

INCH-POUND

A-A-59590/13A
23 October 2005
SUPERSEDING
A-A-59590/13
10 May 2002

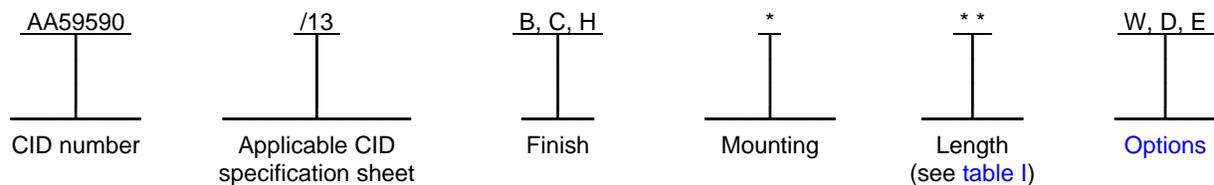
COMMERCIAL ITEM DESCRIPTION
SPECIFICATION SHEET

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

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: AA59590/13HV28W is the PIN for a hard black anodize finished, 2.8 inch (71.1 mm) long card holder. The card holder also features two tapped mounting holes for use with 2-56 UNC 2B fasteners and a lockwasher and flat washer under the screw head 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.

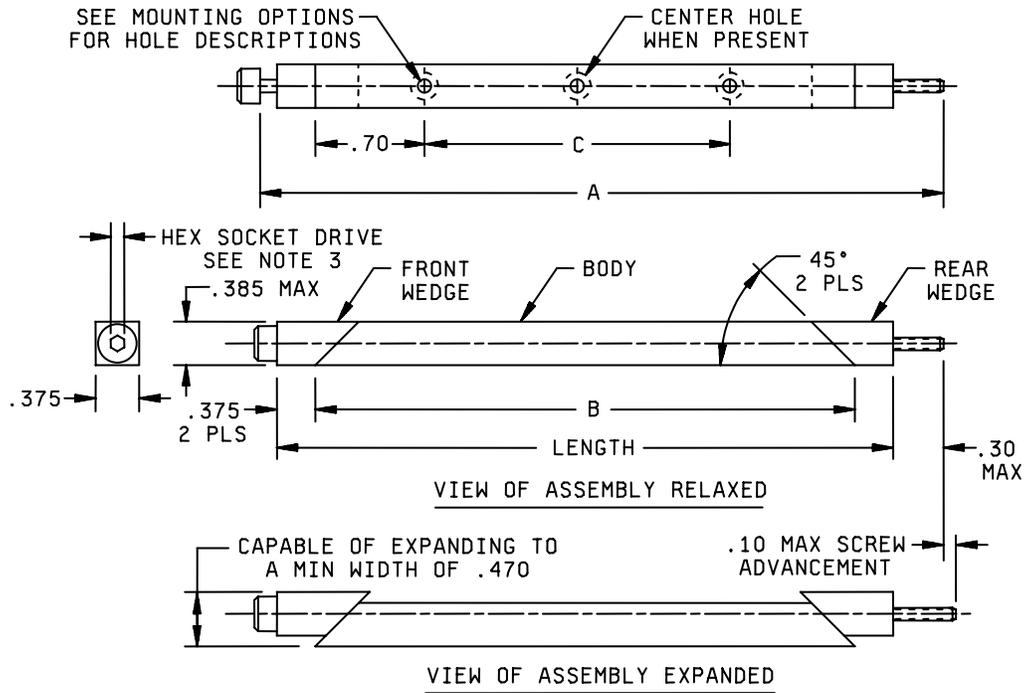
Interface and physical dimensions. The card holders supplied to this CID specification sheet shall be as specified on [figures 1, 2, and 3](#), in [table I](#), and [A-A-59590](#).

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
.20	5.1	.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 (0.118 inch) across flats for mounting option "G" and "M".

FIGURE 1. Relaxed and expanded dimensions.

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). 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 in the PIN, 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)	3.10 (78.7)	2.05 (52.1)	.65 (16.5)
33	3.3 (83.8)	3.60 (91.4)	2.55 (64.8)	1.15 (29.2)
38	3.8 (96.5)	4.10 (104.1)	3.05 (77.5)	1.65 (41.9)
43	4.3 (109.2)	4.60 (116.8)	3.55 (90.2)	2.15 (54.6)
48	4.8 (121.9)	5.10 (129.5)	4.05 (102.9)	2.65 (67.3)
53	5.3 (134.6)	5.60 (142.2)	4.55 (115.6)	3.15 (80.0)
58	5.8 (147.3)	6.10 (154.9)	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 2). 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).

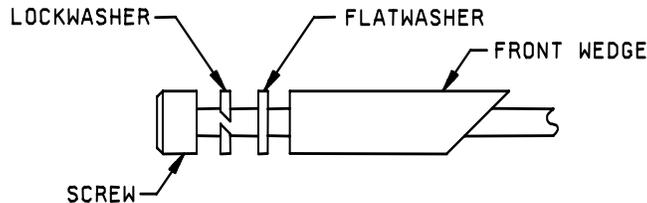


FIGURE 2. Lockwasher and flat washer details.

