

INCH-POUND

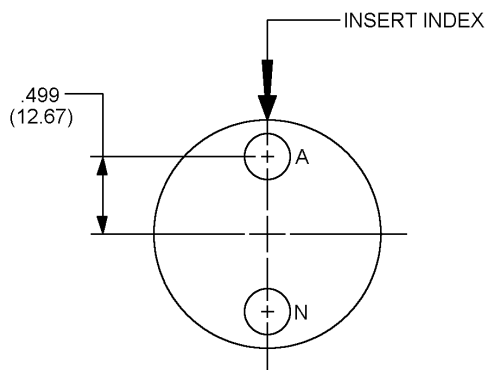
MS14055J
1 April 2009
 SUPERSEDING
 MS14055H
 26 October 2005

DETAIL SPECIFICATION SHEET

INSERT ARRANGEMENTS, ELECTRICAL CONNECTOR, SIZE 44, CLASS L, 100 AMPS

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

The requirements for acquiring the product described herein
 shall consist of this specification sheet and MIL-DTL-22992.



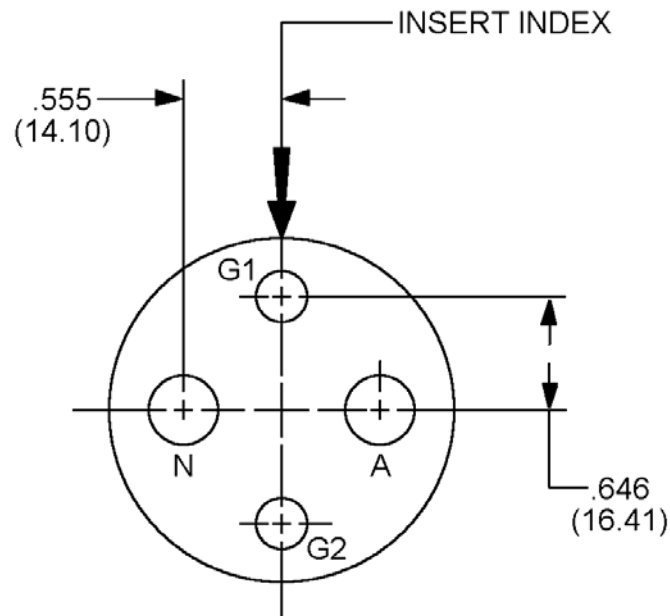
Quantity	Contact	Size	Socket SAE-AS39029/49-	Pin SAE-AS39029/48-
1	A	1/0	333	323
1	N	1/0N	333 (see note 6)	324

NOTES:

1. Dimensions are in inches. Metric equivalents are given for information only. Unless otherwise specified, tolerance is $\pm .002$ (.05 mm).
2. Unless otherwise specified, front face of pin insert pattern is shown. Socket inserts are the reverse.
3. -02-Cable IPCEA 2-NO 2 conductor round type W, 0 - 600 volts.
4. -03-Cable-C0-02-HDF (2/1) 1385 in accordance with MIL-DTL-3432.
5. Mark 44-02 on 44-03 insert. Trademark and 44-() shall appear in available space. Contact identifying letter shall be located so as to identify relative contact.
6. Only the pin contact is lengthened and has the N (neutral) designation. The mating socket contact is the same as the power contact.
7. The contact position labeled (G) in the insert arrangement contains the 1/0N (neutral) size pin contact that is connected to the shell to form a grounding pin contact.

FIGURE 1. 28 volt DC two wire -02 and -03 insert arrangements, service D.

