

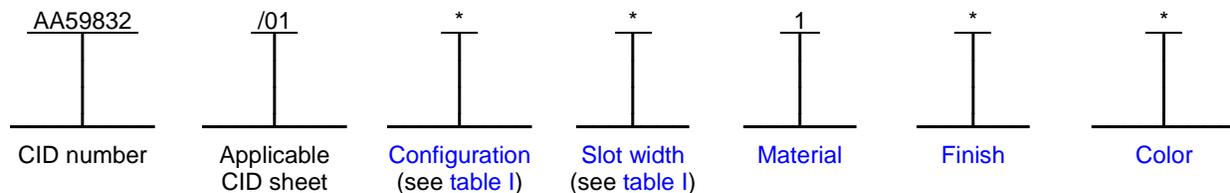
COMMERCIAL ITEM DESCRIPTION
SPECIFICATION SHEET

EXTRACTOR, ELECTRICAL CARD, METAL, NON-LOCKING,
SINGLE ACTION, FOR "U" CHANNEL ACTUATING SURFACES,
FOR .032, .063, .094, AND .125 INCH THICK CIRCUIT CARD ASSEMBLIES

The General Services Administration has authorized the use of this
commercial item description for all federal agencies.

The complete requirements for procuring extractors described herein shall consist of this document and the latest
issue in effect of [A-A-59832](#).

CLASSIFICATION/PART IDENTIFICATION NUMBER (PIN). This commercial item description (CID) specification
sheet uses a classification system which is included in the Part Identification Number (PIN) as shown in the following
example (see [notes](#) herein).



Example: AA59832/01AS1HB is the PIN for a medium length aluminum extractor designed for mounting on a circuit
card assembly with a printed board thickness of .063 inch (1.60 mm) in width. The corrosion protection finish applied
to the extractor is black hard anodize.

SALIENT CHARACTERISTICS.

Performance. Extractors shall be capable of injecting and removing the circuit card assembly from its installed
position.

Interface and physical dimensions. The extractors supplied to this CID specification sheet shall be as specified
herein and meet the general requirements specified in CID [A-A-59832](#).

Configuration. The configuration of a extractor shall be as specified in [table I](#) and on [figure 1](#).

Slot width. The available slot widths needed to accommodate various printed board thicknesses for the extractors
covered by this CID specification sheet are specified in [table I](#).

Material. The extractor body shall be aluminum alloy 6061, temper T6 as specified in [A-A-59832](#). The material
designator shall be a "1" as specified in [A-A-59832](#).

Finish. The finish designator shall be as specified in [A-A-59832](#). The finishes available for this CID specification
sheet are as follows: "A" (anodize) or "L" (low resistance chemical film).

