



HTWT10(-420)

Humidity/temperature transmitter for wall mounting

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

HTWT10(-420) is intended for wall 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 HTWT10(-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.

Outdoor mounting

When the transmitter is mounted outdoors it should be equipped with the HVS weather guard, available as an accessory, in order to reduce the risk of measurement errors.

Models

Model	Supply voltage	Output signal
HTWT10	15...29 V AC or 15...35 V DC	0...10 V
HTWT10-420	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	
HTWT10	Min. 10 k Ω
HTWT10-420	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

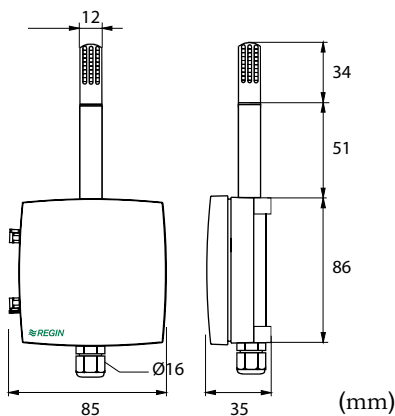
Sensor element	PT1000 (tolerance according to DIN B EN60751)
Measurement range	-40...+60°C
Output signal	0...10 V DC (4...20 mA) corresponding to -20...+80°C
Accuracy	± 0.2 K at 20°C
Temperature dependency	Less than ± 0.01 °C/°C



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



Product documentation

Document	Type
HTWT10(-420) instruction	Instruction for humidity/temperature transmitter

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

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