

[INCH-POUND]
A-A-59832/2B
2 March 2016
SUPERSEDING
A-A-59832/2A
2 February 2011

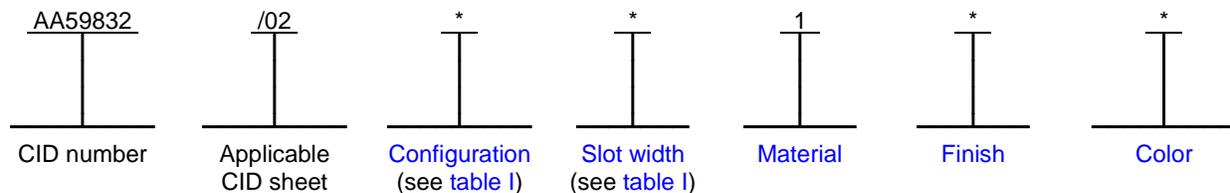
COMMERCIAL ITEM DESCRIPTION
SPECIFICATION SHEET

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: AA59832/02MS1AB 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 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](#). The details of a particular configuration consist of those on figures [1](#), [2](#), and [3](#).

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 material 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.

AMSC N/A

FSC 5998



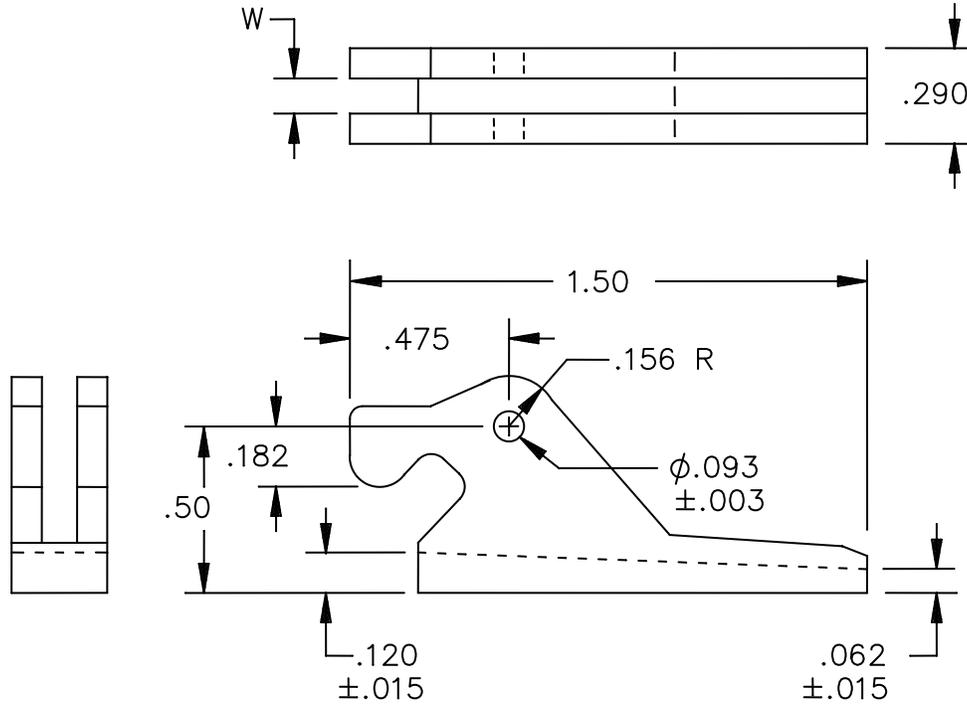
Roll pin. A stainless steel roll pin is furnished with each extractor. The roll pin is .09375 inch (2.38 mm) diameter by .3125 inch (7.9 mm) long.

