EE150

Humidity and Temperature Sensor for HVAC Applications

The EE150 is a compact, accurate and reliable sensor for HVAC applications, available with analog current or voltage outputs for relative humidity (RH) and temperature (T).

It employs an E+E capacitive humidity sensing element with excellent long term stability and resistance against pollutants.

The compact IP65 / NEMA 4X enclosure and the Ø 6 mm stainless steel probe minimize installation costs, while the PTFE filter cap provides outstanding protection against contamination. External mounting holes allow installation with closed cover, the electronics are protected against construction site pollution.

With an optional configuration kit and free software the user can set the output scaling and perform 1- or 2-point adjustment for RH and T.

Typical Applications

Heating, ventilation, air conditioning
Building management

Features

IP65 / NEMA 4X compact enclosure
Ø 6 mm stainless steel probe
Free scaleable outputs
Resistance against pollutants
Free configuration software

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 ≥ 10 kΩ
(0...100 % RH; T: see ordering guide)	4 - 20 mA (2-wire)	R_L ≤ 500 Ω

General

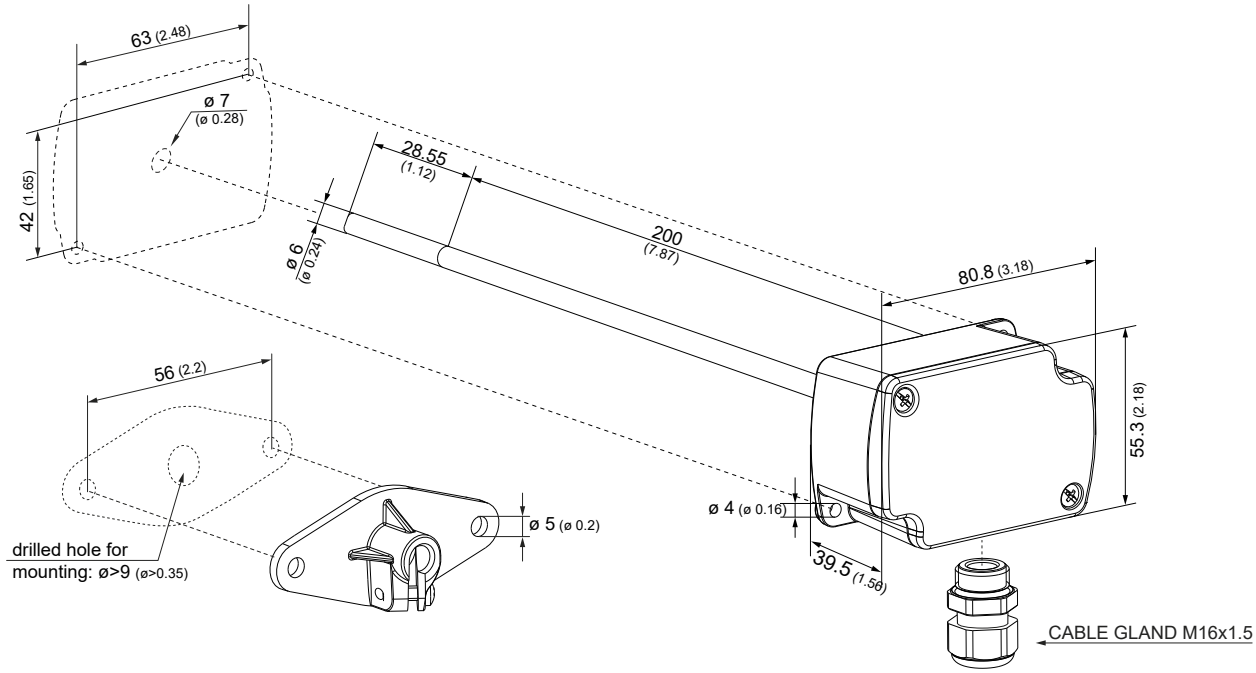
Power supply (Class III) ⧫(EU) / class 2 (NA)[1)]		
for 0 - 10 V	15 - 35 V DC or 24 V AC ±20 %	
for 4 - 20 mA	10 V + R_L x 20 mA < U_V < 35 V DC	
Current consumption, typ.	DC supply: 5 mA	
	AC supply: 13 mA_{rms}	
Connection	Screw terminals, max. 1.5 mm^2	
Enclosure material	Polycarbonate, UL94 V-0 approved	
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	EN 61326-2-3
	Industrial Environment	
	FCC Part 15 Class B	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.

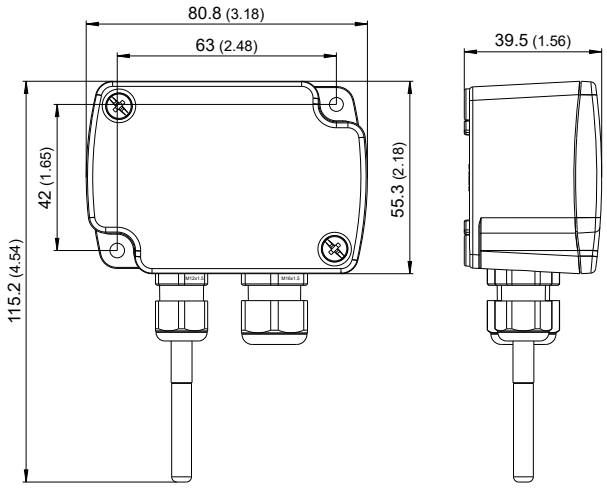
Dimensions

Values in mm (inch)

Duct mount



Wall mount



Ordering Guide

		EE150-
Model	RH + T	**M1**
Output	0 - 10 V	**A3**
	4 - 20 mA	**A6**
Type	Duct mount	**no code**
	Wall mount	**T1**
T-Unit	°C	**no code**
	°F	**MB2**
T-Scale low	0	**no code**
	Value[1)]	**SBL *value***
T-Scale high	50	**no code**
	Value[1)]	**SBH *value***

1) Within working range. For scaling beyond working range limits please contact the E+E sales representative.

Order example

EE150-M1A6

Model:	RH + T
Output:	4 - 20 mA
Type:	Duct mount
T-Unit:	°C
T-Scale low:	0
T-Scale high:	50

EE150-M1A6T1MB2SBL-5SBH104

Model:	RH + T
Output:	4 - 20 mA
Type:	Wall mount
T-Unit:	°F
T-Scale low:	-5
T-Scale high:	104

Accessories

(for further information, see data sheet "Accessories")

Product configuration adapter	see data sheet EE-PCA
Product configuration software	EE-PCS (free download: www.epluse.com/ee150)
Power supply adapter	V03
Conduit adapter, M16x1.5 to 1/2"	HA011110