



E E ELEKTRONIK EE061 Humidity and Temperature Probe with 4-20 mA Output User Manual

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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:



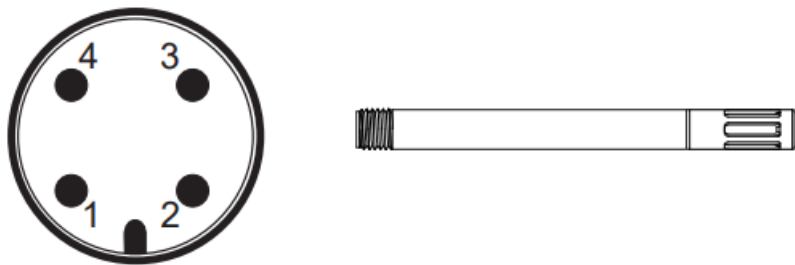
The manufacturer cannot be held responsible for personal injuries or damage to property as a result of incorrect handling, installation, wiring, power supply and maintenance of the device.

Connector version

Connector 4 pole (Type E9)

EE060-M1AxFxE9 (RH and T with M12 connector)

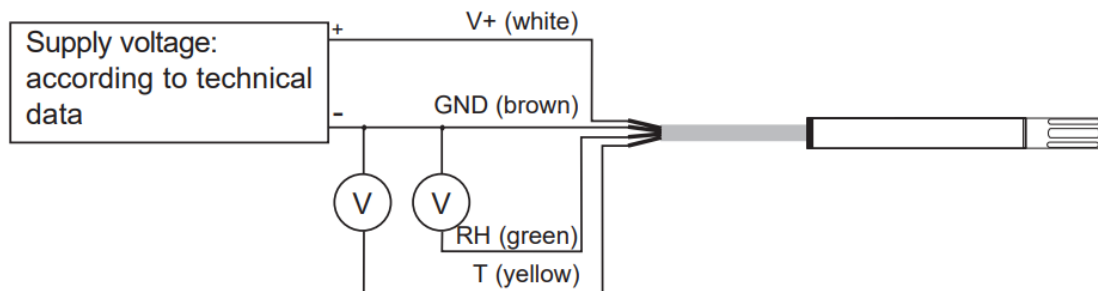
- 1...V+
- 2...RH-out
- 3...GND
- 4...T-out



Cable version

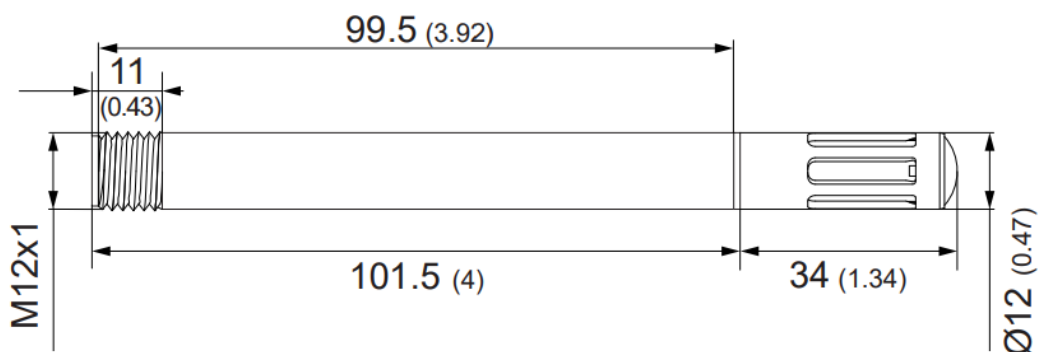
Cable (Type E8)

EE060-M1AxFx E8 (RH and T with cable)

