

INCH-POUND

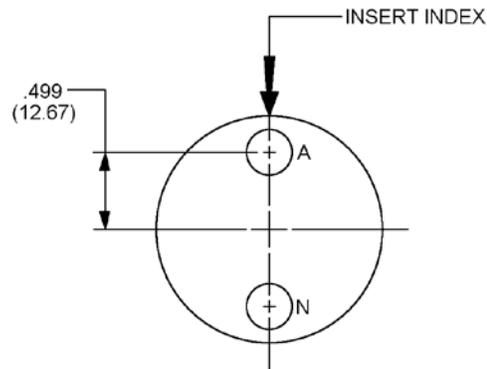
MS14055J
w/AMENDMENT 1
13 January 2016
SUPERSEDING
MS14055J
1 April 2009

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 part number M39029/49- (see note 8)	Pin part number M39029/48- (see note 8)
1	A	1/0	333	323
1	N	1/0N	333 (see note 6)	324

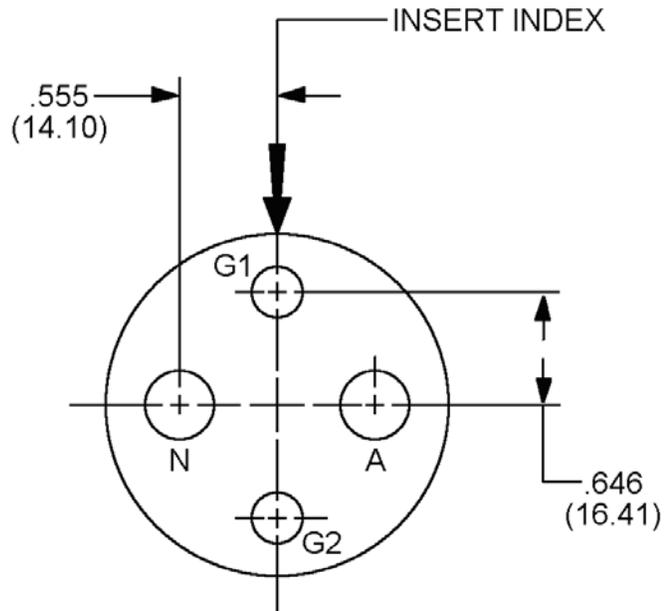
NOTES:

1. Dimensions are in inches. Metric equivalents are given for information only. Unless otherwise specified, tolerance is $\pm .002$ (0.05 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.
8. Contacts shall be qualified in accordance with SAE-AS39029/48 and SAE-AS39029/49, as specified.

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



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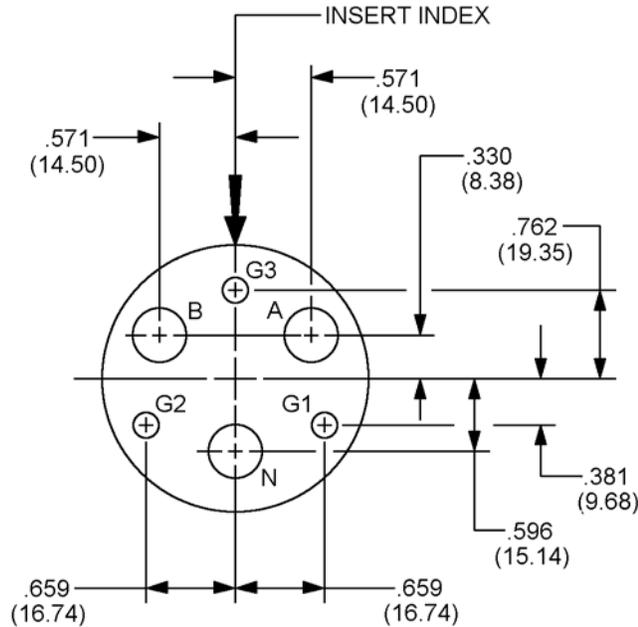
Quantity	Contact	Size	Socket part number M39029/49- (see note 8)	Pin part number M39029/48- (see note 8)
1	A	1/0	333	323
1	N	1/0N	333 (see note 6)	324
2	G1, G2	4G	332	322

NOTES:

1. Dimensions are in inches. Metric equivalents are given for information only. Unless otherwise specified, tolerance is $\pm .002$ (0.05 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.
8. Contacts shall be qualified in accordance with SAE-AS39029/48 and SAE-AS39029/49, as specified.

