

[INCH-POUND]
A-A-55088E
22 May 2020
SUPERSEDING
A-A-55088D
21 December 2015

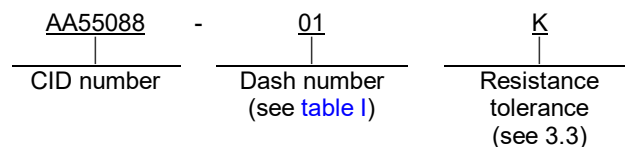
COMMERCIAL ITEM DESCRIPTION

RESISTOR, FLAMEPROOF, FUSIBLE

The General Services Administration has authorized the use of this Commercial Item Description (CID) for all federal agencies.

1. **SCOPE.** This (CID) covers the general requirements for flameproof, fusible resistors. These resistors act as a wire-wound resistor and a fuse, and are used in applications where precise control of fusing point and time lags are necessary. These resistors eliminate fire hazard and circuit board damage due to overheated components. Resistors covered by this CID are intended for commercial/industrial applications and are not used in military systems needing stringent environmental and electrical requirements.

2. **CLASSIFICATION or IDENTIFICATION NUMBER (PIN).** This CID uses a classification system which is included in the PIN as shown in the following examples (see 7.1).



3. SALIENT CHARACTERISTICS.

3.1 **Interface and physical dimensions.** The resistors supplied to this CID shall meet the interface and physical dimensions as specified herein (see [figure 1](#)).

3.2 **Resistance value.** The resistance range shall be 0.2 ohm minimum to 200 ohms maximum. Specific resistance values are specified in [table I](#) by dash number.

3.3 **Resistance tolerance.** Resistors are available in resistance tolerances (K) ± 10 percent, (J) ± 5 percent, and (G) ± 2 percent.

3.4 **Operating temperature.** The operating temperature range shall be -55°C to $+150^{\circ}\text{C}$.

3.5 **Temperature coefficient.** The temperature coefficient shall be ± 150 ppm for less than 1 ohm, and ± 50 ppm for 1 ohm and above.

3.6 **Fusing characteristics.** The fusing characteristics shall be in accordance with [table I](#).

3.7 **Marking.** Resistors supplied to this commercial item description shall be marked with the manufacturers standard commercial PIN.

Beneficial comments, recommendations, additions, deletions, clarifications, etc., and any data that may improve this document should be sent to: DLA Land and Maritime, ATTN: VAT, Post Office Box 3990, Columbus, OH 43218-3990, or emailed to resistor@dla.mil. Since contact information can change, you may want to verify the currency of this address information using the ASSIST Online database at <https://assist.dla.mil>.

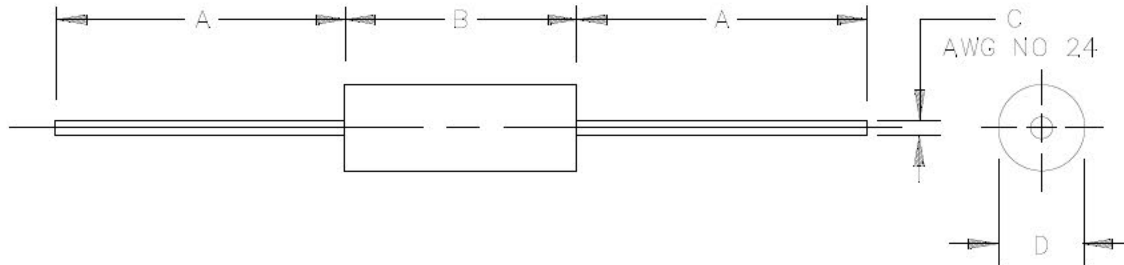
AMSC N/A

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- * 3.8 Recycled, recovered, environmentally preferable, or biobased materials. Recycled, recovered, environmentally preferable, or biobased materials should be used to the maximum extent possible provided that the material meets or exceeds the operational and maintenance requirements, and promotes economically advantageous life cycle costs.



