

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.

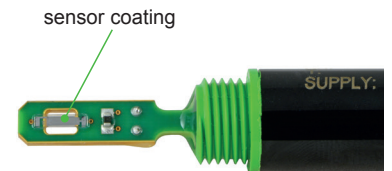
The EE061 features high quality E+E RH sensing elements, which stand for outstanding measurement performance and high resistance to chemicals such as chlorine and ammonia.

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

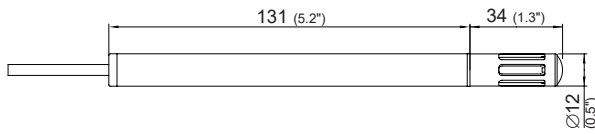
General

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