

**REVISIONS**

LTR	DESCRIPTION	DATE	APPROVED
A	Changes in accordance with NOR 5998-R005-95	28 June 1996	John F. Raye
B	Add new configurations D and E. Change FSC from 5999 to 5998. Editorial changes throughout.	22 May 2000	Monica L. Poelking
C	Corrected inaccuracies in all configurations.	7 SEP 2001	Thomas M. Hess
D	Section 2 updated to remove cancelled documents and add the superseding replacements. Corrected supersession data. Added an additional supplier. Editorial changes throughout.	20 SEP 2002	Thomas M. Hess
E	Corrected inaccuracies in configurations D, E, F, G, and H. Editorial changes throughout.	24 OCT 2003	Thomas M. Hess
F	Corrected inaccuracies in configurations A, B, C, and D.	6 JUN 2014	Thomas M. Hess
G	Update material requirements for alignment springs.	24 OCT 2016	Thomas M. Hess

CURRENT DESIGN ACTIVITY CAGE CODE 037Z3  
HAS CHANGED NAMES TO:  
DLA LAND AND MARITIME,  
COLUMBUS, OHIO 43218-3990

**Notice of Partial Inactivation for New Design**

The PINs identified in see 6.6 are  
INACTIVE FOR NEW DESIGN  
AFTER 6 June 2014  
FOR NEW DESIGN USE CID A-A-59789

PDF Support



Prepared in accordance with ASME Y14.100

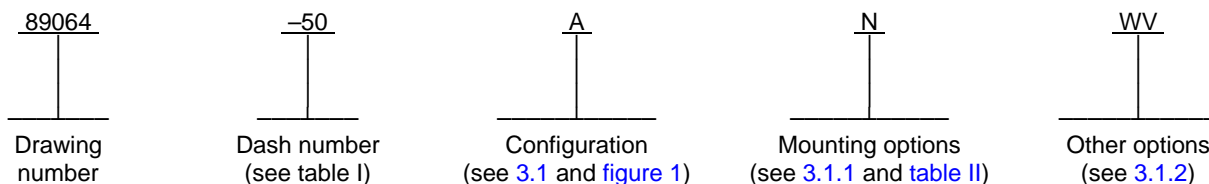
REV	G	G	G	G	G	G	G											
PAGE	16	17	18	19	20	21	22	23	24	25	26							
REV STATUS OF PAGES	REV	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G
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PMIC N/A	PREPARED BY Bernard J. Miesse	DESIGN ACTIVITY DEFENSE ELECTRONICS SUPPLY CENTER, DAYTON, OH 45444-5000
Original date of drawing 8 November 1989	CHECKED BY David J. Corbett	TITLE HOLDER, ELECTRICAL CARD, WEDGE RETAINER, 5 PIECE, .225 INCH BY .225 INCH AND .225 INCH BY .260 INCH BODY SIZE
	APPROVED BY Monica L. Poelking	
	SIZE <b>A</b>	CAGE CODE 14933
	REV G	PAGE 1 OF 26

1. SCOPE

1.1 Scope. This drawing describes the requirements for a family of 5 wedge metal card-retainers intended to hold circuit card assemblies or printed wiring assemblies in their installed positions.

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



2. APPLICABLE DOCUMENTS

2.1 General. The documents listed in this section are specified in sections 3 and 4 of this specification. This section does not include documents cited in other sections of this specification 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 and 4 of this specification, 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 (see 6.2).

SPECIFICATIONS

DEPARTMENT OF DEFENSE

- [MIL-DTL-5002](#) – Surface Treatments and Inorganic Coatings for Metal Surfaces of Weapon Systems.
- [MIL-DTL-5541](#) – Chemical Conversion Coatings On Aluminum And Aluminum Alloys.

STANDARDS

DEPARTMENT OF DEFENSE

- [MIL-STD-1285](#) – Marking of Electrical and Electronic Parts.

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

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.

AEROSPACE INDUSTRIES ASSOCIATION OF AMERICA, INC.

- AIA/NAS NAS 620 – Washer, Flat, Reduced Outside Diameter.
- AIA/NAS NASM35338 – Washer, Lock-Spring, Helical, Regular (Medium) Series.
- AIA/NAS NASM122116-122155 – Insert, CRES Helical Coil, Coarse Thread, 1-1/2 Dia. Nominal Length.

(Copies of these documents are available online at <http://www.aia-aerospace.org> or from the Aerospace Industries Association, 1000 Wilson Boulevard, Suite 1700, Arlington, VA 22209-3901.)

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ASTM INTERNATIONAL (ASTM)

- ASTM A484/A484M – Standard Specification for General Requirements for Stainless Steel Bars, Billets, and Forgings.
- ASTM A582/582M – Standard Specification for Free-Machining Stainless Steel Bars.
- ASTM B194 – Standard Specification for Copper-Beryllium Alloy Plate, Sheet, Strip, and Rolled Bar.
- ASTM B221 – Standard Specification for Aluminum and Aluminum-Alloy Extruded Bars, Rods, Wire, Profiles and Tubes.

(Copies of these documents are available online at <http://www.astm.org> or from the ASTM International, P.O. Box C700, 100 Barr Harbor Drive, West Conshohocken, PA 19428–2959.)

SAE INTERNATIONAL (SAE)

- SAE AMS-QQ-N-290 – Nickel Plating (Electrodeposited)
- SAE AMS-QQ-S-763 – Steel, Corrosion Resistant, Bars, Wire, Shapes, and Forgings
- SAE AMS 5518 – Steel, Corrosion Resistant, Sheet and Strip 18Cr - 8Ni Cold Rolled, 150 ksi (1034 MPa) Tensile Strength
- SAE AMS 5904 – Steel, Corrosion-Resistant, Sheet and Strip 18Cr - 9.0Ni (SAE 30302) Cold Rolled 1/2 Hard, 150ksi (1034 MPa) Tensile Strength

(Copies of these documents are available online at <http://www.sae.org> or from SAE World Headquarters, 400 Commonwealth Drive, Warrendale, PA 15096–0001.)

(Non-Government standards and other publications are normally available from the organizations which prepare or which distribute the documents. These documents also may be available in or through libraries or other informational services.)

2.4 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. REQUIREMENTS

3.1 Interface and physical dimensions. See [tables I](#) and [II](#) and [figure 1](#). Some card holders conforming to this drawing may be supplied in a unassembled condition. See [6.8](#) for additional information.

3.1.1 Mounting to circuit card assembly. Card holders conforming to this drawing are secured to the circuit card assembly using either adhesives, brazing, fastener, or rivets. Card holders are available either with mounting holes as shown on figure 1 or without mounting holes. There are three options for designs with mounting holes. The hole options are counterbore holes or two styles of tapped holes.

3.1.1.1 No mounting holes (for adhesive or brazing mounting). Card holders without mounting holes (to facilitate adhesive or brazing mounting) shall contain an "N" in the PIN.

3.1.1.2 Counterbore holes (for rivet mounting). Counterbore holes shall be .068/.073 inch (1.73/1.85 mm) diameter countersunk 100 degrees by .140 inch (3.56 mm) diameter through holes with an access/clearance hole .156 inch (3.96) diameter by .200 inch (5.08 mm) deep for configurations "A", "C", "D", and "E" and .175 inch (4.45 mm) deep for configuration "B". Card retainers with counterbore holes shall include a suffix "R" in the PIN.

3.1.1.3 Tapped holes (for threaded fasteners). Card retainers with 2–56 UNF tapped through holes shall include a suffix "S" in the PIN. Card retainers with 0–80 UNF tapped through holes shall include a suffix "T" in the PIN (see [figure 1](#), [table I](#), and [1.2](#)).

3.1.2 Alignment springs. Configurations "A", "B", "C", and "D" that have no mounting holes or tapped mounting holes shall have 3 alignment springs, one in the mounting body and one in each of the two intermediate bodies. Configurations "A", "B", "C", and "D" that use rivets for mounting holes shall have 2 alignment springs, one in each of the two intermediate bodies. The mounting body will not have an alignment spring. Configurations "E", "F", "G", and "H" shall have 3 alignment springs, one in the mounting body and one in each of the two intermediate bodies for all mounting options.

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3.1.3 Optional features.

3.1.3.1 Flat washer and lockwasher. A flat washer and lockwasher feature are available (see [figure 1](#) and [table I](#)). Card retainers with the optional flat washer and lockwasher feature shall include a suffix "W" in the PIN (see [figure 1](#) and [1.2](#)).

3.1.3.2 Visual lock indication. An optional visual lock indication feature is available (see [figure 1](#) and [table I](#)). Card retainers with the optional visual lock indication shall include a suffix "V" in the PIN (see [figure 1](#) and [1.2](#)).

TABLE I. Card retainer dimensions and configurations. 1/ 2/

PIN 89064	Configuration	Dimension "L" (length) +.02 / -.03 (+0.5 / -0.8 mm)	Dimension "A" (mounting body) ±.01 (0.3 mm)	Dimension "B" (mounting hole) ±.02 (0.5 mm)	Dimension "C"	Number of mounting holes
-50	A, E	5.00 (127.0)	1.50 (38.1)	.30 (7.6)	1.15 (29.2)	2
-50	B, F	5.00 (127.0)	1.50 (38.1)	.30 (7.6)	1.15 (29.2)	2
-50	C, G	5.00 (127.0)	1.50 (38.1)	.50 (12.7)	1.15 (29.2)	2
-60	A, E	6.00 (152.4)	2.50 (63.5)	.80 (20.3)	1.15 (29.2)	2
-60	B, F	6.00 (152.4)	2.50 (63.5)	.80 (20.3)	1.15 (29.2)	2
-60	C, G	6.00 (152.4)	2.50 (63.5)	1.00 (25.4)	1.15 (29.2)	2
-65	A, E	6.50 (165.1)	3.00 (76.2)	1.05 (26.7)	1.15 (29.2)	2
-65	B, F	6.50 (165.1)	3.00 (76.2)	1.05 (26.7)	1.15 (29.2)	2
-65	C, G	6.50 (165.1)	3.00 (76.2)	1.25 (26.7)	1.15 (29.2)	2
-70	D, H	7.00 (177.8)	3.50 (88.9)	.40 (10.2)	1.15 (29.2)	4
-75	D, H	7.50 (190.5)	4.00 (101.6)	.65 (16.5)	1.15 (29.2)	4
-80	D, H	8.00 (203.2)	3.50 (88.9)	.40 (10.2)	1.65 (41.9)	4
-85	D, H	8.50 (215.9)	4.00 (101.6)	.65 (16.5)	1.65 (41.9)	4

1/ Dimensions are in inches. Metric equivalents are given for general information only.

2/ Tolerances, unless otherwise specified, are ±.02 inch (0.5 mm), for 2 place decimals and ±.010 inch (0.25 mm), for 3 place decimals.

TABLE II. Mounting design.

