

USER Manual

EE150 - Humidity and Temperature Sensor for HVAC applications

Find this document and further product information on our website at www.epluse.com/ee150.

SCOPE OF SUPPLY

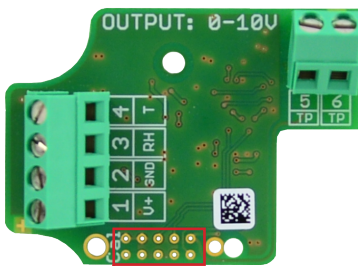
- EE150 sensor, type number according to order (for ordering guide see data sheet at www.epluse.com/ee150)
- Cable gland M16 x 1.5
- Mounting flange, PC, Ø 6.0mm (with Type T2)
- Test report according to DIN EN 10204-2.2

CAUTION

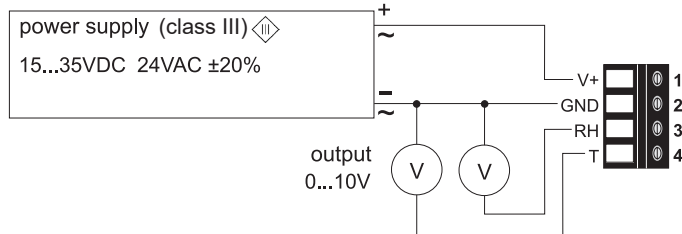
- For accurate measurement it is essential that the temperature of the probe and mainly of the sensing head is same as the temperature of the air to measure.
- Avoid mounting the EE150 sensor in a way which creates temperature gradients along the probe. If possible, EE150 shall be installed with the entire probe inside the duct. For installation with mounting flange, in case of different temperature inside and outside the duct, the probe part outside the duct shall be thermally isolated.
- The device and mainly the sensing head shall not be exposed to extreme mechanical stress.
- Do not attempt to remove the filler cap, which is fixed. Avoid touching the sensing head at all times.
- The stainless steel probe is ESD sensitive and shall be handled as such. Do not connect it to the ground potential.

CONNECTION DIAGRAM

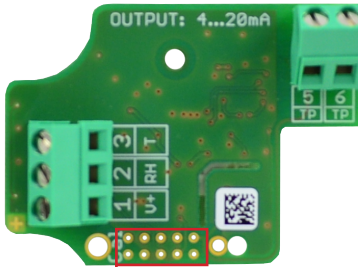
EE150-M1A3xx



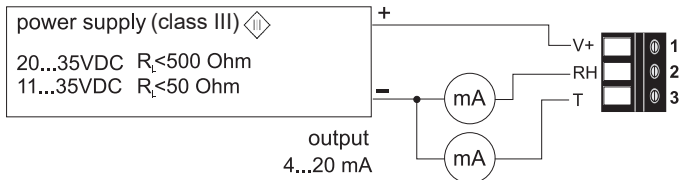
setup and adjustment interface (with EE-PCA)



EE150-M1A6xx

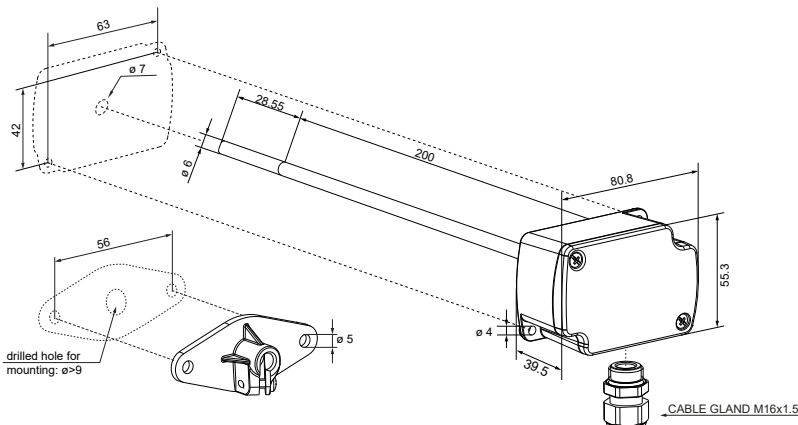


setup and adjustment interface (with EE-PCA)

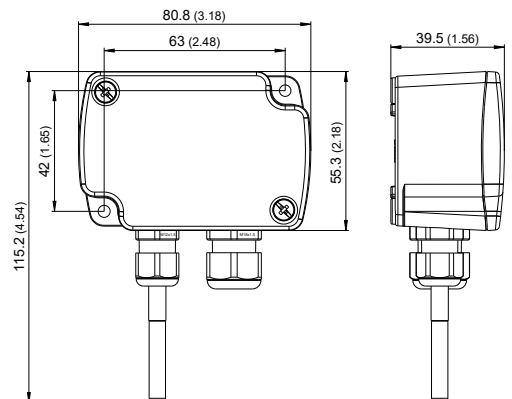


DIMENSIONS / MOUNTING Values in mm (inch)

Duct mount



Wall mount



TECHNICAL DATA


Measurands

Relative Humidity	
Working range	10...90 % RH
Accuracy at 20 °C	±3 % RH (30...70 % RH), otherwise ±5 % RH
Temperature dependency, typ.	±0.03 % RH/°C
Temperature	
Working range	-5...55 °C (23...131 °F)
T-Accuracy at 20 °C	±0.3 °C

Outputs

Analog output	0 - 10 V	$R_L \geq 10 \text{ k}\Omega$
(0...100 % RH; T: see ordering guide)	4 - 20 mA (2-wire)	$R_L \leq 500 \Omega$

General

Power supply (Class III)  (EU) / class 2 (NA) ¹⁾		
for 0 - 10 V	15 - 35 V DC or 24 V AC ±20 %	
for 4 - 20 mA	10 V + $R_L \times 20 \text{ mA} < U_V < 35 \text{ V DC}$	
Current consumption, typ.	DC supply: 5 mA AC supply: 13 mA _{rms}	
Connection	Screw terminals, max. 1.5 mm ²	
Enclosure material	Polycarbonate, UL94 V-0 approved	
Protection rating	IP65 / NEMA 4X	
Cable gland	M16 x 1.5 / UL94 V-2	
Sensor protection	PTFE filter, non-removable	
Electromagnetic compatibility	EN 61326-1 Industrial Environment FCC Part 15 Class B	EN 61326-2-3 ICES-003 Class B
Working temperature range	-5...55 °C (23...131 °F)	0...95 % RH, non-condensing
Storage temperature range	-25...60 °C (-13...140 °F)	20...80 % RH

1) USA & Canada class 2 supply required, max. supply voltage 30 V DC.



SETUP AND ADJUSTMENT

The EE150 is ready to use and does not require any configuration by the user. The factory setup of EE150 corresponds to the type number ordered. For ordering guide please see data sheet at www.epluse.com/ee150.

If needed, the user can change the factory setup by using the optional E+E Product Configuration Adapter (EE-PCA) and the E+E Product Configuration Software (EE-PCS). With these one can set the output scaling, and perform one or two point adjustment for humidity and temperature.

For product data sheet EE-PCA please see www.epluse.com.

The E+E Product Configuration Software (EE-PCS) is free and can be downloaded from www.epluse.com/configurator.

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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