

COMMERCIAL ITEM DESCRIPTION
SPECIFICATION SHEET

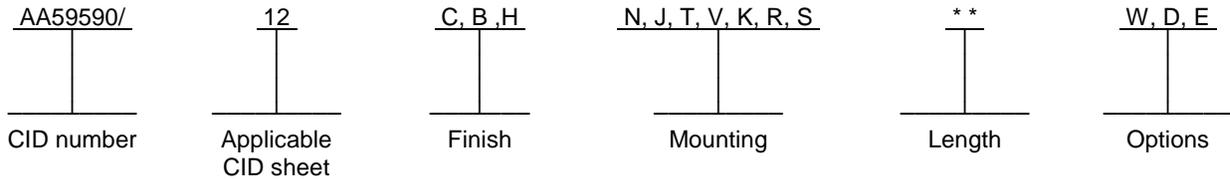
HOLDERS, ELECTRICAL CARD, WEDGE RETAINERS, 3 PIECE,
SCREW ACTUATED DRIVE, .240 X .180 INCH BODY SIZE WITH SCREW RETENTION

The General Services Administration has authorized the use of this commercial item description (CID) 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.

SCOPE. This CID specification sheet covers 3 piece card holders that use screw actuated wedges to hold circuit card assemblies into their installed positions in heat sinking devices (cold plates, heat exchanger) or other applications. Card holders covered by this CID are intended to provide 60g/6ms resistance to shock, withstand 25 G-rms of vibration and provide 2 to 4 degrees C/W/inch thermal resistance between the circuit card assemblies and the heat sink surfaces. The screw retention feature is intended to prevent unintentional disassembly of the card holder. Items covered by this CID specification sheet are intended for commercial/industrial applications.

CLASSIFICATION. This CID specification sheet uses a classification system which is included in the Part Identification Number (PIN) as shown in the following example (see notes).



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 the general CID.

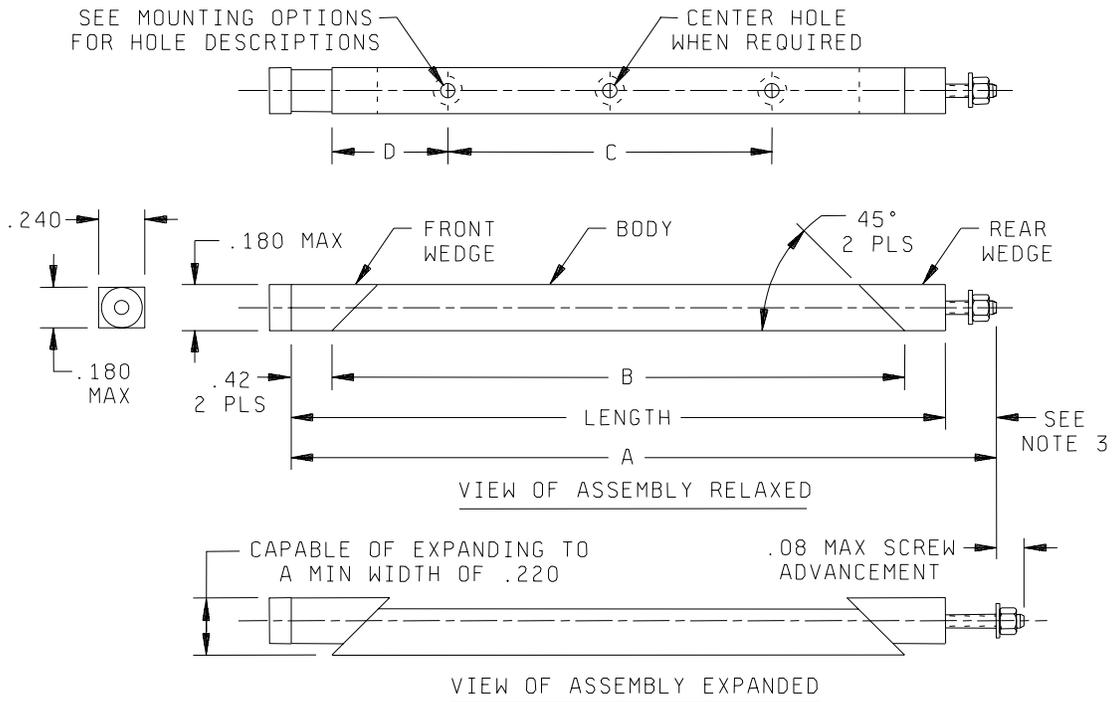
Expanded and relaxed dimensions. Expanded and relaxed dimensions shall be as specified in figure 1.

