

INCH-POUND

A-A-59590/15A
9 November 2005
SUPERSEDING
A-A-59590/15
24 May 2002

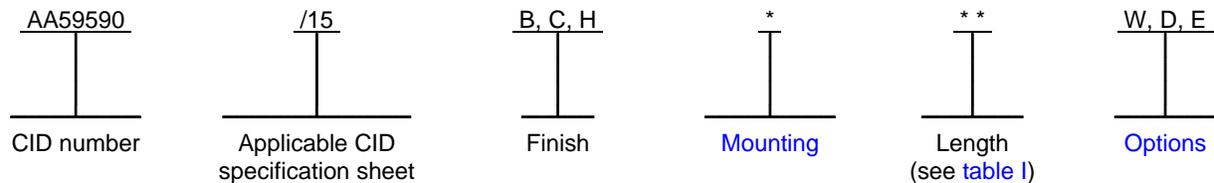
COMMERCIAL ITEM DESCRIPTION
SPECIFICATION SHEET

HOLDER, ELECTRICAL CARD, WEDGE RETAINERS, 3 PIECE,
SCREW ACTUATED DRIVE, .375 X .375 INCH BODY SIZE, WITH SCREW RETENTION

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

The complete requirements for procuring electrical card holders described herein shall consist of this document and
the latest issue in effect of [A-A-59590](#).

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](#)).



Example: AA59590/15BJ48D is the PIN for a black anodize finished, 4.8 inch (121.9 mm) long card holder with a lock
nut on the screw for captivation. The card holder also features two counterbore holes for use with rivet fasteners, a
lockwasher and flat washer under the screw head, and a self-locking element on the end of the actuating screw for
added resistance to loosening.

SALIENT CHARACTERISTICS.

Performance. Card holders shall hold the circuit card assembly firmly in its installed position. When the card holder
is installed properly, it is capable of withstanding 60g/6ms of shock, 25 G-rms of vibration, and provides from 2 to 4
degrees C/W/inch thermal resistance transfer between the circuit card assembly and the heat sink surfaces.

Interface and physical dimensions. The card holders supplied to this CID specification sheet shall be as specified on
[figures 1, 2, 3, and 4](#), in [table I](#), and [A-A-59590](#).

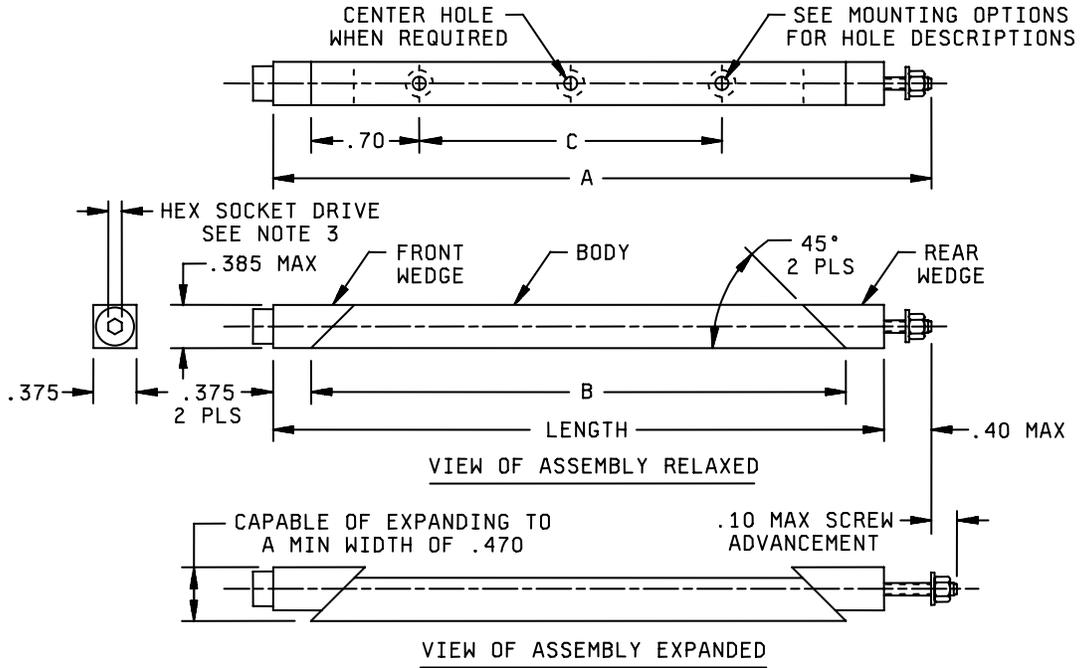
Screw retention locknut (see [figure 2](#)). Card holders shall have a screw retention locknut intended to prevent
unintentional disassembly of the card holder. The locknut shall be fabricated of a corrosion resistant material.