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

Configuration	Slot width designator	Slot width dimension "W" ^{2/} Inch (mm)	Accommodates printed board thickness	Figure
			Inch (mm)	
S	F	.048 (1.22)	.032 (0.79)	1
S	S	.080 (2.03)	.063 (1.6)	
S	T	.110 (2.79)	.094 (2.4)	
S	E	.140 (3.56)	.125 (3.2)	
M	F	.048 (1.22)	.032 (0.79)	2
M	S	.080 (2.03)	.063 (1.6)	
M	T	.110 (2.79)	.094 (2.4)	
M	E	.140 (3.56)	.125 (3.2)	
L	F	.048 (1.22)	.032 (0.79)	3
L	S	.080 (2.03)	.063 (1.6)	
L	T	.110 (2.79)	.094 (2.4)	
L	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).

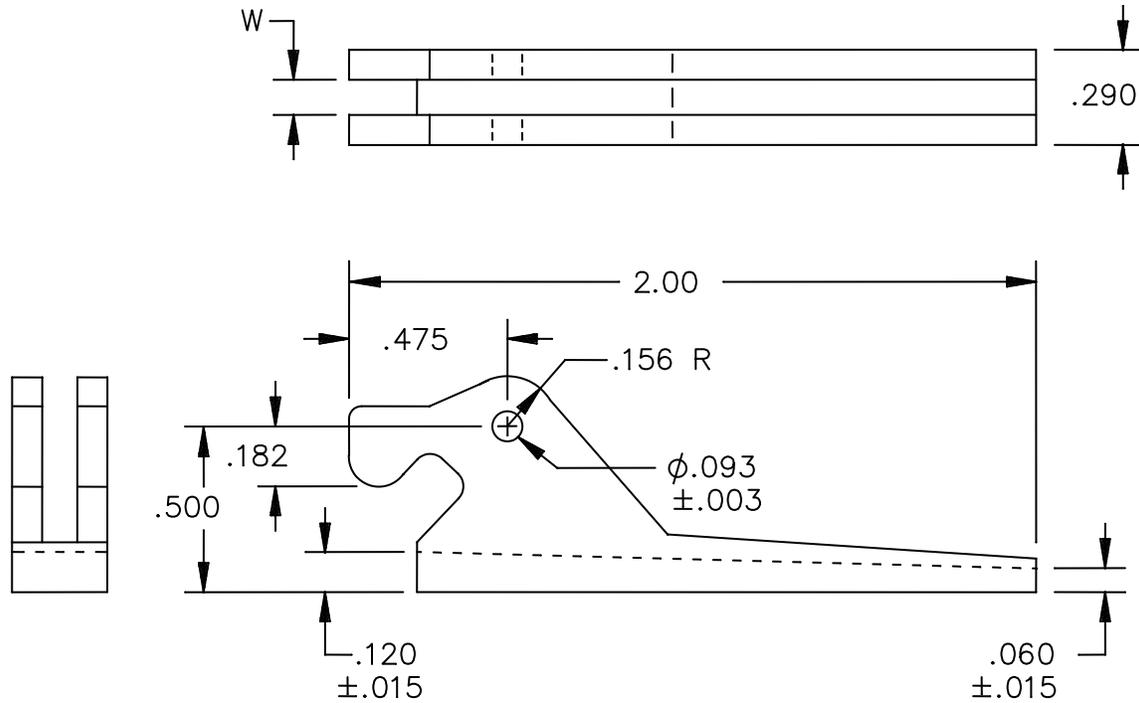


Inches	mm	Inches	mm	Inches	mm	Inches	mm
.003	0.07	.093	2.36	.182	4.62	.50	12.7
.015	0.38	.120	3.05	.290	7.37	1.50	38.1
.062	1.57	.156	3.96	.475	12.07		

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 1. Configuration S dimensions (approximate mechanical advantage of 3.3:1).

