IDT220 revision 03 2011



HDT2200

Humidity/temperature transmitter for duct mounting

The HDT2200 series is a humidity- or a humidity/ temperature- transmitter for duct mounting

- Supply voltage 15-29 V AC or 15-35 V DC
- Accuracy +/- 2% RH
- Output signal 0-10 V DC or 4-20 mA

Function

The HDT2200 humidity transmitter is intended for duct-mounting in HVAC-applications, swimming baths, greenhouses, stables etc.

The humidity transmitter has a capacitive thin-film element which gives a signal that is proportional to the relative humidity. The measuring signal is converted by the built-in electronics to output signals, 0 - 10 V or 4-20~mA

Measuring element

The transmitter has an accuracy of +/- 2%RH (0...90%RH), +/-3% RH (90... 100% RH).

The measuring element has rapid response to changes in humidity. It can withstand saturation without negative effects on the accuracy. The sensor element can be subjected to 100 %RH without being damaged and has excellent long-term stability. The element also has good durability in contaminated environments.

- IP65
- Excellent long term stability
- Resistant to contamination

Combination transmitter

The HTDT transmitter has, apart from the functions included in HDT, a temperature sensor, which, via the built-in electronics, gives output signals 0 - 10 V DC or 4-20 mA.

Supply voltage

The transmitter can be supplied by either 15-29 V AC or 15 - 35 V DC. The transmitter has automatic adaptation to the connected voltage.

Transmitters with output 4-20 mA are to be supplied with 20-35 V DC $\,$



Models

HDT2200 Humdity transmitter for duct mounting, 0-10V HDT2200-420 Humdity transmitter for duct mounting, 4-20mA

HTDT2200 Humidity and temperature transmitter for duct mounting, 0-10V HTDT2200-420 Humidity and temperature transmitter for duct mounting, 4-20mA

Technical data

Supply voltage 15-29 V AC +/-20% and 15-35 V DC (versions with 4-20 mA output: 20-35 V DC)

Current consumption 15 mA (0-10 V versions)

Output charge Max 1 mA (0-10 V), >500 Ω (4-20 mA)

Ambient temperature electronic -20...+50 C° Ambient temperature sensor -20...+80 C°

Cabel connection Screw terminals max 1,5mm

Protection class IP65

These products conform with the requirements of European EMC standards CENELEC

EN 50081-1 and EN 50082-1 and carry the CE mark.

Humidity.

Sensor element Capacitive thin-film element

The sensor element can be subjected to 100 %RH without being damaged.

Working range 0...100 %RH

Accuracy at 20° C +/-2 % RH (0...90% RH), +/-3% RH (90...100%RH)

Hysteresis 10% - 80% - 10% <2% RH

Temperature dependance Typical - 0,05% RH/° C at 60% RH

Outputs 0 - 10 V DC <1,0mA, 4-20 mA <500 Ohm for 0...100% RH

Sensor protection Membrane filter, sintered brass on request

Temperature (only HTDT2200 and HTDT2200-420)

Sensor element KF6544 Class DIN A IEC 751

Working range -20...+80 C°

Output signals 0 - 10 V DC or 4-20 mA for -20...+80° C

Accuracy at 20°C +/- 0,2°C

Temperature dependence <+/-0.03°C / °C (for the electronic circuitry)

All other technical details as above.

Wiring and dimensions

Supply voltageSystem neutral

HDT2200

3 Output humidity 0-10 V DC

HTDT2200

Supply voltageSystem neutral

3 Output humidity 0-10 V DC

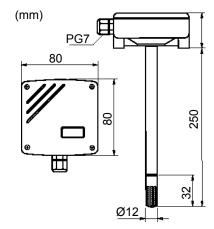
Output temperature 0-10 V DC

HDT2200-420 HTDT2200-420

Supply voltage 1 Supply voltage

2 Output humidity 4-20mA 2 Output humidity 4-20mA

3 Output temperature 4-20mA



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