Mounting options. The mounting options shall be as specified in A-A-59590.

Mounting holes (when required). Two mounting holes are required on card holders less than 6.00 inches (152.4 mm) in length. Three mounting holes are required on card holders 6.00 inches or greater in length. The third mounting hole shall be centered on the mounting body. See table I and figure 1 for mounting hole spacing requirements.

Screw retention (locknut). The screw retention feature intended to prevent unintentional disassembly of the card holder shall be as specified in figure 2. The locknut shall be fabricated of a corrosion resistant material.

A-A-59590/12



Inches	mm	Inches	Mm	Inches	mm	Inches	mm	Inches	mm	Inches	mm
.08	2.0	.180	4.57	.20	5.1	.220	5.59	.240	6.1	.42	10.7

NOTES:

1. Dimensions are in inches. Metric equivalents are given for information only.
2. Unless otherwise specified, tolerances are $\pm .02$ (0.5 mm), for 2 places and $\pm .010$ (0.25 mm), for 3 places.
3. Dimension shall be .20 (5.1 mm) maximum on assemblies without option "W" or "D" and .30 (7.6 mm) maximum on assemblies with option "W" or "D".

FIGURE 1. Relaxed and expanded dimensions.

TABLE I. Assembly dimensions.

PIN length designator	Dimension "LENGTH" $\pm .02$ (0.5)	Dimension "A" (maximum)		Dimension "B" $\pm .03$ (0.8)	Dimension "C" $\pm .005$ (0.13)	Dimension "D" $\pm .03$ (0.8)
		Without options "W" or "D"	With options "W" or "D"			
18	1.8 (46)	2.10 (53.3)	2.20 (55.9)	.95 (24.1)	.40 (10.2)	.275 (6.99)
28	2.8 (71)	3.10 (78.7)	3.20 (81.3)	1.95 (49.5)	.90 (22.9)	.525 (13.3)
30	3.0 (76)	3.30 (83.8)	3.40 (86.4)	2.15 (54.6)	1.10 (27.9)	.525 (13.3)
35	3.5 (89)	3.80 (96.5)	3.90 (99.1)	2.65 (67.3)	1.60 (40.6)	.525 (13.3)
38	3.8 (97)	4.10 (104.1)	4.20 (106.7)	2.95 (74.9)	1.90 (48.3)	.525 (13.3)
40	4.0 (102)	4.30 (109.2)	4.40 (109.2)	3.15 (80.0)	2.10 (53.3)	.525 (13.3)
45	4.5 (114)	4.80 (121.9)	4.90 (124.5)	3.65 (92.7)	2.60 (66.0)	.525 (13.3)
48	4.8 (122)	5.10 (129.5)	5.20 (132.1)	3.95 (100.3)	2.90 (73.7)	.525 (13.3)
50	5.0 (127)	5.30 (134.6)	5.40 (137.2)	4.15 (105.4)	3.10 (78.7)	.525 (13.3)
58	5.8 (147)	6.10 (154.9)	6.20 (157.5)	4.95 (125.7)	3.90 (99.1)	.525 (13.3)

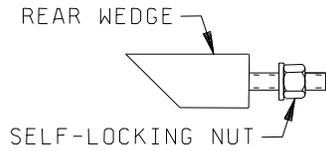


FIGURE 2. Screw retaining self-locking nut (corrosion resistant) details.