PIN modifier	Attribute
N	Without mounting holes
R	Counterbore holes
S	2-56 UNC tapped holes
T	0-80 UNF tapped holes

3.2 Materials.

3.2.1 Alignment spring. The alignment spring shall be either beryllium copper in accordance with [ASTM B194](#) or equivalent, or stainless steel in accordance with [SAE AMS 5518](#), [SAE AMS 5904](#), or equivalent.

3.2.2 Bodies and wedges. The bodies (mounting and intermediate) and wedges material shall be aluminum alloy in accordance with [ASTM B221](#) or equivalent.

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3.2.3 Flatwasher. The flatwasher (included with the locking feature) shall comply with [AIA/NAS NAS 620](#) or equivalent.

3.2.4 Lockwasher. The lockwasher (included with the locking feature) shall comply with [AIA/NAS NASM35338-135](#) or equivalent.

3.2.5 Screw. The screw material shall be stainless steel in accordance with [SAE AMS-QQ-S-763](#), [ASTM A484/A484M](#), or [ASTM A582/582M](#) or equivalent.

3.2.6 Screw retention.

3.2.6.1 Captive nut. When a captive nut is used, the captive nut material shall be stainless steel, type 303, in accordance with [ASTM A582/582M](#).

3.2.6.2 Helical insert. When a helical insert is used, the helical insert shall be in accordance with [AIA/NAS NASM122116](#).

3.2.7 Visual indicator.

3.2.7.1 Cup. The cup material for visual indicators shall stainless steel in accordance with [ASTM B194](#), [SAE AMS 5904](#), or equivalent.

3.2.7.2 Spring. The spring material for visual indicators shall be stainless steel.

3.3 Finish.

3.3.1 Alignment spring. Stainless steel alignment springs shall be passivate in accordance with [MIL-DTL-5002](#). Beryllium copper alignment springs shall be nickel plate in accordance with [SAE AMS-QQ-N-290](#), class 1, grade G, bright (see [6.1.1](#) regarding nickel plating).

3.3.2 Bodies and wedges. The bodies and wedges shall be chemical finish in accordance with [MIL-DTL-5541](#), class 1A.

3.3.3 Flatwasher, lockwasher, captive nut, helical insert, and screw. The flatwasher, lockwasher, captive nut, helical insert, and screw shall be passivate in accordance with [MIL-DTL-5002](#).

3.3.4 Visual lock cup and spring (when applicable). The visual lock cup and spring shall be passivate in accordance with [MIL-DTL-5002](#).

3.4 Certificate of compliance. A certificate of compliance shall be required from a manufacturer in order to be listed as an approved source of supply in [6.8](#). The certificate of compliance, submitted to DLA Land and Maritime VAC prior to listing as an approved source of supply, shall state that the manufacturer's product meets the requirements herein.

3.5 Optional statement of compliance in lieu of performing conformance inspections. The acquiring activity, at its discretion, may accept from the manufacturer a statement of compliance in lieu of the manufacturer performing the inspection of product for delivery tests (see [4.2.2](#) and [6.2.b](#)).

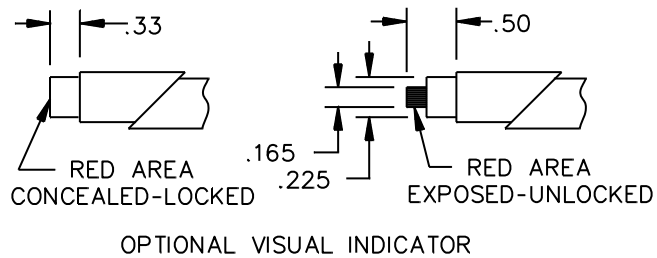
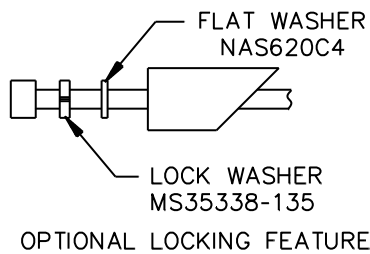
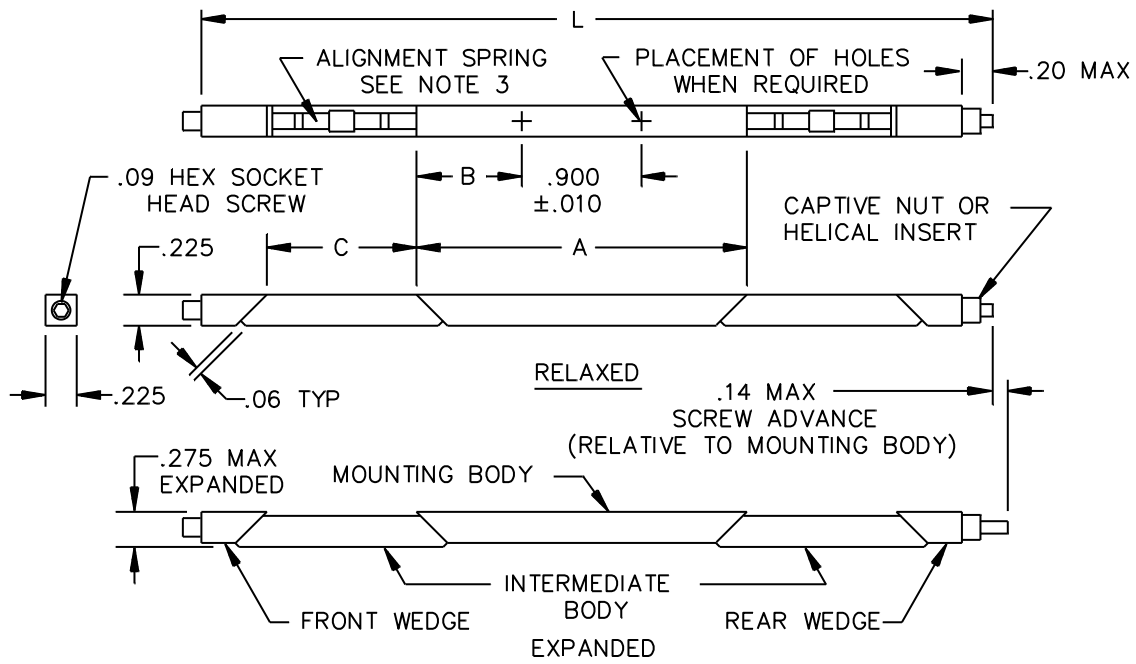
3.6 Marking. Marking of the card holder is not required; however, each unit package shall be marked in accordance with [MIL-STD-1285](#) and include the PIN as specified herein (see [1.2](#)), the manufacturer's name or Commercial and Government Entity (CAGE) code, and date lot codes.

3.7 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.

3.8 Workmanship. Card holders shall be free from surface and finish flaws that affect life or serviceability. Card holders shall be finished smooth and shall have rounded edges with no evidence of chipping, cracking, deterioration, disintegration, or burrs.

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CONFIGURATION B

Inches	mm	Inches	mm	Inches	mm	Inches	mm	Inches	mm
.010	0.25	.09	2.3	.165	4.19	.225	5.72	.33	8.4
.06	1.5	.14	3.6	.20	5.1	.275	6.98	.50	12.7
						.290	7.37	.900	22.86

NOTES:

1. Dimensions are in inches. Metric equivalents are given for information only.
2. Unless otherwise specified, tolerances are  $\pm .02$  inch (0.5 mm), for 2 places and  $\pm .010$  inch (0.25 mm), for 3 places.
3. See 3.1.2 for requirements for the number of alignment springs and their placement.
4. See table I for L, A, B, and C dimensions and tolerances.

FIGURE 1. Card holder dimensions and configurations – Continued.

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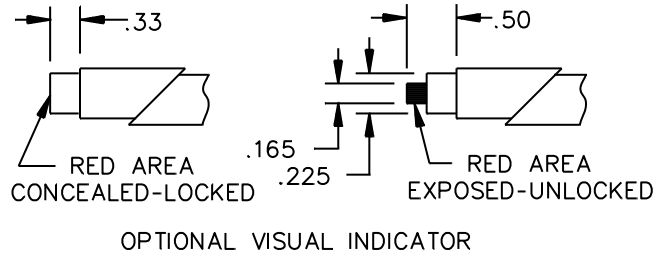
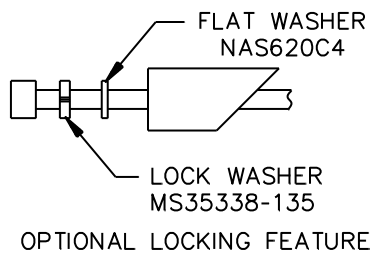
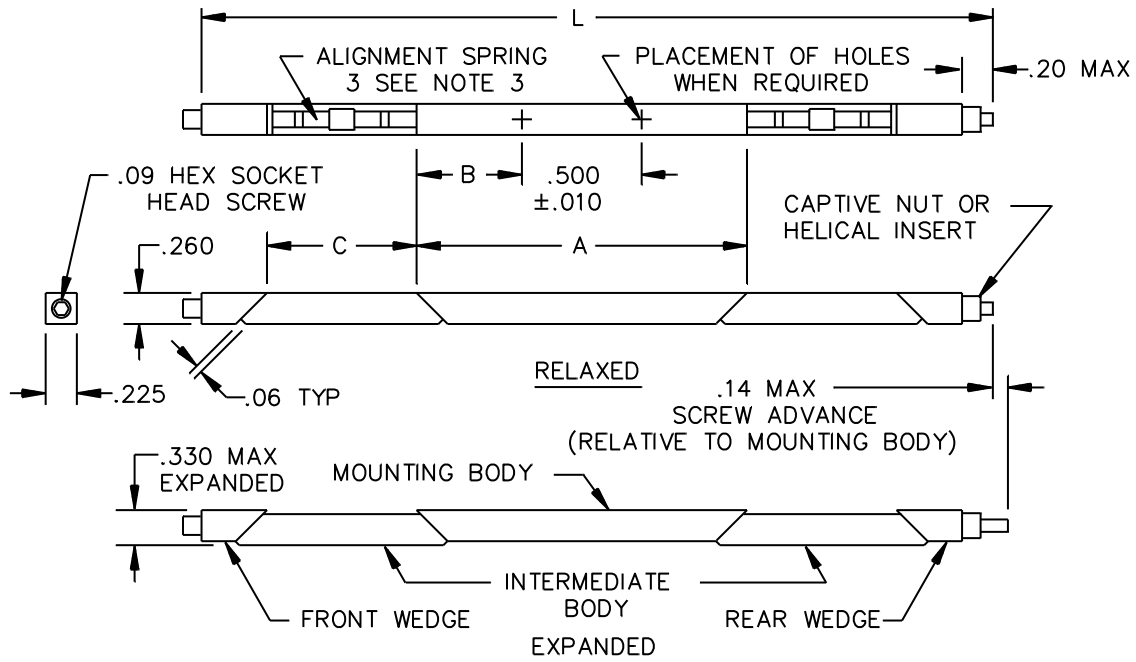
**G**

