

HUMITTER® Humidity and Temperature Transmitter



Features/Benefits

- 0...100 %RH measurement
- -10...+60 °C temperature measurement range (HUMITTER® 50Y and 50YX)
- ±3 %RH accuracy with better than ±1 %RH stability per year
- No re-calibration
- Fully interchangeable INTERCAP® Sensor is easy to replace
- Low cost
- Suitable for OEM applications in HVAC, environmental monitoring, food transportation and cabinets, and humidifiers and dehumidifiers

HUMITTER® is a low cost humidity and temperature transmitter for OEM applications. It features good long-term stability, low hysteresis and repeatability.

To meet the demand for a simple and cost effective humidity transmitter, which is suitable for volume applications or integration into other manufacturers' equipment Vaisala has developed compact and easy-to-use HUMITTER®. The 50U model measures humidity only and models 50Y and 50YX measure humidity and temperature. The difference between the Y and YX models is in the temperature output: the Y model has an active voltage temperature output; and the YX model has a passive resistive temperature output.

Ideal solution for various OEM applications

The housing of the HUMITTER® Transmitter is IP65 classified, and due to e.g. its metallized surface, is also electromagnetically compatible. Output can be changed using external electronics in a wide range of voltages and currents. For these reasons the calibration-free HUMITTER® is an ideal solution for various OEM applications.

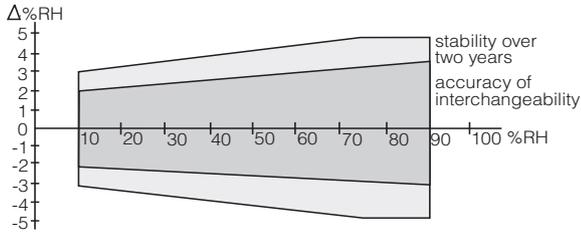
No need for re-calibration

HUMITTER® incorporates Vaisala's revolutionary fully interchangeable INTERCAP® Sensor. Because of this feature they never need re-calibration. Instead, the user can easily replace the INTERCAP® Sensor without the expense and inconvenience sometimes associated with the calibration process. And, the sensor's membrane filter/mechanical housing protects it from dust and dirt.

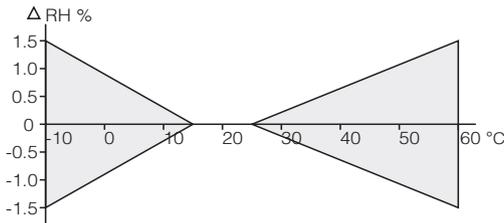
Technical Data

Relative Humidity

Measurement range (for which accuracy is specified) 10...90 %RH
 Accuracy at +20 °C



Stability ±2 %RH over 2 years
 Temperature dependence

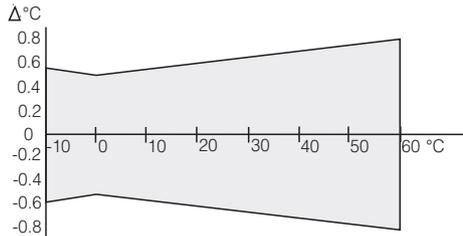


Sensor INTERCAP®
 part no. 15778HM

Temperature

Y model - active output

Measurement range -10...+60 °C
 Accuracy at +20 °C ±0.6 °C



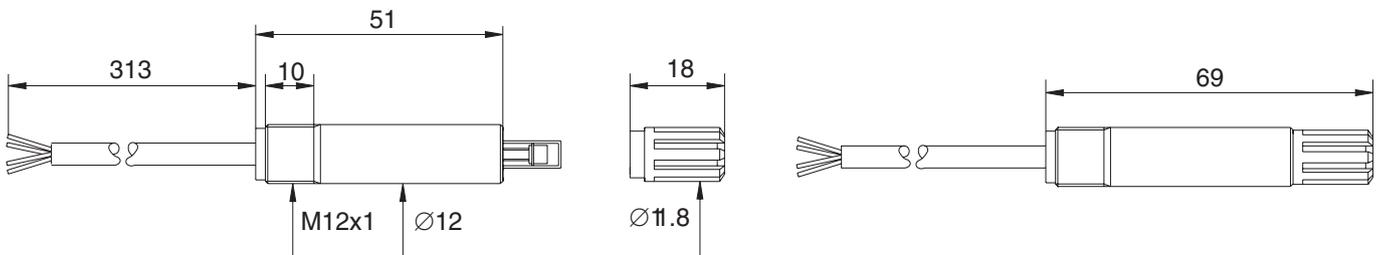
Sensor Pt 1000 IEC 751 Class B

YX model - passive output

2-wire connection wire resistance 2 x 0.08 ohm
 Sensor Pt 1000 IEC 751 Class B

Dimensions

Dimensions in mm.



General

Power supply 7...28 VDC
 Output signal 0...1 V, $R_L > 100$ kohms, (equals 0...100 %RH and -40...+60 °C, i.e. 10mV equals 1 %RH or °C)

0...5 V available for model 50A (RH only)*
 * Input power 8...15 VDC

other voltage outputs and 4...20 mA output available when using external electronics

YX Model has only passive resistive output corresponding to Pt 1000 specification.

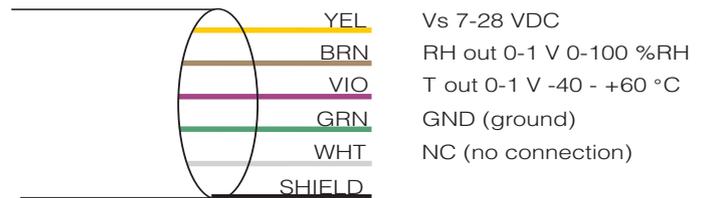
Current consumption 2 mA typical
 Operating temperature range -10...+60 °C
 Storage temperature range -40...+60 °C
 Operating humidity range 0 ... 100 %RH
 Sensor protection membrane filter, part no. 17039HM

option plastic grid part no. 17038

Housing material chromed ABS plastic
 Housing classification IP65

Complies with EMC standard EN61326-1:1997 + Am1:1998; Generic Environment.

Cable connections



In HUMITTER® 50YX, the resistive temperature signal is available via the violet and white wires.

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