



# 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 ( $\pm 2\%$  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 a weather guard as an accessory in order to reduce the chance 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 $\Omega$ (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 $\Omega$
HTWT10-420	Max. 500 $\Omega$

## 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	$\pm 2$ % RH (0...90 % RH), $\pm 3$ % RH (90...100 % RH)
Hysteresis	Less than 2 % RH
Temperature dependency	Less than $\pm 0.03$ % RH/ °C (at 45 % RH )

## Temperature

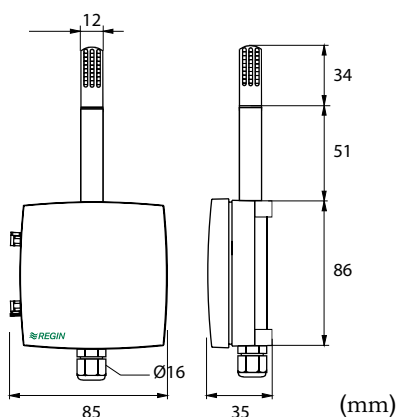
Sensor element	PT1000 (tolerance according to DIN B EN60751)
Measurement range	-40...+60°C
Output signal	0...10 V DC (4...20 mA) corresponding to -20...+80°C
Accuracy	$\pm 0.2$ K at 20°C
Temperature dependency	Less than $\pm 0.01$ °C/°C



**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](http://www.regincontrols.com).

### Head office Sweden

Phone: +46 31 720 02 00

Web: [www.regincontrols.com](http://www.regincontrols.com)

Mail: [info@regin.se](mailto:info@regin.se)



THE CHALLENGER IN BUILDING AUTOMATION