



# Log-HC2

## ROBUST UNIVERSAL DATA LOGGER

WITH INTEGRATED AIRCHIP3000 TECHNOLOGY.

### INNOVATIVE SOLUTION TO ENVIRONMENTAL AND TRANSPORTATION MONITORING

- Measures relative humidity, temperature, air pressure, illuminance and acceleration (3-axis)
- Available with four analog inputs, alarm output and switching power supply
- Two inputs for interchangeable HygroClip2 probes
- Highest possible measurement accuracy
- Highest accuracy and outstanding repeatability
- Pt100 probe adapter available as an option
- Programmable four-line LC matrix display
- Large memory for up to 2,000,000 measured values
- Rechargeable lithium polymer battery with 2300 mAh for long-term recording



## BE PRECISE: ADVANTAGES AT A GLANCE

Parameters such as humidity, temperature, air pressure, light and acceleration are of central importance in order to obtain meaningful measurement results for industrial and scientific applications. The new all in one LOG-HC2, enables users to measure and save all these parameters simultaneously. The LOG-HC2 is a high quality autonomous and versatile data logger perfectly suited to long-term measurements.

The loggers perform various documentation and recording functions in the monitoring of transport conditions, the pharmaceutical and chemical industries, mechanical engineering, monitoring of storage conditions, environmental and laboratory technology, aviation, research and development, the textiles industry, building services equipment, the energy industry and in museums.



### Interface

- Mini USB PC interface/battery charging function
- Including evaluation and programming software and data cable
- Connection for AC adapter

### Flexible choice of probes

- 2 probe inputs for interchangeable, digital HygroClip2 probes
- Connection of Pt100 probes via optional adapter

- Air pressure and light sensors (integrated in housing)
- Three-axis acceleration sensor with fast peak function
- Two-button selection of functions and control of recording
- Stores more than 2,000,000 measured values

### Functional display

- 4 individually configurable views programmable
- Various display modes programmable
- 3 status LEDs
- Battery charge indicator

### Field-tested housing

- Robust industrial housing of anodized aluminum
- Rechargeable lithium polymer battery with 2300 mAh for long-term recording
- IP60 protection
- Optional extras: 4 analog inputs (2 x 0...5 V / 2 x 4...20 mA) incl. alarm output, switching power supply and input to start/stop data recording



## LOG-HC2-P1: Data logger for humidity, temperature, light air pressure and acceleration

The compact data logger LOG-HC2-P1 measures and saves humidity and temperature (2 x HygroClip2), light air pressure and acceleration (3-axis) at the same time. A four-line LCD with backlight, a large memory for more than 2,000,000 measured values and a rechargeable 2300 mAh battery ensure maximum performance combined with high ease of use. Thanks to its powerful rechargeable battery, which enables data recording over several years, the robust measuring instrument is ideal for long-term measurements.



## LOG-HC2-R01: Multifunctional data logger with LCD

The compact all in one LOG-HC2-R01 measures and saves up to five different parameters at the same time – 2 x humidity and temperature (HygroClip2), air pressure, illuminance, acceleration (3-axis) and four analog inputs. At measurement of up to 1600 values per second and axis, the 3-axis acceleration sensor allows saving of the maximum value once per configured interval. External third-party sensors can be supplied with power from the logger if necessary.



The housing of the mini logger is equipped with a standard DIN rail clip to enable easy mounting in switch cabinets, on industrial rails, etc. The device also comes with a mounting plate to enable firm mounting (can be important for acceleration measurements).

## THE PROBES FOR THE LOG-HC2

Probes in the HygroClip2 series come in various versions. You can find exactly the probe you need - from simple probe for handheld instruments and data loggers to highly-developed cable probes for high-temperature and other special applications - in our range. Common to all is the high precision the probes offer, which, thanks to our AirChip3000, can be raised even further through individual adjustment. And that 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



### Industrial probe

Probe for process applications  
Operating range 0...100 %RH, -100...200 °C and 0...400 bar  
(also available as screw-in probe)



### Mini probes

4 and 5 mm probes for measurements in confined spaces such as packaging etc. and for building material tests



### Other probes (analog)

Use your probes for analog signals, e.g. to measure wind velocity



You can find further information on our HygroClip2 probes at [www.rotronic.com](http://www.rotronic.com).

## TECHNICAL INFORMATION

<b>General data</b>	<b>LOG-HC2</b>
Storage capacity	More than 2,000,000 measured values
Two buttons	Selection of functions and confirmation
LCD	Large 4-line display with backlight to display the measured data
LED	Blue: recording; red: alarm; yellow: battery charge indicator
Power supply	- Rechargeable lithium polymer battery, 2300 mAh - The battery is charged via the USB port or AC adapter connection - Depending on the interval, it is possible to record data for up to several years on one battery charge
Interface	USB
PC software	Including setup, reader, viewer and online software (from Windows 98 / ME / NT / 2000 / XP / Vista / 7) to log and evaluate the data. All measured values can be transferred to a PC via USB both during and after measurement. Thanks to the integrated clock (RTC), the data from any number of LOG-HC2 data loggers can be merged in a single file in chronological order.
Operating range	Temperature -20 °C to +65 °C
Storage conditions	Temperature: +5 °C - +45 °C (ideal storage conditions for the battery)
Humidity	10...95 % relative humidity, non-condensing
Standards	The LOG-HC2 conforms to the EU RoHS and WEEE directives.