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

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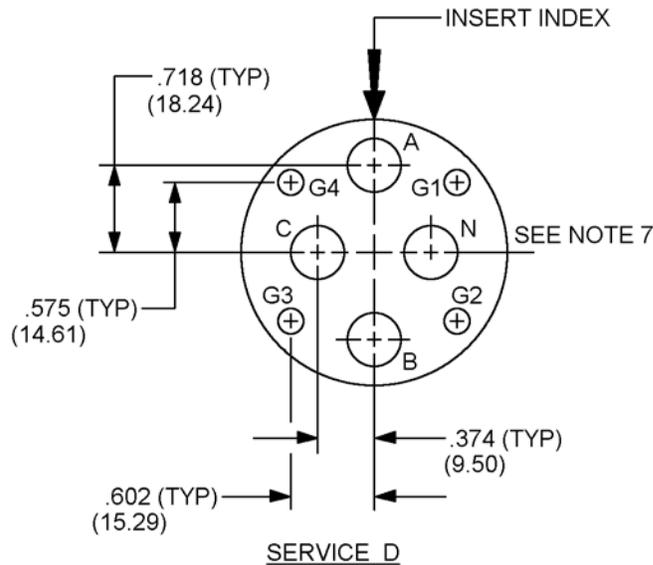
Quantity	Contact	Size	Socket part number M39029/49- (see note 7)	Pin part number M39029/48- (see note 7)
2	A, B	1/0	333	323
1	N	1/0N	333 (see note 5)	324
3	G1, G2, G3	6G	330	319

NOTES:

1. Dimensions are in inches. Metric equivalents are given for information only. Unless otherwise specified, tolerance is $\pm .002$ (0.05 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 to 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.
7. Contacts shall be qualified in accordance with SAE-AS39029/48 and SAE-AS39029/49, as specified.

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

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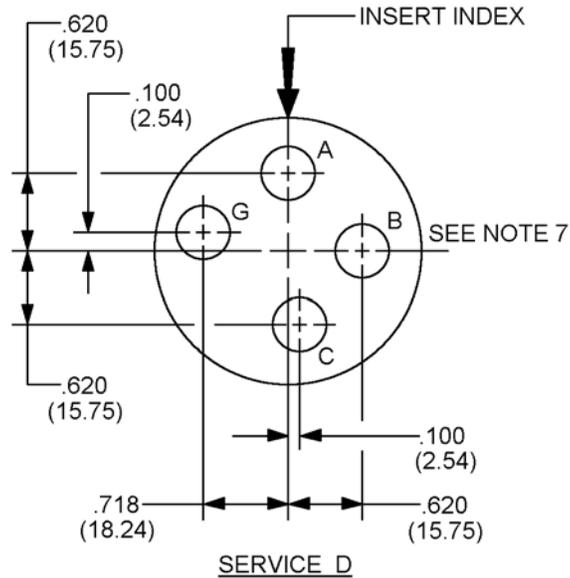
Quantity	Contact	Size	Socket part number M39029/49- (see note 8)	Pin part number M39029/48- (see note 8)
3	A, B, C	1/0	333	323
1	N	1/0N	333 (see note 6)	324
4	G1, G2, G3, G4	6G	330	319

NOTES:

1. Dimensions are in inches. Metric equivalents are given for information only. Unless otherwise specified, tolerance is $\pm .002$ (0.05 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.
8. Contacts shall be qualified in accordance with SAE-AS39029/48 and SAE-AS39029/49, as specified.

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

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Quantity	Contact	Size	Socket part number M39029/49- (see note 11)	Pin part number M39029/48- (see note 11)
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 $\pm .002$ (0.05 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, 44-52 and 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.
11. Contacts shall be qualified in accordance with SAE-AS39029/48 and SAE-AS39029/49, as specified.

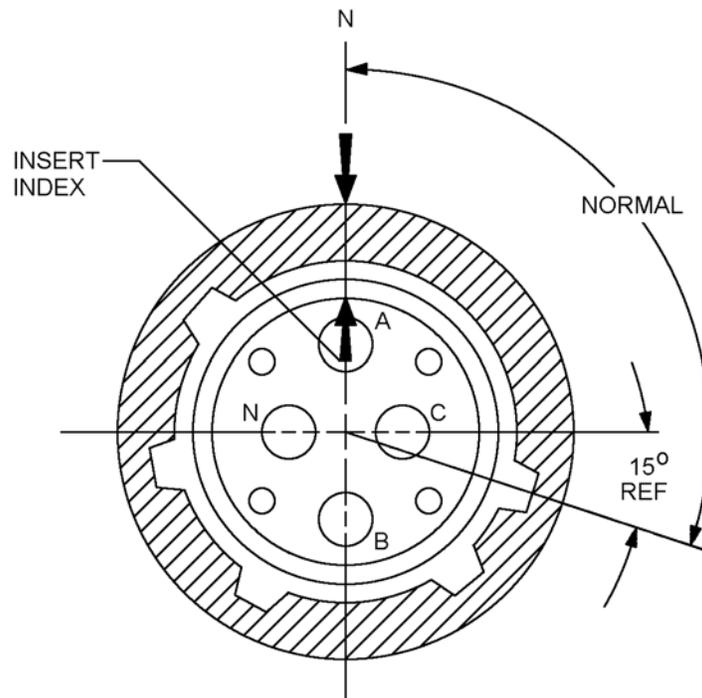
FIGURE 5. AC three phase three wire grounding, -50, -51, -52 and -56 insert arrangements, service D.

