

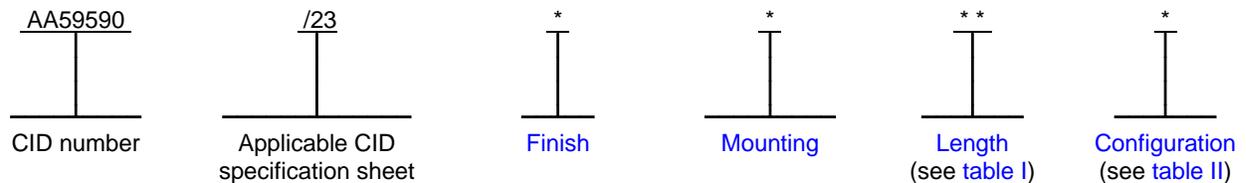
COMMERCIAL ITEM DESCRIPTION
SPECIFICATION SHEET

HOLDER, ELECTRICAL CARD, WEDGE RETAINERS, 3 PIECE,
SCREW ACTUATED DRIVE, .500 X .450 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: AA59590/23EV58D is the PIN for a nickel plated, 5.8 inches (147 mm) long card holder with a flat washer,
lockwasher, and screw self-locking element. The card holder also features two tapped mounting holes for use with
2-56 UNC 2A fasteners.

SALIENT CHARACTERISTICS.

Interface and physical dimensions. The card holders supplied to this CID specification sheet shall be as specified
herein (see [figures 1, 2, 3, 4,](#) and [table I](#)) and meet the general requirements of CID [A-A-59590](#).

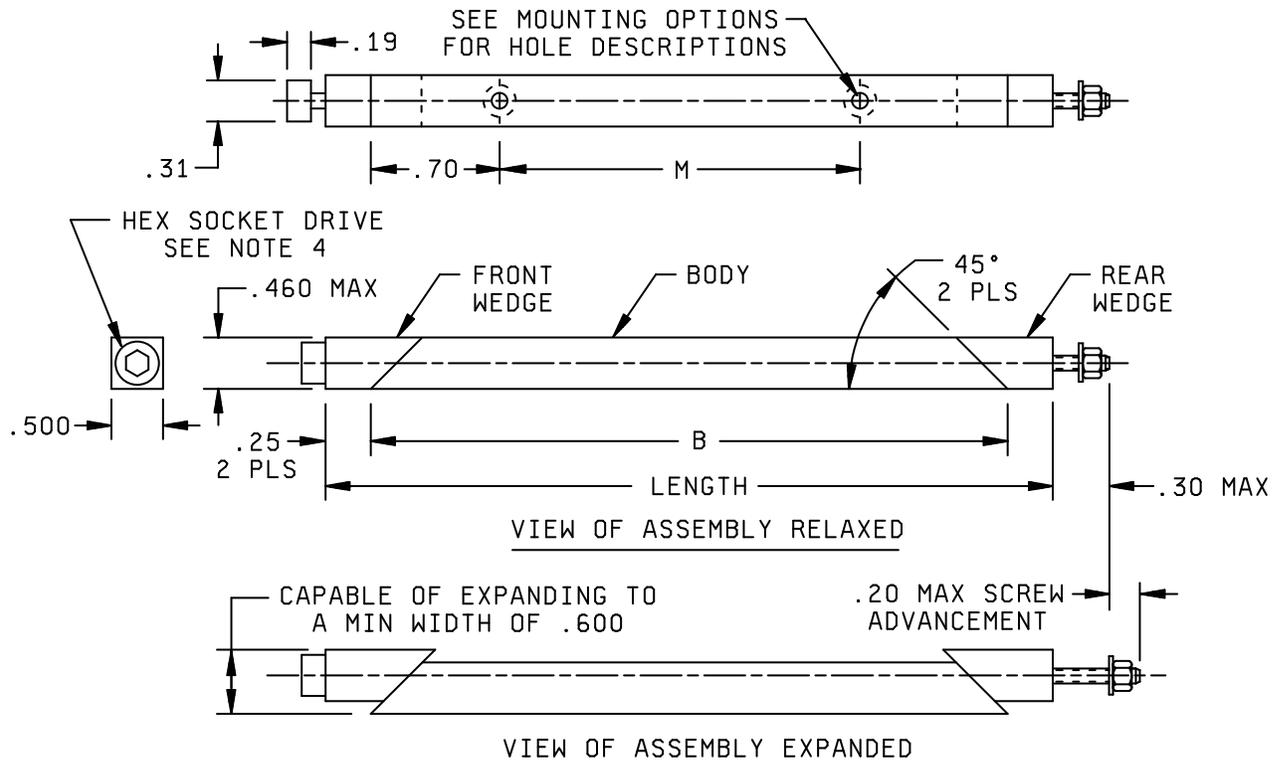
Material. Unless otherwise specified herein, the card holder materials shall be as specified in [A-A-59590](#).

