

[INCH-POUND]  
A-A-59789/5B  
5 October 2016  
SUPERSEDING  
A-A-59789/5A  
5 October 2011

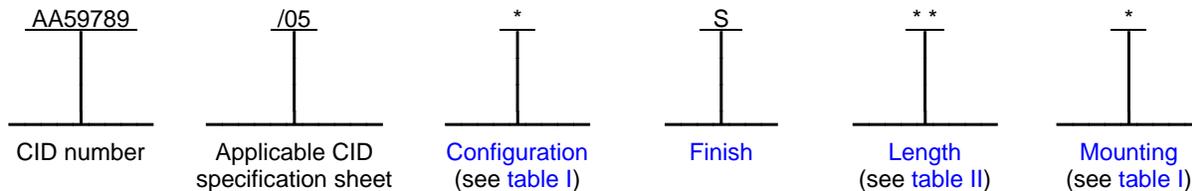
COMMERCIAL ITEM DESCRIPTION  
SPECIFICATION SHEET

HOLDERS, ELECTRICAL CARD, WEDGE RETAINERS, 5 PIECE, FOR COLD PLATE APPLICATIONS,  
LEVER ACTUATED, WEDGE MOUNTING BODY, WITH VISUAL LOCK INDICATION

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-59789](#).

CLASSIFICATION/PART OR IDENTIFICATION NUMBER (PIN). This commercial item description (CID) specification sheet uses a classification system which is included in the PIN as shown in the following example (see [NOTES](#)).



Example: AA59789/05ES50U is the PIN for a black anodize finished, 4.8 inch (121.9 mm) long card holder with an actuating lever that locks the card holder into its installed position. The card holder also features two tapped mounting holes for use with metric 2.0 x 0.4 mm fasteners. This configuration needs adjustment in accordance with the [clamping force adjustment procedure](#).

SALIENT CHARACTERISTICS.

Performance. Card holders shall hold the circuit card firmly in place providing high resistance to shock and vibration while providing maximum thermal transfer.

Interface and physical dimensions. The card holders supplied to this CID specification sheet shall be as specified herein (see [figure 1](#)) and meet the general requirements specified in CID [A-A-59789](#).

Material. Unless otherwise specified herein, the card holder materials shall be as specified in [A-A-59789](#).

Adjusting screw hex drive socket. The dimension for hex drive socket shall be .094 inch (2.38 mm) across flats.

Cold plate slot width. The 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-59789](#)).

Lever action locking. The card holder shall be equipped with a lever to actuate the card holder to secure the attached circuit card assembly in its installed position. When in the relaxed state, the card holders shall permit the circuit card assembly to be placed into or removed from its installed position with either a zero insertion force or a slight insertion/extraction drag. To secure the circuit card assembly in place, the lever shall be actuated, to become perpendicular with the card holder, and parallel with and towards the circuit card (see [figures 2 and 3](#)).

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Configuration (see [table I](#) and [figure 1](#)). The configuration of a card holders shall be as specified in [table I](#). This card holder is available for mounting in either the left or right facing position. Normal applications require both left and right facing card holders. Right facing card holder is depicted on [figure 1](#). The configuration designator shall be included in the PIN.

TABLE I. Configuration. 1/

Configuration	Clamping force	Mounting options	Facing
E	Adjustment needed <u>2/</u>	S, M, U	Left
F	Preset to 125 pounds (556 Newtons) <u>3/</u>	S, M, U	
G	Preset to 145 pounds (645 Newtons) <u>3/</u>	S, M, U	
Q	Adjustment needed <u>2/</u>	S, M, U	Right
P	Preset to 125 pounds (556 Newtons) <u>3/</u>	S, M, U	
T	Preset to 145 pounds (645 Newtons) <u>3/</u>	S, M, U	

- 1/ Mounting body size is .250 x .260 (6.35 x 6.60 mm).
- 2/ See application data for [clamping force adjustment procedure](#).
- 3/ This preset force is contingent on using the recommend cold plate slot width of .300 inch (7.62 mm) plus the thickness of the printed board of the circuit card assembly.

