HTDT10(-420)

Temperature transmitter for duct mounting

Duct-mounted transmitter for relative humidity and temperature measurement in climate and air handling installations.

HTDT10(-420) is intended for duct mounting and has a capacitive thin-film element that provides a signal proportional to the relative humidity. The measurement signal is transmitted via the built-in electronics to an analogue output signal.

The transmitter has high accuracy (±2 % RH) and excellent long-term stability. The sensor element reacts quickly to changes in humidity and low hysteresis. It can withstand up to 100 % RH (condensing) without accuracy being affected and is highly resistant to polluted environments.

Combination sensor

The transmitter has a temperature sensor which provides an analogue output signal via built-in electronics.

Filter

The transmitter sensor element is protected by a membrane filter. This can be changed to a stainless steel filter (HA010103), which is recommended when operating in an environment with a high degree of pollution.

Supply voltage

The transmitter uses a supply voltage of either 15...29 V AC or 15...35 V DC. The transmitter will automatically detect and adapt to the connected supply voltage.

Transmitters with 4...20 mA output signal must be supplied with 20...30 V DC and connected via a two-wire connection.

Short facts about HTDT10(-420)

- High accuracy
- Excellent temperature compensation
- Very good protection against condensation and pollution
- Robust sensor element
- Easy to mount

Output signal

The output signal of the transmitter is either 0...10 V or 4...20 mA. See model overview overleaf.

Housing

The transmitter has a housing with protection class IP65.

Models

Model	Supply voltage	Output signal
HTDT10	15...29 V AC or 15...35 V DC	0...10 V
HTDT10-420	20...30 V DC	4...20 mA

Technical data

Power consumption	15 mA (0...10 V output signal)
Output load	Max 1 mA (0...10 V), max. 500 Ω (4...20 mA)
Cable connection	Disconnectable terminal strips
Material, housing	Polycarbonate (PC)
Protection class	IP65
Weight	0.25 kg
Storage temperature	-40...+60°C
Load impedance	
HTDT10	Min. 10 kΩ
HTDT10-420	Max. 500 Ω

Humidity

Sensor element	Capacitive thin-film element
Sensor element protection	Membrane filter. Sintred filter in stainless steel on request.
Working range	0...100 % RH
Output signal	0...10 V DC (4...20 mA) corresponding to 0...100 % RH
Accuracy	±2 % RH (0...90 % RH), ±3 % RH (90...100 % RH)
Hysteresis	Less than 2 % RH
Temperature dependency	Less than ±0.03 % RH/ °C (at 45 % RH)

Temperature

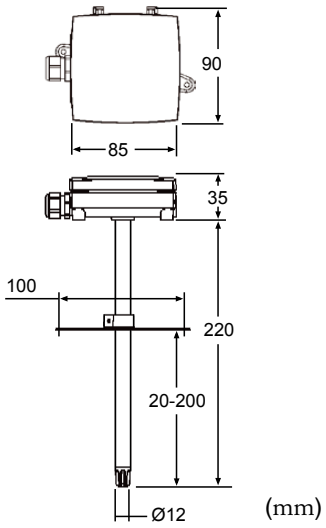
Sensor element	PT1000 (tolerance according to DIN B EN60751)
Measurement range	-40...+60°C
Output signal	0...10 V DC (4...20 mA) corresponding to -20...+80°C
Accuracy	±0.2 K at 20°C
Temperature dependency	Less than ±0.01°C/°C

CE

EMC emissions & immunity standards: This product conforms to the requirements of the EMC Directive 2004/108/EC through product standards EN 61326-1 and EN 61326-2-3.

RoHS: This product conforms to the Directive 2011/65/EU of the European Parliament and of the Council.

Dimensions



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Product documentation

Document	Type
HTDT10(-420) instruction	Instruction for humidity/temperature transmitter

The document can be downloaded from www.regincontrols.com.

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REGIN
THE CHALLENGER IN BUILDING AUTOMATION