MIL-DTL-38999 and series II of MIL-DTL-27599) – Continued.

MIL-STD-1560C
w/CHANGE 2

Contacts (Insert arrangement 14-18)					
Contact position ID	Location		Contact position ID	Location	
	X-axis (mm)	Y-axis (mm)		X-axis (mm)	Y-axis (mm)
A	+.065 (1.65)	+.252 (6.40)	K	-.195 (4.95)	+.113 (2.87)
B	+.195 (4.95)	+.113 (2.87)	L	-.065 (1.65)	+.252 (6.40)
C	+.260 (6.60)	+.000 (0.00)	M	-.065 (1.65)	+.113 (2.87)
D	+.195 (4.95)	-.113 (2.87)	N	+.065 (1.65)	+.113 (2.87)
E	+.130 (3.30)	-.225 (5.72)	P	+.130 (3.30)	+.000 (0.00)
F	+.000 (0.00)	-.225 (5.72)	R	+.065 (1.65)	-.113 (2.87)
G	-.130 (3.30)	-.225 (5.72)	S	-.065 (1.65)	-.113 (2.87)
H	-.195 (4.95)	-.113 (2.87)	T	-.130 (3.30)	+.000 (0.00)
J	-.260 (6.60)	+.000 (0.00)	U	+.000 (0.00)	+.000 (0.00)

Shell size	Arrangement no.	Number of contacts	Size contacts	Service rating	Contact location	Supersedes
14	-18	18	20	I	All	MS27346-18

FIGURE 13. Insert arrangement, electrical connector, shell size 14 (series II of MIL-DTL-38999 and series II of MIL-DTL-27599) – Continued.

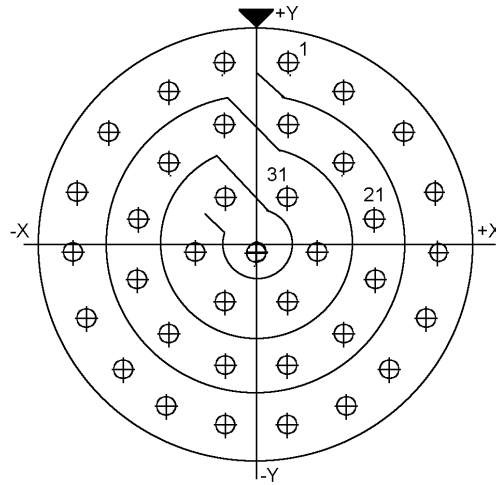
MIL-STD-1560C
w/CHANGE 2

Contacts (Insert arrangement 14-35)					
Contact position ID	Location		Contact position ID	Location	
	X-axis (mm)	Y-axis (mm)		X-axis (mm)	Y-axis (mm)
1	+.045 (1.14)	+.262 (6.65)	20	+.123 (3.12)	+.119 (3.02)
2	+.123 (3.12)	+.217 (5.51)	21	+.170 (4.32)	+.040 (1.02)
3	+.211 (5.36)	+.160 (4.06)	22	+.170 (4.32)	-.050 (1.27)
4	+.254 (6.45)	+.080 (2.03)	23	+.123 (3.12)	-.127 (3.23)
5	+.266 (6.76)	-.010 (0.25)	24	+.045 (1.14)	-.172 (4.37)
6	+.247 (6.27)	-.098 (2.49)	25	-.045 (1.14)	-.172 (4.37)
7	+.200 (5.08)	-.175 (4.45)	26	-.123 (3.12)	-.127 (3.23)
8	+.130 (3.30)	-.232 (5.89)	27	-.170 (4.32)	-.050 (1.27)
9	+.045 (1.14)	-.262 (6.65)	28	-.170 (4.32)	+.040 (1.02)
10	-.045 (1.14)	-.262 (6.65)	29	-.123 (3.12)	+.119 (3.02)
11	-.130 (3.30)	-.232 (5.89)	30	-.045 (1.14)	+.172 (4.37)
12	-.200 (5.08)	-.175 (4.45)	31	+.045 (1.14)	+.074 (1.88)
13	-.247 (6.27)	-.098 (2.49)	32	+.090 (2.29)	-.004 (0.10)
14	-.266 (6.76)	-.010 (0.25)	33	+.045 (1.14)	-.082 (2.08)
15	-.254 (6.45)	+.080 (2.03)	34	-.045 (1.14)	-.082 (2.08)
16	-.211 (5.36)	+.160 (4.06)	35	-.090 (2.29)	-.004 (0.10)
17	-.123 (3.12)	+.217 (5.51)	36	-.045 (1.14)	+.074 (1.88)
18	-.045 (1.14)	+.262 (6.65)	37	+.000 (0.00)	-.004 (0.10)
19	+.045 (1.14)	+.172 (4.37)			

(Applicable to MIL-DTL-38999 only)

Shell size	Arrangement no.	Number of contacts	Size contacts	Service rating	Contact location	Supersedes
14	-35	37	22D	M	All	MS27519-35

FIGURE 13. Insert arrangement, electrical connector, shell size 14 (series II of MIL-DTL-38999 and series II of MIL-DTL-27599) – Continued.

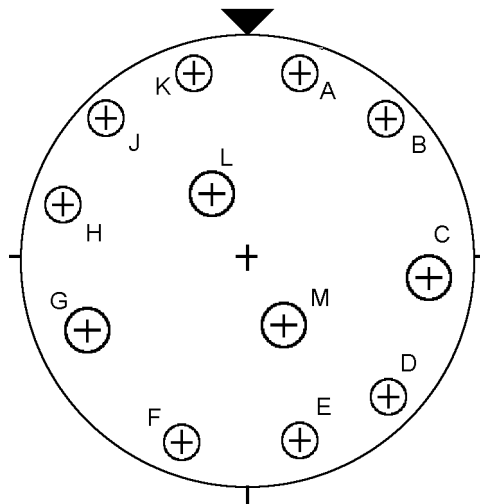
MIL-STD-1560C
w/CHANGE 2

Contacts (Insert arrangement 14-37)					
Contact position ID	Location		Contact position ID	Location	
	X-axis (mm)	Y-axis (mm)		X-axis (mm)	Y-axis (mm)
1	+.045 (1.14)	+.262 (6.65)	20	+.123 (3.12)	+.119 (3.02)
2	+.123 (3.12)	+.217 (5.51)	21	+.170 (4.32)	+.040 (1.02)
3	+.211 (5.36)	+.160 (4.06)	22	+.170 (4.32)	-.050 (1.27)
4	+.254 (6.45)	+.080 (2.03)	23	+.123 (3.12)	-.127 (3.23)
5	+.266 (6.76)	-.010 (0.25)	24	+.045 (1.14)	-.172 (4.37)
6	+.247 (6.27)	-.098 (2.49)	25	-.045 (1.14)	-.172 (4.37)
7	+.200 (5.08)	-.175 (4.45)	26	-.123 (3.12)	-.127 (3.23)
8	+.130 (3.30)	-.232 (5.89)	27	-.170 (4.32)	-.050 (1.27)
9	+.045 (1.14)	-.262 (6.65)	28	-.170 (4.32)	+.040 (1.02)
10	-.045 (1.14)	-.262 (6.65)	29	-.123 (3.12)	+.119 (3.02)
11	-.130 (3.30)	-.232 (5.89)	30	-.045 (1.14)	+.172 (4.37)
12	-.200 (5.08)	-.175 (4.45)	31	+.045 (1.14)	+.074 (1.88)
13	-.247 (6.27)	-.098 (2.49)	32	+.090 (2.29)	-.004 (0.10)
14	-.266 (6.76)	-.010 (0.25)	33	+.045 (1.14)	-.082 (2.08)
15	-.254 (6.45)	+.080 (2.03)	34	-.045 (1.14)	-.082 (2.08)
16	-.211 (5.36)	+.160 (4.06)	35	-.090 (2.29)	-.004 (0.10)
17	-.123 (3.12)	+.217 (5.51)	36	-.045 (1.14)	+.074 (1.88)
18	-.045 (1.14)	+.262 (6.65)	37	+.000 (0.00)	-.004 (0.10)
19	+.045 (1.14)	+.172 (4.37)	---	---	---

(Inactive for new design for MIL-DTL-38999)

Shell size	Arrangement no.	Number of contacts	Size contacts	Service rating	Contact location	Supersedes
14	-37	37	22M	M	All	MS27346-37

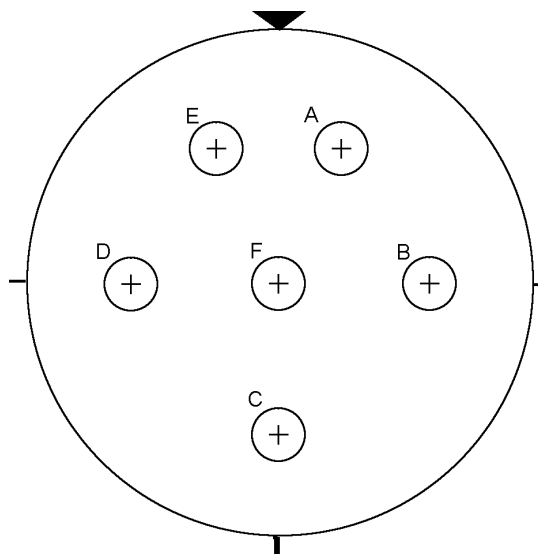
FIGURE 13. Insert arrangement, electrical connector, shell size 14 (series II of MIL-DTL-38999 and series II of MIL-DTL-27599) – Continued.

MIL-STD-1560C
w/CHANGE 2

Contacts (Insert arrangement 14-97)					
Contact position ID	Location		Contact position ID	Location	
	X-axis (mm)	Y-axis (mm)		X-axis (mm)	Y-axis (mm)
A	+.065 (1.65)	+.234 (5.94)	G	-.207 (5.26)	-.095 (2.41)
B	+.178 (4.52)	+.178 (4.52)	H	-.234 (5.94)	+.065 (1.65)
C	+.230 (5.84)	-.023 (0.58)	J	-.178 (4.52)	+.178 (4.52)
D	+.178 (4.52)	-.178 (4.52)	K	-.065 (1.65)	+.234 (5.94)
E	+.065 (1.65)	-.234 (5.94)	L	-.047 (1.19)	+.081 (2.06)
F	-.089 (2.26)	-.235 (5.97)	M	+.047 (1.19)	-.081 (2.06)

Shell size	Arrangement no.	Number of contacts	Size contacts	Service rating	Contact location	Supersedes
14	-97	4	16	I	C,M,G,L	MS27346-97
		8	20		All others	

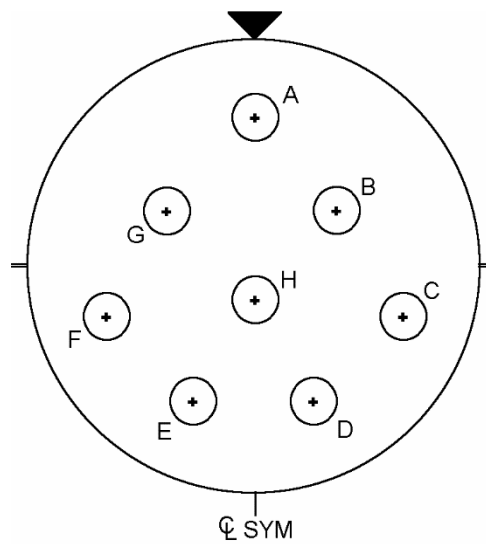
FIGURE 13. Insert arrangement, electrical connector, shell size 14 (series II of MIL-DTL-38999 and series II of MIL-DTL-27599) – Continued.

MIL-STD-1560C
w/CHANGE 2

Contacts (Insert arrangement 16-6 or 16-7)		
Contact position ID	Contact location	
	X-axis (mm)	Y-axis (mm)
A	+.121 (3.07)	+.209 (5.31)
B	+.241 (6.12)	+.000 (0.00)
C	+.000 (0.00)	-.241 (6.12)
D	-.241 (6.12)	+.000 (0.00)
E	-.121 (3.07)	+.209 (5.31)
F	+.000 (0.00)	+.000 (0.00)

Shell size	Arrangement no.	Number of contacts	Size contacts	Service rating	Contact location	Supersedes
16	-6	6	12	I	All	MS27347-6
	-7	6	Shielded, size 12A	II	All	-----

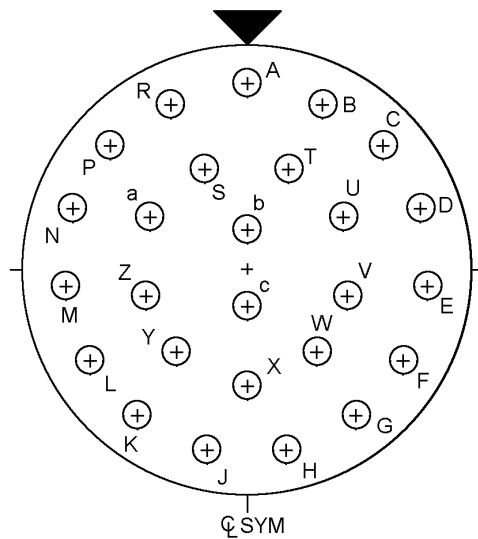
FIGURE 14. Insert arrangement, electrical connector, shell size 16 (series II of MIL-DTL-38999 and series II of MIL-DTL-27599) – Continued.

MIL-STD-1560C
w/CHANGE 2

Contacts (Insert arrangement 16-8)					
Contact position ID	Location		Contact position ID	Location	
	X-axis (mm)	Y-axis (mm)		X-axis (mm)	Y-axis (mm)
A	+.000 (0.00)	+.236 (5.99)	E	-.094 (2.39)	-.216 (5.49)
B	+.128 (3.25)	+.086 (2.18)	F	-.230 (5.84)	-.078 (1.98)
C	+.230 (5.84)	-.078 (1.98)	G	-.128 (3.25)	+.086 (2.18)
D	+.094 (2.39)	-.216 (5.49)	H	+.000 (0.00)	-.052 (1.32)

Shell size	Arrangement no.	Number of contacts	Size contacts	Service rating	Contact location	Supersedes
16	-8	8	16	II	All	MS27347-8

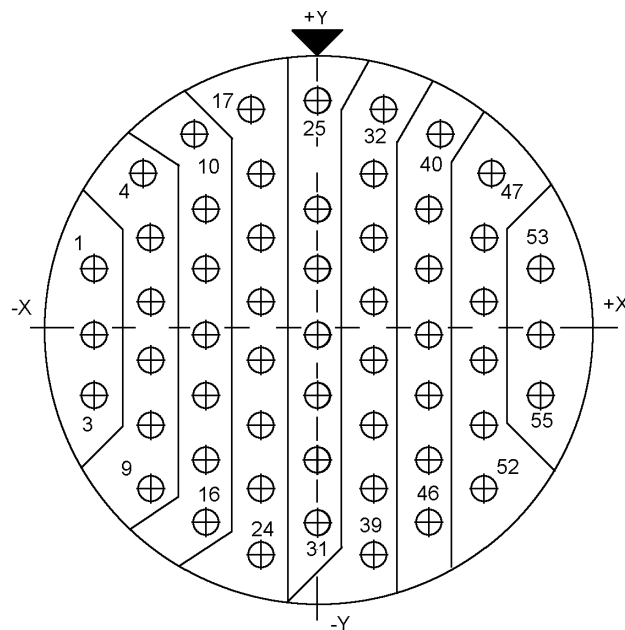
FIGURE 14. Insert arrangement, electrical connector, shell size 16 (series II of MIL-DTL-38999 and series II of MIL-DTL-27599).

MIL-STD-1560C
w/CHANGE 2

Contacts (Insert arrangement 16-26)					
Contact position ID	Location		Contact position ID	Location	
	X-axis (mm)	Y-axis (mm)		X-axis (mm)	Y-axis (mm)
A	+.000 (0.00)	+.321 (8.15)	P	-.239 (6.07)	+.214 (5.44)
B	+.131 (3.33)	+.293 (7.44)	R	-.131 (3.33)	+.293 (7.44)
C	+.239 (6.07)	+.214 (5.44)	S	-.070 (1.78)	+.177 (4.50)
D	+.305 (7.75)	+.099 (2.51)	T	+.070 (1.78)	+.177 (4.50)
E	+.319 (8.10)	-.034 (0.86)	U	+.175 (4.45)	+.094 (2.39)
F	+.278 (7.06)	-.161 (4.09)	V	+.178 (4.52)	-.036 (0.91)
G	+.189 (4.80)	-.260 (6.60)	W	+.119 (3.02)	-.151 (3.84)
H	+.067 (1.70)	-.314 (7.98)	X	+.000 (.00)	-.203 (5.16)
J	-.067 (1.70)	-.314 (7.98)	Y	-.119 (.005)	-.151 (3.84)
K	-.189 (4.80)	-.260 (6.60)	Z	-.178 (4.52)	-.036 (0.91)
L	-.278 (7.06)	-.161 (4.09)	a	-.175 (4.45)	+.094 (2.39)
M	-.319 (8.10)	-.034 (0.86)	b	+.000 (0.00)	+.065 (1.65)
N	-.305 (7.75)	+.099 (2.51)	c	+.000 (0.00)	-.065 (1.65)

Shell size	Arrange- ment no.	Number of contacts	Size contacts	Service rating	Contact location	Supersedes
16	-26	26	20	I	All	MS27347-26

FIGURE 14. Insert arrangement, electrical connector, shell size 16 (series II of MIL-DTL-38999 and series II of MIL-DTL-27599) – Continued.

MIL-STD-1560C
w/CHANGE 2

Contacts (Insert arrangement 16-35)					
Contact position ID	Location		Contact position ID	Location	
	X-axis (mm)	Y-axis (mm)		X-axis (mm)	Y-axis (mm)
1	-.312 (7.92)	+.086 (2.18)	29	+.000 (0.00)	-.094 (2.39)
2	-.312 (7.92)	-.004 (0.10)	30	+.000 (0.00)	-.184 (4.67)
3	-.312 (7.92)	-.094 (2.39)	31	+.000 (0.00)	-.274 (6.96)
4	-.242 (6.15)	+.221 (5.61)	32	+.089 (2.26)	+.316 (8.03)
5	-.234 (5.94)	+.131 (3.33)	33	+.078 (1.98)	+.221 (5.61)
6	-.234 (5.94)	+.041 (1.04)	34	+.078 (1.98)	+.131 (3.33)
7	-.234 (5.94)	-.049 (1.24)	35	+.078 (1.98)	+.041 (1.04)
8	-.234 (5.94)	-.139 (3.53)	36	+.078 (1.98)	-.049 (1.24)
9	-.234 (5.94)	-.229 (5.82)	37	+.078 (1.98)	-.139 (3.53)
10	-.172 (4.37)	+.279 (7.09)	38	+.078 (1.98)	-.229 (5.82)
11	-.156 (3.96)	+.176 (4.47)	39	+.078 (1.98)	-.319 (8.10)
12	-.156 (3.96)	+.086 (2.18)	40	+.172 (4.37)	+.279 (7.09)
13	-.156 (3.96)	-.004 (0.10)	41	+.156 (3.96)	+.176 (4.47)
14	-.156 (3.96)	-.094 (2.39)	42	+.156 (3.96)	+.086 (2.18)
15	-.156 (3.96)	-.184 (4.67)	43	+.156 (3.96)	-.004 (0.10)

FIGURE 14. Insert arrangement, electrical connector, shell size 16 (series II of MIL-DTL-38999 and series II of MIL-DTL-27599) – Continued.

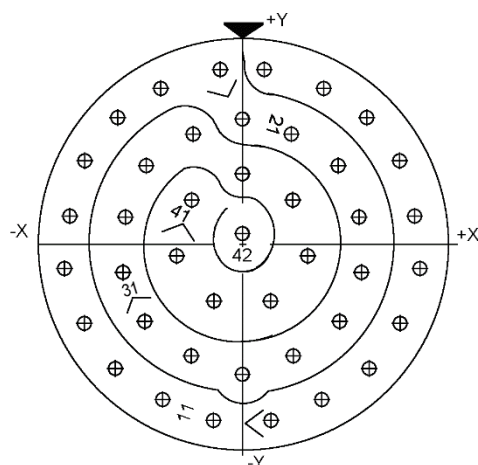
MIL-STD-1560C
w/CHANGE 2

Contacts (Insert arrangement 16-35)					
Contact position ID	Location		Contact position ID	Location	
	X-axis (mm)	Y-axis (mm)		X-axis (mm)	Y-axis (mm)
16	-.156 (3.96)	-.274 (6.96)	44	+.156 (3.96)	-.094 (2.39)
17	-.089 (2.26)	+.316 (8.03)	45	+.156 (3.96)	-.184 (4.67)
18	-.078 (1.98)	+.221 (5.61)	46	+.156 (3.96)	-.274 (6.96)
19	-.078 (1.98)	+.131 (3.33)	47	+.242 (6.15)	+.221 (5.61)
20	-.078 (1.98)	+.041 (1.04)	48	+.234 (5.94)	+.131 (3.33)
21	-.078 (1.98)	-.049 (1.24)	49	+.234 (5.94)	+.041 (1.04)
22	-.078 (1.98)	-.139 (3.53)	50	+.234 (5.94)	-.049 (1.24)
23	-.078 (1.98)	-.229 (5.82)	51	+.234 (5.94)	-.139 (3.53)
24	-.078 (1.98)	-.319 (8.10)	52	+.234 (5.94)	-.229 (5.82)
25	+.000 (0.00)	+.329 (8.36)	53	-.312 (7.92)	+.086 (2.18)
26	+.000 (0.00)	+.176 (4.47)	54	+.312 (7.92)	-.004 (0.10)
27	+.000 (0.00)	+.086 (2.18)	55	+.312 (7.92)	-.094 (2.39)
28	+.000 (0.00)	-.004 (0.10)	---	---	---

(Applicable to MIL-DTL-38999 only)

Shell size	Arrangement no.	Number of contacts	Size contacts	Service rating	Contact location	Supersedes
16	-35	55	22D	M	All	MS27520-35

FIGURE 14. Insert arrangement, electrical connector, shell size 16 (series II of MIL-DTL-38999 and series II of MIL-DTL-27599) – Continued.

MIL-STD-1560C
w/CHANGE 2

Contacts (Insert arrangement 16-42)					
Contact position ID	Location		Contact position ID	Location	
	X-axis (mm)	Y-axis (mm)		X-axis (mm)	Y-axis (mm)
1	+.050 (1.27)	+.318 (8.08)	22	+.095 (2.41)	+.198 (5.03)
2	+.145 (3.68)	+.286 (7.26)	23	+.178 (4.52)	+.142 (3.61)
3	+.228 (5.79)	+.230 (5.84)	24	+.218 (5.54)	+.050 (1.27)
4	+.287 (7.29)	+.149 (3.78)	25	+.218 (5.54)	-.050 (1.27)
5	+.318 (8.08)	+.053 (1.35)	26	+.177 (4.50)	-.142 (3.61)
6	+.319 (8.10)	-.047 (1.19)	27	+.095 (2.41)	-.202 (5.13)
7	+.289 (7.34)	-.143 (3.63)	28	+.000 (0.00)	-.235 (5.97)
8	+.232 (5.89)	-.226 (5.74)	29	-.095 (2.41)	-.202 (5.13)
9	+.151 (3.84)	-.285 (7.24)	30	-.177 (4.50)	-.142 (3.61)
10	+.056 (1.42)	-.318 (8.08)	31	-.218 (5.54)	-.050 (1.27)
11	-.056 (1.42)	-.318 (8.08)	32	-.218 (5.54)	+.050 (1.27)
12	-.151 (3.84)	-.285 (7.24)	33	-.178 (4.52)	+.142 (3.61)
13	-.232 (5.89)	-.226 (5.74)	34	-.095 (2.41)	+.198 (5.03)
14	-.289 (7.34)	-.143 (3.63)	35	+.000 (0.00)	+.131 (3.33)
15	-.319 (8.10)	-.047 (1.19)	36	+.091 (2.31)	+.080 (2.03)
16	-.318 (8.08)	+.053 (1.35)	37	+.121 (3.07)	-.017 (0.43)
17	-.287 (7.29)	+.149 (3.78)	38	+.056 (1.42)	-.101 (2.57)
18	-.228 (5.79)	+.230 (5.84)	39	-.056 (1.42)	-.101 (2.57)

FIGURE 14. Insert arrangement, electrical connector, shell size 16 (series II of MIL-DTL-38999 and series II of MIL-DTL-27599) – Continued.

MIL-STD-1560C
w/CHANGE 2

Contacts (Insert arrangement 16-42)					
Contact position ID	Location		Contact position ID	Location	
	X-axis (mm)	Y-axis (mm)		X-axis (mm)	Y-axis (mm)
19	-.145 (3.68)	+.286 (7.26)	40	-.121 (3.07)	-.017 (0.43)
20	-.050 (1.27)	+.318 (8.08)	41	-.091 (2.31)	+.080 (2.03)
21	+.000 (0.00)	+.231 (5.87)	42	+.000 (0.00)	+.031 (0.79)

(Applicable to MIL-DTL-27599 only. Inactive for new design)

Shell size	Arrangement no.	Number of contacts	Size contacts	Service rating	Contact location	Supersedes
16	-42	42	22	M	All	MS27347-42

FIGURE 14. Insert arrangement, electrical connector, shell size 16 (series II of MIL-DTL-38999 and series II of MIL-DTL-27599) – Continued.

