

[INCH-POUND]
A-A-59789/1B
11 July 2015
SUPERSEDING
A-A-59789/1A
27 April 2010

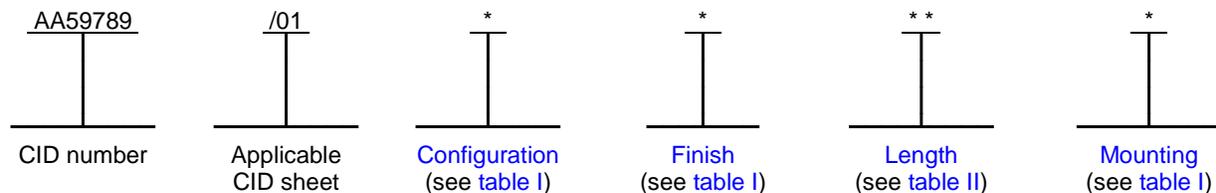
COMMERCIAL ITEM DESCRIPTION SPECIFICATION SHEET

HOLDER, ELECTRICAL CARD, WEDGE RETAINERS, 5 PIECE, FOR COLD PLATE APPLICATIONS,
.225 X .260 INCH BODY SIZE, WEDGE MOUNTING BODY, WITH TWO MOUNTING HOLES,
SCREW ACTUATION AND 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-59789](#).

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: AA59789/01AB50S is the PIN for a black anodized finished, 4.8 inch (121.9 mm) long card holder with a retained actuating screw. The card holder also features two tapped mounting holes for use with 2-56 UNC 2B fasteners and a lockwasher and flat washer under the screw head for added resistance to loosening.

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 and meet the general requirements specified in CID [A-A-59789](#). Card holders shall also have a screw retention feature to prevent unintentional disassembly of the card holder.

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

Actuating screw hex drive socket. The dimension for hex drive socket shall be .094 inch (2.38 mm) across flats for mounting options "S", "R", "P", "U", and "T".

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](#)).

Installation torque. The recommended nominal installation torque is as follows: 6 inch-pounds (0.68 N-m) for assemblies of configuration "A", "C", "F", or "W" and 7.2 inch-pounds (0.81 N-m) for assemblies of configurations "D", "J", "L", or "N".

AMSC N/A

FSC 5998



Configuration. The configuration of a card holder shall be as specified in [table I](#). The details of a particular configuration consist of those on [figures 1 and 2](#), and may include those on [figures 3 or 4](#). This specification sheet covers two styles of mounting bodies, style A and style C. The differences between the two mounting body styles are detailed in tables I and II and on [figure 1](#).

TABLE I. Configurations.

Configuration	Mounting body style	Finish options	Mounting options	Applicable figures	Hardware options
A	A	B, C, P, H	S, R, T, P	1 and 2	No hardware options added
C	C	B, C, E, H	S, R, T, U		
F	A	B, C, P, H	S, R, T, P	1, 2, and 3	Lockwasher and flat washer
W	C	B, C, E, H	S, R, T, U		
N	A	B, C, P, H	S, R, T, P	1, 2, and 4	Screw self-lock element
L	C	B, C, E, H	S, R, T, U		
J	A	B, C, P, H	S, R, T, P	1, 2, 3, and 4	Lockwasher, flat washer, and screw self-lock element
D	C	B, C, E, H	S, R, T, U		