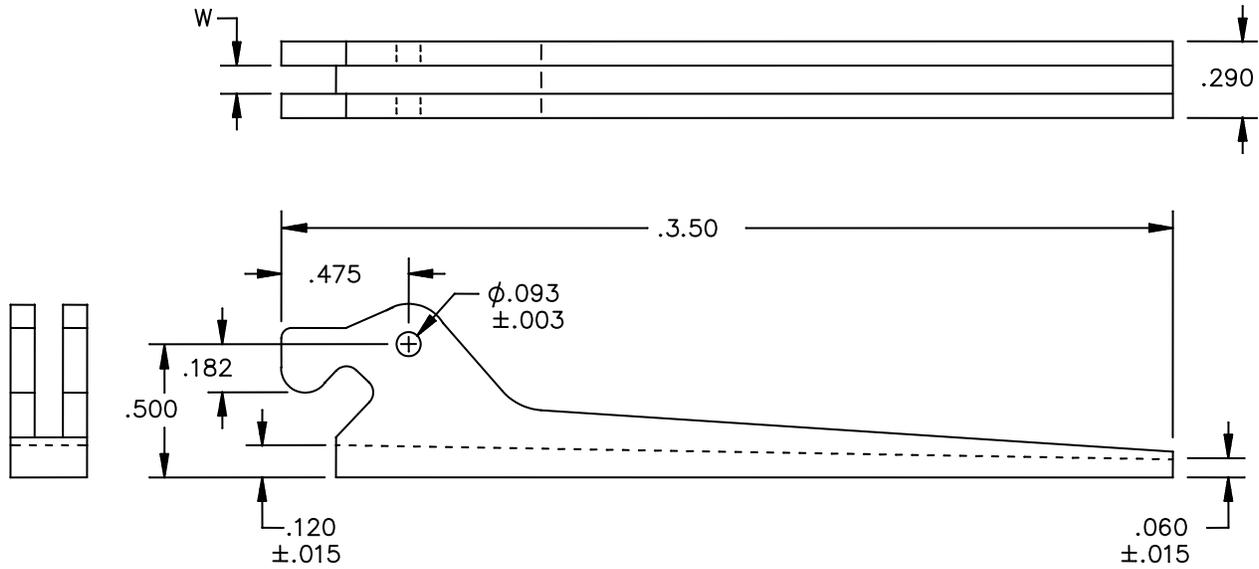


Inches	mm	Inches	mm	Inches	mm	Inches	mm
.003	0.07	.093	2.36	.182	4.62	.50	12.7
.015	0.38	.120	3.05	.290	7.37	2.00	50.8
.060	1.52	.156	3.96	.475	12.07		

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 2. Configuration M dimensions (approximate mechanical advantage of 4.5:1).



Inches	mm	Inches	mm	Inches	mm	Inches	mm
.003	0.07	.093	2.36	.182	4.62	.50	12.7
.015	0.38	.120	3.05	.290	7.37	3.50	88.9
.060	1.52	.156	3.96	.475	12.07		

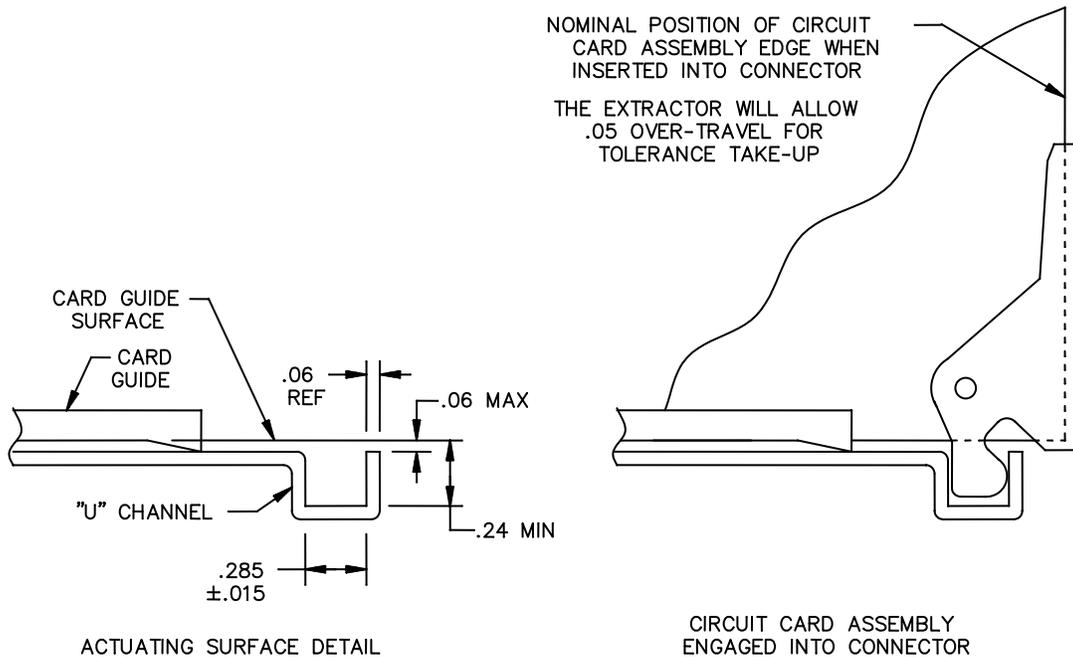
NOTES:

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 3. Configuration L dimensions (approximate mechanical advantage of 8:1).

APPLICATION DATA.

Card cage actuating surface. The nominal position of circuit card assembly edge to the "U" channel edge when seated in the connector is shown on figure 4. The extractor will allow .05 inch (1.3 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 of the card cage. 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(s) with more than 100 contacts, two ejectors mounted on each circuit card assembly is recommended.



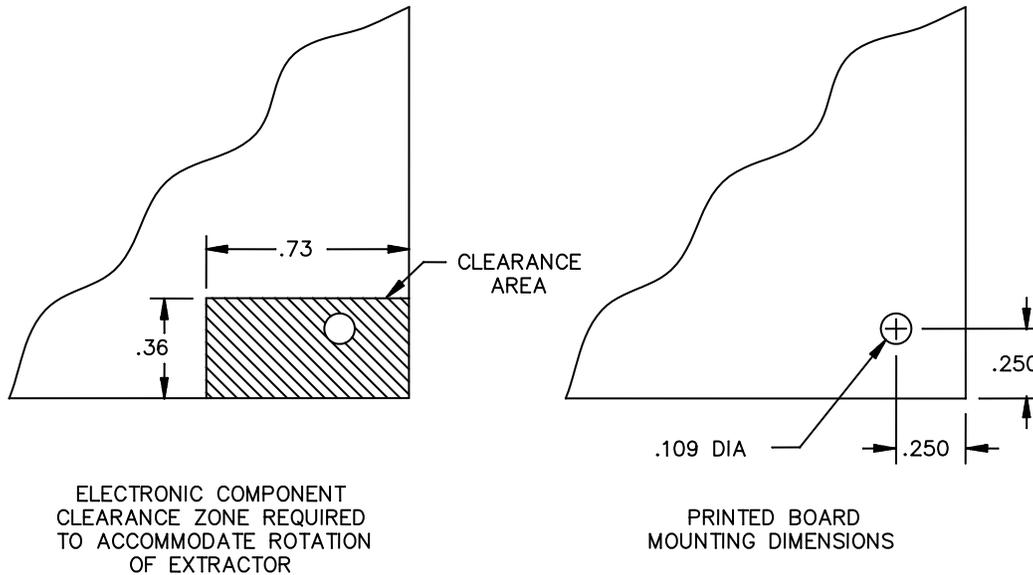
Inches	mm	Inches	mm	Inches	mm	Inches	mm
.015	0.38	.05	1.3	.24	6.1	.50	12.7
		.06	1.5	.285	7.24	1.50	38.1

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 4. 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 5. The printed board should also have the chamfer shown on figure 5 to allow for ejector rotation during extraction.



Inches	mm	Inches	mm	Inches	mm	Inches	mm
.109	2.77	.250	6.35	.36	9.14	.73	18.5

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 5. Printed board electronic component 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 <http://quicksearch.dla.mil>.)