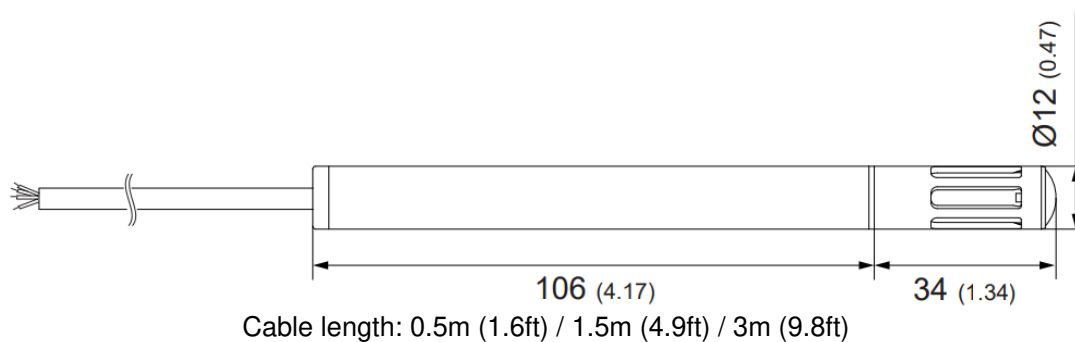


Dimensions in mm (inch)

Connector version

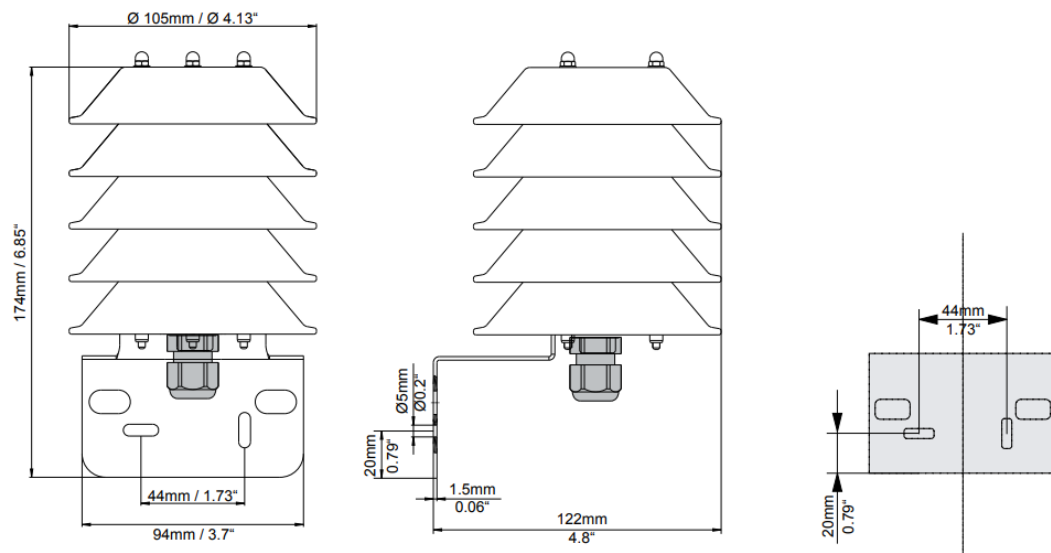


Cable version




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 < IL < 1.0 mA) 0 – 5 V (-0.2 mA < IL < 0.2 mA) 0 – 1 V (-0.1 mA < IL < 0.1 mA)
Accuracy at 24 V DC, 20 °C (68 °F) 1)	± 2.5 % RH
Temperature	
Analogue output T scale no code: -40...+60 °C (-40...140°F) SBH80: -40...+80 °C (-40...176°F)	0 – 10 V (-1.0 mA < IL < 1.0 mA) 0 – 5 V (-0.5 mA < IL < 0.5 mA) 0 – 1 V (-0.1 mA < IL < 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

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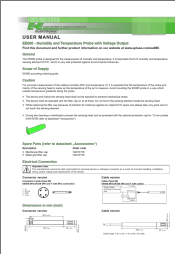
LG Linz Fn 165761 t • VAT No ATU44043101

Place of Jurisdiction: A-4020 Linz • DVR0962759



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Documents / Resources

	<p>E E ELEKTRONIK EE061 Humidity and Temperature Probe with 4-20 mA Output [pdf] User Manual</p> <p>EE061 Humidity and Temperature Probe with 4-20 mA Output, EE061, Humidity and Temperature Probe with 4-20 mA Output</p>
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References

- [E+E Sensor Technology: Humidity, CO2, Flow & Temperature Measurement](#)
- [E+E Humidity and Temperature Probe with Analogue Output](#)

