

HUMIDITY TRANSMITTERS RHT SERIES

Wall mount relative humidity transmitters for building automation systems



RHT relative humidity transmitters are engineered for building automation systems in the HVAC/R industry. The RHT measures relative humidity (rH), and temperature (T). RHT devices are available with large touchscreen display making configuration of the device quick and easy.

RHT series devices include:

- Separate field configurable output for each measurement parameter (rH, T).
- Proportional output options including: voltage (0-10 V, 2-10 V) and current (4-20 mA).
- Offset feature enabling field calibration for each measurement parameter (rH, T)

RHT series device options offer:

- 2" x 3" touchscreen display
- Field configurable relay for any of the two parameters
- Modbus configuration



APPLICATIONS

RHT series devices are commonly used to monitor:

- humidity and temperature levels in offices, public spaces, hospitals, meeting rooms and classrooms
- humidity and temperature in various commercial applications
- humidity and temperature in HVAC/R environment

MODEL SUMMARY

	RHT	
Description	Model	Product code
Relative humidity transmitter for room	RHT	301.002.001
- with display	RHT-D	301.002.002
- with relay and display	RHT-1R-D	301.002.004
- with Modbus configuration and display	RHT-MOD-D	301.002.003
- with Modbus configuration, relay and display	RHT-MOD-1R-D	301.002.005

HUMIDITY TRANSMITTERS

RHT SERIES

SPECIFICATIONS

Performance

Measurement ranges:

Temperature: 0...50 °C

Relative humidity: 0-100 %

Accuracy:

Temperature: <0.5 °C

Relative humidity:

±2...3 % at 0...50 °C and 10-90 % rH

Total error band includes accuracy, hysteresis and temperature effect over 5...50 °C and 10-90% rH.

Technical Specifications

Media compatibility:

Dry air or non-aggressive gases

Measuring units:

°C and % rH

Measuring element:

Temperature: Pt1000

Relative humidity:

Thermoset polymer capacitive sensing element

Environment:

Operating temperature: 0...50 °C

Storage temperature: -20...70 °C

Humidity: 0 to 95 % rH, non condensing

Physical

Dimensions:

Case: 99 x 90 x 32 mm

Weight:

150 g

Mounting:

3 screw holes slotted, 3.8 mm

Materials:

Case: ABS

Protection standard:

IP20

Display (Optional)

Touchscreen

Size: 77.4 x 52.4 mm

Electrical connections:

Power supply:

5-screw terminal block

(24 V, GND, rH, T, NC)

0.2-1.5 mm² (12-24 AWG)

Relay out:

3-screw terminal block

(NC, COM, NO)

0.2-1.5 mm² (12-24 AWG)

Electrical

Input:

24 VAC or VDC, ±10 %

Current consumption: max 90 mA (at 24 V) + 10 mA for each voltage output or 20 mA for each current output

Temperature output signal:

0-10 V, R>1 kΩ

2-10V, R>1 kΩ

4-20 mA, R<500 Ω

Relative humidity output signal:

0-10 V, R>1 kΩ

2-10 V, R>1 kΩ

4-20 mA, R<500 Ω

Relay out:

SPDT Relay, 250 VAC / 30 VDC / 6 A

Adjustable switching point and hysteresis

Conformance

Meets requirements for CE marking:

EMC Directive 2014/30/EU

RoHS Directive 2011/65/EU

LVD Directive 2014/35/EU

WEEE Directive 2012/19/EU

**COMPANY WITH
MANAGEMENT SYSTEM
CERTIFIED BY DNV GL**
= ISO 9001 = ISO 14001 =



HOW TO GENERATE A MODEL?

Example: RHT-1R-D	Product Series				
	RHT	Relative humidity transmitter, analog configurations			
	RHT-MOD	Relative humidity transmitter, Modbus configuration			
		Mounting			
			Wall mount		
			Relay		
			-1R	With relay	
				Without relay	
				Display	
		-D		With Display	
		Without Display			
Model	RHT		-1R	-D	