Digital Tilt Logger

Applications

For monitoring and logging tilt data in:

~ Retaining walls

~ Diaphragm walls

~ Concrete dams

~ Party walls

~ Structures

~ Bridge piers

~ Tunnels

~ Compensation grouting

~ Slopes

~ Piles

The Digital Tilt Logger is a low cost, battery-powered data logger and tilt meter in a single compact unit. It measures tilt in either one or two perpendicular axes in the plane of the base. The unit is intended to be permanently installed to provide long-term observation with maximum resolution and sensitivity, and is conveniently designed for manual monitoring or remote data acquisition.

The Digital Tilt Logger consists of one or two MEMS tilt sensors, a battery supply, non-volatile memory, USB cable and Windows® host software.

The tilt meter may be either uniaxial or biaxial. The electronics are housed in a NEMA 4X (IP-66) enclosure for environmental protection and is typically bolted to the structure via a mounting plate or bracket. The internal MEMS accelerometer is the same as used in the in-place MEMS Digital Tilt Meter.

Features

~ Data logging & tilt monitoring capabilities in one unit

~ Ultimate accuracy and repeatability

~ Uniaxial or biaxial sensors option

~ Horizontal or vertical mounting

~ Easy to install

~ Cost effective

~ 4MB memory

~ Battery powered for remote sites

~ -40°C to 60°C operating range

~ 16 bit analogue/digital converter

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Specifications

TILT SPECIFICATIONS	
Range	±15° (other ranges available on request)
Resolution	±2arc sec (±0.0006°) (0.01mm/m)
Non linearity	±0.0125% FS (±0.002°) (0.03mm/m)
Repeatability	±0.0125% FS (±0.002°) (0.03mm/m)
Sensor	MEMS
Power source	Lithium size C 3.6V
Battery life	>1-2 years
Operating temp	-40 to +60°C
Dimensions	100 x 100 x 82mm
DATA STORAGE SPECIFICATIONS	
Memory	4MB
USB data transfer	> 5,000 data points per second
Interval mode	10 seconds to 1 day
Variable rate mode	16 user progammable sampling rates
Time format	Month / day / year; Hour / minute / second
Memory full behaviour	'Wrap around' or 'fill & stop' option
Communication	USB Type B connector

Ordering Information

∼ Range

∼ Axis

∼ Output

∼ Mounting

GE⌀SENSE

Specifications may change without prior notice