

HUMIDITY TRANSMITTERS RHT Duct Series

Duct mount relative humidity transmitters for building automation systems



RHT Duct is a relative humidity transmitter with temperature output installed in air ventilation duct. Illuminated display ensures easy readability also from a distance. The RHT has a screwless lid and an easily adjustable mounting flange that make the installation of the device easy.

RHT Duct series devices include:

- Separate output for each measurement parameter (rH, T).
- Mounting flange

RHT Duct series device options offer:

- Clear backlit display
- Modbus configuration

The versatility of the RHT Duct series air quality transmitters ensures that the right product for your application is available.



APPLICATIONS

RHT Duct series devices are commonly used to monitor and control:

- Relative humidity and temperature levels of incoming and return air in ventilation system

MODEL SUMMARY

Description	RHT Duct	
	Model	Product code
Relative humidity transmitter for duct	RHT Duct	302.002.001
- with display	RHT Duct-D	302.002.002
- with Modbus configuration and display	RHT-MOD Duct-D	302.002.006

HUMIDITY TRANSMITTERS

RHT Duct Series

SPECIFICATIONS

Performance

Measurement ranges:

Temperature: 0...50 °C
Relative humidity: 0–90 %

Accuracy:

Temperature: <0.5 °C
Relative humidity: ±4 % max @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: NTC10K
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: 119 x 100 x 44.7 mm
Probe: L=188 mm, d=12 mm

Weight:

150 g

Materials:

Case: ABS
Cover: PC
Probe: ABS
Mounting flange: LLPDP

Protection standard:

IP54

Electrical connections:

4 spring loaded terminals
(24 V, GND, rH, T)
12–24 AWG (0.2–1.5 mm²)

Electrical

Supply voltage: 24 VAC or VDC ±10 %
Current consumption: max 90 mA (at 24 V) + 10 mA for each voltage output
Output signals for every media:
0/2...5/10 VDC, Load R minimum 1 kΩ

Conformance

Meets requirements for CE marking:
EMC Directive: 2004/108/EC
RoHS Directive: 2002/95/EC
WEEE Directive: 2002/96/EC



How to generate a model?

Example: RHT Duct-D	Product Series			
	RHT	Relative humidity transmitter, analog configurations		
RHT-MOD	Relative humidity transmitter, Modbus configuration			
	Mounting			
		Wall mount		
	Duct	Duct mount (not available with relay)		
		Relay (only for wall mount model)		
	-1R	With relay		
		Without relay		
		Display		
	-D	With display		
		Without display		
Model	RHT	Duct	-D	