

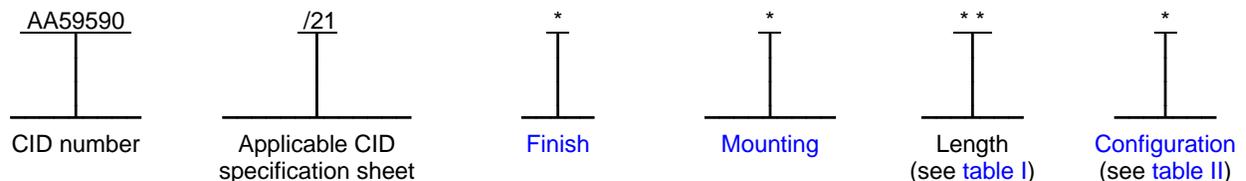
COMMERCIAL ITEM DESCRIPTION
SPECIFICATION SHEET

HOLDER, ELECTRICAL CARD, WEDGE RETAINERS, 3 PIECE,
SCREW ACTUATED DRIVE, .500 X .450 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](#) herein).



Example: AA59590/21EV58D 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.

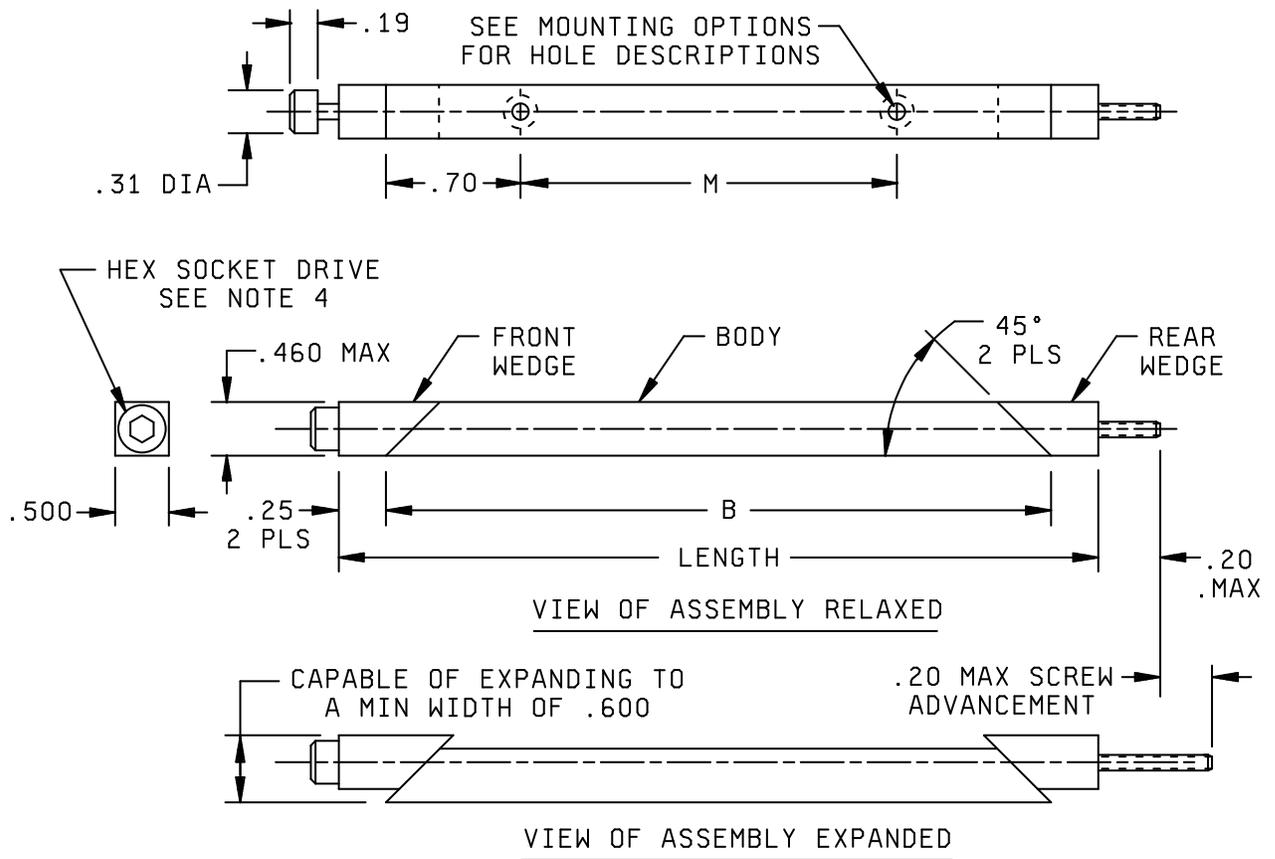
Performance. Card holders shall hold the circuit card assembly firmly in its installed position and prevent loosening or movement as a result of shock and vibration. The card holder shall also provide a thermal transfer path from the circuit card assembly to the cold plate or heat sink surfaces.