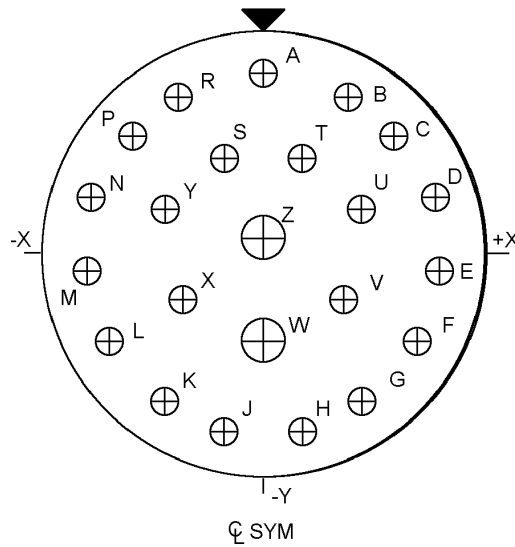
MIL-STD-1560C
w/CHANGE 2

Contacts (Insert arrangement 16-55)					
Contact position ID	Location		Contact position ID	Location	
	X-axis (mm)	Y-axis (mm)		X-axis (mm)	Y-axis (mm)
12	-.156 (3.96)	+.086 (2.18)	40	+.172 (4.37)	+.279 (7.09)
13	-.156 (3.96)	-.004 (0.10)	41	+.156 (3.96)	+.176 (4.47)
14	-.156 (3.96)	-.094 (2.39)	42	+.156 (3.96)	+.086 (2.18)
15	-.156 (3.96)	-.184 (4.67)	43	+.156 (3.96)	-.004 (0.10)
16	-.156 (3.96)	-.274 (6.96)	44	+.156 (3.96)	-.094 (2.39)
17	-.089 (2.26)	+.316 (8.03)	45	+.156 (3.96)	-.184 (4.67)
18	-.078 (1.98)	+.221 (5.61)	46	+.156 (3.96)	-.274 (6.96)
19	-.078 (1.98)	+.131 (3.33)	47	+.242 (6.15)	+.221 (5.61)
20	-.078 (1.98)	+.041 (1.04)	48	+.234 (5.94)	+.131 (3.33)
21	-.078 (1.98)	-.049 (1.24)	49	+.234 (5.94)	+.041 (1.04)
22	-.078 (1.98)	-.139 (3.53)	50	+.234 (5.94)	-.049 (1.24)
23	-.078 (1.98)	-.229 (5.82)	51	+.234 (5.94)	-.139 (3.53)
24	-.078 (1.98)	-.319 (8.10)	52	+.234 (5.94)	-.229 (5.82)
25	+.000 (0.00)	+.329 (8.36)	53	+.312 (7.92)	+.086 (2.18)
26	+.000 (0.00)	+.176 (4.47)	54	+.312 (7.92)	-.004 (0.10)
27	+.000 (0.00)	+.086 (2.18)	55	+.312 (7.92)	-.094 (2.39)
28	+.000 (0.00)	-.004 (0.10)	---	---	---

(Inactive for new design for MIL-DTL-38999)

Shell size	Arrangement no.	Number of contacts	Size contacts	Service rating	Contact location	Supersedes
16	-55	55	22M	M	All	MS27347-55

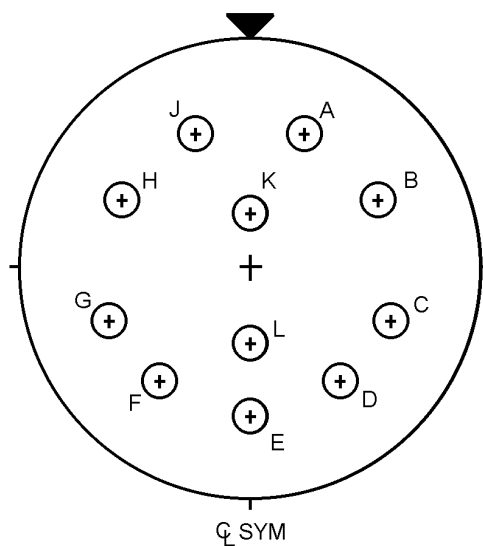
FIGURE 14. Insert arrangement, electrical connector, shell size 16 (series II of MIL-DTL-38999 and series II of MIL-DTL-27599) – Continued.

MIL-STD-1560C
w/CHANGE 2

Contacts (Insert arrangement 16-99)					
Contact position ID	Location		Contact position ID	Location	
	X-axis (mm)	Y-axis (mm)		X-axis (mm)	Y-axis (mm)
A	+0.000 (0.00)	+0.321 (8.15)	N	-.305 (7.75)	+0.099 (2.51)
B	+0.131 (3.33)	+0.293 (7.44)	P	-.239 (6.07)	+0.214 (5.44)
C	+0.239 (6.07)	+0.214 (5.44)	R	-.131 (3.33)	+0.293 (7.44)
D	+0.305 (7.75)	+0.099 (2.51)	S	-.070 (1.78)	+0.177 (4.50)
E	+0.319 (8.10)	-.034 (0.86)	T	+0.070 (1.78)	+0.177 (4.50)
F	+0.278 (7.06)	-.161 (4.09)	U	+0.175 (4.45)	+0.094 (2.39)
G	+0.189 (4.80)	-.260 (6.60)	V	+0.150 (3.81)	-.075 (1.91)
H	+0.067 (1.70)	-.314 (7.98)	W	+0.000 (0.00)	-.161 (4.09)
J	-.067 (1.70)	-.314 (7.98)	X	-.150 (3.81)	-.075 (1.91)
K	-.189 (4.80)	-.260 (6.60)	Y	-.175 (4.45)	+0.094 (2.39)
L	-.278 (7.06)	-.161 (4.09)	Z	+0.000 (0.00)	+0.025 (0.64)
M	-.319 (8.10)	-.034 (0.86)	---	---	---

Shell size	Arrangement no.	Number of contacts	Size contacts	Service rating	Contact location	Supersedes
16	-99	2	16	I	W, Z	MS27347-99
		21	20		All others	

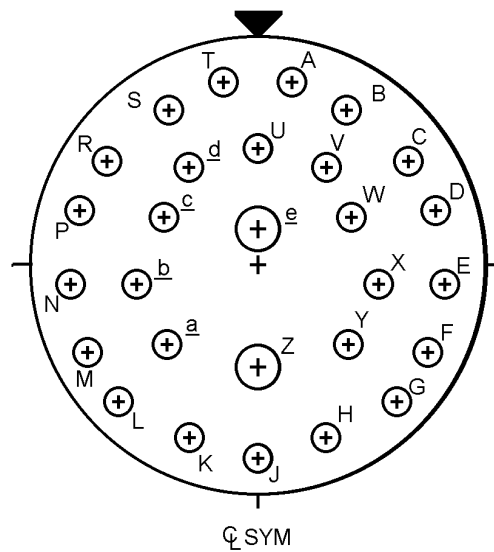
FIGURE 14. Insert arrangement, electrical connector, shell size 16 (series II of MIL-DTL-38999 and series II of MIL-DTL-27599) – Continued.

MIL-STD-1560C
w/CHANGE 2

Contacts (Insert arrangement 18-11)					
Contact position ID	Location		Contact position ID	Location	
	X-axis (mm)	Y-axis (mm)		X-axis (mm)	Y-axis (mm)
A	+.105 (2.67)	+.260 (6.60)	G	-.275 (6.99)	-.053 (1.35)
B	+.250 (6.35)	+.132 (3.35)	H	-.250 (6.35)	+.132 (3.35)
C	+.275 (6.99)	-.053 (1.35)	J	-.105 (2.67)	+.260 (6.60)
D	+.179 (4.55)	-.215 (5.46)	K	+.000 (0.00)	+.105 (2.67)
E	+.000 (0.00)	-.281 (7.14)	L	+.000 (0.00)	-.092 (2.34)
F	-.179 (4.55)	-.215 (5.46)	---	---	---

Shell size	Arrangement no.	Number of contacts	Size contacts	Service rating	Contact location	Supersedes
18	-11	11	16	II	All	MS27348-11

FIGURE 15. Insert arrangement, electrical connector, shell size 18 (series II of MIL-DTL-38999 and series II of MIL-DTL-27599).

MIL-STD-1560C
w/CHANGE 2

Contacts (Insert arrangement 18-28)					
Contact position ID	Location		Contact position ID	Location	
	X-axis (mm)	Y-axis (mm)		X-axis (mm)	Y-axis (mm)
A	+.066 (1.68)	+.353 (8.97)	R	-.286 (7.26)	+.217 (5.51)
B	+.189 (4.80)	+.305 (7.75)	S	-.189 (4.80)	+.305 (7.75)
C	+.286 (7.26)	+.217 (5.51)	T	-.066 (1.68)	+.353 (8.97)
D	+.345 (8.76)	+.098 (2.49)	U	+.000 (0.00)	+.230 (5.84)
E	+.357 (9.07)	-.033 (0.84)	V	+.124 (3.15)	+.193 (4.90)
F	+.321 (8.15)	-.160 (4.06)	W	+.209 (5.31)	+.095 (2.41)
G	+.242 (6.15)	-.265 (6.73)	X	+.228 (5.79)	-.033 (0.84)
H	+.130 (3.30)	-.335 (8.51)	Y	+.174 (4.42)	-.151 (3.84)
J	+.000 (0.00)	-.359 (9.12)	Z	+.000 (0.00)	-.191 (4.85)
K	-.130 (3.30)	-.335 (8.51)	a	-.174 (4.42)	-.151 (3.84)
L	-.242 (6.15)	-.265 (6.73)	b	-.228 (5.79)	-.033 (0.84)

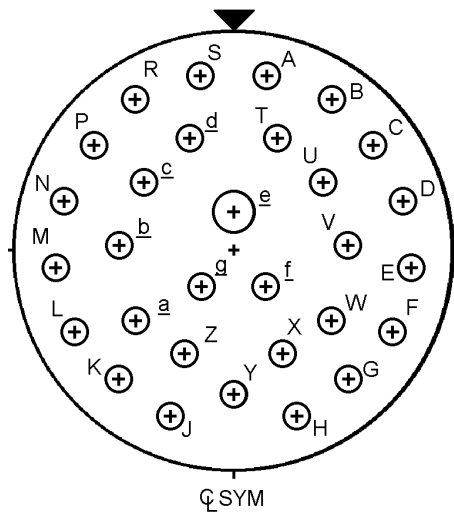
FIGURE 15. Insert arrangement, electrical connector, shell size 18 (series II of MIL-DTL-38999 and series II of MIL-DTL-27599) – Continued.

MIL-STD-1560C
w/CHANGE 2

Contacts (Insert arrangement 18-28)					
Contact position ID	Location		Contact position ID	Location	
	X-axis (mm)	Y-axis (mm)		X-axis (mm)	Y-axis (mm)
M	-.321 (8.15)	-.160 (4.06)	<u>c</u>	-.209 (5.31)	+.095 (2.41)
N	-.357 (9.07)	-.033 (0.84)	<u>d</u>	-.124 (3.15)	+.193 (4.90)
P	-.345 (8.76)	+.098 (2.49)	<u>e</u>	+.000 (0.00)	+.062 (1.57)

Shell size	Arrangement no.	Number of contacts	Size contacts	Service rating	Contact location	Supersedes
18	-28	2	16	I	<u>e, Z</u>	MS27348-28
		26	20		All others	

FIGURE 15. Insert arrangement, electrical connector, shell size 18 (series II of MIL-DTL-38999 and series II of MIL-DTL-27599) – Continued.

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w/CHANGE 2

Contacts (Insert arrangement 18-30)					
Contact position ID	Location		Contact position ID	Location	
	X-axis (mm)	Y-axis (mm)		X-axis (mm)	Y-axis (mm)
A	+.065 (1.65)	+.346 (8.79)	S	-.065 (1.65)	+.346 (8.79)
B	+.186 (4.72)	+.299 (7.59)	T	+.084 (2.13)	+.217 (5.51)
C	+.282 (7.16)	+.210 (5.33)	U	+.181 (4.60)	+.129 (3.28)
D	+.340 (8.64)	+.093 (2.36)	V	+.228 (5.79)	+.008 (0.20)
E	+.351 (8.92)	-.033 (0.84)	W	+.193 (4.90)	-.117 (2.97)
F	+.315 (8.00)	-.158 (4.01)	X	+.096 (2.44)	-.203 (5.16)
G	+.236 (5.99)	-.261 (6.63)	Y	+.000 (0.00)	-.290 (7.37)
H	+.124 (3.15)	-.330 (8.38)	Z	-.096 (2.44)	-.203 (5.16)
J	-.124 (3.15)	-.330 (8.38)	a	-.193 (4.90)	-.117 (2.97)
K	-.236 (5.99)	-.261 (6.63)	b	-.228 (5.79)	+.008 (0.20)
L	-.315 (8.00)	-.158 (4.01)	c	-.181 (4.60)	+.129 (3.28)
M	-.351 (8.92)	-.033 (0.84)	d	-.084 (2.13)	+.217 (5.51)

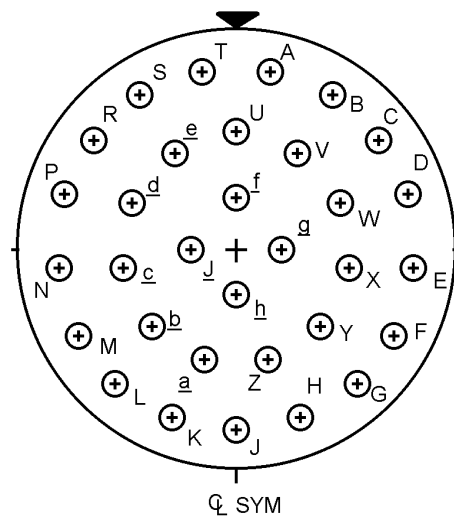
FIGURE 15. Insert arrangement, electrical connector, shell size 18 (series II of MIL-DTL-38999 and series II of MIL-DTL-27599) – Continued.

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w/CHANGE 2

Contacts (Insert arrangement 18-30)					
Contact position ID	Location		Contact position ID	Location	
	X-axis (mm)	Y-axis (mm)		X-axis (mm)	Y-axis (mm)
N	-.340 (8.64)	+.093 (2.36)	<u>e</u>	+.000 (0.00)	+.072 (1.83)
P	-.282 (7.16)	+.210 (5.33)	<u>f</u>	+.069 (1.75)	-.076 (1.93)
R	-.186 (4.72)	+.299 (7.59)	<u>g</u>	-.069 (1.75)	-.076 (1.93)

Shell size	Arrangement no.	Number of contacts	Size contacts	Service rating	Contact location	Supersedes
18	-30	1	16	I	<u>e</u>	MS27348-30
		29	20		All others	

FIGURE 15. Insert arrangement, electrical connector, shell size 18 (series II of MIL-DTL-38999 and series II of MIL-DTL-27599) – Continued.

MIL-STD-1560C
w/CHANGE 2

Contacts (Insert arrangement 18-32)					
Contact position ID	Location		Contact position ID	Location	
	X-axis (mm)	Y-axis (mm)		X-axis (mm)	Y-axis (mm)
A	+.066 (1.68)	+.353 (8.97)	T	-.066 (1.68)	+.353 (8.97)
B	+.189 (4.80)	+.305 (7.75)	U	+.000 (0.00)	+.230 (5.84)
C	+.286 (7.26)	+.217 (5.51)	V	+.124 (3.15)	+.193 (4.90)
D	+.345 (8.76)	+.098 (2.49)	W	+.209 (5.31)	+.095 (2.41)
E	+.357 (9.07)	-.033 (0.84)	X	+.228 (5.79)	-.033 (0.84)
F	+.321 (8.15)	-.160 (4.06)	Y	+.174 (4.42)	-.151 (3.84)
G	+.242 (6.15)	-.265 (6.73)	Z	+.065 (1.65)	-.221 (5.61)
H	+.130 (3.30)	-.335 (8.51)	a	-.065 (1.65)	-.221 (5.61)
J	+.000 (0.00)	-.359 (9.12)	b	-.174 (4.42)	-.151 (3.84)
K	-.130 (3.30)	-.335 (8.51)	c	-.228 (5.79)	-.033 (0.84)
L	-.242 (6.15)	-.265 (6.73)	d	-.209 (5.31)	+.095 (2.41)
M	-.321 (8.15)	-.160 (4.06)	e	-.124 (3.15)	+.193 (4.90)
N	-.357 (9.07)	-.033 (0.84)	f	+.000 (0.00)	+.096 (2.44)

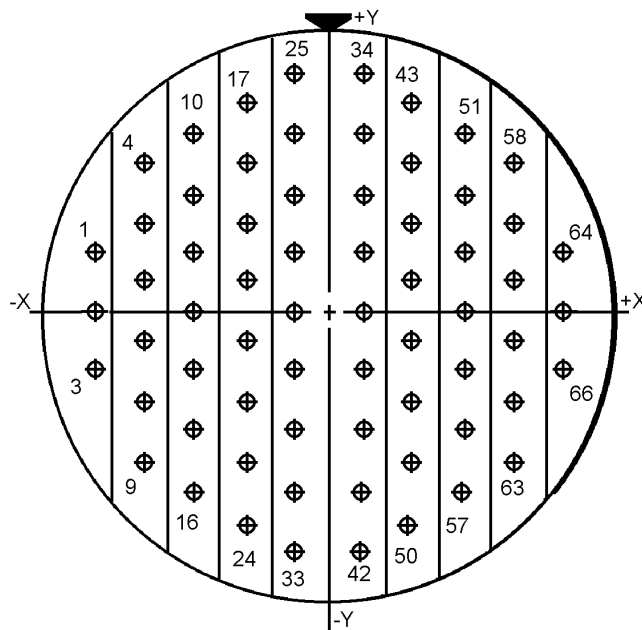
FIGURE 15. Insert arrangement, electrical connector, shell size 18 (series II of MIL-DTL-38999 and series II of MIL-DTL-27599) – Continued.

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w/CHANGE 2

Contacts (Insert arrangement 18-32)					
Contact position ID	Location		Contact position ID	Location	
	X-axis (mm)	Y-axis (mm)		X-axis (mm)	Y-axis (mm)
P	-.345 (8.76)	+.098 (2.49)	g	+.096 (2.44)	+.000 (0.00)
R	-.286 (7.26)	+.217 (5.51)	h	+.000 (0.00)	-.096 (2.44)
S	-.189 (4.80)	+.305 (7.75)	i	-.096 (2.44)	+.000 (0.00)

Shell size	Arrangement no.	Number of contacts	Size contacts	Service rating	Contact location	Supersedes
18	-32	32	20	I	All	MS27348-32

FIGURE 15. Insert arrangement, electrical connector, shell size 18 (series II of MIL-DTL-38999 and series II of MIL-DTL-27599) – Continued.

MIL-STD-1560C
w/CHANGE 2

Contacts (Insert arrangement 18-35)					
Contact position ID	Location		Contact position ID	Location	
	X-axis (mm)	Y-axis (mm)		X-axis (mm)	Y-axis (mm)
1	-.357 (9.07)	+.090 (2.29)	34	+.045 (1.14)	+.360 (9.14)
2	-.357 (9.07)	+.000 (0.00)	35	+.045 (1.14)	+.270 (6.86)
3	-.357 (9.07)	-.090 (2.29)	36	+.045 (1.14)	+.180 (4.57)
4	-.279 (7.09)	+.225 (5.72)	37	+.045 (1.14)	+.090 (2.29)
5	-.279 (7.09)	+.135 (3.43)	38	+.045 (1.14)	+.000 (0.00)
6	-.279 (7.09)	+.045 (1.14)	39	+.045 (1.14)	-.090 (2.29)
7	-.279 (7.09)	-.045 (1.14)	40	+.045 (1.14)	-.180 (4.57)
8	-.279 (7.09)	-.135 (3.43)	41	+.045 (1.14)	-.270 (6.86)
9	-.279 (7.09)	-.225 (5.72)	42	+.045 (1.14)	-.360 (9.14)
10	-.201 (5.11)	+.270 (6.86)	43	+.123 (3.12)	+.315 (8.00)
11	-.201 (5.11)	+.180 (4.57)	44	+.123 (3.12)	+.225 (5.72)
12	-.201 (5.11)	+.090 (2.29)	45	+.123 (3.12)	+.135 (3.43)
13	-.201 (5.11)	+.000 (0.00)	46	+.123 (3.12)	+.045 (1.14)
14	-.201 (5.11)	-.090 (2.29)	47	+.123 (3.12)	-.045 (1.14)
15	-.201 (5.11)	-.180 (4.57)	48	+.123 (3.12)	-.135 (3.43)

FIGURE 15. Insert arrangement, electrical connector, shell size 18 (series II of MIL-DTL-38999 and series II of MIL-DTL-27599) – Continued.

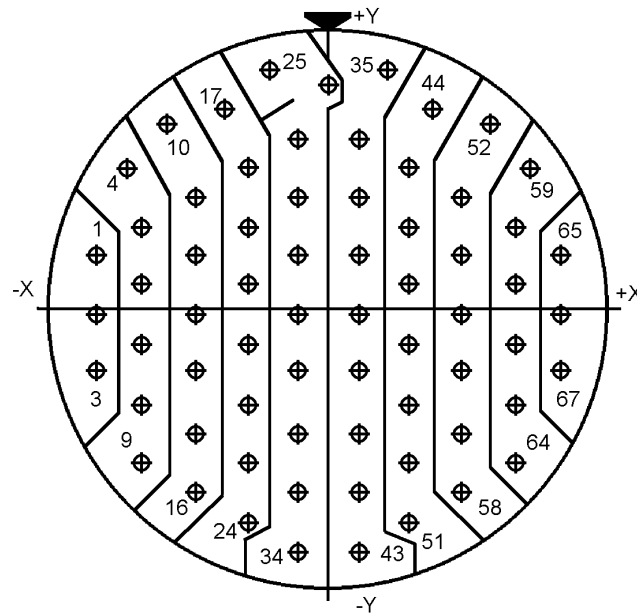
MIL-STD-1560C
w/CHANGE 2

Contacts (Insert arrangement 18-35)					
Contact position ID	Location		Contact position ID	Location	
	X-axis (mm)	Y-axis (mm)		X-axis (mm)	Y-axis (mm)
16	-.201 (5.11)	-.270 (6.86)	49	+.123 (3.12)	-.225 (5.72)
17	-.123 (3.12)	+.315 (8.00)	50	+.123 (3.12)	-.315 (8.00)
18	-.123 (3.12)	+.225 (5.72)	51	+.201 (5.11)	+.270 (6.86)
19	-.123 (3.12)	+.135 (3.43)	52	+.201 (5.11)	+.180 (4.57)
20	-.123 (3.12)	+.045 (1.14)	53	+.201 (5.11)	+.090 (2.29)
21	-.123 (3.12)	-.045 (1.14)	54	+.201 (5.11)	+.000 (0.00)
22	-.123 (3.12)	-.135 (3.43)	55	+.201 (5.11)	-.090 (2.29)
23	-.123 (3.12)	-.225 (5.72)	56	+.201 (5.11)	-.180 (4.57)
24	-.123 (3.12)	-.315 (8.00)	57	+.201 (5.11)	-.270 (6.86)
25	-.045 (1.14)	+.360 (9.14)	58	+.279 (7.09)	+.225 (5.72)
26	-.045 (1.14)	+.270 (6.86)	59	+.279 (7.09)	+.135 (3.43)
27	-.045 (1.14)	+.180 (4.57)	60	+.279 (7.09)	+.045 (1.14)
28	-.045 (1.14)	+.090 (2.29)	61	+.279 (7.09)	-.045 (1.14)
29	-.045 (1.14)	+.000 (0.00)	62	+.279 (7.09)	-.135 (3.43)
30	-.045 (1.14)	-.090 (2.29)	63	+.279 (7.09)	-.225 (5.72)
31	-.045 (1.14)	-.180 (4.57)	64	+.357 (9.07)	+.090 (2.29)
32	-.045 (1.14)	-.270 (6.86)	65	+.357 (9.07)	+.000 (0.00)
33	-.045 (1.14)	-.360 (9.14)	66	+.357 (9.07)	-.090 (2.29)

(Applicable to MIL-DTL-38999 only)

Shell size	Arrangement no.	Number of contacts	Size contacts	Service rating	Contact location	Supersedes
18	-35	66	22D	M	All	MS27521-35

FIGURE 15. Insert arrangement, electrical connector, shell size 18 (series II of MIL-DTL-38999 and series II of MIL-DTL-27599) – Continued.

