

INCH-POUND

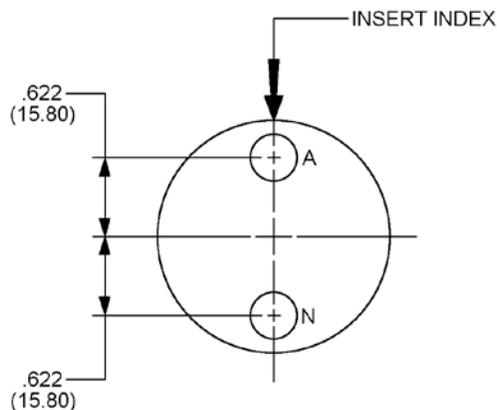
MS14057H  
w/AMENDMENT 1  
13 January 2016  
SUPERSEDING  
MS14057H  
1 April 2009

DETAIL SPECIFICATION SHEET

INSERT ARRANGEMENTS, ELECTRICAL CONNECTOR, SIZE 52, CLASS L, 200 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 6)	Pin part number M39029/48- (see note 6)
1	A	4/0	335	327
1	N	4/0N	335 (see note 5)	328

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 -ICEA 2-NO 2/0 conductor round type W cable, 0 - 600 volts.
4. Trademark and 52-( ) 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. Contacts shall be qualified in accordance with SAE-AS39029/48 and SAE-AS39029/49, as specified.

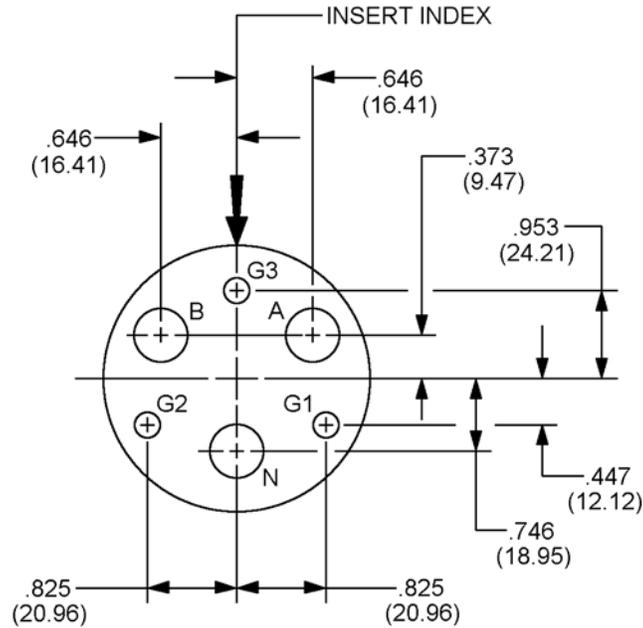
FIGURE 1. 28 volt DC two wire, -02 insert arrangement, service D.

AMSC N/A

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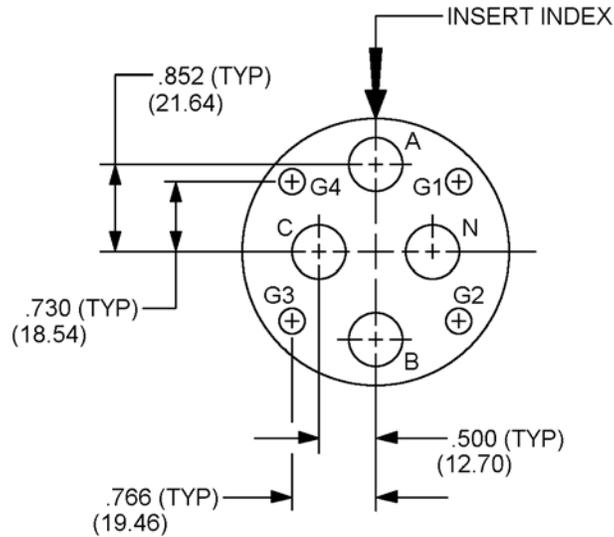
Quantity	Contact	Size	Socket part number M39029/49- (see note 6)	Pin part number M39029/48- (see note 6)
2	A, B	4/0	335	327
1	N	4/0N	335 (see note 5)	328
3	G1, G2, G3	4G	332	322

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. -02 - IPCEA 3-NO 2/0 conductor round type W cable, 0 - 600 volts.
4. Trademark and 52-( ) 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. Contacts shall be qualified in accordance with SAE-AS39029/48 and SAE-AS39029/49, as specified.