Performance. Card holders shall hold the circuit card assembly it is attached to firmly in its installed position and
prevent loosening or movement as a result of shock and vibration. The card holder shall also provide a thermal
transfer path from the circuit card assembly to the cold plate or heat sink surfaces.

Screw retention (see [figure 2](#)). The screw retention feature is intended to prevent the unintentional disassembly of the
card holder. The self-locking nut used for the screw retention feature shall be fabricated of a corrosion resistant
material.

Actuating screw hex drive socket. The dimension for hex drive socket shall be as specified on [figure 1](#).

Cold plate dimensions. The recommend cold plate slot width to accommodate the circuit card assembly with attached
card holder is .525 inch (13.3 mm) plus the thickness of the printed board of the circuit card assembly (see
[A-A-59590](#)).



Inches	mm	Inches	mm	Inches	mm	Inches	mm	Inches	mm
.156	3.96	.20	5.1	.30	7.62	.460	11.68	.600	15.24
.19	4.8	.25	6.4	.31	7.9	.500	12.70	.70	17.8

NOTES:

1. Dimensions are in inches. Millimeters 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.
3. The tolerance for the mounting hole spacing is ± 0.005 inches (0.13 mm).
4. The across flats dimension for hex drive socket shall be .156 inch (3.96 mm) for mounting options "J", "N", "T", 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".

FIGURE 1. Relaxed and expanded dimensions, basic configuration.

Nominal installation torque. When card holders are used in cold plate applications, the nominal installation torque of each card holder shall be as follows: 31 inch-pounds (3.5 N-m) for assemblies using no options or option "W" and from 34 to 36 inch-pounds (3.8 to 4.1 N-m) for assemblies using options "D" or "E".

Screw retention (locknut). The screw retention feature is intended to prevent unintentional disassembly of the card holder shall be as specified in figure 2. The locknut shall be fabricated of a corrosion resistant material.

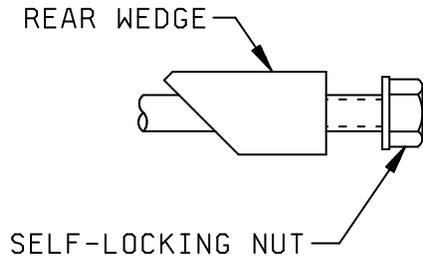


FIGURE 2. Screw retaining self-locking nut details.

Finish. The finish materials shall be as specified in [A-A-59590](#). The wedge body finishes available for this CID specification sheet are as follows: "B" (black anodize), "C" (gold chemical film), "E" (electroless nickel), "H" (hard black anodize), or "R" (clear chemical film).

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

Rivet mounting holes. The holes used for rivet mounting shall be .136 inch (3.45 mm) diameter, countersunk 100 degrees by .190/.200 inch (4.83/5.08 mm) diameter through holes with an access/clearance counterbore of .190/.200 inch (4.83/5.08 mm) diameter by .390 inch (9.91 mm) deep.

Rivets. This card holder uses rivet style B as specified in [A-A-59590](#) when rivet mounting is used.