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w/CHANGE 2

Contacts (Insert arrangement 18-45)					
Contact position ID	Location		Contact position ID	Location	
	X-axis (mm)	Y-axis (mm)		X-axis (mm)	Y-axis (mm)
1	-.357 (9.07)	+.081 (2.06)	35	+.088 (2.24)	+.360 (9.14)
2	-.357 (9.07)	-.009 (0.23)	36	+.045 (1.14)	+.261 (6.63)
3	-.357 (9.07)	-.099 (2.51)	37	+.045 (1.14)	+.171 (4.34)
4	-.304 (7.72)	+.213 (5.41)	38	+.045 (1.14)	+.081 (2.06)
5	-.279 (7.09)	+.126 (3.20)	39	+.045 (1.14)	-.009 (0.23)
6	-.279 (7.09)	+.036 (0.91)	40	+.045 (1.14)	-.099 (2.51)
7	-.279 (7.09)	-.054 (1.37)	41	+.045 (1.14)	-.189 (4.80)
8	-.279 (7.09)	-.144 (3.66)	42	+.045 (1.14)	-.279 (7.09)
9	-.279 (7.09)	-.234 (5.94)	43	+.045 (1.14)	-.369 (9.37)
10	-.244 (6.20)	+.280 (7.11)	44	+.156 (3.96)	+.301 (7.65)
11	-.201 (5.11)	+.171 (4.34)	45	+.123 (3.12)	+.216 (5.49)
12	-.201 (5.11)	+.081 (2.06)	46	+.123 (3.12)	+.126 (3.20)
13	-.201 (5.11)	-.009 (0.23)	47	+.123 (3.12)	+.036 (0.91)
14	-.201 (5.11)	-.099 (2.51)	48	+.123 (3.12)	-.054 (1.37)
15	-.201 (5.11)	-.189 (4.80)	49	+.123 (3.12)	-.144 (3.66)
16	-.201 (5.11)	-.279 (7.09)	50	+.123 (3.12)	-.234 (5.94)

FIGURE 15. Insert arrangement, electrical connector, shell size 18 (series II of MIL-DTL-38999 and series II of MIL-DTL-27599) – Continued.

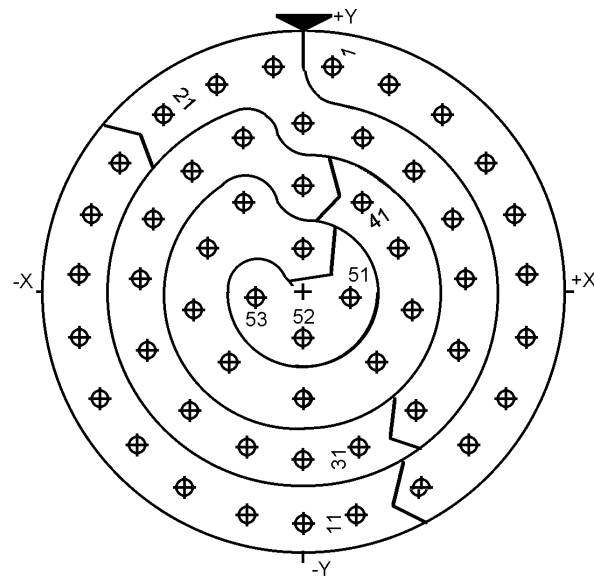
MIL-STD-1560C
w/CHANGE 2

Contacts (Insert arrangement 18-45)					
Contact position ID	Location		Contact position ID	Location	
	X-axis (mm)	Y-axis (mm)		X-axis (mm)	Y-axis (mm)
17	-.156 (3.96)	+.301 (7.65)	51	+.123 (3.12)	-.324 (8.23)
18	-.123 (3.12)	+.216 (5.49)	52	+.244 (6.20)	+.280 (7.11)
19	-.123 (3.12)	+.126 (3.20)	53	+.201 (5.11)	+.171 (4.34)
20	-.123 (3.12)	+.036 (0.91)	54	+.201 (5.11)	+.081 (2.06)
21	-.123 (3.12)	-.054 (1.37)	55	+.201 (5.11)	-.009 (0.23)
22	-.123 (3.12)	-.144 (3.66)	56	+.201 (5.11)	-.099 (2.51)
23	-.123 (3.12)	-.234 (5.94)	57	+.201 (5.11)	-.189 (4.80)
24	-.123 (3.12)	-.324 (8.23)	58	+.201 (5.11)	-.279 (7.09)
25	-.088 (2.24)	+.360 (9.14)	59	+.304 (7.72)	+.213 (5.41)
26	-.000 (0.00)	+.339 (8.61)	60	+.279 (7.09)	+.126 (3.20)
27	-.045 (1.14)	+.261 (6.63)	61	+.279 (7.09)	+.036 (0.91)
28	-.045 (1.14)	+.171 (4.34)	62	+.279 (7.09)	-.054 (1.37)
29	-.045 (1.14)	+.081 (2.06)	63	+.279 (7.09)	-.144 (3.66)
30	-.045 (1.14)	-.009 (0.23)	64	+.279 (7.09)	-.234 (5.94)
31	-.045 (1.14)	-.099 (2.51)	65	+.357 (9.07)	+.081 (2.06)
32	-.045 (1.14)	-.189 (4.80)	66	+.357 (9.07)	-.009 (0.23)
33	-.045 (1.14)	-.279 (7.09)	67	+.357 (9.07)	-.099 (2.51)
34	-.045 (1.14)	-.369 (9.37)	---	---	---

(Applicable to MIL-DTL-38999 only)

Shell size	Arrangement no.	Number of contacts	Size contacts	Service rating	Contact location	Supersedes
18	-45	67	22D	M	All	MS27521-45

FIGURE 15. Insert arrangement, electrical connector, shell size 18 (series II of MIL-DTL-38999 and series II of MIL-DTL-27599) – Continued.

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w/CHANGE 2

Contacts (Insert arrangement 18-53)					
Contact position ID	Location		Contact position ID	Location	
	X-axis (mm)	Y-axis (mm)		X-axis (mm)	Y-axis (mm)
1	+.050 (1.27)	+.364 (9.25)	28	+.266 (6.76)	+.018 (0.46)
2	+.146 (3.71)	+.336 (8.53)	29	+.260 (6.60)	-.094 (2.39)
3	+.232 (5.89)	+.284 (7.21)	30	+.184 (4.67)	-.195 (4.95)
4	+.301 (7.65)	+.212 (5.38)	31	+.099 (2.51)	-.252 (6.40)
5	+.347 (8.81)	+.123 (3.12)	32	+.000 (0.00)	-.268 (6.81)
6	+.367 (9.32)	+.025 (0.64)	33	-.099 (2.51)	-.252 (6.40)
7	+.360 (9.14)	-.075 (1.91)	34	-.184 (4.67)	-.195 (4.95)
8	+.328 (8.33)	-.170 (4.32)	35	-.260 (6.60)	-.094 (2.39)
9	+.269 (6.83)	-.251 (6.38)	36	-.266 (6.76)	+.018 (0.46)
10	+.191 (4.85)	-.314 (7.98)	37	-.245 (6.22)	+.116 (2.95)
11	+.099 (2.51)	-.354 (8.99)	38	-.183 (4.65)	+.195 (4.95)
12	+.000 (0.00)	-.368 (9.35)	39	-.096 (2.44)	+.248 (6.30)
13	-.099 (2.51)	-.354 (8.99)	40	+.000 (0.00)	+.176 (4.47)
14	-.191 (4.85)	-.314 (7.98)	41	+.096 (2.44)	+.145 (3.68)
15	-.269 (6.83)	-.251 (6.38)	42	+.158 (4.01)	+.068 (1.73)
16	-.328 (8.33)	-.170 (4.32)	43	+.178 (4.52)	-.032 (0.81)

FIGURE 15. Insert arrangement, electrical connector, shell size 18 (series II of MIL-DTL-38999 and series II of MIL-DTL-27599) – Continued.

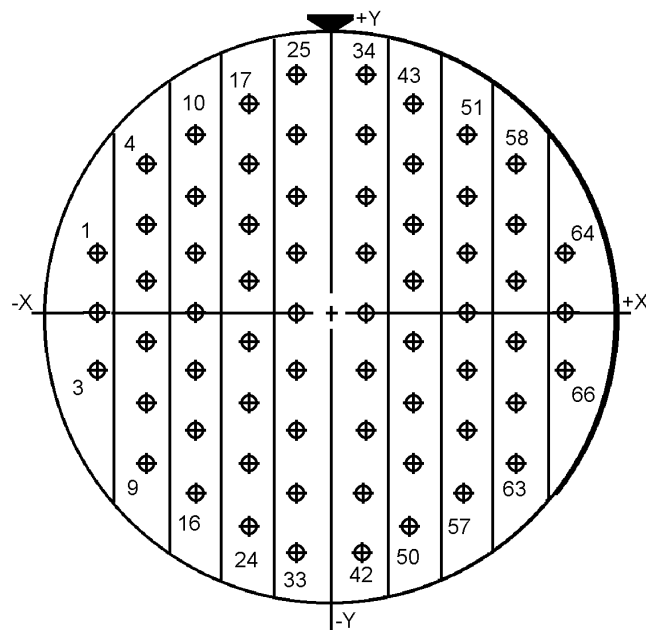
MIL-STD-1560C
w/CHANGE 2

Contacts (Insert arrangement 18-53)					
Contact position ID	Location		Contact position ID	Location	
	X-axis (mm)	Y-axis (mm)		X-axis (mm)	Y-axis (mm)
17	-.360 (9.14)	-.075 (1.91)	44	+.120 (3.05)	-.114 (2.90)
18	-.367 (9.32)	+.025 (0.64)	45	+.000 (0.00)	-.168 (4.27)
19	-.347 (8.81)	+.123 (3.12)	46	-.120 (3.05)	-.114 (2.90)
20	-.301 (7.65)	+.212 (5.38)	47	-.178 (4.52)	-.032 (0.81)
21	-.232 (5.89)	+.284 (7.21)	48	-.158 (4.01)	+.068 (1.73)
22	-.146 (3.71)	+.336 (8.53)	49	-.096 (2.44)	+.145 (3.68)
23	-.050 (1.27)	+.364 (9.25)	50	+.000 (0.00)	+.076 (1.93)
24	+.000 (0.00)	+.276 (7.01)	51	+.080 (2.03)	-.002 (0.05)
25	+.096 (2.44)	+.248 (6.30)	52	+.000 (0.00)	-.068 (1.73)
26	+.183 (4.65)	+.195 (4.95)	53	-.080 (2.03)	-.002 (0.05)
27	+.245 (6.22)	+.116 (2.95)	---	---	---

(Inactive for new design for MIL-DTL-38999)

Shell size	Arrangement no.	Number of contacts	Size contacts	Service rating	Contact location	Supersedes
18	-53	53	22	M	All	MS27348-53

FIGURE 15. Insert arrangement, electrical connector, shell size 18 (series II of MIL-DTL-38999 and series II of MIL-DTL-27599) – Continued.

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w/CHANGE 2

Contacts (Insert arrangement 18-66)					
Contact position ID	Location		Contact position ID	Location	
	X-axis (mm)	Y-axis (mm)		X-axis (mm)	Y-axis (mm)
1	-.357 (9.07)	+.090 (2.29)	34	+.045 (1.14)	+.360 (9.14)
2	-.357 (9.07)	+.000 (0.00)	35	+.045 (1.14)	+.270 (6.86)
3	-.357 (9.07)	-.090 (2.29)	36	+.045 (1.14)	+.180 (4.57)
4	-.279 (7.09)	+.225 (5.72)	37	+.045 (1.14)	+.090 (2.29)
5	-.279 (7.09)	+.135 (3.43)	38	+.045 (1.14)	+.000 (0.00)
6	-.279 (7.09)	+.045 (1.14)	39	+.045 (1.14)	-.090 (2.29)
7	-.279 (7.09)	-.045 (1.14)	40	+.045 (1.14)	-.180 (4.57)
8	-.279 (7.09)	-.135 (3.43)	41	+.045 (1.14)	-.270 (6.86)
9	-.279 (7.09)	-.225 (5.72)	42	+.045 (1.14)	-.360 (9.14)
10	-.201 (5.11)	+.270 (6.86)	43	+.123 (3.12)	+.315 (8.00)
11	-.201 (5.11)	+.180 (4.57)	44	+.123 (3.12)	+.225 (5.72)
12	-.201 (5.11)	+.090 (2.29)	45	+.123 (3.12)	+.135 (3.43)
13	-.201 (5.11)	+.000 (0.00)	46	+.123 (3.12)	+.045 (1.14)
14	-.201 (5.11)	-.090 (2.29)	47	+.123 (3.12)	-.045 (1.14)
15	-.201 (5.11)	-.180 (4.57)	48	+.123 (3.12)	-.135 (3.43)
16	-.201 (5.11)	-.270 (6.86)	49	+.123 (3.12)	-.225 (5.72)

FIGURE 15. Insert arrangement, electrical connector, shell size 18 (series II of MIL-DTL-38999 and series II of MIL-DTL-27599) – Continued.

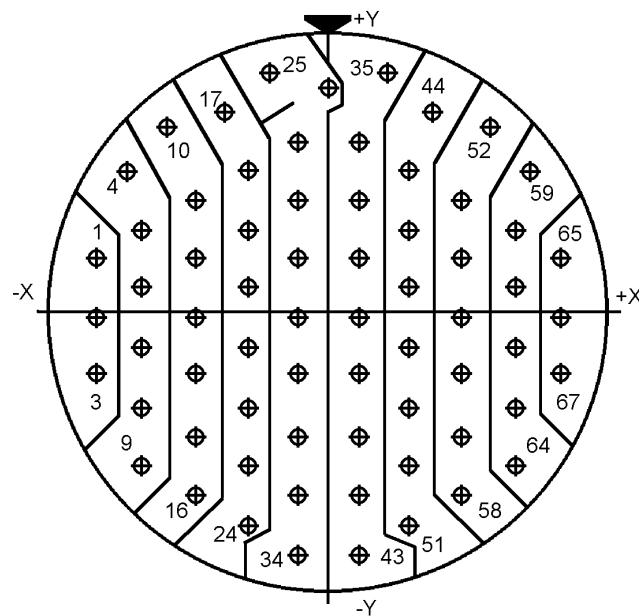
MIL-STD-1560C
w/CHANGE 2

Contacts (Insert arrangement 18-66)					
Contact position ID	Location		Contact position ID	Location	
	X-axis (mm)	Y-axis (mm)		X-axis (mm)	Y-axis (mm)
17	-.123 (3.12)	+.315 (8.00)	50	+.123 (3.12)	-.315 (8.00)
18	-.123 (3.12)	+.225 (5.72)	51	+.201 (5.11)	+.270 (6.86)
19	-.123 (3.12)	+.135 (3.43)	52	+.201 (5.11)	+.180 (4.57)
20	-.123 (3.12)	+.045 (1.14)	53	+.201 (5.11)	+.090 (2.29)
21	-.123 (3.12)	-.045 (1.14)	54	+.201 (5.11)	+.000 (0.00)
22	-.123 (3.12)	-.135 (3.43)	55	+.201 (5.11)	-.090 (2.29)
23	-.123 (3.12)	-.225 (5.72)	56	+.201 (5.11)	-.180 (4.57)
24	-.123 (3.12)	-.315 (8.00)	57	+.201 (5.11)	-.270 (6.86)
25	-.045 (1.14)	+.360 (9.14)	58	+.279 (7.09)	+.225 (5.72)
26	-.045 (1.14)	+.270 (6.86)	59	+.279 (7.09)	+.135 (3.43)
27	-.045 (1.14)	+.180 (4.57)	60	+.279 (7.09)	+.045 (1.14)
28	-.045 (1.14)	+.090 (2.29)	61	+.279 (7.09)	-.045 (1.14)
29	-.045 (1.14)	+.000 (0.00)	62	+.279 (7.09)	-.135 (3.43)
30	-.045 (1.14)	-.090 (2.29)	63	+.279 (7.09)	-.225 (5.72)
31	-.045 (1.14)	-.180 (4.57)	64	+.357 (9.07)	+.090 (2.29)
32	-.045 (1.14)	-.270 (6.86)	65	+.357 (9.07)	+.000 (0.00)
33	-.045 (1.14)	-.360 (9.14)	66	+.357 (9.07)	-.090 (2.29)

(Inactive for new design for MIL-DTL-38999)

Shell size	Arrangement no.	Number of contacts	Size contacts	Service rating	Contact location	Supersedes
18	-66	66	22M	M	All	MS27348-66

FIGURE 15. Insert arrangement, electrical connector, shell size 18 (series II of MIL-DTL-38999 and series II of MIL-DTL-27599) – Continued.

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w/CHANGE 2

Contacts (Insert arrangement 18-67)					
Contact position ID	Location		Contact position ID	Location	
	X-axis (mm)	Y-axis (mm)		X-axis (mm)	Y-axis (mm)
1	-.357 (9.07)	+.081 (2.06)	35	+.088 (2.24)	+.360 (9.14)
2	-.357 (9.07)	-.009 (0.23)	36	+.045 (1.14)	+.261 (6.63)
3	-.357 (9.07)	-.099 (2.51)	37	+.045 (1.14)	+.171 (4.34)
4	-.304 (7.72)	+.213 (5.41)	38	+.045 (1.14)	+.081 (2.06)
5	-.279 (7.09)	+.126 (3.20)	39	+.045 (1.14)	-.009 (0.23)
6	-.279 (7.09)	+.036 (0.91)	40	+.045 (1.14)	-.099 (2.51)
7	-.279 (7.09)	-.054 (1.37)	41	+.045 (1.14)	-.189 (4.80)
8	-.279 (7.09)	-.144 (3.66)	42	+.045 (1.14)	-.279 (7.09)
9	-.279 (7.09)	-.234 (5.94)	43	+.045 (1.14)	-.369 (9.37)
10	-.244 (6.20)	+.280 (7.11)	44	+.156 (3.96)	+.301 (7.65)
11	-.201 (5.11)	+.171 (4.34)	45	+.123 (3.12)	+.216 (5.49)
12	-.201 (5.11)	+.081 (2.06)	46	+.123 (3.12)	+.126 (3.20)
13	-.201 (5.11)	-.009 (0.23)	47	+.123 (3.12)	+.036 (0.91)
14	-.201 (5.11)	-.099 (2.51)	48	+.123 (3.12)	-.054 (1.37)
15	-.201 (5.11)	-.189 (4.80)	49	+.123 (3.12)	-.144 (3.66)

FIGURE 15. Insert arrangement, electrical connector, shell size 18 (series II of MIL-DTL-38999 and series II of MIL-DTL-27599) – Continued.

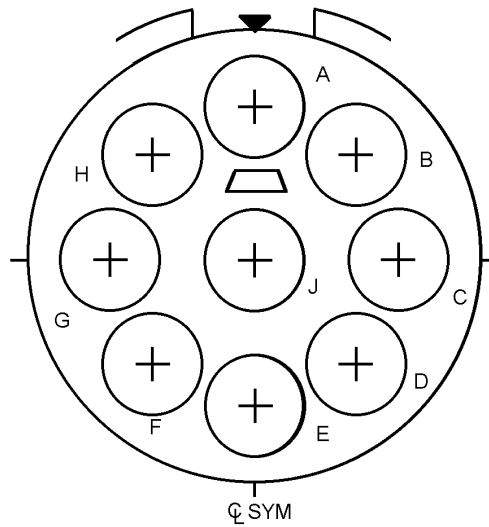
MIL-STD-1560C
w/CHANGE 2

Contacts (Insert arrangement 18-67)					
Contact position ID	Location		Contact position ID	Location	
	X-axis (mm)	Y-axis (mm)		X-axis (mm)	Y-axis (mm)
16	-.201 (5.11)	-.279 (7.09)	50	+.123 (3.12)	-.234 (5.94)
17	-.156 (3.96)	+.301 (7.65)	51	+.123 (3.12)	-.324 (8.23)
18	-.123 (3.12)	+.216 (5.49)	52	+.244 (6.20)	+.280 (7.11)
19	-.123 (3.12)	+.126 (3.20)	53	+.201 (5.11)	+.171 (4.34)
20	-.123 (3.12)	+.036 (0.91)	54	+.201 (5.11)	+.081 (2.06)
21	-.123 (3.12)	-.054 (1.37)	55	+.201 (5.11)	-.009 (0.23)
22	-.123 (3.12)	-.144 (3.66)	56	+.201 (5.11)	-.099 (2.51)
23	-.123 (3.12)	-.234 (5.94)	57	+.201 (5.11)	-.189 (4.80)
24	-.123 (3.12)	-.324 (8.23)	58	+.201 (5.11)	-.279 (7.09)
25	-.088 (2.24)	+.360 (9.14)	59	+.304 (7.72)	+.213 (5.41)
26	-.000 (0.00)	+.339 (8.61)	60	+.279 (7.09)	+.126 (3.20)
27	-.045 (1.14)	+.261 (6.63)	61	+.279 (7.09)	+.036 (0.91)
28	-.045 (1.14)	+.171 (4.34)	62	+.279 (7.09)	-.054 (1.37)
29	-.045 (1.14)	+.081 (2.06)	63	+.279 (7.09)	-.144 (3.66)
30	-.045 (1.14)	-.009 (0.23)	64	+.279 (7.09)	-.234 (5.94)
31	-.045 (1.14)	-.099 (2.51)	65	+.357 (9.07)	+.081 (2.06)
32	-.045 (1.14)	-.189 (4.80)	66	+.357 (9.07)	-.009 (0.23)
33	-.045 (1.14)	-.279 (7.09)	67	+.357 (9.07)	-.099 (2.51)
34	-.045 (1.14)	-.369 (9.37)	---	---	---

(Inactive for new design for MIL-DTL-38999)

Shell size	Arrangement no.	Number of contacts	Size contacts	Service rating	Contact location	Supersedes
18	-67	67	22M	M	All	MS27348-67

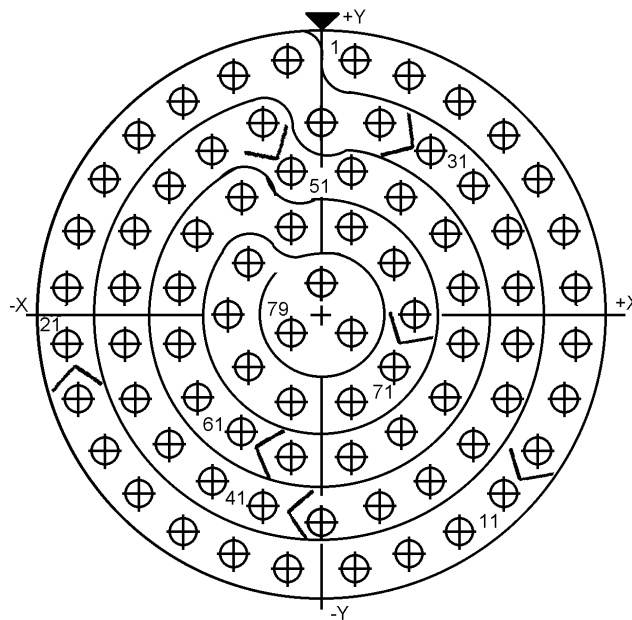
FIGURE 15. Insert arrangement, electrical connector, shell size 18 (series II of MIL-DTL-38999 and series II of MIL-DTL-27599) – Continued.

MIL-STD-1560C
w/CHANGE 2

Contacts (Insert arrangement 18-96)					
Contact position ID	Location		Contact position ID	Location	
	X-axis (mm)	Y-axis (mm)		X-axis (mm)	Y-axis (mm)
A	+.000 (0.00)	+.301 (7.65)	F	-.213 (5.41)	-.213 (5.41)
B	+.213 (5.41)	+.213 (5.41)	G	-.301 (7.65)	+.000 (0.00)
C	+.301 (7.65)	+.000 (0.00)	H	-.213 (5.41)	+.213 (5.41)
D	+.213 (5.41)	-.213 (5.41)	J	+.000 (0.00)	+.000 (0.00)
E	+.000 (0.00)	-.301 (7.65)	---	---	---

Shell size	Arrangement no.	Number of contacts	Size contacts	Service rating	Contact location
18	-96	9	12	I	All

FIGURE 15. Insert arrangement, electrical connector, shell size 18 (series II of MIL-DTL-38999 and series II of MIL-DTL-27599) – Continued.

