WSD12T-IDR

Wireless Smart Datalogger
MEMS Vertical Uniaxial Clinometer and Temperature

Technical Information

Power supply	5,8A/h - 3,6 V type "C" lithium internal battery
Battery life (*)	Up to 5years *(samples every 60 minutes and radio signal quality at least sufficient)*
Measures acquired ***(2 input channels)***	• Horizontal axis rotation, parallel to surface • Outdoor temperature
Sampling interval ***(*)***	Selectable from one minute to 24 hours *(60 minutes default)*
Datalogger capacity	128,000 samples (*for each channel*)
Working temperature	• Operative: -30°C ÷ +60°C • Warehousing: -40°C ÷ +70°C
Radio frequency	ISM 868MHz
Radio coverage	Up to 6Km in line of sight *(can be extended using WR12 battery powered routers)*
Sealing	• Datalogger: IP65 • Transducer: IP68
Dimensions	• Datalogger: 90x160x50mm • Transducer: 140x55x32mm (*with 116mm fixing pace and ±4°gross correction*)
Weight	• Datalogger: 325g • Transducer: 440g
Case material	• Datalogger: ABS • Transducer: Galvanized iron bracket covered with polybutadiene resin
Mounting	• Datalogger: Fix on 4 points • Transducer: Fix on 2 points with ±4° gross correction
Connections	Wireless, USB, 3m cable lenght for each transducer

Inclination

Transducer type	Uniaxial - MEMS technology - 1°÷15° Dual Range Automatic Autoscale
Measure range	±1°/±15°
Measure accuracy	± 0.5% of sample
Measure resolution	0.001° *(±1° range)* - 0.01° (*±15° range*)
Mechanical zero adjustment	±4°
Cross-axis sensitivity	4% maximum
Temperature variation sensibility	±0.013%/°C Temperature balance
Shock resistance	20,000g
Measure axis	Abscissa

Outdoor Temperature

Transducer type	NTC10KΩ
Measure range	-30°C ÷ +60°C
Measure accuracy	• ± 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 interval and system configuration. - refer to User Manual.***

The features shown may be subject to change without notice.

Wireless Smart Datalogger.

The **WSD12T-IDR** is a **datalogger** provided with vertical mounting transducers with 2 input channels to acquire inclination an temperature, with storage functionality of samples acquired.

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 128,000 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 **basestations** of MWDG product line
- all the **basestations** of MWLI product line

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

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