



**DEFENSE LOGISTICS AGENCY**  
**LAND AND MARITIME**  
**P.O. BOX 3990**  
**COLUMBUS, OHIO 43218-3990**

July 20, 2016

**MEMORANDUM FOR MILITARY AND INDUSTRY COORDINATION**

**SUBJECT:** Initial Draft of DESC Drawing 84168 Revision F, "Holder, Electrical Card, Card Guide-Retainer, Lever Actuated, Metal"; Project Number 5998-2016-E085.

The initial draft of the subject document, dated July 18, 2016, is now available for review and comment. The draft can be downloaded or reviewed online at the DLA Land and Maritime-VA Web site using the following URL searching for "84168":

<http://LandandMaritimeApps.dla.mil/programs/milspec/DocSearch.aspx>

This drawing is being revised to update the housing material requirements and to update the format and paragraphs to reflect the latest requirements of DLA Land and Maritime drawing practices. Highlighting has been used for easy change recognition. New requirements are highlighted in yellow and verbiage to be omitted is in light-blue with strikethrough.

Concurrence or comments are required at this Center within 30 days from the date of this letter (August 22, 2016). Late comments will be held for the next coordination of the document. Comments from military departments must be identified as either "Essential" or "Suggested". Essential comments must be justified with supporting data. Military review activities should forward comments to their custodians of this office, as applicable, in sufficient time to allow for consolidating the department reply. Lack of response to this draft will be construed as a concurrence.

The point of contact for this document is Mr. David Corbett, DLA Land and Maritime, VAC, Post Office Box 3990, Columbus, OH 43218-3990. Mr. Corbett can also be reached at 614-692-0526/DSN 850-0526, or by facsimile 614-693-1642/DSN 850-6939, or by e-mail to: [david.corbett@dla.mil](mailto:david.corbett@dla.mil).

/ Signed /

THOMAS M. HESS  
Chief  
Active Devices Branch

cc:  
FM  
VAI (Foster)

REVISIONS			
LTR	DESCRIPTION	DATE	APPROVED
A	Page 10, add new paragraph 6.5, Patents.	24 OCT 1985	Ivan Jones
B	Added marking requirements. Editorial corrections throughout.	17 DEC 1987	Randy Larson
C	Corrected two dimensions on figure 1. Editorial corrections throughout. Added finger tab option. Added dash numbers 81 through 152.	9 SEP 1988	Randy Larson
D	Change FSC from 5999 to 5998. Technical and editorial changes throughout.	14 SEP 2001	Thomas Hess
E	Updated referenced documents and contact information. Technical and editorial changes throughout.	25 FEB 2011	David Corbett
F		DRAFT	DRAFT

CURRENT DESIGN ACTIVITY CAGE CODE 037Z3  
 DEFENSE LOGISTICS AGENCY  
 DLA LAND AND MARITIME, OHIO 43218-3990

This draft, dated 20 July 2016, prepared by DLA-CC, has not been approved and is subject to modification. DO NOT USE PRIOR TO APPROVAL (Project 5998-2016-E085). Comments are due no later than 22 August 2016. The P.O.C. for this document is David Corbett; telephone 614-692-0526 / electronic-mail: [david.corbett@dla.mil](mailto:david.corbett@dla.mil).

Prepared in accordance with ASME Y14.100

Source control drawing

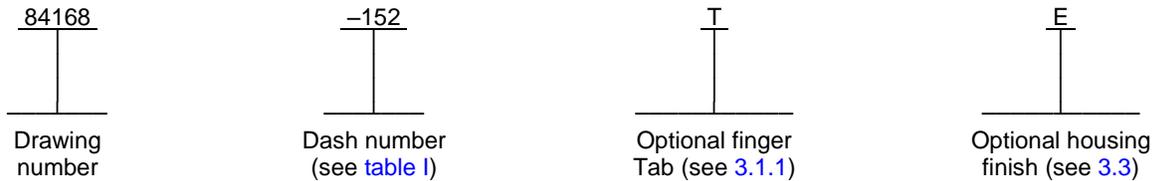
REV																		
PAGE																		
REV STATUS OF PAGES	REV	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F
	PAGE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15		

PMIC N/A	PREPARED BY Christopher Rauch		DESIGN ACTIVITY DEFENSE ELECTRONICS SUPPLY CENTER, DAYTON, OH 45444-5000															
	CHECKED BY Randy Larson		TITLE HOLDER, ELECTRICAL CARD, CARD GUIDE- RETAINER, LEVER ACTUATED, METAL															
Original date of drawing	APPROVED BY Ivan Jones																	
	SIZE A	CAGE CODE 14933	DWG. NO.		84168													
		REV F	PAGE	1	OF	15												

1. SCOPE

1.1 Scope. This drawing describes the requirements for a family of lever actuated card guides intended for use with printed circuit boards and circuit card assemblies in moderate shock and vibration environments.