MIL-STD-1560C
w/CHANGE 2

Contacts (Insert arrangement 20-1)					
Contact position ID	Location		Contact position ID	Location	
	X-axis (mm)	Y-axis (mm)		X-axis (mm)	Y-axis (mm)
1	+.053 (1.35)	+.426 (10.82)	41	-.098 (2.49)	-.322 (8.18)
2	+.146 (3.71)	+.404 (10.26)	42	-.184 (4.67)	-.280 (7.11)
3	+.232 (5.89)	+.362 (9.19)	43	-.258 (6.55)	-.220 (5.59)
4	+.306 (7.77)	+.302 (7.67)	44	-.311 (7.90)	-.141 (3.58)
5	+.365 (9.27)	+.227 (5.77)	45	-.332 (8.43)	-.048 (1.22)
6	+.406 (10.31)	+.141 (3.58)	46	-.332 (8.43)	+.048 (1.22)
7	+.427 (10.85)	+.048 (1.22)	47	-.311 (7.90)	+.141 (3.58)
8	+.427 (10.85)	-.048 (1.22)	48	-.258 (6.55)	+.220 (5.59)
9	+.406 (10.31)	-.141 (3.58)	49	-.184 (4.67)	+.280 (7.11)
10	+.365 (9.27)	-.227 (5.77)	50	-.098 (2.49)	+.322 (8.18)
11	+.306 (7.77)	-.302 (7.67)	51	-.048 (1.22)	+.241 (6.12)
12	+.232 (5.89)	-.362 (9.19)	52	+.048 (1.22)	+.241 (6.12)
13	+.146 (3.71)	-.404 (10.26)	53	+.134 (3.40)	+.199 (5.05)
14	+.053 (1.35)	-.426 (10.82)	54	+.208 (5.28)	+.139 (3.53)
15	-.053 (1.35)	-.426 (10.82)	55	+.237 (6.02)	+.048 (1.22)

FIGURE 16. Insert arrangement, electrical connector, shell size 20 (series II of MIL-DTL-38999 and series II of MIL-DTL-27599).

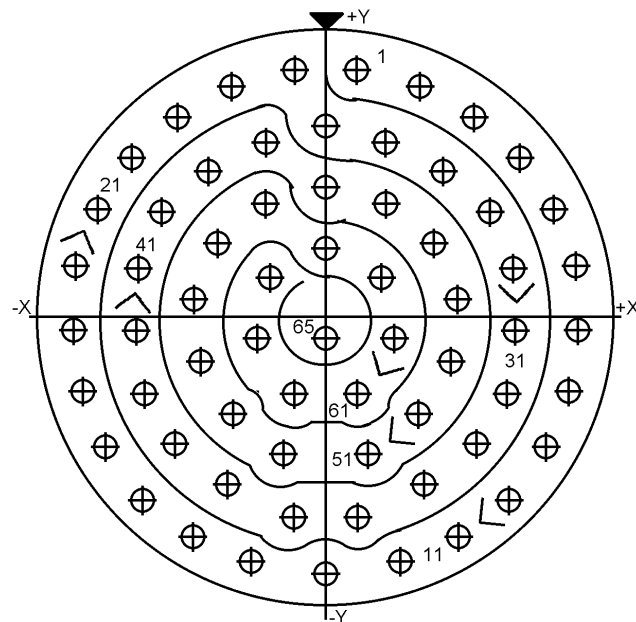
MIL-STD-1560C
w/CHANGE 2

Contacts (Insert arrangement 20-1)					
Contact position ID	Location		Contact position ID	Location	
	X-axis (mm)	Y-axis (mm)		X-axis (mm)	Y-axis (mm)
16	-.146 (3.71)	-.404 (10.26)	56	+.237 (6.02)	-.048 (1.22)
17	-.232 (5.89)	-.362 (9.19)	57	+.208 (5.28)	-.139 (3.53)
18	-.306 (7.77)	-.302 (7.67)	58	+.134 (3.40)	-.199 (5.05)
19	-.365 (9.27)	-.227 (5.77)	59	+.048 (1.22)	-.241 (6.12)
20	-.406 (10.31)	-.141 (3.58)	60	-.048 (1.22)	-.241 (6.12)
21	-.427 (10.85)	-.048 (1.22)	61	-.134 (3.40)	-.199 (5.05)
22	-.427 (10.85)	+.048 (1.22)	62	-.208 (5.28)	-.139 (3.53)
23	-.406 (10.31)	+.141 (3.58)	63	-.237 (6.02)	-.048 (1.22)
24	-.365 (9.27)	+.227 (5.77)	64	-.237 (6.02)	+.048 (1.22)
25	-.306 (7.77)	+.302 (7.67)	65	-.208 (5.28)	+.139 (3.53)
26	-.232 (5.89)	+.362 (9.19)	66	-.134 (3.40)	+.199 (5.05)
27	-.146 (3.71)	+.404 (10.26)	67	-.048 (1.22)	+.146 (3.71)
28	-.053 (1.35)	+.426 (10.82)	68	+.048 (1.22)	+.146 (3.71)
29	+.000 (0.00)	+.323 (8.20)	69	+.125 (3.18)	+.090 (2.29)
30	+.098 (2.49)	+.322 (8.18)	70	+.155 (3.94)	+.000 (0.00)
31	+.184 (4.67)	+.280 (7.11)	71	+.125 (3.18)	-.090 (2.29)
32	+.258 (6.55)	+.220 (5.59)	72	+.048 (1.22)	-.146 (3.71)
33	+.311 (7.90)	+.141 (3.58)	73	-.048 (1.22)	-.146 (3.71)
34	+.332 (8.43)	+.048 (1.22)	74	-.125 (3.18)	-.090 (2.29)
35	+.332 (8.43)	-.048 (1.22)	75	-.155 (3.94)	+.000 (0.00)
36	+.311 (7.90)	-.141 (3.58)	76	-.125 (3.18)	+.090 (2.29)
37	+.258 (6.55)	-.220 (5.59)	77	+.000 (0.00)	+.053 (1.35)
38	+.184 (4.67)	-.280 (7.11)	78	+.048 (1.22)	-.029 (0.74)
39	+.098 (2.49)	-.322 (8.18)	79	-.048 (1.22)	-.029 (0.74)
40	+.000 (0.00)	-.347 (8.81)	---	---	---

(Inactive for new design for MIL-DTL-38999)

Shell size	Arrangement no.	Number of contacts	Size contacts	Service rating	Contact location	Supersedes
20	-1	79	22M	M	All	MS27349-1

FIGURE 16. Insert arrangement, electrical connector, shell size 20 (series II of MIL-DTL-38999 and series II of MIL-DTL-27599) – Continued.

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w/CHANGE 2

Contacts (Insert arrangement 20-2)					
Contact position ID	Location		Contact position ID	Location	
	X-axis (mm)	Y-axis (mm)		X-axis (mm)	Y-axis (mm)
1	+.052 (1.32)	+.424 (10.77)	34	+.165 (4.19)	-.273 (6.93)
2	+.154 (3.91)	+.399 (10.13)	35	+.053 (1.35)	-.331 (8.41)
3	+.246 (6.25)	+.348 (8.84)	36	-.053 (1.35)	-.331 (8.41)
4	+.326 (8.28)	+.280 (7.11)	37	-.165 (4.19)	-.273 (6.93)
5	+.382 (9.70)	+.191 (4.85)	38	-.252 (6.40)	-.210 (5.33)
6	+.417 (10.59)	+.092 (2.34)	39	-.305 (7.75)	-.119 (3.02)
7	+.425 (10.80)	-.013 (.33)	40	-.320 (8.13)	-.015 (0.38)
8	+.410 (10.41)	-.117 (2.97)	41	-.312 (7.92)	+.090 (2.29)
9	+.370 (9.40)	-.214 (5.44)	42	-.274 (6.96)	+.188 (4.78)
10	+.308 (7.82)	-.299 (7.59)	43	-.194 (4.93)	+.256 (6.50)
11	+.224 (5.69)	-.362 (9.19)	44	-.102 (2.59)	+.307 (7.80)
12	+.128 (3.25)	-.405 (10.29)	45	+.000 (0.00)	+.227 (5.77)
13	+.000 (0.00)	-.422 (10.72)	46	+.102 (2.59)	+.202 (5.13)
14	-.128 (3.25)	-.405 (10.29)	47	+.183 (4.65)	+.135 (3.43)
15	-.224 (5.69)	-.362 (9.19)	48	+.220 (5.59)	+.037 (0.94)
16	-.308 (7.82)	-.299 (7.59)	49	+.213 (5.41)	-.068 (1.73)
17	-.370 (9.40)	-.214 (5.44)	50	+.158 (4.01)	-.158 (4.01)
18	-.410 (10.41)	-.117 (2.97)	51	+.072 (1.83)	-.224 (5.69)
19	-.425 (10.80)	-.013 (0.33)	52	-.072 (1.83)	-.224 (5.69)

FIGURE 16. Insert arrangement, electrical connector, shell size 20 (series II of MIL-DTL-38999 and series II of MIL-DTL-27599) – Continued.

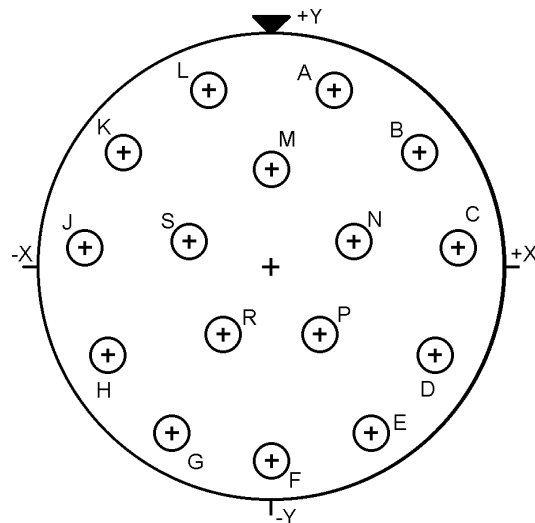
MIL-STD-1560C
w/CHANGE 2

Contacts (Insert arrangement 20-2)					
Contact position ID	Location		Contact position ID	Location	
	X-axis (mm)	Y-axis (mm)		X-axis (mm)	Y-axis (mm)
20	-.417 (10.59)	+.092 (2.34)	53	-.158 (4.01)	-.158 (4.01)
21	-.382 (9.70)	+.191 (4.85)	54	-.213 (5.41)	-.068 (1.73)
22	-.326 (8.28)	+.280 (7.11)	55	-.220 (5.59)	+.037 (0.94)
23	-.246 (6.25)	+.348 (8.84)	56	-.183 (4.65)	+.135 (3.43)
24	-.154 (3.91)	+.399 (10.13)	57	-.102 (2.59)	+.202 (5.13)
25	-.052 (1.32)	+.424 (10.77)	58	+.000 (0.00)	+.122 (3.10)
26	+.000 (0.00)	+.332 (8.43)	59	+.095 (2.41)	+.075 (1.91)
27	+.102 (2.59)	+.307 (7.80)	60	+.115 (2.92)	-.029 (0.74)
28	+.194 (4.93)	+.256 (6.50)	61	+.056 (1.42)	-.120 (3.05)
29	+.274 (6.96)	+.188 (4.78)	62	-.056 (1.42)	-.120 (3.05)
30	+.312 (7.92)	+.090 (2.29)	63	-.115 (2.92)	-.029 (0.74)
31	+.320 (8.13)	-.015 (0.38)	64	-.095 (2.41)	+.075 (1.91)
32	+.305 (7.75)	-.119 (3.02)	65	+.000 (0.00)	-.029 (0.74)
33	+.252 (6.40)	-.210 (5.33)	---	---	---

(Inactive for new design for MIL-DTL-38999)

Shell size	Arrangement no.	Number of contacts	Size contacts	Service rating	Contact location	Supersedes
20	-2	65	22	M	All	MS27349-2

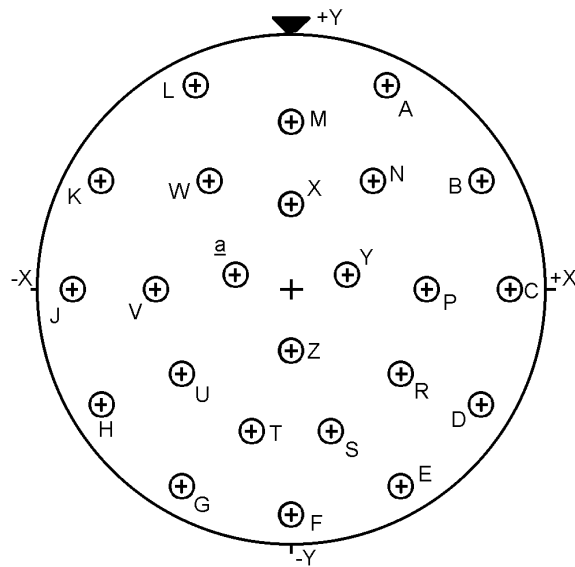
FIGURE 16. Insert arrangement, electrical connector, shell size 20 (series II of MIL-DTL-38999 and series II of MIL-DTL-27599) – Continued.

MIL-STD-1560C
w/CHANGE 2

Contacts (Insert arrangement 20-16)					
Contact position ID	Location		Contact position ID	Location	
	X-axis (mm)	Y-axis (mm)		X-axis (mm)	Y-axis (mm)
A	+.118 (3.00)	+.322 (8.18)	J	-.341 (8.66)	+.036 (0.91)
B	+.271 (6.88)	+.211 (5.36)	K	-.271 (6.88)	+.211 (5.36)
C	+.341 (8.66)	+.036 (0.91)	L	-.118 (3.00)	+.322 (8.18)
D	+.308 (7.82)	-.150 (3.81)	M	+.000 (0.00)	+.175 (4.45)
E	+.182 (4.62)	-.290 (7.37)	N	+.154 (3.91)	+.062 (1.57)
F	+.000 (0.00)	-.343 (8.71)	P	+.094 (2.39)	-.122 (3.10)
G	-.182 (4.62)	-.290 (7.37)	R	-.094 (2.39)	-.122 (3.10)
H	-.308 (7.82)	-.150 (3.81)	S	-.154 (3.91)	+.062 (1.57)

Shell size	Arrangement no.	Number of contacts	Size contacts	Service rating	Contact location	Supersedes
20	-16	16	16	II	All	MS27349-16

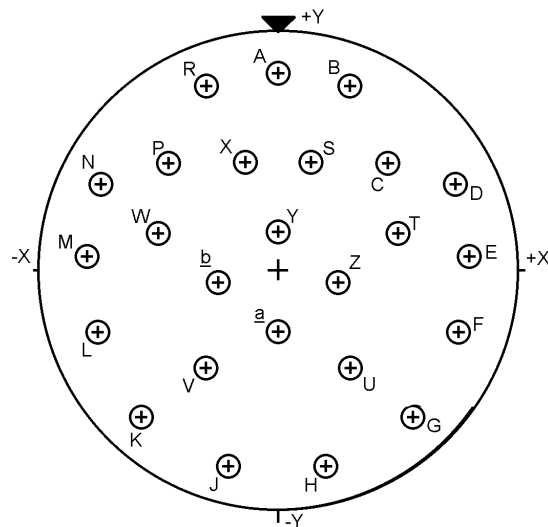
FIGURE 16. Insert arrangement, electrical connector, shell size 20 (series II of MIL-DTL-38999 and series II of MIL-DTL-27599) – Continued.

MIL-STD-1560C
w/CHANGE 2

Contacts (Insert arrangement 20-24)					
Contact position ID	Location		Contact position ID	Location	
	X-axis (mm)	Y-axis (mm)		X-axis (mm)	Y-axis (mm)
A	+.175 (4.45)	+.375 (9.53)	N	+.150 (3.81)	+.200 (5.08)
B	+.350 (8.89)	+.200 (5.08)	P	+.250 (6.35)	+.000 (0.00)
C	+.400 (10.16)	+.000 (0.00)	R	+.200 (5.08)	-.150 (3.81)
D	+.350 (8.89)	-.200 (5.08)	S	+.075 (1.91)	-.250 (6.35)
E	+.200 (5.08)	-.350 (8.89)	T	-.075 (1.91)	-.250 (6.35)
F	+.000 (0.00)	-.400 (10.16)	U	-.200 (5.08)	-.150 (3.81)
G	-.200 (5.08)	-.350 (8.89)	V	-.250 (6.35)	+.000 (0.00)
H	-.350 (8.89)	-.200 (5.08)	W	-.150 (3.81)	+.200 (5.08)
J	-.400 (10.16)	+.000 (0.00)	X	+.000 (0.00)	+.150 (3.81)
K	-.350 (8.89)	+.200 (5.08)	Y	+.100 (2.54)	+.025 (0.64)
L	-.175 (4.45)	+.375 (9.53)	Z	+.000 (0.00)	-.100 (2.54)
M	+.000 (0.00)	+.300 (7.62)	a	-.100 (2.54)	+.025 (.64)

Shell size	Arrangement no.	Number of contacts	Size contacts	Service rating	Contact location	Supersedes
20	-24	24	20	I	All	MS27349-24

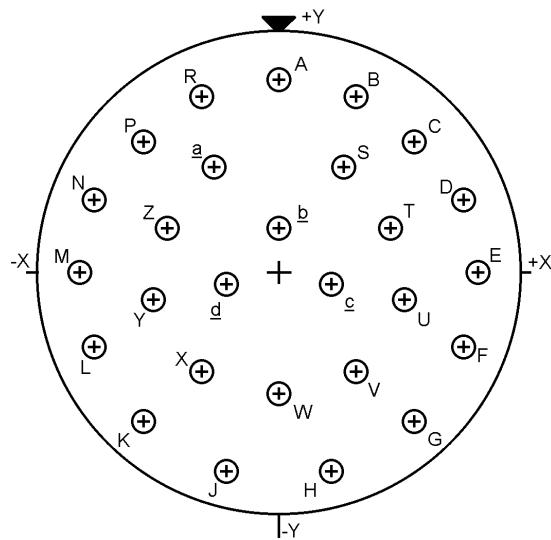
FIGURE 16. Insert arrangement, electrical connector, shell size 20 (series II of MIL-DTL-38999 and series II of MIL-DTL-27599) – Continued.

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w/CHANGE 2

Contacts (Insert arrangement 20-25)					
Contact position ID	Location		Contact position ID	Location	
	X-axis (mm)	Y-axis (mm)		X-axis (mm)	Y-axis (mm)
A	+.000 (0.00)	+.400 (10.16)	P	-.225 (5.72)	+.225 (5.72)
B	+.150 (3.81)	+.375 (9.53)	R	-.150 (3.81)	+.375 (9.53)
C	+.225 (5.72)	+.225 (5.72)	S	+.075 (1.91)	+.225 (5.72)
D	+.375 (9.53)	+.175 (4.45)	T	+.250 (6.35)	+.075 (1.91)
E	+.400 (10.16)	+.025 (0.64)	U	+.150 (3.81)	-.200 (5.08)
F	+.375 (9.53)	-.125 (3.18)	V	-.150 (3.81)	-.200 (5.08)
G	+.275 (6.99)	-.300 (7.62)	W	-.250 (6.35)	+.075 (1.91)
H	+.100 (2.54)	-.400 (10.16)	X	-.075 (1.91)	+.225 (5.72)
J	-.100 (2.54)	-.400 (10.16)	Y	+.000 (0.00)	+.075 (1.91)
K	-.275 (6.99)	-.300 (7.62)	Z	+.125 (3.18)	-.025 (0.64)
L	-.375 (9.53)	-.125 (3.18)	a	+.000 (0.00)	-.125 (3.18)
M	-.400 (10.16)	+.025 (0.64)	b	-.125 (3.18)	-.025 (0.64)
N	-.375 (9.53)	+.175 (4.45)	---	---	---

Shell size	Arrangement no.	Number of contacts	Size contacts	Service rating	Contact location	Supersedes
20	-25	25	20	I	All	MS27349-25

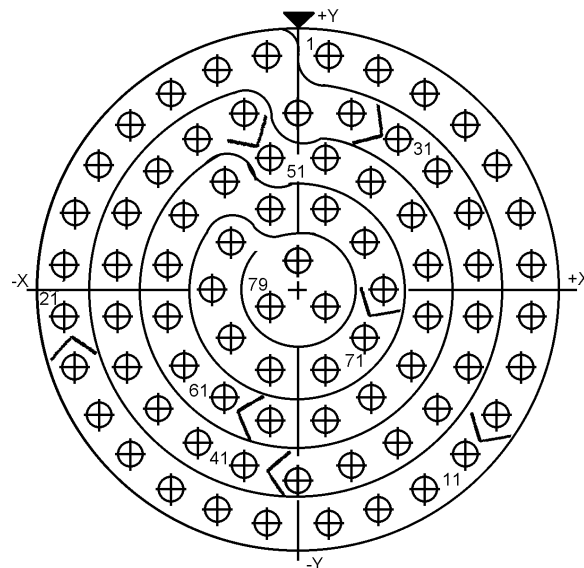
FIGURE 16. Insert arrangement, electrical connector, shell size 20 (series II of MIL-DTL-38999 and series II of MIL-DTL-27599) – Continued.

MIL-STD-1560C
w/CHANGE 2

Contacts (Insert arrangement 20-27)					
Contact position ID	Location		Contact position ID	Location	
	X-axis (mm)	Y-axis (mm)		X-axis (mm)	Y-axis (mm)
A	+.000 (0.00)	+.400 (10.16)	R	-.150 (3.81)	+.375 (9.53)
B	+.150 (3.81)	+.375 (9.53)	S	+.125 (3.18)	+.225 (5.72)
C	+.275 (6.99)	+.275 (6.99)	T	+.225 (5.72)	+.100 (2.54)
D	+.375 (9.53)	+.150 (3.81)	U	+.250 (6.35)	-.050 (1.27)
E	+.400 (10.16)	+.000 (0.00)	V	+.150 (3.81)	-.200 (5.08)
F	+.375 (9.53)	-.150 (3.81)	W	+.000 (0.00)	-.250 (6.35)
G	+.275 (6.99)	-.300 (7.62)	X	-.150 (3.81)	-.200 (5.08)
H	+.100 (2.54)	-.400 (10.16)	Y	-.250 (6.35)	-.050 (1.27)
J	-.100 (2.54)	-.400 (10.16)	Z	-.225 (5.72)	+.100 (2.54)
K	-.275 (6.99)	-.300 (7.62)	a	-.125 (3.18)	+.225 (5.72)
L	-.375 (9.53)	-.150 (3.81)	b	+.000 (0.00)	+.100 (2.54)
M	-.400 (10.16)	+.000 (0.00)	c	+.100 (2.54)	-.025 (0.64)
N	-.375 (9.53)	+.150 (3.81)	d	-.100 (2.54)	-.025 (0.64)
P	-.275 (6.99)	+.275 (6.99)	---	---	---

Shell size	Arrangement no.	Number of contacts	Size contacts	Service rating	Contact location	Supersedes
20	-27	27	20	I	All	MS27349-27

FIGURE 16. Insert arrangement, electrical connector, shell size 20 (series II of MIL-DTL-38999 and series II of MIL-DTL-27599) – Continued.

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w/CHANGE 2

Contacts (Insert arrangement 20-35)					
Contact position ID	Location		Contact position ID	Location	
	X-axis (mm)	Y-axis (mm)		X-axis (mm)	Y-axis (mm)
1	+.053 (1.35)	+.426 (10.82)	41	-.098 (2.49)	-.322 (8.18)
2	+.146 (3.71)	+.404 (10.26)	42	-.184 (4.67)	-.280 (7.11)
3	+.232 (5.89)	+.362 (9.19)	43	-.258 (6.55)	-.220 (5.59)
4	+.306 (7.77)	+.302 (7.67)	44	-.311 (7.90)	-.141 (3.58)
5	+.365 (9.27)	+.227 (5.77)	45	-.332 (8.43)	-.048 (1.22)
6	+.406 (10.31)	+.141 (3.58)	46	-.332 (8.43)	+.048 (1.22)
7	+.427 (10.85)	+.048 (1.22)	47	-.311 (7.90)	+.141 (3.58)
8	+.427 (10.85)	-.048 (1.22)	48	-.258 (6.55)	+.220 (5.59)
9	+.406 (10.31)	-.141 (3.58)	49	-.184 (4.67)	+.280 (7.11)
10	+.365 (9.27)	-.227 (5.77)	50	-.098 (2.49)	+.322 (8.18)
11	+.306 (7.77)	-.302 (7.67)	51	-.048 (1.22)	+.241 (6.12)
12	+.232 (5.89)	-.362 (9.19)	52	+.048 (1.22)	+.241 (6.12)
13	+.146 (3.71)	-.404 (10.26)	53	+.134 (3.40)	+.199 (5.05)
14	+.053 (1.35)	-.426 (10.82)	54	+.208 (5.28)	+.139 (3.53)
15	-.053 (1.35)	-.426 (10.82)	55	+.237 (6.02)	+.048 (1.22)
16	-.146 (3.71)	-.404 (10.26)	56	+.237 (6.02)	-.048 (1.22)

FIGURE 16. Insert arrangement, electrical connector, shell size 20 (series II of MIL-DTL-38999 and series II of MIL-DTL-27599) – Continued.