MS14055J



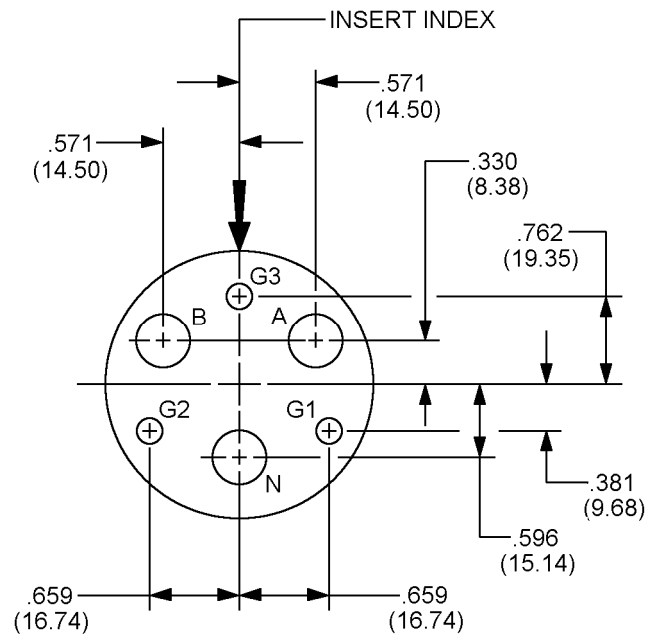
Quantity	Contact	Size	Socket SAE-AS39029/49-	Pin SAE-AS39029/48-
1	A	1/0	333	323
1	N	1/0N	333 (see note 6)	324
2	G1, G2	4G	332	322

NOTES:

1. Dimensions are in inches. Metric equivalents are given for information only. Unless otherwise specified, tolerance is $\pm .002$ (.05 mm).
2. Unless otherwise specified, front face of pin insert pattern is shown. Socket inserts are the reverse.
3. -04-Cable IPCEA 2-NO 2 conductor round type G, 0 - 600 volts.
4. -05-Cable-C0-02-HDF (2/1-2/5R) 1385 in accordance with MIL-DTL-3432.
5. Mark 44-04 on 44-05 insert. Trademark and 44-() shall appear in available space. Contact identifying letter shall be located so as to identify relative contact.
6. Only the pin contact is lengthened and has the N (neutral) designation. The mating socket contact is the same as the power contact.
7. The contact position labeled (G) in the insert arrangement contains the 1/0N (neutral) size pin contact that is connected to the shell to form a grounding pin contact.

FIGURE 2. AC single phase two wire grounding, -04 and -05 insert arrangements, service D.

MS14055J



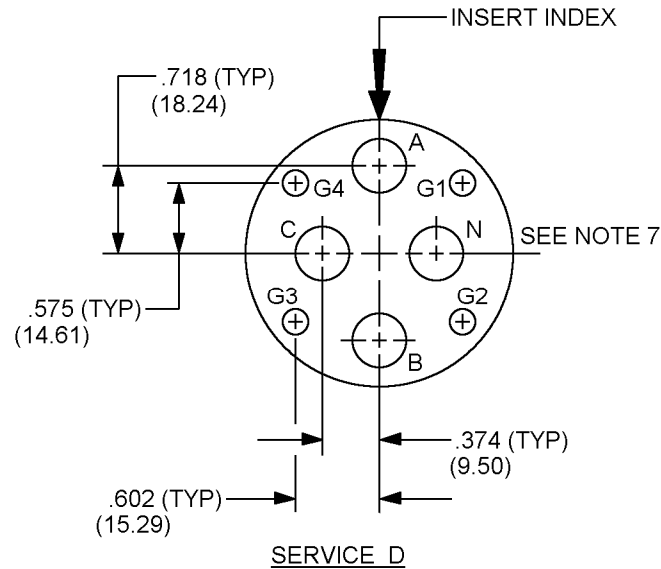
Quantity	Contact	Size	Socket SAE-AS39029/49-	Pin SAE-AS39029/48-
2	A, B	1/0	333	323
1	N	1/0N	333 (see note 5)	324
3	G1, G2, G3	6G	330	319

NOTES:

1. Dimensions are in inches. Metric equivalents are given for information only. Unless otherwise specified, tolerance is $\pm .002$ (.05 mm).
2. Unless otherwise specified, front face of pin insert pattern is shown. Socket inserts are the reverse.
3. -06-Cable IPCEA 3-NO 2 conductor round type G, 0 - 600 volts.
4. Mark 44-06 on insert. Trademark and 44-06 shall appear in available space. Contact identifying letter shall be located so as identify relative contact.
5. Only the pin contact is lengthened and has the N (neutral) designation. The mating socket contact is the same as the power contact.
6. The contact position labeled (G) in the insert arrangement contains the 1/0N (neutral) size pin contact that is connected to the shell to form a grounding pin contact.

FIGURE 3. AC single phase three wire grounding, -06 insert arrangements, service D.