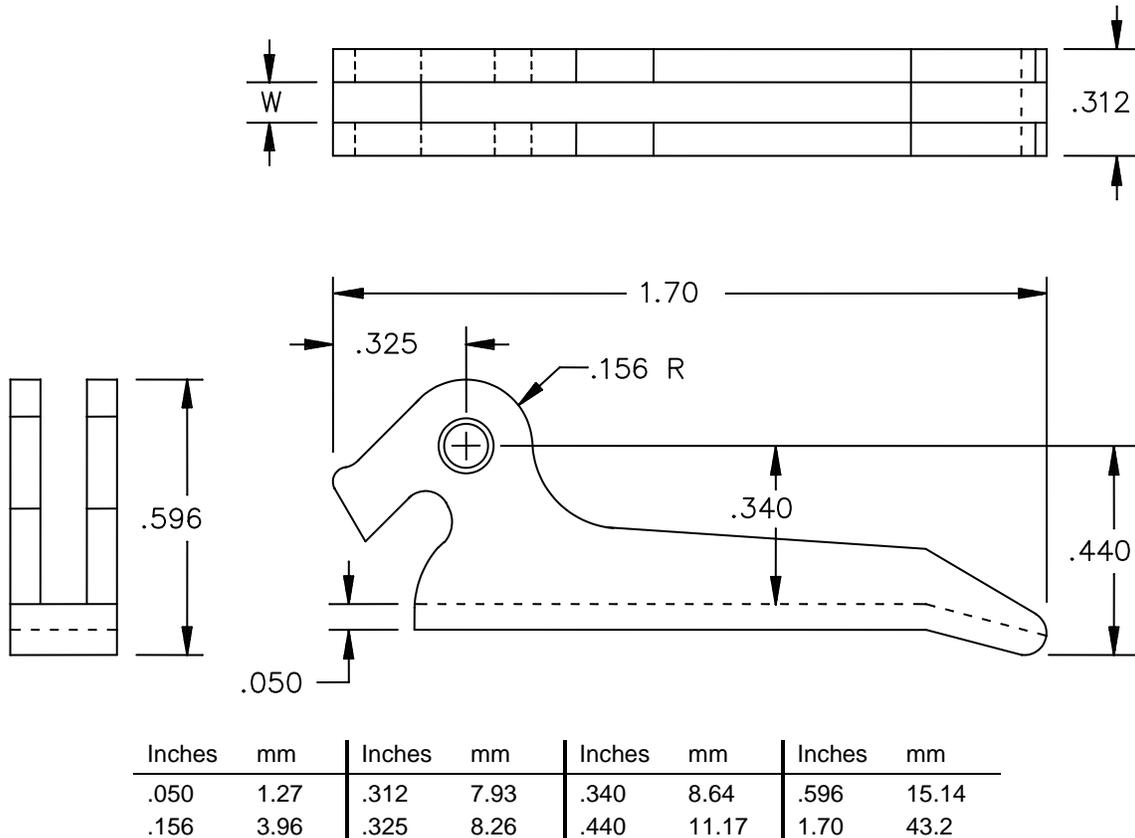
Color. The color designator shall be as specified in [A-A-59832](#). The colors available for this CID specification sheet
are as follows: "B" (black) or "R" (red) for anodize finishes and "C" (clear) or "G" (gold) for low resistance chemical
film.

Roll pin. A stainless steel roll pin is furnished with each extractor. The roll pin is .09375 inch (2.38 mm) diameter by .3125 inch (7.9 mm) long.

TABLE I. Configurations and dimensions. ^{1/}

Configuration	Slot width designator	Slot width dimension "W"	Accommodates printed board thickness	Figure
		^{2/} Inch (mm)	Inch (mm)	
A	F	.048 (1.22)	.032 (0.79)	1
A	S	.080 (2.03)	.063 (1.6)	
A	T	.110 (2.79)	.094 (2.4)	
A	E	.140 (3.56)	.125 (3.2)	

^{1/} Dimensions are in inches. Millimeters, in parenthesis, are given for general information only.
^{2/} Tolerance is +.010, -.000 inch (+0.25, -0.000 mm).



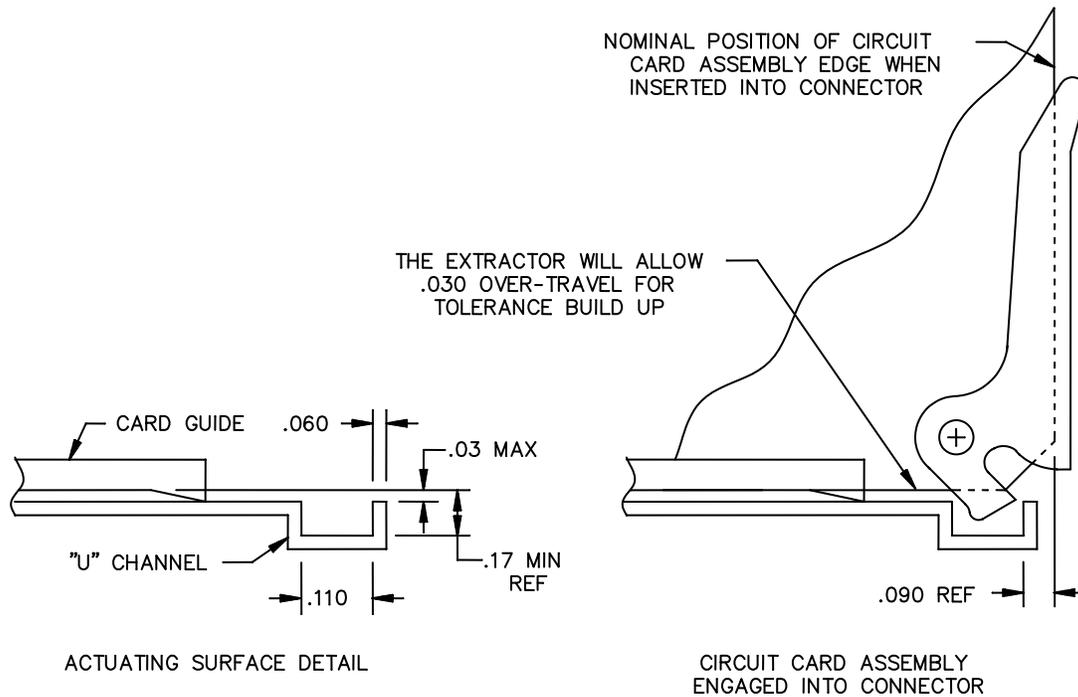
NOTES:

