

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



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: 0-100 %
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: 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
Mounting:
With flange, adjustable 0...188 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)
0.2-1.5 mm² (12-24 AWG)

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: 2014/30/EU
RoHS Directive: 2011/65/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 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 | | |