Wireless systems

Wireless data logger for humidity and temperature probes.

- HygroClip 2 Probes for humidity and temperature measurement
- Wireless frequency: 433.92 or 915 MHz (USA) for optimized communication
- Highest possible measuring accuracy: ±0.8 %RH and 0.1 °C
- Outstanding repeatability
- Battery life up to 6 years
- Large storage capacity of up to 500,000 measured values
- Transmission distance up to 300 meters
- With USB or Ethernet receiver
BE PRECISE: THE MAIN ADVANTAGES AT A GLANCE.

The wireless data loggers are suitable for a wide range of humidity and temperature monitoring tasks. Wireless transmission - possible over distances of up to 300 m - saves the user wiring costs and the data can be collected and recorded from inaccessible points quickly and easily. Thanks to the combination of wireless transmission and data logging, the greatest possible reliability against failure is insured. Up to 100 devices can be connected and configured via HW4 software using an Ethernet or an USB receiver.

The wireless data loggers are suitable for a wide range of monitoring tasks in meteorology, the food industry, building services equipment, museums, environmental and laboratory technology climate chambers, clean rooms research and development, the pharmaceutical and chemical industries, logistics and the textile industry.

SYSTEM OVERVIEW

Wireless LAN network

Wireless USB network
TRANSMITTERS

Wireless humidity/temperature data loggers

Thanks to the data logging function, the data are not lost in the event of an interruption in wireless transmission and can be retrieved at any time.

Features

- Digital probe input for connection of all ROTRONIC HygroClip2 probes
- Probes can be interchanged without further adjustment
- Transmission distance: up to 300 m
- Operating range: -40 to 85 °C
- High storage capacity: up to 500,000 measured values with serial number, time and date
- Flash memory for data security in the case of power failures
- Long-term recording up to 6 years without battery replacement
- Data security: PIN for activation and data access
- Plastic housing, white, IP65

Order code | Device type
---|---
LOG-HC2-RC | Wireless humidity/temperature logger 433.92 MHz
LOG-HC2-RC-US | Wireless humidity/temperature logger 915 MHz (US version)

PROBES FOR THE LOG-HC2.

The HygroClip2 probes come in various versions. You can find exactly the probe you need: from simple plug in probes for handheld instruments and data loggers to highly developed cable probes for high temperature and high pressure applications. Common to all is the high precision the probes offer thanks to our patented AirChip3000. This technology is exactly what makes every probe in our range a high-end product for normal and industrial applications.

Standard climate probe

Probe with maximum accuracy for all climate measurements.
Operating range -50...100 °C, 0...100 %RH.

Mini probes

4 and 5 mm probes for measurements in confined spaces such as packaging etc. and for building material tests.
Operating range -40...85 °C, 0...100 %RH.

Industrial probe

Probe for process applications Operating range 0...100 %RH, -100...200 °C and 0...100 bar. Also available as screw-in probe. Probe with maximum accuracy for all climate measurements.

Contact us if you need assistance in selecting the most suitable probe for your application, we will be pleased to advise you.
**Wireless temperature data loggers**

PT1000 temperature probe integrated or remote with 30 cm cable

**Features**
- Accuracy: ± 0.1 °C
- Temperature operating range: -40 to +85 °C
- High storage capacity: up to 500,000 measured values with serial number, time and date
- Flash memory for data security in the event of power failures
- Long-term recording up to 6 years without battery replacement
- Transmission distance: up to 300 m (free field) with remote probe, 100 m with integrated temperature probe
- Data security: PIN for activation and data access
- Plastic housing, white, IP69 (submersible)

**Order code**
- LOG-PT1000-RC
- LOG-PT1000-RC-US
- LOG-PT1000-ET030-RC
- LOG-PT1000-30-RC-US

**Device type**
- Wireless temperature logger 433.92 MHz
- Wireless temperature logger 915 MHz (US version)
- Wireless temperature logger with remote probe 433.92 MHz
- Wireless temperature logger with remote probe 915 MHz (US version)

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**ACCESSORY**

**433 MHz ground plane antenna**

**Features**
- Industrial antenna for improved reception
- Suitable for both indoor and outdoor use
- Incl. 2.5 m coaxial cable (50 ohms) and SMA connector
- Dimensions (Ø x H): 190 mm x 460 mm

**Order code**
- LOG-AN-GP433

**Device type**
- 433 MHz Ground plane antenna, cable length 2.5 m
LAN interface

Applications
Using an existing Ethernet infrastructure, the LAN interface serves as an interface between the wireless network and the PC.

