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[INCH-POUND]
A-A-59497/2
23 February 2000

COMMERCIAL ITEM DESCRIPTION
RESISTORS, VARIABLE, NONWIRE WOUND,
PRECISION, LINEAR MOTION POSITION SENSOR

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 linear motion position sensor, nonwire wound, precision, variable resistors. The resistors covered by this CID are intended for commercial/industrial applications.
2. CLASSIFICATION. This CID uses a classification system which is included in the Part Identification Number (PIN) (see 7.1). The PIN shall be A5949702*****. Complete PIN example A5949702103KAAAA.

A59497	01	***	*	*	*	*
Abbreviated CID number	Applicable CID sheet (two digits)	Resistance (see 3.2)	Resistance tolerance (see 3.3)	Physical parameters (see 3.4)	Operating shaft (see 3.5)	Electrical rotation and linearity (see 3.6)

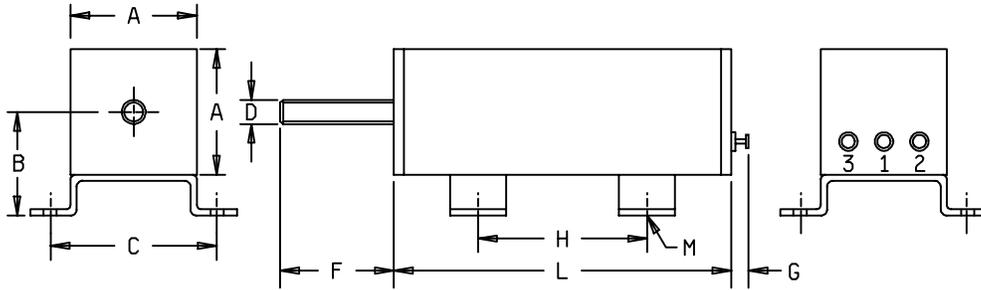
3. SALIENT CHARACTERISTICS

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. The nominal resistance value expressed in ohms is identified by a three-digit number; the first two digits represent significant figures and the last digit specifies the number of zeros to follow. Resistance values for specific resistors are in accordance with table I.

3.3 Resistance tolerance. The resistance tolerance available is K (± 10 percent).

Beneficial comments, recommendations, additions, deletions, clarifications, etc., and any data which may improve this document should be sent to: Defense Supply Center, Columbus, ATTN: DSCC-VAT, Post Office Box 3990, Columbus, OH 43213-1199 by telephone (614) 692-8754 or facsimile (FAX) (614) 693-1644 or (614)-692-6936



Dimension symbol	Physical parameters 1/			
	A	(mm)	B	(mm)
A	1.000	(25.40)	1.250	(31.75)
B	0.875	(22.23)	1.000	(25.40)
C	1.437	(36.50)	1.687	(42.85)
D	0.250	(6.35)	0.250	(6.35)
F	1.000	(25.40)	1.000	(25.40)
G	0.188	(4.78)	0.188	(4.78)
H	<u>2/</u>	--	<u>2/</u>	--
L	<u>3/</u>	--	<u>3/</u>	--
M	0.014	(0.36)	0.014	(0.36)

1/ See table II.

2/ Use the shaft length stated in table III.

3/ Use the shaft length stated in table III, plus two (2) inches (50.80 mm).

NOTES:

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

FIGURE 1. Linear motion sensor, resistor.

TABLE I. Nominal resistance value.

Resistance value designation	Nominal resistance value (Ohms)
501	500
102	1000
202	2000
502	5000
103	10000
203	20000
503	50000
104	100000

3.4 Physical parameters. The physical parameters shall be identified by a single letter in accordance with table II.

TABLE II. Physical parameters.

Symbol	Body size (square)
A	1.000
B	1.250

3.5 Operating shaft. The operating shaft length and style shall be identified by a single letter in accordance with table III.

TABLE III. Operating shaft.

Symbol	Shaft length ^{1/}	Shaft style	Wattage
A	7.00	Plain	3.0
B	9.00	Plain	4.0
C	11.00	Plain	5.0
D	13.00	Plain	6.0
E	15.00	Plain	7.0
F	16.00	Plain	7.5
G	21.00	Plain	10.0

^{1/} The maximum shaft length is one inch plus the electrical stroke, in a fully extended position.

3.6 Electrical rotation and linearity. The electrical rotation and linearity shall be identified by a single letter in accordance with table IV.

TABLE IV. Electrical rotation and linearity.

Symbol	Angle	Linearity
A	0	1.00%
B	0	0.50%
C	0	0.25%

3.7 Power rating. The power rating shall be as specified in table III, at 25°C, derated to zero at 125°C.

3.8 Operating ambient temperature. The operating ambient temperature shall be 0°C to +125°C.

3.9 Marking. Resistors supplied to this CID shall be marked with the manufacturer's (MFR's) standard commercial PIN.

4. REGULATORY REQUIREMENTS. This section is not applicable to this CID sheet.

5. QUALITY ASSURANCE PROVISIONS. Quality assurance provisions shall be as specified in A-A-59497.

6. PACKAGING. Packaging shall be as specified in A-A-59497.

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.

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.

Commercial Item Description

A-A-59497 - Resistors, Variable, Nonwire Wound, Wire Wound, Nonprecision, Precision, General Requirement for.

(Copies of commercial item description are available from the Defense Automated Printing Service, Building 4D, (DPM-DODSSP), 700 Robbins Avenue, Philadelphia, PA 1911-5094.)

7.4 Ordering data. Ordering data is as specified in A-A-59497.

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 the 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).

MFRs CAGE

08815

MFRs name and address

Invensys Sensor Systems
245 Railroad Street
Woonsocket, RI 02895

Formerly known as

New England Instruments

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

TABLE V. P/N supersession data.

MFRs CAGE	MFRs style
08815	100L**** or 114L****

7.7 Government users. To acquire information on obtaining these resistors from the Government inventory system, contact Defense Supply Center, Columbus, ATTN: DSCC-CP, Post Office Box 3990, Columbus, OH 43213-5000, or telephone (614) 692-7684.

MILITARY INTERESTS:

Custodian

NAVY - EC
DLA - CC

CIVIL AGENCY COORDINATING ACTIVITY:

GSA - 7FXE

Preparing Activity:

DLA - CC

Project 5905-1580-02