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

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

PIN length designator	Dimension "LENGTH" ±.02 (0.5 mm)	Dimension "B" ±.03 (0.8 mm)	Dimension "M" ±.005 (0.13 mm)
28	2.8 (71 mm)	2.30 (58.4 mm)	.90 (22.9 mm)
38	3.8 (97 mm)	3.30 (83.8 mm)	1.90 (48.3 mm)
48	4.8 (122 mm)	4.30 (109.2 mm)	2.90 (73.7 mm)
58	5.8 (147 mm)	5.30 (134.6 mm)	3.90 (99.1 mm)

Configuration. The configuration of a card holder shall be as specified in table II. The details of a particular configuration consist of those on figures 1 and 2, and may include those on figures 3 and 4. The correct PIN configuration identifier for each option is listed in table II. Card holders not requiring the options described by table II shall leave the configuration position in the PIN blank.

TABLE II. Configuration.

Configuration designator	Applicable figures	Hardware added to basic configuration
	1 and 2	No changes from basic configuration
W	1, 2 and 3	Lockwasher and flat washer
E	1, 2 and 4	Screw self-locking element
D	1, 2, 3 and 4	Lockwasher, flat washer, and screw self-locking element

Lockwasher and flat washer (see figure 3). The use of a lockwasher and flat washer located under the screw head will provide for additional resistance to loosening of the card holder assembly 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](#) herein).

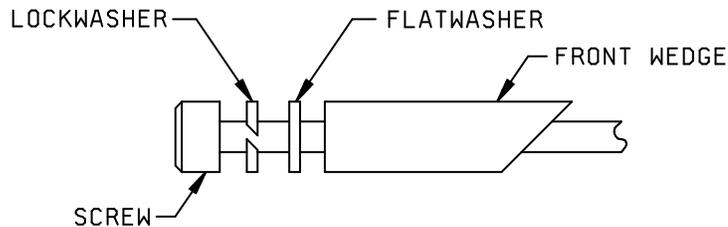


FIGURE 3. Lockwasher and flat washer details.

Screw self-locking element (see figure 4). The use of a self-locking element on the screw will provide a prevailing-torque for increased resistance to loosening of the card holder assembly from shock and vibration. The screw self-locking element shall be as specified in A-A-59590. Card holders requiring a screw self-locking element shall include configuration identifier "E" in the PIN (see [classification](#) and [notes](#) herein).

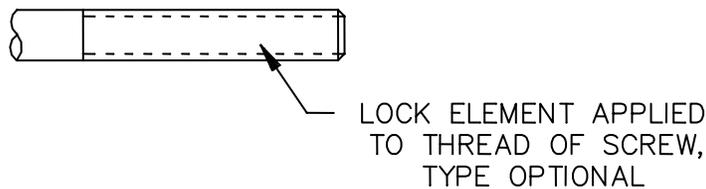


FIGURE 4. Screw self-locking element details.

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](#) herein).

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 <https://assist.dla.mil/quicksearch> or <https://assist.dla.mil> or from the Standardization Document Order Desk, 700 Robbins Avenue, Building 4D, Philadelphia, PA 19111-5094.)

Ordering data. Ordering data shall be 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>
61081	Calmark – A Division of Pentair Electronic Packaging 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	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: http://www.accrmfg.com

Part number supersession data. These CID specification sheet PINs supersedes the following manufacturer's part numbers as shown in [table III](#). The CID PINs listed in table III are only for length designator "28". See [table IV](#) 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 III. Commercial part number supersession data.