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CONFIGURATION C

Inches	mm	Inches	mm	Inches	mm	Inches	mm	Inches	mm
.010	0.25	.09	2.3	.165	4.19	.260	6.61	.50	12.7
.06	1.5	.14	3.6	.20	5.1	.33	8.4	.500	12.70
				.225	5.72	.330	8.38	.900	22.86

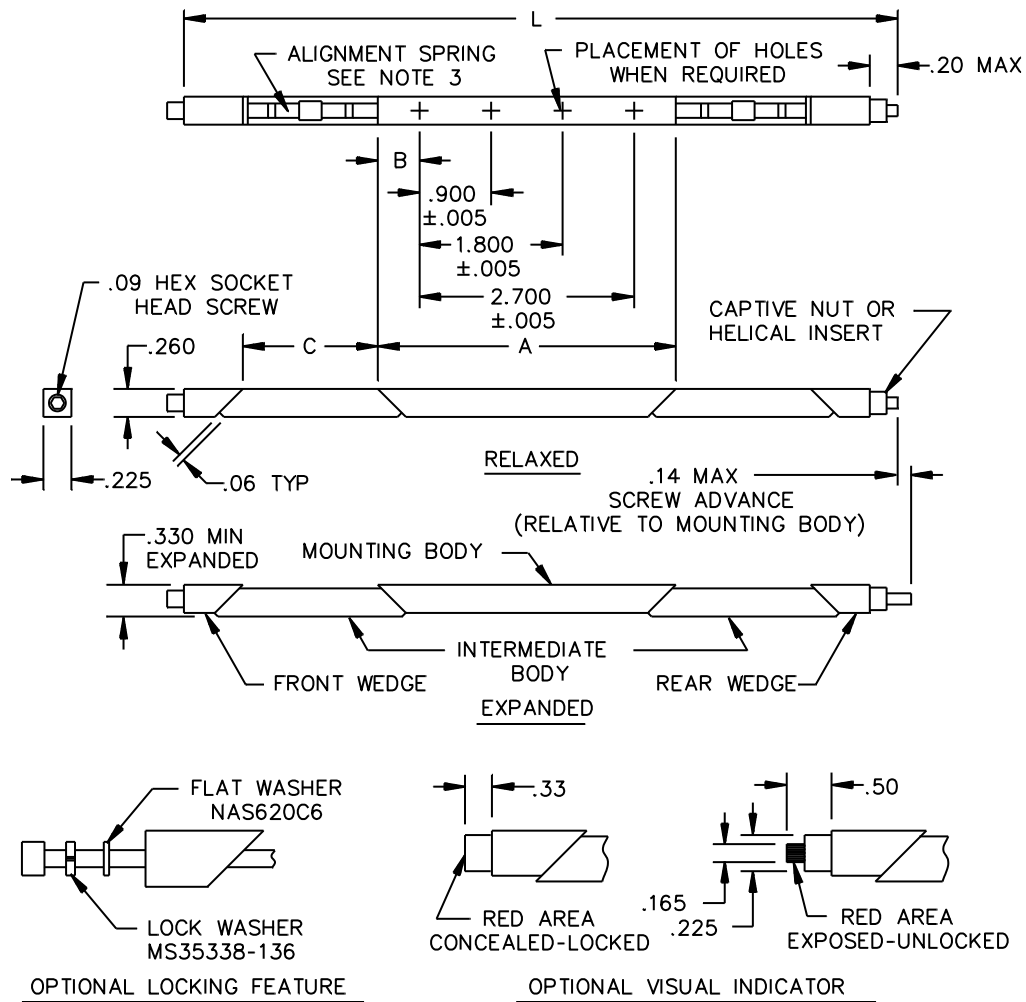
NOTES:

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2. Unless otherwise specified, tolerances are  $\pm 0.02$  inch (0.5 mm), for 2 places and  $\pm 0.010$  inch (0.25 mm), for 3 places.
3. See 3.1.2 for requirements for the number of alignment springs and their placement.
4. See table I for L, A, B, and C dimensions and tolerances.

FIGURE 1. Card holder dimensions and configurations – Continued.

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CONFIGURATION D

Inches	mm	Inches	mm	Inches	mm	Inches	mm	Inches	mm
.005	0.13	.14	3.6	.225	5.72	.330	8.38	1.800	45.72
.06	1.5	.165	4.19	.260	6.61	.50	12.7	2.700	68.58
.09	2.3	.20	5.1	.33	8.4	.900	22.86		

NOTES:

1. Dimensions are in inches. Metric equivalents are given for information only.
2. Unless otherwise specified, tolerances are  $\pm .02$  inch (0.5 mm), for 2 places and  $\pm .010$  inch (0.25 mm), for 3 places.
3. See 3.1.2 for requirements for the number of alignment springs and their placement.
4. See table I for L, A, B, and C dimensions and tolerances.

FIGURE 1. Card holder dimensions and configurations – Continued.

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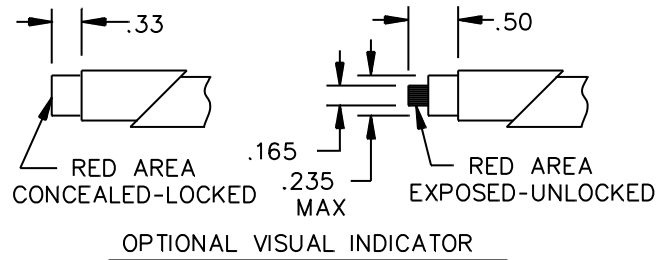
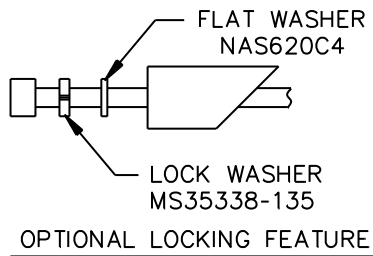
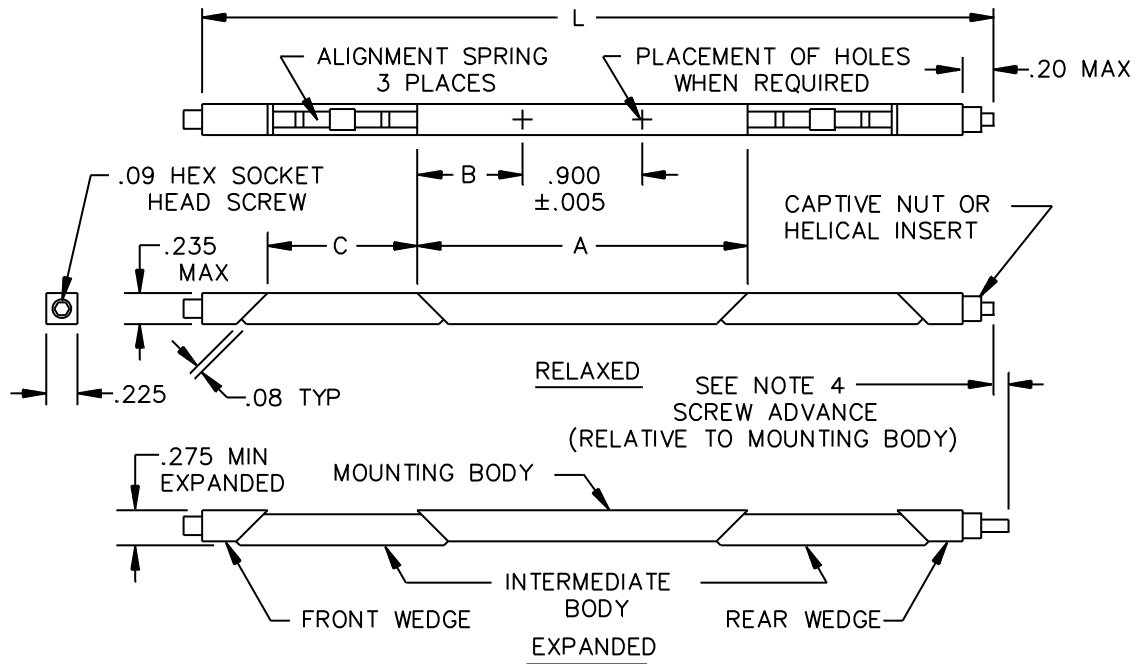
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CONFIGURATION F

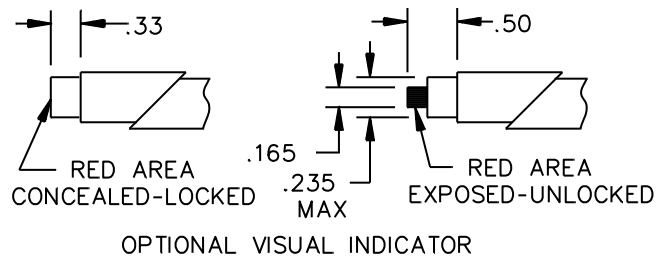
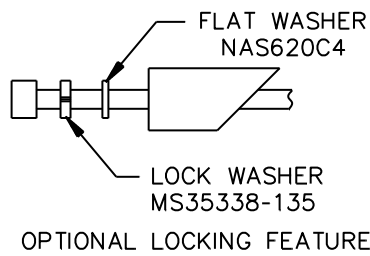
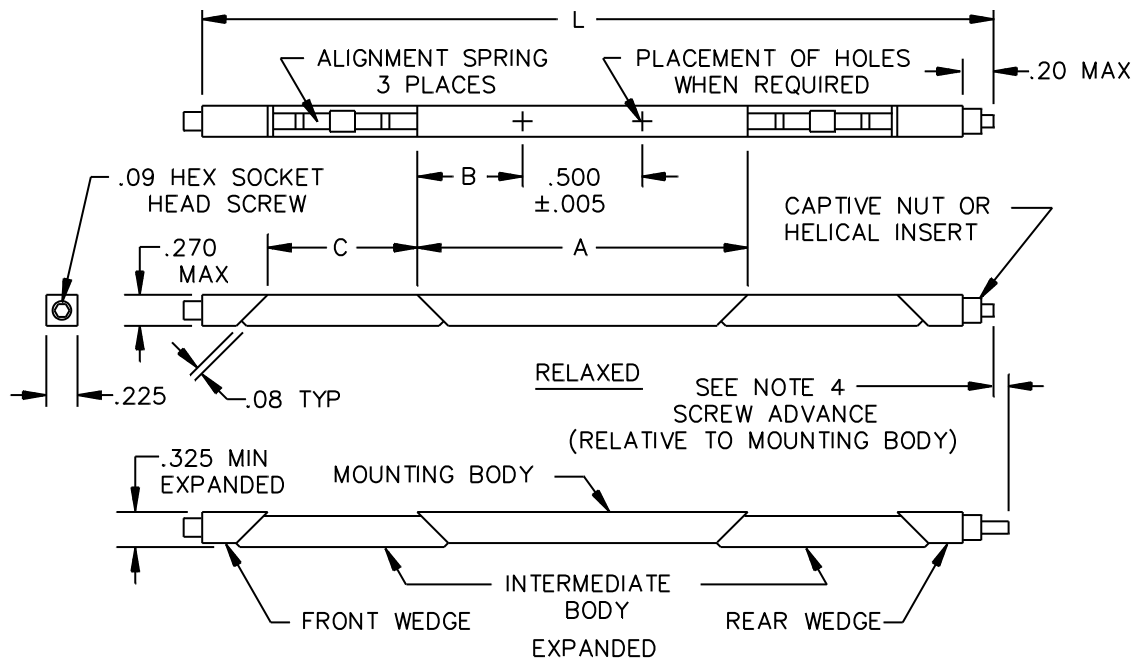
Inches	mm	Inches	mm	Inches	mm	Inches	mm	Inches	mm
.005	0.13	.09	2.3	.20	5.1	.235	5.97	.33	8.4
.06	1.5	.165	4.19	.225	5.72	.275	6.99	.50	12.7
								.900	22.86

NOTES:

1. Dimensions are in inches. Metric equivalents are given for information only.
2. Unless otherwise specified, tolerances are  $\pm 0.02$  inch (0.5 mm), for 2 places and  $\pm 0.010$  inch (0.25 mm), for 3 places.
3. See [table I](#) for L, A, B, and C dimensions and tolerances.
4. Screw advance is .14 inch (3.6 mm) maximum for card holders without the visual indicator and .31 inch (7.9 mm) maximum on card holders with the visual indicator option.