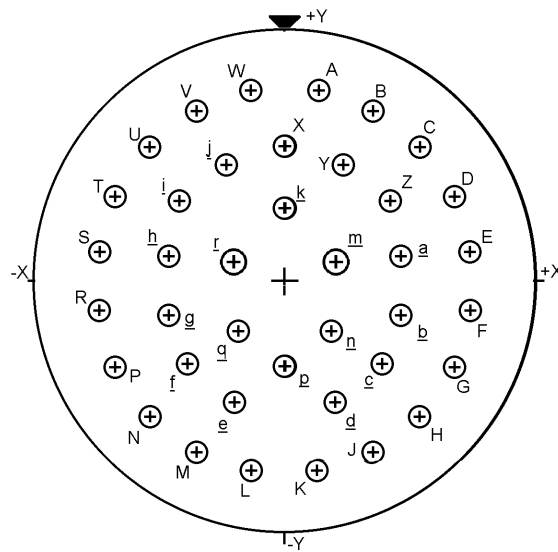
MIL-STD-1560C
w/CHANGE 2

Contacts (Insert arrangement 20-35)					
Contact position ID	Location		Contact position ID	Location	
	X-axis (mm)	Y-axis (mm)		X-axis (mm)	Y-axis (mm)
17	-.232 (5.89)	-.362 (9.19)	57	+.208 (5.28)	-.139 (3.53)
18	-.306 (7.77)	-.302 (7.67)	58	+.134 (3.40)	-.199 (5.05)
19	-.365 (9.27)	-.227 (5.77)	59	+.048 (1.22)	-.241 (6.12)
20	-.406 (10.31)	-.141 (3.58)	60	-.048 (1.22)	-.241 (6.12)
21	-.427 (10.85)	-.048 (1.22)	61	-.134 (3.40)	-.199 (5.05)
22	-.427 (10.85)	+.048 (1.22)	62	-.208 (5.28)	-.139 (3.53)
23	-.406 (10.31)	+.141 (3.58)	63	-.237 (6.02)	-.048 (1.22)
24	-.365 (9.27)	+.227 (5.77)	64	-.237 (6.02)	+.048 (1.22)
25	-.306 (7.77)	+.302 (7.67)	65	-.208 (5.28)	+.139 (3.53)
26	-.232 (5.89)	+.362 (9.19)	66	-.134 (3.40)	+.199 (5.05)
27	-.146 (3.71)	+.404 (10.26)	67	-.048 (1.22)	+.146 (3.71)
28	-.053 (1.35)	+.426 (10.82)	68	+.048 (1.22)	+.146 (3.71)
29	+.000 (0.00)	+.323 (8.20)	69	+.125 (3.18)	+.090 (2.29)
30	+.098 (2.49)	+.322 (8.18)	70	+.155 (3.94)	+.000 (0.00)
31	+.184 (4.67)	+.280 (7.11)	71	+.125 (3.18)	-.090 (2.29)
32	+.258 (6.55)	+.220 (5.59)	72	+.048 (1.22)	-.146 (3.71)
33	+.311 (7.90)	+.141 (3.58)	73	-.048 (1.22)	-.146 (3.71)
34	+.332 (8.43)	+.048 (1.22)	74	-.125 (3.18)	-.090 (2.29)
35	+.332 (8.43)	-.048 (1.22)	75	-.155 (3.94)	+.000 (0.00)
36	+.311 (7.90)	-.141 (3.58)	76	-.125 (3.18)	+.090 (2.29)
37	+.258 (6.55)	-.220 (5.59)	77	+.000 (0.00)	+.053 (1.35)
38	+.184 (4.67)	-.280 (7.11)	78	+.048 (1.22)	-.029 (0.74)
39	+.098 (2.49)	-.322 (8.18)	79	-.048 (1.22)	-.029 (0.74)
40	+.000 (0.00)	-.347 (8.81)	---	---	---

(Applicable to MIL-DTL-38999 only)

Shell size	Arrangement no.	Number of contacts	Size contacts	Service rating	Contact location	Supersedes
20	-35	79	22D	M	All	MS27522-35

FIGURE 16. Insert arrangement, electrical connector, shell size 20 (series II of MIL-DTL-38999 and series II of MIL-DTL-27599) – Continued.

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w/CHANGE 2

Contacts (Insert arrangement 20-39)					
Contact position ID	Location		Contact position ID	Location	
	X-axis (mm)	Y-axis (mm)		X-axis (mm)	Y-axis (mm)
A	+.065 (1.65)	+.411 (10.44)	X	+.000 (0.00)	+.295 (7.49)
B	+.189 (4.80)	+.371 (9.42)	Y	+.126 (3.20)	+.256 (6.50)
C	+.294 (7.47)	+.295 (7.49)	Z	+.232 (5.89)	+.179 (4.55)
D	+.371 (9.42)	+.189 (4.80)	a	+.280 (7.11)	+.057 (1.45)
E	+.411 (10.44)	+.065 (1.65)	b	+.280 (7.11)	-.074 (1.88)
F	+.411 (10.44)	-.065 (1.65)	c	+.217 (5.51)	-.189 (4.80)
G	+.371 (9.42)	-.189 (4.80)	d	+.112 (2.84)	-.265 (6.73)
H	+.294 (7.47)	-.294 (7.47)	e	-.112 (2.84)	-.265 (6.73)
J	+.189 (4.80)	-.371 (9.42)	f	-.217 (5.51)	-.189 (4.80)
K	+.065 (1.65)	-.411 (10.44)	g	-.280 (7.11)	-.074 (1.88)
L	-.065 (1.65)	-.411 (10.44)	h	-.280 (7.11)	+.057 (1.45)
M	-.189 (4.80)	-.371 (9.42)	i	-.232 (5.89)	+.179 (4.55)
N	-.294 (7.47)	-.294 (7.47)	j	-.126 (3.20)	+.256 (6.50)
P	-.371 (9.42)	-.189 (4.80)	k	+.000 (0.00)	+.164 (4.17)
R	-.411 (10.44)	-.065 (1.65)	m	+.114 (2.90)	+.048 (1.22)

FIGURE 16. Insert arrangement, electrical connector, shell size 20 (series II of MIL-DTL-38999 and series II of MIL-DTL-27599) – Continued.

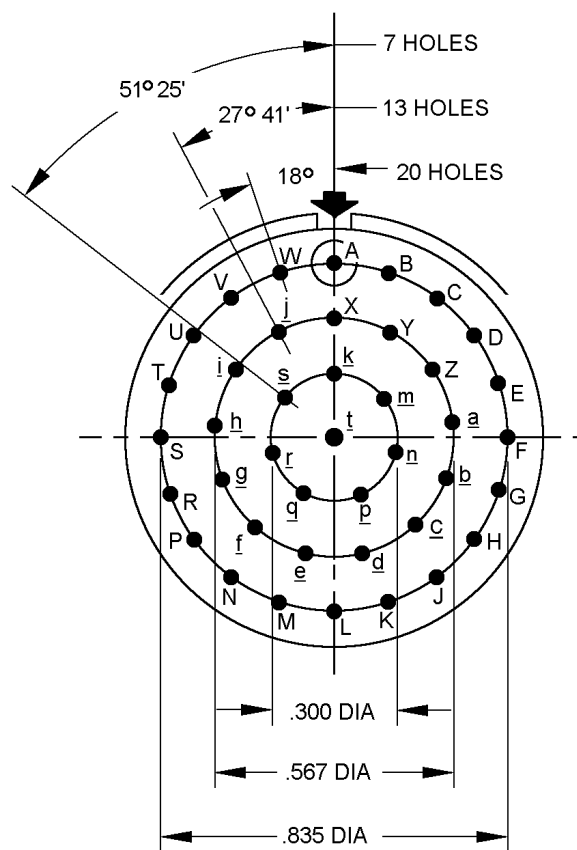
MIL-STD-1560C
w/CHANGE 2

Contacts (Insert arrangement 20-39)						
Contact position ID	Location		Contact position ID	Location		
	X-axis (mm)	Y-axis (mm)		X-axis (mm)	Y-axis (mm)	
S	-.411 (10.44)	+.065 (1.65)	n	+.106 (2.69)	-.107 (2.72)	
T	-.371 (9.42)	+.189 (4.80)	p	+.000 (0.00)	-.189 (4.80)	
U	-.294 (7.47)	+.295 (7.49)	q	-.106 (2.69)	-.107 (2.72)	
V	-.189 (4.80)	+.371 (9.42)	r	-.114 (2.90)	+.048 (1.22)	
W	-.065 (1.65)	+.411 (10.44)	---	---	---	

Shell size	Arrangement no.	Number of contacts	Size contacts	Service rating	Contact location	Supersedes
20	-39	2	16	I	m, r	MS27349-39
		37	20		All others	

FIGURE 16. Insert arrangement, electrical connector, shell size 20 (series II of MIL-DTL-38999 and series II of MIL-DTL-27599) – Continued.

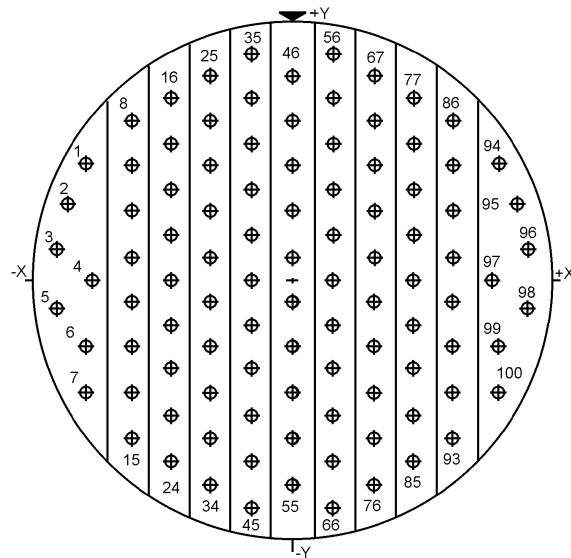
MIL-STD-1560C
w/CHANGE 2



Inches	mm
.300	7.62
.567	14.40
.835	21.21

Insert arrangement (20-41)						
Shell size	Arrangement no.	Number of contacts	Size contacts	Service rating	Contact location	Supersedes
20	-41	41	20	I	All	MS27349-41

FIGURE 16. Insert arrangement, electrical connector, shell size 20 (series II of MIL-DTL-38999 and series II of MIL-DTL-27599) – Continued.

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w/CHANGE 2

Contacts (Insert arrangement 22-1)					
Contact position ID	Location		Contact position ID	Location	
	X-axis (mm)	Y-axis (mm)		X-axis (mm)	Y-axis (mm)
1	-.428 (10.87)	+.241 (6.12)	51	+.000 (0.00)	-.047 (1.19)
2	-.467 (11.86)	+.154 (3.91)	52	+.000 (0.00)	-.142 (3.61)
3	-.488 (12.40)	+.061 (1.55)	53	+.000 (0.00)	-.237 (6.02)
4	-.415 (10.54)	+.000 (0.00)	54	+.000 (0.00)	-.332 (8.43)
5	-.488 (12.40)	-.061 (1.55)	55	+.000 (0.00)	-.427 (10.85)
6	-.428 (10.87)	-.142 (3.61)	56	+.083 (2.11)	+.475 (12.07)
7	-.428 (10.87)	-.237 (6.02)	57	+.083 (2.11)	+.380 (9.65)
8	-.332 (8.43)	+.333 (8.46)	58	+.083 (2.11)	+.285 (7.24)
9	-.332 (8.43)	+.238 (6.05)	59	+.083 (2.11)	+.190 (4.83)
10	-.332 (8.43)	+.143 (3.63)	60	+.083 (2.11)	+.095 (2.41)
11	-.332 (8.43)	+.048 (1.22)	61	+.083 (2.11)	+.000 (0.00)
12	-.332 (8.43)	-.047 (1.19)	62	+.083 (2.11)	-.095 (2.41)
13	-.332 (8.43)	-.142 (3.61)	63	+.083 (2.11)	-.190 (4.83)
14	-.332 (8.43)	-.237 (6.02)	64	+.083 (2.11)	-.285 (7.24)
15	-.332 (8.43)	-.332 (8.43)	65	+.083 (2.11)	-.380 (9.65)
16	-.249 (6.32)	+.380 (9.65)	66	+.083 (2.11)	-.475 (12.07)
17	-.249 (6.32)	+.285 (7.24)	67	+.166 (4.22)	+.428 (10.87)

FIGURE 17. Insert arrangement, electrical connector, shell size 22 (series II of MIL-DTL-38999 and series II of MIL-DTL-27599).

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w/CHANGE 2

Contacts (Insert arrangement 22-1)					
Contact position ID	Location		Contact position ID	Location	
	X-axis (mm)	Y-axis (mm)		X-axis (mm)	Y-axis (mm)
18	-.249 (6.32)	+.190 (4.83)	68	+.166 (4.22)	+.333 (8.46)
19	-.249 (6.32)	+.095 (2.41)	69	+.166 (4.22)	+.238 (6.05)
20	-.249 (6.32)	+.000 (0.00)	70	+.166 (4.22)	+.143 (3.63)
21	-.249 (6.32)	-.095 (2.41)	71	+.166 (4.22)	+.048 (1.22)
22	-.249 (6.32)	-.190 (4.83)	72	+.166 (4.22)	-.047 (1.19)
23	-.249 (6.32)	-.285 (7.24)	73	+.166 (4.22)	-.142 (3.61)
24	-.249 (6.32)	-.380 (9.65)	74	+.166 (4.22)	-.237 (6.02)
25	-.166 (4.22)	+.428 (10.87)	75	+.166 (4.22)	-.332 (8.43)
26	-.166 (4.22)	+.333 (8.46)	76	+.166 (4.22)	-.427 (10.85)
27	-.166 (4.22)	+.238 (6.05)	77	+.249 (6.32)	+.380 (9.65)
28	-.166 (4.22)	+.143 (3.63)	78	+.249 (6.32)	+.285 (7.24)
29	-.166 (4.22)	+.048 (1.22)	79	+.249 (6.32)	+.190 (4.83)
30	-.166 (4.22)	-.047 (1.19)	80	+.249 (6.32)	+.095 (2.41)
31	-.166 (4.22)	-.142 (3.61)	81	+.249 (6.32)	+.000 (0.00)
32	-.166 (4.22)	-.237 (6.02)	82	+.249 (6.32)	-.095 (2.41)
33	-.166 (4.22)	-.332 (8.43)	83	+.249 (6.32)	-.190 (4.83)
34	-.166 (4.22)	-.427 (10.85)	84	+.249 (6.32)	-.285 (7.24)
35	-.083 (2.11)	+.475 (12.07)	85	+.249 (6.32)	-.380 (9.65)
36	-.083 (2.11)	+.380 (9.65)	86	+.332 (8.43)	+.333 (8.46)
37	-.083 (2.11)	+.285 (7.24)	87	+.332 (8.43)	+.238 (6.05)
38	-.083 (2.11)	+.190 (4.83)	88	+.332 (8.43)	+.143 (3.63)
39	-.083 (2.11)	+.095 (2.41)	89	+.332 (8.43)	+.048 (1.22)
40	-.083 (2.11)	+.000 (0.00)	90	+.332 (8.43)	-.047 (1.19)
41	-.083 (2.11)	-.095 (2.41)	91	+.332 (8.43)	-.142 (3.61)
42	-.083 (2.11)	-.190 (4.83)	92	+.332 (8.43)	-.237 (6.02)
43	-.083 (2.11)	-.285 (7.24)	93	+.332 (8.43)	-.332 (8.43)
44	-.083 (2.11)	-.380 (9.65)	94	+.428 (10.87)	+.241 (6.12)
45	-.083 (2.11)	-.475 (12.07)	95	+.467 (11.86)	+.154 (3.91)
46	+.000 (0.00)	+.428 (10.87)	96	+.488 (12.40)	+.061 (1.55)
47	+.000 (0.00)	+.333 (8.46)	97	+.415 (10.54)	+.000 (0.00)

FIGURE 17. Insert arrangement, electrical connector, shell size 22 (series II of MIL-DTL-38999 and series II of MIL-DTL-27599) – Continued.

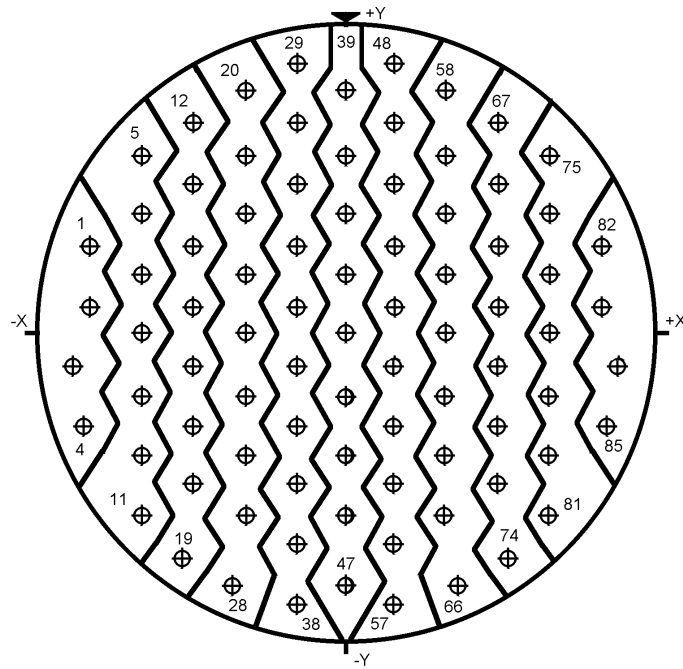
MIL-STD-1560C
w/CHANGE 2

Contacts (Insert arrangement 22-1)						
Contact position ID	Location		Contact position ID	Location		
	X-axis (mm)	Y-axis (mm)		X-axis (mm)	Y-axis (mm)	
48	+.000 (0.00)	+.238 (6.05)	98	+.488 (12.40)	-.061 (1.55)	
49	+.000 (0.00)	+.143 (3.63)	99	+.428 (10.87)	-.142 (3.61)	
50	+.000 (0.00)	+.048 (1.22)	100	+.428 (10.87)	-.237 (6.02)	

(Inactive for new design for MIL-DTL-38999)

Shell size	Arrangement no.	Number of contacts	Size contacts	Service rating	Contact location	Supersedes
22	-1	100	22M	M	All	MS27350-1

FIGURE 17. Insert arrangement, electrical connector, shell size 22 (series II of MIL-DTL-38999 and series II of MIL-DTL-27599) – Continued.

MIL-STD-1560C
w/CHANGE 2

Contacts (Insert arrangement 22-2)					
Contact position ID	Location		Contact position ID	Location	
	X-axis (mm)	Y-axis (mm)		X-axis (mm)	Y-axis (mm)
1	-.455 (11.56)	+.159 (4.04)	44	+.000 (0.00)	-.106 (2.69)
2	-.455 (11.56)	+.053 (1.35)	45	+.000 (0.00)	-.212 (5.38)
3	-.482 (12.24)	-.053 (1.35)	46	+.000 (0.00)	-.318 (8.08)
4	-.455 (11.56)	-.159 (4.04)	47	+.000 (0.00)	-.424 (10.77)
5	-.364 (9.25)	+.318 (8.08)	48	+.091 (2.31)	+.477 (12.12)
6	-.364 (9.25)	+.212 (5.38)	49	+.091 (2.31)	+.371 (9.42)
7	-.364 (9.25)	+.106 (2.69)	50	+.091 (2.31)	+.265 (6.73)
8	-.364 (9.25)	+.000 (0.00)	51	+.091 (2.31)	+.159 (4.04)
9	-.364 (9.25)	-.106 (2.69)	52	+.091 (2.31)	+.053 (1.35)
10	-.364 (9.25)	-.212 (5.38)	53	+.091 (2.31)	-.053 (1.35)
11	-.364 (9.25)	-.318 (8.08)	54	+.091 (2.31)	-.159 (4.04)
12	-.273 (6.93)	+.371 (9.42)	55	+.091 (2.31)	-.265 (6.73)
13	-.273 (6.93)	+.265 (6.73)	56	+.091 (2.31)	-.371 (9.42)
14	-.273 (6.93)	+.159 (4.04)	57	+.091 (2.31)	-.477 (12.12)

FIGURE 17. Insert arrangement, electrical connector, shell size 22 (series II of MIL-DTL-38999 and series II of MIL-DTL-27599) – Continued.

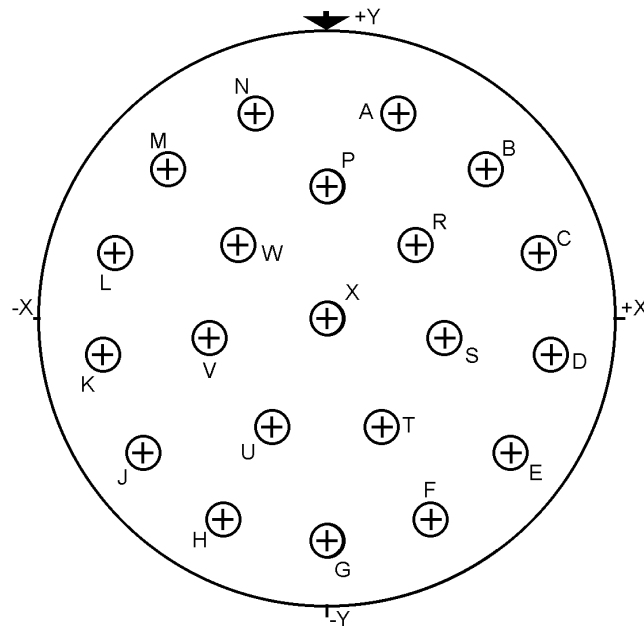
MIL-STD-1560C
w/CHANGE 2

Contacts (Insert arrangement 22-2)					
Contact position ID	Location		Contact position ID	Location	
	X-axis (mm)	Y-axis (mm)		X-axis (mm)	Y-axis (mm)
15	-.273 (6.93)	+.053 (1.35)	58	+.182 (4.62)	+.424 (10.77)
16	-.273 (6.93)	-.053 (1.35)	59	+.182 (4.62)	+.318 (8.08)
17	-.273 (6.93)	-.159 (4.04)	60	+.182 (4.62)	+.212 (5.38)
18	-.273 (6.93)	-.265 (6.73)	61	+.182 (4.62)	+.106 (2.69)
19	-.287 (7.29)	-.390 (9.91)	62	+.182 (4.62)	+.000 (0.00)
20	-.182 (4.62)	+.424 (10.77)	63	+.182 (4.62)	-.106 (2.69)
21	-.182 (4.62)	+.318 (8.08)	64	+.182 (4.62)	-.212 (5.38)
22	-.182 (4.62)	+.212 (5.38)	65	+.182 (4.62)	-.318 (8.08)
23	-.182 (4.62)	+.106 (2.69)	66	+.192 (4.88)	-.446 (11.33)
24	-.182 (4.62)	+.000 (0.00)	67	+.273 (6.93)	+.371 (9.42)
25	-.182 (4.62)	-.106 (2.69)	68	+.273 (6.93)	+.265 (6.73)
26	-.182 (4.62)	-.212 (5.38)	69	+.273 (6.93)	+.159 (4.04)
27	-.182 (4.62)	-.318 (8.08)	70	+.273 (6.93)	+.053 (1.35)
28	-.192 (4.88)	-.446 (11.33)	71	+.273 (6.93)	-.053 (1.35)
29	-.091 (2.31)	+.477 (12.12)	72	+.273 (6.93)	-.159 (4.04)
30	-.091 (2.31)	+.371 (9.42)	73	+.273 (6.93)	-.265 (6.73)
31	-.091 (2.31)	+.265 (6.73)	74	+.287 (7.29)	-.390 (9.91)
32	-.091 (2.31)	+.159 (4.04)	75	+.364 (9.25)	+.318 (8.08)
33	-.091 (2.31)	+.053 (1.35)	76	+.364 (9.25)	+.212 (5.38)
34	-.091 (2.31)	-.053 (1.35)	77	+.364 (9.25)	+.106 (2.69)
35	-.091 (2.31)	-.159 (4.04)	78	+.364 (9.25)	+.000 (0.00)
36	-.091 (2.31)	-.265 (6.73)	79	+.364 (9.25)	-.106 (2.69)
37	-.091 (2.31)	-.371 (9.42)	80	+.364 (9.25)	-.212 (5.38)
38	-.091 (2.31)	-.477 (12.12)	81	+.364 (9.25)	-.318 (8.08)
39	+.000 (0.00)	+.424 (10.77)	82	+.455 (11.56)	+.159 (4.04)
40	+.000 (0.00)	+.318 (8.08)	83	+.455 (11.56)	+.053 (1.35)
41	+.000 (0.00)	+.212 (5.38)	84	+.482 (12.24)	-.053 (1.35)
42	+.000 (0.00)	+.106 (2.69)	85	+.455 (11.56)	-.159 (4.04)
43	+.000 (0.00)	+.000 (0.00)	--	---	---

(Inactive for new design for MIL-DTL-38999)

Shell size	Arrangement no.	Number of contacts	Size contacts	Service rating	Contact location	Supersedes
22	-2	85	22	M	All	MS27350-2

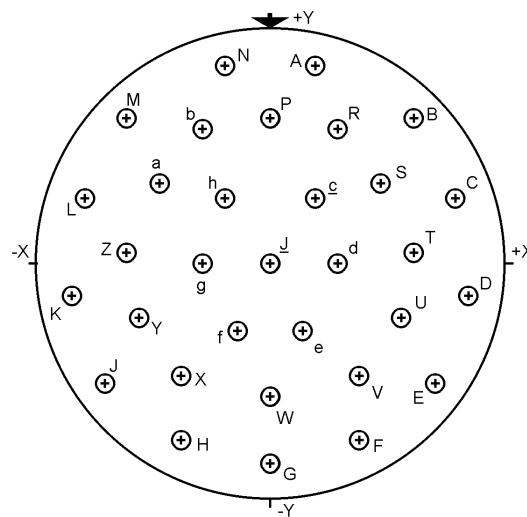
FIGURE 17. Insert arrangement, electrical connector, shell size 22 (series II of MIL-DTL-38999 and series II of MIL-DTL-27599) – Continued.

