

WMT.HT Series

Wall Mounted Humidity Transmitters

20250710R1

Technical Catalogue



The **WMT.HT.1021.M Wall-Mounted Humidity Transmitter** is designed for continuous and accurate monitoring of relative humidity in indoor environments. Using a high-precision capacitive humidity sensing element, it measures relative humidity in the range of 0 to 100 %RH and communicates the measurement via Modbus RTU (RS-485) protocol.

Powered by 24 V AC/DC, the transmitter offers low power consumption (≤ 3 VA), high measurement accuracy, and long-term stability. Housed in a compact IP54-rated enclosure, it is suitable for operation in environments from -10 °C to $+60$ °C (non-condensing) and can be seamlessly integrated into building automation, HVAC, and environmental monitoring systems.

Features

- 0.....100% RH measurement range
- Modbus-RTU Communication
- 24 V AC/DC power supply
- Max. 3 VA power consumption
- $\pm 2\%$ RH measurement accuracy
- Operating range: -10 °C to $+60$ °C
- 0–100% RH (non-condensing)
- External humidity probe for internal air measurement
- IP54 enclosure protection (excluding sensor probe)
- High-accuracy digital humidity sensing element

Order Codes

WMT.HT.1021.M

Wall Mounted Humidity Transmitter with Modbus-RTU Communication

Warnings



Before starting the installation of the device, carefully read the user manual and the warnings below.

The user is responsible for any damage, loss, or personal injury resulting from failure to comply with the warnings in this manual. Do not modify or attempt to repair the device. Any intervention on the device may cause malfunction, damage to the device or the system.

In such cases, the device will be excluded from the warranty coverage.

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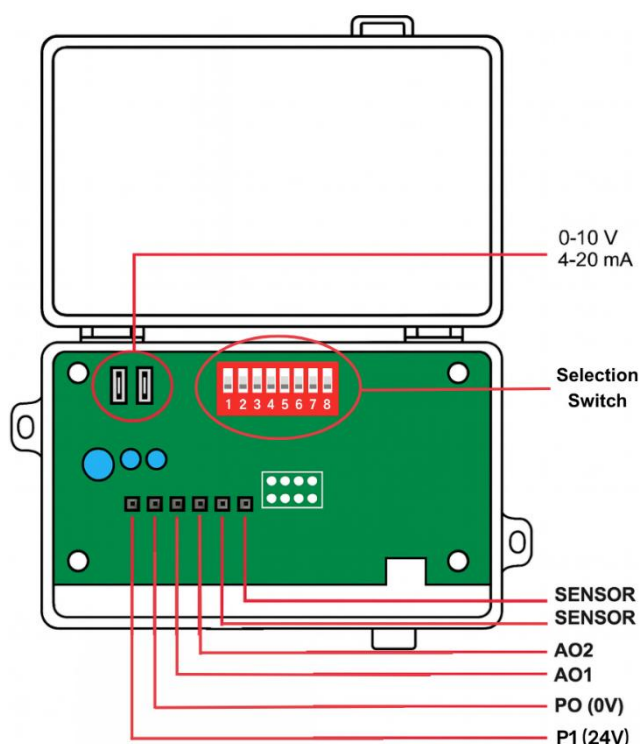
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Technical Specifications

Electrical Specifications	Power Supply	24 V AC/DC $\pm 10\%$, 50/60 Hz
	Power Consumption	3 VA
	Connection	Connector 1.5 mm ²
Environmental Specifications	Operating Temperature	-10 ... +60°C
	Storage Temperature	-25 ... +70°C (Without icing and condensation)
	Operating Humidity	0...90 %RH (non-condensing)
	Altitude	Max. 2000m.
Functions	Operating Environment	Non-flammable and non-corrosive environments
	Outputs	0-10V/2-10V/4-20mA
Safety Information	IP Protection Rating	IP54 enclosure protection (excluding sensor pipe)
	Certification EN	EN60529

Enclosure Specifications

Enclosure Type	Wall Mounting
Dimensions	W100 x H80 x D40 (mm) (Width x Height x Depth)
Weight	168gr



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Switch Settings for Modbus-RTU

Baudrate	Dip Switch	
	1	2

9600 bps	0	0
19200 bps	0	1
38400 bps	1	0
57600 bps	1	1

Other Communication Settings (fixed as shown below):

- * Data Bits: 8
- * Parity: None
- * Stop Bits: 1

Note: The baud rate can be adjusted using **DIP Switches 1 and 2**. After changing the switch positions, please **power cycle** (turn off and then turn on) the humidity transmitter to apply the new settings.

