

HC2-ROPCB/01



HC2-ROPCB/01



Delivery Package

Advantages

- OEM module for humidity and temperature measurement
- Adjusted at 23°C and 10, 35 and 80 %rh
- Application range: -50...100 °C / 0...100 %rh (non-condensing)
- Two freely scalable analog outputs (2 x 0...1 V)
- Customized versions on request

Applications

- Rotronic precision and accuracy for your OEM device
- OEM modul for handhelds, loggers and industrial manufactures
- OEM customization like different sensing element on request



Sensor HYGROMER IN-1

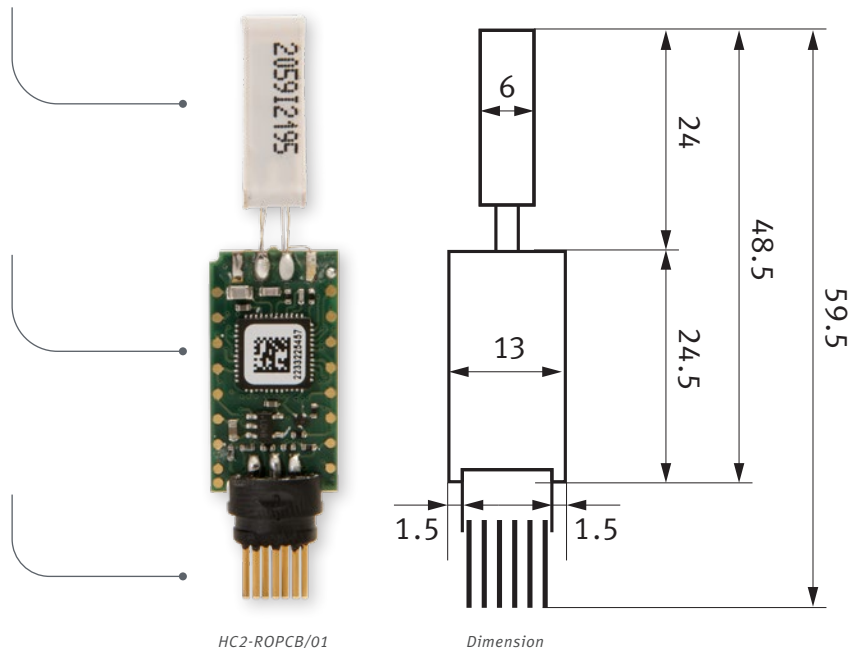
- Established in the market for over 10 years
- High accuracy and repeatability (up to ± 0.8 %rh @23 °C)
- Excellent Long-term stability (<1 %rh per year with clean air)

Smart Electronic

- Based on the Rotronic's AirChip3000
- Calculates the dew / frost point
- Saves adjustment data so that probes can be interchanged without re-adjusting

Flexibility and Compatibility

- Easy installation and handling
- User scalable analog output signals (2x 0...1V)¹
- Digital interface via UART²



HC2-ROPCB/01

Dimension

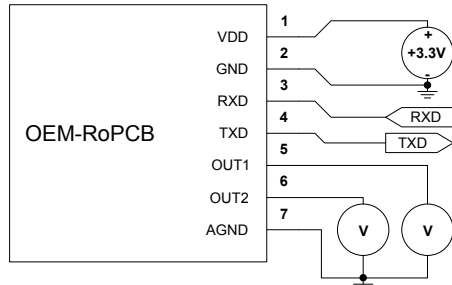
¹ HygroSoft software and service cable AC3001 are required

² Universal Asynchronous Receiver Transmitter

CONNECTION DIAGRAM

The OEM module is equipped with a mounted 7-pol zwergel and the respective pin assignment is defined as follows:

Diagram



Connection diagram

Pin	Description	Front view	Rear view
1	VDD (power supply)		
2	GND (GND)		
3	RxD		
4	TxD		
5	OUT1 *(humidity 0...100 % rh)		
6	OUT2 *(temperature -40...60 °C)		
7	AGND		

* Default setting

COMPUTER CONNECTION

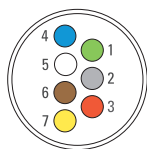
The cable AC3001 allows direct connection to a computer via USB and with use of the HygroSoft software to adjust the HC2 OEM modul probe's parameters such as:

- Scale of Analog outputs
- Calculated parameter on analog outputs

TECHNICAL INFORMATION

HC2-ROPCB/01

Connector pin-out



- 1 ● V+
- 2 ● GND (digital and supply)
- 3 ● RXD (UART)
- 4 ● TXD (UART)
- 5 ○ Analog signal humidity (0...100 %rh = 0...1 V)
- 6 ● Analogsignal °C (-40...60 °C = 0...1 V)
- 7 ● AGND (analog ground)

Technical Data

Humidity sensor	HYGROMER IN-1
Temperature sensor	PT100 1/3 class B
Response time sensor	t63: <15 s without filter, (temperature and humidity)
Max. air velocity (m/s)	3.5 without filter
Operating humidity	0...100 %rh, non-condensing
Operating temperature	-50...+100 °C
Accuracy @ 23 °C	±0,8 %rh ±0,1 K
Factory adjustment	@23°C and 10, 35, 80 %rh
Long-term stability	< 1 %rh / year (with clean air)
Supply voltage	3.3...5 VDC
Current consumption	Approx. 4.5 mA (adjusted at 3.3 VDC)
Digital communication	UART (19200 baud fixed)
Protocols	RoAscii (default), I2C, Modbus (not universal) ³
Analogue outputs	2x 0...1 VDC
Analogue outputs parameters	Humidity (default) • Temperature (default) • Dew point (setting with HygroSoft) • Frost point (setting with HygroSoft)
Analog output scaling	Humidity (0...100 %rh = 0...1 V) • Temperature (-40...60 °C = 0...1 V) • Freely settable with HygroSoft
Timing	1 st measurement after 3 s Measurement interval 1 s
Air Chip 3000	Saves adjustment data so that probes can be interchanged without re-adjusting
Compatible devices	HF5, HF8, HP32, HP23
Delivery package	Modul in ESD packaging • Short Instruction Manual • Calibration Certificate

³ Installation and integration according to the Rotronic approved communication protocols.
The OEM module has no warranty and is not supported with third party protocols.