Options. Card holders can have the following options. Card holders not requiring one of the following options shall leave the options position in the PIN blank.

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 option shall include a suffix "W" in the PIN (see classification and notes).

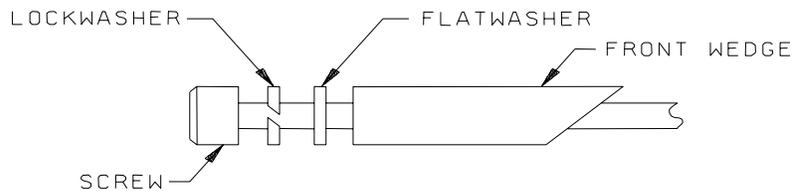


FIGURE 3. Lockwasher and flat washer details.

Screw self-locking element (see figure 4). The use of a screw self-locking element will provide prevailing torque for resistance to loosening from shock vibration. Card holders requiring a screw self-locking element shall include a suffix "E" in the PIN (see classification and notes).

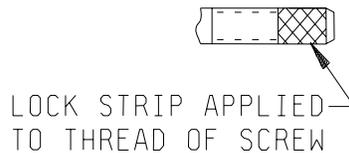


FIGURE 4. Screw self-locking element details.

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.

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>
18915	APW Electronic Solutions 14100 Danielson Street Poway, CA 92064-6898	Tel: (858) 679-4550 Toll Free: (800) 854-7086 Fax: (858) 679-4555 E-mail: sales.electronicsolutions@apw.com URL: www.apw.com
52094	Calmark Corporation 4915 Walnut Grove Avenue San Gabriel, CA 91776-2099	Tel: (626) 287-0451 Fax: (626) 287-7350 E-mail: sales@calmark.com URL: www.calmark.com

Part number supersession data. This CID specification sheet part numbers supersedes the following manufacturer's part numbers as shown. This information is being provided to assist in reducing proliferation in the Government inventory system.

TABLE II. Commercial part number supersession data. 1/

PIN designator AA59590/12	Vendor similar designator or type part number 2/	Vendor similar designator or type part number 2/
	CAGE 18915	CAGE 52094
CJ28	41-6-LN	240-2.80HR
CN28	41-6-LN-A	240-2.80R
CT28	41-6-LN-T	240-2.80T0R
CV28	41-6-LN-S	240-2.80T2R
CJ28E	41-6-LN-L	240-2.80HLR
CN28E	41-6-LN-A-L	240-2.80LR
CT28E	41-6-LN-T-L	240-2.80T0LR
CV28E	41-6-LN-S-L	240-2.80T2LR
CJ28W	41-6-LF-LN	W240-2.80HR
CN28W	41-6-LF-LN-A	W240-2.80R
CT28W	41-6-LF-LN-T	W240-2.80T0R
CV28W	41-6-LF-LN-S	W240-2.80T2R
CJ28D	41-6-LF-LN-L	W240-2.80HLR
CN28D	41-6-LF-LN-A-L	W240-2.80LR
CT28D	41-6-LF-LN-T-L	W240-2.80T0LR
CV28D	41-6-LF-LN-S-L	W240-2.80T2LR

See footnotes at end of table.

TABLE II. Commercial part number supersession data. 1/ – Continued.

