MSR145WD Wireless Data Logger with BLE, Display & MSR SmartCloud

Wireless monitoring of measurement data and rapid reading of measured values – this ease of use is offered by the new MSR145WD wireless data logger. The mini-logger is equipped with Bluetooth Low Energy, a bright OLED graphic display and the optional web-based service MSR SmartCloud for data monitoring from any location.

The BLE wireless radio link is particularly advantageous for applications that require monitoring of measured data from locations that are difficult to access, such as machine rotations. BLE allows the user immediate data visualisation irrespective of the location. You can recall the measured values on your smartphone, receive alarm messages via MSR SmartCloud and, if required, share data from multiple MSR145WD data loggers with your team any time.

**Technical data Bluetooth Low Energy**

- Bluetooth Low Energy (Bluetooth 4.0 Smart) 2.4 GHz
- Radio range: approx. 10 m
- Communication with multiple MSR145WD data loggers possible
- Alarm function, transmission to MSR SmartCloud
- Free smartphone app (from iPhone 4S, iPad 3, also planned for Android)
- Compatible with Windows or Linux PC (Bluetooth dongle available)
- Sturdy BLE receiver box available as gateway

**Technical data OLED display**

- High-contrast, brilliant OLED (organic light-emitting diode) colour display to show data and graphical charts
- Resolution: 96 x 64 pixels
- Display area: 22.14 mm W x 15.42 mm H
- Fast response time: <10 μs
- Wide viewing angle >160°
Selection of Sensors

Make an individual assembly of your MSR145WD wireless data logger and select up to five internal or external sensors. The selection of sensor combinations for the MSR145WD is constantly being expanded. The sensor combinations that are currently available are published online on the MSR145WD product page.

<table>
<thead>
<tr>
<th>Measured parameters</th>
<th>Working range</th>
<th>Accuracy</th>
<th>Measurement/storage rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Temperature</td>
<td>ext.: -40...+125°C</td>
<td>0.2°C (-10...+50°C) ±1°C (-40...+125°C)</td>
<td>1/s to every 12 h</td>
</tr>
<tr>
<td></td>
<td>int.: -20...+65°C</td>
<td>0.2°C (-10...+50°C)</td>
<td></td>
</tr>
<tr>
<td>Relative humidity with integrated temperature</td>
<td>0...100% rel. humidity ext.: -40...+125°C int.: -20...+65°C</td>
<td>±1.8% rel. humidity (10...85%, 0...+40°C) ±4% rel. humidity (85...95%, 0...+40°C)</td>
<td>1/s to every 12 h</td>
</tr>
<tr>
<td>Air pressure absolute, with integrated temperature</td>
<td>10...2000 mbar absolute, ext.: -40...+85°C int.: -20...+65°C</td>
<td>±2 mbar (750...1100 mbar absolute, +25°C)</td>
<td>1/s to every 12 h</td>
</tr>
<tr>
<td>3-axis-acceleration (static)</td>
<td>±15g</td>
<td>±0.15g (+25°C)</td>
<td>1/s to every 12 h</td>
</tr>
<tr>
<td>Light</td>
<td>0...65 000 lx</td>
<td>max. sensitivity at 500 nm</td>
<td></td>
</tr>
</tbody>
</table>

General technical data on the MSR145WD Wireless Data Logger

Memory capacity: Over 1,000,000 measured values.

Key:
- Set bookmark or start and stop recording.

LED:
- blue: Record indicator
- red: Alarm indicator
- yellow: Battery charge indicator

Power supply:
- Lithium-polymer battery, 260 mAh or 800 mAh.
- The battery is charged via the USB connection.

Options:
- Charging station (USB hub) for 7 MSR145WD (item number B47002)

Interface: USB

PC-software:
- Free Setup, Reader, Viewer and Online software (Windows XP/Vista/7/8) to record and evaluate data. All measurement parameters can be rapidly transferred to a PC via USB connection both during the measurement operation and once the measurement task has been completed. Thanks to the integrated clock (RTC), data from as many MSR145WD units as required can be synchronised and merged into a single data record.

Operating conditions:
- Temperature: -20...+65°C

Optimum storage conditions:
- +5...+45°C (ideal storage conditions for the battery)
- Humidity: 10...95% relative humidity, non-condensing

Standards:
- The MSR145WD complies with EU-Directives RoHS/ WEEE.