

# USER'S GUIDE

## EE060 - OEM Humidity and Temperature Transmitter with Voltage Output

### GENERAL

The EE060 transmitter is designed for the measurement of humidity and temperature in OEM applications. It incorporates the E+E humidity and temperature sensor HCT01, which is very well protected against environmental influences.

For use in special applications do not hesitate to contact E+E Elektronik or a local distributor.

### CAUTION

For accurate measurement it is essential that the temperature of the probe and mainly of the sensing head is same as the temperature of the air to measure. Avoid mounting the EE060 transmitter in a way which creates temperature gradients along the probe.

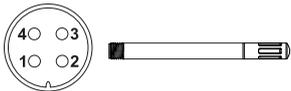
- The device and mainly the sensing head shall not be exposed to extreme mechanical stress.
- The device must be operated with the filter cap on at all times. Do not touch the sensors inside the sensing head.
- While replacing the filter cap (because of pollution for instance) against an original E+E spare one please take very good care to not touch the sensors.

### CONNECTION DIAGRAM

#### connector version

##### Connector 4-pole (M)

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

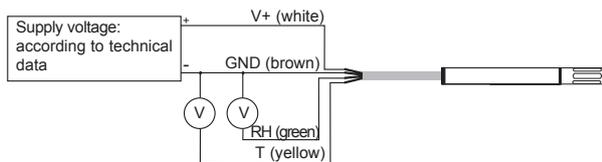


##### Connector 8-pole (M)

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

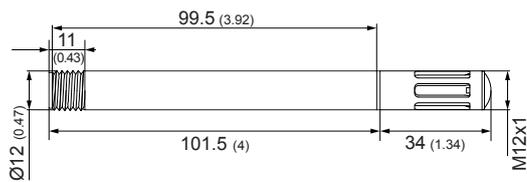


#### cable version

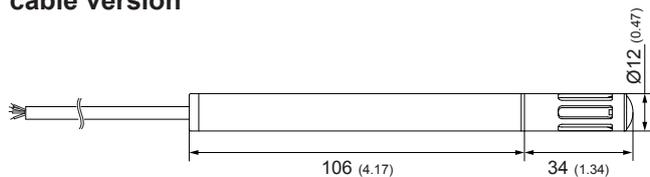


### DIMENSIONS

#### connector version



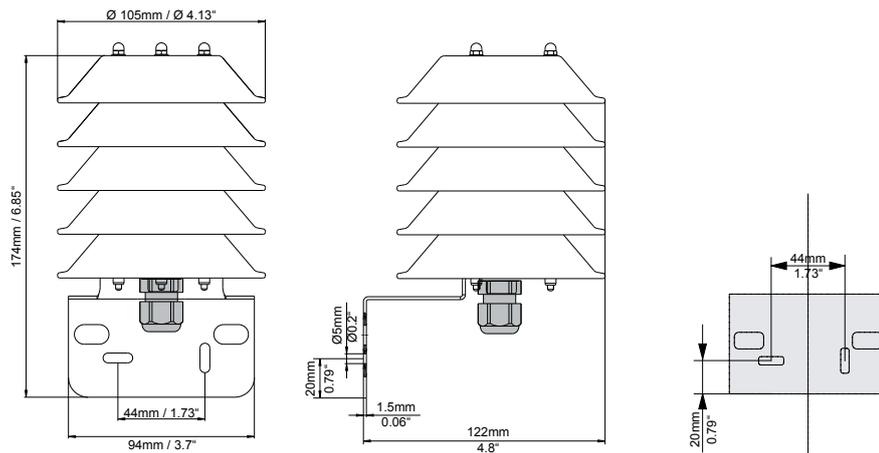
#### cable version



Cable length: 0.5m (1.6ft) / 1.5m (4.9ft) / 3m (9.8ft)

### OUTDOOR USE

For outdoor use EE060 shall be used with the radiation shield HA010502.



## TECHNICAL DATA

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### 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)  
and 0.2m/s (40 ft/min)  $\pm 2.5\%$  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,  $\varnothing$  4.3mm, 4 x 25mm<sup>2</sup>)

Housing polycarbonate / IP65

Electromagnetic compatibility <sup>1)</sup> EN61326-1 EN61326-2-3 industrial environment  
FCC Part 15 Class B ICES-003 Issue 5 ClassB



Working and storage temperature -40...+60°C (-40...140°F)

<sup>1)</sup> Analogue output 0-1V is not protected against surge!

## MAINTENANCE

When employed in dusty, polluted environment:

- The filter cap shall be replaced once in a while with an E+E original one. A polluted filter cap causes longer response time of the device.
- If needed, the sensing head can be cleaned. For this remove first very carefully the filter cap. Take care not to hit the sensing head. Shake slowly the sensing head for one minute in a solution of 50% isopropyl alcohol with 50% distilled water. Then the sensing head shall be rinsed with cold tap water and let dry freely. Do not touch or rub the sensing head! After cleaning the sensors install carefully a new E+E original filter cap.

### USA

#### FCC notice:

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the installation manual, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

### CANADIAN

#### ICES-003 Issue 5:

CAN ICES-3 B / NMB-3 B

## INFORMATION

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