

# MSR255 datalogger

## Robust multi-talent with LCD screen



With up to five different sensors, four additional analogue inputs and an easy to read LCD screen the compact MSR255 offers maximum possible flexibility and user-friendliness.

The measuring tasks undertaken by the user define the way in which the MSR255 is configured: There is a choice of temperature, humidity, air pressure and light sensors (fitted internally within the case or externally on a cable) together with a sensor for measuring acceleration in all three co-ordinate axes. Acceleration values can be measured at 3200 Hz and saved at a frequency of approx. 50 Hz following digital filtration. In addition, the voltage of four further external analogue channels or sensors can also be recorded. The analogue inputs feature an alarm output, multiple output switching power supply and an input for starting and stopping data recording.

The memory capacity of the MSR255 is over 2 million measurement parameters. Thanks to its high-capacity lithium polymer battery the datalogger is ideal for long-term data acquisition applications. The 4-row backlit LCD display has four individually configurable views. All acquired data can be quickly transferred to a PC or laptop via the USB interface.

### Technical data

<b>Housing:</b>	Anodised aluminium industrial case (standard IP60, optional IP67 protection class), top-hat rail snapper (TS 35)
<b>Size &amp; weight:</b>	78 x 62 x 38 mm, approx. 222g
<b>Memory capacity:</b>	Over 2000000 measurement parameters.
<b>Operation:</b>	Two keys for selecting functions and controlling data recording
<b>Display:</b>	Four row LCD matrix display
<b>LED:</b>	3 colour LED to indicate data recording, alarm and charge condition
<b>Integrated sensors:</b>	Selection of different sensors for temperature, relative humidity, pressure, light and 3-axis acceleration/position
<b>Measurement rate (MR):</b>	1/s to every 12h (acceleration up to 3200/s)
<b>Storage rate (SR):</b>	1/s to every 12h (acceleration up to 50/s)
<b>Power supply:</b>	Rechargeable lithium polymer battery 2300 mAh
<b>PC software:</b>	Free Setup, Reader, Viewer- & Online software (Windows 2000 / XP / Vista / 7)
<b>Interface:</b>	USB (Mini-B)
<b>Operating conditions:</b>	• Temperature -20...+65 °C
<b>Storage conditions:</b>	• Temperatur +5...+45 °C (ideal storage condition for the battery) • 10...95% relative humidity, non-condensing
<b>Standards:</b>	The MSR255 complies with EU-Directives RoHS/WEEE



MSR255 with ext. sensors

## Measurement parameters for the sensors (internal and external)

Your MSR255 datalogger can be fitted with up to five different sensors. If required, you may select from the following external sensors in place of the corresponding internal ones: temperature, relative humidity, air pressure and light. The available cable lengths are: 0.15m, 0.4 m, 1.0m and 1.6m.

Measured parameters	Working range	Accuracy	Measurement/storage rate
<b>Temperature</b>	int.: -20...+65 °C	±0.5 °C (-10...+65 °C)	1/s to every 12h
	ext.: -55...+125 °C	±0.5 °C (-10...+65 °C) ±2 °C (-55...+125 °C)	
<b>Relative humidity</b> with integrated temperature	0...100% rel. humidity -20...+65 °C	±2% rel. humidity (10...85%, 0...+40 °C) ±4% rel. humidity (85...95%, 0...+40 °C)	1/s to every 12h
<b>Air pressure</b> absolute, with integrated temperature	0...2000 mbar absolute -20...+65 °C	±2.5 mbar (750...1100 mbar absolute, +25 °C)	1/s to every 12h
	optional: 0...14 bar absolute -20...+65 °C	±50 mbar (1...10 bar absolute, +25 °C)	1/s to every 12h
<b>3-axis acceleration</b>	±15g	±0.15g (+25 °C)	Acceleration: 50/s (3,200/s) Attitude: 1/s up to every 12h
<b>Light</b>	0...65 000 lx	max. sensitivity at 500 nm	1/s to every 12h

## Additional analogue inputs for connecting third-party sensors

It is possible to expand the range of possible applications for which your MSR255 can be used by specifying four analogue inputs. These additional inputs allow external sensors for a wide range of measuring tasks to be connected. If required, these third-party sensors can be powered by the logger's internal battery. The power can be automatically turned on before measurements take place with a pre-settable lead time. This allows any necessary warm-up periods for the sensors to be taken into consideration.

MSR255 with 4 analogue inputs	Technical data
Including an alarm output, multiple output switching power supply and an input for starting and stopping data recording.	<b>4 analogue inputs</b> with freely selectable input configuration: 0...20 mA; 4...20 mA; 0...3.0V; 0.5...4.5V; 0...5.0V; 1.0...6.0V; 0...10.0V; 0...12.0V; 0...24.0V <b>Resolution:</b> 12 Bit <b>Measurement/storage rate:</b> 1/s to every 12h

Its flexibility makes the autonomous MSR255 datalogger ideally suited for the most diverse documentation and monitoring applications in industry and science.

For pricing, or any further, information please contact Omni Instruments Ltd  
Tel: +44 (0)845 9000 601 or visit our website at [www.omniinstruments.co.uk](http://www.omniinstruments.co.uk)

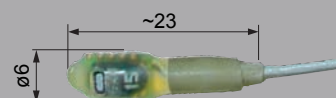


Modular Signal Recorder

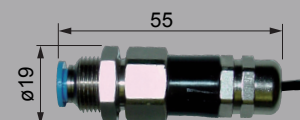
### Options:



External temperature sensor



External humidity sensor



External air pressure sensor



External light sensor

MSR Electronics GmbH  
Authorised Distributor:



Suite E Ground Floor  
East Kingsway Business Centre  
Mid Craigie Trading Estate  
Mid Craigie Road  
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