

More flexibility when choosing your sensors:

## Wireless Data Logger MSR145W2D with WiFi and FlexSensors



**Wireless data logger (WiFi) for monitoring temperature, humidity, fluid pressure, air pressure, light, acceleration, strain gauges and more.**

The MSR145W2D stores over one million measured values. By integration with a WLAN/WiFi network, the data logger can be used to flexibly implement practically any kind of measurement applications.



- integration either into an existing WiFi or via an access point, by means of mobile network access where required, into a separate wireless network
- WiFi range can be extended with a commercially available repeater
- data storage is guaranteed even if the transmitter fails
- MSR SmartCloud: retrieve, analyse and export measured data online
- alarm message if limit value is exceeded
- MSR WLAN software for graphical visualization, components for LabVIEW available
- FlexConnector for interchangeable FlexSensors

### General Technical Data of the MSR 145W2D WiFi Data Logger

<b>Memory capacity:</b>	Over 1 000 000 measured values.
<b>Measurement/storage rate:</b>	1/s up to every 12 h
<b>OLED display:</b>	High-contrast, brilliant OLED colour display to show data and graphical charts, resolution 96 x 64 pixels.
<b>Interface:</b>	USB, WiFi
<b>PC software:</b>	MSR Setup, Reader, Viewer and Online software MSR WLAN Dashboard and Viewer
<b>Operating conditions:</b>	Temperature: -20...+65°C
<b>Storage conditions:</b> Temperature: Humidity:	+5...+45°C (ideal storage conditions for the battery) 10...95 % relative humidity, non-condensing
<b>Standards:</b>	The MSR 145W2D complies with EU-Directives RoHS/WEEE.

## Housing and Battery Selection

Housing	Sheat material	Battery	Size & Weight (W x H x L)
<b>Standard IP 60</b>	PC, not encapsulated	230 mAh	35x17x57 mm, approx. 27 g
	PC, not encapsulated	900 mAh	35x25x57 mm, approx. 43 g
<b>Waterproof IP 67</b>	PC, encapsulated	230 mAh	35x17x57 mm, approx. 36 g
	PC, encapsulated	900 mAh	35x25x57 mm, approx. 62 g

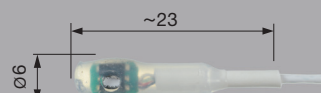
## Selection of Sensors and Connections

You can select various internal sensors as well as up to five external sensors or connectors. The intelligent **FlexConnector** plug connection for interchangeable **FlexSensors** guarantees you the greatest possible flexibility. Info: [www.msr.ch/en/msr145w2d](http://www.msr.ch/en/msr145w2d)

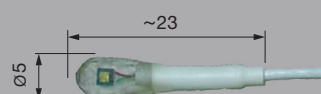
Measured parameters	Working range	Accuracy (max. deviation)
<b>Temperature</b>	ext.: -40...+125 °C	±0.2 °C (-10...+50 °C) ±1 °C (-40...+125 °C)
	int.: -20...+65 °C	±0.2 °C (-10...+50 °C)
<b>Connector for thermal element of Type K (without sensor)</b>	-200...+1350 °C	
<b>Relative humidity</b> with integrated temperature	0...100 % rel. humidity ext. -40...+125 °C int. -20...+65 °C	±1.8 % rel. humidity (10...85 %, 0...+40 °C) ±4 % rel. humidity (85...95 %, 0...+40 °C)
<b>Air pressure</b> absolute, with integrated temperature	10...2000 mbar absolute ext.: -40...+85 °C int.: -20...+65 °C	±2 mbar (750...1100 mbar absolute, +25 °C)
	0...14 bar absolute -20...+65 °C	±50 mbar (1...10 bar abs., +25 °C)
<b>Fluid pressure</b> with integrated temperature	-1000...3000 mbar relative -20...+85 °C	±30 mbar (1 % FS)
Material in contact with media: • Stainless Steel AISI 316L (DIN1.4404/1.4435) • O-Rings: Viton® 70° Shore	0...3000 mbar absolute -20...+85 °C	±30 mbar (1 % FS)
	0...30 bar absolute -20...+85 °C	±0.3 bar (1 % FS)
	0...400 bar absolute -20...+85 °C	±4 bar (1 % FS)
	0...1000 bar absolute -20...+85 °C	±10 bar (1 % FS)
<b>3-axis-acceleration</b> (static)	-15...+15 g -20...+65 °C	±0.15 g (0...5 g, +25 °C)
<b>Light</b>	0...65 000 lx	max. sensitivity at 500 nm
<b>Connection for strain gauges</b>	full bridge • rated output 1mV/V • bridge voltage 3 V	
<b>Analogue inputs</b> Resolution: 12 bit	<b>4 or 8 analogue inputs</b> with freely selectable input configuration: 0...20 mA; 4...20 mA; 0...3.0 V; 0...5.0 V; 0...10.0 V; 0...12.0 V; 0...24.0 V; 0...36.0 V; 0...48.0 V	
<b>Control Terminal</b>	alarm output • input for starting and stopping data recording • 3 V voltage output	
<b>FlexConnector</b>	Please find suitable FlexSensors on our website.	



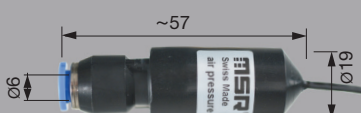
ext. temperature sensor



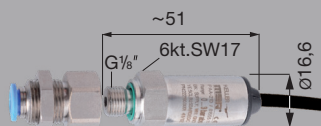
ext. humidity sensor



ext. light sensor



ext. air pressure sensor



ext. fluid pressure sensor

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