

HTWT10WS

Humidity and temperature transmitter for wall mounting, with probe and weather shield



Wall-mounted transmitter for measuring relative humidity and temperature in climate and air handling installations, with a probe and weather shield for outdoor installation.

- ✓ High accuracy
- ✓ High resistance to condensation and pollution
- ✓ IP65 protection rating
- ✓ Robust sensor element
- ✓ Easy installation with closed cover
- ✓ Weather and radiation shield
- ✓ Probe

Application

The HTWT10WS is designed for wall- or pole mounting. Its IP65-rated enclosure provides protection against contamination and condensation. For outdoor installations, the probe and weather shield help maintain stable measurements and protect the probe from direct sunlight, rain, ice, and snow.

Function

The built-in electronics convert the measured values to analogue output signals.

The transmitter provides high accuracy and excellent long-term stability. The sensor element responds quickly to changes in humidity and has low hysteresis. It withstands humidity levels up to 100 % RH, including

condensation, without affecting measurement accuracy and is highly resistant to contaminated environments.

Combination sensor

The integrated temperature sensor provides an analogue temperature output.

Probe

The wall-mounted transmitter uses an intelligent probe (HTS401P) with temperature and humidity sensor. The probe is interchangeable.

The probe is supplied with a plastic mounting flange.

Weather shield

The weather and radiation shield (HA010514) allows air to circulate around the sensor element and helps prevent

temperature offset in direct sunlight. It also protects the sensor from rain, snow, and ice. The shield is supplied with a mounting plate for easy installation of the HTWT10WS.

Filter

A membrane filter protects the sensor element. The optional stainless-steel filter (HA010103) is recommended for highly contaminated environments.

Supply voltage

The transmitter operates on 15...35 V DC or 24 V AC and automatically detects the connected supply voltage.

Outputs

The transmitter provides two freely scalable 0...10 V analogue outputs for temperature and relative humidity.

Technical data

1 General

Power supply 0...10 V	15...35 V DC or 24 V AC $\pm 20\%$
Current consumption at 24 V	15 mA (0...10 V output signal) DC supply max. 40 mA AC supply max. 65 mA
Cable connection	Screw terminals, max. 1.5 mm ² Cable gland: M16 x 1.5 mm
Protection class	IP65
Weight	0.71 kg
Storage temperature	-40...+60 °C

2 Humidity

Sensor element	Capacitive thin-film element
Sensor element protection	Membrane filter. Sintered filter in stainless steel on request.
Working range	0...100 % RH
Output signal	0...10 V DC corresponding to 0...100 % RH
Accuracy	incl. hysteresis, non-linearity and repeatability
-15...+40 °C, $\leq 90\%$ RH	$\pm(1.3 + 0.003 \cdot \text{measured value})\%$ RH
-15...+40 °C, $> 90\%$ RH	$\pm 2.3\%$ RH
-40...+60 °C	$\pm(1.5 + 0.015 \cdot \text{measured value})\%$ RH

3 Outputs

Two freely selectable and scalable outputs	0...10 V, $-1\text{ mA} < I_L < 1\text{ mA}$ (I_L = load current)
OUT1	Temperature
OUT2	Humidity

4 Temperature

Measurement range	-40...+60 °C
Output signal	0...10 V DC corresponding to -20...+80 °C
Accuracy	$\pm 0.2\text{ K}$ at 20 °C

5 Probe (HTS401P)

Material	Polycarbonate enclosure and probe tube
Filter	Metal grid
Connection	M12 cable, 4 pins

6 Weather shield (HA010514)

Material	Polycarbonate
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7 Sensor connection cable (HA010831)

Material	Sensor connection cable PVC
Connection	M12x1 socket wire ferrules, 5 pins
Length	0.5 m



This product carries the CE-mark. More information is available at www.regincontrols.com.

