

[INCH-POUND]
A-A-59590/19B
19 May 2012
SUPERSEDING
A-A-59590/19A
7 July 2007

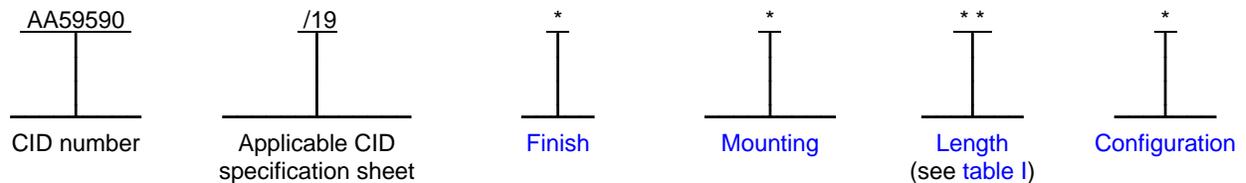
COMMERCIAL ITEM DESCRIPTION
SPECIFICATION SHEET

HOLDER, ELECTRICAL CARD, WEDGE RETAINERS, 3 PIECE,
SCREW ACTUATED DRIVE, .260 X .260 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](#) herein).



Example: AA59590/19EV28D is the PIN for a nickel plated, 2.8 inches (71 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.

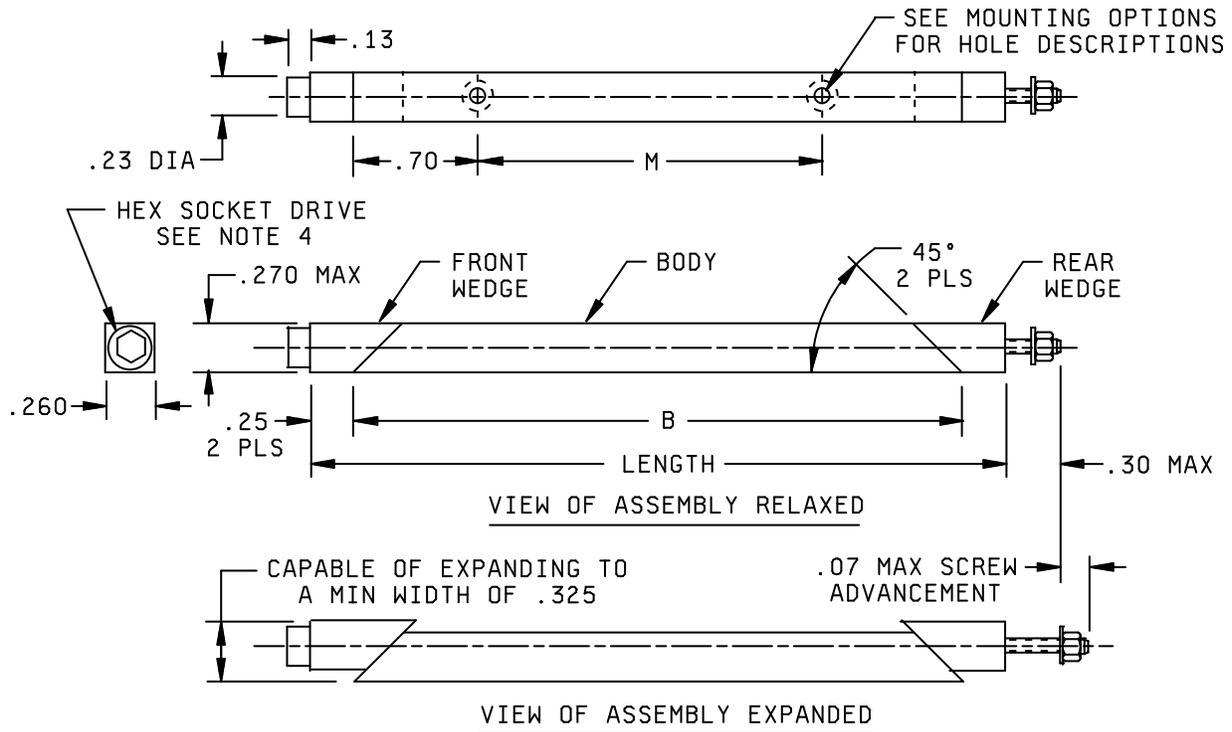
Performance. Card holders shall hold the circuit card assembly firmly in its installed position and provide high
resistance to loosening due to shock and vibration. Card holders shall also provide maximum thermal transfer from
the circuit card assembly to the cold plate or heat sink surfaces. The screw retention feature is intended to prevent
unintentional disassembly of the card holder.