PIN designator AA59590/12	Vendor similar designator or type part number <u>2/</u> CAGE 18915	Vendor similar designator or type part number <u>2/</u> CAGE 52094
BJ28	41-6-LF-LN-S-L	A240-2.80HR
BN28	41-6-LF-LN-S-L	A240-2.80R
BT28	41-6-LF-LN-S-L	A240-2.80T0R
BV28	41-6-LF-LN-S-L	A240-2.80T2R
BJ28E	41-6-LF-LN-S-L	A240-2.80HLR
BN28E	41-6-LF-LN-S-L	A240-2.80LR
BT28E	41-6-LF-LN-S-L	A240-2.80T0LR
BV28E	41-6-LF-LN-S-L	A240-2.80T2LR
BJ28W	41-6-LF-LN-S-L	WA240-2.80HR
BN28W	41-6-LF-LN-S-L	WA240-2.80R
BT28W	41-6-LF-LN-S-L	WA240-2.80T0R
BV28W	41-6-LF-LN-S-L	WA240-2.80T2R
BJ28D	41-6-LF-LN-S-L	WA240-2.80HLR
BN28D	41-6-LF-LN-S-L	WA240-2.80LR
BT28D	41-6-LF-LN-S-L	WA240-2.80T0LR
BV28D	41-6-LF-LN-S-L	WA240-2.80T2LR
HJ28	41-6-LF-LN-S-L	HA240-2.80HR
HN28	41-6-LF-LN-S-L	HA240-2.80R
HT28	41-6-LF-LN-S-L	HA240-2.80T0R
HV28	41-6-LF-LN-S-L	HA240-2.80T2R
HJ28E	41-6-LF-LN-S-L	HA240-2.80HLR
HN28E	41-6-LF-LN-S-L	HA240-2.80LR
HT28E	41-6-LF-LN-S-L	HA240-2.80T0LR
HV28E	41-6-LF-LN-S-L	HA240-2.80T2LR
HJ28W	41-6-LF-LN-S-L	WHA240-2.80HR
HN28W	41-6-LF-LN-S-L	WHA240-2.80R
HT28W	41-6-LF-LN-S-L	WHA240-2.80T0R
HV28W	41-6-LF-LN-S-L	WHA240-2.80T2R
HJ28D	41-6-LF-LN-S-L	WHA240-2.80HLR
HN28D	41-6-LF-LN-S-L	WHA240-2.80LR
HT28D	41-6-LF-LN-S-L	WHA240-2.80T0LR
HV28D	41-6-LF-LN-S-L	WHA240-2.80T2LR

1/ CID PINs listed only with 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 of the basic CID.

TABLE III. Example of PIN with available length designators.

PIN designator AA59590/12	Vendor similar designator or type part number ^{1/} CAGE 18915	Vendor similar designator or type part number ^{1/} CAGE 52094
CJ18	41-1002-1.80-LN	240-1191HR
CJ28	41-6-LN	240-2.80HR
CJ30	41-1002-3.00-LN	240-3.00HR
CJ35	41-1002-3.50-LN	240-3.50HR
CJ38	41-8-LN	240-3.80HR
CJ40	41-1002-4.00-LN	240-4.00HR
CJ45	41-1002-4.50-LN	240-4.50HR
CJ48	41-10-LN	240-4.80HR
CJ50	41-1002-5.00-LN	240-5.00HR
CJ58	41-12-LN	240-5.80HR

^{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 of the basic CID.

TABLE IV. Supersession information.

Superseded (old) PIN in accordance with DSCC Drawing 84103	Superseding (new) CID PIN	Superseded (old) PIN in accordance with DSCC Drawing 84103	Superseding (new) CID PIN
84103-32B	AA59590/12BJ28W	84103-32C	AA59590/12CJ28W
84103-33B	AA59590/12BJ38W	84103-33C	AA59590/12CJ38W
84103-34B	AA59590/12BJ48W	84103-34C	AA59590/12CJ48W
84103-45B	AA59590/12BJ30W	84103-45C	AA59590/12CJ30W
84103-46B	AA59590/12BJ35W	84103-46C	AA59590/12CJ35W
84103-47B	AA59590/12BJ40W	84103-47C	AA59590/12CJ40W
84103-48B	AA59590/12BJ45W	84103-48C	AA59590/12CJ45W
84103-49B	AA59590/12BJ50W	84103-49C	AA59590/12CJ50W

MILITARY INTERESTS:

Custodians:
 Army – CR
 Navy – EC
 Air Force – 11
 DLA – CC

CIVIL AGENCY COORDINATING ACTIVITY:

GSA – 7FXE
 Preparing Activity
 DLA – CC
 Project 5998-0108