960-0100-001 | K

REVISIONS			
LTR	DESCRIPTION	DATE	APVD
G	Redrawn; Replaces Rev F with change per C.O.6061	6/4/08	JH
H	Revised per C.O.6833	9/21/12	CSK
J	Revised per C.O.6918	4/24/13	CSK
K	Revised per C.O.7763	8/20/21	HM

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
G	G	G	/																									
H	H	G	/																									
J	J	G	/																									
K	K	K	/																									

REGULATORY DOCUMENT

APPROVALS		DATE
PREPARED	KAErasmus	5/28/08
CHECKED	JHamed	6/4/08
DSGN ENGR	JHamed	6/4/08
QUAL ENGR	CEGerard	6/5/08
MFG ENGR	PJulian	6/4/08

AI-TEK Instruments, LLC
CHESHIRE, CT USA 06410

TITLE:

INSTALLATION INSTRUCTIONS MAGNETIC SPEED SENSORS

SIZE	CODE IDENT. NUMBER	DWG. NO.
A	1XP56	960-0100-001

SHEET 1 OF 3

INSTALLATION INSTRUCTIONS FOR 70085-1010-422 & 70085-1010-456 MAGNETIC SPEED SENSORS

Page 1 is for Document Control Only and is not included.

EC COMPLIANCE:

This non sparking device conforms to the requirements of EN 60079-1 & EN 60079-0 for use in a Group II category 2 G, zone 1 hazardous environment. The safety of operation is assured by the design and construction of the unit. Its operating circuitry features low energy capability, very low capacitance and inductance and is mounted in a fully encapsulated, stainless steel housing with no significant amount of light metal. It has a very low temperature rise, <10°C over the ambient or mounting temperature.

MANUFACTURER:

AI-TEK Instruments, LLC.
152 Knotter Drive
Cheshire, CT 06410
Model: 70085-1010-422 & 70085-1010-456

MARKING:

Ⓔx II 2 G
Ex db IIC T4 Gb
-65°C ≤ Tamb ≤ 95°C

AI-TEK/70085-1 010-xxx 351A3236-Pxxx xxx ← Date Code (Two Digit Year, Single Digit Month Code)
Unit #_____| |_____Customer #

DATE CODE					
MONTH	CODE	MONTH	CODE	MONTH	CODE
JAN	A	MAY	E	SEPT	K
FEB	B	JUN	G	OCT	L
MAR	C	JUL	H	NOV	M
APR	D	AUG	J	DEC	N

UL/CSA Required Marking

SIZE	CODE IDENT. NUMBER	DWG NO.	REV K
A	1XP56	960-0100-001	SHEET 2

TEMPERATURE RATING:

Operating/Mounting temperature: -65°C to 95 °C

STANDARD SENSOR INSTALLATION SEE FIGURE #1:

1. If a feeler gauge can be used, select the gauge with the proper thickness and place it over the highest point on the target. Thread the sensor into the mounting bracket until it touches the selected gauge, then tighten the locknut.

2. If a feeler gauge cannot be used, thread the sensor into the threaded hole finger tight against a tooth or the largest diameter of the stationary target. Back the sensor out of contact until the desired air gap is set, then tighten the locknut. A full CCW revolution results in an air gap of: one divided by the number of threads per inch.
   EXAMPLE: 5/8 - 18 THREAD = 1/18 = .056".

SENSORS WITH INTERNAL PIPE THREADS FOR CONDUIT FITTINGS:

Install the conduit fitting into the sensor egress internal thread and finger tighten. While holding the sensor hex body with a 1" wrench, tighten the conduit fitting and locknut(s).

DO NOT EXCEED 100 POUND-INCHES FOR 5/8" OR 3/4" HOUSINGS.

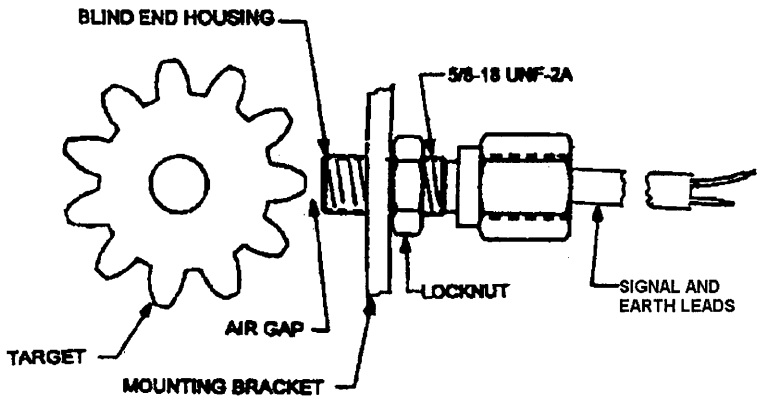
MAINTENANCE:

This component requires no maintenance or recalibration other than periodic checks to ensure that it is relatively clean and secure (no loose locknuts).

USER PRECAUTIONS:

Contact between the sensor and a rotating target may cause damage to the sensor. Always adjust the air gap between the sensor tip and the target while the target is motionless with its largest diametrical feature in front of the sensor. After the adjustment, slowly rotate the target by hand, if possible, to ensure that there is no contact due to run out.

FIGURE #1



TYPICAL SENSOR INSTALLATION

SIZE	CODE IDENT. NUMBER	DWG NO.	REV K
A	1XP56	960-0100-001	SHEET 3