Nominal installation torque. When card holders are used in cold plate applications, the nominal installation torque of
each card holder shall be as follows: 16 to 20 inch-pounds (1.8 to 2.3 N-m) for assemblies using no options or option
"W" and 17 to 21 inch-pounds (1.9 to 2.5 N-m) for assemblies using options "E" or "D".

Cold plate dimensions. Recommend cold plate slot width to accommodate the circuit card assembly with attached
card holder is .425 inch (10.80 mm) plus the thickness of the printed board of the circuit card assembly (see
[A-A-59590](#)).

AMSC N/A

FSC 5998



Inches	mm	Inches	mm	Inches	mm
.10	2.5	.375	9.5	.470	11.9
.30	7.62	.385	9.8	.70	17.8

NOTES:

1. Dimensions are in inches. Millimeters are given for information only.
2. Unless otherwise specified, tolerances are for $\pm .02$ inch (0.51 mm) for two place decimals and $\pm .010$ (0.25 mm) for three place decimals.
3. The across flats dimension for hex drive socket shall be .140 inch (3.57 mm) for mounting options "J", "K", "N", "R", "T", "S", and "V". The across flats dimension for hex drive socket shall be a metric dimension of 3.0 mm (.118 inch) across flats for mounting option "G" and "M".

FIGURE 1. Relaxed and expanded dimensions.



FIGURE 2. Screw retaining self-locking nut (corrosion resistant) details.

Finish. The finish options shall be as specified in [A-A-59590](#). The finish options available for this specification sheet are as follows: “B” (black anodize), “C” (chemical film), or “H” (hard black anodize).

Mounting. The mounting options shall be as specified in [A-A-59590](#). The mounting options available for this specification sheet are as follows: “J” or “K” (rivet mounting holes), “N” (no mounting holes), “R” or “T” (tapped 0-80 UNF 2B holes), “V” or “S” (tapped 2-56 UNC 2B holes), or “G” or “M” (tapped M2.5 x.45 metric holes). See [figure 1](#) and [table I](#) for mounting hole spacing requirements. Card holders using mounting option “J” or “K” may be shipped unassembled.

Rivet mounting holes. The holes used for rivet mounting shall be .136 inch (3.45 mm) diameter through holes, countersunk 100 degrees by .190 to .200 inch (4.83 to 5.08 mm) diameter with an access/clearance counterbore hole of .190 to .200 inch (4.83 to 5.08 mm) diameter by .300 inch (7.62 mm) deep.

Mounting hole locations (when specified). Two mounting holes are required on card holders less than 5.30 inches (134.6 mm) in length. Three mounting holes are required on card holders 5.30 inches (134.6 mm) or greater in length. The third mounting hole, when present, shall be centered on the mounting body. See [figure 1](#) and [table I](#) for mounting hole locations and spacing requirements.

Length, expanded, and relaxed dimensions. The length, expanded, and relaxed dimensions shall be as specified on [figure 1](#). The length designator shall be as specified in [A-A-59590](#) and the available lengths for this specification sheet are listed in [table I](#).

TABLE I. [Assembly dimensions \(see figure 1\)](#). 1/

PIN length designator	Dimension “LENGTH” ± .02 (0.5)	Dimension “A” (maximum)	Dimension “B” ± .03 (0.8)	Dimension “C” ± .005 (0.13)
28	2.8 (71.1)	3.25 (82.6)	2.05 (52.1)	.65 (16.5)
33	3.3 (83.8)	3.75 (95.3)	2.55 (64.8)	1.15 (29.2)
38	3.8 (96.5)	4.25 (108.0)	3.05 (77.5)	1.65 (41.9)
43	4.3 (109.2)	4.75 (120.7)	3.55 (90.2)	2.15 (54.6)
48	4.8 (121.9)	5.25 (133.4)	4.05 (102.9)	2.65 (67.3)
53	5.3 (134.6)	5.75 (146.1)	4.55 (115.6)	3.15 (80.0)
58	5.8 (147.3)	6.25 (158.8)	5.05 (128.3)	3.65 (92.7)

1/ Dimensions are in inches. Millimeters, in parenthesis, are given for information only.

Options. Card holders can have the following options. Card holders not requiring the following option shall leave the options position in the PIN blank.

Lockwasher and flat washer (see figure 3). A lockwasher and flat washer located under the screw head will provide for additional resistance to loosening from shock and vibration. Card holders requiring a lockwasher and flat washer option shall include a suffix “W” in the PIN (see classification and notes).