Modbus-ID	Dip Switch					
	3	4	5	6	7	8
1	0	0	0	0	0	1
2	0	0	0	0	1	0
3	0	0	0	0	1	1
4	0	0	0	1	0	0
5	0	0	0	1	0	1
6	0	0	0	1	1	0
7	0	0	0	1	1	1
8	0	0	1	0	0	0
9	0	0	1	0	0	1
10	0	0	1	0	1	0
11	0	0	1	0	1	1
12	0	0	1	1	0	0
13	0	0	1	1	0	1
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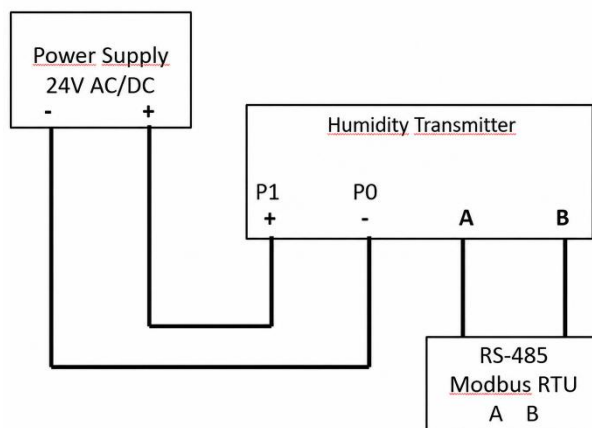
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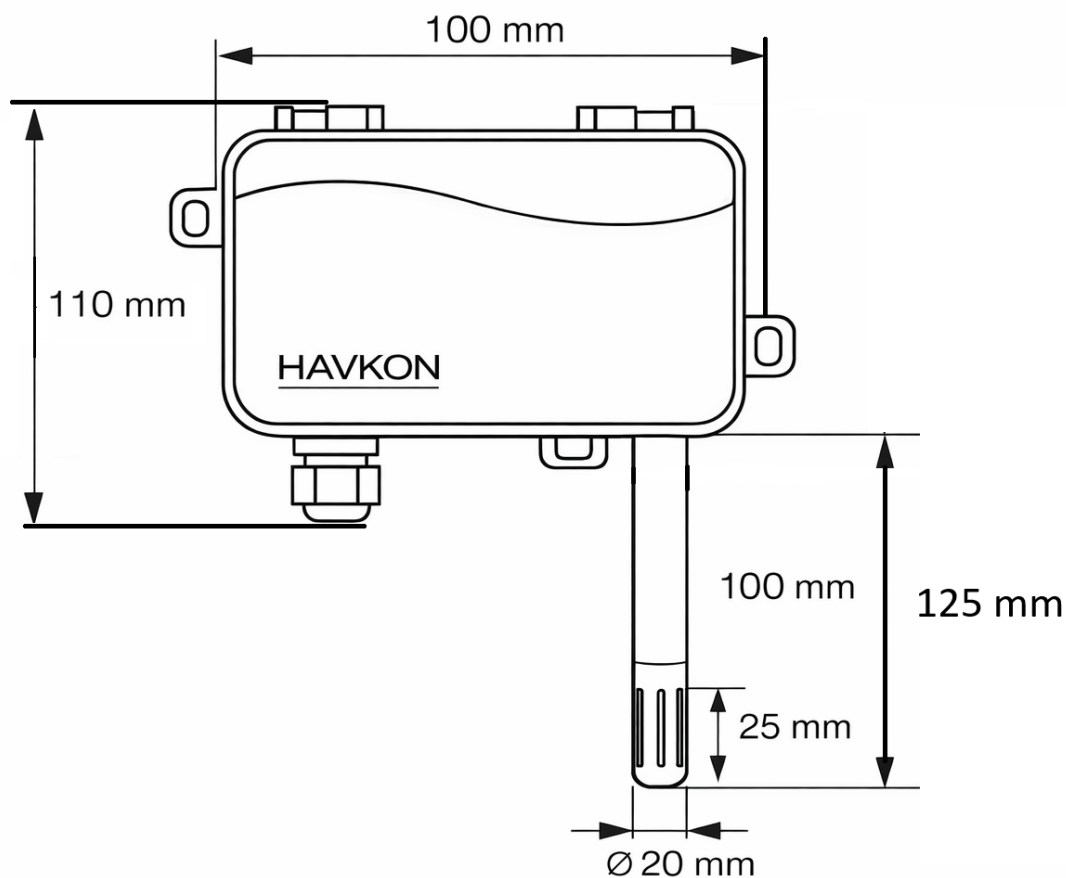
Wiring Diagram

The WMT.HT Series Humidity Transmitters are designed to measure and transmit relative humidity and temperature values.



Dimensions

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Register Table

Register Table (0-based)	Register Table (1-based)	Description	Data Type	Scale	Range	Function Code
0	40001	Humidity Value	UINT16	01:10	0-100 % RH	0x03 (Read)
1	40002	Temperature Value	INT16	01:10	-10°C.. -60 °C	0x03 (Read)

Safety Instructions



- The WMT.HT Series is a wall-mounted humidity transmitter designed for indoor HVAC applications and must be operated in accordance with this manual.
- Ensure that the connection cables are de-energized during installation.**
- The device must be protected from **moisture, vibration and contamination**. Respect the specified operating temperature range.
- For **communication and signal lines, shielded and twisted pair cables** must be used. These cables must be routed away from high-power lines and equipment to prevent interference.
- Ensure that the RS-485 A/B terminals are connected only to the communication network. Do not connect them to mains power, as this may cause permanent damage to the device.**
- Installation and electrical connections must be performed by qualified personnel** in accordance with the guidelines in this manual.
- Fuse ratings and cable cross-sections must be selected** based on the load current and the device's operating voltage.
- Power supply cables must conform to IEC 60227 or IEC 60245 standards.**
- For safety, the mains switch must be located in a position **easily accessible to the operator and clearly marked as being related to the device.**