Interface and physical dimensions. The card holders supplied to this CID specification sheet shall be as specified herein (see [figures 1, 2, 3, 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](#).

Actuating screw hex drive socket. The dimension for hex drive socket shall be .156 inch (3.96 mm) for mounting options "J", "N", "T" and "V". The dimension for hex drive socket shall be a metric dimension of 2.5 mm (.098 inch) across flats for mounting option "G".

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
.07	1.8	.20	5.1	.25	6.4	.270	6.86	.70	17.8
.13	3.3	.23	5.8	.260	6.6	.325	8.26		

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 2.5 mm (.098 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".

Finish. The finish designator shall be as specified in A-A-59590. The 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.

Counterbore holes (for rivet mounting). 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 type 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). 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)

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

Configuration. The configuration of a card holder shall be as specified in table II. The details of a particular configuration consist of those on figure 1 and may include those on figures 2 and 3. 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	Applicable figures	Hardware added to basic configuration
	1	No changes from basic configuration
W	1 and 2	Lockwasher and flat washer
E	1 and 3	Screw self-locking element
D	1, 2, and 3	Lockwasher, flat washer, and screw self-locking element

Lockwasher and flat washer (see figure 2). 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 shall include a suffix "W" in the PIN (see [classification](#) and [notes](#)).

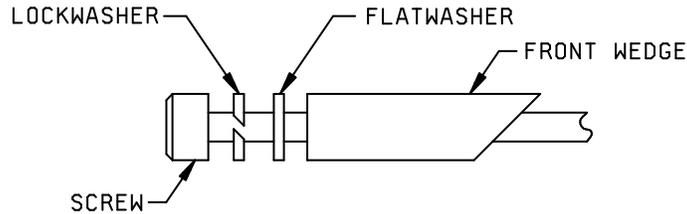


FIGURE 2. Lockwasher and flat washer details.

Screw self-locking element (see figure 3). The use of a screw self-locking element 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 a suffix "E" in the PIN (see [classification](#) and [notes](#)).

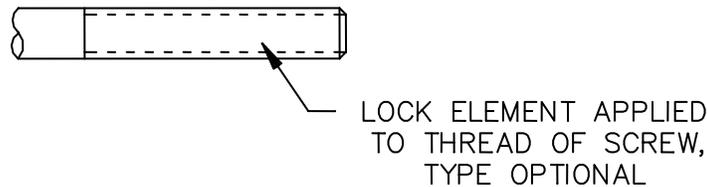


FIGURE 3. Screw self-locking element details.

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.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 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>
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 E-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 AA59590/21	Vendor similar designator or type part number <u>1/</u> <u>2/</u>	
	CAGE 61081	CAGE 5BG68
BJ28	A255-2.80H	3500BA-2.80H
BN28	A255-2.80	3500BA-2.80
BT28	A255-2.80T0	3500BA-2.80T0
BV28	A255-2.80T2	3500BA-2.80T2
BG28	MA255-2.80TM2.5	3500MBA-2.80TM2.5
BJ28W	WA255-2.80H	3500WBA-2.80H
BN28W	WA255-2.80	3500WBA-2.80
BT28W	WA255-2.80T0	3500WBA-2.80T0
BV28W	WA255-2.80T2	3500WBA-2.80T2
BG28W	MWA255-2.80TM2.5	3500MWBA-2.80TM2.5

See footnotes at end of table.

