

+ Quick Guide

EE040 - Humidity and Temperature Probe



— your partner
in sensor
technology.

i PLEASE NOTE

Find this document and further product information on our website at www.epluse.com/ee040.

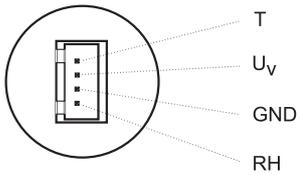
Electrical Connection

! WARNING

Incorrect installation, wiring or power supply may cause overheating and can therefore lead to personal injuries or damage to property. For correct cabling of the device, always observe the presented wiring diagram for the product version used.

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.

Connection diagram

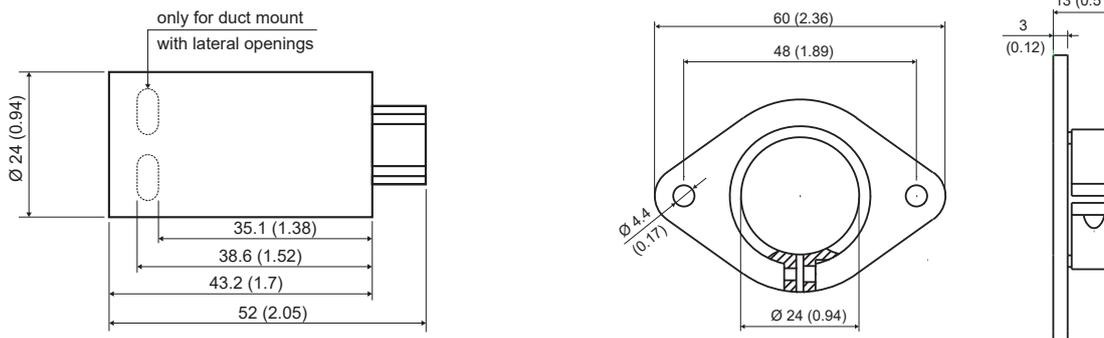


Optional connection cable

Length	Order code
2 m (6.6 ft)	HA010305
5 m (16.4 ft)	HA010306

Dimensions

Values in mm (inch)



Installation

NOTICE

Notice signals danger to objects or data. If the avoidance instructions are not observed, damage to property or data may occur.

- Avoid strong mechanical stress onto the device and mainly onto its front-end (filter side).
- Do not attempt to open the EE040 enclosure.

i PLEASE NOTE

For accurate measurement it is of paramount importance to avoid temperature gradients along the device. This is particularly relevant when installing the device into a separation wall between zones with different temperature. In such a case make sure to thermally isolate the back-end (connector side) of the device looking out of the wall.

Maintenance

A clogged filter causes a long response time. A periodic check of the filter is recommended, especially in the case of installation in a polluted environment.

If cleaning of the filter is necessary, pug off the device and clean the filter with a soft brush.

NOTICE

Never clean the filter with pressurised water.

Technical Data

Measurands

Relative Humidity (RH)

Measuring range	0...100 %RH, non-condensing	
Accuracy¹⁾ @ 20 °C (68 °F)	30...70 %RH 0...95 %RH	±3 %RH ±5 %RH
Response time t₆₃	Duct mount Duct mount with lateral openings	<45 s <30 s

1) Traceable to international standards, administrated by NIST, PTB, BEV,...
The accuracy statement includes the uncertainty of the factory calibration with an coverage 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).

Temperature (T)

Measuring range	-40...+85 °C (-40...+185 °F)	
Accuracy¹⁾ @ 20 °C (68 °F)	±0.3 °C (±0.54 °F)	

1) Traceable to international standards, administrated by NIST, PTB, BEV,...
The accuracy statement includes the uncertainty of the factory calibration with an coverage 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).

Outputs

Analogue

RH: 0...100 % T: -40...+85 °C (-40...+185 °F)	0 - 2.5 V
Output load	≥5 kΩ

General

Power supply class III  USA & Canada: Class 2 supply necessary	5 V DC ±10 %		
Current consumption, typ.	Without load With 5 kΩ load	2 mA <3.5 mA	
Start-up time, typ.	4 s		
Electrical connection	Appropriate for Molex 6471 (4 pins) and female crimp contacts 4809 555L		
Storage conditions	-40...+60 °C (-40...+140 °F) 0...95 %RH, non-condensing		
Enclosure material	PPO (Polyphenyleneoxide), GF20, UL94HB approved		
Protection rating	Connector side Front side (duct mount) Front side (duct mount with lateral openings)	IP30 IP50 IP20	
Electromagnetic compatibility¹⁾	EN 61326-1 FCC Part15 Class B	EN 61326-2-3 ICES-003 Class B	Industrial environment
Conformity	 		

1) EE040 is not protected against surge.