FIGURE 1. Card holder dimensions and configurations – Continued.

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CONFIGURATION G

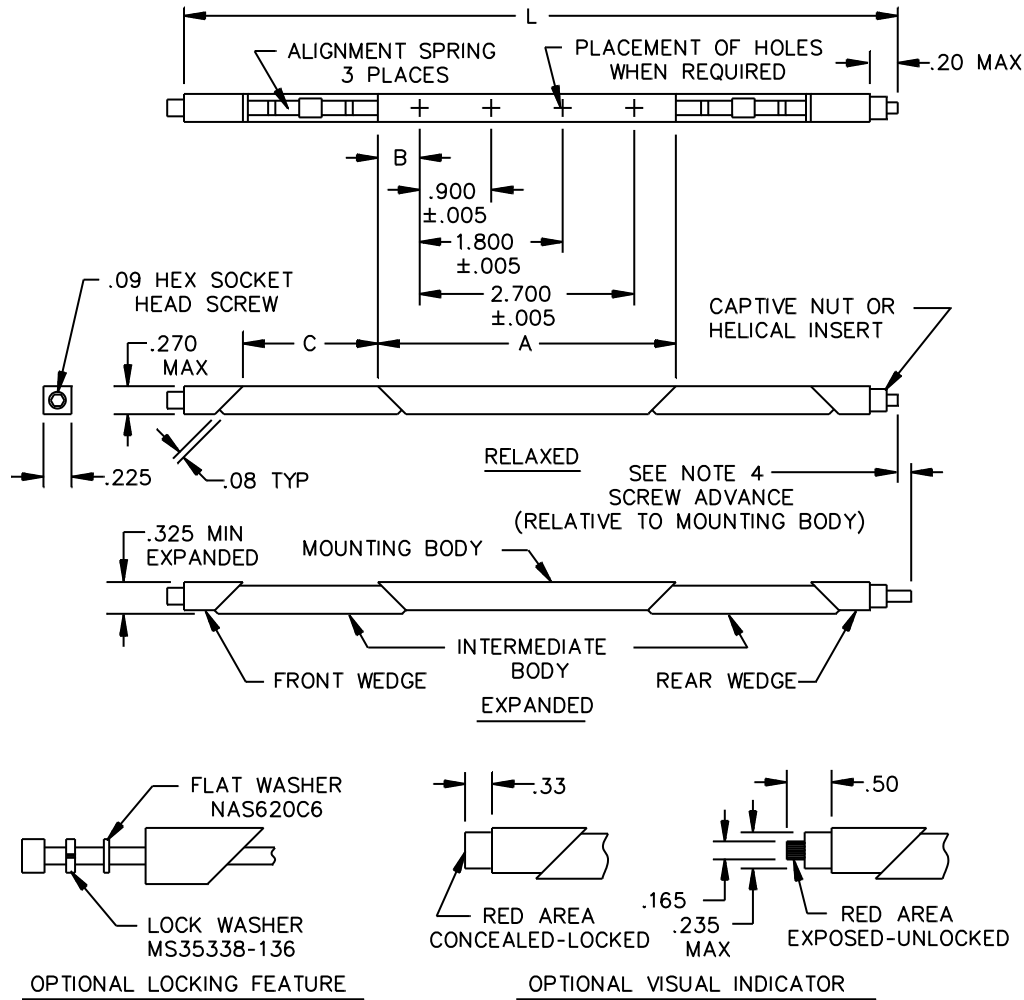
Inches	mm	Inches	mm	Inches	mm	Inches	mm	Inches	mm
.005	0.13	.09	2.3	.20	5.1	.235	5.97	.33	8.4
.06	1.5	.165	4.19	.225	5.72	.270	6.86	.50	12.7
						.325	8.26	.500	12.70

NOTES:

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3. See [table I](#) for L, A, B, and C dimensions and tolerances.
4. Screw advance is .14 inch (3.6 mm) maximum for card holders without the visual indicator and .31 inch (7.9 mm) maximum on card holders with the visual indicator option.

FIGURE 1. Card holder dimensions and configurations – Continued.

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CONFIGURATION H

Inches	mm	Inches	mm	Inches	mm	Inches	mm	Inches	mm
.005	0.13	.165	4.19	.225	5.72	.325	8.26	.900	22.86
.06	1.5	.20	5.1	.235	5.97	.33	8.4	1.800	45.72
.09	2.3			.270	6.86	.50	12.7	2.700	68.58

NOTES:

1. Dimensions are in inches. Metric equivalents are given for information only.
2. Unless otherwise specified, tolerances are  $\pm 0.02$  inch (0.5 mm), for 2 places and  $\pm 0.010$  inch (0.25 mm), for 3 places.
3. See [table I](#) for L, A, B, and C dimensions and tolerances.
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FIGURE 1. Card holder dimensions and configurations – Continued.

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4. VERIFICATION

4.1 Sampling and inspection. Unless otherwise specified in the contract or order, the contractor is responsible for the performance of all inspection requirements as specified herein. Except as otherwise specified in the contract, the contractor may use their own or any other facilities suitable for the performance of the inspection requirements specified herein, unless disapproved by the Government. The Government reserves the right to perform any of the inspections set forth in this drawing where such inspections are deemed necessary to assure supplies and services conform to prescribed requirements.

4.2 Conformance inspections.

4.2.1 Inspection of product for delivery. Inspection of product for delivery shall consist of visual and mechanical inspections of interface and physical dimensions (see 3.1), materials (see 3.2), and workmanship (see 3.8). Criteria for defects are listed in 4.2.1.3.

4.2.1.1 Sampling plan. A sample of parts shall be randomly selected in accordance with table II, normal sampling. If one or more defects are found, the lot shall be rejected. Criteria for defects are listed in 4.2.1.3.

TABLE II. Sampling plan.

Lot size	Normal	Tightened
2 to 25	3	5
26 to 50	5	6
51 to 90	6	7
91 to 150	7	11
151 to 280	10	13
281 to 500	11	16
501 to 1,200	15	19
1,201 to 3,200	18	23
3,201 to 10,000	22	29
10,001 and over	29	35

4.2.1.2 Rejected lots. If an inspection lot is rejected after normal sampling inspection, the manufacturer may rework it to correct the defects, or screen out the defective parts and resubmit for inspection. Resubmitted lots shall be inspected by selecting a random sample of parts in accordance with table II, tightened sampling. If one or more defects are found in this sample, the lot shall be rejected and shall not be supplied to this specification. Resubmitted lots which are acceptable shall be clearly identified as reinspected lots.

4.2.1.3 Defective characteristics and properties. Dimensional characteristics are considered defective when out of tolerance. Physical and functional properties are considered defective when outside the specified minimum, maximum, or range as applicable. Workmanship characteristics are considered defective when they would be detrimental to the intended use, performance requirements, or environmental survival of the part.

4.2.2 Optional statement of compliance. The acquiring activity, at its discretion, may accept a statement of compliance in lieu of the manufacturer performing the inspection of product for delivery (see 6.2.b).

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 Department's or Defense Agency's automated packaging files, CD-ROM products, or by contacting the responsible packaging activity.

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6. NOTES

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

6.1 Intended use. Card holders conforming to this drawing are intended for use when performance specifications do not exist and qualified military devices that will perform the required function are not available for OEM application.

6.1.1 Environmentally preferable material. Environmentally preferable materials should be used to the maximum extent possible to meet the requirements of this specification. As of the dating of this document, the U.S. Environmental Protection Agency (EPA) is focusing efforts on reducing 31 priority chemicals. The list of chemicals and additional information is available on their website <http://www.epa.gov/osw/hazard/wastemin/priority.htm>. Included in the list of 31 priority chemicals are cadmium, lead, and mercury. Use of these materials should be minimized or eliminated unless needed to meet the requirements specified herein (see 3.2).

6.1.2 Guidance on use of alternative parts with less hazardous or nonhazardous materials. This drawing provides for a number of alternative plating materials via the PIN. Users should select the PIN with the least hazardous material that meets the form, fit, and function requirements of their application.

6.2 Acquisition requirements. The acquisition requirements should specify the following:

- a. Complete PIN (see 1.2).
- b. Requirements for delivery of one copy of the conformance inspection data or certificate of compliance that parts have passed conformance inspection with each shipment of parts by the manufacturer.
- c. Whether the manufacturer performs the product for delivery inspection (4.2.1) or provides an optional statement of compliance (4.2.2).
- d. Requirements for notification of change in product to the contracting activity, if applicable.
- e. Requirements for packaging and packing.

6.3 Users of record. Coordination of this document for future revisions are 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: DLA Land and Maritime, ATTN: VAC, Post Office Box 3990, Columbus, OH 43216-5000 or by electronic mail at [5998.Documents@dla.mil](mailto:5998.Documents@dla.mil) or by facsimile (614) 692-6939 or DSN 850-6939.

6.4 Replaceability. Retainers covered herein replace similar commercial devices covered by contractor-prepared specifications or drawings.

6.5 Changes from previous issue. Asterisks are not used in this revision to identify changes with respect to the previous revision, due to the extensiveness of the changes.

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6.6 Supersession data concerning inactive for new design PINs. The inactive for new design part numbers with corresponding for new design use part numbers are listed below. Configurations "B", "C", "F", "G" and "H" have not been inactivated for new design and are not covered by A-A-59789.

