

USER MANUAL

EE060 - Humidity and Temperature Probe with Voltage Output

Find this document and further product information on our website at www.epluse.com/ee060.

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 refer to datasheet "Accessories").



Spare Parts (refer to datasheet „Accessories“)

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

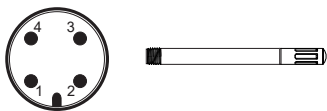
Electrical Connection

Important note:
 The manufacturer cannot be held responsible for personal injuries or damage to property as a result of incorrect handling, installation, wiring, power supply and maintenance of the device.

Connector version

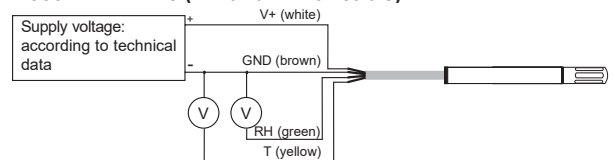
Connector 4 pole (Type E9)
 EE060-M1AxFxE9 (RH and T with M12 connector)

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



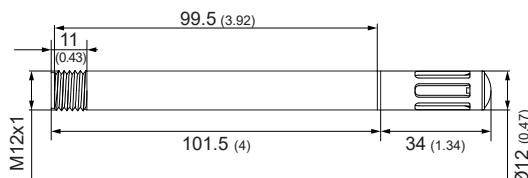
Cable version

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

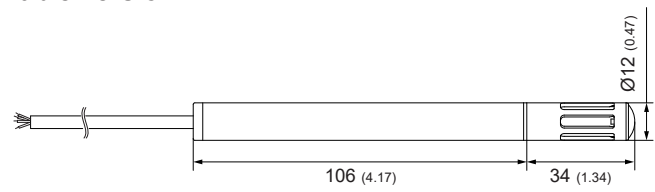


Dimensions in mm (inch)

Connector version



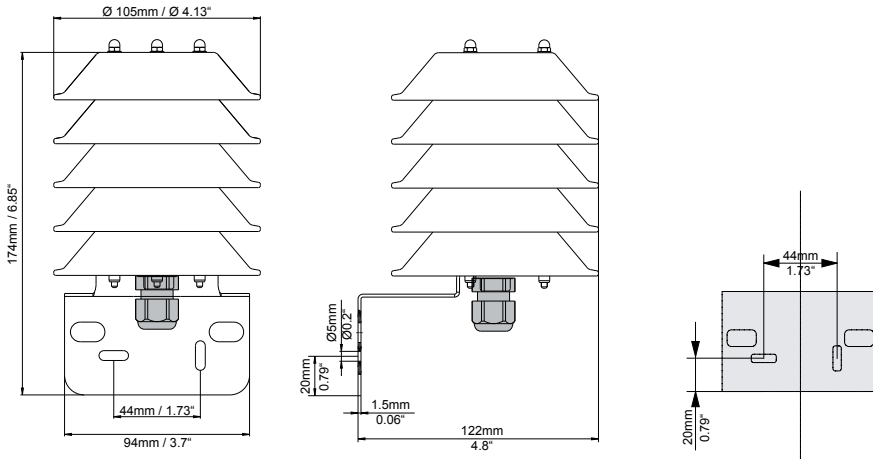
Cable version



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 _L < 1.0 mA)
	0 - 5 V (-0.2 mA < I _L < 0.2 mA)
	0 - 1 V (-0.1 mA < I _L < 0.1 mA)
Accuracy at 24 V DC, 20 °C (68 °F) ¹⁾	± 2.5 % RH

Temperature

Analogue output	0 - 10 V (-1.0 mA < I _L < 1.0 mA)	
	T scale no code: -40...+60 °C (-40...140°F)	0 - 5 V (-0.5 mA < I _L < 0.5 mA)
	SBH80: -40...+80 °C (-40...176°F)	0 - 1 V (-0.1 mA < I _L < 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 ²)	
	Connector plug M12 x 1 (4 poles)	
Enclosure material	Polycarbonate	
Protection rating	IP65	
Electromagnetic compatibility ²⁾	EN 61326-1	EN 61326-2-3
	Industrial Environment	
	FCC Part15 Class B	ICES-003 Class B
Working temperature range	-40...+80 °C (-40...176 °F)	
Storage temperature range	-40...+80 °C (-40...176 °F)	

1) Traceable to international 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).

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 refer to the "Cleaning Instructions" at 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 (refer to "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

INFORMATION**+43 7235 605 0 / info@epluse.com**

Langwiesen 7 • 4209 Engerwitzdorf • Austria
Tel: +43 7235 605-0 • Fax: +43 7235 605-8
info@epluse.com • www.epluse.com

LG Linz Fn 165761 t • VAT No ATU44043101
Place of Jurisdiction: A-4020 Linz • DVR0962759