- Dimensions are in inches. Millimeter equivalents are given for general information only.
- Unless otherwise specified, tolerances are ±.02 inch (0.51 mm) for two place decimals and ±.010 inch (0.25 mm) for three place decimals.

FIGURE 1. Configuration A dimensions (approximate mechanical advantage of 5.5:1).

APPLICATION DATA.

Card cage actuating surface. It is recommended that the outer edge of the circuit card assembly be flush with the end of the card guide for the ejector to obtain optimum leverage. The nominal position of card edge when seated in the connector is shown on figure 2. The extractor will allow .030 inch (0.8 mm) over travel for tolerance take-up. The circuit card assembly is ejected from its installed position by lever action of the ejector against the "U" channel. A single ejector is recommended for circuit card assemblies up to 5 inches (127 mm) in width. For circuit card assemblies over 5 inches (127 mm) in width, or when using an electrical connector with more than 100 contacts, two ejectors mounted on each circuit card assembly is recommended.



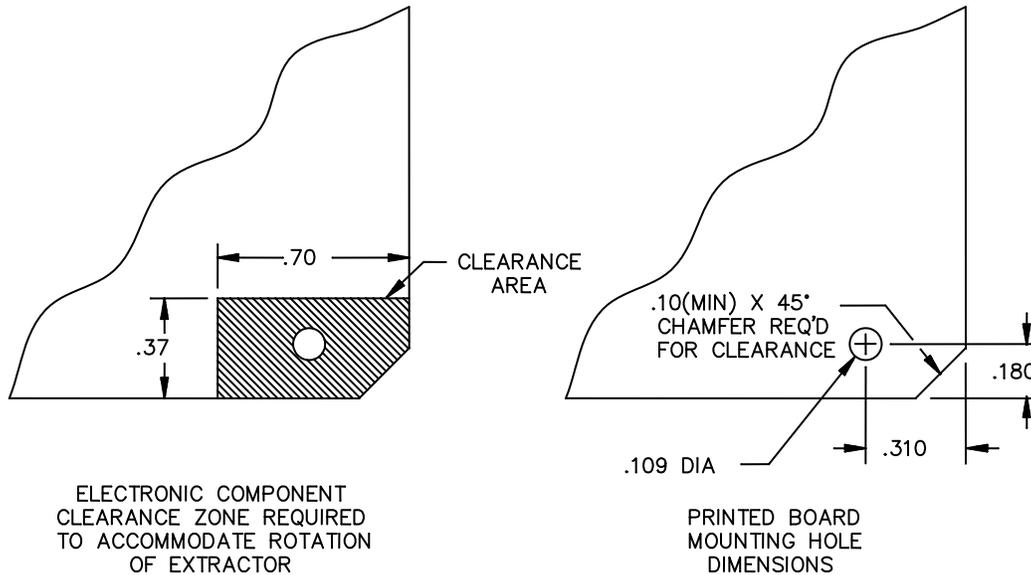
Inches	mm	Inches	mm	Inches	mm
.030	0.76	.090	2.29	.110	2.79
.03	0.8	.109	2.77	.17	4.3

NOTES:

1. Dimensions are in inches. Millimeter equivalents are given for general information only.
2. Unless otherwise specified, tolerances are $\pm .02$ inch (0.51 mm) for two place decimals and $\pm .010$ inch (0.25 mm) for three place decimals.