Superseded (old) part number	Superseding (new) part number	Superseded (old) part number	Superseding (new) part number
89064-50AN	AA59789/21AC50N	89064-50ANW	AA59789/21FC50N
89064-50AR	AA59789/21AC50R	89064-50ARW	AA59789/21FC50R
89064-50AS	AA59789/21AC50S	89064-50ASW	AA59789/21FC50S
89064-50AT	AA59789/21AC50T	89064-50ATW	AA59789/21FC50T
89064-50EN	AA59789/21CC50N	89064-50ENW	AA59789/21WC50N
89064-50ER	AA59789/21CC50R	89064-50ERW	AA59789/21WC50R
89064-50ES	AA59789/21CC50S	89064-50ESW	AA59789/21WC50S
89064-50ET	AA59789/21CC50T	89064-50ETW	AA59789/21WC50T
89064-60AN	AA59789/21AC60N	89064-60ANW	AA59789/21FC60N
89064-60AR	AA59789/21AC60R	89064-60ARW	AA59789/21FC60R
89064-60AS	AA59789/21AC60S	89064-60ASW	AA59789/21FC60S
89064-60AT	AA59789/21AC60T	89064-60ATW	AA59789/21FC60T
89064-60EN	AA59789/21CC60N	89064-60ENW	AA59789/21WC60N
89064-65ER	AA59789/21CC65R	89064-65ERW	AA59789/21WC65R
89064-65ES	AA59789/21CC65S	89064-65ESW	AA59789/21WC65S
89064-65ET	AA59789/21CC65T	89064-65ETW	AA59789/21WC65T
89064-65AN	AA59789/21AC65N	89064-65ANW	AA59789/21FC65N
89064-65AR	AA59789/21AC65R	89064-65ARW	AA59789/21FC65R
89064-65AS	AA59789/21AC65S	89064-65ASW	AA59789/21FC65S
89064-65AT	AA59789/21AC65T	89064-65ATW	AA59789/21FC65T
89064-65EN	AA59789/21CC65N	89064-65ENW	AA59789/21WC65N
89064-65ER	AA59789/21CC65R	89064-65ERW	AA59789/21WC65R
89064-65ES	AA59789/21CC65S	89064-65ESW	AA59789/21WC65S
89064-65ET	AA59789/21CC65T	89064-65ETW	AA59789/21WC65T
89064-70AN	AA59789/23AC70N	89064-70ANW	AA59789/23FC70N
89064-70AR	AA59789/23AC70R	89064-70ARW	AA59789/23FC70R
89064-70AS	AA59789/23AC70S	89064-70ASW	AA59789/23FC70S
89064-70AT	AA59789/23AC70T	89064-70ATW	AA59789/23FC70T
89064-70EN	AA59789/23CC70N	89064-70ENW	AA59789/23WC70N
89064-70ER	AA59789/23CC70R	89064-70ERW	AA59789/23WC70R
89064-70ES	AA59789/23CC70S	89064-70ESW	AA59789/23WC70S
89064-70ET	AA59789/23CC70T	89064-70ETW	AA59789/23WC70T
89064-75AN	AA59789/23AC75N	89064-75ANW	AA59789/23FC75N
89064-75AR	AA59789/23AC75R	89064-75ARW	AA59789/23FC75R
89064-75AS	AA59789/23AC75S	89064-75ASW	AA59789/23FC75S
89064-75AT	AA59789/23AC75T	89064-75ATW	AA59789/23FC75T
89064-75EN	AA59789/23CC75N	89064-75ENW	AA59789/23WC75N
89064-75ER	AA59789/23CC75R	89064-75ERW	AA59789/23WC75R
89064-75ES	AA59789/23CC75S	89064-75ESW	AA59789/23WC75S
89064-75ET	AA59789/23CC75T	89064-75ETW	AA59789/23WC75T

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Superseded (old) part number	Superseding (new) part number	Superseded (old) part number	Superseding (new) part number
89064-80AN	AA59789/23AC80N	89064-80ANW	AA59789/23FC80N
89064-80AR	AA59789/23AC80R	89064-80ARW	AA59789/23FC80R
89064-80AS	AA59789/23AC80S	89064-80ASW	AA59789/23FC80S
89064-80AT	AA59789/23AC80T	89064-80ATW	AA59789/23FC80T
89064-80EN	AA59789/23CC80N	89064-80ENW	AA59789/23WC80N
89064-80ER	AA59789/23CC80R	89064-80ERW	AA59789/23WC80R
89064-80ES	AA59789/23CC80S	89064-80ESW	AA59789/23WC80S
89064-80ET	AA59789/23CC80T	89064-80ETW	AA59789/23WC80T
89064-85AN	AA59789/23AC85N	89064-85ANW	AA59789/23FC85N
89064-85AR	AA59789/23AC85R	89064-85ARW	AA59789/23FC85R
89064-85AS	AA59789/23AC85S	89064-85ASW	AA59789/23FC85S
89064-85AT	AA59789/23AC85T	89064-85ATW	AA59789/23FC85T
89064-85EN	AA59789/23CC85N	89064-85ENW	AA59789/23WC85N
89064-85ER	AA59789/23CC85R	89064-85ERW	AA59789/23WC85R
89064-85ES	AA59789/23CC85S	89064-85ESW	AA59789/23WC85S
89064-85ET	AA59789/23CC85T	89064-85ETW	AA59789/23WC85T
89064-60ANV	AA59789/22AC60N	89064-60ANWV	AA59789/22FC60N
89064-60ARV	AA59789/22AC60R	89064-60ARWV	AA59789/22FC60R
89064-60ASV	AA59789/22AC60S	89064-60ASWV	AA59789/22FC60S
89064-60ATV	AA59789/22AC60T	89064-60ATWV	AA59789/22FC60T
89064-60ENV	AA59789/22CC60N	89064-60ENWV	AA59789/22WC60N
89064-65ERV	AA59789/22CC65R	89064-65ERWV	AA59789/22WC65R
89064-65ESV	AA59789/22CC65S	89064-65ESWV	AA59789/22WC65S
89064-65ETV	AA59789/22CC65T	89064-65ETWV	AA59789/22WC65T
89064-65ANV	AA59789/22AC65N	89064-65ANWV	AA59789/22FC65N
89064-65ARV	AA59789/22AC65R	89064-65ARWV	AA59789/22FC65R
89064-65ASV	AA59789/22AC65S	89064-65ASWV	AA59789/22FC65S
89064-65ATV	AA59789/22AC65T	89064-65ATWV	AA59789/22FC65T
89064-65ENV	AA59789/22CC65N	89064-65ENWV	AA59789/22WC65N
89064-65ERV	AA59789/22CC65R	89064-65ERWV	AA59789/22WC65R
89064-65ESV	AA59789/22CC65S	89064-65ESWV	AA59789/22WC65S
89064-65ETV	AA59789/22CC65T	89064-65ETWV	AA59789/22WC65T
89064-70ANV	AA59789/24AC70N	89064-70ANWV	AA59789/24FC70N
89064-70ARV	AA59789/24AC70R	89064-70ARWV	AA59789/24FC70R
89064-70ASV	AA59789/24AC70S	89064-70ASWV	AA59789/24FC70S
89064-70ATV	AA59789/24AC70T	89064-70ATWV	AA59789/24FC70T
89064-70ENV	AA59789/24CC70N	89064-70ENWV	AA59789/24WC70N
89064-70ERV	AA59789/24CC70R	89064-70ERWV	AA59789/24WC70R
89064-70ESV	AA59789/24CC70S	89064-70ESWV	AA59789/24WC70S
89064-70ETV	AA59789/24CC70T	89064-70ETWV	AA59789/24WC70T

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Superseded (old) part number	Superseding (new) part number	Superseded (old) part number	Superseding (new) part number
89064-75ANV	AA59789/24AC75N	89064-75ANWV	AA59789/24FC75N
89064-75ARV	AA59789/24AC75R	89064-75ARWV	AA59789/24FC75R
89064-75ASV	AA59789/24AC75S	89064-75ASWV	AA59789/24FC75S
89064-75ATV	AA59789/24AC75T	89064-75ATWV	AA59789/24FC75T
89064-75ENV	AA59789/24CC75N	89064-75ENWV	AA59789/24WC75N
89064-75ERV	AA59789/24CC75R	89064-75ERWV	AA59789/24WC75R
89064-75ESV	AA59789/24CC75S	89064-75ESWV	AA59789/24WC75S
89064-75ETV	AA59789/24CC75T	89064-75ETWV	AA59789/24WC75T
89064-80ANV	AA59789/24AC80N	89064-80ANWV	AA59789/24FC80N
89064-80ARV	AA59789/24AC80R	89064-80ARWV	AA59789/24FC80R
89064-80ASV	AA59789/24AC80S	89064-80ASWV	AA59789/24FC80S
89064-80ATV	AA59789/24AC80T	89064-80ATWV	AA59789/24FC80T
89064-80ENV	AA59789/24CC80N	89064-80ENWV	AA59789/24WC80N
89064-80ERV	AA59789/24CC80R	89064-80ERWV	AA59789/24WC80R
89064-80ESV	AA59789/24CC80S	89064-80ESWV	AA59789/24WC80S
89064-80ETV	AA59789/24CC80T	89064-80ETWV	AA59789/24WC80T
89064-85ANV	AA59789/24AC85N	89064-85ANWV	AA59789/24FC85N
89064-85ARV	AA59789/24AC85R	89064-85ARWV	AA59789/24FC85R
89064-85ASV	AA59789/24AC85S	89064-85ASWV	AA59789/24FC85S
89064-85ATV	AA59789/24AC85T	89064-85ATWV	AA59789/24FC85T
89064-85ENV	AA59789/24CC85N	89064-85ENWV	AA59789/24WC85N
89064-85ERV	AA59789/24CC85R	89064-85ERWV	AA59789/24WC85R
89064-85ESV	AA59789/24CC85S	89064-85ESWV	AA59789/24WC85S
89064-85ETV	AA59789/24CC85T	89064-85ETWV	AA59789/24WC85T

6.7 Supersession data concerning previous revisions. The original issue of this drawing PIN did not contain a suffix to designate length, configuration, or other options. Superseded part numbers are listed below.

New PIN 89064-	Previous part number 89064-	New PIN 89064-	Previous part number 89064-	New PIN 89064-	Previous part number 89064-	New PIN 89064-	Previous part number 89064-
50AN	01A	60ANV	07A	60BN	13A	50CNV	19A
50AS	01M	60ASV	07M	60BS	13M	50CRV	19M
50ANW	02A	60ANWV	08A	60BNW	14A	50CNWV	20A
50ASW	02M	60ASWV	08M	60BSW	14M	50CRWV	20M
50ANV	03A	50BN	09A	60BNV	15A	60CN	21A
50ASV	03M	50BS	09M	60BSV	15M	60CR	21M
50ANWV	04A	50BNW	10A	60BNWV	16A	60CNW	22A
50ASWV	04M	50BSW	10M	60BSWV	16M	60CRW	22M
60AN	05A	50BNV	11A	50CN	17A	60CNV	23A
60AS	05M	50BSV	11M	50CS	17M	60CRV	23M
60ANW	06A	50BNWV	12A	50CNW	18A	60CNWV	24A
60ASW	06M	50BSWV	12M	50CRW	18M	60CRWV	24M

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6.8 **Approved sources of supply.** Approved sources of supply are listed herein. Additional sources will be added as they become available. The vendors listed herein have agreed with this drawing and have submitted a certificate of compliance (see 3.4 herein) to DLA Land and Maritime, ATTN: VAC, Post Office Box 3990, Columbus, OH 43218-3990 or by electronic mail at "5998.Documents@dla.mil" or by facsimile (614) 692-6939 or DSN 850-6939.