Finish. The finish designator "S" shall be used in the PIN. Finish option "S" shall consist of the following:

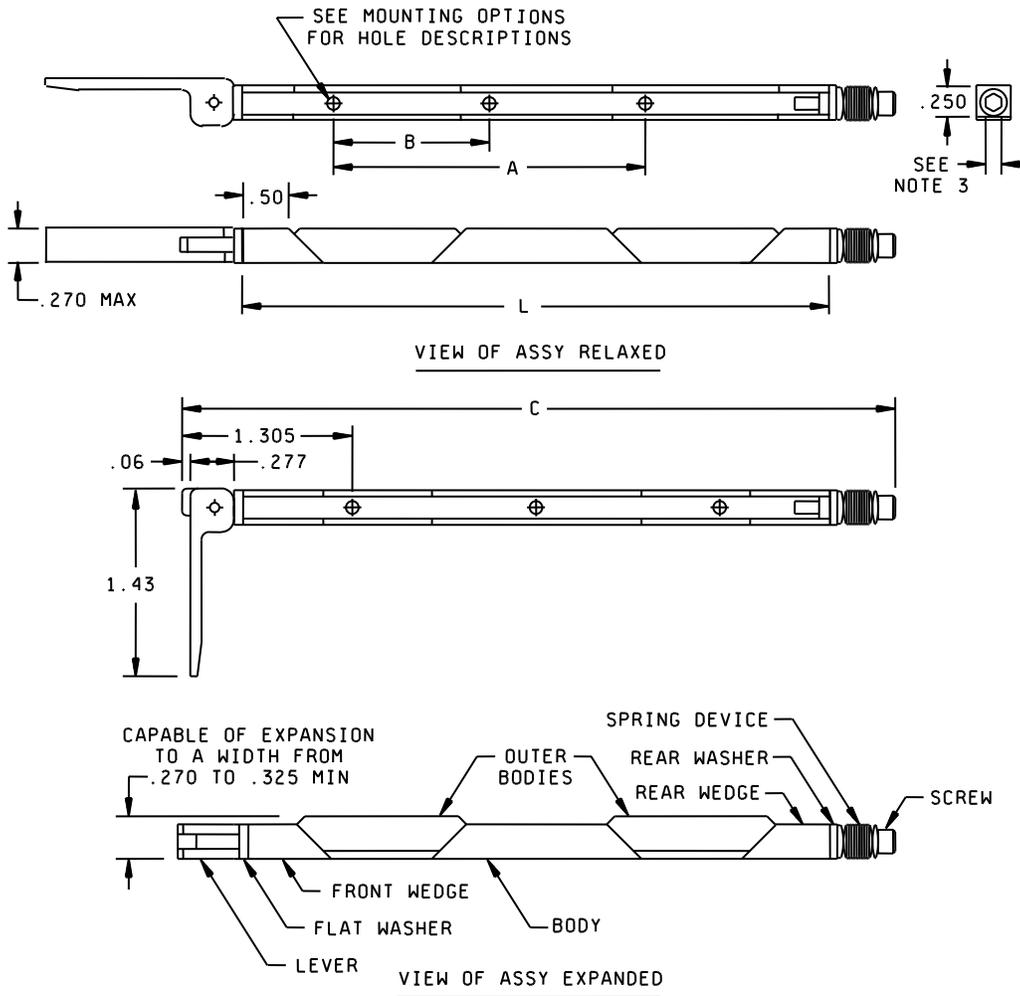
- a. The bodies, wedges, and shaft shall be black anodize in accordance with finish designator "B" as defined in [A-A-59789](#).
- b. The lever arm shall be hard black anodize in accordance with finish designator "H" as defined in [A-A-59789](#).

Length, expanded, and relaxed dimensions. The length designator shall be as specified in [A-A-59789](#). The lengths available for this CID specification sheet are listed in table II. The length, expanded, and relaxed dimensions shall be as specified on [figure 1](#). The length designator shall be included in the PIN.