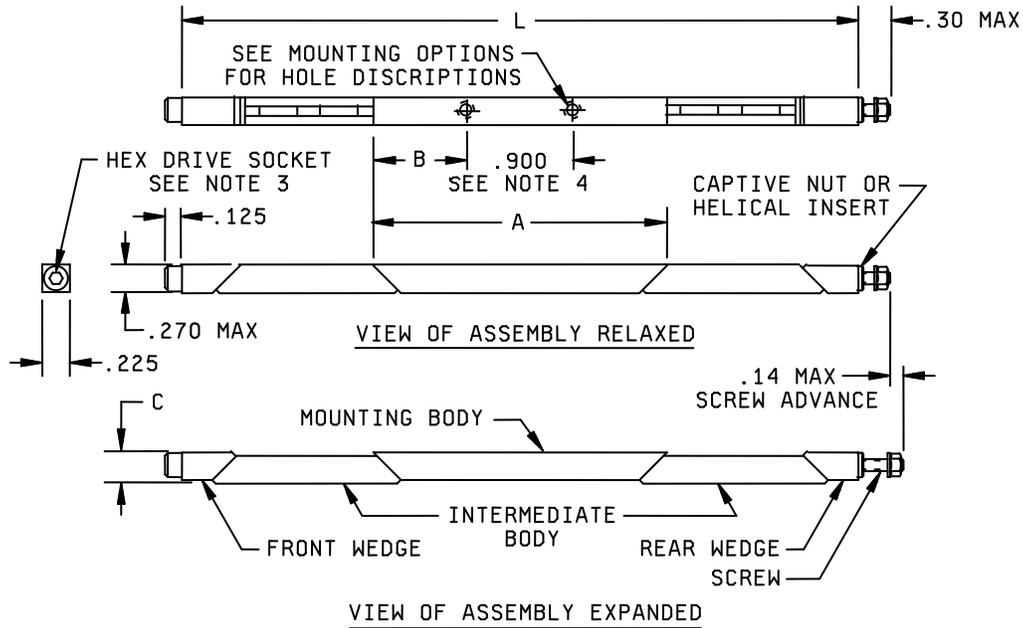
Finish. The finish designator shall be as specified in [A-A-59789](#). The finishes available for this CID specification sheet are as follows: "B" (black anodize), "C" (gold chemical film), "E" (electroless nickel), "P" (electrodeposited nickel), or "H" (hard black anodize). See table I for the finish options associated with the two mounting body styles. The center mounting wedge is not finished for card holders using mounting option "P".

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](#).

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" minimum
50	4.8 (121.9)	A	1.50 (38.1)	.30 (7.6)	.330 (8.38)
		C	1.60 (40.6)	.35 (8.9)	.325 (8.26)
55	5.3 (134.6)	A	2.00 (50.8)	.55 (14.0)	.330 (8.38)
		C	1.60 (40.6)	.35 (8.9)	.325 (8.26)
60	5.8 (147.3)	A	2.50 (63.5)	.80 (20.3)	.330 (8.38)
		C	1.60 (40.6)	.35 (8.9)	.325 (8.26)
65	6.3 (160.0)	A	3.00 (71.2)	1.05 (26.7)	.330 (8.38)
		C	1.60 (40.6)	.35 (8.9)	.325 (8.26)

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



Inches	mm	Inches	mm	Inches	mm
.125	3.18	.225	5.72	.30	7.6
.140	3.56	.270	6.86	.900	22.86

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 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 and ± 0.005 inch (0.51 mm) for mounting body style C.

FIGURE 1. Relaxed and expanded dimensions.

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.

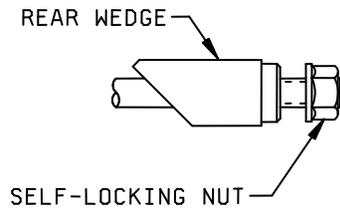


FIGURE 2. Screw retaining self-locking nut (corrosion resistant) details.

Mounting. The mounting designators shall be as specified in [A-A-59789](#). The mounting options available for this CID specification sheet are as follows: "S" (tapped 2–56 holes), "R" (rivet mount holes with counterbore and countersink), "T" (tapped 0–80 holes), "P" ($\varnothing.062 \times .040$ index pins), or "U" (tapped metric M2 x 0.4 holes). See [figure 1](#) and [table II](#) for mounting hole spacing requirements. See [table I](#) for the mounting options associated with the two mounting body styles. Card holders using mounting option "P" and "R" may be shipped unassembled.

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 used.

Configuration hardware options. Card holders can have the following hardware options: no hardware options added, lockwasher and flat washer (see [figure 3](#)), screw self lock element (see [figure 4](#)), or lockwasher, flat washer, and screw self lock element (see [figures 3 and 4](#)). See [table I](#) for the correct PIN configuration identifier.

Lockwasher and flat washer (see [figure 3](#)). A lockwasher and flat washer located under the screw head will provide for additional resistance to loosening from shock and vibration. Card holders requiring a lockwasher and flat washer shall include configuration identifier "F" or "W" in the PIN (see [classification](#), [notes](#), and [table I](#)).

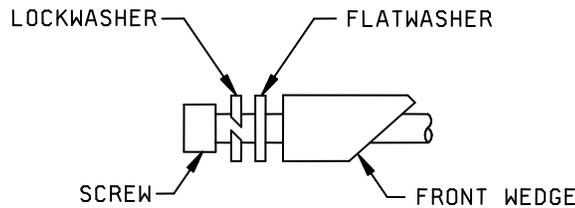


FIGURE 3. Lockwasher and flat washer details.

Screw self-locking element (see [figure 4](#)). The use of a screw self-locking element will provide prevailing torque for resistance to loosening of the card holder assembly from shock vibration. The screw self-locking element shall be as specified in [A-A-59789](#). Card holders requiring a screw self-locking element shall include configuration identifier "L" or "N" in the PIN (see [classification](#), [notes](#), and [table I](#)).