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w/CHANGE 2

Contacts (Insert arrangement 22-21)					
Contact position ID	Location		Contact position ID	Location	
	X-axis (mm)	Y-axis (mm)		X-axis (mm)	Y-axis (mm)
A	+.128 (3.25)	+.385 (9.78)	M	-.289 (7.34)	+.285 (7.24)
B	+.289 (7.34)	+.285 (7.24)	N	-.128 (3.25)	+.385 (9.78)
C	+.386 (9.80)	+.123 (3.12)	P	+.000 (0.00)	+.245 (6.22)
D	+.400 (10.16)	-.065 (1.65)	R	+.160 (4.06)	+.146 (3.71)
E	+.328 (8.33)	-.239 (6.07)	S	+.214 (5.44)	-.035 (.89)
F	+.183 (4.65)	-.362 (9.19)	T	+.094 (2.39)	-.194 (4.93)
G	+.000 (0.00)	-.406 (10.31)	U	-.094 (2.39)	-.194 (4.93)
H	-.183 (4.65)	-.362 (9.19)	V	-.214 (5.44)	-.035 (0.89)
J	-.328 (8.33)	-.239 (6.07)	W	-.160 (4.06)	+.146 (3.71)
K	-.400 (10.16)	-.065 (1.65)	X	+.000 (0.00)	+.000 (0.00)
L	-.386 (9.80)	+.123 (3.12)	---	---	---

Shell size	Arrangement no.	Number of contacts	Size contacts	Service rating	Contact location	Supersedes
22	-21	21	16	II	All	MS27350-21

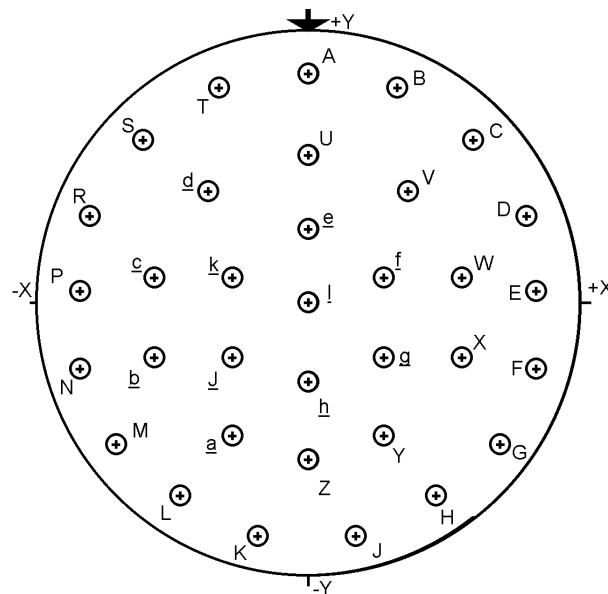
FIGURE 17. Insert arrangement, electrical connector, shell size 22 (series II of MIL-DTL-38999 and series II of MIL-DTL-27599) – Continued.

MIL-STD-1560C
w/CHANGE 2

Contacts (Insert arrangement 22-32)					
Contact position ID	Location		Contact position ID	Location	
	X-axis (mm)	Y-axis (mm)		X-axis (mm)	Y-axis (mm)
A	+.100 (2.54)	+.450 (11.43)	T	+.325 (8.26)	+.025 (0.64)
B	+.325 (8.26)	+.325 (8.26)	U	+.300 (7.62)	-.125 (3.18)
C	+.425 (10.80)	+.150 (3.81)	V	+.200 (5.08)	-.250 (6.35)
D	+.450 (11.43)	-.075 (1.91)	W	+.000 (0.00)	-.300 (7.62)
E	+.375 (9.53)	-.275 (6.99)	X	-.200 (5.08)	-.250 (6.35)
F	+.200 (5.08)	-.400 (10.16)	Y	-.300 (7.62)	-.125 (3.18)
G	+.000 (0.00)	-.450 (11.43)	Z	-.325 (8.26)	+.025 (0.64)
H	-.200 (5.08)	-.400 (10.16)	a	-.250 (6.35)	+.175 (4.45)
J	-.375 (9.53)	-.275 (6.99)	b	-.150 (3.81)	+.300 (7.62)
K	-.450 (11.43)	-.075 (1.91)	c	+.100 (2.54)	+.150 (3.81)
L	-.425 (10.80)	+.150 (3.81)	d	+.150 (3.81)	+.000 (0.00)
M	-.325 (8.26)	+.325 (8.26)	e	+.075 (1.91)	-.150 (3.81)
N	-.100 (2.54)	+.450 (11.43)	f	-.075 (1.91)	-.150 (3.81)
P	+.000 (0.00)	+.325 (8.26)	g	-.150 (3.81)	+.000 (0.00)
R	+.150 (3.81)	+.300 (7.62)	h	-.100 (2.54)	+.150 (3.81)
S	+.250 (6.35)	+.175 (4.45)	j	+.000 (0.00)	+.000 (0.00)

Shell size	Arrangement no.	Number of contacts	Size contacts	Service rating	Contact location	Supersedes
22	-32	32	20	I	All	MS27350-32

FIGURE 17. Insert arrangement, electrical connector, shell size 22 (series II of MIL-DTL-38999 and series II of MIL-DTL-27599) – Continued.

MIL-STD-1560C
w/CHANGE 2

Contacts (Insert arrangement 22-34)					
Contact position ID	Location		Contact position ID	Location	
	X-axis (mm)	Y-axis (mm)		X-axis (mm)	Y-axis (mm)
A	+0.000 (0.00)	+0.450 (11.43)	U	+0.000 (0.00)	+0.300 (7.62)
B	+0.175 (4.45)	+0.425 (10.80)	V	+0.200 (5.08)	+0.225 (5.72)
C	+0.325 (8.26)	+0.325 (8.26)	W	+0.300 (7.62)	+0.050 (1.27)
D	+0.425 (10.80)	+0.175 (4.45)	X	+0.300 (7.62)	-0.100 (2.54)
E	+0.450 (11.43)	+0.025 (0.64)	Y	+0.150 (3.81)	-0.250 (6.35)
F	+0.450 (11.43)	-0.125 (3.18)	Z	+0.000 (0.00)	-0.300 (7.62)
G	+0.375 (9.53)	-0.275 (6.99)	a	-0.150 (3.81)	-0.250 (6.35)
H	+0.250 (6.35)	-0.375 (9.53)	b	-0.300 (7.62)	-0.100 (2.54)
J	+0.100 (2.54)	-0.450 (11.43)	c	-0.300 (7.62)	+0.050 (1.27)
K	-0.100 (2.54)	-0.450 (11.43)	d	-0.200 (5.08)	+0.225 (5.72)
L	-0.250 (6.35)	-0.375 (9.53)	e	+0.000 (0.00)	+0.150 (3.81)
M	-0.375 (9.53)	-0.275 (6.99)	f	+0.150 (3.81)	+0.050 (1.27)
N	-0.450 (11.43)	-0.125 (3.18)	g	+0.150 (3.81)	-0.100 (2.54)
P	-0.450 (11.43)	+0.025 (0.64)	h	+0.000 (0.00)	-0.150 (3.81)

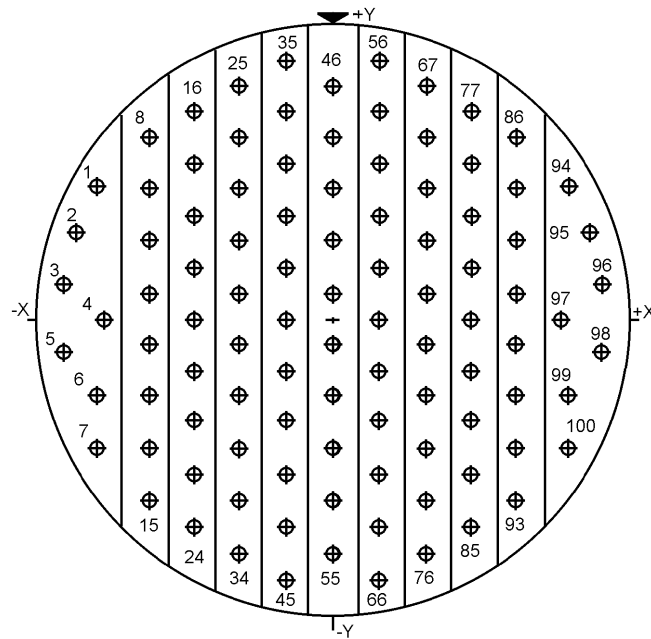
FIGURE 17. Insert arrangement, electrical connector, shell size 22 (series II of MIL-DTL-38999 and series II of MIL-DTL-27599) – Continued.

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w/CHANGE 2

Contacts (Insert arrangement 22-34)					
Contact position ID	Location		Contact position ID	Location	
	X-axis (mm)	Y-axis (mm)		X-axis (mm)	Y-axis (mm)
R	-.425 (10.80)	+.175 (4.45)	<u>J</u>	-.150 (3.81)	-.100 (2.54)
S	-.325 (8.26)	+.325 (8.26)	<u>k</u>	-.150 (3.81)	+.050 (1.27)
T	-.175 (4.45)	+.425 (10.80)	<u>l</u>	+.000 (0.00)	+.000 (0.00)

Shell size	Arrangement no.	Number of contacts	Size contacts	Service rating	Contact location	Supersedes
22	-34	34	20	I	All	MS27350-34

FIGURE 17. Insert arrangement, electrical connector, shell size 22 (series II of MIL-DTL-38999 and series II of MIL-DTL-27599) – Continued.

MIL-STD-1560C
w/CHANGE 2

Contacts (Insert arrangement 22-35)					
Contact position ID	Location		Contact position ID	Location	
	X-axis (mm)	Y-axis (mm)		X-axis (mm)	Y-axis (mm)
1	-.428 (10.87)	+.241 (6.12)	51	+.000 (0.00)	-.047 (1.19)
2	-.467 (11.86)	+.154 (3.91)	52	+.000 (0.00)	-.142 (3.61)
3	-.488 (12.40)	+.061 (1.55)	53	+.000 (0.00)	-.237 (6.02)
4	-.415 (10.54)	+.000 (0.00)	54	+.000 (0.00)	-.332 (8.43)
5	-.488 (12.40)	-.061 (1.55)	55	+.000 (0.00)	-.427 (10.85)
6	-.428 (10.87)	-.142 (3.61)	56	+.083 (2.11)	+.475 (12.07)
7	-.428 (10.87)	-.237 (6.02)	57	+.083 (2.11)	+.380 (9.65)
8	-.332 (8.43)	+.333 (8.46)	58	+.083 (2.11)	+.285 (7.24)
9	-.332 (8.43)	+.238 (6.05)	59	+.083 (2.11)	+.190 (4.83)
10	-.332 (8.43)	+.143 (3.63)	60	+.083 (2.11)	+.095 (2.41)
11	-.332 (8.43)	+.048 (1.22)	61	+.083 (2.11)	+.000 (0.00)
12	-.332 (8.43)	-.047 (1.19)	62	+.083 (2.11)	-.095 (2.41)
13	-.332 (8.43)	-.142 (3.61)	63	+.083 (2.11)	-.190 (4.83)
14	-.332 (8.43)	-.237 (6.02)	64	+.083 (2.11)	-.285 (7.24)
15	-.332 (8.43)	-.332 (8.43)	65	+.083 (2.11)	-.380 (9.65)
16	-.249 (6.32)	+.380 (9.65)	66	+.083 (2.11)	-.475 (12.07)

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FIGURE 17. Insert arrangement, electrical connector, shell size 22 (series II of MIL-DTL-38999 and series II of MIL-DTL-27599) – Continued.

MIL-STD-1560C
w/CHANGE 2

Contacts (Insert arrangement 22-35)					
Contact position ID	Location		Contact position ID	Location	
	X-axis (mm)	Y-axis (mm)		X-axis (mm)	Y-axis (mm)
17	-.249 (6.32)	+.285 (7.24)	67	+.166 (4.22)	+.428 (10.87)
18	-.249 (6.32)	+.190 (4.83)	68	+.166 (4.22)	+.333 (8.46)
19	-.249 (6.32)	+.095 (2.41)	69	+.166 (4.22)	+.238 (6.05)
20	-.249 (6.32)	+.000 (0.00)	70	+.166 (4.22)	+.143 (3.63)
21	-.249 (6.32)	-.095 (2.41)	71	+.166 (4.22)	+.048 (1.22)
22	-.249 (6.32)	-.190 (4.83)	72	+.166 (4.22)	-.047 (1.19)
23	-.249 (6.32)	-.285 (7.24)	73	+.166 (4.22)	-.142 (3.61)
24	-.249 (6.32)	-.380 (9.65)	74	+.166 (4.22)	-.237 (6.02)
25	-.166 (4.22)	+.428 (10.87)	75	+.166 (4.22)	-.332 (8.43)
26	-.166 (4.22)	+.333 (8.46)	76	+.166 (4.22)	-.427 (10.85)
27	-.166 (4.22)	+.238 (6.05)	77	+.249 (6.32)	+.380 (9.65)
28	-.166 (4.22)	+.143 (3.63)	78	+.249 (6.32)	+.285 (7.24)
29	-.166 (4.22)	+.048 (1.22)	79	+.249 (6.32)	+.190 (4.83)
30	-.166 (4.22)	-.047 (1.19)	80	+.249 (6.32)	+.095 (2.41)
31	-.166 (4.22)	-.142 (3.61)	81	+.249 (6.32)	+.000 (0.00)
32	-.166 (4.22)	-.237 (6.02)	82	+.249 (6.32)	-.095 (2.41)
33	-.166 (4.22)	-.332 (8.43)	83	+.249 (6.32)	-.190 (4.83)
34	-.166 (4.22)	-.427 (10.85)	84	+.249 (6.32)	-.285 (7.24)
35	-.083 (2.11)	+.475 (12.07)	85	+.249 (6.32)	-.380 (9.65)
36	-.083 (2.11)	+.380 (9.65)	86	+.332 (8.43)	+.333 (8.46)
37	-.083 (2.11)	+.285 (7.24)	87	+.332 (8.43)	+.238 (6.05)
38	-.083 (2.11)	+.190 (4.83)	88	+.332 (8.43)	+.143 (3.63)
39	-.083 (2.11)	+.095 (2.41)	89	+.332 (8.43)	+.048 (1.22)
40	-.083 (2.11)	+.000 (0.00)	90	+.332 (8.43)	-.047 (1.19)
41	-.083 (2.11)	-.095 (2.41)	91	+.332 (8.43)	-.142 (3.61)
42	-.083 (2.11)	-.190 (4.83)	92	+.332 (8.43)	-.237 (6.02)
43	-.083 (2.11)	-.285 (7.24)	93	+.332 (8.43)	-.332 (8.43)
44	-.083 (2.11)	-.380 (9.65)	94	+.428 (10.87)	+.241 (6.12)
45	-.083 (2.11)	-.475 (12.07)	95	+.467 (11.86)	+.154 (3.91)
46	+.000 (0.00)	+.428 (10.87)	96	+.488 (12.40)	+.061 (1.55)
47	+.000 (0.00)	+.333 (8.46)	97	+.415 (10.54)	+.000 (0.00)

FIGURE 17. Insert arrangement, electrical connector, shell size 22 (series II of MIL-DTL-38999 and series II of MIL-DTL-27599) – Continued.

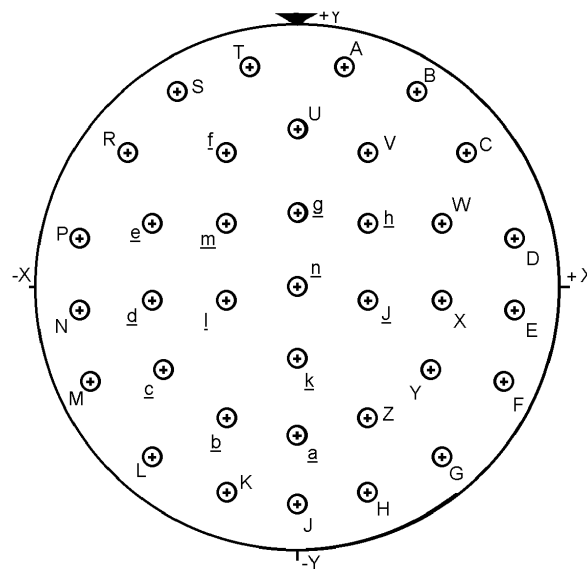
MIL-STD-1560C
w/CHANGE 2

Contacts (Insert arrangement 22-35)					
Contact position ID	Location		Contact position ID	Location	
	X-axis (mm)	Y-axis (mm)		X-axis (mm)	Y-axis (mm)
48	+0.000 (0.00)	+0.238 (6.05)	98	+0.488 (12.40)	-0.061 (1.55)
49	+0.000 (0.00)	+0.143 (3.63)	99	+0.428 (10.87)	-0.142 (3.61)
50	+0.000 (0.00)	+0.048 (1.22)	100	+0.428 (10.87)	-0.237 (6.02)

(Applicable to MIL-DTL-38999 only)

Shell size	Arrangement no.	Number of contacts	Size contacts	Service rating	Contact location	Supersedes
22	-35	100	22D	M	All	MS27523-35

FIGURE 17. Insert arrangement, electrical connector, shell size 22 (series II of MIL-DTL-38999 and series II of MIL-DTL-27599) – Continued.

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Contacts (Insert arrangement 22-36)					
Contact position ID	Location		Contact position ID	Location	
	X-axis (mm)	Y-axis (mm)		X-axis (mm)	Y-axis (mm)
A	+.100 (2.54)	+.450 (11.43)	V	+.150 (3.81)	+.275 (6.99)
B	+.250 (6.35)	+.400 (10.16)	W	+.300 (7.62)	+.125 (3.18)
C	+.350 (8.89)	+.275 (6.99)	X	+.300 (7.62)	-.025 (0.64)
D	+.450 (11.43)	+.100 (2.54)	Y	+.275 (6.99)	-.175 (4.45)
E	+.450 (11.43)	-.050 (1.27)	Z	+.150 (3.81)	-.275 (6.99)
F	+.425 (10.80)	-.200 (5.08)	a	+.000 (0.00)	-.300 (7.62)
G	+.300 (7.62)	-.350 (8.89)	b	-.150 (3.81)	-.275 (6.99)
H	+.150 (3.81)	-.425 (10.80)	c	-.275 (6.99)	-.175 (4.45)
J	+.000 (0.00)	-.450 (11.43)	d	-.300 (7.62)	-.025 (0.64)
K	-.150 (3.81)	-.425 (10.80)	e	-.300 (7.62)	+.125 (3.18)
L	-.300 (7.62)	-.350 (8.89)	f	-.150 (3.81)	+.275 (6.99)
M	-.425 (10.80)	-.200 (5.08)	g	+.000 (0.00)	+.150 (3.81)
N	-.450 (11.43)	-.050 (1.27)	h	+.150 (3.81)	+.125 (3.18)
P	-.450 (11.43)	+.100 (2.54)	j	+.150 (3.81)	-.025 (0.64)
R	-.350 (8.89)	+.275 (6.99)	k	+.000 (0.00)	-.150 (3.81)

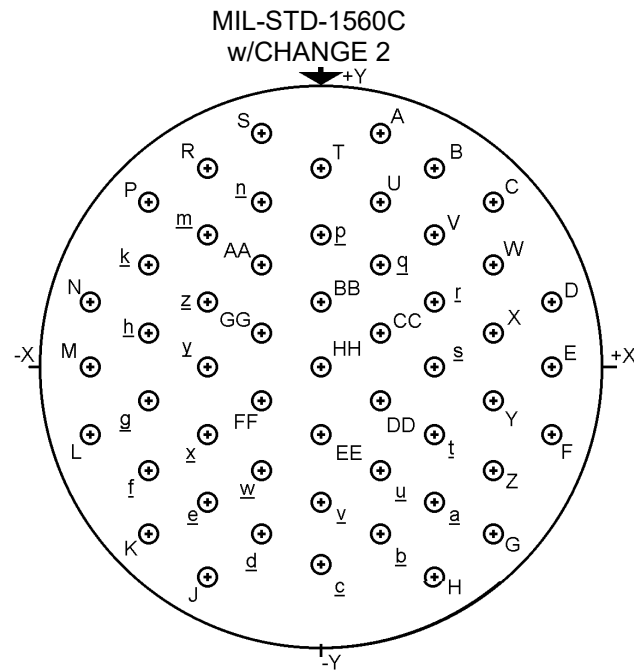
FIGURE 17. Insert arrangement, electrical connector, shell size 22 (series II of MIL-DTL-38999 and series II of MIL-DTL-27599) – Continued.

MIL-STD-1560C
w/CHANGE 2

Contacts (Insert arrangement 22-36)					
Contact position ID	Location		Contact position ID	Location	
	X-axis (mm)	Y-axis (mm)		X-axis (mm)	Y-axis (mm)
S	-.250 (6.35)	+.400 (10.16)	l	-.150 (3.81)	-.025 (0.64)
T	-.100 (2.54)	+.450 (11.43)	m	-.150 (3.81)	+.125 (3.18)
U	+.000 (0.00)	+.325 (8.26)	n	+.000 (0.00)	+.000 (0.00)

Shell size	Arrangement no.	Number of contacts	Size contacts	Service rating	Contact location	Supersedes
22	-36	36	20	I	All	MS27350-36

FIGURE 17. Insert arrangement, electrical connector, shell size 22 (series II of MIL-DTL-38999 and series II of MIL-DTL-27599) – Continued.



Contacts (Insert arrangement 22-53)					
Contact position ID	Location		Contact position ID	Location	
	X-axis (mm)	Y-axis (mm)		X-axis (mm)	Y-axis (mm)
A	+.112 (2.84)	+.455 (11.56)	<u>e</u>	-.225 (5.72)	-.260 (6.60)
B	+.225 (5.72)	+.390 (9.91)	<u>f</u>	-.336 (8.53)	-.195 (4.95)
C	+.336 (8.53)	+.325 (8.26)	<u>g</u>	-.336 (8.53)	-.065 (1.65)
D	+.450 (11.43)	+.130 (3.30)	<u>h</u>	-.336 (8.53)	+.065 (1.65)
E	+.450 (11.43)	+.000 (0.00)	<u>k</u>	-.336 (8.53)	+.195 (4.95)
F	+.450 (11.43)	-.130 (3.30)	<u>m</u>	-.225 (5.72)	+.260 (6.60)
G	+.336 (8.53)	-.325 (8.26)	<u>n</u>	-.112 (2.84)	+.325 (8.26)
H	+.225 (5.72)	-.410 (10.41)	<u>p</u>	+.000 (0.00)	+.260 (6.60)
J	-.225 (5.72)	-.410 (10.41)	<u>q</u>	+.112 (2.84)	+.195 (4.95)
K	-.336 (8.53)	-.325 (8.26)	<u>r</u>	+.225 (5.72)	+.130 (3.30)
L	-.450 (11.43)	-.130 (3.30)	<u>s</u>	+.225 (5.72)	+.000 (0.00)
M	-.450 (11.43)	+.000 (0.00)	<u>t</u>	+.225 (5.72)	-.130 (3.30)
N	-.450 (11.43)	+.130 (3.30)	<u>u</u>	+.112 (2.84)	-.195 (4.95)
P	-.336 (8.53)	+.325 (8.26)	<u>v</u>	+.000 (0.00)	-.260 (6.60)
R	-.225 (5.72)	+.390 (9.91)	<u>w</u>	-.112 (2.84)	-.195 (4.95)
S	-.112 (2.84)	+.455 (11.56)	<u>x</u>	-.225 (5.72)	-.130 (3.30)

FIGURE 17. Insert arrangement, electrical connector, shell size 22 (series II of MIL-DTL-38999 and series II of MIL-DTL-27599) – Continued.

