

# USER MANUAL

## EE060 - Humidity and Temperature Probe with Voltage Output

### General

The EE060 probe is designed for the measurement of humidity and temperature. It incorporates the E+E humidity and temperature sensing element HCT01, which is very well protected against environmental influences.

### Scope of Supply

EE060 according ordering guide

### Caution

For accurate measurement of the relative humidity (RH) and temperature (T) 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 probe 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 sensing element 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 sensing element.
- During site cleaning or sterilization process the sensing head can be protected with the optional protection cap for 12 mm probes (HA010783 see datasheet "Accessories").



### Spare Parts (see datasheet „Accessories“)

Description	Order code
■ Membrane filter cap	HA010118
■ Metal grid filter cap	HA010119

### Electrical Connection

#### Connector version

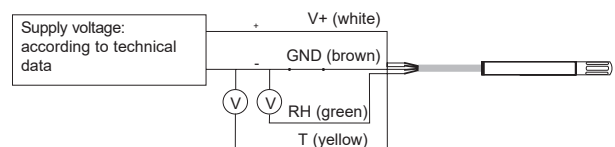
Connector 4 pole (Type E9)  
 EE060-M1AxFxE9 (RH and T with M12 connector)

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



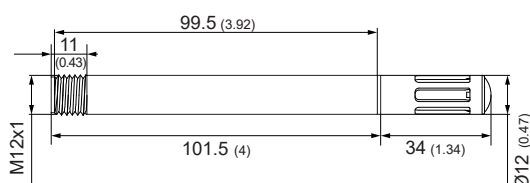
#### Cable version

Cable (Type E8)  
 EE060-M1AxFxE8 (RH and T with cable)

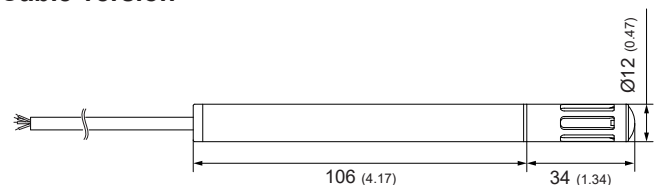


### Dimensions in mm (inch)

#### Connector version



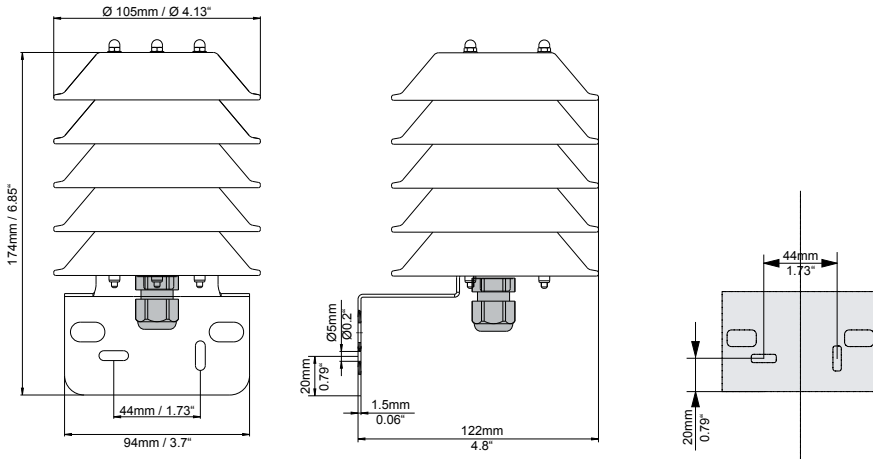
#### Cable version



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

### Measurands

#### Relative humidity

Working range	0...100 % RH
Analogue output 0...100 % RH	0 - 10 V (-1.0 mA < I <sub>L</sub> < 1.0 mA) 0 - 5 V (-0.2 mA < I <sub>L</sub> < 0.2 mA) 0 - 1 V (-0.1 mA < I <sub>L</sub> < 0.1 mA)
Accuracy at 24 V DC, 20 °C (68 °F) <sup>1)</sup>	± 2.5 % RH

#### Temperature

Analogue output	0 - 10 V (-1.0 mA < I <sub>L</sub> < 1.0 mA)
T scale no code: -40...+60 °C (-40...140°F)	0 - 5 V (-0.5 mA < I <sub>L</sub> < 0.5 mA)
SBH80: -40...+80 °C (-40...176°F)	0 - 1 V (-0.1 mA < I <sub>L</sub> < 0.1 mA)
Accuracy at 24 V DC, 20 °C (68 °F)	± 0.3 °C (±0.5 °F)

### General

Supply voltage	A1: 3.6 - 30 V DC / A2: 10 - 30 V DC / A3: 15 - 30 V DC
Current consumption, typ.	1.5 mA
Electrical connection	Cable PVC (Ø 4.3 mm (0.17"), 4 x 0.25 mm <sup>2</sup> ) Connector plug M12 x 1 (4 poles)
Enclosure material	Polycarbonate
Protection class	IP65
Electromagnetic compatibility <sup>2)</sup>	EN 61326-1 EN 61326-2-3
Working temperature range	-40...+80 °C (-40...176 °F)
Storage temperature range	-40...+80 °C (-40...176 °F)



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

## Maintenance

Using the probe in dusty, polluted environment might arise the need for cleaning the sensing element. In such a case please see the "Cleaning Instructions" at [www.epluse.com/EE060](http://www.epluse.com/EE060)

A polluted filter cap causes longer response time of the probe. The filter cap shall be replaced as needed with an E+E original one (see "Spare parts"). Do not touch or rub the sensing element while replacing the 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

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