

70085-1010-480

G

REVISIONS

LTR	DESCRIPTION	DATE	APVD
A	ORIGINAL RELEASE PER C.O. 4210	8/22/00	JH NW
B	REVISED PER C.O. 4310 NT	11-13-00	JH NW
C	REVISED PER C.O.5241	7/22/03	J.H.
D	REVISED PER C.O.5497 KAO	12/15/04	J.H.
E	REVISED PER C.O.5614 KAO	8/02/05	J.H.
F	REVISED PER C.O.5998 KAE	3/12/08	JWH
G	REVISED 3.2.2.1 C.O.6069 KAE	6/12/08	J.H.

**VERIFY REVISION
BEFORE USING**

RECORD OF REVISION STATUS OF EACH SHEET

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
A	A	A	A																										
B	B	A	A																										
C	C	C	C																										
D	D	D	C																										
E	E	D	C																										
F	F	D	F																										
G	G	D	F																										

PRODUCT SPECIFICATION

AI-TEK Instruments, LLC

Cheshire, CT USA 06410

APPROVALS		DATE
PREPARED	N. TIBOR	8/14/00
CHECKED	J. HAMED	8/15/00
DSGN ENGR	J. HAMED	8/15/00
QUAL ENGR	J. CURRAN	8/17/00
MFG ENGR	J. CLARK	8/18/00

TITLE		SENSOR, SPEED	
SIZE	CODE IDENT. NO.	DWG. NO.	70085-1010-480
A	1XP56	SHEET 1 OF 4	

1.0 **SCOPE:** THIS PRODUCT SPECIFICATION COVERS THE REQUIREMENTS FOR AI-TEK SPEED SENSOR 70085-1010-480.

2.0 **APPLICABLE DOCUMENTS:** THE FOLLOWING DOCUMENTS FORM A PART OF THIS SPECIFICATION TO THE EXTENT SPECIFIED WITHIN.

676-0122-001	MARKING REQUIREMENTS DATE CODE
900-0110-001	ACCEPTANCE TEST PROCEDURE
953-0079-001	SENSOR PACKAGING & IDENTIFICATION REQUIREMENTS

3.0 **REQUIREMENTS:**

3.1 **GENERAL:** THIS SPECIFICATION DELINEATES ALL FUNCTIONAL/DIMENSIONAL REQUIREMENTS FOR AI-TEK SPEED SENSOR 70085-1010-480.

3.2 **CHARACTERISTICS:**

3.2.1 **PHYSICAL:**

3.2.1.1 **CONFIGURATION:** OUTLINE AND MOUNTING DIMENSIONS AS SHOWN IN FIGURE 1.

3.2.2 **ELECTRICAL:** ALL MEASUREMENTS AT 25°C UNLESS OTHERWISE SPECIFIED.

3.2.2.1 **OUTPUT:** VOLTAGE OUTPUT TO BE 4.5 V MIN P-P WHEN SENSING A 30 TOOTH, 20 PITCH STEEL GEAR AT A SPEED OF 500 IPS [12.7 M/S], AIRGAP OF .03 [0.762mm] WITH A 100K OHM LOAD, SHUNTED BY 250 pf (REF: STANDARD OUTPUT 35 V MIN P-P WHEN SENSING A 30 TOOTH, 20 PITCH STEEL GEAR WITH A 100K OHM LOAD, SHUNTED BY 250 pf. AIRGAP OF .005 [0.127mm] AND A SURFACE SPEED OF 1000 IPS [25.4 M/S]). SEE TEST CIRCUIT FIGURE A.

3.2.2.2 **DC RESISTANCE:** 575-705 OHMS.

3.2.2.3 **INDUCTANCE:** (150 mH)

3.2.2.4 **POLARITY:** PIN "B" TO BE POSITIVE WITH RESPECT TO PIN "A" UPON APPROACH OF FERROUS MATERIAL.

3.2.2.5 **INSULATION RESISTANCE:** 100 MEG OHMS MINIMUM AT 500 VDC BETWEEN COIL AND SHELL.

3.3 **ENVIRONMENTAL:**

3.3.1 **OPERATING TEMPERATURE:** -54°C TO +204°C.

3.4 **MATERIALS:**

3.4.1 **HOUSING:** 300 SERIES SST.