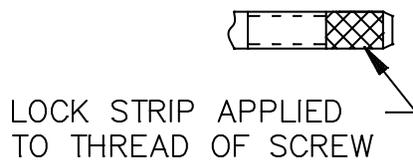


FIGURE 4. Screw self-locking element details.

Lockwasher, flat washer, and screw self-locking element. Card holders requiring a lockwasher, flat washer, and screw self-locking element option shall include configuration identifier "D" or "J" in the PIN (see [classification](#), [notes](#), and [table I](#)).

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: sales@accrmfg.com URL: www.accrmfg.com	
61081 (1)	Schroff Division of Pentair Equipment and Electronic Protection (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)	Schroff Division of Pentair Equipment and Electronic Protection (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	
3E7U8	Wakefield-Vette 2910 Industrial Drive Raleigh, NC 27609-7529	Telephone: (919) 469-2004 Facsimilie: (919) 469-2827 E-mail: wedgelocks@wakefield.com URL: www.wakefield-vette.com	

Part number supersession data. These CID specification sheet PINs supersede the following manufacturer's part numbers as shown in [tables III](#) and [IV](#). The CID PINs listed in [tables III](#) and [IV](#) are only for length designator "50". See [table V](#) 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, mounting body style A.

PIN designator AA59789/01	Vendor similar designator or type part number ^{1/} CAGE 61081 ^{2/}	PIN designator AA59789/01	Vendor similar designator or type part number ^{1/} CAGE 61081 ^{2/}
AB50S	40-5-10-B-LN	NB50S	40-5-10-B-LN-L
AB50R	40-5-10-B-LN-R	NB50R	40-5-10-B-LN-RL
AB50T	40-5-10-B-LN-T	NB50T	40-5-10-B-LN-TL
AB50P	40-5-10-B-LN-P	NB50P	40-5-10-B-LN-PL
FB50S	40-5-10-B-LF-LN	JB50S	40-5-10-B-LFLNL
FB50R	40-5-10-B-LFLNR	JB50R	40-5-10-BLFLNRL
FB50T	40-5-10-B-LFLNT	JB50T	40-5-10-BLFLNTL
FB50P	40-5-10-B-LFLNP	JB50P	40-5-10-BLFLNPL
AC50S	40-5-10-LN	NC50S	40-5-10-LN-L
AC50R	40-5-10-LN-R	NC50R	40-5-10-LN-R-L
AC50T	40-5-10-LN-T	NC50T	40-5-10-LN-T-L
AC50P	40-5-10-LN-P	NC50P	40-5-10-LN-P-L
FC50S	40-5-10-LF-LN	JC50S	40-5-10-LF-LN-L
FC50R	40-5-10-LF-LN-R	JC50R	40-5-10-LF-LNRL
FC50T	40-5-10-LF-LN-T	JC50T	40-5-10-LF-LNTL
FC50P	40-5-10-LF-LN-P	JC50P	40-5-10-LF-LNPL
AP50S	40-5-10-N-LN	NP50S	40-5-10-N-LN-L
AP50R	40-5-10-N-LN-R	NP50R	40-5-10-N-LN-RL
AP50T	40-5-10-N-LN-T	NP50T	40-5-10-N-LN-TL
AP50P	40-5-10-N-LN-P	NP50P	40-5-10-N-LN-PL
FP50S	40-5-10-N-LFLN	JP50S	40-5-10-N-LFLNL
FP50R	40-5-10-N-LFLNR	JP50R	40-5-10-NLFLNRL
FP50T	40-5-10-N-LFLNT	JP50T	40-5-10-NLFLNTL
FP50P	40-5-10-N-LFLNP	JP50P	40-5-10-NLFLNPL

See footnotes at end of table.

TABLE III. Commercial part number supersession data, mounting body style A – Continued.

PIN designator AA59789/01	Vendor similar designator or type part number ^{1/} CAGE 61081 ^{2/}	PIN designator AA59789/01	Vendor similar designator or type part number ^{1/} CAGE 61081 ^{2/}
AH50S	40-5-10-B3-LN	NH50S	40-5-10-B3-LN-L
AH50R	40-5-10-B3-LN-R	NH50R	40-5-10-B3-LNRL
AH50T	40-5-10-B3-LN-T	NH50T	40-5-10-B3-LNTL
AH50P	40-5-10-B3-LN-P	NH50P	40-5-10-B3-LNPL
FH50S	40-5-10-B3-LFLN	JH50S	40-5-10-B3LFLNL
FH50R	40-5-10-B3LFLNR	JH50R	40-5-10B3LFLNRL
FH50T	40-5-10-B3LFLNT	JH50T	40-5-10B3LFLNTL
FH50P	40-5-10-B3LFLNP	JH50P	40-5-10B3LFLNPL

^{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 \(1\)](#).