MIL-STD-1560C
w/CHANGE 2

Contacts (Insert arrangement 22-53)					
Contact position ID	Location		Contact position ID	Location	
	X-axis (mm)	Y-axis (mm)		X-axis (mm)	Y-axis (mm)
T	+.000 (0.00)	+.390 (9.91)	<u>y</u>	-.225 (5.72)	+.000 (0.00)
U	+.112 (2.84)	+.325 (8.26)	<u>z</u>	-.225 (5.72)	+.130 (3.30)
V	+.225 (5.72)	+.260 (6.60)	AA	-.112 (2.84)	+.195 (4.95)
W	+.336 (8.53)	+.195 (4.95)	BB	+.000 (0.00)	+.130 (3.30)
X	+.336 (8.53)	+.065 (1.65)	CC	+.112 (2.84)	+.065 (1.65)
Y	+.336 (8.53)	-.065 (1.65)	DD	+.112 (2.84)	-.065 (1.65)
Z	+.336 (8.53)	-.195 (4.95)	EE	+.000 (.00)	-.130 (3.30)
<u>a</u>	+.225 (5.72)	-.260 (6.60)	FF	-.112 (2.84)	-.065 (1.65)
<u>b</u>	+.112 (2.84)	-.325 (8.26)	GG	-.112 (2.84)	+.065 (1.65)
<u>c</u>	+.000 (0.00)	-.390 (9.91)	HH	+.000 (0.00)	+.000 (0.00)
<u>d</u>	-.112 (2.84)	-.325 (8.26)	---	---	---

Shell size	Arrangement no.	Number of contacts	Size contacts	Service rating	Contact location	Supersedes
22	-53	53	20	I	All	MS27350-53

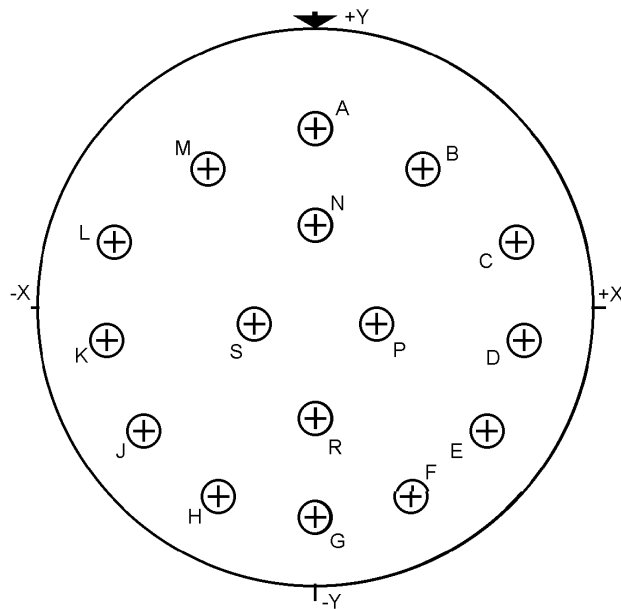
FIGURE 17. Insert arrangement, electrical connector, shell size 22 (series II of MIL-DTL-38999 and series II of MIL-DTL-27599) – Continued.

MIL-STD-1560C
w/CHANGE 2

Contacts (Insert arrangement 22-55)					
Contact position ID	Location		Contact position ID	Location	
	X-axis (mm)	Y-axis (mm)		X-axis (mm)	Y-axis (mm)
V	+ .000 (0.00)	+ .390 (9.91)	<u>z</u>	-.225 (5.72)	+ .130 (3.30)
W	+ .112 (2.84)	+ .325 (8.26)	AA	-.112 (2.84)	+ .195 (4.95)
X	+ .225 (5.72)	+ .260 (6.60)	BB	+ .000 (0.00)	+ .130 (3.30)
Y	+ .336 (8.53)	+ .195 (4.95)	CC	+ .112 (2.84)	+ .065 (1.65)
Z	+ .336 (8.53)	+ .065 (1.65)	DD	+ .112 (2.84)	-.065 (1.65)
a	+ .336 (8.53)	-.065 (1.65)	EE	+ .000 (0.00)	-.130 (3.30)
b	+ .336 (8.53)	-.195 (4.95)	FF	-.112 (2.84)	-.065 (1.65)
<u>c</u>	+ .225 (5.72)	-.260 (6.60)	GG	-.112 (2.84)	+ .065 (1.65)
d	+ .112 (2.84)	-.325 (8.26)	HH	+ .000 (0.00)	+ .000 (0.00)
e	+ .000 (0.00)	-.390 (9.91)	---	---	---

Shell size	Arrangement no.	Number of contacts	Size contacts	Service rating	Contact location	Supersedes
22	-55	55	20	I	All	MS27350-55

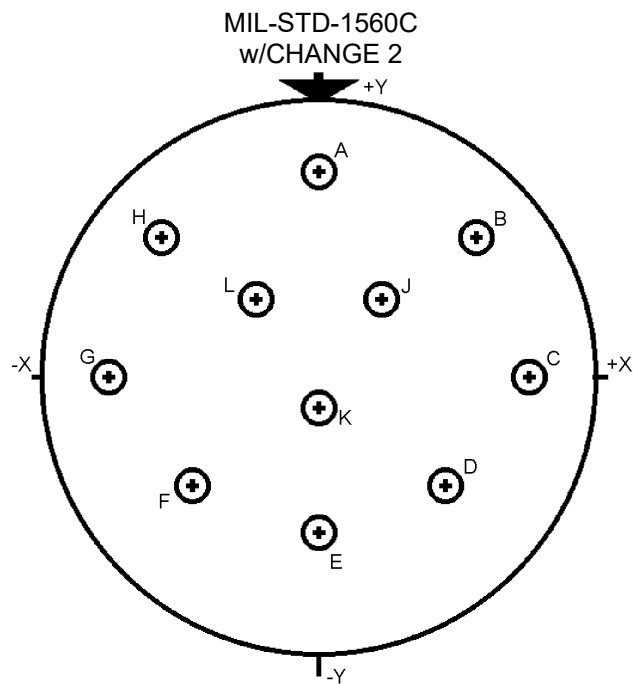
FIGURE 17. Insert arrangement, electrical connector, shell size 22 (series II of MIL-DTL-38999 and series II of MIL-DTL-27599) – Continued.

MIL-STD-1560C
w/CHANGE 2

Contacts (Insert arrangement 22-97)					
Contact position ID	Location		Contact position ID	Location	
	X-axis (mm)	Y-axis (mm)		X-axis (mm)	Y-axis (mm)
A	+0.000 (0.00)	+0.344 (8.74)	J	-.328 (8.33)	-.239 (6.07)
B	+.210 (5.33)	+.270 (6.86)	K	-.400 (10.16)	-.065 (1.65)
C	+.386 (9.80)	+.123 (3.12)	L	-.386 (9.80)	+.123 (3.12)
D	+.400 (10.16)	-.065 (1.65)	M	-.210 (5.33)	+.270 (6.86)
E	+.328 (8.33)	-.239 (6.07)	N	+0.000 (0.00)	+.156 (3.96)
F	+.183 (4.65)	-.362 (9.19)	P	+.120 (3.05)	-.030 (0.76)
G	+0.000 (0.00)	-.406 (10.31)	R	+0.000 (0.00)	-.218 (5.54)
H	-.183 (4.65)	-.362 (9.19)	S	-.120 (3.05)	-.030 (0.76)

Shell size	Arrangement no.	Number of contacts	Size contacts	Service rating	Contact location	Supersedes
22	-97	16	16	I	All	MS27350-97

FIGURE 17. Insert arrangement, electrical connector, shell size 22 (series II of MIL-DTL-38999 and series II of MIL-DTL-27599) – Continued.



Contacts (Insert arrangement 22-99)					
Contact position ID	Location		Contact position ID	Location	
	X-axis (mm)	Y-axis (mm)		X-axis (mm)	Y-axis (mm)
A	+0.000 (0.00)	+0.404 (10.26)	G	-0.404 (10.26)	+0.000 (0.00)
B	+0.300 (7.62)	+0.270 (6.86)	H	-0.300 (7.62)	+0.270 (6.86)
C	+0.404 (10.26)	+0.000 (0.00)	J	+0.120 (3.05)	+0.150 (3.81)
D	+0.240 (6.10)	-0.210 (5.33)	K	+0.000 (0.00)	-0.060 (1.52)
E	+0.000 (0.00)	-0.300 (7.62)	L	-0.120 (3.05)	+0.150 (3.81)
F	-0.240 (6.10)	-0.210 (5.33)	---	---	---

Shell size	Arrangement no.	Number of contacts	Size contacts	Service rating	Contact location	Supersedes
22	-99	11	16	II	All	MS27350-99

FIGURE 17. Insert arrangement, electrical connector, shell size 22 (series II of MIL-DTL-38999 and series II of MIL-DTL-27599) – Continued.

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w/CHANGE 2

Contacts (Insert arrangement 24-1)					
Contact position ID	Location		Contact position ID	Location	
	X-axis (mm)	Y-axis (mm)		X-axis (mm)	Y-axis (mm)
17	-.332 (8.43)	+.237 (6.02)	81	+.083 (2.11)	-.475 (12.07)
18	-.332 (8.43)	+.142 (3.61)	82	+.160 (4.06)	+.531 (13.49)
19	-.332 (8.43)	+.047 (1.19)	83	+.166 (4.22)	+.427 (10.85)
20	-.332 (8.43)	-.047 (1.19)	84	+.166 (4.22)	+.332 (8.43)
21	-.332 (8.43)	-.142 (3.61)	85	+.166 (4.22)	+.237 (6.02)
22	-.332 (8.43)	-.237 (6.02)	86	+.166 (4.22)	+.142 (3.61)
23	-.332 (8.43)	-.332 (8.43)	87	+.166 (4.22)	+.047 (1.19)
24	-.332 (8.43)	-.427 (10.85)	88	+.166 (4.22)	-.047 (1.19)
25	-.249 (6.32)	+.496 (12.60)	89	+.166 (4.22)	-.142 (3.61)
26	-.249 (6.32)	+.380 (9.65)	90	+.166 (4.22)	-.237 (6.02)
27	-.249 (6.32)	+.285 (7.24)	91	+.166 (4.22)	-.332 (8.43)
28	-.249 (6.32)	+.190 (4.83)	92	+.166 (4.22)	-.427 (10.85)
29	-.249 (6.32)	+.095 (2.41)	93	+.166 (4.22)	-.522 (13.26)
30	-.249 (6.32)	+.000 (0.00)	94	+.249 (6.32)	+.496 (12.60)
31	-.249 (6.32)	-.095 (2.41)	95	+.249 (6.32)	+.380 (9.65)
32	-.249 (6.32)	-.190 (4.83)	96	+.249 (6.32)	+.285 (7.24)
33	-.249 (6.32)	-.285 (7.24)	97	+.249 (6.32)	+.190 (4.83)
34	-.249 (6.32)	-.380 (9.65)	98	+.249 (6.32)	+.095 (2.41)
35	-.249 (6.32)	-.475 (12.07)	99	+.249 (6.32)	+.000 (0.00)
36	-.160 (4.06)	+.531 (13.49)	100	+.249 (6.32)	-.095 (2.41)
37	-.166 (4.22)	+.427 (10.85)	101	+.249 (6.32)	-.190 (4.83)
38	-.166 (4.22)	+.332 (8.43)	102	+.249 (6.32)	-.285 (7.24)
39	-.166 (4.22)	+.237 (6.02)	103	+.249 (6.32)	-.380 (9.65)
40	-.166 (4.22)	+.142 (3.61)	104	+.249 (6.32)	-.475 (12.07)
41	-.166 (4.22)	+.047 (1.19)	105	+.332 (8.43)	+.444 (11.28)
42	-.166 (4.22)	-.047 (1.19)	106	+.332 (8.43)	+.332 (8.43)
43	-.166 (4.22)	-.142 (3.61)	107	+.332 (8.43)	+.237 (6.02)
44	-.166 (4.22)	-.237 (6.02)	108	+.332 (8.43)	+.142 (3.61)
45	-.166 (4.22)	-.332 (8.43)	109	+.332 (8.43)	+.047 (1.19)
46	-.166 (4.22)	-.427 (10.85)	110	+.332 (8.43)	-.047 (1.19)
47	-.166 (4.22)	-.522 (13.26)	111	+.332 (8.43)	-.142 (3.61)
48	-.083 (2.11)	+.475 (12.07)	112	+.332 (8.43)	-.237 (6.02)
49	-.083 (2.11)	+.380 (9.65)	113	+.332 (8.43)	-.332 (8.43)
50	-.083 (2.11)	+.285 (7.24)	114	+.332 (8.43)	-.427 (10.85)

FIGURE 18. Insert arrangement, electrical connector, shell size 24 (series II of MIL-DTL-38999 and series II of MIL-DTL-27599) – Continued.

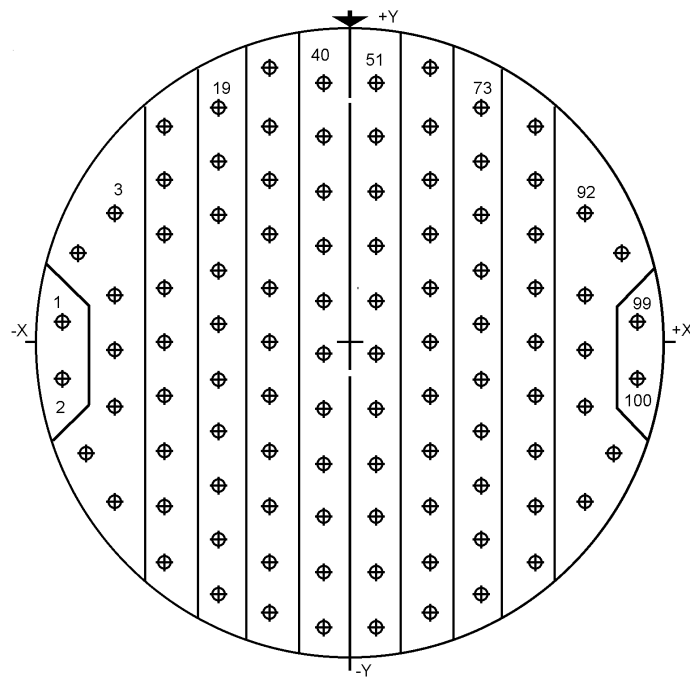
MIL-STD-1560C
w/CHANGE 2

Contacts (Insert arrangement 24-1)					
Contact position ID	Location		Contact position ID	Location	
	X-axis (mm)	Y-axis (mm)		X-axis (mm)	Y-axis (mm)
51	-.083 (2.11)	+.190 (4.83)	115	+.424 (10.77)	+.357 (9.07)
52	-.083 (2.11)	+.095 (2.41)	116	+.415 (10.54)	+.190 (4.83)
53	-.083 (2.11)	+.000 (0.00)	117	+.415 (10.54)	+.095 (2.41)
54	-.083 (2.11)	-.095 (2.41)	118	+.415 (10.54)	+.000 (0.00)
55	-.083 (2.11)	-.190 (4.83)	119	+.415 (10.54)	-.095 (2.41)
56	-.083 (2.11)	-.285 (7.24)	120	+.415 (10.54)	-.190 (4.83)
57	-.083 (2.11)	-.380 (9.65)	121	+.424 (10.77)	-.357 (9.07)
58	-.083 (2.11)	-.475 (12.07)	122	+.479 (12.17)	+.279 (7.09)
59	+.000 (0.00)	+.522 (13.26)	123	+.520 (13.21)	+.190 (4.83)
60	+.000 (0.00)	+.427 (10.85)	124	+.546 (13.87)	+.095 (2.41)
61	+.000 (0.00)	+.332 (8.43)	125	+.555 (14.10)	+.000 (0.00)
62	+.000 (0.00)	+.237 (6.02)	126	+.546 (13.87)	-.095 (2.41)
63	+.000 (0.00)	+.142 (3.61)	127	+.520 (13.21)	-.190 (4.83)
64	+.000 (0.00)	+.047 (1.19)	128	+.479 (12.17)	-.279 (7.09)

(Inactive for new design for MIL-DTL-38999)

Shell size	Arrangement no.	Number of contacts	Size contacts	Service rating	Contact location	Supersedes
24	-1	128	22M	M	All	MS27351-1

FIGURE 18. Insert arrangement, electrical connector, shell size 24 (series II of MIL-DTL-38999 and series II of MIL-DTL-27599) – Continued.

MIL-STD-1560C
w/CHANGE 2

Contacts (Insert arrangement 24-2)					
Contact position ID	Location		Contact position ID	Location	
	X-axis (mm)	Y-axis (mm)		X-axis (mm)	Y-axis (mm)
1	-.550 (13.97)	+.039 (.99)	51	+.053 (1.35)	+.502 (12.75)
2	-.550 (13.97)	-.068 (1.73)	52	+.053 (1.35)	+.397 (10.08)
3	-.459 (11.66)	+.253 (6.43)	53	+.053 (1.35)	+.292 (7.42)
4	-.523 (13.28)	+.175 (4.45)	54	+.053 (1.35)	+.187 (4.75)
5	-.459 (11.66)	+.092 (2.34)	55	+.053 (1.35)	+.082 (2.08)
6	-.459 (11.66)	-.014 (0.36)	56	+.053 (1.35)	-.023 (0.58)
7	-.459 (11.66)	-.122 (3.10)	57	+.053 (1.35)	-.128 (3.25)
8	-.509 (12.93)	-.215 (5.46)	58	+.053 (1.35)	-.233 (5.92)
9	-.459 (11.66)	-.307 (7.80)	59	+.053 (1.35)	-.338 (8.59)
10	-.354 (8.99)	+.420 (10.67)	60	+.053 (1.35)	-.443 (11.25)
11	-.354 (8.99)	+.315 (8.00)	61	+.053 (1.35)	-.548 (13.92)
12	-.354 (8.99)	+.210 (5.33)	62	+.154 (3.91)	+.525 (13.34)
13	-.354 (8.99)	+.105 (2.67)	63	+.154 (3.91)	+.420 (10.67)
14	-.354 (8.99)	+.000 (0.00)	64	+.154 (3.91)	+.315 (8.00)

FIGURE 18. Insert arrangement, electrical connector, shell size 24 (series II of MIL-DTL-38999 and series II of MIL-DTL-27599) – Continued.

MIL-STD-1560C
w/CHANGE 2

Contacts (Insert arrangement 24-2)					
Contact position ID	Location		Contact position ID	Location	
	X-axis (mm)	Y-axis (mm)		X-axis (mm)	Y-axis (mm)
15	-.354 (8.99)	-.105 (2.67)	65	+.154 (3.91)	+.210 (5.33)
16	-.354 (8.99)	-.210 (5.33)	66	+.154 (3.91)	+.105 (2.67)
17	-.354 (8.99)	-.315 (8.00)	67	+.154 (3.91)	+.000 (0.00)
18	-.354 (8.99)	-.420 (10.67)	68	+.154 (3.91)	-.105 (2.67)
19	-.255 (6.48)	+.457 (11.61)	69	+.154 (3.91)	-.210 (5.33)
20	-.255 (6.48)	+.352 (8.94)	70	+.154 (3.91)	-.315 (8.00)
21	-.255 (6.48)	+.247 (6.27)	71	+.154 (3.91)	-.420 (10.67)
22	-.255 (6.48)	+.142 (3.61)	72	+.154 (3.91)	-.525 (13.34)
23	-.255 (6.48)	+.037 (0.94)	73	+.255 (6.48)	+.457 (11.61)
24	-.255 (6.48)	-.068 (1.73)	74	+.255 (6.48)	+.352 (8.94)
25	-.255 (6.48)	-.173 (4.39)	75	+.255 (6.48)	+.247 (6.27)
26	-.255 (6.48)	-.278 (7.06)	76	+.255 (6.48)	+.142 (3.61)
27	-.255 (6.48)	-.383 (9.73)	77	+.255 (6.48)	+.037 (0.94)
28	-.255 (6.48)	-.488 (12.40)	78	+.255 (6.48)	-.068 (1.73)
29	-.154 (3.91)	+.525 (13.34)	79	+.255 (6.48)	-.173 (4.39)
30	-.154 (3.91)	+.420 (10.67)	80	+.255 (6.48)	-.278 (7.06)
31	-.154 (3.91)	+.315 (8.00)	81	+.255 (6.48)	-.383 (9.73)
32	-.154 (3.91)	+.210 (5.33)	82	+.255 (6.48)	-.488 (12.40)
33	-.154 (3.91)	+.105 (2.67)	83	+.354 (8.99)	+.420 (10.67)
34	-.154 (3.91)	+.000 (0.00)	84	+.354 (8.99)	+.315 (8.00)
35	-.154 (3.91)	-.105 (2.67)	85	+.354 (8.99)	+.210 (5.33)
36	-.154 (3.91)	-.210 (5.33)	86	+.354 (8.99)	+.105 (2.67)
37	-.154 (3.91)	-.315 (8.00)	87	+.354 (8.99)	+.000 (0.00)
38	-.154 (3.91)	-.420 (10.67)	88	+.354 (8.99)	-.105 (2.67)
39	-.154 (3.91)	-.525 (13.34)	89	+.354 (8.99)	-.210 (5.33)
40	-.053 (1.35)	+.502 (12.75)	90	+.354 (8.99)	-.315 (8.00)
41	-.053 (1.35)	+.397 (10.08)	91	+.354 (8.99)	-.420 (10.67)
42	-.053 (1.35)	+.292 (7.42)	92	+.459 (11.66)	+.253 (6.43)
43	-.053 (1.35)	+.187 (4.75)	93	+.523 (13.28)	+.175 (4.45)
44	-.053 (1.35)	+.082 (2.08)	94	+.459 (11.66)	+.092 (2.34)

FIGURE 18. Insert arrangement, electrical connector, shell size 24 (series II of MIL-DTL-38999 and series II of MIL-DTL-27599) – Continued.

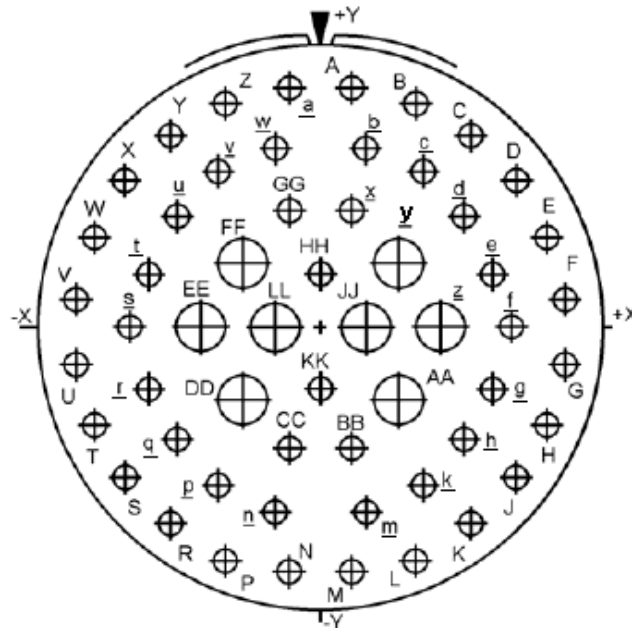
MIL-STD-1560C
w/CHANGE 2

Contacts (Insert arrangement 24-2)						
Contact position ID	Location		Contact position ID	Location		
	X-axis (mm)	Y-axis (mm)		X-axis (mm)	Y-axis (mm)	
45	-.053 (1.35)	-.023 (0.58)	95	+.459 (11.66)	-.014 (0.36)	
46	-.053 (1.35)	-.128 (3.25)	96	+.459 (11.66)	-.122 (3.10)	
47	-.053 (1.35)	-.233 (5.92)	97	+.509 (12.93)	-.215 (5.46)	
48	-.053 (1.35)	-.338 (8.59)	98	+.459 (11.66)	-.307 (7.80)	
49	-.053 (1.35)	-.443 (11.25)	99	+.550 (13.97)	+.039 (0.99)	
50	-.053 (1.35)	-.548 (13.92)	100	+.550 (13.97)	-.068 (1.73)	

(Inactive for new design for MIL-DTL-38999.)

Shell size	Arrangement no.	Number of contacts	Size contacts	Service rating	Contact location	Supersedes
24	-2	100	22	M	All	MS27351-2

FIGURE 18. Insert arrangement, electrical connector, shell size 24 (series II of MIL-DTL-38999 and series II of MIL-DTL-27599) – Continued.

