

REVISIONS			
LTR	DESCRIPTION	DATE	APPROVED
A	Add one source of supply. Cage code 31946. Figure 1 terminal angle clarified. Editorial changes throughout.	90-09-28	Randy Larson
B	Add one source of supply. Cage code 91812. Figure 1 over terminal dimensions revised.	90-12-12	Dave Moore
C	Changes in accordance with NOR 5930-R003-93.	94-08-15	Nancy Christolear
D	Inactive for new design. Editorial changes throughout.	02-11-19	Kendall A. Cottongim

Inactive for new design

PREVIOUS CAGE CODE 14933 SUPERSEDED BY 037Z3

THE ORIGINAL FIRST PAGE OF THIS DRAWING HAS BEEN REPLACED.

Prepared in accordance with ASME Y14.100

Selected item drawing

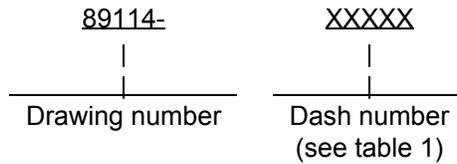
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PMIC N/A	PREPARED BY Charles R. De Vaul		DEFENSE ELECTRONIC SUPPLY CENTER DAYTON, OHIO																	
Original date of drawing  30 January 1990	CHECKED BY Richard A. Gosciniak		TITLE SWITCH, ROTARY, 1.180 INCH DIAMETER, PUSH TO TURN																	
	APPROVED BY Randy Larson																			
	SIZE A	CODE IDENT. NO. 14933	DWG NO. <b>89114</b>																	
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1. SCOPE

1.1 Scope. This drawing describes the requirements for a rotary switch supplied to the requirements of MIL-PRF-3786, type SR04, except as noted herein.

1.2 Part or Identifying Number (PIN). The complete PIN shall be as shown in the following example:



2. APPLICABLE DOCUMENTS

2.1 Government documents.

2.1.1 Specifications and standards. The following specifications and standards form a part of this document to the extent specified herein. Unless otherwise specified, the issues of these documents are those listed in the issue of the Department of Defense Index of Specifications and Standards (DODISS) and supplement thereto, cited in the solicitation (see 6.2).

SPECIFICATIONS

DEPARTMENT OF DEFENSE

MIL-DTL-3786 - Switches, Rotary (Circuit Selector, Low Current Capacity), General Specification for.

MIL-DTL-3786/4 - Switches, Rotary, Closed Construction, 2 Amperes, Low Level, Positive Shaft Grounding, Flux Seal, Style SR04.

(Unless otherwise indicated, copies of federal and military specifications, standards, and handbooks are available from the Document Automation and Printing Service, Building 4D (DPM-DoDSSP), 700 Robbins Avenue, Philadelphia, PA 19111-5094.)

2.2 Order of precedence. 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. REQUIREMENTS

3.1 Item requirements. The individual item requirements shall be in accordance with MIL-DTL-3786/4, and as specified herein.

3.2 Interface and physical dimensions. The switch shall meet the interface and physical dimensions as specified in MIL-DTL-3786, MIL-DTL-3786/4 and herein.

3.2.1 Isolated position. Isolated position, push to enter or leave (see table I).

3.2.2 Fixed stops. Fixed stops before position number 1 and after position number 3 for 89114-59461. Before position number 1 and after position number 2 for 89114-61451.

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3.2.3 Axial movement. Axial movement for shaft shall be  $.070 \pm .020$  inch ( $1.78 \pm 0.51$  mm) for push to enter or leave operation with a total travel of  $.100 \pm .020$  inch ( $2.54 \pm 0.51$  mm).

3.2.4 Axial force. Force required to move the shaft along its major axis shall be  $2.0 \pm 0.5$  pounds.

3.2.5 Weight. Individual switches shall not weigh more than 51 grams.

3.3 Mounting hardware. Mounting hardware shall be in accordance with MIL-DTL-3786/4.

3.4 Electrical characteristics. Electrical characteristics shall be in accordance with MIL-DTL-3786/4 and as specified herein.

3.4.1 Contact rating. Contact rating shall be 5 amperes continuous ac or dc.

3.4.2 Circuit configurations. See figure 1.

3.5 Shaft flat. Shaft flat shall be opposite contacting position being made by pole number 1 (see figure 1).

TABLE I. PINS.

89114-	Prior to notification	Isolated position	Angle of throw	Circuit configuration
59461	M3786/4-5946	1	45°	Configuration 1A
61451	M3786/4-6145	1	90°	Configuration 1B

3.6 Marking. Marking shall be in accordance with MIL-DTL-3786, except the part number shall be in accordance with 1.2 herein. The MIL-DTL-3786/4 part number shall not be used.

3.7 Quality assurance requirements. Switches furnished under this drawing shall have been subjected to, and passed all the requirements, tests, and inspections as specified herein including conformance inspection requirements.