Mounting. The mounting designators shall be as specified in [A-A-59789](#). The mounting options available for this CID specification sheet are as follows: "R" (rivet mount holes with counterbore and countersink), "S" (tapped 2-56 holes), "M" (tapped metric M2.5 x 0.45 holes), or "U" (tapped metric M2 x 0.4 holes). See [figure 1](#) for mounting hole spacing requirements. The mounting designator shall be included in the PIN.

Rivet mount holes. The holes used for rivet mounting shall be .066/.073 inch (1.68/1.85 mm) diameter, countersunk 100 degrees by .140 inch (3.56 mm) diameter through holes with a counterbore of .156 inch (3.96 mm) diameter by .200 inch (5.08 mm) deep.

Rivets. This card holder uses rivet style A as specified in [A-A-59789](#) when rivet mounting is specified.



Inches	mm	Inches	Mm	Inches	mm	Inches	mm
.06	1.5	.270	6.86	.325	8.26	1.305	33.15
.250	6.35	.277	7.04	.50	12.7	1.43	36.3

NOTES:

1. Dimensions are in inches. Millimeters are given for general information only.
2. Unless otherwise specified, tolerances are for  $\pm 0.02$  inch (0.51 mm) for two place decimals and  $\pm 0.010$  inch (0.25 mm) for three place decimals.
3. The across flats dimension for hex drive socket shall be .094 inch (2.38 mm).
4. Tolerance for the hole spacing is  $\pm 0.005$  inch (0.51 mm).

FIGURE 1. Relaxed and expanded dimensions (right facing shown).

TABLE II. Additional assembly dimensions (see figure 1). 1/

PIN length designator	Dimension "L" ± .02 (0.5)	Dimension "A" ± .01 (0.3)	Dimension "B" ± .02 (0.5)	Dimension "C" (reference)
30	2.8 (71.1)	.90 (22.9)	.45 (11.4)	3.84 (97.5)
40	3.8 (96.5)	1.90 (48.3)	.95 (24.1)	4.84 (122.9)
50	4.8 (121.9)	2.90 (73.7)	1.45 (36.8)	5.84 (148.3)
55	5.3 (134.6)	3.40 (86.4)	1.70 (43.2)	6.34 (161.0)
60	5.8 (147.3)	3.90 (99.1)	1.95 (49.5)	6.84 (173.7)
65	6.3 (160.0)	4.40 (111.8)	2.20 (55.9)	7.34 (186.4)

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

Application data for card holders. All card holders configurations, except for "E" and "Q", are supplied assembled and pre-adjusted from the manufacturer. Card holders configurations "E" and "Q" are supplied assembled but are not adjusted from the manufacturer. The clamping force adjustment procedure is listed herein.

Clamping force adjustment procedure for configurations "E" and "Q". In order to apply the proper clamping force of approximately 125 pounds (556 Newtons), card holders of configuration "E" and "Q" need to be adjusted in accordance with the following procedure:

- Step 1: Fasten card holder to circuit card assembly.
- Step 2: Insert circuit card assembly with card holders attached into cold plate.
- Step 3: Actuate lever to locked/closed position.
- Step 4: Tighten screw until wedges initially contact wall of cold plate slot, or slight insertion/extraction drag is felt.
- Step 5: Additionally tighten screw two full turns. Do not exceed two full turns.

The card holder is now adjusted and ready for use.

Clamping force data. Direct clamping force of the card holders are listed in table I when adjusted in accordance with the procedure detailed herein and using the baseline cold plate slot width of .300 inch (7.62 mm) plus the thickness of the printed board of the circuit card assembly. The direct clamping force of the card holder is affected as follows:

- a. Six pound force (26.7 N) for each .001 inch (0.025 mm) variation of cold plate slot width, or
- b. 38 pound force (169.0 N) for each full turn of locknut.