1.2 Part or Identifying Number (PIN). The complete PIN shall be as follows:



2. APPLICABLE DOCUMENTS

2.1 General. The documents listed in this section are specified in sections 3 and ~~4, or 5~~ 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, or 5~~ 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

FEDERAL

FF-R-556 – Rivet, Solid, Small; Rivet, Split, Small; Rivet Tubular, Small; Flat Washer (Burr); and Cap, Rivet; General Purpose

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> ~~<https://assist.daps.dla.mil/quicksearch/> or <https://assist.daps.dla.mil> or from the Standardization Document Order Desk, 700 Robbins Avenue, Philadelphia, PA 19111-5094.~~)

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 (see [6.2](#)).

ASTM INTERNATIONAL (ASTM)

~~ASTM A366/A366M – Standard Specification for Commercial Steel (CS) Sheet, Carbon, (0.15 Maximum Percent), Cold-Rolled~~

ASTM A1008/A1008M – Standard Specification for Steel, Sheet, Cold-Rolled, Carbon, Structural, High-Strength Low-Alloy, High-Strength Low-Alloy with Improved Formability, Solution Hardened, and Bake Hardenable

ASTM B194 – Standard Specification for Copper-Beryllium Alloy Plate, Sheet, Strip, and Rolled Bar

ASTM B700 – Standard Specification for Electrodeposited Coatings of Silver for Engineering Use

(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.)

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SOCIETY OF AUTOMOTIVE ENGINEERS (SAE)

- SAE AMS-QQ-P-416 – Plating Cadmium (Electrodeposited).
- SAE AMS-QQ-N-290 – Nickel Plating (Electrodeposited).

(Copies of these documents are available online at <http://www.sae.org> Application for copies should be addressed to or from the SAE World Headquarters, 400 Commonwealth Drive, Warrendale, PA 15096-0001 or at URL: <http://www.sae.org/>)

(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 [table I](#) and [figures 1](#) and [2](#).

3.1.1 Finger tab. An optional finger tab on the operating lever is available (see [figure 2](#)).

3.2 Materials.

3.2.1 Housing. The body material shall be cold rolled steel in accordance with ASTM A366/A366M or beryllium copper in accordance with ASTM B194 or equivalent.

3.2.2 Rivets. Rivet material shall be type XII, grade E for steel housing material or type XII, grade A or F, for beryllium copper housing material in accordance with FF-R-556. Rivets shall be .065 inch (1.65 mm) in diameter.

3.3 Finish. The card guide housing finish shall be either cadmium plate in accordance with SAE-AMS-QQ-P-416, type II, class 2 or silver in accordance with ASTM B700 or nickel plate in accordance with SAE-AMS-QQ-N-290, class 1, grade G (bright). Card guides with a cadmium finish do not use a finish designator. Card guides with a silver finish shall include a suffix "E" in the PIN. Card guides with a nickel plated finish shall include a suffix "N" in the PIN (see [1.2](#))

3.4 Certificate of compliance. A certificate of compliance shall be required from manufacturers requesting to be an approved source of supply.

3.5 Marking. Marking of the DESC PIN is not required on the card guide 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.

3.6 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.

3.7 Workmanship. Card guides shall be processed in such a manner as to be uniform in quality and shall be free from surface and finish flaws that could affect life or serviceability. Card guides shall be free of flash, pits, voids, and excessive mold marks.