TABLE III. Commercial part number supersession data – Continued.

PIN designator AA59590/21	Vendor similar designator or type part number <u>1/ 2/</u>	
	CAGE 61081	CAGE 5BG68
BJ28E	A255-2.80HL	3500BA-2.80HL
BN28E	A255-2.80L	3500BA-2.80L
BT28E	A255-2.80T0L	3500BA-2.80T0L
BV28E	A255-2.80T2L	3500BA-2.80T2L
BG28E	MA255-2.80TM2.5L	3500MBA-2.80TM2.5L
BJ28D	WA255-2.80HL	3500WBA-2.80HL
BN28D	WA255-2.80L	3500WBA-2.80L
BT28D	WA255-2.80T0L	3500WBA-2.80T0L
BV28D	WA255-2.80T2L	3500WBA-2.80T2L
BG28D	MWA255-2.80TM2.5L	3500MWBA-2.80TM2.5L
CJ28	255-2.80H	3500CG-2.80H
CN28	255-2.80	3500CG-2.80
CT28	255-2.80T0	3500CG-2.80T0
CV28	255-2.80T2	3500CG-2.80T2R
CG28	M255-2.80TM2.5	3500MCG-2.80TM2.5
CJ28W	W255-2.80H	3500WCG-2.80H
CN28W	W255-2.80	3500WCG-2.80
CT28W	W255-2.80T0	3500WCG-2.80T0
CV28W	W255-2.80T2	3500WCG-2.80T2
CG28W	MW255-2.80TM2.5	3500MWCG-2.80TM2.5
CJ28E	255-2.80HL	3500CG-2.80HL
CN28E	255-2.80L	3500CG-2.80L
CT28E	255-2.80T0L	3500CG-2.80T0L
CV28E	255-2.80T2L	3500CG-2.80T2L
CG28E	M255-2.80TM2.5L	3500MCG-2.80TM2.5L
CJ28D	W255-2.80HL	3500WCG-2.80HL
CN28D	W255-2.80L	3500WCG-2.80L
CT28D	W255-2.80T0L	3500WCG-2.80T0L
CV28D	W255-2.80T2L	3500WCG-2.80T2L
CG28D	MW255-2.80TM2.5L	3500MWCG-2.80TM2.5L

See footnotes at end of table.

TABLE III. Commercial part number supersession data – Continued.

PIN designator AA59590/21	Vendor similar designator or type part number <u>1/ 2/</u>	
	CAGE 61081	CAGE 5BG68
EJ28	EN255-2.80H	3500EN-2.80H
EN28	EN255-2.80	3500EN-2.80
ET28	EN255-2.80T0	3500EN-2.80T0
EV28	EN255-2.80T2	3500EN-2.80T2
EG28	MEN255-2.80TM2.5	3500MEN-2.80TM2.5
EJ28W	WEN255-2.80H	3500WEN-2.80H
EN28W	WEN255-2.80	3500WEN-2.80
ET28W	WEN255-2.80T0	3500WEN-2.80T0
EV28W	WEN255-2.80T2	3500WEN-2.80T2
EG28W	MWEN255-2.80TM2.5	3500MWEN-2.80TM2.5
EJ28E	EN255-2.80HL	3500EN-2.80HL
EN28E	EN255-2.80L	3500EN-2.80L
ET28E	EN255-2.80T0L	3500EN-2.80T0L
EV28E	EN245CR2.80T2L	3500EN-2.80T2L
EG28E	MEN255-2.80TM2.5L	3500MEN-2.80TM2.5L
EJ28D	WEN255-2.80HL	3500WEN-2.80HL
EN28D	WEN255-2.80L	3500WEN-2.80L
ET28D	WEN255-2.80T0L	3500WEN-2.80T0L
EV28D	WEN255-2.80T2L	3500WEN-2.80T2L
EG28D	MWEN255-2.80TM2.5L	3500MWEN-2.80TM2.5L
HJ28	HA255-2.80H	3500BH-2.80H
HN28	HA255-2.80	3500BH-2.80
HT28	HA255-2.80T0	3500BH-2.80T0
HV28	HA255-2.80T2	3500BH-2.80T2
HG28	MHA255-2.80TM2.5	3500MBH-2.80TM2.5
HJ28W	WHA255-2.80H	3500WBH-2.80H
HN28W	WHA255-2.80	3500WBH-2.80
HT28W	WHA255-2.80T0	3500WBH-2.80T0
HV28W	WHA255-2.80T2	3500WBH-2.80T2
HG28W	MWHA255-2.80TM2.5	3500MWBH-2.80TM2.5