DESC drawing PIN 89064 (1)	Vendor similar designation or type number (2)	DESC drawing PIN 89064 (1)	Vendor similar designation or type number (2)	Vendor CAGE	Vendor name and address
-50EN	G5225-89064-50EN	-50ENV	G5225-89064-50ENV	5BG68	American Circuit Card Retainers, Inc. 2310 E. Orangethorpe Avenue Anaheim, CA 92806-1231  Telephone: (714) 738-6194 Facsimile: (714) 446-0119  E-mail: <a href="mailto:sales@accrmfg.com">sales@accrmfg.com</a>  URL: <a href="http://www.accrmfg.com">http://www.accrmfg.com</a>
-50ER	G5225-89064-50ER	-50ERV	G5225-89064-50ERV		
-50ES	G5225-89064-50ES	-50ESV	G5225-89064-50ESV		
-50ET	G5225-89064-50ET	-50ETV	G5225-89064-50ETV		
-50ENW	G5225-89064-50ENW	-50ENWV	G5225-89064-50ENWV		
-50ERW	G5225-89064-50ERW	-50ERWV	G5225-89064-50ERWV		
-50ESW	G5225-89064-50ESW	-50ESWV	G5225-89064-50ESWV		
-50ETW	G5225-89064-50ETW	-50ETWV	G5225-89064-50ETWV		
-50FN	G5220-89064-50FN	-50FNV	G5220-89064-50FNV		
-50FR	G5220-89064-50FR	-50FRV	G5220-89064-50FRV		
-50FS	G5220-89064-50FS	-50FSV	G5220-89064-50FSV		
-50FT	G5220-89064-50FT	-50FTV	G5220-89064-50FTV		
-50FNW	G5220-89064-50FNW	-50FNWV	G5220-89064-50FNWV		
-50FRW	G5220-89064-50FRW	-50FRWV	G5220-89064-50FRWV		
-50FSW	G5220-89064-50FSW	-50FSWV	G5220-89064-50FSWV		
-50FTW	G5220-89064-50FTW	-50FTWV	G5220-89064-50FTWV		
-60EN	G5225-89064-60EN	-60ENV	G5225-89064-60ENV		
-60ER	G5225-89064-60ER	-60ERV	G5225-89064-60ERV		
-60ES	G5225-89064-60ES	-60ESV	G5225-89064-60ESV		
-60ET	G5225-89064-60ET	-60ETV	G5225-89064-60ETV		
-60ENW	G5225-89064-60ENW	-60ENWV	G5225-89064-60ENWV		
-60ERW	G5225-89064-60ERW	-60ERWV	G5225-89064-60ERWV		
-60ESW	G5225-89064-60ESW	-60ESWV	G5225-89064-60ESWV		
-60ETW	G5225-89064-60ETW	-60ETWV	G5225-89064-60ETWV		
-60FN	G5220-89064-60FN	-60FNV	G5220-89064-60FNV		
-60FR	G5220-89064-60FR	-60FRV	G5220-89064-60FRV		
-60FS	G5220-89064-60FS	-60FSV	G5220-89064-60FSV		
-60FT	G5220-89064-60FT	-60FTV	G5220-89064-60FTV		
-60FNW	G5220-89064-60FNW	-60FNWV	G5220-89064-60FNWV		
-60FRW	G5220-89064-60FRW	-60FRWV	G5220-89064-60FRWV		
-60FSW	G5220-89064-60FSW	-60FSWV	G5220-89064-60FSWV		
-60FTW	G5220-89064-60FTW	-60FTWV	G5220-89064-60FTWV		
-65EN	G5225-89064-65EN	-65ENV	G5225-89064-65ENV		
-65ER	G5225-89064-65ER	-65ERV	G5225-89064-65ERV		
-65ES	G5225-89064-65ES	-65ESV	G5225-89064-65ESV		
-65ET	G5225-89064-65ET	-65ETV	G5225-89064-65ETV		



See footnotes at end of table.

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DESC drawing PIN 89064 (1)	Vendor similar designation or type number (2)	DESC drawing PIN 89064 (1)	Vendor similar designation or type number (2)	Vendor CAGE	Vendor name and address
-65ENW	G5225-89064-65ENW	-65ENWV	G5225-89064-65ENWV	5BG68	American Circuit Card Retainers, Inc. 2310 E. Orangethorpe Avenue Anaheim, CA 92806-1231  Telephone: (714) 738-6194 Facsimile: (714) 446-0119  E-mail: <a href="mailto:sales@accrmfg.com">sales@accrmfg.com</a>  URL: <a href="http://www.accrmfg.com">http://www.accrmfg.com</a>
-65ERW	G5225-89064-65ERW	-65ERWV	G5225-89064-65ERWV		
-65ESW	G5225-89064-65ESW	-65ESWV	G5225-89064-65ESWV		
-65ETW	G5225-89064-65ETW	-65ETWV	G5225-89064-65ETWV		
-65FN	G5220-89064-65FN	-65FNV	G5220-89064-65FNV		
-65FR	G5220-89064-65FR	-65FRV	G5220-89064-65FRV		
-65FS	G5220-89064-65FS	-65FSV	G5220-89064-65FSV		
-65FT	G5220-89064-65FT	-65FTV	G5220-89064-65FTV		
-65FNW	G5220-89064-65FNW	-65FNWV	G5220-89064-65FNWV		
-65FRW	G5220-89064-65FRW	-65FRWV	G5220-89064-65FRWV		
-65FSW	G5220-89064-65FSW	-65FSWV	G5220-89064-65FSWV		
-65FTW	G5220-89064-65FTW	-65FTWV	G5220-89064-65FTWV		
-70HN	G5225-89064-70HN	-70HNV	G5225-89064-70HNV		
-70HR	G5225-89064-70HR	-70HRV	G5225-89064-70HRV		
-70HS	G5225-89064-70HS	-70HSV	G5225-89064-70HSV		
-70HT	G5225-89064-70HT	-70HTV	G5225-89064-70HTV		
-70HNW	G5225-89064-70HNW	-70HNWV	G5225-89064-70HNWV		
-70HRW	G5225-89064-70HRW	-70HRWV	G5225-89064-70HRWV		
-70HSW	G5225-89064-70HSW	-70HSWV	G5225-89064-70HSWV		
-70HTW	G5225-89064-70HTW	-70HTWV	G5225-89064-70HTWV		
-75HN	G5225-89064-75HN	-75HNV	G5225-89064-75HNV		
-75HR	G5225-89064-75HR	-75HRV	G5225-89064-75HRV		
-75HS	G5225-89064-75HS	-75HSV	G5225-89064-75HSV		
-75HT	G5225-89064-75HT	-75HTV	G5225-89064-75HTV		
-75HNW	G5225-89064-75HNW	-75HNWV	G5225-89064-75HNWV		
-75HRW	G5225-89064-75HRW	-75HRWV	G5225-89064-75HRWV		
-75HSW	G5225-89064-75HSW	-75HSWV	G5225-89064-75HSWV		
-75HTW	G5225-89064-75HTW	-75HTWV	G5225-89064-75HTWV		
-80HN	G5225-89064-80HN	-80HNV	G5225-89064-80HNV		
-80HR	G5225-89064-80HR	-80HRV	G5225-89064-80HRV		
-80HS	G5225-89064-80HS	-80HSV	G5225-89064-80HSV		
-80HT	G5225-89064-80HT	-80HTV	G5225-89064-80HTV		
-80HNW	G5225-89064-80HNW	-80HNWV	G5225-89064-80HNWV		
-80HRW	G5225-89064-80HRW	-80HRWV	G5225-89064-80HRWV		
-80HSW	G5225-89064-80HSW	-80HSWV	G5225-89064-80HSWV		
-80HTW	G5225-89064-80HTW	-80HTWV	G5225-89064-80HTWV		
-85HN	G5225-89064-85HN	-85HNV	G5225-89064-85HNV		
-85HR	G5225-89064-85HR	-85HRV	G5225-89064-85HRV		
-85HS	G5225-89064-85HS	-85HSV	G5225-89064-85HSV		
-85HT	G5225-89064-85HT	-85HTV	G5225-89064-85HTV		

See footnotes at end of table.

<b>DEFENSE ELECTRONICS SUPPLY CENTER DAYTON, OH 45444</b>	SIZE	CAGE CODE	DWG NO.
	<b>A</b>	<b>14933</b>	<b>89064</b>
		REV <b>G</b>	PAGE <b>20</b>

DESC drawing PIN 89064 (1)	Vendor similar designation or type number (2)	DESC drawing PIN 89064 (1)	Vendor similar designation or type number (2)	Vendor CAGE	Vendor name and address
-85HNW	G5225-89064-85HNW	-85HNWV	G5225-89064-85HNWV	5BG68	American Circuit Card Retainers, Inc. 2310 E. Orangethorpe Avenue Anaheim, CA 92806-1231  Telephone: (714) 738-6194 Facsimile: (714) 446-0119  E-mail: <a href="mailto:sales@accrmfg.com">sales@accrmfg.com</a>  URL: <a href="http://www.accrmfg.com">http://www.accrmfg.com</a>
-85HRW	G5225-89064-85HRW	-85HRWV	G5225-89064-85HRWV		
-85HSW	G5225-89064-85HSW	-85HSWV	G5225-89064-85HSWV		
-85HTW	G5225-89064-85HTW	-85HTWV	G5225-89064-85HTWV		

- (1) Parts must be purchased to this DESC PIN to assure that all performance requirements and inspections are met.  
(2) Do not use vendor PIN's for acquisition. Items acquired to this number may not satisfy the performance requirements of this drawing.