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Insert rotation (degrees from normal)				
Insert arrangement number	Normal DC or 60 Hz (see figures 7 through 10)	Alternate 400 Hz (see figures 7 through 10)		
		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.

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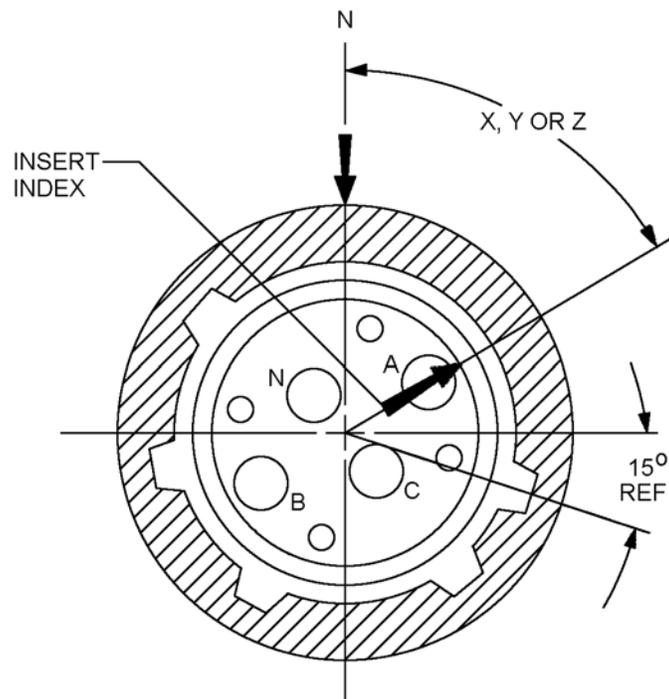


NOTES:

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).

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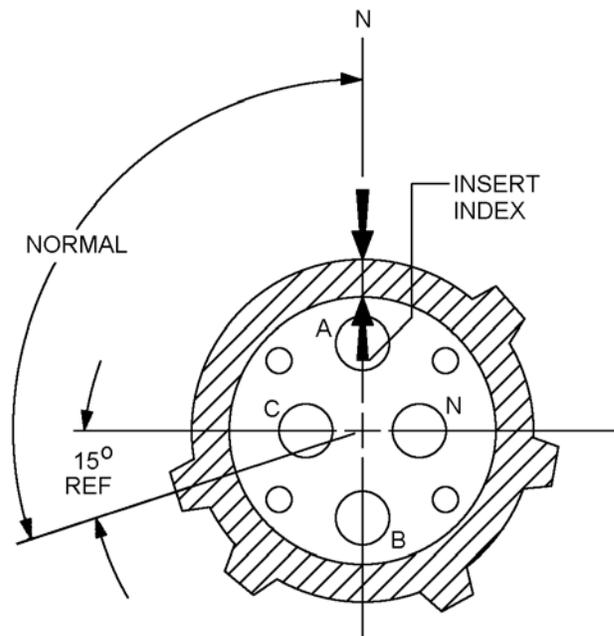


NOTES:

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).

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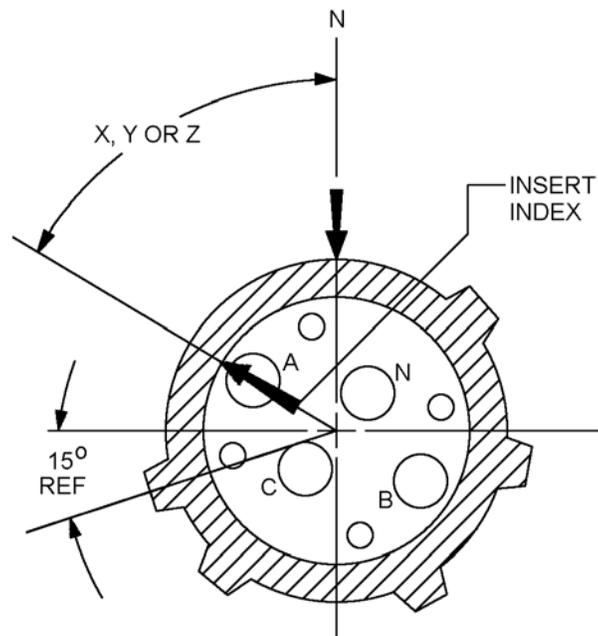


NOTES:

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).

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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).

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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 qualified SAE-AS39029/112 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	Part number M39029/112-
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

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

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

MIL-DTL-3432
MS90555
MS90556
MS90557
MS90558
SAE-AS39029/48
SAE-AS39029/49
SAE-AS39029/112

CONCLUDING MATERIAL

Custodians:

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

Preparing activity:
DLA - CC

(Project 5935–2016-005)

Review activities:

Army – AT, AV, CR4, MI
Navy – AS, CG, MC, OS, YD
Air Force – 19, 99

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>.