### LOG-HC2-P1

Parameter	Measurement range	Accuracy	Measurement/Storage rate
Relative humidity and temperature (compatible with all HygroClip2 probes)	0...100%RH/max. -100...200 °C	(±0.8 %RH/ ±0.2K at 23°C±5K)	1/s to every 12 h
Air pressure, with integrated temperature	0...2000 mbar absolute/(-20 °C to +65 °C)	±2.5 mbar (750-1100 mbar absolute, at 25°C)/±0.5 °C (0... 65 °C)	1/s to every 12 h
3-axis acceleration (position, fast peak with sampling rate of 1600/s)	±15 g /(-20 °C to 65°C)	±0.15 g (at 25 °C)	MR: 1600/s SR: 1/s to every 12 h
Light	0...65,000 lux	Linearity error max. ±5%, max. sensitivity at 500 nm	1/s to every 12 h

### LOG-HC2-R01

Parameter	Measurement range	Accuracy	Measurement/Storage rate
Relative humidity and temperature (compatible with all HygroClip2 probes)	0...100%RH, max. -100...200 °C	Probe-dependent (±0.8 %RH/ 0.2K at 23°C±5K)	1/s to every 12 h
Air pressure, with integrated temperature	0...2,000 mbar absolute/(-20 °C to +65 °C)	±2.5 mbar (750-1100 mbar absolute, at 25°C)/±0.5 °C (0 °C to +65 °C)	1/s to every 12 h
3-axis acceleration (position, fast peak with sampling rate of 1600/s)	±15 g /(-20 °C to 65°C)	±0.15 g (at 25 °C)	MR: 1600/s SR: 1/s to every 12 h
Light	0...65,000 lux	Linearity error max. ±5%, max. sensitivity at 500 nm	1/s to every 12 h
Analog inputs including alarm output and a switching power supply, input to start and stop data recording	4 analog inputs: 2 x 0...5 V, 2 x 4...20 mA		

### Order codes

LOG-HC2

### Universal data logger LOG-HC2

LOG-HC2-P1	For 2 interchangeable HygroClip2 probes, with sensors for air pressure, light and 3-axis acceleration (fast peak) including Windows-based evaluation/programming software
LOG-HC2-R01	For 2 interchangeable HygroClip2 probes, with sensors for internal temperature, air pressure, light, 3-axis acceleration (fast peak), 4 analog inputs with alarm output, including Windows-based evaluation/programming software

### Probes and software

HC2-S	Standard climate/meteorology probes, Ø 15 mm, operating range: 0...100 %RH/-50...100 °C, accuracy at 23°C±5K: ±0.8 %RH / ±0.1 K
HC2-C05	Miniature cable probes, Ø 5 mm, 2 m cable length, operating range: 0...100% RH/ -40...85 °C
HC2-IC102	PPS industrial cable probes, Ø 15 x 100 mm, 2 m cable length, operating range: 0...100 %RH/ -100...200 °C
HC2-IM102	Stainless steel cable probes, Ø 15 x 130 mm, 2 m cable length, operating range: 0...100 %RH/ -100...200 °C
HC2-PT100-B4	Adapter for PT100 probes with 4-pin Binder connector, compatible with AC19xx series

### Calibration accessories

ER-15	Calibration device Ø 15 mm, suitable for HC2-S3
EAXx-SCS	SCS-certified humidity standards, set consisting of 5 ampoules, 5 textile pads and SCS certificate (xx = 0.5, 5, 10, 20, 35, 65, 75, 80, 95%RH)
AC3001	Active converter cable (UART/USB) for HygroClip2 probes for direct USB connection to a PC
HW4-E	Windows-based calibration and evaluation software for HC2 probes, standard version

### Cables and accessories

E2-01A	Extension cable for HygroClip2 probes, 1 m, anthracite
E2-02A	Extension cable for HygroClip2 probes, 2 m, anthracite
E2-05A	Extension cable for HygroClip2 probes, 5 m, anthracite

You would like more information?

You can find a complete and up-to-date overview of the LOG-HC2 series of data loggers on the internet at [www.rotronic.com](http://www.rotronic.com).

Change over now to the HygroClip2 probes with integrated AirChip3000 technology for your temperature and humidity measurements. You can find detailed information about our probes at [www.rotronic-humidity.com](http://www.rotronic-humidity.com). We would also be happy to advise you in person or on the phone.

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