DESC drawing PIN 89064 (1)	Vendor similar designation or type number (2) (3)	DESC drawing PIN 89064 (1)	Vendor similar designation or type number (2) (3)	Vendor CAGE	Vendor name and address
-50AN	40-5-10-A	-50ANV	40-5VI-10-A	61081	Pentair Technical Products (formerly Birtcher) 7328 Trade Street San Diego, CA 92121-3410  Telephone: (858) 740-2400 Facsimile: (858) 740-2430  E-mail: <a href="mailto:schroff.us@pentair.com">schroff.us@pentair.com</a>  URL: <a href="http://schroff.pentair.com">http://schroff.pentair.com</a>
-50AR	40-5-10-R	-50ARV	40-5VI-10-R		
-50AS	40-5-10	-50ASV	40-5VI-10		
-50AT	40-5-10-T	-50ATV	40-5VI-10-T		
-50ANW	40-5-10-LF-A	-50ANWV	40-5VI-10-LF-A		
-50ARW	40-5-10-LF-R	-50ARWV	40-5VI-10-LF-R		
-50ASW	40-5-10-LF	-50ASWV	40-5VI-10-LF		
-50ATW	40-5-10-LF-T	-50ATWV	40-5VI-10-LF-T		
-50BN	42-5-10-A	-50BNV	42-5VI-10-A		
-50BR	42-5-10-R	-50BRV	42-5VI-10-R		
-50BS	42-5-10	-50BSV	42-5VI-10		
-50BT	42-5-10-T	-50BTV	42-5VI-10-T		
-50BNW	42-5-10-LF-A	-50BNWV	42-5VI-10-LF-A		
-50BRW	42-5-10-LF-R	-50BRWV	42-5VI-10-LF-R		
-50BSW	42-5-10-LF	-50BSWV	42-5VI-10-LF		
-50BTW	42-5-10-LF-T	-50BTWV	42-5VI-10-LF-T		
-50CN	40-5-1013-A	-50CNV	40-5VI-1013-A		
-50CR	40-5-1013-R	-50CRV	40-5VI-1013-R		
-50CS	40-5-1013	-50CSV	40-5VI-1013		
-50CT	40-5-1013-T	-50CTV	40-5VI-1013-T		
-50CNW	40-5-1013-LF-A	-50CNWV	40-5VI-1013-LFA		
-50CRW	40-5-1013-LF-R	-50CRWV	40-5VI-1013-LFR		
-50CSW	40-5-1013-LF	-50CSWV	40-5VI-1013-LF		



See footnotes at end of table.

<b>DEFENSE ELECTRONICS SUPPLY CENTER DAYTON, OH 45444</b>	SIZE <b>A</b>	CAGE CODE <b>14933</b>	DWG NO. <b>89064</b>
		REV <b>G</b>	PAGE <b>21</b>

DESC drawing PIN 89064 (1)	Vendor similar designation or type number (2) (3)	DESC drawing PIN 89064 (1)	Vendor similar designation or type number (2) (3)	Vendor CAGE	Vendor name and address
-50CTW	40-5-1013-LF-T	-50CTWV	40-5VI-1013-LFT	61081	Pentair Technical Products (formerly Birtcher) 7328 Trade Street San Diego, CA 92121-3410  Telephone: (858) 740-2400 Facsimile: (858) 740-2430  E-mail: <a href="mailto:schroff.us@pentair.com">schroff.us@pentair.com</a>  URL: <a href="http://schroff.pentair.com">http://schroff.pentair.com</a>
-60AN	40-5-12-A	-60ANV	40-5VI-12-A		
-60AR	40-5-12-R	-60ARV	40-5VI-12-R		
-60AS	40-5-12	-60ASV	40-5VI-12		
-60AT	40-5-12-T	-60ATV	40-5VI-12-T		
-60ANW	40-5-12-LF-A	-60ANWV	40-5VI-12-LF-A		
-60ARW	40-5-12-LF-R	-60ARWV	40-5VI-12-LF-R		
-60ASW	40-5-12-LF	-60ASWV	40-5VI-12-LF		
-60ATW	40-5-12-LF-T	-60ATWV	40-5VI-12-LF-T		
-60BN	42-5-12-A	-60BNV	42-5VI-12-A		
-60BR	42-5-12-R	-60BRV	42-5VI-12-R		
-60BS	42-5-12	-60BSV	42-5VI-12		
-60BT	42-5-12-T	-60BTV	42-5VI-12-T		
-60BNW	42-5-12-LF-A	-60BNWV	42-5VI-12-LF-A		
-60BRW	42-5-12-LF-R	-60BRWV	42-5VI-12-LF-R		
-60BSW	42-5-12-LF	-60BSWV	42-5VI-12-LF		
-60BTW	42-5-12-LF-T	-60BTWV	42-5VI-12-LF-T		
-60CN	40-5-12-A	-60CNV	40-5VI-12-A		
-60CR	40-5-1108-R	-60CRV	40-5VI-1108-R		
-60CS	40-5-1108	-60CSV	40-5VI-1108		
-60CT	40-5-1108-T	-60CTV	40-5VI-1108-T		
-60CNW	40-5-12-LF-A	-60CNWV	40-5VI-12-LF-A		
-60CRW	40-5-1108-LF-R	-60CRWV	40-5VI-1108-LFR		
-60CSW	40-5-1108-LF	-60CSWV	40-5VI-1108-LF		
-60CTW	40-5-1108-LF-T	-60CTWV	40-5VI-1108-LFT		
-65BN	42-5-13-A	-65BNV	42-5VI-13-A		
-65BR	42-5-13-R	-65BRV	42-5VI-13-R		
-65BS	42-5-13	-65BSV	42-5VI-13		
-65BT	42-5-13-T	-65BTV	42-5VI-13-T		
-65BNW	42-5-13-LF-A	-65BNWV	42-5VI-13-LF-A		
-65BRW	42-5-13-LF-R	-65BRWV	42-5VI-13-LF-R		
-65BSW	42-5-13-LF	-65BSWV	42-5VI-13-LF		
-65BTW	42-5-13-LF-T	-65BTWV	42-5VI-13-LF-T		
-65CN	40-5-13-A	-65CNV	40-5VI-13-A		
-65CR	40-5-1109-R	-65CRV	40-5VI-1109-R		
-65CS	40-5-1109	-65CSV	40-5VI-1109		
-65CT	40-5-1109-T	-65CTV	40-5VI-1109-T		
-65CNW	40-5-13-LF-A	-65CNWV	40-5VI-13-LF-A		
-65CRW	40-5-1109-LFR	-65CRWV	40-5VI-1109-LFR		
-65CSW	40-5-1109-LF	-65CSWV	40-5VI-1109-LF		

See footnotes at end of table.

<b>DEFENSE ELECTRONICS SUPPLY CENTER DAYTON, OH 45444</b>	SIZE <b>A</b>	CAGE CODE <b>14933</b>	DWG NO. <b>89064</b>
		REV <b>G</b>	PAGE <b>22</b>

DESC drawing PIN 89064 (1)	Vendor similar designation or type number (2) (3)	DESC drawing PIN 89064 (1)	Vendor similar designation or type number (2) (3)	Vendor CAGE	Vendor name and address
-65CTW	40-5-1109-LF-T	-65CTWV	40-5VI-1109-LFT	61081	Pentair Technical Products (formerly Birtcher) 7328 Trade Street San Diego, CA 92121-3410  Telephone: (858) 740-2400 Facsimile: (858) 740-2430  E-mail: <a href="mailto:schroff.us@pentair.com">schroff.us@pentair.com</a>  URL: <a href="http://schroff.pentair.com">http://schroff.pentair.com</a>
-70DN	40-5-14-A	-70DNV	40-5VI-14-A		
-70DR	40-5-14-R	-70DRV	40-5VI-14-R		
-70DS	40-5-14	-70DSV	40-5VI-14		
-70DT	40-5-14-T	-70DTV	40-5VI-14-T		
-70DNW	40-5-14-LF-A	-70DNWV	40-5VI-14-LF-A		
-70DRW	40-5-14-LF-R	-70DRWV	40-5VI-14-LF-R		
-70DSW	40-5-14-LF	-70DSWV	40-5VI-14-LF		
-70DTW	40-5-14-LF-T	-70DTWV	40-5VI-14-LF-T		
-75DN	40-5-15-A	-75BNV	40-5VI-15-A		
-75DR	40-5-15-R	-75DRV	40-5VI-15-R		
-75DS	40-5-15	-75DSV	40-5VI-15		
-75DT	40-5-15-T	-75DTV	40-5VI-15-T		
-75DNW	40-5-15-LF-A	-75DNWV	40-5VI-15-LF-A		
-75DRW	40-5-15-LF-R	-75DRWV	40-5VI-15-LF-R		
-75DSW	40-5-15-LF	-75DSWV	40-5VI-15-LF		
-75DTW	40-5-15-LF-T	-75DTWV	40-5VI-15-LF-T		
-80DN	40-5-16-A	-80DNV	40-5VI-16-A		
-80DR	40-5-16-R	-80DRV	40-5VI-16-R		
-80DS	40-5-16	-80DSV	40-5VI-16		
-80DT	40-5-16-T	-80DTV	40-5VI-16-T		
-80DNW	40-5-16-LF-A	-80DNWV	40-5VI-16-LF-A		
-80DRW	40-5-16-LF-R	-80DRWV	40-5VI-16-LF-R		
-80DSW	40-5-16-LF	-80DSWV	40-5VI-16-LF		
-80DTW	40-5-16-LF-T	-80DTWV	40-5VI-16-LF-T		
-85DN	40-5-17-A	-85DNV	40-5VI-17-A		
-85DR	40-5-17-R	-85DRV	40-5VI-17-R		
-85DS	40-5-17	-85DSV	40-5VI-17		
-85DT	40-5-17-T	-85DTV	40-5VI-17-T		
-85DNW	40-5-17-LF-A	-85DNWV	40-5VI-17-LF-A		
-85DRW	40-5-17-LF-R	-85DRWV	40-5VI-17-LF-R		
-85DSW	40-5-17-LF	-85DSWV	40-5VI-17-LF		
-85DTW	40-5-17-LF-T	-85DTWV	40-5VI-17-LF-T		

- (1) Parts must be purchased to this DESC PIN to assure that all performance requirements and inspections are met.  
 (2) Do not use vendor PIN's for acquisition. Items acquired to this number may not satisfy the performance requirements of this drawing.  
 (3) CAGE 61081 card holders are supplied assembled.