MS14055J



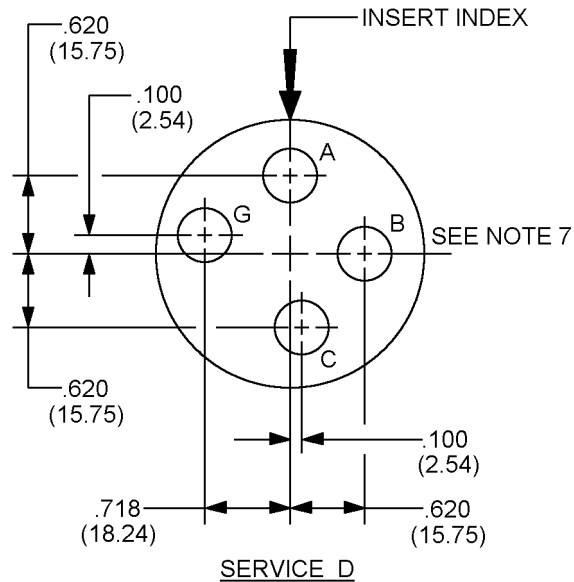
Quantity	Contact	Size	Socket SAE-AS39029/49-	Pin SAE-AS39029/48-
3	A, B, C	1/0	333	323
1	N	1/0N	333 (see note 6)	324
4	G1, G2, G3, G4	6G	330	319

NOTES:

1. Dimensions are in inches. Metric equivalents are given for information only. Unless otherwise specified, tolerance is $\pm .002$ (.05 mm).
2. Unless otherwise specified, front face of pin insert pattern is shown. Socket inserts are the reverse.
3. -12-Cable IPCEA 4-NO 2 conductor round type G, 0 - 600 volts.
4. -13-Cable-C0-04-HDF (4/1-4/8R) 1620 in accordance with MIL-DTL-3432.
5. Mark 44-12 on 44-13 insert. Trademark and 44-() shall appear in available space. Contact identifying letter shall be located so as to identify relative contact.
6. Only the pin contact is lengthened and has the N (neutral) designation. The mating socket contact is the same as the power contact.
7. The contact position labeled (G) in the insert arrangement contains the 1/0N (neutral) size pin contact that is connected to the shell to form a grounding pin contact.

FIGURE 4. AC three phase four wire grounding, -12 and -13 insert arrangements, service D.

MS14055J



Quantity	Contact	Size	Socket SAE-AS39029/49-	Pin SAE-AS39029/48-
3	A, B, C	1/0	333	323
1	G	1/0N	333 (see note 9)	324

NOTES:

1. Dimensions are in inches. Metric equivalents given for information only. Unless otherwise specified, tolerance is $\pm .002$ (.05 mm).
2. Unless otherwise specified, front face of pin insert pattern is shown. Socket inserts are the reverse.
3. -50-four each NO 1 wire (receptacles only).
4. -51-Cable-IPCEA 4-NO 1 conductor round type W, 0 - 600 volts, 1.68 inch OD.
5. -52-Cable-IPCEA 4-NO 2 conductor round type W, 0 - 600 volts, 1.48 inch OD.
6. -56-Cable-IPCEA 4-NO 6 conductor round type W, 0 - 600 volts, 1.10 inch OD.
7. For Navy ground support equipment use only.
8. Mark 44-50 on 44-51 insert, 44-52 on 44-56 insert. Trademark and 44-() shall appear in available space. Contact identifying letter shall be located so as to identify relative contact.
9. Only the pin contact is lengthened and has the N (neutral) designation. The mating socket contact is the same as the power contact.
10. The contact position labeled (G) in the insert arrangement contains the 1/0N (neutral) size pin contact that is connected to the shell to form a grounding pin contact.

