

# EE060

## OEM Humidity / Temperature Transmitter with Voltage Output

EE060 probes are the ideal solution for cost-effective, highly accurate and reliable measurement of relative humidity and temperature.

Excellent protection against external influences is ensured by the combination of completely encapsulated electronics and the long-term stable HCT01 sensor with E+E proprietary protective coating. EE060 is available with an integrated cable or a threaded connector, with wide temperature and supply voltage ranges and dual 0-1 V, 0-5 V or 0-10 V analogue outputs, for humidity and temperature.

The result of the wide temperature range and the flexible supply voltage in combination with the excellent long-term stability is a versatile applicable probe.

The E+E proprietary sensor coating is a protective layer applied to the active surface of the HCT01 sensing element.

The coating extends substantially the life-time and the measurement performance of the E+E sensor in corrosive environment. 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, incubators, hatchers
- green houses
- humidifiers and dehumidifiers
- monitoring of storage rooms
- HVAC applications

### Features

- excellent price/performance ratio
- very good long term stability
- easy installation
- well protected against dust and dirt

### Technical Data

#### Measuring values

##### Relative humidity

Sensor	HCT01-00D
Working range	0...100 % RH
Analogue output 0...100 % RH	0-10 V $-1.0 \text{ mA} < I_L < 1.0 \text{ mA}$
	0-5 V $-0.2 \text{ mA} < I_L < 0.2 \text{ mA}$
	0-1 V $-0.1 \text{ mA} < I_L < 0.1 \text{ mA}$
Accuracy at 24V DC, 20 °C (68 °F)	±2.5 % RH

##### Temperature active

Sensor	Pt1000 DIN B
Analogue output -40...60 °C (-40...140 °F)	0-10 V $-1.0 \text{ mA} < I_L < 1.0 \text{ mA}$
	0-5 V $-0.5 \text{ mA} < I_L < 0.5 \text{ mA}$
	0-1 V $-0.1 \text{ mA} < I_L < 0.1 \text{ mA}$
Accuracy at 24V DC, 20°C (68°F)	±0.3 °C (±0.5 °F)

##### Temperature passive (with 0-1 V output and 8-pole connector only)

Output	resistive, 2-wire
Type of T-Sensor	refer to ordering guide

#### General

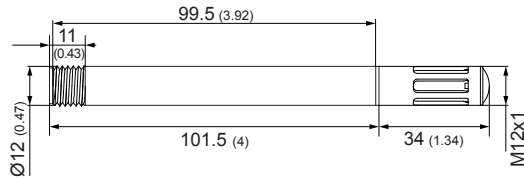
Supply voltage	HT1: 3.6...30 V DC / HT2: 10...30 V DC / HT3: 15...30 V DC
Current consumption	typ. 1.5 mA
Electrical connection	M12 connector or cable (PVC, Ø 4.3 mm, 4 x 25 mm <sup>2</sup> )
Housing	polycarbonate / IP65
Electromagnetic compatibility <sup>2)</sup>	EN61326-1
(industrial environment)	EN61326-2-3
Working and storage temperature	-40...+60 °C (-40...140 °F)

1) Analogue output 0-1 V is not protected against surge!

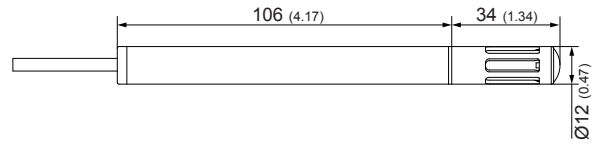


## Dimensions in mm (inch)

### connector version



### cable version



## Connection Diagram

### connector version

#### Connector 4-pole (M)

- 1...V+
- 2...RH-out
- 3...GND
- 4...T-out



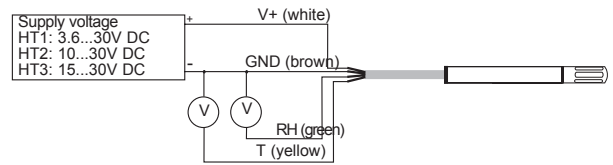
Supply voltage  
HT1: 3.6...30V DC  
HT2: 10...30V DC  
HT3: 15...30V DC

#### Connector 8-pole (M)

- 1...T-passive
- 2...not connected
- 3...not connected
- 4...RH-out
- 5...T-out
- 6...GND
- 7...T-passive
- 8...V+



### cable version



## Ordering Guide

ANALOG OUTPUT	T-SENSOR PASSIVE <sup>1)</sup> (with 0-1 V output and 8-pole connector only)	ELECTRICAL CONNECTION	CABLE LENGTH	FILTER
0 - 1 V (1)	none (x)	connector 4-pole (PM)	0.5 m (1.6 ft) (A)	membrane filter (B)
0 - 5 V (2)	Pt1000 DIN A (C)	connector 8-pole (for T-Sensor passive) (PV)	1.5 m (4.9 ft) (C)	
0 - 10 V (3)	NTC10k at 25 °C (E)	cable (PN)	3 m (9.8 ft) (E) with connector (x)	
<b>EE060-HT</b>				

1) T-Sensor details see [www.epluse.com/R-T\\_Characteristics](http://www.epluse.com/R-T_Characteristics)

## Order Example

### EE060-HT2xPMxB

Output: 0-5 V  
T-Sensor passive: none  
El. Connection: connector 4-pole  
Cable length: with connector  
Filter: membrane filter

### EE060-HT1CPVxB

Output: 0-1 V  
T-Sensor passive: Pt1000 DIN A  
El. Connection: connector 8-pole  
Cable length: with connector  
Filter: membrane filter

## Accessories (For further information, see data sheet „Accessories“)

Female connector 4pol. self assembly M12x1	HA010707
Female connector 8pol. self assembly M12x1	HA010704
Connecting cable 5 pins, M12x1 plug-socket 2 m (6.6 ft) / 5 m (16.4 ft) / 10 m (32.8 ft)	HA010816/HA010817/HA010818
Connecting cable 8 pins, M12x1 socket - flying leads 3 m (9.8 ft) / 5 m (16.4 ft) / 10 m (32.8 ft)	HA010323/HA010324/HA010325
Connecting cable 5 pins, M12x1 socket - flying leads 1.5 m (4.9 ft) / 5 m (16.4 ft) / 10 m (32.8 ft)	HA010819/HA010820/HA010821
Plastic mounting flange for duct mounting light grey / black	HA010202/HA010214
Radiation shield	HA010502

## Support literature

[www.epluse.com/EE060](http://www.epluse.com/EE060)