<b>DEFENSE ELECTRONICS SUPPLY CENTER DAYTON, OH 45444</b>	SIZE	CAGE CODE	DWG NO.
	<b>A</b>	<b>14933</b>	<b>89064</b>
		REV <b>G</b>	PAGE <b>23</b>

DESC drawing PIN 89064 (1)	Vendor similar designation or type number (2)	DESC drawing PIN 89064 (1)	Vendor similar designation or type number (2)	Vendor CAGE	Vendor name and address
-50EN	226-1006-4.80	-50ENV	V226-1006-4.80	61081	Pentair Technical Products (formerly Calmark) 7328 Trade Street San Diego, CA 92121-3410  Telephone: (858) 740-2400 Facsimile: (858) 740-2430  E-mail: <a href="mailto:schroff.us@pentair.com">schroff.us@pentair.com</a>  URL: <a href="http://schroff.pentair.com">http://schroff.pentair.com</a>
-50ER	226-1006-4.80H	-50ERV	V226-1006-4.80H		
-50ES	226-1006-4.80T2	-50ESV	V226-1006-4.80T2		
-50ET	226-1006-4.80T0	-50ETV	V226-1006-4.80T0		
-50ENW	W226-1006-4.80	-50ENWV	WV226-1006-4.80		
-50ERW	W226-1006-4.80H	-50ERWV	WV226-1006-4.80H		
-50ESW	W226-1006-4.80T2	-50ESWV	WV226-1006-4.80T2		
-50ETW	W226-1006-4.80T0	-50ETWV	WV226-1006-4.80T0		
-50FN	231-1013-4.80	-50FNV	V231-1006-4.80		
-50FR	231-1013-4.80H	-50FRV	V231-1006-4.80H		
-50FS	231-1013-4.80T2	-50FSV	V231-1006-4.80T2		
-50FT	231-1013-4.80T0	-50FTV	V231-1006-4.80T0		
-50FNW	W231-1013-4.80	-50FNWV	WV231-1006-4.80		
-50FRW	W231-1013-4.80H	-50FRWV	WV231-1006-4.80H		
-50FSW	W231-1013-4.80T2	-50FSWV	WV231-1006-4.80T2		
-50FTW	W231-1013-4.80T0	-50FTWV	WV231-1006-4.80T0		
-50GN	226-1007-4.80	-50GNV	V226-1007-4.80		
-50GR	226-1007-4.80H	-50GRV	V226-1007-4.80H		
-50GS	226-1007-4.80T2	-50GSV	V226-1007-4.80T2		
-50GT	226-1007-4.80T0	-50GTV	V226-1007-4.80T0		
-50GNW	W226-1007-4.80	-50GNWV	WV226-1007-4.80		
-50GRW	W226-1007-4.80H	-50GRWV	WV226-1007-4.80H		
-50GSW	W226-1007-4.80T2	-50GSWV	WV226-1007-4.80T2		
-50GTW	W226-1007-4.80T0	-50GTWV	WV226-1007-4.80T0		
-60EN	226-1006-5.80	-60ENV	V226-1006-5.80		
-60ER	226-1006-5.80H	-60ERV	V226-1006-5.80H		
-60ES	226-1006-5.80T2	-60ESV	V226-1006-5.80T2		
-60ET	226-1006-5.80T0	-60ETV	V226-1006-5.80T0		
-60ENW	W226-1006-5.80	-60ENWV	WV226-1006-5.80		
-60ERW	W226-1006-5.80H	-60ERWV	WV226-1006-5.80H		
-60ESW	W226-1006-5.80T2	-60ESWV	WV226-1006-5.80T2		
-60ETW	W226-1006-5.80T0	-60ETWV	WV226-1006-5.80T0		
-60FN	231-1013-5.80	-60FNV	V231-1006-5.80		
-60FR	231-1013-5.80H	-60FRV	V231-1006-5.80H		
-60FS	231-1013-5.80T2	-60FSV	V231-1006-5.80T2		
-60FT	231-1013-5.80T0	-60FTV	V231-1006-5.80T0		
-60FNW	W231-1013-5.80	-60FNWV	WV231-1006-5.80		
-60FRW	W231-1013-5.80H	-60FRWV	WV231-1006-5.80H		
-60FSW	W231-1013-5.80T2	-60FSWV	WV231-1006-5.80T2		
-60FTW	W231-1013-5.80T0	-60FTWV	WV231-1006-5.80T0		



See footnotes at end of table.

<b>DEFENSE ELECTRONICS SUPPLY CENTER DAYTON, OH 45444</b>	SIZE <b>A</b>	CAGE CODE <b>14933</b>	DWG NO. <b>89064</b>
		REV <b>G</b>	PAGE <b>24</b>



DESC drawing PIN 89064 (1)	Vendor similar designation or type number (2)	DESC drawing PIN 89064 (1)	Vendor similar designation or type number (2)	Vendor CAGE	Vendor name and address
-60GN	226-1007-5.80	-60GNV	V226-1007-5.80	61081	Pentair Technical Products (formerly Calmark) 7328 Trade Street San Diego, CA 92121-3410  Telephone: (858) 740-2400 Facsimile: (858) 740-2430  E-mail: <a href="mailto:schroff.us@pentair.com">schroff.us@pentair.com</a>  URL: <a href="http://schroff.pentair.com">http://schroff.pentair.com</a>
-60GR	226-1007-5.80H	-60GRV	V226-1007-5.80H		
-60GS	226-1007-5.80T2	-60GSV	V226-1007-5.80T2		
-60GT	226-1007-5.80T0	-60GTV	V226-1007-5.80T0		
-60GNW	W226-1007-5.80	-60GNWV	WV226-1007-5.80		
-60GRW	W226-1007-5.80H	-60GRWV	WV226-1007-5.80H		
-60GSW	W226-1007-5.80T2	-60GSWV	WV226-1007-5.80T2		
-60GTW	W226-1007-5.80T0	-60GTWV	WV226-1007-5.80T0		
-65EN	226-1006-6.30	-65ENV	V226-1006-6.30		
-65ER	226-1006-6.30H	-65ERV	V226-1006-6.30H		
-65ES	226-1006-6.30T2	-65ESV	V226-1006-6.30T2		
-65ET	226-1006-6.30T0	-65ETV	V226-1006-6.30T0		
-65ENW	W226-1006-6.30	-65ENWV	WV226-1006-6.30		
-65ERW	W226-1006-6.30H	-65ERWV	WV226-1006-6.30H		
-65ESW	W226-1006-6.30T2	-65ESWV	WV226-1006-6.30T2		
-65ETW	W226-1006-6.30T0	-65ETWV	WV226-1006-6.30T0		
-65FN	231-1013-6.30	-65FNV	V231-1013-6.30		
-65FR	231-1013-6.30H	-65FRV	V231-1013-6.30H		
-65FS	231-1013-6.30T2	-65FSV	V231-1013-6.30T2		
-65FT	231-1013-6.30T0	-65FTV	V231-1013-6.30T0		
-65FNW	W231-1013-6.30	-65FNWV	WV231-1013-6.30		
-65FRW	W231-1013-6.30H	-65FRWV	WV231-1013-6.30H		
-65FSW	W231-1013-6.30T2	-65FSWV	WV231-1013-6.30T2		
-65FTW	W231-1013-6.30T0	-65FTWV	WV231 1013 6.30T0		
-65GN	226-1007-6.30	-65GNV	V226-1007-6.30		
-65GR	226-1007-6.30H	-65GRV	V226-1007-6.30H		
-65GS	226-1007-6.30T2	-65GSV	V226-1007-6.30T2		
-65GT	226-1007-6.30T0	-65GTV	V226-1007-6.30T0		
-65GNW	W226-1007-6.30	-65GNWV	WV226-1007-6.30		
-65GRW	W226-1007-6.30H	-65GRWV	WV226-1007-6.30H		
-65GSW	W226-1007-6.30T2	-65GSWV	WV226-1007-6.30T2		
-65GTW	W226-1007-6.30T0	-65GTWV	WV226-1007-6.30T0		
-70HN	226-1084-6.80	-70HNV	V226-1084-6.80		
-70HR	226-1084-6.80H	-70HRV	V226-1084-6.80H		
-70HS	226-1084-6.80T2	-70HSV	V226-1084-6.80T2		
-70HT	226-1084-6.80T0	-70HTV	V226-1084-6.80T0		
-70HNW	W226-1084-6.80	-70HNWV	WV226-1084-6.80		
-70HRW	W226-1084-6.80H	-70HRWV	WV226-1084-6.80H		
-70HSW	W226-1084-6.80T2	-70HSWV	WV226-1084-6.80T2		
-70HTW	W226-1084-6.80T0	-70HTWV	WV226-1084-6.80T0		

See footnotes at end of table.

<b>DEFENSE ELECTRONICS SUPPLY CENTER DAYTON, OH 45444</b>	SIZE <b>A</b>	CAGE CODE <b>14933</b>	DWG NO. <b>89064</b>
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DESC drawing PIN 89064 (1)	Vendor similar designation or type number (2)	DESC drawing PIN 89064 (1)	Vendor similar designation or type number (2)	Vendor CAGE	Vendor name and address
-75HN	226-1084-7.30	-75HNV	V226-1084-7.30	61081	Pentair Technical Products (formerly Calmark) 7328 Trade Street San Diego, CA 92121-3410  Telephone: (858) 740-2400 Facsimile: (858) 740-2430  E-mail: <a href="mailto:schroff.us@pentair.com">schroff.us@pentair.com</a>  URL: <a href="http://schroff.pentair.com">http://schroff.pentair.com</a>
-75HR	226-1084-7.30H	-75HRV	V226-1084-7.30H		
-75HS	226-1084-7.30T2	-75HSV	V226-1084-7.30T2		
-75HT	226-1084-7.30T0	-75HTV	V226-1084-7.30T0		
-75HNW	W226-1084-7.30	-75HNWV	WV226-1084-7.30		
-75HRW	W226-1084-7.30H	-75HRWV	WV226-1084-7.30H		
-75HSW	W226-1084-7.30T2	-75HSWV	WV226-1084-7.30T2		
-75HTW	W226-1084-7.30T0	-75HTWV	WV226-1084-7.30T0		
-80HN	226-1085-7.80	-80HNV	V226-1085-7.80		
-80HR	226-1085-7.80H	-80HRV	V226-1085-7.80H		
-80HS	226-1085-7.80T2	-80HSV	V226-1085-7.80T2		
-80HT	226-1085-7.80T0	-80HTV	V226-1085-7.80T0		
-80HNW	W226-1085-7.80	-80HNWV	WV226-1085-7.80		
-80HRW	W226-1085-7.80H	-80HRWV	WV226-1085-7.80H		
-80HSW	W226-1085-7.80T2	-80HSWV	WV226-1085-7.80T2		
-80HTW	W226-1085-7.80T0	-80HTWV	WV226-1085-7.80T0		
-85HN	226-1085-8.30	-85HNV	V226-1085-8.30		
-85HR	226-1085-8.30H	-85HRV	V226-1085-8.30H		
-85HS	226-1085-8.30T2	-85HSV	V226-1085-8.30T2		
-85HT	226-1085-8.30T0	-85HTV	V226-1085-8.30T0		
-85HNW	W226-1085-8.30	-85HNWV	WV226-1085-8.30		
-85HRW	W226-1085-8.30H	-85HRWV	WV226-1085-8.30H		
-85HSW	W226-1085-8.30T2	-85HSWV	WV226-1085-8.30T2		
-85HTW	W226-1085-8.30T0	-85HTWV	WV226-1085-8.30T0		

- (1) Parts must be purchased to this DESC PIN to assure that all performance requirements and inspections are met.  
(2) Do not use vendor PIN's for acquisition.

<b>DEFENSE ELECTRONICS SUPPLY CENTER</b> <b>DAYTON, OH 45444</b>	SIZE <b>A</b>	CAGE CODE <b>14933</b>	DWG NO. <b>89064</b>
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