TABLE IV. Commercial part number supersession data, mounting body style C.

PIN designator AA59789/01	Vendor similar designator or type part number <u>1/</u>		
	CAGE 61081 <u>2/</u>	CAGE 5BG68	CAGE 3E7U8
CB50S	A226CR4.80T2R	G5225BA-4.80T2R	426D-480SSB-A
CB50R	A226CR4.80HR	G5225BA-4.80HR	426D-480RSB-A
CB50T	A226CR4.80T0R	G5225BA-4.80T0R	426D-480TSB-A
CB50U	A226CR4.80TM2R	G5225BA-4.80TM2R	426D-480USB-A
WB50S	WA226CR4.80T2R	G5225WBA-4.80T2R	426D-480SSB-WA
WB50R	WA226CR4.80HR	G5225WBA-4.80HR	426D-480RSB-WA
WB50T	WA226CR4.80T0R	G5225WBA-4.80T0R	426D-480TSB-WA
WB50U	WA226CR4.80TM2R	G5225WBA-4.80TM2R	426D-480USB-WA
LB50S	A226CR4.80T2LR	G5225BA-4.80T2LR	426D-480SSB-AP
LB50R	A226CR4.80HLR	G5225BA-4.80HLR	426D-480RSB-AP
LB50T	A226CR4.80T0LR	G5225BA-4.80T0LR	426D-480TSB-AP
LB50U	A226CR4.80TM2LR	G5225BA-4.80TM2LR	426D-480USB-AP
DB50S	WA226CR4.80T2LR	G5225WBA-4.80T2LR	426D-480SSB-WAP
DB50R	WA226CR4.80HLR	G5225WBA-4.80HLR	426D-480RSB-WAP
DB50T	WA226CR4.80T0LR	G5225WBA-4.80T0LR	426D-480TSB-WAP
DB50U	WA226CR4.80TM2LR	G5225WBA-4.80TM2LR	426D-480USB-WAP
CC50S	226CR4.80T2R	G5225CG-4.80T2R	426D-480SSG-A
CC50R	226CR4.80HR	G5225CG-4.80HR	426D-480RSG-A
CC50T	226CR4.80T0R	G5225CG-4.80T0R	426D-480TSG-A
CC50U	226CR4.80TM2R	G5225CG-4.80TM2R	426D-480USG-A
WC50S	W226CR4.80T2R	G5225WCG-4.80T2R	426D-480SSG-WA
WC50R	W226CR4.80HR	G5225WCG-4.80HR	426D-480RSG-WA
WC50T	W226CR4.80T0R	G5225WCG-4.80T0R	426D-480TSG-WA
WC50U	W226CR4.80TM2R	G5225WCG-4.80TM2R	426D-480USG-WA

See footnotes at end of table.

TABLE IV. Commercial part number supersession data, mounting body style C – Continued.