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>
5BG68	American Circuit Card Retainers, Inc. 2310 E. Orangethorpe Avenue Anaheim, CA 92806-1231	Telephone: (714) 738-6194 Facsimile: (714) 446-0119 E-mail: sales@accrmfg.com URL: www.accrmfg.com
61081	PEP West, Inc, Pentair Technical Products dba Pentair Equipment and Electronic Protection 7328 Trade Street San Diego, CA 92121-3410	Telephone: (858) 740-2400 Toll Free: (800) 854-7086 Facsimile: (858) 740-2430 E-mail: schroff.us@pentair.com URL: www.pentairprotect.com



Part number (P/N) supersession data. These CID specification sheet PINs supersede 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 P/N supersession data.

PIN designator AA59832/02	Vendor similar designator or type part number <u>1/</u> CAGE 5BG68	Vendor similar designator or type part number <u>1/</u> CAGE 61081
SF1AB	1751-1BA	
SS1AB	1751-2BA	107-51
ST1AB	1751-3BA	107-51-3
SE1AB	1751-4BA	107-51-4
SF1LC	1751-1CC	
SS1LC	1751-2CC	C107-51
ST1LC	1751-3CC	C107-51-3
SE1LC	1751-4CC	C107-51-4
SF1LG	1751-1CG	
SS1LG	1751-2CG	
ST1LG	1751-3CG	
SE1LG	1751-4CG	
SF1AR	1751-1RA	
SS1AR	1751-2RA	
ST1AR	1751-3RA	
SE1AR	1751-4RA	

See footnote at end of table.

TABLE II. Commercial P/N supersession data – Continued.

PIN designator AA59832/02	Vendor similar designator or type part number <u>1/</u> CAGE 5BG68	Vendor similar designator or type part number <u>1/</u> CAGE 61081
MF1AB	1750-1BA	
MS1AB	1750-2BA	107-50
MT1AB	1750-3BA	107-50-3
ME1AB	1750-4BA	107-50-4
MF1LC	1750-1CC	
MS1LC	1750-2CC	C107-50
MT1LC	1750-3CC	C107-50-3
ME1LC	1750-4CC	C107-50-4
MF1LG	1750-1CG	
MS1LG	1750-2CG	
MT1LG	1750-3CG	
ME1LG	1750-4CG	
MF1AR	1750-1RA	
MS1AR	1750-2RA	
MT1AR	1750-3RA	
ME1AR	1750-4RA	
LF1AB	1755-1BA	
LS1AB	1755-2BA	107-55
LT1AB	1755-3BA	107-55-3
LE1AB	1755-4BA	107-55-4
LF1LC	1755-1CC	
LS1LC	1755-2CC	C107-55
LT1LC	1755-3CC	C107-55-3
LE1LC	1755-4CC	C107-55-4
LF1LG	1755-1CG	
LS1LG	1755-2CG	
LT1LG	1755-3CG	
LE1LG	1755-4CG	

See footnote at end of table.

TABLE II. Commercial P/N supersession data – Continued.

PIN designator AA59832/02	Vendor similar designator or type part number ^{1/} CAGE 5BG68	Vendor similar designator or type part number ^{1/} CAGE 61081
LF1AR	1755-1RA	
LS1AR	1755-2RA	
LT1AR	1755-3RA	
LE1AR	1755-4RA	

^{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. The margins of this CID specification are marked with bars to indicate where changes from the previous issue were made. This was done as a convenience only and the Government assumes no liability whatsoever for any inaccuracies in these notations. Bidders and contractors are cautioned to evaluate the requirements of this document based on the entire content irrespective of the marginal notations and relationship to the last previous issue.

MILITARY INTERESTS:

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

Review Activity:
 Air Force – 99

CIVIL AGENCY COORDINATING ACTIVITY:

GSA – FSS

Preparing Activity:
 DLA – CC

Project: 5998-2016-007

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