A-A-59590/15A

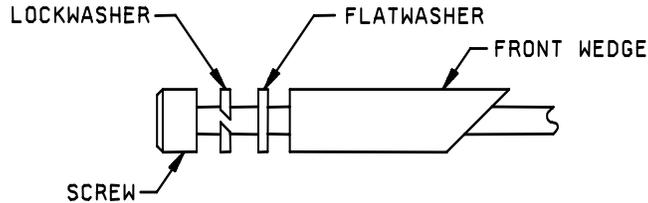


FIGURE 3. Lockwasher and flat washer details.

Screw self-locking element (see figure 4). The use of a screw self-locking element will provide prevailing torque for resistance to loosening from shock and vibration. Card holders requiring a screw self-locking element shall include a suffix "E" in the PIN (see classification and notes).



FIGURE 4. Screw self-locking element details.

Lockwasher, flat washer, and screw self-locking element. Card holders requiring a lockwasher, flat washer, and screw self-locking element option shall include a suffix "D" in the PIN (see classification and notes).

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-59590](#) – Holder, Electrical Card, Wedge Retainers, 3 Piece, Screw Actuated Drive, General Requirements For.

(Copies of these documents are available online at <http://assist.daps.dla.mil/quicksearch/> or <http://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-59590.

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>
18915	APW Electronic Solutions 14100 Danielson Street Poway, CA 92064-6898	Telephone: (858) 679-4550 Facsimile: (858) 679-4555 Electronic mail: sales.electronicsolutions@apw.com Uniform Resource Locator (URL): www.apw.com
52094	Calmark Corporation 4915 Walnut Grove Avenue San Gabriel, CA 91776-2099	Telephone: (626) 287-0451 Facsimile: (626) 287-7350 Electronic mail: sales@calmark.com URL: www.calmark.com

Part number supersession data. These CID specification sheet PINs supersedes the following manufacturer's part numbers as shown in table II. The CID PINs listed in table II are only for length designator "28". See [table III](#) for CID PIN construction using other available lengths for this specification sheet. This information is being provided to assist in reducing proliferation in the Government inventory system.

TABLE II. Commercial part number supersession data.

PIN designator AA59590/15	Vendor similar designator or type part number <u>1/</u> CAGE 18915	PIN designator AA59590/15	Vendor similar designator or type part number <u>1/</u> CAGE 52094
CJ28	44-6-LN	CJ28	250CR2.80HR
CN28	44-6-LN-A	CN28	250CR2.80R
CT28	44-6-LN-T	CT28	250CR2.80T0R
CV28	44-6-LN-S	CV28	250CR2.80T2R
CG28	44-6-LN-M	CG28	M250CR2.80TM2.5R
CJ28E	44-6-LN-L	CJ28E	250CR2.80HLR
CN28E	44-6-LN-A-L	CN28E	250CR2.80LR
CT28E	44-6-LN-T-L	CT28E	250CR2.80T0LR
CV28E	44-6-LN-S-L	CV28E	250CR2.80T2LR
CG28E	44-6-LN-M-L	CG28E	M250CR2.80TM2.5LR
CJ28W	44-6-LF-LN	CJ28W	W250CR2.80HR
CN28W	44-6-LF-LN -A	CN28W	W250CR2.80R
CT28W	44-6-LF-LN -T	CT28W	W250CR2.80T0R
CV28W	44-6-LF-LN -S	CV28W	W250CR2.80T2R
CG28W	44-6-LF-LN-M	CG28W	MW250CR2.80TM2.5R

See footnote at end of table.

TABLE II. Commercial part number supersession data – Continued.

