# TLT2 ELECTROLEVEL TILTSENSOR





### Description

The Electrolevel Tiltsensor is based on a proven Fredericks 0711 series electrolevel sensor and measures rotation of structures in the vertical plane.

The sensor is housed in a sealed enclosure incorporating an adjustable mounting plate.

#### Features

- Simple, well proven device, ideal for measuring tilt in structures
- Accurate and precise
- Measures vertical rotation

The measurement of vertical rotation perpendicular to the structure is obtained by using an optional 90 degree angle bracket.

The sensor mounting incorporates an adjustment for zeroing and protects the sensor against thermal gradients.

### Benefits

- Easy to automate using data acquisition systems and 'Argus' software
- Removes the need for manual monitoring
- Compact
- Recoverable and reusable
- Suitable for safety critical applications
- Low power consumption



Comprehensive information about this product and our full range is available at www.itmsoil.com If you would like to speak with someone directly please call +44 (0)1825 765044 or email sales@itmsoil.com



### Operation

The Electrolevel Tiltsensor consists of a precision glass electrolevel vial mounted in an inert ceramic compound which is itself placed in an adjustable mount.

The sensor is fixed to the structure. Once installed, thumbwheels at one end allow the sensor to be adjusted to the zero position using a handheld readout.

## Associated products

For details on:	Catalogue code:
Datalogger	D1
HELM	TLT1-3
'Argus' Monitoring Software	D4

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#### **Applications**

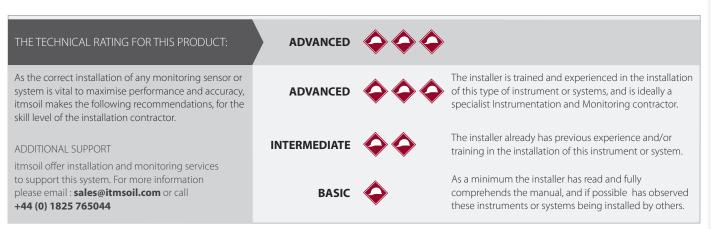
The Electrolevel Tiltsensor monitors vertical rotations of structures. Its most common use is to monitor settlement and heave of existing structures and tunnels caused by adjacent excavations or tunnelling works.

The sensor is especially useful where topographic measurements are precluded or where access is restricted.

Typical monitoring applications include:

- Brick and stone buildings
- Vertical rotation (heave and settlement) due to adjacent construction activities
- Bridges and dams
- Impounding and loading effects in short or long term
- Differential levels
- Tunnels
- Monitoring vertical rotation and track formation





## Specifications

Sensor Type	Electrolevel
Range	±45 arc minutes (±13mm/m)
Accuracy <sup>1</sup>	±0.1mm/m
Resolution <sup>2</sup>	0.02% full scale
Repeatability	±0.05% full scale
Excitation voltage	2.5v AC
Current consumption	< 1µA
Output signal	Ratiometric AC
Operating temperature	-20 to +50℃
Zero adjustment range	$\pm$ 5° fine adjustment / $\pm$ 25° coarse adjustment
Ingress protection	IP66
Cable Fitment	
On site connection	Screw terminals
Dimensions	
	L 135mm x H 127mm x W 60mm
Weight	
	890g

 $^1$  Accuracy within precision range (± 14 arc minutes)  $^2$  Resolution dependant on readout (CR1000)

Ordering Informa	ation
Electrolevel Tiltsensor	
Range ±13mm/metre (±45 TLT2-1.5-1	Uniaxial tiltsensor
Electrolevel Tiltsensor A	ccessories
TLT2-1.5-3	90° bracket for TLT2-1.5-1. To read the rotation perpendicular to the structure for uniaxial tiltsensors. Includes fixings
Connecting Cable and F	Fittings
CA-3.1-4-IC	Instrument cable, 4 core, 7/0.20, screened
CA-3.2-4-FR	Low smoke cable, 4 core, 16/0.20, screened
Handheld Electrolevel L	evelling Tool - Helm
TLT1-3.1	Handheld electrolevel readout (HELM)
Manuals	
MAN-173	Electrolevel beam, tilt and hand held electrolevel readout (HELM)





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