

Flexible sensor combination options:

Wireless Data Logger MSR145WD with BLE, Display, MSR SmartCloud











The MSR145WD wireless data logger, equipped with Bluetooth function, has a memory capacity of one million measured values. The versatile mini-logger can be used to wirelessly monitor measurement data, quickly read measured values, and transfer the data to the MSR SmartCloud as needed.

The use of BLE radio technology is ideal when measurement data from hard-to-reach locations needs to be monitored. Measured values can be retrieved at any time using the MSR DataLogger app on a smartphone. A base station allows you to quickly send data from multiple MSR145WDs to the MSR Smart-Cloud via BLE/LAN. The USB MSR SmartCloud allows you to view, manage and store measurement values online and to use alarm actions.

Technical data Bluetooth Low Energy



- Bluetooth Low Energy (Bluetooth 4.0 Smart) 2.4 GHz
- radio range: approx. 10 m
- communication with multiple MSR145WD loggers possible
- alarm function, transmission to MSR SmartCloud
- MSR DataLogger app (from Android 4.4+, iPhone 4S+, iPad 3+)

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SmartCloud

E-Mail

Web browse

• base station (BLE receiver box) available as gateway

General technical data of the MSR145WD Wireless Data Logger

Manager	Over 1 000 000 received values		
Memory capacity:	Over 1 000 000 measured values.		
Measurement/storage rate	1/s to every 12 h		
OLED display:	High-contrast, brilliant OLED colour display to show data and graphical charts, resolution 96 x 64 pixels.		
Interface:	USB, Bluetooth Low Energy (BLE)		
PC software:	Free MSR Setup, Reader, Viewer and Online software.		
Operating conditions:	Temperature: -20+65°C		
Storage conditions Temperature: Humidity:	+5+45°C (ideal storage condition for battery) 1095% relative humidity, non-condensing		
Standards	The MSR145WD complies with EU-Directives RoHS/WEEE.		

Housing and battery selection

Housing	Sheat material	Battery	Size and weight (W x H x L)
Standard	PC, not encapsulated	230 mAh	35 x 17 x 57 mm, approx. 27 g
IP 60	PC, not encapsulated	900 mAh	35 x 25 x 57 mm, approx. 43 g
Waterproof IP 67	PC, encapsulated	230 mAh	35 x 17 x 57 mm, approx. 36 g
	PC, encapsulated	900 mAh	35 x 25 x 57 mm, approx. 62 g

Selection of sensors and connections

You can select various internal sensors as well as up to five external sensors or connectors.

Measured parameters	Working range	Accuracy (max. deviation)	
Temperature	ext.: -40+125°C	0.2°C (-10+50°C) ±1°C (-40+125°C)	
	int.: -20+65°C	0.2°C (-10+50°C)	
Connector for ther- mal element of type K (without sensor)	-200+1350°C		
Humidity with integrated temperatur	0100% rel. humidity ext40+125°C int20+65°C	±1.8% rel. humidity (1085%, 0+40°C) ±4% rel. humidity (8595%, 0+40°C)	
Air pressure absolute, with integrated temperature	102000 mbar abs. ext.: -40+85°C int.: -20+65°C	±2 mbar (7501100 mbar absolute, +25°C)	
	014 bar absolute -20+65°C	±50 mbar (110 bar abs., +25°C)	
Fluid pressure with integrated tempe- rature, material in contact with media: • stainless steel AISI 316L (DIN 1.4404/1.4435) • O-rings: Viton® 70° Shore	03000 mbar abs. -20+85°C	max. ±30 mbar	
	030 bar absolute -20+85°C	max. ±0.3 bar	
	0400 bar absolute -20+85°C	max. ±4 bar	
3-axis-acceleration (statisch) 3-axis-acceleration with Fast Peak (800 Hz)	-15+15 g -20+65 °C	±0.15 g (05 g, +25 °C) ±0.25 g (510 g, +25 °C) ±0.45 g	
		(1015 g, +25 °C)	
Light	065'000 lx	max. sensitivity at 500 nm	
Connection for strain gauges	full bridge rated output 1mV/V bridge voltage 3 V		
Flex-Connector	Please find suitable flex sensors on our website.		

Additional analogue inputs for connecting third-party sensors



Technical data 4 or 8 analogue inputs with freely selectable input configuration: 0...20 mA; 4...20 mA; 0...3.0 V; 0.5...4.5 V; 0...5.0 V; 1.0...6.0 V; 0...10.0 V; 0...12.0 V; 0...24.0 V; 0...36.0 V; 0...48.0 V, **Resolution:** 12 bit, **Measurement/storage rate:** 1/s up to every 12h





ext. temperature sensor



ext. humidity sensor



ext. light sensor



ext. air pressure sensor



ext. fluid pressure sensor

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