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August 25, 2016

MEMORANDUM FOR MILITARY AND INDUSTRY COORDINATION

SUBJECT: Initial Drafts of Commercial Item Descriptions A-A-59789/5 Revision B and A-A-59789/6 Revision B on "Holder, Electrical Card, Wedge Retainers, 5 Piece, For Cold Plate Applications"; Project Numbers 5998-2016-025 and -026.

The initial drafts of the subject documents, dated August 24, 2016, are now available for review and comment. They can be downloaded or reviewed online at either the ASSIST or the DLA Land and Maritime-VA Web site using either of the following URLs:

<https://assistca.dla.mil/online/login/mainframe.cfm>

or

<http://www.landandmaritime.dla.mil/Programs/MilSpec/DocSearch.aspx>

These Commercial Item Descriptions are being revised to update vendor names, contact data, and part numbers. They also have been updated to the current CID format requirements. Highlighting has been used for easy change recognition.

Concurrence or comments are required at this Center within 30 days from the date of this letter (September 26, 2016). Late comments will be held for the next coordination of the document. Comments from military departments must be identified as either "Essential" or "Suggested". Essential comments must be justified with supporting data. Military review activities should forward comments to their custodians of this office, as applicable, in sufficient time to allow for consolidating the department reply.

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/ Signed /

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cc:
FM
VAI (Foster)

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

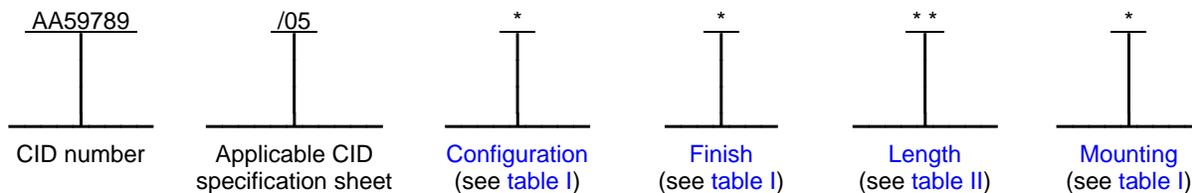
COMMERCIAL ITEM DESCRIPTION SPECIFICATION SHEET

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: AA59789/05LB50U 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.

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 figures 1 and 2) 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 3 and 4).

Configuration (see [table I, figures 1 and 2](#)). 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 requires both left and right facing card holders. Left facing card holder is depicted on [figure 1](#), mounting body style A and a right facing card holder is depicted on [figure 2](#), mounting body style C. The configuration designator shall be included in the PIN.

TABLE I. [Configuration. 1/](#)

Configuration	Mounting body style	Clamping force.	Finish options	Mounting options	Figure	Facing
L	A	Preset to 40 pounds (178 Newtons) 2/	B, C, H	R, S, M, U	1	Left
E	C	Adjustment needed 3/	S	S, M, U	2	
F	C	Preset to 125 pounds (556 Newtons) 2/	S	S, M, U	2	
G	C	Preset to 145 pounds (645 Newtons) 2/	S	S, M, U	2	
R	A	Preset to 40 pounds (178 Newtons) 2/	B, C, H	R, S, M, U	1	Right
Q	C	Adjustment needed 3/	S	S, M, U	2	
P	C	Preset to 125 pounds (556 Newtons) 2/	S	S, M, U	2	
T	C	Preset to 145 pounds (556 Newtons) 2/	S	S, M, U	2	

[1/](#) Mounting body size is .225 x .260 (5.72 x 6.60 mm) for mounting body style A and .250 x .260 (6.35 x 6.60 mm) for mounting body style C.

[2/](#) 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.

[3/](#) See application notes for [clamping force adjustment procedure](#).