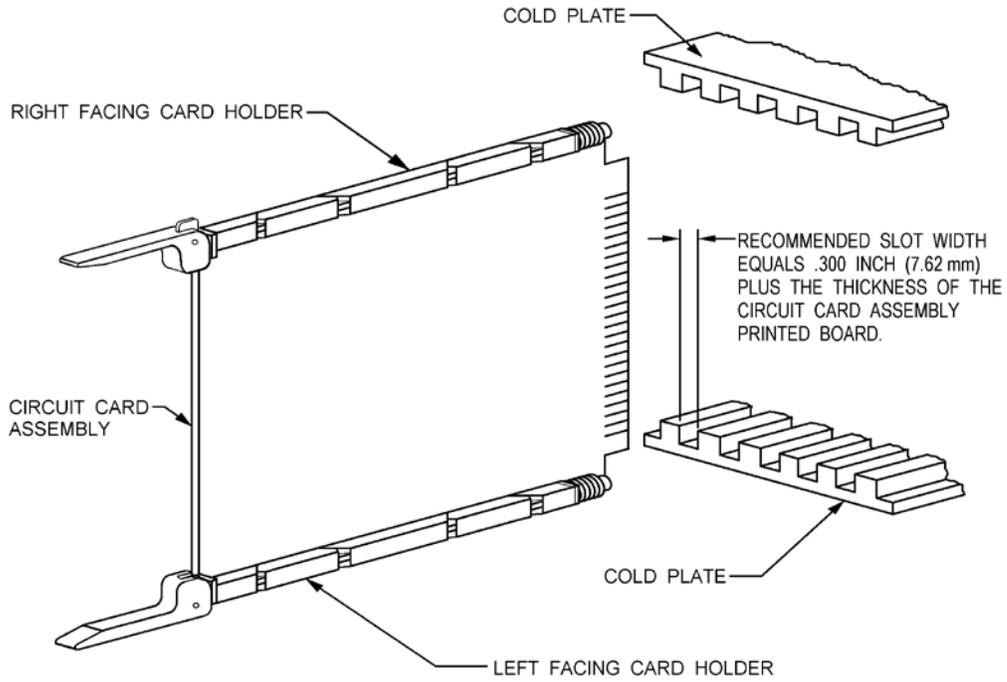


FIGURE 2. Facing and cold plate details.

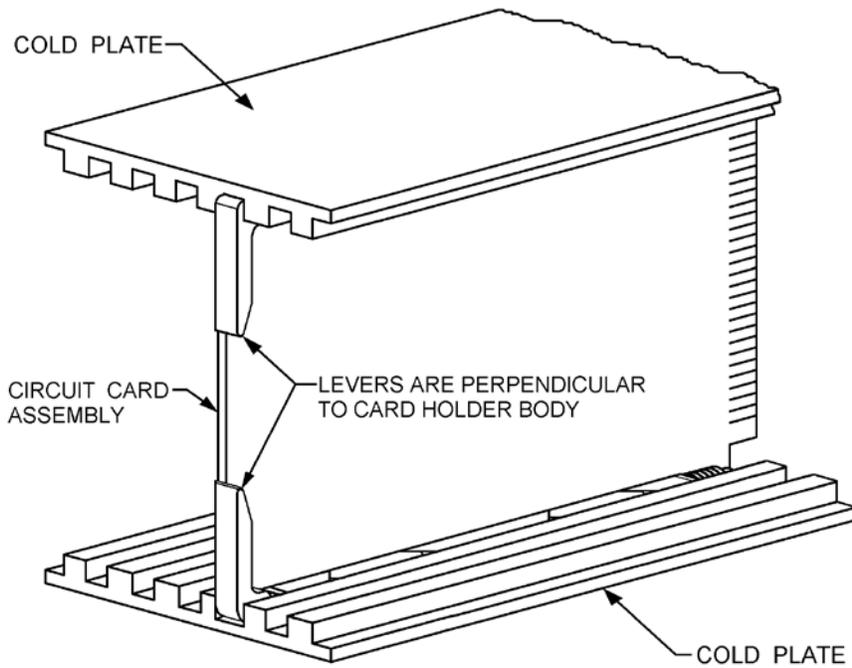


FIGURE 3. Visual indication of card holders in locked position.

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-59789** – Holder, Electrical Card, Wedge Retainers, 5 Piece, For Cold Plate Applications, General Requirements For.