Screw self-locking element (see figure 3). 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 3. 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.electronicssolutions@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 AA59590/13	Vendor similar designator or type part number <u>1/</u> CAGE 18915	PIN designator AA59590/13	Vendor similar designator or type part number <u>1/</u> CAGE 52094
CJ28	44-6	CJ28	250-2.80H
CN28	44-6-A	CN28	250-2.80
CT28	44-6-T	CT28	250-2.80T0
CV28	44-6-S	CV28	250-2.80T2
CG28	44-6-M	CG28	M250-2.80TM2.5
CJ28E	44-6-L	CJ28E	250-2.80HL
CN28E	44-6-A-L	CN28E	250-2.80L
CT28E	44-6-T-L	CT28E	250-2.80T0L
CV28E	44-6-S-L	CV28E	250-2.80T2L
CG28E	44-6-M-L	CG28E	M250-2.80TM2.5L
CJ28W	44-6-LF	CJ28W	W250-2.80H
CN28W	44-6-LF-A	CN28W	W250-2.80
CT28W	44-6-LF-T	CT28W	W250-2.80T0
CV28W	44-6-LF-S	CV28W	W250-2.80T2
CG28W	44-6-LF-M	CG28W	MW250-2.80TM2.5
CJ28D	44-6-LF-L	CJ28D	W250-2.80HL
CN28D	44-6-LF-A-L	CN28D	W250-2.80L
CT28D	44-6-LF-T-L	CT28D	W250-2.80T0L
CV28D	44-6-LF-S-L	CV28D	W250-2.80T2L
CG28D	44-6-LF-M-L	CG28D	MW250-2.80TM2.5L
BJ28	44-6-B	BJ28	A250-2.80H
BN28	44-6-B-A	BN28	A250-2.80
BT28	44-6-B-T	BT28	A250-2.80T0
BV28	44-6-B-S	BV28	A250-2.80T2
BG28	44-6-B-M	BG28	MA250-2.80TM2.5

See footnote at end of table.

TABLE II. Commercial part number supersession data – Continued.

PIN designator AA59590/13	Vendor similar designator or type part number ^{1/} CAGE 18915	PIN designator AA59590/13	Vendor similar designator or type part number ^{1/} CAGE 52094
BJ28E	44-6-B-L	BJ28E	A250-2.80HL
BN28E	44-6-B-A-L	BN28E	A250-2.80L
BT28E	44-6-B-T-L	BT28E	A250-2.80T0L
BV28E	44-6-B-S-L	BV28E	A250-2.80T2L
BG28E	44-6-B-M-L	BG28E	MA250-2.80TM2.5L
BJ28W	44-6-B-LF	BJ28W	WA250-2.80H
BN28W	44-6-B-LF-A	BN28W	WA250-2.80
BT28W	44-6-B-LF-T	BT28W	WA250-2.80T0
BV28W	44-6-B-LF-S	BV28W	WA250-2.80T2
BG28W	44-6-B-LF-M	BG28W	MWA250-2.80TM2.5
BJ28D	44-6-B-LF-L	BJ28D	WA250-2.80HL
BN28D	44-6-B-LF-A-L	BN28D	WA250-2.80L
BT28D	44-6-B-LF-T-L	BT28D	WA250-2.80T0L
BV28D	44-6-B-LF-S-L	BV28D	WA250-2.80T2L
BG28D	44-6-B-LF-M-L	BG28D	MWA250-2.80TM2.5L
HJ28	44-6-B3	HJ28	HA250-2.80H
HN28	44-6-B3-A	HN28	HA250-2.80
HT28	44-6-B3-T	HT28	HA250-2.80T0
HV28	44-6-B3-S	HV28	HA250-2.80T2
HG28	44-6-B3-M	HG28	MHA250-2.80TM2.5
HJ28E	44-6-B3-L	HJ28E	HA250-2.80HL
HN28E	44-6-B3-A-L	HN28E	HA250-2.80L
HT28E	44-6-B3-T-L	HT28E	HA250-2.80T0L
HV28E	44-6-B3-S-L	HV28E	HA250-2.80T2L
HG28E	44-6-B3-M-L	HG28E	MHA250-2.80TM2.5L
HJ28W	44-6-B3-LF	HJ28W	WHA250-2.80H
HN28W	44-6-B3-LF-A	HN28W	WHA250-2.80
HT28W	44-6-B3-LF-T	HT28W	WHA250-2.80T0
HV28W	44-6-B3-LF-S	HV28W	WHA250-2.80T2
HG28W	44-6-B3-LF-M	HG28W	MWHA250-2.80TM2.5

See footnote at end of table.

TABLE II. Commercial part number supersession data – Continued.

PIN designator AA59590/13	Vendor similar designator or type part number <u>1/</u> CAGE 18915	PIN designator AA59590/13	Vendor similar designator or type part number <u>1/</u> CAGE 52094
HJ28D	44-6-B3-LF-L	HJ28D	WHA250-2.80HL
HN28D	44-6-B3-LF-A-L	HN28D	WHA250-2.80L
HT28D	44-6-B3-LF-T-L	HT28D	WHA250-2.80T0L
HV28D	44-6-B3-LF-S-L	HV28D	WHA250-2.80T2L
HG28D	44-6-B3-LF-M-L	HG28D	MWHA250-2.80TM2.5L

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 AA59590/13	Vendor similar designator or type part number <u>1/</u> CAGE 18915	PIN designator AA59590/13	Vendor similar designator or type part number <u>1/</u> <u>2/</u> CAGE 52094
BT28	44-6-B-T	BT28	A250-2.80T0
BT33	44-7-B-T	BT33	A250-3.30T0
BT38	44-8-B-T	BT38	A250-3.80T0
BT43	44-9-B-T	BT43	A250-4.30T0
BT48	44-10-B-T	BT48	A250-4.80T0
BR53	44-11-B-T	BR53	A250-5.30ET0
BR58	44-12-B-T	BR58	A250-5.80ET0

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 5998–2005–001

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>.