Finish. The finish options "B" (black anodize), "C" (chemical film), or "H" (hard black anodize) shall be as specified in [A-A-59789](#). Finish option "S" shall consist of the following:

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

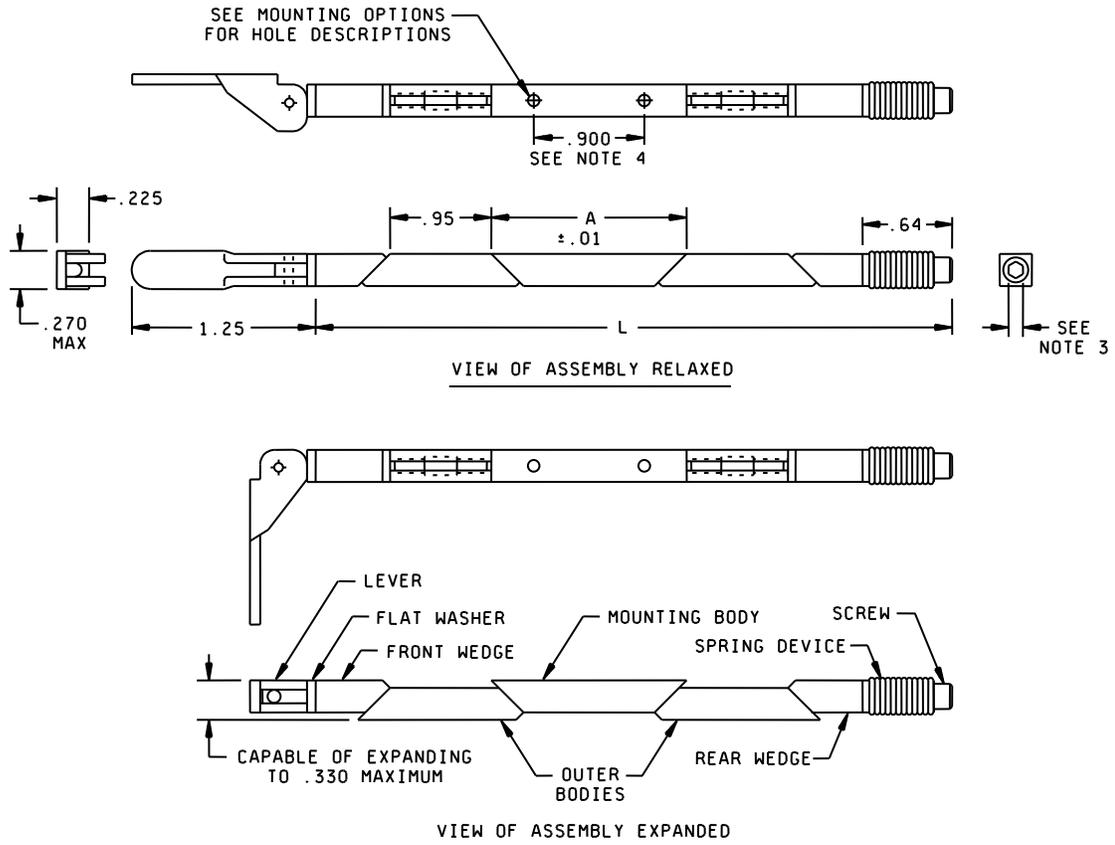
The finish designator shall be included in the PIN.

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.

