

HTWT10-2

Humidity/temperature transmitter
for wall mounting



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

- ✓ High accuracy
- ✓ Selectable display layout
- ✓ Excellent temperature compensation
- ✓ Very good protection against condensation and pollution
- ✓ Protection rating IP65
- ✓ Robust sensor element
- ✓ Easy to mount, with closed cover

Application

The HTWT10-2 is available in a wall-mounted configuration. Its IP65-rated enclosure reduces installation effort while ensuring robust protection against contamination and condensation.

Function

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.

Technical data

1 General

Power supply 4...20 mA (2-wire) 0...5 V / 0...10 V 0...20 mA (3-wire) RS485	(10 V + R _L * 20 mA) < V+ < 30 V DC, (R _L = load resistance) 15...35 V DC or 24 V AC ±20 %
Current consumption at 24 V	15 mA (0...10 V output signal) DC supply max. 40 mA (with display max. 44 mA) AC supply max. 65 mA (with display max. 84 mA)
Cable connection	Screw terminals, max. 1.5 mm ² Cable gland: M16 x 1.5 mm
Protection class	IP65
Weight	0.25 kg
Storage temperature	-40...+60°C

2 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	incl. hysteresis, non-linearity and repeatability
-15...+40 °C, ≤90 %RH	±(1.3 + 0.003*measured value) % RH
-15...+40 °C, >90 %RH	±2.3 % RH
-40...+60 °C	±(1.5 + 0.015*measured value) % RH

3 Outputs

Two freely selectable and scalable outputs	0...5 V / 0...10 V, -1 mA < I _L < 1 mA (I _L = load current)
	4...20 mA (2-wire), R _L ≤ 500 Ω 250 ≤ R _L , (R _L = load resistance)
	0...20 mA (3-wire), R _L ≤ 500 Ω, (R _L = load resistance)

4 Temperature

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



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

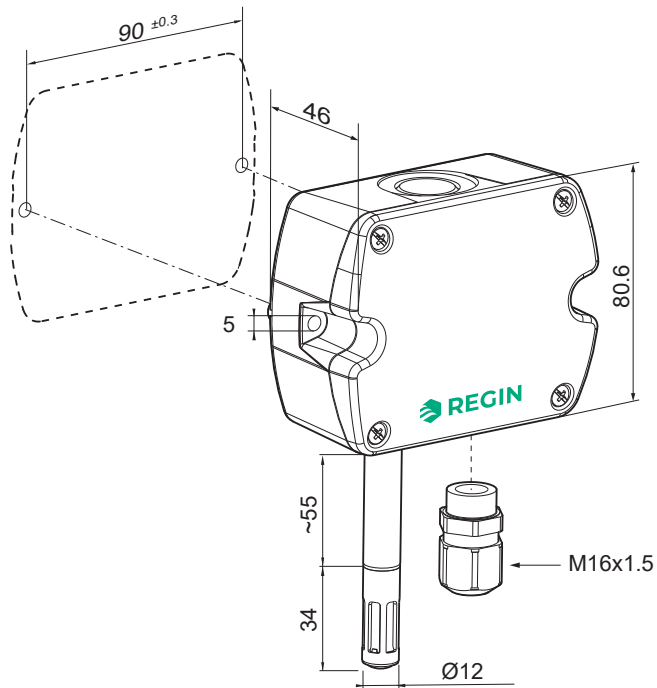
Material

Material, housing	PC (Polycarbonate), UL94 V-0 (with display UL94 HB) approved
Colour	Cover: Signal white RAL 9003 Bottom plate: Grey RAL 7035

Models

Article	Supply voltage	Output signal
HTWT10-2	15...35 V DC or 24 V AC $\pm 20\%$	0...5 V / 0...10 V

Dimensions



[mm]

Documentation

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