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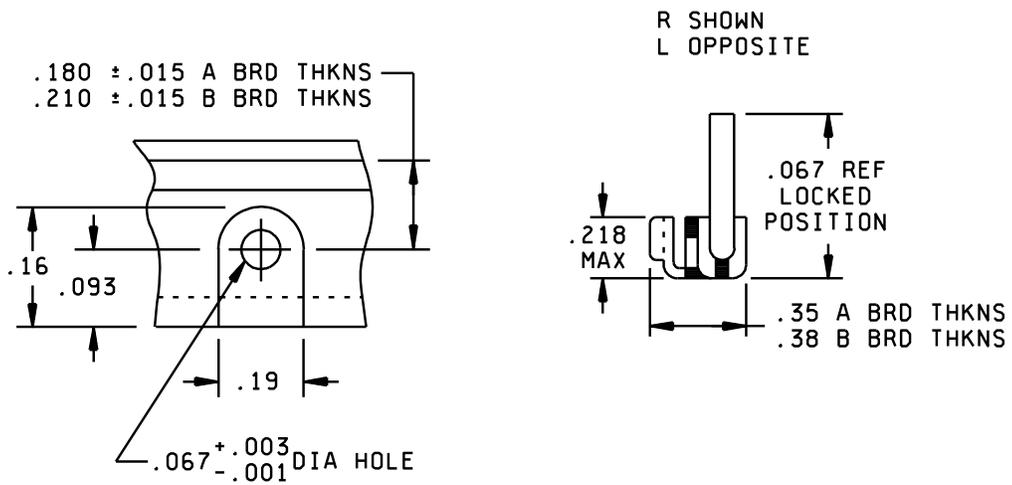
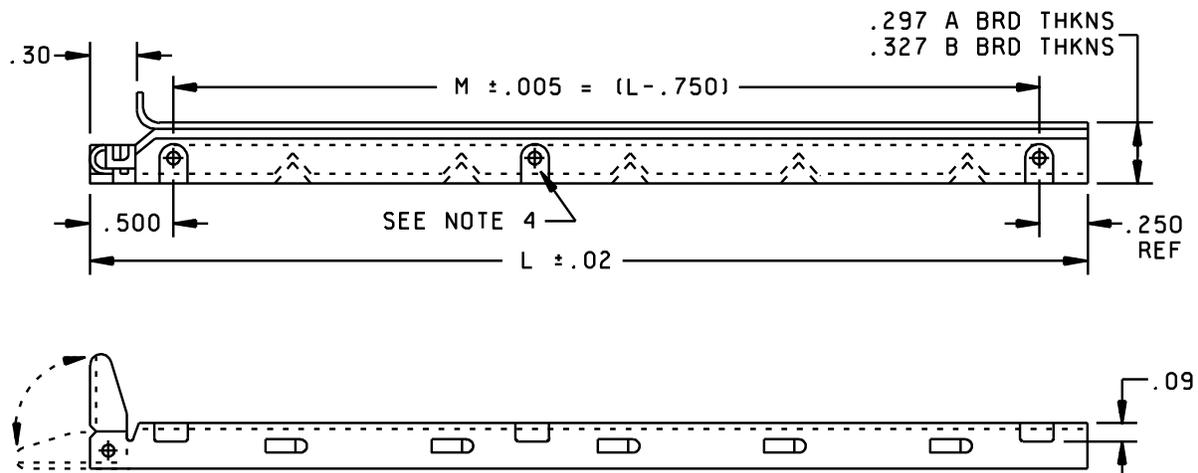


FIGURE 1. Design and dimensions.

