



WSD12-VW

**Capetti**  
ELETTRONICA

**Wscap** IP65



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## Frequency and temperature on vibrating wires

Wireless datalogger provided with 4 input channels to acquire frequency and temperature on vibrating wires. Free installation in any position. Excellent radio range and autonomy.

### Suitable to monitor:

- Inclinations
- Surface cracks
- Structural deformations
- Interstitial pressures
- Aquifer levels

### Main features

- Can be installed in any position
- Rugged and shock resistant case
- IP65
- 0.1 $\mu$ s/0.1Hz resolution
- 500÷4,000Hz excitation range
- Single wire temperature measurement
- Up to 4 years of autonomy



## General technical specifications

Power supply	8.5Ah - 3.6V type "C" lithium internal battery (BAT2)
Battery life (*)	Up to 4 years <i>(samples every 60 minutes and radio signal quality at least sufficient)</i>
Measures acquired (4 input channels)	<ul style="list-style-type: none"> <li>• Frequency</li> <li>• Temperature</li> </ul>
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"> <li>• Operative: -30°C ÷ +60°C</li> <li>• Warehousing: -40°C ÷ +70°C</li> </ul>
Radio frequency	ISM 868MHz
Radio coverage	Up to 6Km in line of sight <i>(can be extended using <a href="#">WR12</a> battery powered repeaters)</i>
Sealing	IP65
Dimensions	90x120x50mm
Weight	350g
Case material	ABS
Mounting	Fix on 4 points
Connections	Wireless, USB
Cable external diameter	4.7mm maximum
Copper wire section	0.05÷2.5mm²/÷14 AWG

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## Frequency

Transducer	Vibrating wire
Excitation range	500÷4,000Hz
Oscillator accuracy	±50ppm
Resolution	0.1µs/0.1Hz

## Temperature

Transducer	NTC3KΩ
Measure range	-20°C÷+70°C
Resolution	0.01°C
Accuracy	0.25°C at 25°C



## WSD12-VW

The **WSD12-VW** wireless datalogger is made to acquire frequency and temperature on vibrating wires (strain gauges, piezometers, crack meters), 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 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.*