

INCH-POUND

MIL-E-85082/2

16 November 1992

MILITARY SPECIFICATION SHEET

ENCODER, SHAFT POSITION TO DIGITAL
CONTACT TYPE, ALTITUDE REPORTING
TYPE 11KUK1267R80A

This specification is approved for use by all Departments and Agencies of the Department of Defense. The requirements for acquiring the Encoders, Shaft Angle to Digital, described herein shall consist of this specification sheet and the issue of the following specification listed in that issue of the Department of Defense Index of Specifications and Standards (DODISS) cited in the solicitation: MIL-E-85082.

TABLE I. Requirements.

Requirements	Value	Unit	Tolerance
Code range	ICAO		
Capacity	-12 to +1267 (-1200 to +126,700)	counts/100 ft feet altitude	maximum
Resolution	80	counts/turn	
Full count revolutions	16	turns	
Voltage interrogation	30	volts DC	maximum
Contact current <u>1/</u>	3.5	mA/bit	maximum
Starting torque	0.3	oz-in	maximum
Running torque	0.3	oz-in	maximum
Operating speed	20	rpm	maximum
Slew speed	100	rpm	maximum
Radial play	0.0015	inch	maximum
End play	0.0015	inch	maximum
Perpendicularity	0.0015	inch	maximum
Concentricity	0.0010	inch	maximum
Operating temperature	-54° to +100°	degrees C	min-max
Transition accuracy	±27	minutes	
Moment of inertia	2.2	gm-cm ²	maximum
Weight (without leads)	3.8	oz	maximum
Life @ 20 rpm	500,000	revolutions	

1/ Add an additional 1.5 mA of current under transient conditions.

AMSC - N/A

FSC 5990

DISTRIBUTION STATEMENT A. Approved for public release; distribution is unlimited.

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TABLE II. Part identifying number variant characteristics.

Part Identifying No. <u>1</u> /	A ±0.020	E +0.000 -0.001	G Maximum	Shaft Style	Terminal End	U +0.0000 -0.0002
M85082/2-01A	.720	.440	1.500	Plain	Wire Leads	.1248

1/ Part identifying number M85082/2-01A shall be the NATO standard.

1/ The suffix letter following the numerical dash number corresponds to the latest modification letter in the type designation.

TABLE III. Wire termination identification.

FUNCTION	ENCODER SYMBOL NO.	COLOR
100 FT INCREMENTS	C4	WHITE-BROWN
	C2	WHITE-RED
	C1	WHITE
500 FT INCREMENTS	B4	GRAY
	B2	VIOLET
	B1	BLUE
	A4	GREEN
	A2	YELLOW
	A1	ORANGE
	D4	RED
	D2	BROWN
	COMMON GROUND +12 VDC 10 mA	BLACK WHITE-BLACK WHITE-GREEN

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NOTES:

1. Dimension H shall be 0.031 with a maximum tolerance.
2. Dimension I shall be 0.062 with a tolerance of +0.000/-0.003.
3. Dimension J shall be 0.095 with a tolerance of +0.000/-0.005.
4. Rotation for increasing count shall be clockwise.
5. Insulation resistance shall be 5 megohms minimum at 100 VDC (leads to case).
6. Encoder shall meet RFI requirements of MIL-I-6181.

Custodians:

Navy - AS
Army - AR
Air Force - 85

Preparing activity:

Navy - AS
(Project 5990-0405-2)

Review activities:

DLA - ES