FIGURE 2. AC single phase three wire grounding, -06 insert arrangement, 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)
3	A, B, C	4/0	335	327
1	N	4/0N	335 (see note 6)	328
4	G1, G2, G3, G4	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. -12 - Cable ICEA 4-NO 4/0 conductor round type G cable, 0 - 600 volts.
4. -13 - Cable-C0-04-HDE (4/0000) 2380 in accordance with MIL-DTL-3432.
5. Mark 52-12 on 52-13 insert. Trademark and 52-( ) 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. Contacts shall be qualified in accordance with SAE-AS39029/48 and SAE-AS39029/49, as specified.

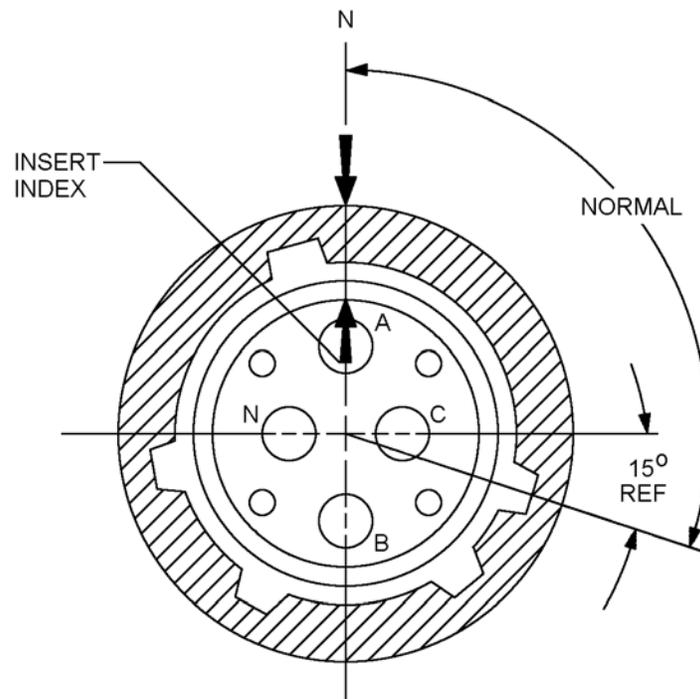
FIGURE 3. AC three phase four wire grounding, -12 and -13 insert arrangements, service D.

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Insert rotation (degrees from normal)				
Insert arrangement number	Normal DC or 60 Hz (see figures 5 and 7)	Alternate 400 Hz (see figures 6 and 8)		
		W	X	Y
52 – 02	0°	---	---	---
52 – 06	0°	---	---	---
52 – 12, 52 – 13	0°	300°	---	---

FIGURE 4. Insert arrangements and rotations.

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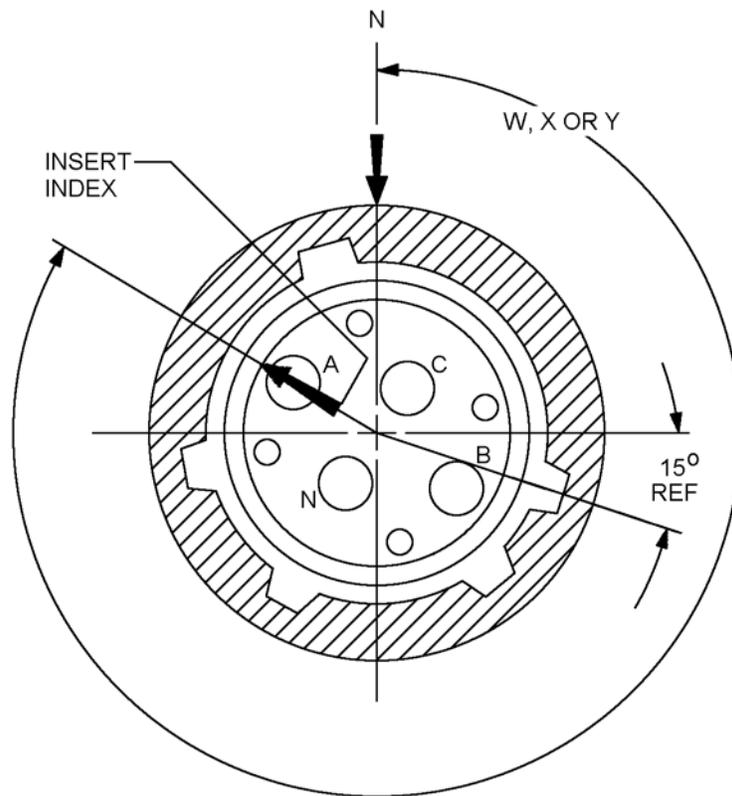


NOTES:

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

FIGURE 5. Socket contact pattern and polarization, insert in normal position (60 Hz power only).