3.4.2 **POLE PIECE:** 400 SERIES SST.

3.4.3 **INTERNAL:** UNITS ARE ENCAPSULATED WITH MATERIALS APPROPRIATE FOR THE UNIT'S RATED TEMPERATURE.

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SCALE -----	REV. G	SHEET 2

3.5 IDENTIFICATION OF PRODUCT: SENSOR SHALL BE PERMANENTLY MARKED IN .063 MIN HIGH CHARACTERS WITH THE FOLLOWING INFORMATION:

AI-TEK /70085-1010-480

XX X



DATE CODE PER 676-0122-001

4.0 QUALITY ASSURANCE PROVISIONS:

4.1 QUALITY CONFORMANCE INSPECTION: IN ACCORDANCE WITH ATP 900-0110-001.

5.0 PREPARATION FOR DELIVERY: UNIT TO BE PACKAGED PER 953-0079-001.

6.0 NOTES: THIS SECTION IS NOT APPLICABLE TO THIS SPECIFICATION.

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SCALE -----	REV. D	SHEET 3

TOL UNLESS OTHERWISE SPECIFIED	
FRAC DIM ± --- X.XXX	DIM ± .005 [0.127]
X.XX DIM ± .01	[0.25] ANGLES ± .5°
DIMENSIONS - INCHES [mm]	

FIGURE 1

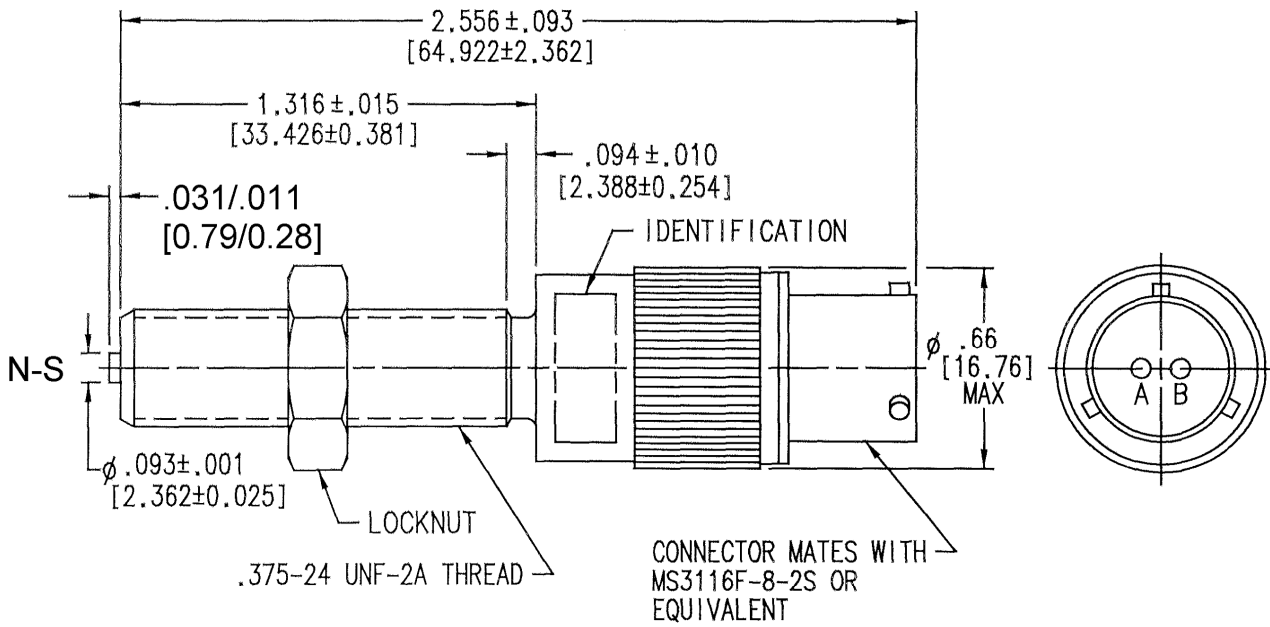
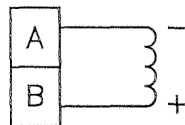


FIGURE A
WIRING SCHEMATIC



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SCALE -----	REV. C	SHEET 4