3.7.1 Conformance inspection. Conformance inspection shall be in accordance with 4.2 herein.

3.8 Certification as an approved source of supply. In order to be listed as an approved source of supply for switches manufactured to this drawing, a manufacturer shall:

- a. Agree to make available to DSCC, upon request, all pertinent test data on its production of the subject part, including, but not limited to, test data in accordance with the qualification inspection table of MIL-DTL-3786.
- b. Provide to DSCC-VAT or its designated agent, upon request, free of charge and without obligation, a current production sample from its production of the subject part.
- c. Meet one of the following criteria:
  - (1) Currently possess listing on qualified products list QPL-3786 for at least one part.
  - (2) Be in current production of the subject part.

3.9 Certification of compliance. A certificate of compliance shall be required from a manufacturer in order to be listed as an approved source of supply (see 6.6 and 6.7).

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3.10 Recycled, recovered, or environmentally preferable materials. Recycled, recovered, or environmentally preferable 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.

3.11 Workmanship. The switches shall be uniform in quality and free from any defects that will affect life, serviceability, or appearance.

4. VERIFICATION

4.1 Sampling and inspection. Sampling and inspection procedures shall be in accordance with MIL-DTL-3786.

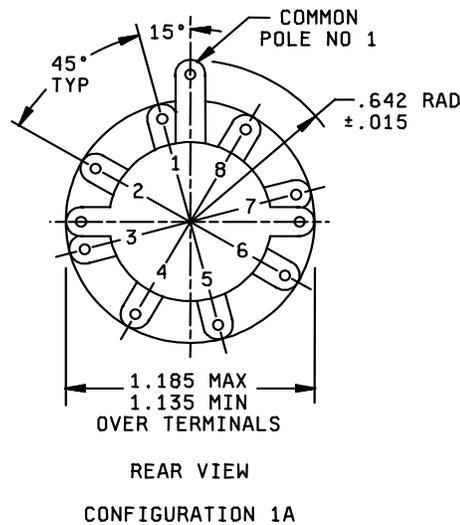
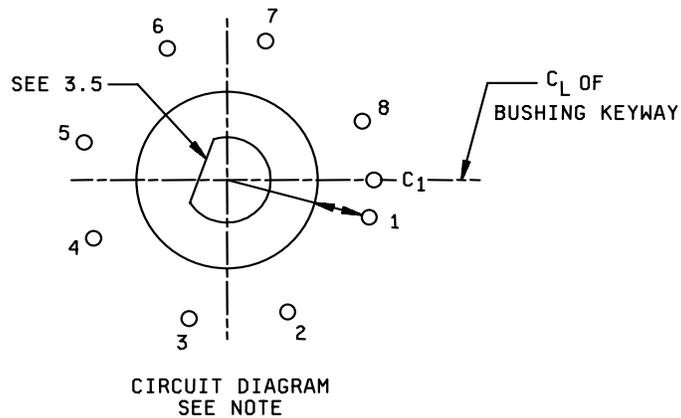
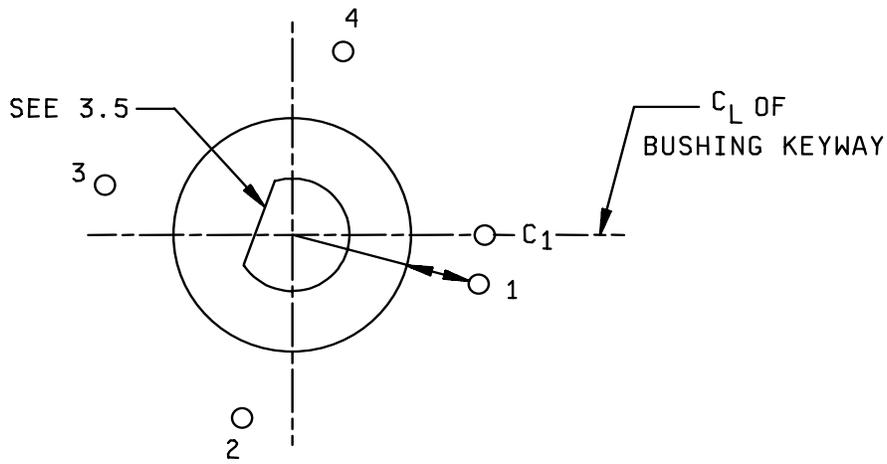
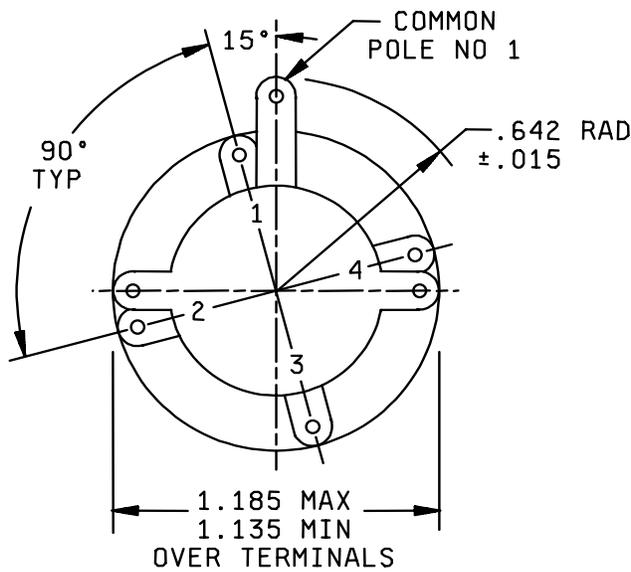


FIGURE 1. Circuit configurations.