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](#).

Actuating screw hex drive socket. The dimension for hex drive socket shall be .109 inch (2.78 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. Recommend cold plate slot width to accommodate the circuit card assembly with attached
card holder is .300 inch (7.62 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	.23	5.8	.260	6.6	.30	7.62	.70	17.8
.13	3.3	.25	6.4	.270	6.86	.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 .109 inch (2.78 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: 10 inch-pounds (1.1 N-m) for assemblies using no options or option "W" and 12 inch-pounds (1.4 N-m) for assemblies using options "D" or "E".

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.

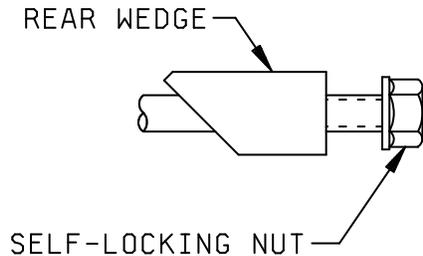


FIGURE 2. Screw retaining self-locking nut details.

Finish. The finish designator 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.

Counterbore holes (for rivet mounting). The holes used for rivet mounting shall be .068/.073 inch (1.73/1.85 mm) diameter, countersunk 100 degrees by .140 inch (3.56 mm) diameter through holes with an access/clearance counterbore of .156 inch (3.96 mm) diameter by .200 inch (5.08 mm) deep.

Rivets. This card holder uses rivet type A 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)
33	3.3 (84 mm)	2.80 (71.1 mm)	1.40 (35.6 mm)
38	3.8 (97 mm)	3.30 (83.8 mm)	1.90 (48.3 mm)
43	4.3 (109 mm)	3.80 (96.5 mm)	2.40 (61.0 mm)
48	4.8 (122 mm)	4.30 (109.2 mm)	2.90 (73.7 mm)
53	5.3 (135 mm)	4.80 (121.9 mm)	3.40 (86.4 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 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	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 shall include a suffix "W" in the PIN (see [classification](#) and [notes](#)).

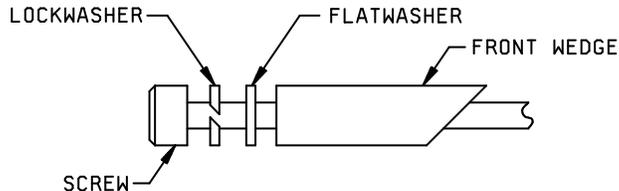


FIGURE 3. Lockwasher and flat washer details.

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. Card holders requiring a screw self-locking element shall include a suffix "E" in the PIN (see [classification](#) and [notes](#)).

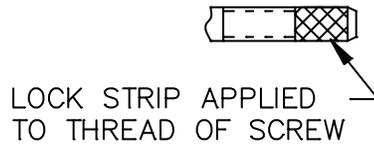


FIGURE 4. Screw self-locking element details.