PIN designator AA59590/23	Vendor similar designator or type part number 1/ 2/	
	CAGE 61081	CAGE 5BG68
BJ28	A255CR2.80HR	3500BA-2.80HR
BN28	A255CR2.80R	3500BA-2.80R
BT28	A255CR2.80T0R	3500BA-2.80T0R
BV28	A255CR2.80T2R	3500BA-2.80T2R
BG28	MA255CR2.80TM2.5R	3500MBA-2.80TM2.5R
BJ28W	WA255CR2.80HR	3500WBA-2.80HR
BN28W	WA255CR2.80R	3500WBA-2.80R
BT28W	WA255CR2.80T0R	3500WBA-2.80T0R
BV28W	WA255CR2.80T2R	3500WBA-2.80T2R
BG28W	MWA255CR2.80TM2.5R	3500MWBA-2.80TM2.5R
BJ28E	A255CR2.80HLR	3500BA-2.80HLR
BN28E	A255CR2.80LR	3500BA-2.80LR
BT28E	A255CR2.80T0LR	3500BA-2.80T0LR
BV28E	A255CR2.80T2LR	3500BA-2.80T2LR
BG28E	MA255CR2.80TM2.5LR	3500MBA-2.80TM2.5LR
BJ28D	WA255CR2.80HLR	3500WBA-2.80HLR
BN28D	WA255CR2.80LR	3500WBA-2.80LR
BT28D	WA255CR2.80T0LR	3500WBA-2.80T0LR
BV28D	WA255CR2.80T2LR	3500WBA-2.80T2LR
BG28D	MWA255CR2.80TM2.5LR	3500MWBA-2.80TM2.5LR
CJ28	255CR2.80HR	3500CG-2.80HR
CN28	255CR2.80R	3500CG-2.80R
CT28	255CR2.80T0R	3500CG-2.80T0R
CV28	255CR2.80T2R	3500CG-2.80T2R
CG28	M255CR2.80TM2.5R	3500MCG-2.80TM2.5R
CJ28W	W255CR2.80HR	3500WCG-2.80HR
CN28W	W255CR2.80R	3500WCG-2.80R
CT28W	W255CR2.80T0R	3500WCG-2.80T0R
CV28W	W255CR2.80T2R	3500WCG-2.80T2R
CG28W	MW255CR2.80TM2.5R	3500MWCG-2.80TM2.5R

See footnotes at end of table.

TABLE III. Commercial part number supersession data.

PIN designator AA59590/23	Vendor similar designator or type part number 1/ 2/	
	CAGE 61081	CAGE 5BG68
CJ28E	255CR2.80HLR	3500CG-2.80HLR
CN28E	255CR2.80LR	3500CG-2.80LR
CT28E	255CR2.80T0LR	3500CG-2.80T0LR
CV28E	255CR2.80T2LR	3500CG-2.80T2LR
CG28E	M255CR2.80TM2.5LR	3500MCG-2.80TM2.5LR
CJ28D	W255CR2.80HLR	3500WCG-2.80HLR
CN28D	W255CR2.80LR	3500WCG-2.80LR
CT28D	W255CR2.80T0LR	3500WCG-2.80T0LR
CV28D	W255CR2.80T2LR	3500WCG-2.80T2LR
CG28D	MW255CR2.80TM2.5LR	3500MWCG-2.80TM2.5LR
EJ28	EN255CR2.80HR	3500EN-2.80HR
EN28	EN255CR2.80R	3500EN-2.80R
ET28	EN255CR2.80T0R	3500EN-2.80T0R
EV28	EN255CR2.80T2R	3500EN-2.80T2R
EG28	MEN255CR2.80TM2.5LR	3500MEN-2.80TM2.5R
EJ28W	WEN255CR2.80HR	3500WEN-2.80HR
EN28W	WEN255CR2.80R	3500WEN-2.80R
ET28W	WEN255CR2.80T0R	3500WEN-2.80T0R
EV28W	WEN255CR2.80T2R	3500WEN-2.80T2R
EG28W	MWEN255CR2.80TM2.5R	3500MWEN-2.80TM2.5R
EJ28E	EN255CR2.80HLR	3500EN-2.80HLR
EN28E	EN255CR2.80LR	3500EN-2.80LR
ET28E	EN255CR2.80T0LR	3500EN-2.80T0LR
EV28E	EN255CR2.80T2LR	3500EN-2.80T2LR
EG28E	MEN255CR2.80TM2.5LR	3500MEN-2.80TM2.5LR
EJ28D	WEN255CR2.80HLR	3500WEN-2.80HLR
EN28D	WEN255CR2.80LR	3500WEN-2.80LR
ET28D	WEN255CR2.80T0LR	3500WEN-2.80T0LR
EV28D	WEN255CR2.80T2LR	3500WEN-2.80T2LR
EG28D	MWEN255CR2.80TM2.5LR	3500MWEN-2.80TM2.5LR

See footnotes at end of table.

TABLE III. Commercial part number supersession data.