See footnotes at end of table.

TABLE III. Commercial part number supersession data – Continued.

PIN designator AA59590/21	Vendor similar designator or type part number <u>1/ 2/</u>	
	CAGE 61081	CAGE 5BG68
HJ28E	HA255-2.80HL	3500BH-2.80HL
HN28E	HA255-2.80L	3500BH-2.80L
HT28E	HA255-2.80T0L	3500BH-2.80T0L
HV28E	HA255CR2.80T2L	3500BH-2.80T2L
HG28E	MHA255-2.80TM2.5L	3500MBH-2.80TM2.5L
HJ28D	WHA255-2.80HL	3500WBH-2.80HL
HN28D	WHA255-2.80L	3500WBH-2.80L
HT28D	WHA255-2.80T0L	3500WBH-2.80T0L
HV28D	WHA255-2.80T2L	3500WBH-2.80T2L
HG28D	MWHA255-2.80TM2.5L	3500MWBH-2.80TM2.5L
RJ28	R255-2.80H	3500CC-2.80H
RN28	R255-2.80	3500CC-2.80
RT28	R255-2.80T0	3500CC-2.80T0
RV28	R255-2.80T2	3500CC-2.80T2
RG28	MR255-CR2.80TM2.5	3500MCC-2.80TM2.5
RJ28W	WR255-2.80H	3500WCC-2.80H
RN28W	WR255-2.80	3500WCC-2.80
RT28W	WR255-2.80T0	3500WCC-2.80T0
RV28W	WR255-2.80T2	3500WCC-2.80T2
RG28W	MWR255-2.80TM2.5	3500MWCC-2.80TM2.5
RJ28E	WR255-2.80H	3500WCC-2.80H
RN28E	WR255-2.80	3500WCC-2.80
RT28E	WR255-2.80T0	3500WCC-2.80T0
RV28E	WR255-2.80T2	3500WCC-2.80T2
RG28E	MWR255-2.80TM2.5	3500MWCC-2.80TM2.5
RJ28D	WR255-2.80HL	3500WCC-2.80HL
RN28D	WR255-2.80L	3500WCC-2.80L
RT28D	WR255-2.80T0L	3500WCC-2.80T0L
RV28D	WR255-2.80T2L	3500WCC-2.80T2L
RG28D	MWR255-2.80TM2.5L	3500MWCC-2.80TM2.5L

See footnotes at end of table.

TABLE III. Commercial part number supersession data – Continued.

- 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 AA59590/21	Vendor similar designator or type part number 1/ 2/	
	CAGE 61081	CAGE 5BG68
EV28D	WEN255-2.80T2L	3500WEN-2.80T2L
EV38D	WEN255-3.80T2L	3500WEN-3.80T2L
EV48D	WEN255-4.80T2L	3500WEN-4.80T2L
EV58D	WEN255-5.80T2L	3500WEN-5.80T2L

- 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 – 85
 DLA – CC

Review activity:
 Air Force – 99

CIVIL AGENCY COORDINATING ACTIVITY:

GSA – FAS
 Preparing activity:
 DLA – CC
 Project 5998-2012-021

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>.