Ltr	Inches		mm	
	Min	Max	Min	Max
A	1.25	---	31.75	---
B	---	.400	---	10.16
C	.020		0.51	
D	---	.155	---	3.94

NOTES:

1. Dimensions are in inches.
2. Metric equivalents are given for general information only.

FIGURE 1. Configuration and dimensions.

3.9 Workmanship. Resistors shall be processed in such a manner as to be uniform in quality and shall be free from other defects that will affect life, serviceability, or appearance.

4. **REGULATORY REQUIREMENTS.** The offeror/contractor is encouraged to use recovered materials to the maximum extent practicable, in accordance with [23.403 of the Federal Acquisition Regulation \(FAR\)](#).

5. **PRODUCT CONFORMANCE PROVISIONS.**

5.1 Product conformance. The products provided shall meet the salient characteristics of this CID, conform to the producer's own drawings, specifications, standards, and quality assurance practices, and is the same product offered for sale in the commercial market. The Government reserves the right to require proof of such conformance.

5.2 Market acceptance. The following market acceptance criteria are necessary to document the quality of the product to be provided under this CID:

- a. The company producing the item must have been producing a product meeting the requirements of this CID for at least 2 years.
- b. The company producing the item must have sold 1,000 units meeting this CID in the commercial marketplace over the past 2 years.

6. **PACKAGING.** Preservation, packing, and marking shall be as specified in the contract or order.

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7. NOTES

7.1 PIN. The PIN should be used for Government purposes to buy commercial products to this CID. See [section 2](#) for PIN format example.

TABLE I. Fusing characteristics.

Dash number	Resistance (ohms)	Steady state		Blow condition I			Blow condition II		
		Current	Dissipation (watts)	Current	Dissipation (watts)	Blow time (T max)	Current	Dissipation (watts)	Blow time (T max)
-01	0.2	2.2 A	1.0	10 A	20	500 ms	25 A	125	50 ms
-02						300 ms			30 ms
-03	0.5	1.4 A	1.0	6 A	18	10 sec	15 A	112	100 ms
-04						500 ms			50 ms
-05						50 ms			10 ms
-06	1.0	1.0 A	1.0	4 A	16	10 sec	10 A	100	100 ms
-07						500 ms			50 ms
-08						50 ms			10 ms
-09						10 sec			50 ms
-10	2.0	700 mA	1.0	3 A	18	200 ms	7 A	98	50 ms
-11						50 ms			10 ms
-12	5.0	450 mA	1.0	2 A	20	200 ms	4.5 A	101	50 ms
-13		400 mA	0.8	1.5 A	10	50 ms	4.0 A	80	10 ms
-14		350 mA	0.6	1.0 A	5	100 ms	1.4 A	10	20 ms
-15	10	300 mA	0.9	1.2 A	14	200 ms	3.0 A	90	10 ms
-16				1.0 A	10	100 ms	1.3 A	7	50 ms
-17		200 mA	0.4	600 mA	3.6	100 ms	900 mA	8	50 ms
-18	20	220 mA	1.0	600 mA	7.2	10 sec	900 mA	16	100 ms
-19						100 ms			50 ms
-20		150 mA	0.4	350 mA	2.4	500 ms	450 mA	4	
-21	50	140 mA	1.0	400 mA	8.0	500 ms	600 mA	18	50 ms
-22		130 mA	0.8	350 mA	6.1	100 ms	450 mA	10	
-23		80 mA	0.3	200 mA	2.0	200 ms	240 mA	2.9	
-24	100	100 mA	1.0	250 mA	6.2	10 sec	300 mA	9.0	100 ms
-25		80 mA	0.6	200 mA	4.0	200 ms	250 mA	6.2	250 ms
-26		60 mA	0.4	140 mA	2.6	10 sec	180 mA	3.2	200 ms
-27	200	70 mA	1.0	200 mA	8.0	10 sec	250 mA	12.5	100 ms
-28		60 mA	0.8	150 mA	4.0	100 ms	250 mA		10 ms

7.2 Commercial and Government Entity (CAGE) code. For ordering purposes, inventory control, and submission of these resistors to DSCC under the Military Parts Control Advisory Group (MPCAG) evaluation program, CAGE code 58536 should be used.