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LENGTH  
SEE NOTE 4

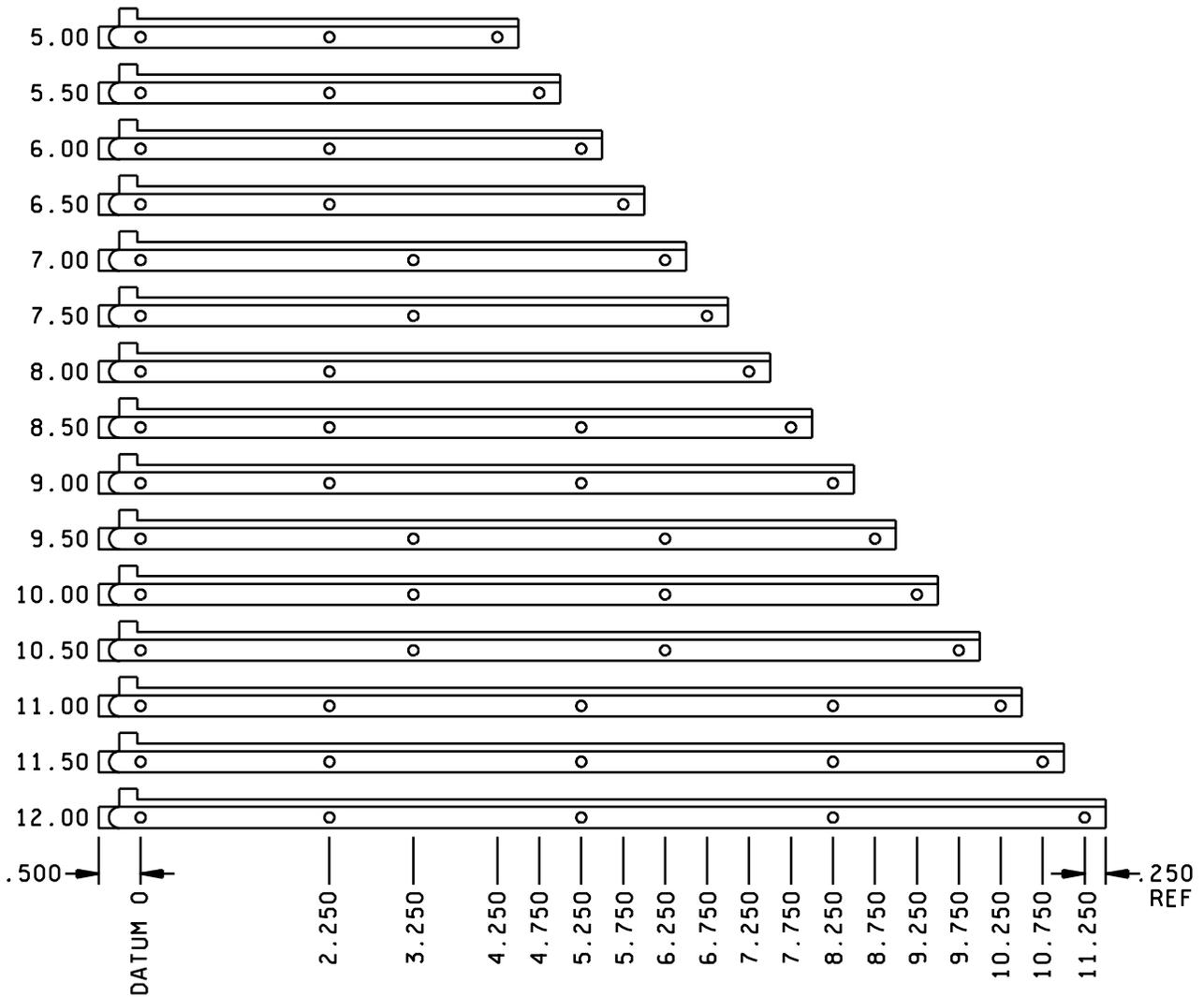


FIGURE 2. Design and dimensions – Continued.

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Inches	mm	Inches	mm	Inches	mm	Inches	mm
.001	0.025	.19	4.8	4.250	107.95	8.250	209.55
.003	0.076	.196	4.98	4.750	120.65	8.50	215.9
.005	0.13	.210	5.33	5.00	127.0	8.750	222.25
.015	0.25	.218	5.54	5.250	133.35	9.00	228.6
.02	0.5	.250	6.35	5.50	139.7	9.250	234.95
.067	1.70	.290	7.37	5.750	146.05	9.50	241.3
.073	1.85	.297	7.54	6.00	152.4	9.750	247.65
.09	2.3	.30	7.62	6.250	158.75	10.00	254
.093	2.36	.320	8.13	6.50	165.1	10.250	260.35
.103	2.61	.327	8.31	6.750	171.45	10.50	266.7
.142	3.61	.500	12.70	7.00	177.8	10.750	273.05
.157	3.99	.67	17.0	7.250	184.15	11.00	279.4
.165	4.19	.750	19.05	7.50	190.5	11.250	285.75
.180	4.57	2.250	57.15	7.750	196.85	11.50	292.1
		3.250	82.55	8.00	203.2	12.00	304.8

NOTES:

1. Dimensions are in inches. Metric equivalents are given for general information only.
2. Unless otherwise specified, tolerance is  $\pm 0.02$  inch (0.51 mm) for two place decimals and  $\pm 0.010$  inch (0.25 mm) for three place decimals.
3. All parts include extractor flange.
4. Center mounting hole and cutout are eliminated on lengths under 5 inches (127.0 mm).

FIGURE 1. Dimensions of card holders – Continued.