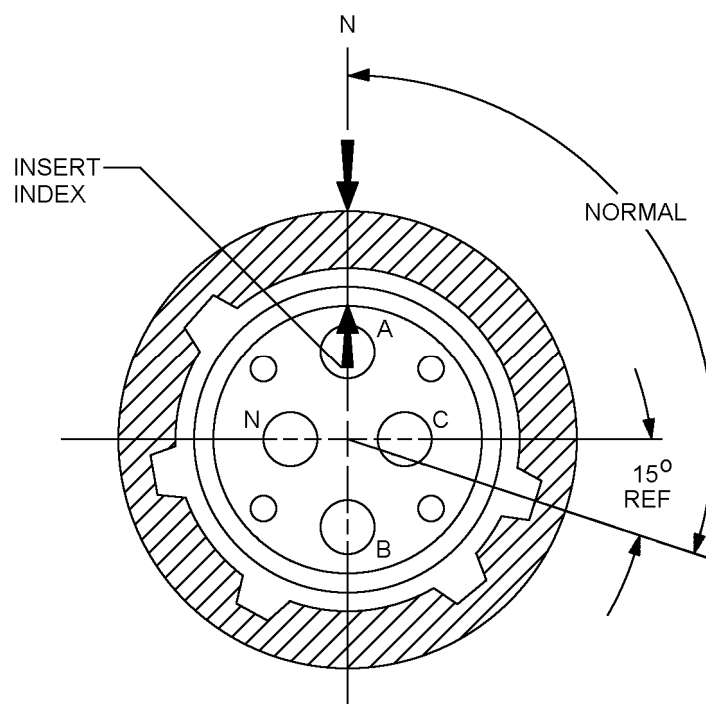
FIGURE 5. AC three phase three wire grounding, -50, -51, -52 and -56 insert arrangements, service D.

MS14055J

Insert rotation (degrees from normal)				
Arrangement number	Normal DC or 60 Hz (see figures 7 through 10)	Alternate (see figures 7 through 10) 400 Hz		
		Z	X	Y
44 – 02 44 – 03	0 °	---	---	---
44 – 04 44 – 05	0°	45°	---	---
44 – 06	0°	---	---	---
44 – 12 44 – 13	0 °	60°	---	---
44 – 50 44 – 51	0 °	---	---	---
44 – 52 44 – 56	0 °	---	---	---

FIGURE 6. Insert arrangements and rotations.

MS14055J

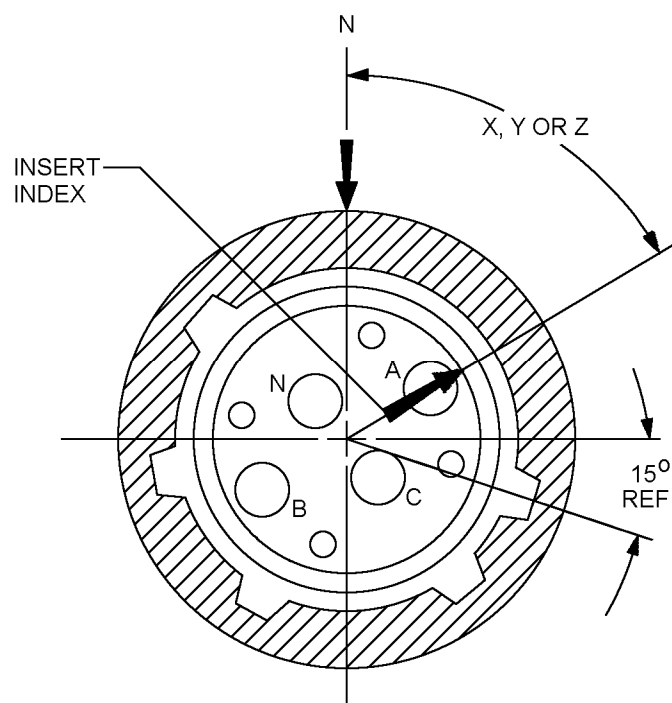


NOTES:

1. For use with connectors under MS90555 and MS90557 utilizing socket contacts and normal keying.
2. Front face of socket insert shown.

FIGURE 7. Socket contact pattern and polarization, insert in normal position (60 Hz power only).

MS14055J

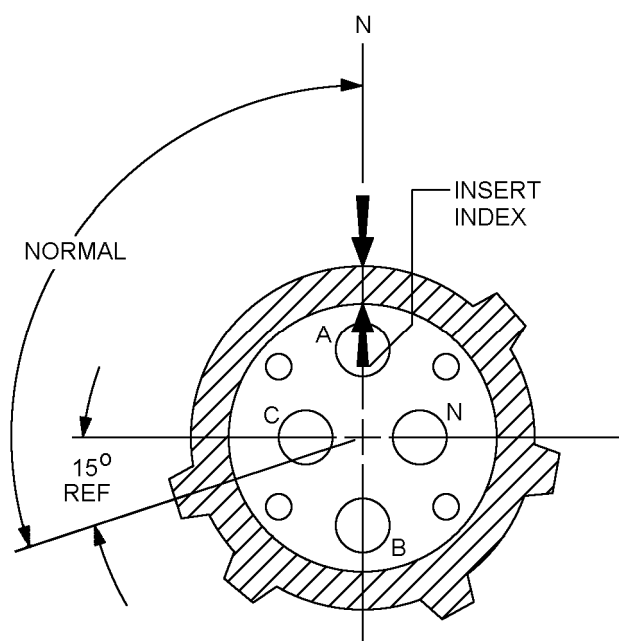


NOTES:

1. For use with connectors under MS90555 and MS90557 utilizing socket contacts and alternate (Z) keying.
2. Front face of socket insert shown.

