


Technical Information

Power supply	<ul style="list-style-type: none"> Double 19Ah - 3,6V type "D" lithium internal battery Possibility of external power supply via USB-C input (5Vdc 1A)
Battery life (*) (with radio signal quality at least sufficient)	<ul style="list-style-type: none"> Up to 4 years – Sampling interval: 85 minutes Up to 3 years – Sampling interval: 60 minutes Up to 1.5 years – Sampling interval: 30 minutes Up to 9 months – Sampling interval: 15 minutes
Measures acquired (4 input channels)	<ul style="list-style-type: none"> Indoor temperature CO₂ PM2.5 particulate PM10 particulate
Sampling interval (*)	Selectable from one minute to 24 hours (90 minutes default)
Datalogger capacity	64,000 samples (for each channel)
Working temperature	<ul style="list-style-type: none"> Operative: -10°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	IP30
Dimensions	155x120x43mm
Weight	450g
Case material	ABS
Mounting	Fix on 3 points
Connections	Wireless, USB



Wireless Smart Datalogger.

The **WSD10TCOPM** is a datalogger with 4 input channels to acquire indoor temperature, CO₂, PM2.5 particulate and PM10 particulate with storage functionality of samples acquired.

No periodic calibration cycles in fresh air are necessary to ensure the accuracy of the CO₂ measurement.

The particulate transducer accuracies are validated by the MCERTS certification which also confirms the possibility of integration in applications compliant with the DIN EN 15267 European air quality standard.

The datalogger can be powered with a common smartphone power supplier (USB-C input - 5Vdc 1A), allowing its use also in integrated systems for air quality control, avoiding battery charging status control activities.

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 **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**.

Indoor temperature

Transducer type	NTC10KΩ
Measure range	-10°C ÷ +60°C
Measure accuracy	±0.2°C in whole range
Measure resolution	0.01°C

CO₂

Measure fundamental	NDIR principle
Measure range	5,000ppm
Measure accuracy	< ±50 ppm +3% of measure acquired
Measure resolution	1ppm
Compensations	Compensation of temperature and atmospheric pressure
Calibrations	No calibration needed. Periods of fresh air presence are NOT required for auto-zeroing.

PM2.5 and PM10 particulate

Measure fundamental	Laser-based scattering
Measure range	1 to 1,000 µg/m ³
Measure accuracy	<ul style="list-style-type: none"> ±10µg/m³ @ 0 to 100 µg/m³ ±10 % @ 100 to 1,000 µg/m³
Measure resolution	1 µg/m ³
Certifications	MCERTS

* 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.