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OPTIONAL FINGER TAB

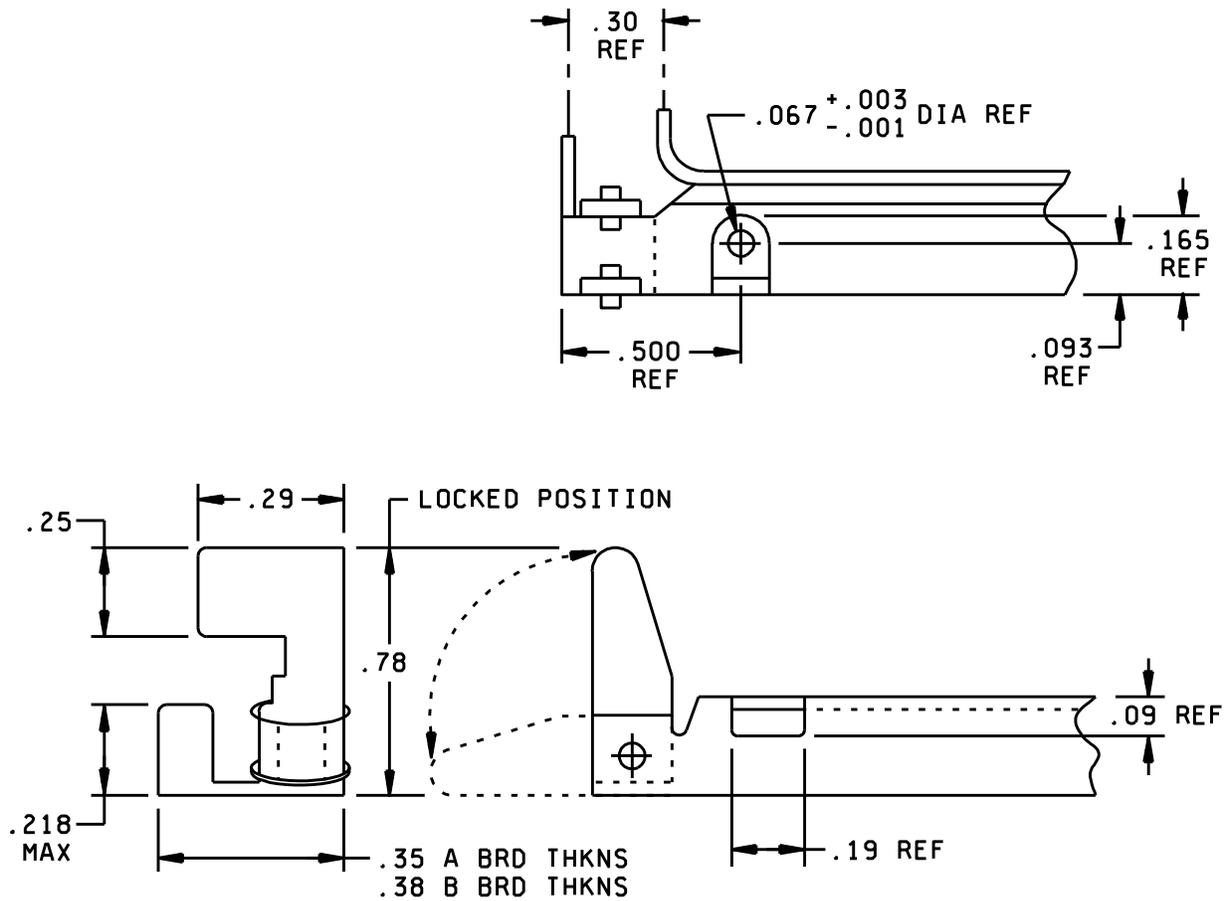


FIGURE 2. Optional finger tab details.

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TABLE I. Design and dimensions.

PIN 84168	Housing material B = beryllium copper S = Steel	Board thickness (inches) A = .0625 (1.58 mm) B = .0937 (2.38 mm)	"L" Dimension	Lever action Left or right	
			Inches (mm)	L = left	R = right
-001	B	A	3.0 (76.2)		L
-002	S	A	"		L
-003	B	B	"		L
-004	S	B	"		L
-005	B	A	"		R
-006	S	A	"		R
-007	B	B	"		R
-008	S	B	"		R
-009	B	A	3.5 (88.9)		L
-010	S	A	"		L
-011	B	B	"		L
-012	S	B	"		L
-013	B	A	"		R
-014	S	A	"		R
-015	B	B	"		R
-016	S	B	"		R
-017	B	A	4.0 (101.6)		L
-018	S	A	"		L
-019	B	B	"		L
-020	S	B	"		L
-021	B	A	"		R
-022	S	A	"		R
-023	B	B	"		R
-024	S	B	"		R
-025	B	A	4.5 (114.3)		L
-026	S	A	"		L
-027	B	B	"		L
-028	S	B	"		L
-029	B	A	"		R
-030	S	A	"		R
-031	B	B	"		R
-032	S	B	"		R
-033	B	A	5.0 (127.0)		L
-034	S	A	"		L
-035	B	B	"		L
-036	S	B	"		L
-037	B	A	"		R
-038	S	A	"		R
-039	B	B	"		R
-040	S	B	"		R

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TABLE I. Design and dimensions — Continued.