7.3 Source of documents.

FEDERAL REGULATIONS

[FAR 23.403](#)

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Federal Acquisition Regulations (FAR) – Use of Recovered Materials

* (Copies of these documents are available online at <https://www.acquisition.gov/?q=browsefar>.)

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7.4 Ordering data. The contract or order should specify the following:

- a. CID document number, revision, and CID PIN.
- b. Product conformance provisions.
- c. Packaging requirements.

7.5 Commercial products. As part of the market analysis and research effort, this CID was coordinated with the following manufacturers of commercial products. At the time of CID preparation and coordination, these manufacturers were known to have commercial products that would meet the requirements of this CID. (NOTE: This information should not be considered as a list of approved manufacturers or be used to restrict procurement to only the manufacturers shown).

MFR's CAGE	MFR's name and address
54294	TT Electronics, 4222 South Staples Street, Corpus Christi, TX 78411 Phone: 828-264-8861 Fax: 828-264-8866 Email: resistorgeneral@ttelectronics.com Website: http://www.ttelectronics.com/
56637	RCD Components, Incorporated 520 East Industrial Park Drive Manchester, NH 03109-5316 Phone: (603) 669-0054 Fax: (603) 669-5455 Email: sales@rcdcomponents.com Website: www.rcdcomponents.com

7.6 Part number (P/N) supersession data. This CID supersedes the following manufacturers P/N as shown in [table II](#). This information is being provided to assist in reducing proliferation in the Government inventory system.

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TABLE II. P/N supersession data.

CID dash number (see table I)	Vendor Commercial P/N <u>1/</u>		CID dash number (see table I)	Vendor Commercial P/N <u>1/</u>	
	CAGE 54294	CAGE 56637		CAGE 54294	CAGE 56637
AA55088-01*	F501	FR88-01	AA55088-15*	F515	FR88-15
AA55088-02*	F502	FR88-02	AA55088-16*	F516	FR88-16
AA55088-03*	F503	FR88-03	AA55088-17*	F517	FR88-17
AA55088-04*	F504	FR88-04	AA55088-18*	F518	FR88-18
AA55088-05*	F505	FR88-05	AA55088-19*	F519	FR88-19
AA55088-06*	F506	FR88-06	AA55088-20*	F520	FR88-20
AA55088-07*	F507	FR88-07	AA55088-21*	F521	FR88-21
AA55088-08*	F508	FR88-08	AA55088-22*	F522	FR88-22
AA55088-09*	F509	FR88-09	AA55088-23*	F523	FR88-23
AA55088-10*	F510	FR88-10	AA55088-24*	F524	FR88-24
AA55088-11*	F511	FR88-11	AA55088-25*	F525	FR88-25
AA55088-12*	F512	FR88-12	AA55088-26*	F526	FR88-26
AA55088-13*	F513	FR88-13	AA55088-27*	F527	FR88-27
AA55088-14*	F514	FR88-14	AA55088-28*	F528	FR88-28

1/ The manufacturers P/N shall not be used for procurement to the requirements of this CID. At the time of preparation of this CID, the aforementioned commercial products were reviewed and could be replaced by the CID PIN shown.

7.7 Government users. To acquire information on obtaining these resistors from the Government inventory system, contact DLA Land and Maritime, ATTN: DLA Land and Maritime-FMX, P.O. Box 3990, Columbus, OH 43218-3990, or telephone (614) 692-3677.

7.7.1 National stock number. This section is not applicable to this CID.

7.8 Changes from previous issue. Marginal notations are used in this revision to identify changes with respect to the previous issue due to the extensiveness of the changes.

MILITARY INTERESTS:

Custodian:
NAVY - EC
DLA - CC

CIVIL AGENCY COORDINATING ACTIVITY:

GSA - 7FXE

Preparing activity:
DLA - CC

Project 5905-2020-008

NOTE: The activities listed above were interested in this document as 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>.