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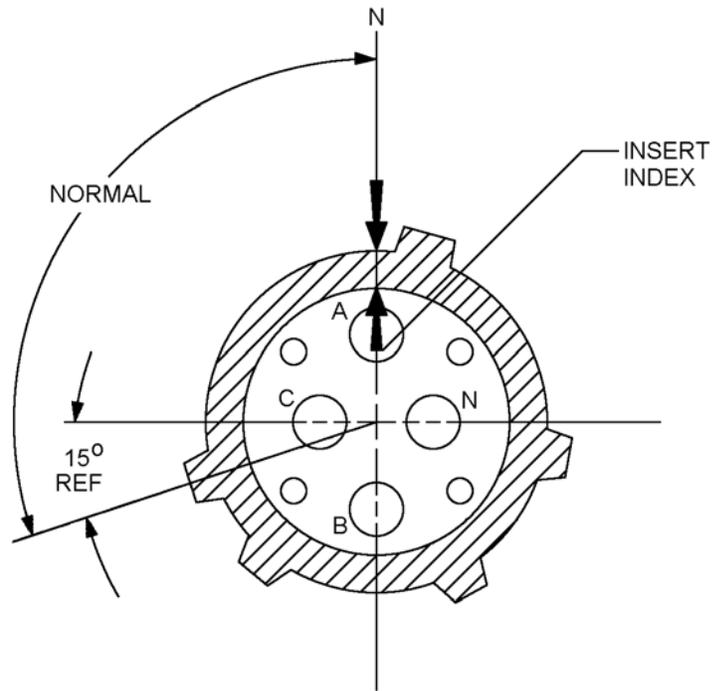


NOTES:

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

FIGURE 6. Socket contact pattern and polarization, insert in alternate position (400 Hz power only).

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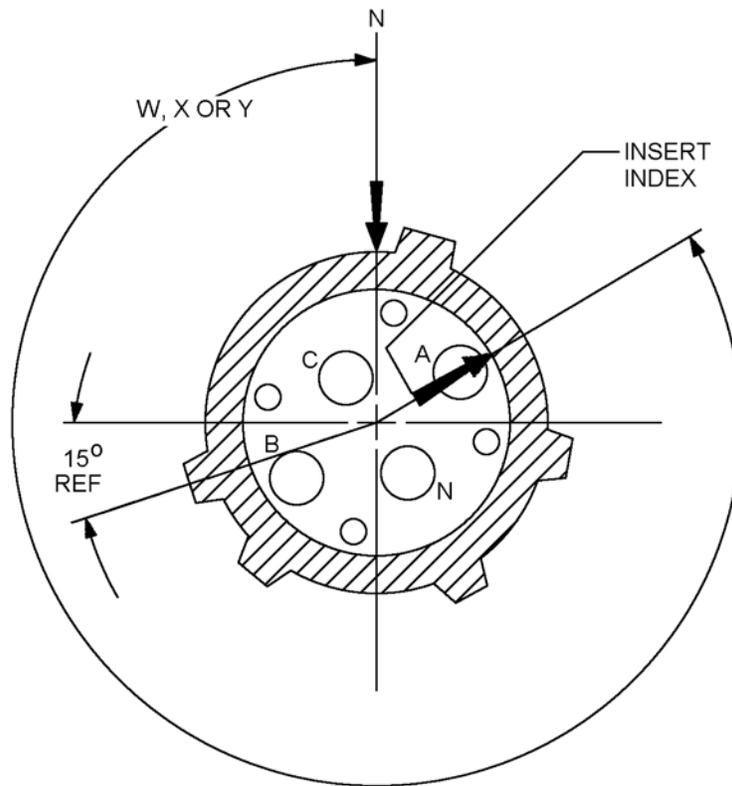


NOTES:

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

FIGURE 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 MS90556 and MS90558 utilizing pin contacts and alternate (W) keying.
2. Front face of pin insert shown.

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

REQUIREMENTS:

Design and construction, see figures 1 through 8 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.

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TABLE I. Accessories.

Insert arrangement	Contacts		Cable conductors MS90556 & MS90557		Contact bushings required	
	Quantity	Size	Quantity	Size	Quantity	Part number M39029/112-
52 – 02	2	4/0	2	2/0	2	4/0 - 2/0L
52 – 06	3	4/0	3	2/0	3	4/0 - 2/0L
	3	4	3	5(G)	3	4 - 5L

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.

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 5935–2016-006)

Review activities:

Army – AT, AV, CR4, MI  
Navy – AS, CG, MC, SH  
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>.