PIN 84168	Housing material B = beryllium copper S = Steel	Board thickness (inches) A = .0625 (1.58 mm) B = .0937 (2.38 mm)	"L" Dimension	Lever action Left or right	
			Inches (mm)	L = left	R = right
-041	B	A	5.5 (139.7)		L
-042	S	A	"		L
-043	B	B	"		L
-044	S	B	"		L
-045	B	A	"		R
-046	S	A	"		R
-047	B	B	"		R
-048	S	B	"		R
-049	B	A	6.0 (152.4)		L
-050	S	A	"		L
-051	B	B	"		L
-052	S	B	"		L
-053	B	A	"		R
-054	S	A	"		R
-055	B	B	"		R
-056	S	B	"		R
-057	B	A	7.0 (177.8)		L
-058	S	A	"		L
-059	B	B	"		L
-060	S	B	"		L
-061	B	A	"		R
-062	S	A	"		R
-063	B	B	"		R
-064	S	B	"		R
-065	B	A	7.5 (190.5)		L
-066	S	A	"		L
-067	B	B	"		L
-068	S	B	"		L
-069	B	A	"		R
-070	S	A	"		R
-071	B	B	"		R
-072	S	B	"		R
-073	B	A	8.5 (215.9)		L
-074	S	A	"		L
-075	B	B	"		L
-076	S	B	"		L
-077	B	A	"		R
-078	S	A	"		R
-079	B	B	"		R
-080	S	B	"		R

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TABLE I. Design and dimensions — Continued.

PIN 84168	Housing material B = beryllium copper S = Steel	Board thickness (inches) A = .0625 (1.58 mm) B = .0937 (2.38 mm)	"L" Dimension	
			Inches (mm)	Lever action Left or right L = left R = right
-081	B	A	6.5 (165.1)	L
-082	S	A	"	L
-083	B	B	"	L
-084	S	B	"	L
-085	B	A	"	R
-086	S	A	"	R
-087	B	B	"	R
-088	S	B	"	R
-089	B	A	8.0 (203.2)	L
-090	S	A	"	L
-091	B	B	"	L
-092	S	B	"	L
-093	B	A	"	R
-094	S	A	"	R
-095	B	B	"	R
-096	S	B	"	R
-097	B	A	9.0 (228.6)	L
-098	S	A	"	L
-099	B	B	"	L
-100	S	B	"	L
-101	B	A	"	R
-102	S	A	"	R
-103	B	B	"	R
-104	S	B	"	R
-105	B	A	9.5 (241.3)	L
-106	S	A	"	L
-107	B	B	"	L
-108	S	B	"	L
-109	B	A	"	R
-110	S	A	"	R
-111	B	B	"	R
-112	S	B	"	R
-113	B	A	10.0 (254.0)	L
-114	S	A	"	L
-115	B	B	"	L
-116	S	B	"	L
-117	B	A	"	R
-118	S	A	"	R
-119	B	B	"	R
-120	S	B	"	R

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TABLE I. Design and dimensions — Continued.

PIN 84168	Housing material B = beryllium copper S = Steel	Board thickness (inches) A = .0625 (1.58 mm) B = .0937 (2.38 mm)	"L" Dimension	
			Inches (mm)	Lever action Left or right L = left R = right
-121	B	A	10.5 (266.7)	L
-122	S	A	"	L
-123	B	B	"	L
-124	S	B	"	L
-125	B	A	"	R
-126	S	A	"	R
-127	B	B	"	R
-128	S	B	"	R
-129	B	A	11.0 (279.4)	L
-130	S	A	"	L
-131	B	B	"	L
-132	S	B	"	L
-133	B	A	"	R
-134	S	A	"	R
-135	B	B	"	R
-136	S	B	"	R
-137	B	A	11.5 (292.1)	L
-138	S	A	"	L
-139	B	B	"	L
-140	S	B	"	L
-141	B	A	"	R
-142	S	A	"	R
-143	B	B	"	R
-144	S	B	"	R
-145	B	A	12.0 (304.8)	L
-146	S	A	"	L
-147	B	B	"	L
-148	S	B	"	L
-149	B	A	"	R
-150	S	A	"	R
-151	B	B	"	R
-152	S	B	"	R

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4. VERIFICATION

4.1 Sampling and inspection. Unless otherwise specified in the contract or purchase 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 his 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 3.7). Criteria for defects are listed in 4.2.5.

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).

4.2.3 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 4.2.5.

4.2.4 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 re-inspected lots.

4.2.5 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.

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

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5. PACKAGING

5.1 Packaging. For acquisition purposes, the packaging requirements shall be as specified in the contract or order (see 6.2). When packaging of materiel is to be performed by DoD or in-house contractor personnel, these personnel need to contact the responsible packaging activity to ascertain packaging requirements. Packaging requirements are maintained by the Inventory Control Point's packaging activities within the Military Service or Defense Agency, or within the military service's system commands. 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.

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.

6.2 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. Requirements for packaging and packing.

6.3 Supersession data. Previous revisions of this document specified a seven digit PIN. Newer versions use either an eight or nine digit PIN, depending on whether or not the optional finger tab is desired.

