

Flexible solution for efficient measurement data acquisition: Plug-in MSR FlexSensors for PC-based data acquisition

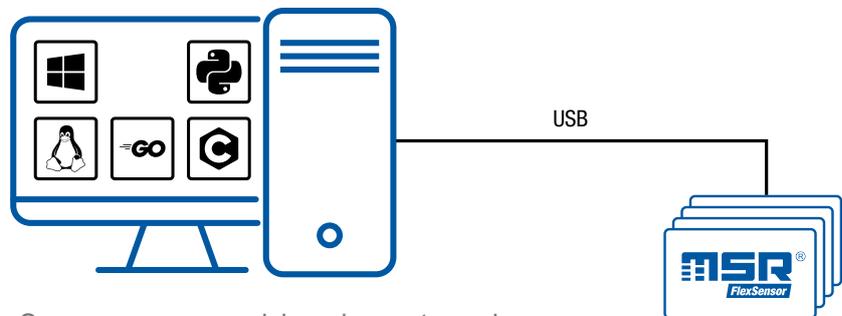


MSR FlexSensors are extremely robust plug-in sensors for recording measured parameters such as temperature, humidity, liquid pressure, light and 3-axis acceleration (Fast Peak).

The configurable sensors can be quickly and easily connected to the USB port of a PC, notebook or single-board computer (e.g. Raspberry Pi) using the **USB FlexConnector**. You can record, save, visualise and forward measurement data from the FlexSensors simultaneously. Various solutions are available with the **MSR FlexSoftware** for configuring the FlexSensors, visualising the measured values and processing the sensor information.

MSR FlexSensors are designed so that they can also be used in humid environments such as wet areas. The high level of impermeability (IP 67) ensures that the sensors function reliably even in demanding environments.

Measurement data acquisition as required



- FlexSensors are very quick and easy to exchange
- Can be used on the USB port of a PC, notebook or single-board computer
- Several FlexSensors can be used simultaneously
- Customised FlexSensors are available on request
- 1 USB FlexConnector is required per FlexSensor; a commercially available USB hub can be used
- Alternatively, 4, 8, 16 FlexSensors can be connected directly using a USB FlexConnector hub

MSR FlexSoftware for FlexSensors

System requirements: Windows 7 or higher, Linux

Software	Function
MSR Flex CLI Tools: MSR FlexCommander MSR FlexMQTT	<ul style="list-style-type: none"> • Performing measurements • Configuration
MSR FlexLib	Software library with C-API
MSR FlexViewer	Visualisation of measured values
MSR FlexConfigurator	Configuration of the FlexSensors

MSR FlexSensors: Plug-in sensors for PC-based data acquisition

To connect the FlexSensor directly to the end device (PC, notebook, single-board computer), you need a **USB FlexConnector**. The USB FlexConnector can be connected to 1 FlexSensor at a time. The measuring/storage rate depends on the sensor and the end device.

The range of MSR FlexSensors is being continuously expanded. Customized customized FlexSensors are available on request.

Measured parameters	Working range	Accuracy (max. deviation)
Temperature 1/s to every 12 h	-40...+125 °C	±0.2 °C (-10...+50 °C) ±1 °C (-40...+125 °C)
Relative humidity with integrated temperature 1/s to every 12 h	0...100% rel. humidity -40...+125 °C	±1.8% rel. humidity (10...85%, 0...+40 °C) ±4% rel. humidity (85...95%, 0...+40 °C)
Fluid pressure with integrated temperature 1/s to every 12 h	-1000...3000 mbar relative -20...+85 °C	±30 mbar (1% FS)
	0...3000 mbar absolute -20...+85 °C	±30 mbar (1% FS)
Material in contact with media: • Stainless steel AISI 316L (DIN 1.4404/1.4435) • O-Rings: Viton® 70° Shore	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)
3-axis-acceleration with Fast Peak (800 Hz) 1/s to every 12 h	±15 g -20...+65 °C	±0.15 g (0...5 g, +25 °C)
Light 1/s to every 12 h	0...83'000 lx	max. sensitivity at 550 nm
Analogue inputs Resolution: 12 bit	4 analogue inputs with freely selectable input configuration: 0...20 mA; 4...20 mA, 0...3.0V; 0...5.0V; 0...10.0V; 0...12.0V; 0...24.0V; 0...36.0V; 0...48.0V	



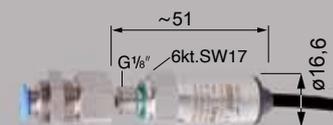
temperature sensor



humidity sensor



light sensor



fluid pressure sensor

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