

HUMIDITY TRANSMITTERS RHT-MOD Duct Series

Humidity transmitters with temperature output for duct that use Modbus serial communication protocol



RHT-MOD 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-MOD Duct has a screwless lid and an easily adjustable mounting flange that make the installation of the device easy.

RHT-MOD Duct series devices include:

- Separate Modbus output for each measurement parameter (rH, T)
- Mounting flange
- Clear backlit display

The versatility of the RHT-MOD 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

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

HUMIDITY TRANSMITTERS

RHT-MOD 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

Power supply:

(24 V and GND)

12–24 AWG (0.2–1.5 mm²)

Modbus RTU:

A and B line

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

Communication

Modbus RTU, over RS485

Conformance

Meets requirements for CE marking:

EMC Directive: 2014/30/EU

RoHS Directive: 2002/95/EC

WEEE Directive: 2012/19/EU



How to generate a model?

Example: RHT-MOD Duct-D	Product Series			
	RHT	Relative humidity transmitter, analog configurations		
RHT-MOD	Relative humidity transmitter, Modbus configuration			
	Mounting			
		Wall mount		
	Duct	Duct mount		
		Relay (only for wall mount model)		
	-1R	With relay		
		Without relay		
		Display		
	-D	With display		
		Without display		
Model	RHT	Duct	-D	