PIN designator AA59789/01	Vendor similar designator or type part number 1/		
	CAGE 61081 2/	CAGE 5BG68	CAGE 3E7U8
LC50S	226CR4.80T2LR	G5225CG-4.80T2LR	426D-480SSG-AP
LC50R	226CR4.80HLR	G5225CG-4.80HLR	426D-480RSG-AP
LC50T	226CR4.80T0LR	G5225CG-4.80T0LR	426D-480TSG-AP
LC50U	226CR4.80TM2LR	G5225CG-4.80TM2LR	426D-480USG-AP
DC50S	W226CR4.80T2LR	G5225WCG-4.80T2LR	426D-480SSG-WAP
DC50R	W226CR4.80HLR	G5225WCG-4.80HLR	426D-480RSG-WAP
DC50T	W226CR4.80T0LR	G5225WCG-4.80T0LR	426D-480TSG-WAP
DC50U	W226CR4.80TM2LR	G5225WCG-4.80TM2LR	426D-480USG-WAP
CE50S	EN226CR4.80T2R	G5225EN-4.80T2R	426D-480SSE-A
CE50R	EN226CR4.80HR	G5225EN-4.80HR	426D-480RSE-A
CE50T	EN226CR4.80T0R	G5225EN-4.80T0R	426D-480TSE-A
CE50U	EN226CR4.80TM2R	G5225EN-4.80TM2R	426D-480USE-A
WE50S	WEN226CR4.80T2R	G5225WEN-4.80T2R	426D-480SSE-WA
WE50R	WEN226CR4.80HR	G5225WEN-4.80HR	426D-480RSE-WA
WE50T	WEN226CR4.80T0R	G5225WEN-4.80T0R	426D-480TSE-WA
WE50U	WEN226CR4.80TM2R	G5225WEN-4.80TM2R	426D-480USE-WA
LE50S	EN226CR4.80T2LR	G5225EN-4.80T2LR	426D-480SSE-AP
LE50R	EN226CR4.80HLR	G5225EN-4.80HLR	426D-480RSE-AP
LE50T	EN226CR4.80T0LR	G5225EN-4.80T0LR	426D-480TSE-AP
LE50U	EN226CR4.80TM2LR	G5225EN-4.80TM2LR	426D-480USE-AP
DE50S	WEN226CR4.80T2LR	G5225WEN-4.80T2LR	426D-480SSE-WAP
DE50R	WEN226CR4.80HLR	G5225WEN-4.80HLR	426D-480RSE-WAP
DE50T	WEN226CR4.80T0LR	G5225WEN-4.80T0LR	426D-480TSE-WAP
DE50U	WEN226CR4.80TM2LR	G5225WEN-4.80TM2LR	426D-480USE-WAP

See footnotes at end of table.

TABLE IV. Commercial part number supersession data, mounting body style C – Continued.

PIN designator AA59789/01	Vendor similar designator or type part number ^{1/}		
	CAGE 61081 ^{2/}	CAGE 5BG68	CAGE 3E7U8
CH50S	HA226CR4.80T2R	G5225BH-4.80T2R	426D-480SSH-A
CH50R	HA226CR4.80HR	G5225BH-4.80HR	426D-480RSH-A
CH50T	HA226CR4.80T0R	G5225BH-4.80T0R	426D-480TSH-A
CH50U	HA226CR4.80TM2R	G5225BH-4.80TM2R	426D-480USH-A
WH50S	WHA226CR4.80T2R	G5225WBH-4.80T2R	426D-480SSH-WA
WH50R	WHA226CR4.80HR	G5225WBH-4.80HR	426D-480RSH-WA
WH50T	WHA226CR4.80T0R	G5225WBH-4.80T0R	426D-480TSH-WA
WH50U	WHA226CR4.80TM2R	G5225WBH-4.80TM2R	426D-480USH-WA
LH50S	HA226CR4.80T2LR	G5225BH-4.80T2LR	426D-480SSH-AP
LH50R	HA226CR4.80HLR	G5225BH-4.80HLR	426D-480RSH-AP
LH50T	HA226CR4.80T0LR	G5225BH-4.80T0LR	426D-480TSH-AP
LH50U	HA226CR4.80TM2LR	G5225BH-4.80TM2LR	426D-480USH-AP
DH50S	WHA226CR4.80T2LR	G5225WBH-4.80T2LR	426D-480SSH-WAP
DH50R	WHA226CR4.80HLR	G5225WBH-4.80HLR	426D-480RSH-WAP
DH50T	WHA226CR4.80T0LR	G5225WBH-4.80T0LR	426D-480TSH-WAP
DH50U	WHA226CR4.80TM2LR	G5225WBH-4.80TM2LR	426D-480USH-WAP

^{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 \(2\)](#).

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 V. Example of PIN with available length designators.

PIN designator AA59789/01	Vendor similar designator or type part number <u>1/</u> <u>2/</u>			
	CAGE 61081 <u>3/</u>	CAGE 61081 <u>4/</u>	CAGE 5BG68	CAGE 3E7U8
AB50S	40-5-10-B-LN			
AB55S	40-5-11-B-LN			
AB60S	40-5-12-B-LN			
AB65S	40-5-13-B-LN			
CB50S		A226CR4.80T2R	G5225BA-4.80T2R	426D-480SSB-A
CB55S		A226CR5.30T2R	G5225BA-5.30T2R	426D-530SSB-A
CB60S		A226CR5.80T2R	G5225BA-5.80T2R	426D-580SSB-A
CB65S		A226CR6.30T2R	G5225BA-6.30T2R	426D-630SSB-A

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/ Other lengths are available on request.

3/ CAGE is for [61081 \(1\)](#).

4/ 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

Review Activity:
 Air Force – 99

CIVIL AGENCY COORDINATING ACTIVITY:

GSA – FAS

Preparing Activity:
 DLA – CC

Project 5998-2015-011

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>.