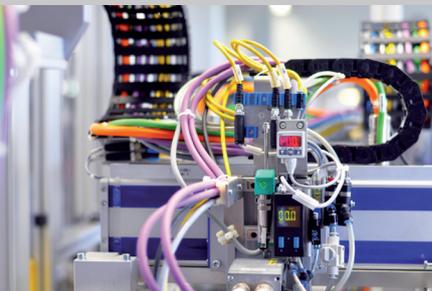
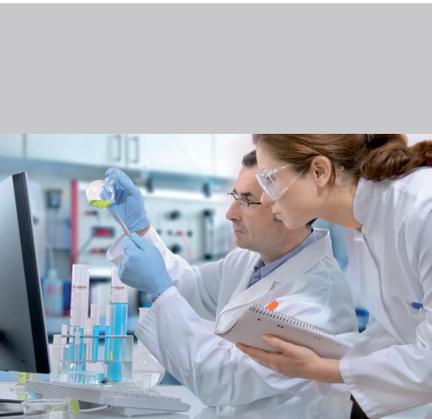


# MSR 385WD: Data Logger with wireless sensors for operating temperatures up to +125°C and GSM terminal for remote monitoring



Permanently record temperature, humidity and pressure at various measuring points, in inaccessible locations, even at operating temperatures from -20°C to +125°C, and monitor them via the MSR SmartCloud: The MSR385WD data logger, which is equipped with wireless sensors and which is available with a GSM terminal, offers these options.

The centrepiece of the system is the MSR385WD data logger, which is equipped with a memory capacity of more than one million measured values. The data logger has an integrated ISM band receiver module through which it receives and stores data from up to ten MSR385SM transmitter modules. The transmitter modules record temperature profiles, humidity and pressure by means of sensors and send the measured values to the data logger. Depending on the frequency of the measurements and radio transmissions, the power supply to the transmitter modules is warranted for more than ten years.

## Temperature range and housing selection of the MSR385SM transmitter modules

Temperature range	Housing and Battery	Picture	Size & Weight	Medium
-20...+125 °C	Silicone hose, 800 mAh Li-SOCl <sub>2</sub> battery, not encapsulated, IP 60		35x25x55 mm (WxHxL), approx. 25 g	Air
	encapsulated IP 67		approx. 40 g	v. liquids
-20...+85 °C	ABS housing with replaceable 3600 mAh Li-SOCl <sub>2</sub> battery, not encapsulated, IP 64		60x33x80 mm (WxHxL), Aerial length: 93 mm approx. 120 g	Air
-20...+65 °C	ABS housing, 260 mAh LiPo battery, not encapsulated, IP 60		38x15x78 mm (WxHxL), approx. 45 g	Air

## Technical data MSR385SM transmitter modules

<b>Frequency band:</b>	Unlicensed frequency range at 868 MHz (EU version) or 915 MHz (US version, on request).
<b>Range:</b>	Up to 500 m (outdoors).
<b>LED</b>	Red, status acknowledgement when button is pushed, on/off, measurement interval setting.
<b>Power supply:</b>	Rechargeable 260 mAh LiPo battery or 800 mAh Li-SOCl <sub>2</sub> battery or 3600 mAh Li-SOCl <sub>2</sub> battery. The LiPo battery is charged via the USB connection. Optimised power management.
<b>Operating conditions:</b>	-20...+125 °C, in ABS housing -20...+65 °C.
<b>Storage conditions:</b>	+5 °C...+45 °C (ideal storage conditions for battery). 10...95 % relative humidity, non-condensing.



MSR 385WD



MSR 385SM



GSM terminal

## Selection of sensors for the MSR385SM transmitter modules

Up to three different internal or external sensors per transmitter module.

Sensor	Working range of the sensor	Accuracy	Measurement/storage rate
Temperature	-40...+125 °C	±0.2 °C (-10...+50 °C) ±1 °C (-40...+125 °C)	1 s, 10 s, 1 min, 15 min, 1 h
Relative humidity with integrated temperature	0...100 % rel. humidity -40...+125 °C	±1.8 % rel. humidity (10...85 %, 0...+40 °C) ±4 % rel. humidity (85...95 %, 0...+40 °C)	
Air pressure absolute, with integrated temperature	10...1100 mbar absolute -40...+125 °C	±2.5 mbar (750...1100 mbar absolute, 0...+85 °C)	
	10...2000 mbar absolute -40...+85 °C	±2 mbar (750...1100 mbar absolute, +25 °C)	
	0...14 bar absolute -20...+85 °C	±40 mbar (1...10 bar absolute, 0...+40 °C)	

### Options:



External temperature sensor



External humidity sensor



External air pressure sensor



GSM terminal

## General technical information on the MSR385WD Wireless Data Logger



The data logger, which operates within the 868 MHz (EU version) or 915 MHz (US version) ISM frequency band, receives and stores the measured data from up to ten MSR385SM transmitter modules. Flash memory for data security in the event of a power failure. Brilliant, high-contrast OLED colour display.

<b>Dimensions:</b>	Housing without aerial: 75x25x120 mm, Aerial length: 85 mm.
<b>Memory capacity:</b>	Over 1 000 000 measured values.
<b>Power supply:</b>	Via USB connection (2 days' autonomous operation possible with integrated 2400 mAh LiPo battery).
<b>LED:</b>	<ul style="list-style-type: none"> <li>• Blue: Data recording indicator</li> <li>• Red: Alarm indicator</li> <li>• Yellow: Charge level indicator</li> </ul>
<b>Key button:</b>	To operate the menu functions of the OLED display.
<b>Interface:</b>	USB, GSM terminal (EU version)
<b>PC software:</b>	Free Setup, Reader, Viewer & Online software for recording and analysing the data (Windows XP/Vista/7/8/10).
<b>Operating conditions:</b>	Temperature -20 °C to +65 °C
<b>Storage conditions:</b>	<ul style="list-style-type: none"> <li>• +5 °C...+45 °C (ideal storage conditions for battery).</li> <li>• 10...95 % relative humidity, non-condensing.</li> </ul>
<b>Standards:</b>	The MSR385WD complies with the EU Directive RoHS / WEEE.

## GSM terminal for transmitting the measured data to the MSR SmartCloud

For retrieving measured data at any time, receiving alarm messages via MSR SmartCloud and sharing the data from several MSR385WD data loggers with other people, wherever you are. GSM terminal, incl. short aerial and connecting cable.

<b>GSM/GPRS frequency band:</b>	Dual band (900/1800 MHz, EU version)
<b>Dimensions, weight:</b>	66x26x77 mm (WxHxL), 80 g
<b>Operating conditions:</b>	-30 °C...+75 °C
<b>Power supply:</b>	via MSR385WD



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