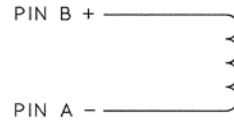
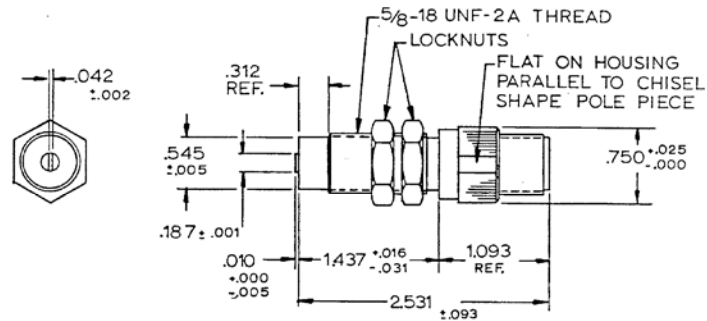


- 1.0 SCOPE: THIS SPECIFICATION DELINEATES THE REQUIREMENT FOR AI-TEK INSTRUMENTS SPEED SENSOR, P/N 70085-1010-054.
- 2.0 APPLICABLE DOCUMENTS:  
 676-0122-001 MARKING REQUIREMENTS, DATE CODE  
 900-0100-001 ACCEPTANCE TEST PROCEDURE  
 953-0079-001 SENSOR PACKAGING AND IDENTIFICATION REQUIREMENTS
- 3.0 REQUIREMENTS:
- 3.1 GENERAL: THIS SPECIFICATION DELINEATES ALL FUNCTIONAL / DIMENSIONAL REQUIREMENTS FOR AI-TEK INSTRUMENTS SPEED SENSOR, P/N 70085-1010-054.
- 3.2 CHARACTERISTICS:
- 3.2.1 PHYSICAL:
- 3.2.1.1 CONFIGURATION: OUTLINE & MOUNTING DIMENSIONS AS SHOWN.
- 3.2.2 ELECTRICAL SPECIFICATIONS: ALL MEASUREMENTS AT 25°C UNLESS OTHERWISE SPECIFIED.
- 3.2.2.1 OUTPUT: VOLTAGE TO BE 600-300 V P-P MIN WHEN SENSING A 30 TOOTH 20 PITCH GEAR AT A SPEED OF 1000 IPS [25.4 M/S], AIRGAP OF .005 [0.127 mm] WITH A 100K OHM LOAD SHUNTED WITH 250 pF CAPACITOR. SEE WIRING SCHEMATIC.
- 3.2.2.2 COIL DC RESISTANCE: 1320-1080 OHMS
- 3.2.2.3 COIL INDUCTANCE: (440 mH)
- 3.2.2.4 POLARITY: PIN "B" IS POSITIVE WITH RESPECT TO PIN "A" UPON APPROACH OF FERROUS METAL. SEE WIRING SCHEMATIC.
- 3.2.2.5 INSULATION RESISTANCE 100 MEG MINIMUM AT 500 VDC BETWEEN COIL AND CASE.
- 3.2.2.6 DIELECTRIC: 1000 VAC FOR 10 SEC MAX.
- 3.3 ENVIRONMENTAL:
- 3.3.1 OPERATING TEMPERATURE: -100°F TO + 225°F (-73°C TO +107°C)
- 3.4 MATERIALS:
- 3.4.1 HOUSING: 303 SST
- 3.4.2 POLE PIECE: 416 SST
- 3.4.3 LOCKNUTS: NICKEL PLATED BRASS W/CLEAR DIP. INSTALLED ON HOUSING.
- 3.4.4 OUTPUT CONNECTOR: MATES WITH MS3106A-10SL-4S
- 3.4.5 INTERNAL: UNITS ARE ENCAPSULATED WITH MATERIALS APPROPRIATE FOR THE UNITS RATED TEMPERATURE.
- 3.5 IDENTIFICATION OF PRODUCT: SENSOR SHALL BE PERMANENTLY MARKED IN .06 MIN HIGH CHARACTERS WITH THE FOLLOWING:  
 AI-TEK/70085-1010-054 XXX <- DATE CODE, 676-0122-001
- 4.0 QUALITY ASSURANCE PROVISIONS:
- 4.1 QUALITY CONFORMANCE INSPECTION: IN ACCORDANCE WITH ACCEPTANCE TEST PROCEDURE 900-0110-001.
- 5.0 PREPARATION FOR DELIVERY: 953-0079-001
- 6.0 NOT APPLICABLE



WIRING SCHEMATIC

REVISIONS				
ZONE	LTR	DESCRIPTION	DATE	APVD
	C	REDRAWN TO NEW STANDARD C.O.6550	3/1/11	CSK



VERIFY REVISION BEFORE USING

### PRODUCT SPECIFICATION

70085-1010-054	70085-1010-054	MATERIAL: _____					
NEXT ASSY	USED ON	FINISH: _____					
ORIGINAL APPLICATION		TOLERANCES UNLESS OTHERWISE SPECIFIED					
INTERPRET DRAWING PER ANSI Y14.5		FRAC DIM ± _____		X.XXX DIM ± .005			
UNLESS OTHERWISE SPECIFIED ALL DIM RFS		X.XX DIM ± .01		ANGLES ± _____			
DO NOT SCALE DWG		DIMENSIONS = INCHES		APPROVALS: _____			
		DWN BY	KAE	3/1/11	DSGN ENGRG	CSK	3/1/11
		CHK BY	CSK	3/1/11	MFG ENGRG	ER	3/1/11
		QUAL ENGR		CEG	3/1/11		

**AI-TEK Instruments, LLC**  
**Cheshire, CT USA 06410**

TITLE  
 SENSOR, SPEED

SIZE	CODE IDENT NO	DWG NO	70085-1010-054
C	1XP56		
SCALE			SHEET 1 OF 1

70085-1010-054

A