Superseded DESC drawing PIN in accordance with DD 84168 dated 17 December 1987	Superseding DESC drawing PIN	Superseding DESC drawing PIN for card holders with optional finger tab.	Superseding DESC drawing PIN for card holders with optional finger tab.
84168-01	84168-001	84168-001T	84168-001T

6.4 Patents. Card holders covered by this drawing may be covered by patent 3,970,198. The Government does not possess a license under this patent for the benefit of manufacturers of the item, either for the Government or for the use in equipment to be delivered to the Government.

6.5 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 may be achieved by electronic mail at "[5998.Documents@dla.mil](mailto:5998.Documents@dla.mil)" or by facsimile (614) 692-6939 or DSN 850-6939 or in writing to: DLA Land and Maritime, ATTN: VAC, Post Office Box 3990, Columbus, OH 43216-5000.

6.6 Replaceability. Card holders covered herein replace similar commercial devices covered by contractor-prepared specifications or drawings.

6.7 Assistance. Questions or comments pertaining to this drawing should be addressed to DLA Land and Maritime, ATTN: VAC, Post Office Box 3990, Columbus, OH 43218-3990; telephone (614) 692-0526; DSN 850-0526; or by electronic mail "[5998.Documents@dla.mil](mailto:5998.Documents@dla.mil)".

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, P.O. Box 3990, Columbus, OH 43218-3990.

<b>DEFENSE ELECTRONICS SUPPLY CENTER DAYTON, OH 45444-5000</b>	SIZE	CODE IDENT NO.	DWG NO.
	<b>A</b>	<b>14933</b> REV <b>F</b>	<b>84168</b> PAGE <b>13</b>

DESC drawing PIN 84168	Vendor similar designation or type number (1)	DESC drawing PIN 84168	Vendor similar designation or type number (1)	Vendor CAGE	Vendor name, address and contact information
-001	24BX-2-6-3-L	-041	24BX-2-11-3-L	<b>48915</b> <b>61081</b>	<b>Birtcher—A Division of</b> Pentair Electronics Protection 7328 Trade Street San Diego, CA 92121-3410  Telephone: (858) 740-2400 Toll Free: (800) 854-7086 Facsimile: (858) 740-2430  URL: <a href="http://www.birtcherproducts.com">www.birtcherproducts.com</a>
-002	24SX-2-6-3-L	-042	24SX-2-11-3-L		
-003	24BX-3-6-3-L	-043	24BX-3-11-3-L		
-004	24SX-3-6-3-L	-044	24SX-3-11-3-L		
-005	24BX-2-6-3-R	-045	24BX-2-11-3-R		
-006	24SX-2-6-3-R	-046	24SX-2-11-3-R		
-007	24BX-3-6-3-R	-047	24BX-3-11-3-R		
-008	24SX-3-6-3-R	-048	24SX-3-11-3-R		
-009	24BX-2-7-3-L	-049	24BX-2-12-3-L		
-010	24SX-2-7-3-L	-050	24SX-2-12-3-L		
-011	24BX-3-7-3-L	-051	24BX-3-12-3-L		
-012	24SX-3-7-3-L	-052	24SX-3-12-3-L		
-013	24BX-2-7-3-R	-053	24BX-2-12-3-R		
-014	24SX-2-7-3-R	-054	24SX-2-12-3-R		
-015	24BX-3-7-3-R	-055	24BX-3-12-3-R		
-016	24SX-3-7-3-R	-056	24SX-3-12-3-R		
-017	24BX-2-8-3-L	-057	24BX-2-14-3-L		
-018	24SX-2-8-3-L	-058	24SX-2-14-3-L		
-019	24BX-3-8-3-L	-059	24BX-3-14-3-L		
-020	24SX-3-8-3-L	-060	24SX-3-14-3-L		
-021	24BX-2-8-3-R	-061	24BX-2-14-3-R		
-022	24SX-2-8-3-R	-062	24SX-2-14-3-R		
-023	24BX-3-8-3-R	-063	24BX-3-14-3-R		
-024	24SX-3-8-3-R	-064	24SX-3-14-3-R		
-025	24BX-2-9-3-L	-065	24BX-2-15-3-L		
-026	24SX-2-9-3-L	-066	24SX-2-15-3-L		
-027	24BX-3-9-3-L	-067	24BX-3-15-3-L		
-028	24SX-3-9-3-L	-068	24SX-3-15-3-L		
-029	24BX-2-9-3-R	-069	24BX-2-15-3-R		
-030	24SX-2-9-3-R	-070	24SX-2-15-3-R		
-031	24BX-3-9-3-R	-071	24BX-3-15-3-R		
-032	24SX-3-9-3-R	-072	24SX-3-15-3-R		
-033	24BX-2-10-3-L	-073	24BX-2-17-3-L		
-034	24SX-2-10-3-L	-074	24SX-2-17-3-L		
-035	24BX-3-10-3-L	-075	24BX-3-17-3-L		
-036	24SX-3-10-3-L	-076	24SX-3-17-3-L		
-037	24BX-2-10-3-R	-077	24BX-2-17-3-R		
-038	24SX-2-10-3-R	-078	24SX-2-17-3-R		
-039	24BX-3-10-3-R	-079	24BX-3-17-3-R		
-040	24SX-3-10-3-R	-080	24SX-3-17-3-R		

See note at end of table.