Features
- Manages up to 100 digital wireless data loggers
- Network connection: 100 MBit Ethernet LAN (RJ-45)
- Communication: via TCP/IP protocol
- Wireless: connection of external SMA antenna possible
- Configurable via web browser
- Housing material: aluminum
- Power supply: AC mains adapter

Order code | Device type
--- | ---
LAN-INTERFACE | LAN interface 433.92 MHz
LAN-INTERFACE-US | LAN interface 915 MHz (US version)

Compatible
- Wireless data loggers
- Ground plane antenna

Included
- Short instruction manual
- Standard antenna
- AC mains adapter


USB wireless adapter

Applications
The USB wireless adapter serves as an interface between the wireless network and the PC.

Features
- Manages up to 100 digital wireless data loggers
- Wireless: connection of external SMA antenna possible
- Plug & Play

Order code | Device type
--- | ---
LOG-DS-EXT | USB wireless adapter 433.92 MHz
LOG-DS-EXT-US | USB wireless adapter 915 MHz (US version)

Compatible
- Wireless data loggers
- Ground plane antenna

Included
- Short instruction manual
- Standard antenna

TECHNICAL INFORMATION.

Radio frequencies.
There are two radio frequencies available for transmission of the data: 915 MHz for the USA and 433.92 MHz for Europe and the rest of the world. These frequencies are ideal for optimal data transmission.

Range.
Depending on the type of transmitter and type of building, ranges of up to 300 meters.

Data logging/Transmission.
Up to 500,000 measured values can be stored in the wireless data logger. The data is transmitted and recorded continuously as long as the wireless data logger is located in the vicinity of a receiver (LAN interface, USB wireless adapter). If the distance between the transmitter and receiver is too large or the wireless connection is lost, the data is nevertheless recorded. In this way it is ensured that no data is lost.

<table>
<thead>
<tr>
<th>Type</th>
<th>LOG-HC2-RC-(US)</th>
<th>LOG-PT1000-RC-(US)</th>
<th>LOG-PT1000-30-RS-US</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type</td>
<td>Digital input for HC2 probes (UART)</td>
<td>Pt1000 temperature probe</td>
<td>Pt1000 temperature probe with remote probe</td>
</tr>
<tr>
<td>Accuracy</td>
<td>Probe dependent</td>
<td>±0.1 °C (resolution: 0.01°C)</td>
<td></td>
</tr>
<tr>
<td>Radio frequency</td>
<td>433.92 MHz (US: 915 MHz)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Storage capacity</td>
<td>Up to 500,000 measured values</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Logging interval</td>
<td>1 min. to 12 h</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Power supply</td>
<td>Lithium (Li-SOCl2) battery 2400 mAh</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Battery life</td>
<td>Up to 6 years depending on logging interval</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Battery status indicator</td>
<td>Via software, recording of battery voltage and internal temperature</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Transmission distance</td>
<td>Max. 100 m (free field)</td>
<td>Max. 300 m (free field)</td>
<td></td>
</tr>
<tr>
<td>Data security</td>
<td>4-digit PIN (access code for activation/reading)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dimensions without probe</td>
<td>140 mm x Ø 20 mm</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Software</td>
<td>HWA V3.1 or higher</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Order code</td>
<td>LOG-HC2-RC</td>
<td>LOG-PT1000-RC</td>
<td>LOG-PT1000-30-RS-US</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Type</th>
<th>LAN interface-(US)</th>
<th>USB wireless adapter-(US)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type</td>
<td>100 MBit Ethernet LAN interface</td>
<td>Local readout device for data logger to PC</td>
</tr>
<tr>
<td>Radio frequency</td>
<td>433.92 MHz (US: 915 MHz)</td>
<td></td>
</tr>
<tr>
<td>Power supply</td>
<td>Via AC adapter, 5 V, min. 200 mA, included in the delivery package</td>
<td>USB power supply via PC</td>
</tr>
<tr>
<td>Dimensions</td>
<td>30 mm x 130 mm x 80 mm</td>
<td>15 mm x 77 mm x 20 mm</td>
</tr>
<tr>
<td>Software</td>
<td>HWA V3.1 or higher</td>
<td></td>
</tr>
<tr>
<td>Order code</td>
<td>LAN-INTERFACE</td>
<td>LOG-DS-EXT</td>
</tr>
<tr>
<td>Order code (US)</td>
<td>LAN-INTERFACE-US</td>
<td>LOG-DS-EXT-US</td>
</tr>
</tbody>
</table>

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WIRELESS SYSTEM

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