

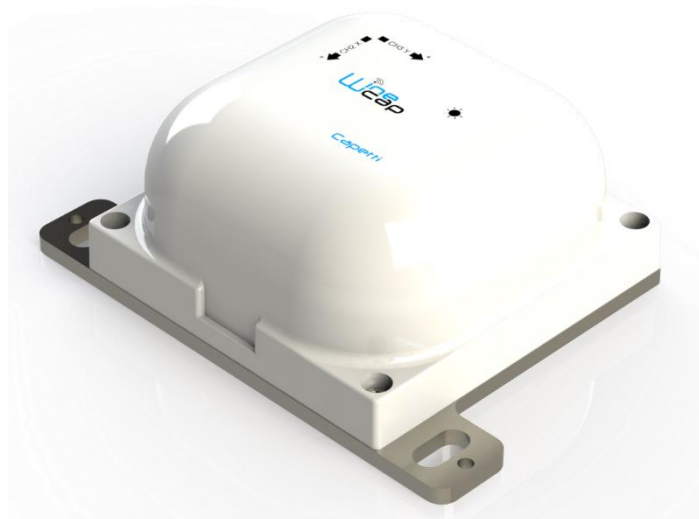


WSD10TII



Capetti
ELETTRONICA

WineCap



Wireless - Clinometer

Wireless datalogger to measure biaxial inclination at high stability and accuracy. Free installation in any position with automatic zeroing using command issued with *WineCapKey* or remotely through WSN. High radio coverage and battery life.

Suitable to monitor:


- Buildings structural movements
- Tunnels deformation
- Bridges and dams' stability
- Railroads deformation
- Slopes, terrain collapses and landslides
- Banks stability

Main features

- Three-axis MEMS technology at high accuracy, repeatability, and low noise.
- Free installation in any position
- Sturdy case and impact resistant
- IP69
- Resolution 0.0002°
- Repeatability +/-0.0005°
- Temperature measurement
- Up to 10 years of battery life



Technical Information

Power supply	19 Ah - 3,6 V type "D" lithium internal battery (<i>BAT3</i>)
Battery life (*)	Up to 10 years (<i>samples every 60 minutes and radio signal quality at least sufficient</i>)
Measures acquired (<i>3 input channels</i>)	<ul style="list-style-type: none"> • Temperature • Biaxial inclination
Sampling interval (*)	Selectable from one minute to 24 hours (<i>60 minutes default</i>)
Datalogger capacity	64,000 samples (<i>for each channel</i>)
Working temperature	<ul style="list-style-type: none"> • Operative: -30 °C ÷ +60 °C • Warehousing: -40 °C ÷ +70 °C
Radio frequency	ISM 868 MHz
Radio coverage 	Up to 6 km in line of sight (<i>can be extended using WR12 battery powered repeaters</i>)
Sealing	IP69 (<i>TUV certified</i>)
Dimensions	131.6x153.8x60 mm
Weight	780 g
Case material	ABS, Galvanized iron
Mounting	<ul style="list-style-type: none"> • Through 3 holes • Gluing using optional galvanized steel plate <i>FIX-WSD10TII</i> (<i>optional</i>) with screw fixing • Magnetic using <i>FIX-MAG-WSD10TII</i> (<i>optional</i>) with 21 kg total traction force
Connections	Wireless

Inclination

Transducer type	Three-axis accelerometer
Measure range	±6.5000° in all the installation positions Automatic zeroing using command issued with <i>WineCapKey</i> or remotely through WSN
Measure resolution	0.0002°
Repeatability	±0.0005°

Temperature

Transducer type	NTC10KΩ
Measure range	-30 °C ÷ +60 °C
Measure accuracy	<ul style="list-style-type: none"> • ± 0,5 °C Range -30 °C ÷ 0 °C • ± 0,2 °C Range 0 °C ÷ +60 °C
Measure resolution	0.01 °C

* battery life may be influenced by fieldwork conditions, sampling/measuring interval and system configuration.

** radio coverage can be extended using up to 32 *WR12* repeaters (maximum 16 for each path) between the device and the gateway.



WSD10TII

The **WSD10TII** wireless datalogger is designed to acquire inclination for structural monitoring applications. It is widely used in monitoring activities of bridges, tunnels, buildings, and railroads.

Device main feature is the comfortable and rapid installation in any position, without using aligning slabs. Can be fixed using dowels, directly glued on measure surface or, in case of metal structures, with 3 optional magnets.

The datalogger acquires three measure channels: Biaxial inclination and environment temperature.

The radio module High Reliability (*unique 868MHz radio technology. implementing frequency hopping on 11 channels*) based on **WINECAP™ LuPo** protocol (*Long Range*) provides an excellent radio range, low battery consumption and the certainty of data recovery in any situation (*black out/ signal obstacles*).

With a backup memory onboard may store the last 64,000 samples per channel even if the wireless link is down. Samples can be downloaded using a USB connection.

Using the configuration software, the sampling interval may be set and two thresholds per channel can be activated.

May be interfaced with:

- all the **gateways** of **MWDG** product line
- all the **gateways** of **MWLI** product line

If necessary, radio coverage may be extended up to 16 times using **WR12 repeaters** (*battery powered repeaters with battery life up to 7 years*) between the datalogger and the **gateway**.

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The features shown may be subject to change without notice.