

INB-125T: Inclinometer Near Bit

The MicroTesla Inclinometer Near Bit (INB) has been revised and improved, taking advantage of the latest advances in the SiFlex2 device, the associated electronic circuits, and continual upgrades to the MicroTesla proprietary Calibration System. We can now provide inclination accuracy that closely approaches quartz accelerometers. This sensor is designed to be used with the customer's power supply and short-hop telemetry packages.

Physical

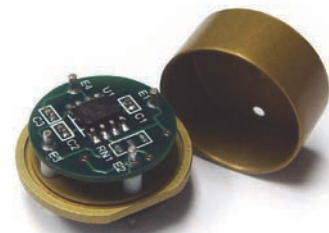
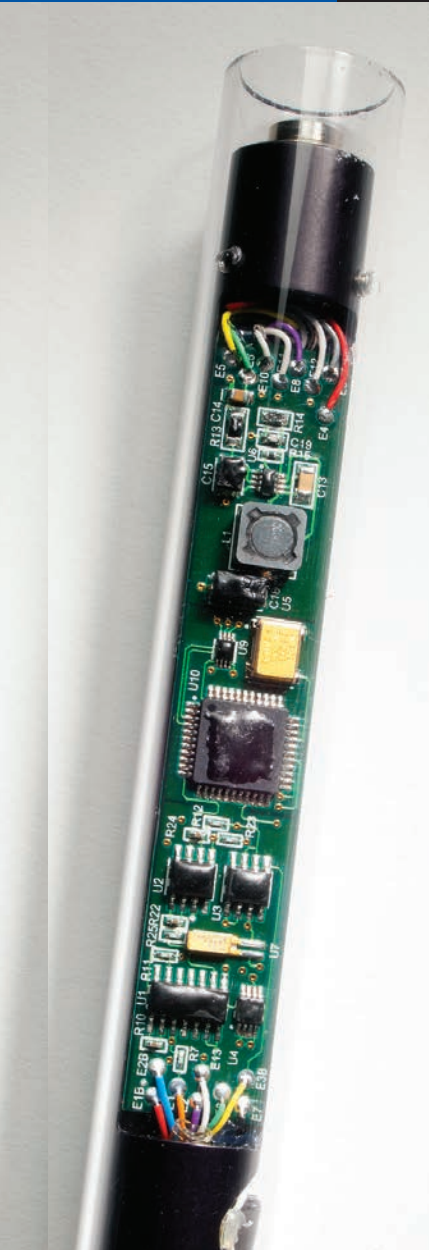
- Length: Min 6.05"
- Diameter: 0.75"
- SiFlex2, MEMS accelerometers
- All boards are fully covered

Electrical

- Surfacemount electronics with board encapsulation
- Voltage requirement: +10V to +40V
- Input current: less than 100mA
- Digital interface: serial logic level, TTL
- Dedicated microprocessor and power supply built in
- Temperature compensated inclination output
- Raw and corrected sensor outputs, angles

Environmental

- All boards qualified for high-temp applications, 175°C
- SiFlex2, MEMS Accelerometers, 125°C
- Although the boards are qualified at 175°C this tools temperature rating is based on the SiFlex2 MEMS accelerometer, 125°C



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Mechanical and Environmental Specifications

Parameter	Minimum	Maximum	Units
Outside Diameter*		0.75	inches
		1.5	cm
Length*		6.05	inches
		15.4	cm
Operating Temperature	0	125	°C
	+ 32	257	°F
Survival Temperature	- 40	175	°C
	- 40	347	°F
Vibration, Random		25	g RMS, 25-500 Hz
Shock		6000	g; ½ msec and ½ sine

* Dimensions do not include running gear, centralizers, or axial shock absorbers

Instrument Accuracy Specifications

Parameter	Minimum	Units
Inclination accuracy, absolute*	± 0.15	degrees
Inclination spread on axial rotation at 90° Inc	< 0.20	degrees
Total face accuracy, axial rotation at 90° Inc	± 1.0	degrees
Total g field accuracy	± 10.0	mG
Continuous Inclination	± 0.25	degrees

* Absolute accuracy is achieved when the instrument is tested in a controlled environment using a calibrated and certified reference position



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