PIN designator AA59590/15	Vendor similar designator or type part number ^{1/} CAGE 18915	PIN designator AA59590/15	Vendor similar designator or type part number ^{1/} CAGE 52094
CJ28D	44-6-LF-LN -L	CJ28D	W250CR2.80HLR
CN28D	44-6-LF-LN -A-L	CN28D	W250CR2.80LR
CT28D	44-6-LF-LN -T-L	CT28D	W250CR2.80T0LR
CV28D	44-6-LF-LN -S-L	CV28D	W250CR2.80T2LR
CG28D	44-6-LF-LN-M-L	CG28D	MW250CR2.80TM2.5LR
BJ28	44-6-B-LN	BJ28	A250CR2.80HR
BN28	44-6-B-LN-A	BN28	A250CR2.80R
BT28	44-6-B-LN-T	BT28	A250CR2.80T0R
BV28	44-6-B-LN-S	BV28	A250CR2.80T2R
BG28	44-6-B-LN-M	BG28	MA250CR2.80TM2.5R
BJ28E	44-6-B-LN-L	BJ28E	A250CR2.80HLR
BN28E	44-6-B-LN-A-L	BN28E	A250CR2.80LR
BT28E	44-6-B-LN-T-L	BT28E	A250CR2.80T0LR
BV28E	44-6-B-LN-S-L	BV28E	A250CR2.80T2LR
BG28E	44-6-B-LN-M-L	BG28E	MA250CR2.80TM2.5LR
BJ28W	44-6-B-LF-LN	BJ28W	WA250CR2.80HR
BN28W	44-6-B-LF-LN-A	BN28W	WA250CR2.80R
BT28W	44-6-B-LF-LN-T	BT28W	WA250CR2.80T0R
BV28W	44-6-B-LF-LN-S	BV28W	WA250CR2.80T2R
BG28W	44-6-B-LF-LN-M	BG28W	MWA250CR2.80TM2.5R
BJ28D	44-6-B-LF-LN-L	BJ28D	WA250CR2.80HLR
BN28D	44-6-B-LF-LN-AL	BN28D	WA250CR2.80LR
BT28D	44-6-B-LF-LN-TL	BT28D	WA250CR2.80T0LR
BV28D	44-6-B-LF-LN-SL	BV28D	WA250CR2.80T2LR
BG28D	44-6-B-LF-LN-ML	BG28D	MWA250CR2.80TM2.5LR
HJ28	44-6-B3-LN	HJ28	HA250CR2.80HR
HN28	44-6-B3-LN-A	HN28	HA250CR2.80R
HT28	44-6-B3-LN-T	HT28	HA250CR2.80T0R
HV28	44-6-B3-LN-S	HV28	HA250CR2.80T2R
HG28	44-6-B3-LN-M	HG28	MHA250CR2.80TM2.5R

See footnote at end of table.

TABLE II. Commercial part number supersession data – Continued.

PIN designator AA59590/15	Vendor similar designator or type part number ^{1/} CAGE 18915	PIN designator AA59590/15	Vendor similar designator or type part number ^{1/} CAGE 52094
HJ28E	44-6-B3-LN-L	HJ28E	HA250CR2.80HLR
HN28E	44-6-B3-LN-A-L	HN28E	HA250CR2.80LR
HT28E	44-6-B3-LN-T-L	HT28E	HA250CR2.80T0LR
HV28E	44-6-B3-LN-S-L	HV28E	HA250CR2.80T2LR
HG28E	44-6-B3-LN-M-L	HG28E	MHA250CR2.80TM2.5LR
HJ28W	44-6-B3-LF-LN	HJ28W	WHA250CR2.80HR
HN28W	44-6-B3-LF-LN-A	HN28W	WHA250CR2.80R
HT28W	44-6-B3-LF-LN-T	HT28W	WHA250CR2.80T0R
HV28W	44-6-B3-LF-LN-S	HV28W	WHA250CR2.80T2R
HG28W	44-6-B3-LF-LN-M	HG28W	MWHA250CR2.80TM2.5R
HJ28D	44-6-B3-LF-LN-L	HJ28D	WHA250CR2.80HLR
HN28D	44-6-B3-LF-LNAL	HN28D	WHA250CR2.80LR
HT28D	44-6-B3-LF-LNTL	HT28D	WHA250CR2.80T0LR
HV28D	44-6-B3-LF-LNSL	HV28D	WHA250CR2.80T2LR
HG28D	44-6-B3-LF-LNML	HG28D	MWHA250CR2.80TM2.5LR

^{1/} The manufacturer's part number 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-59590](#).

TABLE III. Example of PIN with available length designators.

PIN designator AA59590/15	Vendor similar designator or type part number <u>1/</u> CAGE 18915	PIN designator AA59590/15	Vendor similar designator or type part number <u>1/</u> <u>2/</u> CAGE 52094
HJ28W	44-6-B3-LF-LN	HJ28W	WHA250CR2.80HR
HJ33W	44-7-B3-LF-LN	HJ33W	WHA250CR3.30HR
HJ38W	44-8-B3-LF-LN	HJ38W	WHA250CR3.80HR
HJ43W	44-9-B3-LF-LN	HJ43W	WHA250CR4.30HR
HJ48W	44-10-B3-LF-LN	HJ48W	WHA250CR4.80HR
HK53W	44-11-B3-LF-LN	HK53W	WHA250CR5.30EHR
HK58W	44-12-B3-LF-LN	HK58W	WHA250CR5.80EHR

- 1/ The manufacturer's part number 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-59590](#).
- 2/ Other lengths are available on request.

MILITARY INTERESTS:

Custodians:
 Army – CR
 Navy – EC
 Air Force – 11
 DLA – CC

Review activity:
 Air Force – 99

CIVIL AGENCY COORDINATING ACTIVITY:

GSA – FSS
 Preparing Activity:
 DLA – CC
 Project 5998-2005-003

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 <http://assist.daps.dla.mil>.