(Copies of these documents are available online at <http://quicksearch.dla.mil>.)

Ordering data. Ordering data shall be as specified in **A-A-59789**.

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>
5BG68	American Circuit Card Retainers, Inc. 2310 E. Orangethorpe Avenue Anaheim, CA 92806-1231	Telephone: (714) 738-6194 Facsimile: (714) 446-0119 E-mail: <a href="mailto:sales@accrmfg.com">sales@accrmfg.com</a> URL: <a href="http://www.accrmfg.com">www.accrmfg.com</a>
61081	Pentair Technical Products (formerly Calmark) 7328 Trade Street San Diego, CA 92121-3410	Telephone: (858) 740-2400 Toll Free: (800) 854-7086 Facsimile: (858) 740-2430 E-mail: <a href="mailto:schroff.us@pentair.com">schroff.us@pentair.com</a> URL: <a href="http://www.pentairprotect.com">http://www.pentairprotect.com</a>



Part number supersession data. These CID specification sheet PINs supersede the following manufacturer's part numbers as shown in [table III](#). The CID PINs listed in [table III](#) are only for length designator "50". See [table IV](#) for CID PIN construction using other available lengths for this CID 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 AA59789/05	Vendor similar designator or type part number <u>1/</u> CAGE 61081	Vendor similar designator or type part number <u>1/</u> CAGE 5BG68
ES50S	L260-4.80-1	5260L-4.80-1
FS50S	L260-4.80-1P	5260L-4.80-1P
GS50S	L260-4.80-1P2	5260L-4.80-1P2
QS50S	L260-4.80-2	5260L-4.80-2
PS50S	L260-4.80-2P	5260L-4.80-2P
TS50S	L260-4.80-2P2	5260L-4.80-2P2

See footnote at end of table.

TABLE III. Commercial part number supersession data.

PIN designator AA59789/06	Vendor similar designator or type part number <u>1/</u> CAGE 61081	Vendor similar designator or type part number <u>1/</u> CAGE 5BG68
ES50U	L260-4.80TM2-1	5260L-4.80-TM2-1
FS50U	L260-4.80TM2-1P	5260L-4.80-TM2-1P
GS50U	L260-4.80TM2-1P2	5260L-4.80-TM2-1P2
QS50U	L260-4.80TM2-2	5260L-4.80-TM2-2
PS50U	L260-4.80TM2-2P	5260L-4.80-TM2-2P
TS50U	L260-4.80TM2-2P2	5260L-4.80-TM2-2P2
ES50M	L260-4.80TM2.5-1	5260L-4.80TM2.5-1
FS50M	L260-4.80TM2.5-1P	5260L-4.80TM2.5-1P
GS50M	L260-4.80TM2.5-1P2	5260L-4.80TM2.5-1P2
QS50M	L260-4.80TM2.5-2	5260L-4.80TM2.5-2
PS50M	L260-4.80TM2.5-2P	5260L-4.80TM2.5-2P
TS50M	L260-4.80TM2.5-2P2	5260L-4.80TM2.5-2P2

- 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-59789](#).

PIN length examples. The CID PINs listed in table IV are for all available standard card holder lengths for this specification sheet. However, only one specific finish, mounting and configuration are listed (see PIN example for a break-down of the codes).

TABLE IV. Example of PIN with available length designators.

PIN designator AA59789/05	Vendor similar designator or type part number <u>1/</u> CAGE 61081	Vendor similar designator or type part number <u>1/</u> CAGE 5GB68
ES30U	L260-2.80TM2-1	5260L-2.80-TM2-1
ES40U	L260-3.80TM2-1	5260L-3.80-TM2-1
ES50U	L260-4.80TM2-1	5260L-4.80-TM2-1

- 1/ PIN denotes only left facing card holder configurations. Card holder is available in both left and right facing configurations (see [figure 1](#) and [table I](#)).
- 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 of [A-A-59789](#).
- 3/ 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

CIVIL AGENCY COORDINATING ACTIVITY:

GSA – FAS  
Preparing Activity:  
DLA – CC  
Project 5998-2016-025

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>.