<b>DEFENSE ELECTRONICS SUPPLY CENTER</b> <b>DAYTON, OH 45444-5000</b>	SIZE	CODE IDENT NO.	DWG NO.
	<b>A</b>	<b>14933</b>	<b>84168</b>
		REV <b>F</b>	PAGE <b>14</b>

DESC drawing PIN 84168	Vendor similar designation or type number (1)	DESC drawing PIN 84168	Vendor similar designation or type number (1)	Vendor CAGE	Vendor name, address and contact information
-081	24BX-2-13-3-L	-121	24BX-2-21-3-L	48915 61081	<b>Birtcher — A Division of</b> Pentair Electronics Protection 7328 Trade Street San Diego, CA 92121-3410  Telephone: (858) 740-2400 Toll Free: (800) 854-7086 Facsimile: (858) 740-2430  URL: <a href="http://www.birtcherproducts.com">www.birtcherproducts.com</a>
-082	24SX-2-13-3-L	-122	24SX-2-21-3-L		
-083	24BX-3-13-3-L	-123	24BX-3-21-3-L		
-084	24SX-3-13-3-L	-124	24SX-3-21-3-L		
-085	24BX-2-13-3-R	-125	24BX-2-21-3-R		
-086	24SX-2-13-3-R	-126	24SX-2-21-3-R		
-087	24BX-3-13-3-R	-127	24BX-3-21-3-R		
-088	24SX-3-13-3-R	-128	24SX-3-21-3-R		
-089	24BX-2-16-3-L	-129	24BX-2-22-3-L		
-090	24SX-2-16-3-L	-130	24SX-2-22-3-L		
-091	24BX-3-16-3-L	-131	24BX-3-22-3-L		
-092	24SX-3-16-3-L	-132	24SX-3-22-3-L		
-093	24BX-2-16-3-R	-133	24BX-2-22-3-R		
-094	24SX-2-16-3-R	-134	24SX-2-22-3-R		
-095	24BX-3-16-3-R	-135	24BX-3-22-3-R		
-096	24SX-3-16-3-R	-136	24SX-3-22-3-R		
-097	24BX-2-18-3-L	-137	24BX-2-23-3-L		
-098	24SX-2-18-3-L	-138	24SX-2-23-3-L		
-099	24BX-3-18-3-L	-139	24BX-3-23-3-L		
-100	24SX-3-18-3-L	-140	24SX-3-23-3-L		
-101	24BX-2-18-3-R	-141	24BX-2-23-3-R		
-102	24SX-2-18-3-R	-142	24SX-2-23-3-R		
-103	24BX-3-18-3-R	-143	24BX-3-23-3-R		
-104	24SX-3-18-3-R	-144	24SX-3-23-3-R		
-105	24BX-2-19-3-L	-145	24BX-2-24-3-L		
-106	24SX-2-19-3-L	-146	24SX-2-24-3-L		
-107	24BX-3-19-3-L	-147	24BX-3-24-3-L		
-108	24SX-3-19-3-L	-148	24SX-3-24-3-L		
-109	24BX-2-19-3-R	-149	24BX-3-24-3-R		
-110	24SX-2-19-3-R	-150	24SX-2-24-3-R		
-111	24BX-3-19-3-R	-151	24BX-3-24-3-R		
-112	24SX-3-19-3-R	-152	24SX-3-24-3-R		
-113	24BX-2-20-3-L				
-114	24SX-2-20-3-L				
-115	24BX-3-20-3-L				
-116	24SX-3-20-3-L				
-117	24BX-2-20-3-R				
-118	24SX-2-20-3-R				
-119	24BX-3-20-3-R				
-120	24SX-3-20-3-R				

(1) CAUTION: Do not use this number for item acquisition. Items acquired to this number may not satisfy the performance requirements of this drawing.

<b>DEFENSE ELECTRONICS SUPPLY CENTER</b> <b>DAYTON, OH 45444-5000</b>	<b>SIZE</b>  <b>A</b>	<b>CODE IDENT NO.</b>  <b>14933</b>	<b>DWG NO.</b>  <b>84168</b>
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