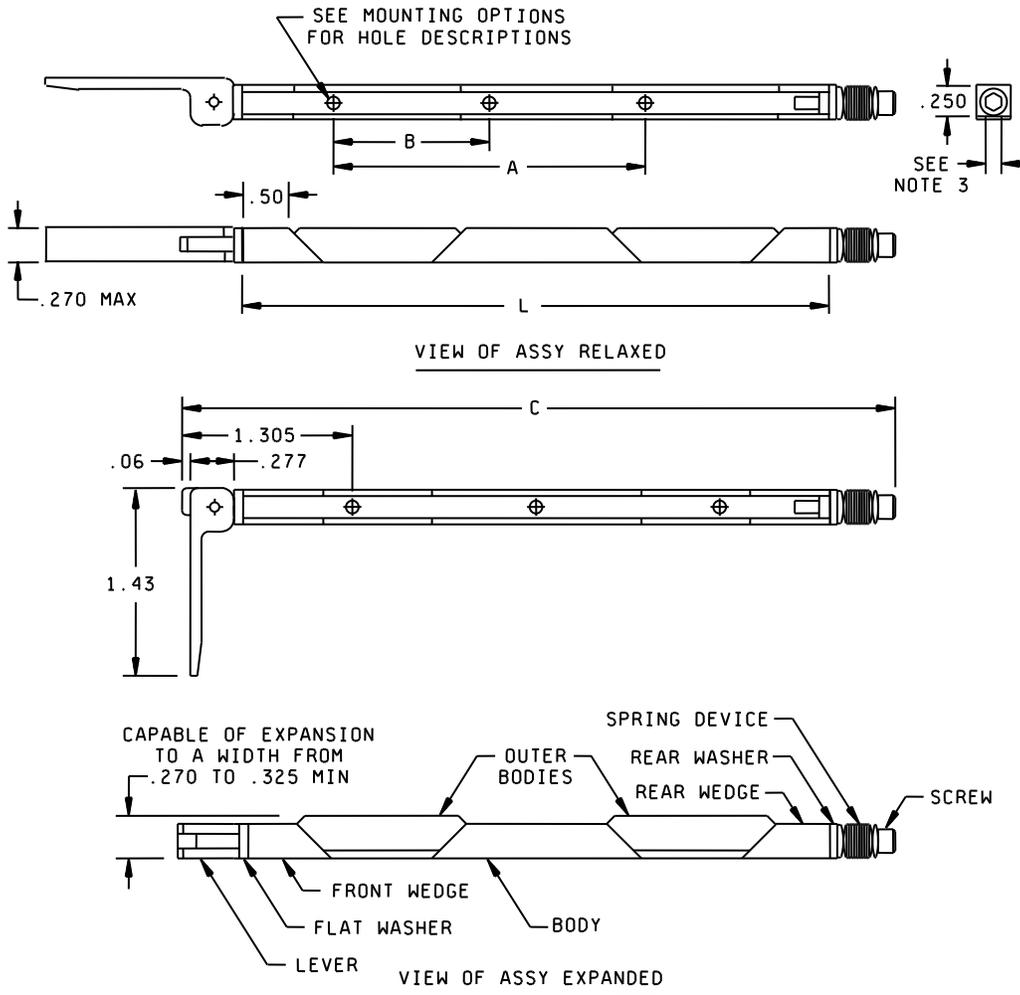


Inches	mm	Inches	mm	Inches	mm
.225	5.72	.330	8.38	.900	22.86
.270	6.86	.64	16.26	1.25	31.8

NOTES:

1. Dimensions are in inches. Millimeters are given for general information only.
2. Unless otherwise specified, tolerances are for ± 0.02 inch (0.51 mm) for two place decimals and ± 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 ± 0.010 inch (0.25 mm) for mounting body style A.

FIGURE 1. Relaxed and expanded dimensions for mounting body style A.



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 ± 0.02 inch (0.51 mm) for two place decimals and ± 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 ± 0.005 inch (0.51 mm) for mounting body style C.

FIGURE 2. Relaxed and expanded dimensions for mounting body style C.

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

PIN length designator	Dimension "L" ± .02 (0.5)	Mounting body style	Dimension "A" ± .01 (0.3)	Dimension "B" ± .02 (0.5)	Dimension "C" (reference)
30	2.8 (71.1)	C	.90 (22.9)	.45 (11.4)	3.84 (97.5)
40	3.8 (96.5)	C	1.90 (48.3)	.95 (24.1)	4.84 (122.9)
50	4.8 (121.9)	A	2.00 (50.8)	.55 (14.0)	
		C	2.90 (73.7)	1.45 (36.8)	5.84 (148.3)
55	5.3 (134.6)	A	2.00 (50.8)	.55 (14.0)	
		C	3.40 (86.4)	1.70 (43.2)	6.34 (161.0)
60	5.8 (147.3)	A	2.50 (63.5)	.80 (20.3)	
		C	3.90 (99.1)	1.95 (49.5)	6.84 (173.7)
65	6.3 (160.0)	A	3.00 (71.2)	1.05 (26.7)	
		C	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.

The card holder is now adjusted and ready for use.

Clamping force data for mounting body style C card holders. Direct clamping force of card holders using mounting body style C 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 mounting body style C 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.