FIGURE 8. Socket contact pattern and polarization, insert in alternate position (400 Hz power only).

MS14055J

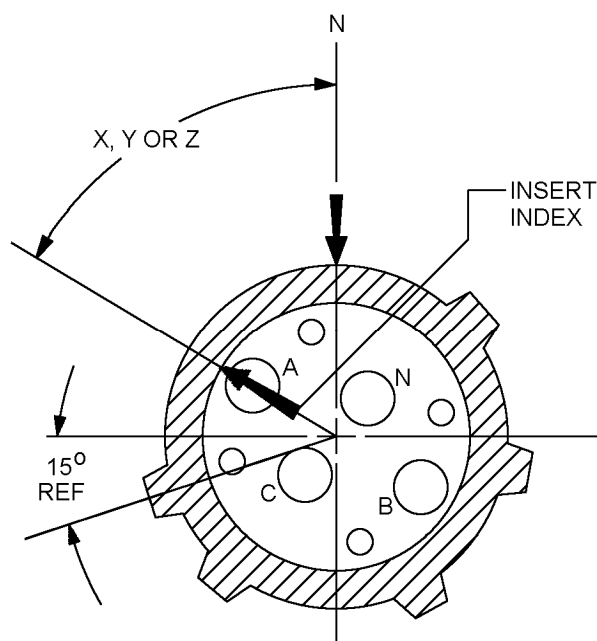


NOTES:

1. For use with connectors under MS90556 and MS90558 utilizing pin contacts and normal keying.
2. Front face of pin insert shown.

FIGURE 9. Socket contact pattern and polarization, insert in normal position (60 Hz power only).

MS14055J



NOTES:

1. For use with connectors under MS90556 and MS90558 utilizing pin contacts and alternate (Z) keying.
2. Front face of pin insert shown.

FIGURE 10. Socket contact pattern and polarization, insert in alternate position (400 Hz power only).

MS14055J

REQUIREMENTS:

Design and construction, see figures 1 through 10 and table I.

Neutral pin (N) is not connected to shell.

Grounding pin (G) is connected to shell.

Applicable SAE-AS33481 crimp bushings shall be supplied with the contacts for insert arrangements as specified.

TABLE I. Accessories.

Insert arrangement	Contacts		Cable conductors MS90556 & MS90557		Contact bushings required	
	Quantity	Size	Quantity	Size	QTY	PIN SAE- AS33481-
44 – 02	2	1/0	2	2	2	1-2L
44 – 04	2	1/0	2	2	2	1-2L
	2	4	2	6(G)	2	4-6L
44 – 05	2	1/0	2	2	-	-
	2	4	2	5(G)	2	4-5L
44 – 06	3	1/0	3	2	3	1-2L
	3	6	3	8(G)	3	6-8L
44 – 12	4	1/0	4	2	4	1-2L
	4	6	4	9(G)	4	6-9L
44 – 13	4	1/0	4	1	-	-
	4	6	4	8(G)	4	6-8L
44 – 52	4	1/0	4	2	4	1-2L
44 – 56	4	1/0	4	6	4	1-6L

Changes from previous issue. Marginal notations are not used in this revision to identify changes with respect to the previous issue due to the extent of the changes.

Referenced documents. In addition to MIL-DTL-22992, this document references the following:

MIL-DTL-3432

MS90555

MS90556

MS90557

MS90558

SAE-AS33481

MS14055J

CONCLUDING MATERIAL

Custodians:

Army – CR
Navy – EC
Air Force – 85
DLA – CC

Preparing activity:

DLA – CC

Review activities:

Army – AT, AV, CR4, MI
Navy – AS, CG, MC, OS, YD
Air Force – 19

(Project 5935–2008-153)

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 <http://assist.daps.dla.mil>.