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 <https://assist.daps.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 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	Card Locks Unlimited, Inc. 2310 E. Orangethorpe Avenue Anaheim, CA 92806-1231	Telephone: (714) 738-6194 Facsimile: (714) 446-0119 E-mail: sales@clumfg.com URL: www.clumfg.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 AA59590/19	Vendor similar designator or type part number <u>1/</u> <u>2/</u>	
	CAGE 61081	CAGE 5BG68
BJ28	A245CR2.80HR	3245BA-2.80HR
BN28	A245CR2.80R	3245BA-2.80R
BT28	A245CR2.80T0R	3245BA-2.80T0R
BV28	A245CR2.80T2R	3245BA-2.80T2R
BG28	MA245CR2.80TM2.5R	3245MBA-2.80TM2.5R
BJ28W	WA245CR2.80HR	3245WBA-2.80HR
BN28W	WA245CR2.80R	3245WBA-2.80R
BT28W	WA245CR2.80T0R	3245WBA-2.80T0R
BV28W	WA245CR2.80T2R	3245WBA-2.80T2R
BG28W	MWA245CR2.80TM2.5R	3245MWBA-2.80TM2.5R
BJ28E	A245CR2.80HLR	3245BA-2.80HLR
BN28E	A245CR2.80LR	3245BA-2.80LR
BT28E	A245CR2.80T0LR	3245BA-2.80T0LR
BV28E	A245CR2.80T2LR	3245BA-2.80T2LR
BG28E	MA245CR2.80TM2.5LR	3245MBA-2.80TM2.5LR
BJ28D	WA245CR2.80HLR	3245WBA-2.80HLR
BN28D	WA245CR2.80LR	3245WBA-2.80LR
BT28D	WA245CR2.80T0LR	3245WBA-2.80T0LR
BV28D	WA245CR2.80T2LR	3245WBA-2.80T2LR
BG28D	MWA245CR2.80TM2.5LR	3245MWBA-2.80TM2.5LR
CJ28	245CR2.80HR	3245CG-2.80HR
CN28	245CR2.80R	3245CG-2.80R
CT28	245CR2.80T0R	3245CG-2.80T0R
CV28	245CR2.80T2R	3245CG-2.80T2R
CG28	M245CR2.80TM2.5R	3245MCG-2.80TM2.5R

See footnotes at end of table.

TABLE III. Commercial part number supersession data – Continued.

PIN designator AA59590/19	Vendor similar designator or type part number <u>1/ 2/</u>	
	CAGE 61081	CAGE 5BG68
CJ28W	W245CR2.80HR	3245WCG-2.80HR
CN28W	W245CR2.80R	3245WCG-2.80R
CT28W	W245CR2.80T0R	3245WCG-2.80T0R
CV28W	W245CR2.80T2R	3245WCG-2.80T2R
CG28W	MW245CR2.80TM2.5R	3245MWCG-2.80TM2.5R
CJ28E	245CR2.80HLR	3245CG-2.80HLR
CN28E	245CR2.80LR	3245CG-2.80LR
CT28E	245CR2.80T0LR	3245CG-2.80T0LR
CV28E	245CR2.80T2LR	3245CG-2.80T2LR
CG28E	M245CR2.80TM2.5LR	3245MCG-2.80TM2.5LR
CJ28D	W245CR2.80HLR	3245WCG-2.80HLR
CN28D	W245CR2.80LR	3245WCG-2.80LR
CT28D	W245CR2.80T0LR	3245WCG-2.80T0LR
CV28D	W245CR2.80T2LR	3245WCG-2.80T2LR
CG28D	MW245CR2.80TM2.5LR	3245MWCG-2.80TM2.5LR
EJ28	EN245CR2.80HR	3245EN-2.80HR
EN28	EN245CR2.80R	3245EN-2.80R
ET28	EN245CR2.80T0R	3245EN-2.80T0R
EV28	EN245CR2.80T2R	3245EN-2.80T2R
EG28	MEN245CR2.80TM2.5LR	3245MEN-2.80TM2.5R
EJ28W	WEN245CR2.80HR	3245WEN-2.80HR
EN28W	WEN245CR2.80R	3245WEN-2.80R
ET28W	WEN245CR2.80T0R	3245WEN-2.80T0R
EV28W	WEN245CR2.80T2R	3245WEN-2.80T2R
EG28W	MWEN245CR2.80TM2.5R	3245MWEN-2.80TM2.5R
EJ28E	EN245CR2.80HLR	3245EN-2.80HLR
EN28E	EN245CR2.80LR	3245EN-2.80LR
ET28E	EN245CR2.80T0LR	3245EN-2.80T0LR
EV28E	EN245CR2.80T2LR	3245EN-2.80T2LR
EG28E	MEN245CR2.80TM2.5LR	3245MEN-2.80TM2.5LR

See footnotes at end of table.

TABLE III. Commercial part number supersession data – Continued.

