

# EE060

## OEM Humidity and Temperature Probe with Voltage Output

EE060 is the ideal solution for cost-effective, highly accurate and reliable measurement of relative humidity (RH) and temperature (T).

Excellent protection against external influences is ensured by the combination of completely encapsulated electronics and the long-term stable, very robust HCT01 humidity sensor with E+E proprietary protective coating. Together with the optional radiation shield, the probe can be also used outdoors.

EE060 is available as cable or plug version, with wide temperature and supply voltage ranges and 0-1V, 0-5V or 0-10V analog outputs. The 0-1V version features also an optional T sensor with passive output.



### Typical Applications

- incubators and hatchers
- greenhouses and livestock barns
- humidifiers and dehumidifiers
- storage rooms
- HVAC

### Features

- optimal price-performance ratio
- electronics encapsulated against water
- RH sensor coated against dust and dirt
- very robust sensing head
- excellent long term stability

### Technical Data

#### Measuring values

##### Relative humidity

Sensor	HCT01-00D
Working range	0...100% RH
Analogue output 0...100% RH	0-10V $-1.0 \text{ mA} < I_L < 1.0 \text{ mA}$ 0-5V $-0.2 \text{ mA} < I_L < 0.2 \text{ mA}$ 0-1V $-0.1 \text{ mA} < I_L < 0.1 \text{ mA}$

Accuracy at 24V DC, 20°C (68°F)  $\pm 2.5\% \text{ RH}$

##### Temperature active

Sensor	Pt1000 DIN B
Analogue output -40...60°C (-40...140°F)	0-10V $-1.0 \text{ mA} < I_L < 1.0 \text{ mA}$ 0-5V $-0.5 \text{ mA} < I_L < 0.5 \text{ mA}$ 0-1V $-0.1 \text{ mA} < I_L < 0.1 \text{ mA}$

Accuracy at 24V DC, 20°C (68°F)  $\pm 0.3^\circ\text{C}$  ( $\pm 0.5^\circ\text{F}$ )

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

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

#### General

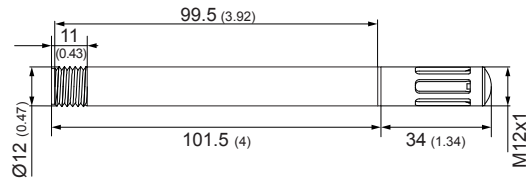
Supply voltage	HT1: 3.6...30V DC	HT2: 10...30V DC	HT3: 15...30V DC
Current consumption	typ. 1.5 mA		
Electrical connection	M12 connector or cable (PVC, Ø 4.3mm, 4 x 25mm <sup>2</sup> )		
Housing	polycarbonate / IP65		
Electromagnetic compatibility <sup>1)</sup> (industrial environment)	EN61326-1 EN61326-2-3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



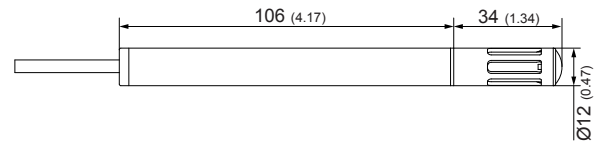
1) Analogue output 0-1V is not protected against surge!

## Dimensions in mm (inch)

### Connector version



### Cable version

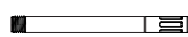
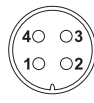


## Connection Diagram

### Connector version

#### Connector 4-pole (PM)

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



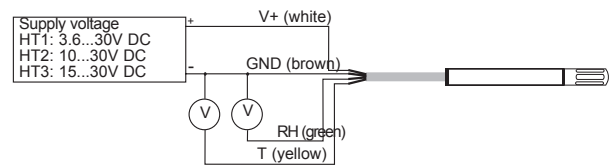
Supply voltage  
HT1: 3.6...30V DC  
HT2: 10...30V DC  
HT3: 15...30V DC

#### Connector 8-pole (PV)

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



### cable version (Type PN)



## Ordering Guide

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

## Order Example

### EE060-HT2xPMxB

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

### EE060-HT1CPVxB

Output: 0-1V  
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

Female connector 8pol. self assembly M12x1

Connection cable for Type PM, free ends 1,5m (4.9ft) / 5m (16.4ft) / 10m (32.8ft)

Connection cable for Type PV, free ends 1,5m (4.9ft) / 3m (9.8ft) / 5m (16.4ft) / 10m (32.8ft)

Protection cap for M12 female cable connector

Protection cap for M12 male probe connector

Protection cap for 12 mm sensing head

Plastic mounting flange for duct mounting

Radiation shield

HA010707

HA010704

HA010819/20/21

HA010322/23/24/25

HA010781

HA010782

HA010783

HA010202

HA010502

## Support literature

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