<p><b>DEFENSE SUPPLY CENTER, COLUMBUS</b> <b>COLUMBUS, OHIO</b></p>	<p>SIZE <b>A</b></p>	<p>CODE IDENT NO. <b>14933</b></p>	<p>DWG NO. <b>89114</b></p>
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CIRCUIT DIAGRAM  
SEE NOTE



REAR VIEW

CONFIGURATION 1B

NOTE: View is from shaft end and switch is shown with pole number 1 in position 1.

FIGURE 1. Circuit configurations - Continued.

<p><b>DEFENSE SUPPLY CENTER, COLUMBUS</b> <b>COLUMBUS, OHIO</b></p>	<p>SIZE <b>A</b></p>	<p>CODE IDENT NO. <b>14933</b></p>	<p>DWG NO. <b>89114</b></p>
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4.2 Conformance inspection. Conformance inspection shall be in accordance with groups A and B listing of MIL-DTL-3786. Groups A and B testing shall be performed on each inspection lot and manufacturers shall keep lot records for 3 years (minimum), monitor for compliance to the prescribed procedures, and observe that satisfactory manufacturing conditions and records on lots are maintained for these switches.

4.2.1 Groups A and B inspections. Groups A and B inspections shall consist of all tests specified in MIL-DTL-3786.

4.3 Inspection of packaging. Inspection of packaging shall be in accordance with MIL-DTL-3786.

## 5. PACKAGING

5.1 Packaging. For acquisition purposes, the packaging requirements shall be as specified in the contract or order (see 6.2). When actual packaging of materiel is to be performed by DoD personnel, these personnel need to contact the responsible packaging activity to ascertain requisite packaging requirements. Packaging requirements are maintained by the Inventory Control Point's packaging activity within the Military Department or Defense Agency, or within the Military Department's System Command. Packaging data retrieval is available from the managing Military Departments or Defense Agency's automated packaging files, CD-ROM products, or by contacting the responsible packaging activity.

## 6. NOTES

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

6.1 Intended use. Switches conforming to this drawing are intended for use when military specifications do not exist and qualified military devices that will perform the required function are not available for OEM application. This drawing is intended exclusively to prevent the proliferation of unnecessary duplicate specifications, drawings, and stock catalog listings. When a military specification exists and the product covered by this drawing has been qualified for a listing on QPL-3786, this drawing will become inactive for new design. The QPL-3786 product shall be the preferred item for all applications.

6.2 Ordering data. The contract or purchase order should specify the following:

- a. Complete PIN (see 1.2).
- b. Requirements for delivery of one copy of the conformance inspection data that parts have passed conformance inspection, with each shipment of parts by the manufacturer.
- c. Issue of DoDISS to be cited in the solicitation, and if required, the specific issue of individual documents referenced (see 2.1).
- d. Requirements for packaging and packing.

6.3 Notes. Only definitions of the notes specified in MIL-DTL-3786 shall apply to this drawing.

6.4 Replaceability. Switches covered by this drawing will replace the same generic device covered by a contractor-prepared specification or drawing.

6.5 Comments. Comments on this drawing should be directed to DSCC-VAT, P.O. Box 3990, Columbus, OH 43216-5000 or by telephone (614) 692-0551.

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6.6 Users of record. Coordination of this document for future revisions is coordinated only with the suggested sources of supply and the users of record of this document. Requests to be added as a recorded user of this drawing should be in writing to: DSCC-VAT, P.O. Box 3990, Columbus, OH 43216-5000 or by telephone (614) 692-0551 or DSN 850-0551.

6.7 Suggested sources of supply. Suggested sources of supply are listed herein. Additional sources will be added as they become available. For assistance in the use of this drawing, contact DSCC-VAT, P.O. Box 3990, Columbus, OH 43216-5000 or by telephone (614) 692-0551 or DSN 850-0551.

DSCC drawing PIN 89114	Vendor similar designation or type number <u>1/</u>	Vendor CAGE	Vendor name and address
59461	3600-446559461	31946	Cole Instrument 2650 Croddy Way P.O. Box 25063 Santa Ana, CA 92799-5063 Grayhill 561 Hillgrove Avenue Lagrange, IL 60525-5997 Janco Corporation 3111 Winona Avenue Burbank, CA 91504
	44HY24977	81073	
	792191-1	91812	
61451	3600-446561451	31946	Cole Instrument 2650 Croddy Way P.O. Box 25063 Santa Ana, CA 92799-5063 Grayhill 561 Hillgrove Avenue Lagrange, IL 60525-5997 Janco Corporation 3111 Winona Avenue Burbank, CA 91504
	44HY29559	81073	
	792191-2	91812	

1/ Parts must be purchased to this DSCC PIN to assure that all performance requirements and tests are met.

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