MIL-STD-1560C
w/CHANGE 2

Contacts (Insert arrangement 24-4)					
Contact position ID	Location		Contact position ID	Location	
	X-axis (mm)	Y-axis (mm)		X-axis (mm)	Y-axis (mm)
A	+0.069 (1.75)	+0.531 (13.49)	f	+0.412 (10.46)	+0.000 (0.00)
B	+0.203 (5.16)	+0.495 (12.57)	g	+0.377 (9.58)	-0.132 (3.35)
C	+0.324 (8.23)	+0.425 (10.80)	h	+0.311 (7.90)	-0.251 (6.38)
D	+0.424 (10.77)	+0.326 (8.28)	k	+0.212 (5.38)	-0.344 (8.74)
E	+0.493 (12.52)	+0.205 (5.21)	m	+0.086 (2.18)	-0.397 (10.08)
F	+0.531 (13.49)	+0.069 (1.75)	n	-0.086 (2.18)	-0.397 (10.08)
G	+0.531 (13.49)	-0.069 (1.75)	p	-0.212 (5.38)	-0.344 (8.74)
H	+0.493 (12.52)	-0.205 (5.21)	q	-0.311 (7.90)	-0.251 (6.38)
J	+0.424 (10.77)	-0.326 (8.28)	r	-0.377 (9.58)	-0.132 (3.35)
K	+0.324 (8.23)	-0.425 (10.80)	s	-0.412 (10.46)	+0.000 (0.00)
L	+0.203 (5.16)	-0.495 (12.57)	t	-0.377 (9.58)	+0.132 (3.35)
M	+0.069 (1.75)	-0.531 (13.49)	u	-0.311 (7.90)	+0.251 (6.38)
N	-0.069 (1.75)	-0.531 (13.49)	v	-0.212 (5.38)	+0.344 (8.74)
P	-0.203 (5.16)	-0.495 (12.57)	w	-0.086 (2.18)	+0.397 (10.08)
R	-0.324 (8.23)	-0.425 (10.80)	x	+0.069 (1.75)	+0.263 (6.68)
S	-0.424 (10.77)	-0.326 (8.28)	y	+0.172 (4.37)	+0.149 (3.78)
T	-0.493 (12.52)	-0.205 (5.21)	z	+0.258 (6.55)	+0.000 (0.00)
U	-0.531 (13.49)	-0.069 (1.75)	AA	+0.172 (4.37)	-0.149 (3.78)
V	-0.531 (13.49)	+0.069 (1.75)	BB	+0.069 (1.75)	-0.263 (6.68)

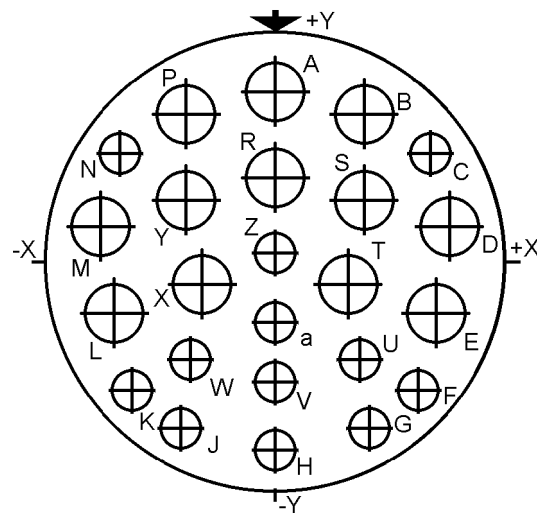
FIGURE 18. Insert arrangement, electrical connector, shell size 24 (series II of MIL-DTL-38999 and series II of MIL-DTL-27599) – Continued.

MIL-STD-1560C
w/CHANGE 2

Contacts (Insert arrangement 24-4)					
Contact position ID	Location		Contact position ID	Location	
	X-axis (mm)	Y-axis (mm)		X-axis (mm)	Y-axis (mm)
W	-.493 (12.52)	+.205 (5.21)	CC	-.069 (1.75)	-.263 (6.68)
X	-.424 (10.77)	+.326 (8.28)	DD	-.172 (4.37)	-.149 (3.78)
Y	-.324 (8.23)	+.425 (10.80)	EE	-.258 (6.55)	+.000 (0.00)
Z	-.203 (5.16)	+.495 (12.57)	FF	-.172 (4.37)	+.149 (3.78)
<u>a</u>	-.069 (1.75)	+.531 (13.49)	GG	-.069 (1.75)	+.263 (6.68)
<u>b</u>	+.086 (2.18)	+.397 (10.08)	HH	+.000 (0.00)	+.132 (3.35)
<u>c</u>	+.212 (5.38)	+.344 (8.74)	JJ	+.086 (2.18)	+.000 (0.00)
<u>d</u>	+.311 (7.90)	+.251 (6.38)	KK	+.000 (0.00)	-.132 (3.35)
<u>e</u>	+.377 (9.58)	+.132 (3.35)	LL	-.086 (2.18)	+.000 (0.00)

Shell size	Arrangement no.	Number of contacts	Size contacts	Service rating	Contact location	Supersedes
24	-4	8	16	I	AA,DD,EE, FF,JJ,LL,y,z	MS27351-4
		48	20		All others	

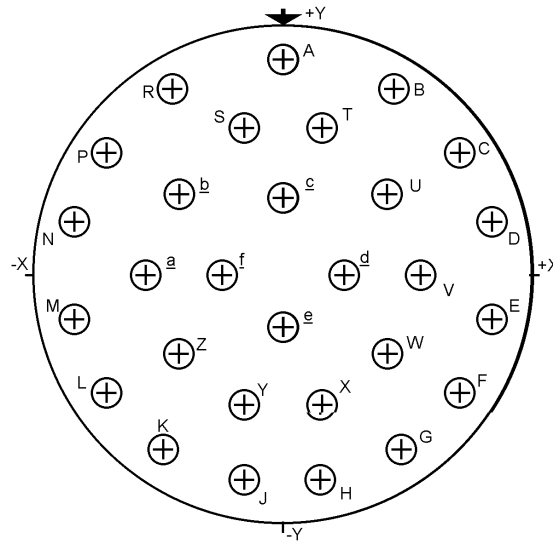
FIGURE 18. Insert arrangement, electrical connector, shell size 24 (series II of MIL-DTL-38999 and series II of MIL-DTL-27599) – Continued.

MIL-STD-1560C
w/CHANGE 2

Contacts (Insert arrangement 24-24)					
Contact position ID	Location		Contact position ID	Location	
	X-axis (mm)	Y-axis (mm)		X-axis (mm)	Y-axis (mm)
A	+ .000 (0.00)	+ .472 (11.99)	N	- .403 (10.24)	+ .298 (7.57)
B	+ .230 (5.84)	+ .410 (10.41)	P	- .230 (5.84)	+ .410 (10.41)
C	+ .403 (10.24)	+ .298 (7.57)	R	+ .000 (0.00)	+ .234 (5.94)
D	+ .461 (11.71)	+ .100 (2.54)	S	+ .230 (5.84)	+ .172 (4.37)
E	+ .413 (10.49)	- .134 (3.40)	T	+ .186 (4.72)	- .062 (1.57)
F	+ .370 (9.40)	- .336 (8.53)	U	+ .211 (5.36)	- .267 (6.78)
G	+ .230 (5.84)	- .441 (11.20)	V	+ .000 (0.00)	- .323 (8.20)
H	+ .000 (0.00)	- .495 (12.57)	W	- .211 (5.36)	- .267 (6.78)
J	- .230 (5.84)	- .441 (11.20)	X	- .186 (4.72)	- .062 (1.57)
K	- .370 (9.40)	- .336 (8.53)	Y	- .230 (5.84)	+ .172 (4.37)
L	- .413 (10.49)	- .134 (3.40)	Z	+ .000 (0.00)	+ .028 (0.71)
M	- .461 (11.71)	+ .100 (2.54)	a	+ .000 (0.00)	- .151 (3.84)

Shell size	Arrangement no.	Number of contacts	Size contacts	Service rating	Contact location	Supersedes
24	-24	12	12	I	A,B,D,E,L,M, P,R,S,T,X,Y	MS27351-24
		12	16		All others	

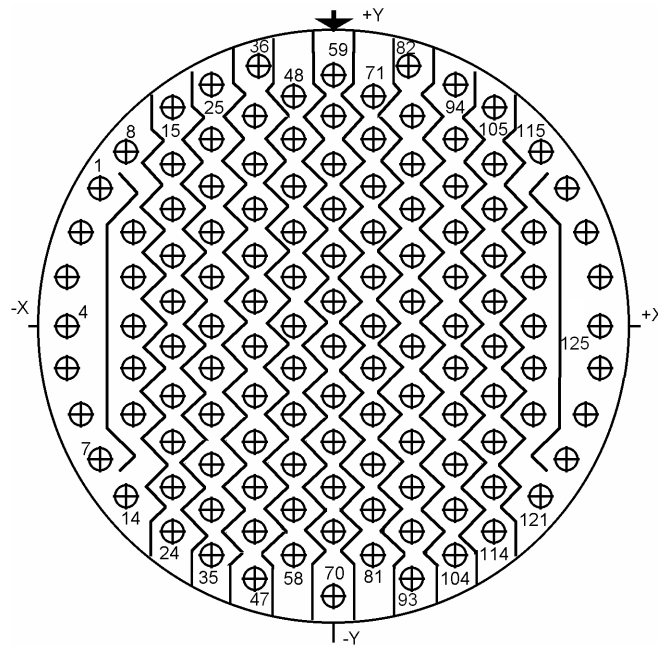
FIGURE 18. Insert arrangement, electrical connector, shell size 24 (series II of MIL-DTL-38999 and series II of MIL-DTL-27599) – Continued.

MIL-STD-1560C
w/CHANGE 2

Contacts (Insert arrangement 24-29)					
Contact position ID	Location		Contact position ID	Location	
	X-axis (mm)	Y-axis (mm)		X-axis (mm)	Y-axis (mm)
A	+.000 (0.00)	+.481 (12.22)	S	-.091 (2.31)	+.321 (8.15)
B	+.258 (6.55)	+.406 (10.31)	T	+.091 (2.31)	+.321 (8.15)
C	+.395 (10.03)	+.277 (7.04)	U	+.228 (5.79)	+.194 (4.93)
D	+.469 (11.91)	+.109 (2.77)	V	+.319 (8.10)	+.000 (0.00)
E	+.469 (11.91)	-.109 (2.77)	W	+.240 (6.10)	-.181 (4.60)
F	+.395 (10.03)	-.277 (7.04)	X	+.091 (2.31)	-.290 (7.37)
G	+.263 (6.68)	-.406 (10.31)	Y	-.091 (2.31)	-.290 (7.37)
H	+.091 (2.31)	-.472 (11.99)	Z	-.240 (6.10)	-.181 (4.60)
J	-.091 (2.31)	-.472 (11.99)	a	-.319 (8.10)	+.000 (0.00)
K	-.263 (6.68)	-.406 (10.31)	b	-.228 (5.79)	+.194 (4.93)
L	-.395 (10.03)	-.277 (7.04)	c	+.000 (0.00)	+.161 (4.09)
M	-.469 (11.91)	-.109 (2.77)	d	+.134 (3.40)	+.000 (0.00)
N	-.469 (11.91)	+.109 (2.77)	e	+.000 (0.00)	-.130 (3.30)
P	-.395 (10.03)	+.277 (7.04)	f	-.134 (3.40)	+.000 (0.00)
R	-.258 (6.55)	+.406 (10.31)	---	---	---

Shell size	Arrangement no.	Number of contacts	Size contacts	Service rating	Contact location	Supersedes
24	-29	29	16	I	All	MS27351-29

FIGURE 18. Insert arrangement, electrical connector, shell size 24 (series II of MIL-DTL-38999 and series II of MIL-DTL-27599) – Continued.

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w/CHANGE 2

Contacts (Insert arrangement 24-35)					
Contact position ID	Location		Contact position ID	Location	
	X-axis (mm)	Y-axis (mm)		X-axis (mm)	Y-axis (mm)
1	-.479 (12.17)	+ .279 (7.09)	65	+ .000 (0.00)	-.047 (1.19)
2	-.520 (13.21)	+ .190 (4.83)	66	+ .000 (0.00)	-.142 (3.61)
3	-.546 (13.87)	+ .095 (2.41)	67	+ .000 (0.00)	-.237 (6.02)
4	-.555 (14.10)	+ .000 (0.00)	68	+ .000 (0.00)	-.332 (8.43)
5	-.546 (13.87)	-.095 (2.41)	69	+ .000 (0.00)	-.427 (10.85)
6	-.520 (13.21)	-.190 (4.83)	70	+ .000 (0.00)	-.555 (14.10)
7	-.479 (12.17)	-.279 (7.09)	71	+ .083 (2.11)	+ .475 (12.07)
8	-.424 (10.77)	+ .357 (9.07)	72	+ .083 (2.11)	+ .380 (9.65)
9	-.415 (10.54)	+ .190 (4.83)	73	+ .083 (2.11)	+ .285 (7.24)
10	-.415 (10.54)	+ .095 (2.41)	74	+ .083 (2.11)	+ .190 (4.83)
11	-.415 (10.54)	+ .000 (0.00)	75	+ .083 (2.11)	+ .095 (2.41)
12	-.415 (10.54)	-.095 (2.41)	76	+ .083 (2.11)	+ .000 (.00)
13	-.415 (10.54)	-.190 (4.83)	77	+ .083 (2.11)	-.095 (2.41)
14	-.424 (10.77)	-.357 (9.07)	78	+ .083 (2.11)	-.190 (4.83)
15	-.332 (8.43)	+ .444 (11.28)	79	+ .083 (2.11)	-.285 (7.24)
16	-.332 (8.43)	+ .332 (8.43)	80	+ .083 (2.11)	-.380 (9.65)
17	-.332 (8.43)	+ .237 (6.02)	81	+ .083 (2.11)	-.475 (12.07)

FIGURE 18. Insert arrangement, electrical connector, shell size 24 (series II of MIL-DTL-38999 and series II of MIL-DTL-27599) – Continued.

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w/CHANGE 2

Contacts (Insert arrangement 24-35)					
Contact position ID	Location		Contact position ID	Location	
	X-axis (mm)	Y-axis (mm)		X-axis (mm)	Y-axis (mm)
18	-.332 (8.43)	+.142 (3.61)	82	+.160 (4.06)	+.531 (13.49)
19	-.332 (8.43)	+.047 (1.19)	83	+.166 (4.22)	+.427 (10.85)
20	-.332 (8.43)	-.047 (1.19)	84	+.166 (4.22)	+.332 (8.43)
21	-.332 (8.43)	-.142 (3.61)	85	+.166 (4.22)	+.237 (6.02)
22	-.332 (8.43)	-.237 (6.02)	86	+.166 (4.22)	+.142 (3.61)
23	-.332 (8.43)	-.332 (8.43)	87	+.166 (4.22)	+.047 (1.19)
24	-.332 (8.43)	-.427 (10.85)	88	+.166 (4.22)	-.047 (1.19)
25	-.249 (6.32)	+.496 (12.60)	89	+.166 (4.22)	-.142 (3.61)
26	-.249 (6.32)	+.380 (9.65)	90	+.166 (4.22)	-.237 (6.02)
27	-.249 (6.32)	+.285 (7.24)	91	+.166 (4.22)	-.332 (8.43)
28	-.249 (6.32)	+.190 (4.83)	92	+.166 (4.22)	-.427 (10.85)
29	-.249 (6.32)	+.095 (2.41)	93	+.166 (4.22)	-.522 (13.26)
30	-.249 (6.32)	+.000 (0.00)	94	+.249 (6.32)	+.496 (12.60)
31	-.249 (6.32)	-.095 (2.41)	95	+.249 (6.32)	+.380 (9.65)
32	-.249 (6.32)	-.190 (4.83)	96	+.249 (6.32)	+.285 (7.24)
33	-.249 (6.32)	-.285 (7.24)	97	+.249 (6.32)	+.190 (4.83)
34	-.249 (6.32)	-.380 (9.65)	98	+.249 (6.32)	+.095 (2.41)
35	-.249 (6.32)	-.475 (12.07)	99	+.249 (6.32)	+.000 (0.00)
36	-.160 (4.06)	+.531 (13.49)	100	+.249 (6.32)	-.095 (2.41)
37	-.166 (4.22)	+.427 (10.85)	101	+.249 (6.32)	-.190 (4.83)
38	-.166 (4.22)	+.332 (8.43)	102	+.249 (6.32)	-.285 (7.24)
39	-.166 (4.22)	+.237 (6.02)	103	+.249 (6.32)	-.380 (9.65)
40	-.166 (4.22)	+.142 (3.61)	104	+.249 (6.32)	-.475 (12.07)
41	-.166 (4.22)	+.047 (1.19)	105	+.332 (8.43)	+.444 (11.28)
42	-.166 (4.22)	-.047 (1.19)	106	+.332 (8.43)	+.332 (8.43)
43	-.166 (4.22)	-.142 (3.61)	107	+.332 (8.43)	+.237 (6.02)
44	-.166 (4.22)	-.237 (6.02)	108	+.332 (8.43)	+.142 (3.61)
45	-.166 (4.22)	-.332 (8.43)	109	+.332 (8.43)	+.047 (1.19)
46	-.166 (4.22)	-.427 (10.85)	110	+.332 (8.43)	-.047 (1.19)
47	-.166 (4.22)	-.522 (13.26)	111	+.332 (8.43)	-.142 (3.61)
48	-.083 (2.11)	+.475 (12.07)	112	+.332 (8.43)	-.237 (6.02)
49	-.083 (2.11)	+.380 (9.65)	113	+.332 (8.43)	-.332 (8.43)
50	-.083 (2.11)	+.285 (7.24)	114	+.332 (8.43)	-.427 (10.85)
51	-.083 (2.11)	+.190 (4.83)	115	+.424 (10.77)	+.357 (9.07)
52	-.083 (2.11)	+.095 (2.41)	116	+.415 (10.54)	+.190 (4.83)
53	-.083 (2.11)	+.000 (0.00)	117	+.415 (10.54)	+.095 (2.41)

FIGURE 18. Insert arrangement, electrical connector, shell size 24 (series II of MIL-DTL-38999 and series II of MIL-DTL-27599) – Continued.

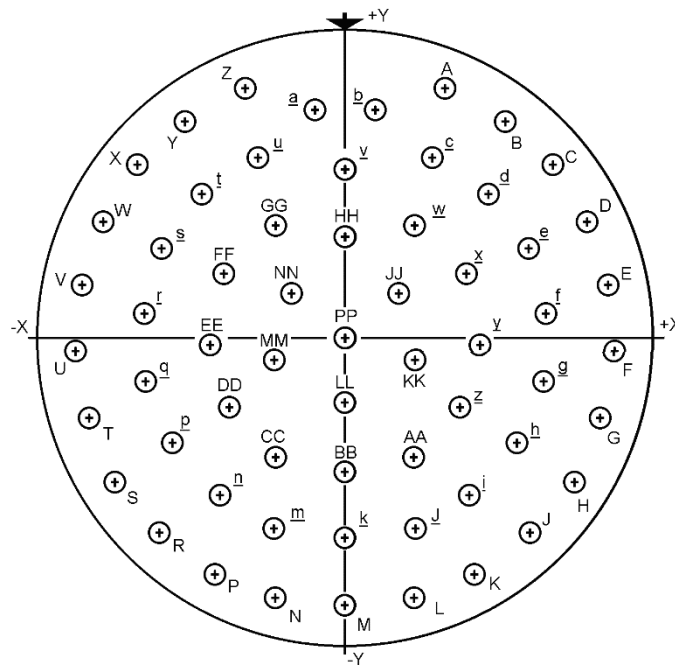
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Contacts (Insert arrangement 24-35)					
Contact position ID	Location		Contact position ID	Location	
	X-axis (mm)	Y-axis (mm)		X-axis (mm)	Y-axis (mm)
54	-.083 (2.11)	-.095 (2.41)	118	+.415 (10.54)	+.000 (0.00)
55	-.083 (2.11)	-.190 (4.83)	119	+.415 (10.54)	-.095 (2.41)
56	-.083 (2.11)	-.285 (7.24)	120	+.415 (10.54)	-.190 (4.83)
57	-.083 (2.11)	-.380 (9.65)	121	+.424 (10.77)	-.357 (9.07)
58	-.083 (2.11)	-.475 (12.07)	122	+.479 (12.17)	+.279 (7.09)
59	+.000 (0.00)	+.522 (13.26)	123	+.520 (13.21)	+.190 (4.83)
60	+.000 (0.00)	+.427 (10.85)	124	+.546 (13.87)	+.095 (2.41)
61	+.000 (0.00)	+.332 (8.43)	125	+.555 (14.10)	+.000 (.00)
62	+.000 (0.00)	+.237 (6.02)	126	+.546 (13.87)	-.095 (2.41)
63	+.000 (0.00)	+.142 (3.61)	127	+.520 (13.21)	-.190 (4.83)
64	+.000 (0.00)	+.047 (1.19)	128	+.479 (12.17)	-.279 (7.09)

(Applicable to MIL-DTL-38999 only)

Shell size	Arrangement no.	Number of contacts	Size contacts	Service rating	Contact location	Supersedes
24	-35	128	22D	M	All	MS27524-35

FIGURE 18. Insert arrangement, electrical connector, shell size 24 (series II of MIL-DTL-38999 and series II of MIL-DTL-27599) – Continued.

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Contacts (Insert arrangement 24-61)					
Contact position ID	Location		Contact position ID	Location	
	X-axis (mm)	Y-axis (mm)		X-axis (mm)	Y-axis (mm)
A	+.196 (4.98)	+.500 (12.70)	i	+.251 (6.38)	-.314 (7.98)
B	+.314 (7.98)	+.435 (11.05)	j	+.133 (3.38)	-.379 (9.63)
C	+.413 (10.49)	+.343 (8.71)	k	+.000 (0.00)	-.402 (10.21)
D	+.485 (12.32)	+.230 (5.84)	m	-.133 (3.38)	-.379 (9.63)
E	+.527 (13.39)	+.101 (2.57)	n	-.251 (6.38)	-.314 (7.98)
F	+.536 (13.61)	-.030 (0.76)	p	-.341 (8.66)	-.213 (5.41)
G	+.511 (12.98)	-.164 (4.17)	q	-.392 (9.96)	-.088 (2.24)
H	+.454 (11.53)	-.287 (7.29)	r	-.399 (10.13)	+.046 (1.17)
J	+.368 (9.35)	-.391 (9.93)	s	-.362 (9.19)	+.175 (4.45)
K	+.259 (6.58)	-.470 (11.94)	t	-.285 (7.24)	+.283 (7.19)
L	+.134 (3.40)	-.519 (13.18)	u	-.173 (4.39)	+.363 (9.22)
M	+.000 (0.00)	-.537 (13.64)	v	+.000 (0.00)	+.338 (8.59)
N	-.134 (3.40)	-.519 (13.18)	w	+.147 (3.73)	+.223 (5.66)
P	-.259 (6.58)	-.470 (11.94)	x	+.237 (6.02)	+.122 (3.10)
R	-.368 (9.35)	-.391 (9.93)	y	+.267 (6.78)	-.010 (0.25)
S	-.454 (11.53)	-.287 (7.29)	z	+.228 (5.79)	-.139 (3.53)
T	-.511 (12.98)	-.164 (4.17)	AA	+.131 (3.33)	-.233 (5.92)

FIGURE 18. Insert arrangement, electrical connector, shell size 24 (series II of MIL-DTL-38999 and series II of MIL-DTL-27599) – Continued.

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Contacts (Insert arrangement 24-61)					
Contact position ID	Location		Contact position ID	Location	
	X-axis (mm)	Y-axis (mm)		X-axis (mm)	Y-axis (mm)
U	-.536 (13.61)	-.030 (.76)	BB	+.000 (.00)	-.267 (6.78)
V	-.527 (13.39)	+.101 (2.57)	CC	-.131 (3.33)	-.233 (5.92)
W	-.485 (12.32)	+.230 (5.84)	DD	-.228 (5.79)	-.139 (3.53)
X	-.413 (10.49)	+.343 (8.71)	EE	-.267 (6.78)	-.010 (0.25)
Y	-.314 (7.98)	+.435 (11.05)	FF	-.237 (6.02)	+.122 (3.10)
Z	-.196 (4.98)	+.500 (12.70)	GG	-.147 (3.73)	+.223 (5.66)
<u>a</u>	-.068 (1.73)	+.454 (11.53)	HH	+.000 (0.00)	+.200 (5.08)
<u>b</u>	+.068 (1.73)	+.454 (11.53)	JJ	+.105 (2.67)	+.094 (2.39)
<u>c</u>	+.173 (4.39)	+.363 (9.22)	KK	+.135 (3.43)	-.041 (1.04)
<u>d</u>	+.285 (7.24)	+.283 (7.19)	LL	+.000 (0.00)	-.132 (3.35)
<u>e</u>	+.362 (9.19)	+.175 (4.45)	MM	-.135 (3.43)	-.041 (1.04)
<u>f</u>	+.399 (10.13)	+.046 (1.17)	NN	-.105 (2.67)	+.094 (2.39)
<u>g</u>	+.392 (9.96)	-.088 (2.24)	PP	+.000 (0.00)	+.000 (0.00)
<u>h</u>	+.341 (8.66)	-.213 (5.41)	---	---	---

Shell size	Arrangement no.	Number of contacts	Size contacts	Service rating	Contact location	Supersedes
24	-61	61	20	I	All	MS27351- 61

FIGURE 18. Insert arrangement, electrical connector, shell size 24 (series II of MIL-DTL-38999 and series II of MIL-DTL-27599) – Continued.

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CONCLUDING MATERIAL

Custodians:

Army – CR

Navy – AS

Air Force – 85

DLA - CC

Preparing activity:

DLA - CC

(Project 5935–2018-127)

Review activities:

Army – AR, MI

Navy – EC, MC, OS

NOTE: The activities listed above were interested in this document as of the date of this document. Since organizations and responsibilities can change, you should verify the currency of the information above using the ASSIST Online database at <https://assist.dla.mil>.