

TILT

Tilt101 is a 3-axis, battery powered, stand-alone, programmable tilt recorder. Tilt101 records tilt angles along with date and times of readings. Ideal for documenting dynamic environments such as moving vehicles, trains, containers, ships, etc. It is also useful in characterizing environments such as production and assembly lines of delicate electronics, IC fabrication, communications and computer components. Measure and record 43,690 time-tagged tilt angle levels per axis. Memory is non-volatile solid state.

TILT101 SPECIFICATIONS

Calibrate Angle Accuracy: ±3 degrees
Angular Resolution: 0.5 deg. (12 bit)
Tilt Range: -90 to +90 degrees
Acceleration Calibration: Digital, through software.
Recording Interval: 1/second to 2/day selectable.
Start Time: Start time/ date programmable with software.
User-Replaceable Battery: 9V battery, 1 week typical.
Time Accuracy: ±1 minute per month at 20°C when RS232 not in use.
Data Format: Date and Time stamped, Degrees
Computer Interface: RS232 Serial Port
Operating Environment: 0° to +80°C, 5 to 95% RH.



TILT101 FEATURES

Memory 43,690 per channel
Form Factor B
Battery Factor 6
Battery Life 1 week
Weight 15 oz (425 g)

ORDERING INFORMATION

Item No.	Name	Description
5399-0607	TILT101	Triaxial Recorder

BRIDGE/STRAIN

BRIDGE110 is a miniature, battery powered, stand alone, bridge/strain gauge recorder. The BRIDGE110 features a real-time clock module that extends the battery life to > 10 years and allows for high speed downloads. The storage medium is non-volatile solid state memory.

BRIDGE110 SPECIFICATIONS

	Nominal Range (mV)			
	±10	±25	±100	±1000
Measurement Range:	±15	±37.5	±150	±1200
Resolution:	1 µV	2.5 µV	5 µV	50 µV
Calibrated Accuracy (%) @ 25° C	±0.25	±0.10	±0.05	±0.01
Reference and Input Range:	0 to 2.5 V			

Input Connection: 6-position screw terminal

Input Impedance: >1 Mohm during acquisition, low impedance when inactive

Power Output: 2.5 VDC, 2.5 mA (100 ohm) max. load

Maximum Input Signal Impedance: 5 Kohm

Temperature Effect on Span: < 25 µV over -40° to +80° C

Temperature Effect on Offset: < 25 µV over -40° to +80° C

Engineering Units: stored in device, user may define any desired scale and offset from ±1.0000E-31 to ±9.9999E+31

Reading Interval: 1 every 2 sec. to 1 every 12 hrs.

Calibration: Digital calibration through software

Calibration Date: Automatically recorded in device

Data Format: Date and time stamped %, ppm; strain, µstrain; V, mV, µV, engineering units specified through software

Time Accuracy: ±1 minute/month (at 20° C to 30° C)

Computer Interface: PC serial or RS232C COM

(Interface cable required); 57,600 baud

Operating Environment: -40° C to +80° C, 0 to 95% RH non-condensing

**350 ohm sensors may be used with series resistors to produce >1 Kohm; 120 ohm gauges may be used in half and quarter bridge configurations.



BRIDGE110 FEATURES

Memory 32,767
Form Factor A3
Battery Factor 1
Battery Life 10 years
Weight 2 oz (60 g)

ORDERING INFORMATION

Item No.	Name	Description	Accuracy	Resolution	Range
5399-1001	Bridge 110-10	10 mV Bridge/Strain Gauge Recorder	± 0.25%	1 µV	± 10 mV
5399-1002	Bridge 110-25	25 mV Bridge/Strain Gauge Recorder	± 0.10%	2.5 µV	± 25 mV
5399-1003	Bridge 110-100	100 mV Bridge/Strain Gauge Recorder	± 0.05%	5 µV	± 100 mV
5399-1004	Bridge 110-1000	1000 mV Bridge/Strain Gauge Recorder	± 0.01%	50 µV	± 1000 mV

WATER LEVEL/TEMPERATURE

Both LEVEL1000 and 2000 are battery powered, stand alone, submersible and vented submersible water level and temperature recorders. The storage medium is non-volatile solid state memory, providing maximum data security even if the battery becomes discharged. The device can be started and stopped directly from your computer.



GENERAL LEVEL SPECIFICATIONS

Temperature Sensor: Semiconductor

Range: -40° C to +80° C

Resolution: 0.1° C

Calibrated Accuracy: ±0.5° C (0 to +50° C)

Pressure Sensor: Semiconductor strain gauge

Media Compatibility: Must be compatible with 303 stainless steel

Nominal Range: 0 to 30 feet

Resolution: 0.05 inches

Calibrated Accuracy: Nominal range ±0.3% max @ 25° C

Response Time: 90% change in 1 ms

Repeatability: ±0.5% FSR; ±0.2% typical

Proof Pressure: 90 PSIA/170 ft. damage limit

Real Time Recording: When used with a PC.

Reading Interval: 1 every 2 sec. to 1 every 12 hrs.

Calibration: Digital, through software

Calibration Date: Automatically recorded in device

Date and time stamped °C, °F, °K, °R; PSI, inches, feet, millimeters, centimeters, meters (of water column)

Operating Environment: -40° to +80° C, 0 to 100% RH

Allowable Over Range: 0 to 100 feet (reduced specifications)

LEVEL 1000 FEATURES

Memory 16,383
Form Factor EE-1
Battery Factor 4
Battery Life 1 year
Weight 8 oz (220 g)

ORDERING INFORMATION

Item No.	Name	Description
5399-1101	LEVEL1000	Water Level/Temperature Recorder-Submersible

LEVEL2000 SPECIFICATIONS

Same as LEVEL1000 except:

Resolution: 0.02 inches

Proof Pressure: 75 PSIG/170 ft. damage limit

Allowable Over Range: 0 to 60 feet (reduced specifications)

LEVEL 2000 FEATURES

Memory 16,383
Form Factor EE-2
Battery Factor 4
Battery Life 1 year
Weight 3 lbs (1.4 kg)

ORDERING INFORMATION

Item No.	Name	Description
5399-1102	LEVEL2000	Water Level/Temperature Recorder-Vented