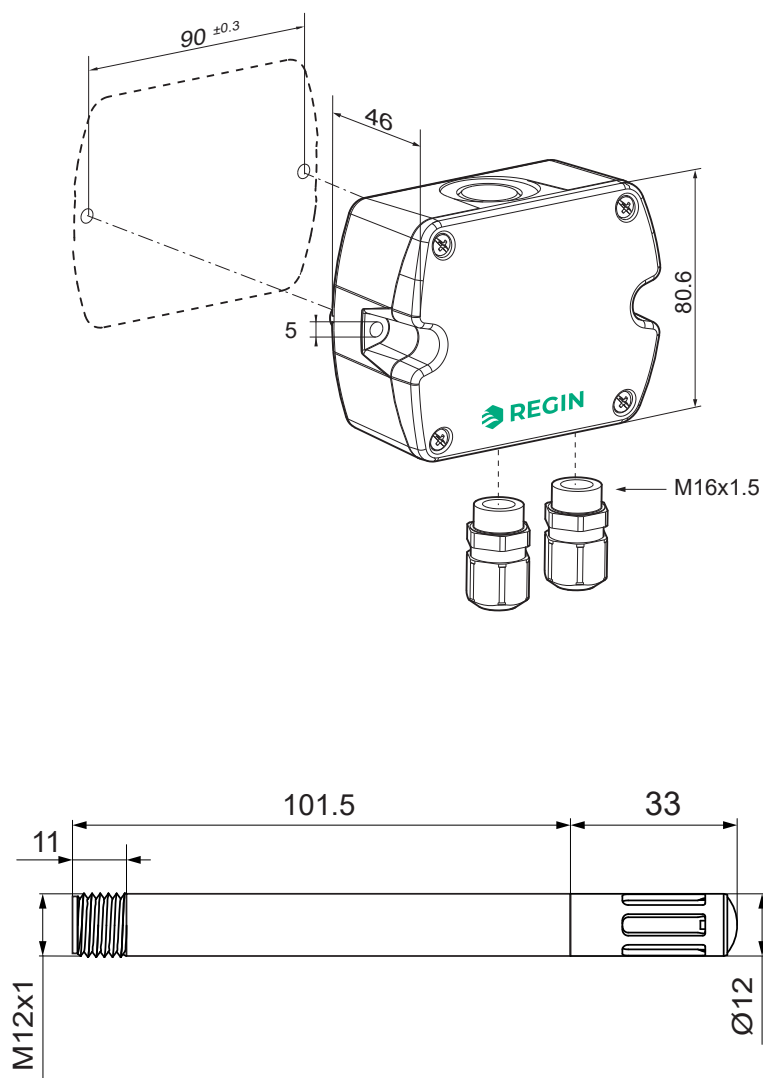
Material

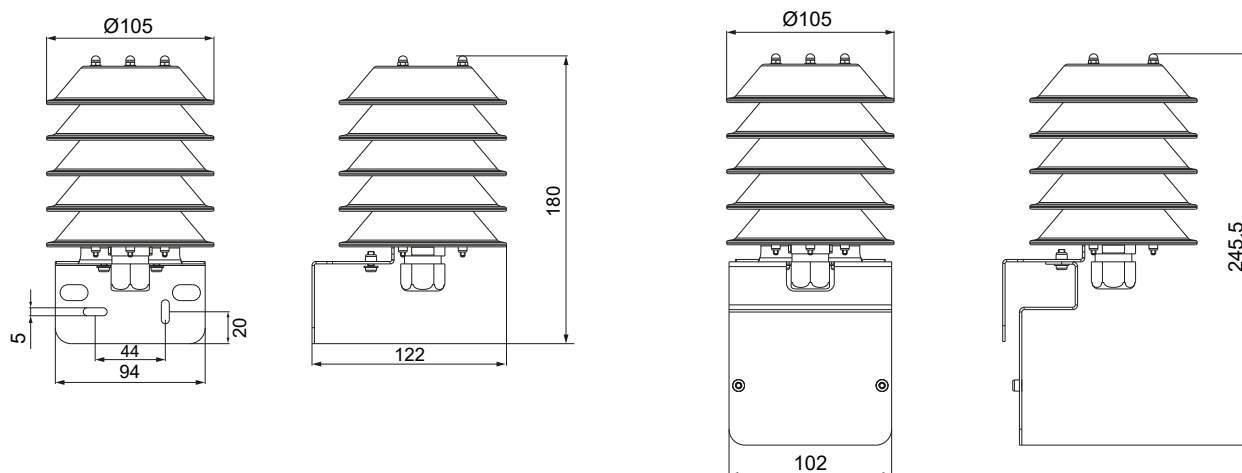
Material, housing	PC (Polycarbonate), UL94 V-0 approved
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Models

Article	Supply voltage	Output signal
HTWT10WS	15...35 V DC or 24 V AC $\pm 20\%$	0...10 V

Dimensions





[mm]

Documentation

All documentation can be downloaded from www.regincontrols.com.