FIGURE 2. Circuit card assembly to card cage dimensions.

Circuit card assembly printed board. The circuit card assembly should be designed so that electronic components in the area around the ejector mounting hole have sufficient clearance for ejector rotation as shown on figure 3.



Inches	mm	Inches	mm	Inches	mm
.10	2.5	.180	4.57	.37	9.4
.109	2.77	.310	7.87	.70	17.8

NOTES:

1. Dimensions are in inches. Millimeter equivalents are given for general information only.
2. Unless otherwise specified, tolerances are ± 0.02 inch (0.51 mm) for two place decimals and ± 0.010 inch (0.25 mm) for three place decimals.

FIGURE 3. Printed board clearance zone and mounting hole dimensions.

NOTES.

PIN. The PIN should be used for Government purposes to buy commercial products to this CID specification sheet. See the classification section for PIN format example.

Source of documents.

Commercial Item Description

[A-A-59832](#) - Extractor, Electrical Card, Metal, General Requirements For.

(Copies of these documents are available online at <https://assist.daps.dla.mil/quicksearch/> or <https://assist.daps.dla.mil/> or from the Standardization Document Order Desk, 700 Robbins Avenue, Building 4D, Philadelphia, PA 19111-5094.)

Ordering data. Ordering data is as specified in [A-A-59832](#).

Commercial products. As part of the market analysis and research effort, this CID specification sheet was coordinated with the following manufacturers of commercial products. At the time of CID specification sheet preparation and coordination, these manufacturers were known to have commercial products that would meet the requirements of this CID specification sheet. (NOTE: This information should not be considered as a list of approved manufacturers or be used to restrict procurement to only the manufacturers shown.)

<u>Manufacturer CAGE</u>	<u>Manufacturer name and address</u>	<u>Manufacturer contact information</u>
61081	Calmark – A Division of Pentair Technical Products 7328 Trade Street San Diego, CA 92121-3410	Telephone: (858) 740-2400 Toll Free: (800) 854-7086 Facsimile: (858) 740-2430 Electronic mail: sales@calmark.com URL: www.calmark.com
5BG68	Card Locks Unlimited, Inc. 2310 E. Orangethorpe Avenue Anaheim, CA 92806-1231	Telephone: (714) 738-6194 Facsimile: (714) 446-0119 E-mail: sales@clumfg.com URL: www.clumfg.com

Part number (P/N) supersession data. This CID specification sheet PINs supersedes the following manufacturer's P/Ns as shown in table II. This information is being provided to assist in reducing proliferation in the Government inventory system.

TABLE II. Commercial part number supersession data.

PIN designator AA59832/01	Vendor similar designator or type part number ^{1/} CAGE 5BG68	Vendor similar designator or type part number ^{1/} CAGE 61081
AF1AB	1735-1BA	
AS1AB	1735-2BA	107-35
AT1AB	1735-3BA	107-35-3
AE1AB	1735-4BA	107-35-4
AF1AR	1735-1RA	
AS1AR	1735-2RA	
AT1AR	1735-3RA	
AE1AR	1735-4RA	
AF1CC	1735-1CC	
AS1CC	1735-2CC	C107-35
AT1CC	1735-3CC	C107-35-3
AE1CC	1735-4CC	C107-35-4
AF1CG	1735-1CG	
AS1CG	1735-2CG	
AT1CG	1735-3CG	
AE1CG	1735-4CG	

- ^{1/} The manufacturer's P/N shall not be used for procurement to the requirements of this CID specification sheet. At the time of preparation of this CID specification sheet, the aforementioned commercial products were reviewed and could be replaced by the CID PIN shown. For actual part marking requirements, see the marking paragraph in [A-A-59832](#).

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

MILITARY INTERESTS:

Custodians:
Army – CR
Navy – EC
Air Force – 85
DLA – CC

Review Activity:
Air Force – 99

CIVIL AGENCY COORDINATING ACTIVITY:

GSA – FAS

Preparing Activity:
DLA – CC

Project: 5998–2010–051

NOTE: The activities listed above were interested in this document as of the date of this document. Since organizations and responsibilities can change, you should verify the currency of the information above using the ASSIST Online database at <https://assist.daps.dla.mil/>.