

EE061

Humidity / Temperature Probe with Current Output

The EE061 probe is ideal for cost-effective, accurate and reliable measurement of relative humidity (RH) and temperature (T) in OEM applications. The measured RH data is available as 4...20 mA, 2-wire output. The device is available also with an additional 4-wire passive T output.

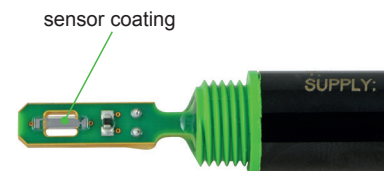
The EE061 features high quality E+E RH sensing elements, which stand for outstanding measurement performance and high resistance to chemicals such as chlorine and ammonia.

The combination of IP65 protection class and E+E proprietary sensor protection lead to outstanding long term stability even in polluted environment.



Protective Sensor Coating

The E+E proprietary sensor coating is a hygroscopic layer applied to the active surface of the RH sensing element. The coating extends substantially the life-time and the measurement performance of the E+E sensor in corrosive environment (salts, off-shore applications). Additionally, it improves the sensor's long term stability in dusty, dirty or oily applications by preventing stray impedances caused by deposits on the active sensor surface.



Typical Applications

stables
green houses
humidifiers and dehumidifiers
monitoring of storage rooms

Features

excellent price / performance ratio
very good long term stability
easy installation
compact design

Technical Data

Measurands

Relative humidity

| | |
|--|---|
| Working range | 0...100 % RH |
| Analogue output 0...100 % RH | 4...20 mA (2-wire) RL<500 Ohm |
| Accuracy at 20 °C (68 °F), 12 V DC ¹⁾ | ±3 % RH (10...90 % RH) ±5 % RH (0...10 % RH and 90...100 % RH) |
| Temperature dependence typ. | ±0.03 % RH/°C |

Temperature (passive)

| | |
|--------------------|-----------------------------|
| Output | resistive, 4-wire |
| Choice of T-sensor | according to ordering guide |

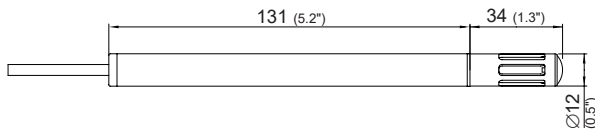
General

| | |
|-------------------------------|--|
| Supply voltage | 9 V DC - 28 V DC |
| Current consumption | typ. 1.5 mA |
| Electrical connection | cable PVC 0.5 m (1.6 ft) / 3 m (9.8 ft) / 10 m (32.8 ft), with wire ferrules model M2: 2 x 0.50 mm ² model M6: 8 x 0.14 mm ² |
| Enclosure material | Polycarbonate |
| Protection class | IP65 |
| Electromagnetic compatibility | EN61326-1 EN61326-2-3 |
| Working temperature range | -40...+60 °C (-40...140 °F) |
| Storage temperature range | -40...+60 °C (-40...140 °F) |



¹⁾ Traceable to intern. standards, administrated by NIST, PTB, BEV, ...
The accuracy statement includes the uncertainty of the factory calibration with an enhancement factor k=2 (2-times standard deviation).
The accuracy was calculated in accordance with EA-4/02 and with regard to GUM (Guide to the Expression of Uncertainty in Measurement).

Dimensions in mm (inch)



Ordering Guide

| | | EE061- | |
|------------------------|--|---|----------------------------|
| Hardware Configuration | Model | humidity humidity with temperature passive | M2 M6 |
| | T-sensor passive (see www.epluse.com/R-T_Characteristics) | Pt100 DIN A Pt1000 DIN A NTC 10k ±1 %, B25/100 = 3950 k | TP1 TP3 TP5 |
| | Filter | membrane metal grid | F2 F3 |
| | Coating | without coating with coating | no code C1 |
| | Cable length | 0.5 m (1.6 ft) 3 m (9.8 ft) 10 m (32.8 ft) | no code KL300 KL1000 |

Order Example

EE061-M6TP1F3C1KL300

Model: humidity with temperature passive
 T-sensor passive: Pt 100 DIN A
 Filter: metal grid
 Coating: with coating
 Cable length: 3 m (9.8 ft)

Accessories

Plastic mounting flange Ø12 mm (0.47") black HA010214
 Wall mounting clip Ø12 mm (0.47") HA010211
 Protection cap for Ø12 mm (0.47") probe HA010783