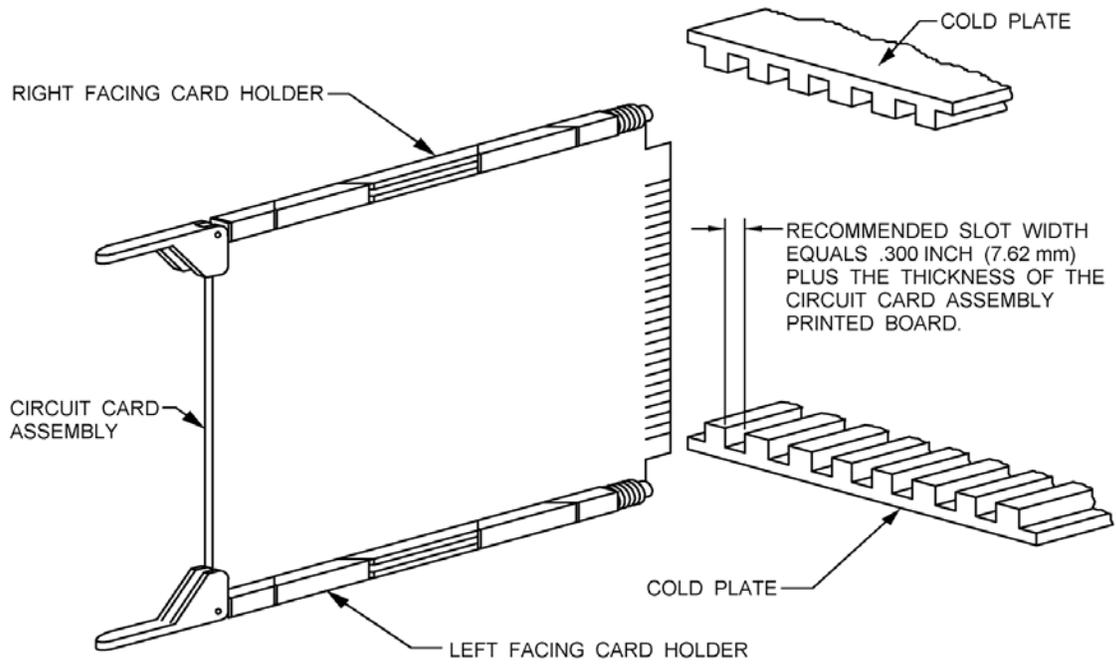


FIGURE 3. Facing and cold plate details.

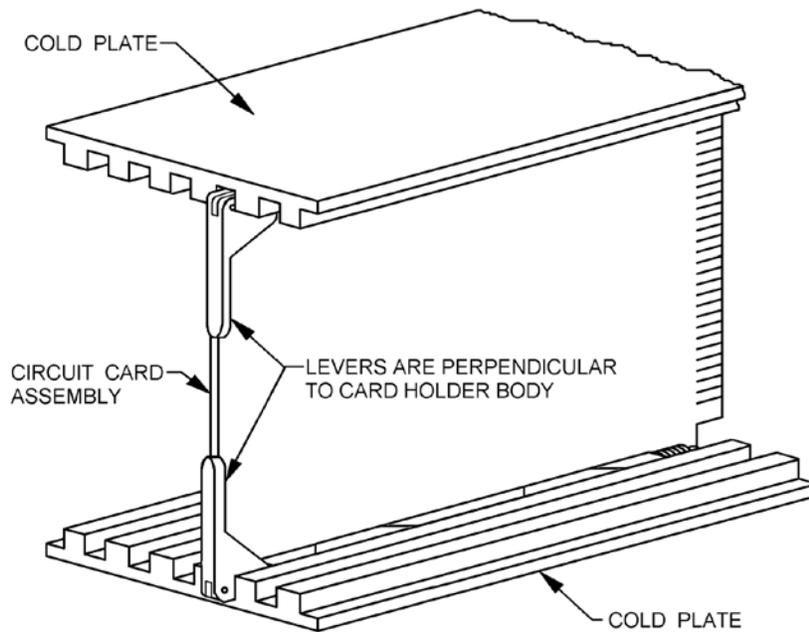


FIGURE 4. Visual indication of card holders in locked position.