PIN designator AA59590/19	Vendor similar designator or type part number <u>1/ 2/</u>	
	CAGE 61081	CAGE 5BG68
EJ28D	WEN245CR2.80HLR	3245WEN-2.80HLR
EN28D	WEN245CR2.80LR	3245WEN-2.80LR
ET28D	WEN245CR2.80T0LR	3245WEN-2.80T0LR
EV28D	WEN245CR2.80T2LR	3245WEN-2.80T2LR
EG28D	MWEN245CR2.80TM2.5LR	3245MWEN-2.80TM2.5LR
HJ28	HA245CR2.80HR	3245BH-2.80HR
HN28	HA245CR2.80R	3245BH-2.80R
HT28	HA245CR2.80T0R	3245BH-2.80T0R
HV28	HA245CR2.80T2R	3245BH-2.80T2R
HG28	MHA245CR2.80TM2.5LR	3245MBH-2.80TM2.5R
HJ28W	WHA245CR2.80HR	3245WBH-2.80HR
HN28W	WHA245CR2.80R	3245WBH-2.80R
HT28W	WHA245CR2.80T0R	3245WBH-2.80T0R
HV28W	WHA245CR2.80T2R	3245WBH-2.80T2R
HG28W	MWHA245CR2.80TM2.5LR	3245MWBH-2.80TM2.5R
HJ28E	HA245CR2.80HLR	3245BH-2.80HLR
HN28E	HA245CR2.80LR	3245BH-2.80LR
HT28E	HA245CR2.80T0LR	3245BH-2.80T0LR
HV28E	HA245CR2.80T2LR	3245BH-2.80T2LR
HG28E	MHA245CR2.80TM2.5LR	3245MBH-2.80TM2.5LR
HJ28D	WHA245CR2.80HLR	3245WBH-2.80HLR
HN28D	WHA245CR2.80LR	3245WBH-2.80LR
HT28D	WHA245CR2.80T0LR	3245WBH-2.80T0LR
HV28D	WHA245CR2.80T2LR	3245WBH-2.80T2LR
HG28D	MWHA245CR2.80TM2.5LR	3245MWBH-2.80TM2.5LR
RJ28	R245CR2.80HR	3245CC-2.80HR
RN28	R245CR2.80R	3245CC-2.80R
RT28	R245CR2.80T0R	3245CC-2.80T0R
RV28	R245CR2.80T2R	3245CC-2.80T2R
RG28	MR245CR2.80TM2.5R	3245MCC-2.80TM2.5R

See footnotes at end of table.

TABLE III. Commercial part number supersession data – Continued.

PIN designator AA59590/19	Vendor similar designator or type part number <u>1/</u> <u>2/</u>	
	CAGE 61081	CAGE 5BG68
RJ28W	WR245CR2.80HR	3245WCC-2.80HR
RN28W	WR245CR2.80R	3245WCC-2.80R
RT28W	WR245CR2.80T0R	3245WCC-2.80T0R
RV28W	WR245CR2.80T2R	3245WCC-2.80T2R
RG28W	MWR245CR2.80TM2.5R	3245MWCC-2.80TM2.5R
RJ28E	WR245CR2.80HR	3245WCC-2.80HR
RN28E	WR245CR2.80R	3245WCC-2.80R
RT28E	WR245CR2.80T0R	3245WCC-2.80T0R
RV28E	WR245CR2.80T2R	3245WCC-2.80T2R
RG28E	MWR245CR2.80TM2.5R	3245MWCC-2.80TM2.5R
RJ28D	WR245CR2.80HLR	3245WCC-2.80HLR
RN28D	WR245CR2.80LR	3245WCC-2.80LR
RT28D	WR245CR2.80T0LR	3245WCC-2.80T0LR
RV28D	WR245CR2.80T2LR	3245WCC-2.80T2LR
RG28D	MWR245CR2.80TM2.5LR	3245MWCC-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 AA59590/19	Vendor similar designator or type part number <u>1/</u> <u>2/</u>	
	CAGE 61081	CAGE 5BG68
EV28D	WEN245CR2.80T2LR	3245WEN-2.80T2LR
EV33D	WEN245CR3.30T2LR	3245WEN-3.30T2LR
EV38D	WEN245CR3.80T2LR	3245WEN-3.80T2LR
EV43D	WEN245CR4.30T2LR	3245WEN-4.30T2LR
EV48D	WEN245CR4.80T2LR	3245WEN-4.80T2LR
EV53D	WEN245CR5.30T2LR	3245WEN-5.30T2LR
EV58D	WEN245CR5.80T2LR	3245WEN-5.80T2LR

See footnotes at end of table.

TABLE IV. Example of PIN with available length designators – Continued.

- 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 5998-2012-019

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