PIN designator AA59590/23	Vendor similar designator or type part number 1/ 2/	
	CAGE 61081	CAGE 5BG68
HJ28	HA255CR2.80HR	3500BH-2.80HR
HN28	HA255CR2.80R	3500BH-2.80R
HT28	HA255CR2.80T0R	3500BH-2.80T0R
HV28	HA255CR2.80T2R	3500BH-2.80T2R
HG28	MHA255CR2.80TM2.5LR	3500MBH-2.80TM2.5R
HJ28W	WHA255CR2.80HR	3500WBH-2.80HR
HN28W	WHA255CR2.80R	3500WBH-2.80R
HT28W	WHA255CR2.80T0R	3500WBH-2.80T0R
HV28W	WHA255CR2.80T2R	3500WBH-2.80T2R
HG28W	MWHA255CR2.80TM2.5LR	3500MWBH-2.80TM2.5R
HJ28E	HA255CR2.80HLR	3500BH-2.80HLR
HN28E	HA255CR2.80LR	3500BH-2.80LR
HT28E	HA255CR2.80T0LR	3500BH-2.80T0LR
HV28E	HA255CR2.80T2LR	3500BH-2.80T2LR
HG28E	MHA255CR2.80TM2.5LR	3500MBH-2.80TM2.5LR
HJ28D	WHA255CR2.80HLR	3500WBH-2.80HLR
HN28D	WHA255CR2.80LR	3500WBH-2.80LR
HT28D	WHA255CR2.80T0LR	3500WBH-2.80T0LR
HV28D	WHA255CR2.80T2LR	3500WBH-2.80T2LR
HG28D	MWHA255CR2.80TM2.5LR	3500MWBH-2.80TM2.5LR
RJ28	R255CR2.80HR	3500CC-2.80HR
RN28	R255CR2.80R	3500CC-2.80R
RT28	R255CR2.80T0R	3500CC-2.80T0R
RV28	R255CR2.80T2R	3500CC-2.80T2R
RG28	MR255CR2.80TM2.5R	3500MCC-2.80TM2.5R
RJ28W	WR255CR2.80HR	3500WCC-2.80HR
RN28W	WR255CR2.80R	3500WCC-2.80R
RT28W	WR255CR2.80T0R	3500WCC-2.80T0R
RV28W	WR255CR2.80T2R	3500WCC-2.80T2R
RG28W	MWR255CR2.80TM2.5R	3500MWCC-2.80TM2.5R

See footnotes at end of table.

TABLE III. Commercial part number supersession data.

PIN designator AA59590/23	Vendor similar designator or type part number <u>1/</u> <u>2/</u>	
	CAGE 61081	CAGE 5BG68
RJ28E	WR255CR2.80HR	3500WCC-2.80HR
RN28E	WR255CR2.80R	3500WCC-2.80R
RT28E	WR255CR2.80T0R	3500WCC-2.80T0R
RV28E	WR255CR2.80T2R	3500WCC-2.80T2R
RG28E	MWR255CR2.80TM2.5R	3500MWCC-2.80TM2.5R
RJ28D	WR255CR2.80HLR	3500WCC-2.80HLR
RN28D	WR255CR2.80LR	3500WCC-2.80LR
RT28D	WR255CR2.80T0LR	3500WCC-2.80T0LR
RV28D	WR255CR2.80T2LR	3500WCC-2.80T2LR
RG28D	MWR255CR2.80TM2.5LR	3500MWCC-2.80TM2.5LR

1/ The CID PINs listed are only for length designator "28".

2/ 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 IV. Example of PIN with available length designators.

PIN designator AA59590/23	Vendor similar designator or type part number <u>1/</u> <u>2/</u>	
	CAGE 61081	CAGE 5BG68
EV28D	WEN255CR2.80T2LR	3500WEN-2.80T2LR
EV38D	WEN255CR3.80T2LR	3500WEN-3.80T0LR
EV48D	WEN255CR4.80T2LR	3500WEN-5.80T0LR
EV58D	WEN255CR5.80T2LR	3500WEN-5.80T0LR

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.

Changes from previous issue. The margins of this specification are marked with vertical lines 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 – FAS
Preparing activity:
DLA – CC
Project 5998-2012-023

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