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> <https://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 is 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: sales@accrmfg.com URL: www.accrmfg.com	
48945 61081 (1)	Pentair Technical Products (formerly Birtcher) 7238 Trade Street San Diego, CA 92121-3410	Telephone: (858) 740-2400 Toll Free: (800) 854-7086 Facsimile: (858) 740-2430 E-mail: schroff.us@pentair.com URL: http://www.pentairprotect.com	
61081 (2)	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: schroff.us@pentair.com URL: http://www.pentairprotect.com	

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 18915 61081 <u>2/</u>	Vendor similar designator or type part number <u>1/</u> CAGE 61081 <u>3/</u>	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
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
LB50R	146CR-5R-6-B-L		
RB50R	146CR-5R-6-B-R		
LB50S	146CR-5S-6-B-L		
RB50S	146CR-5S-6-B-R		
LB50M	146CR-5M-6-B-L		
RB50M	146CR-5M-6-B-R		
LB50U	146CR-5M2-6-B-L		
RB50U	146CR-5M2-6-B-R		

See footnote at end of table.

TABLE III. Commercial part number supersession data – Continued.

PIN designator AA59789/05	Vendor similar designator or type part number <u>1/</u> CAGE 18915 61081 <u>2/</u>	Vendor similar designator or type part number <u>1/</u> CAGE 61081 <u>3/</u>	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-4.80-TM2.5-1
FS50M		L260-4.80TM2.5-1P	5260L-4.80-TM2.5-1P
GS50M		L260-4.80TM2.5-1P2	5260L-4.80-TM2.5-1P2
QS50M		L260-4.80TM2.5-2	5260L-4.80VTM2.5-2
PS50M		L260-4.80TM2.5-2P	5260L-4.80-TM2.5-2P
TS50M		L260-4.80TM2.5-2P2	5260L-4.80-TM2.5-2P2
LB50R	146CR-5R-6-B-L		
RB50R	146CR-5R-6-B-R		
LB50S	146CR-5S-6-B-L		
RB50S	146CR-5S-6-B-R		
LB50M	146CR-5M-6-B-L		
RB50M	146CR-5M-6-B-R		
LB50U	146CR-5M2-6-B-L		
RB50U	146CR-5M2-6-B-R		
LC50R	146CR-5R-6-C-L		
RC50R	146CR-5R-6-C-R		
LC50S	146CR-5S-6-C-L		
RC50S	146CR-5S-6-C-R		
LC50M	146CR-5M-6-C-L		
RC50M	146CR-5M-6-C-R		
LC50U	146CR-5M2-6-C-L		
RC50U	146CR-5M2-6-C-R		

See footnote at end of table.

TABLE III. Commercial part number supersession data – Continued.

PIN designator AA59789/05	Vendor similar designator or type part number <u>1/</u> CAGE 18945 61081 <u>2/</u>	Vendor similar designator or type part number <u>1/</u> CAGE 61081 <u>3/</u>	Vendor similar designator or type part number <u>1/</u> CAGE 5BG68
LH50R	146CR-5R-6-B3-L		
RH50R	146CR-5R-6-B3-R		
LH50S	146CR-5S-6-B3-L		
RH50S	146CR-5S-6-B3-R		
LH50M	146CR-5M-6-B3-L		
RH50M	146CR-5M-6-B3-R		
LH50U	146CR-5M2-6-B3-L		
RH50U	146CR-5M2-6-B3-R		

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](#).

2/ CAGE is for 61081 (1).

3/ CAGE is for 61081 (2).

PIN length examples. The CID PINs listed in table V 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> <u>2/</u> <u>3/</u> CAGE 18945 61081 <u>4/</u>	PIN designator AA59789/05	Vendor similar designator or type part number <u>1/</u> <u>2/</u> <u>3/</u> CAGE 61081 <u>5/</u>	Vendor similar designator or type part number <u>1/</u> <u>2/</u> <u>3/</u> CAGE 5BG68
LB50U	146CR-5U-10-B3-L	ES30U	L260-2.80TM2-1	5260L-2.80-TM2-1
LB55U	146CR-5U-11-B3-L	ES40U	L260-3.80TM2-1	5260L-3.80-TM2-1
LB60U	146CR-5U-12-B3-L	ES50U	L260-4.80TM2-1	5260L-4.80-TM2-1
LB65U	146CR-5U-13-B3-L			

1/ PIN denotes only left facing card holder configurations. Card holder is available in both left and right facing configurations (see styles A and C on [figures 1](#) and [2](#)).

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.

4/ CAGE is for 61081 (1).

5/ CAGE is for 61081 (2).

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>.