

# EE150

## Humidity and Temperature Transmitter for HVAC Applications

The EE150 is a compact, accurate and reliable transmitter for HVAC applications, available with analog current or voltage outputs for relative humidity (RH) and temperature (T), as well as an optional passive T-Sensor output. It employs an E+E capacitive humidity sensor element with excellent long term stability and resistance against pollutants.

The compact IP65/NEMA 4 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 one or two point adjustment for humidity and temperature.



EE150

### Typical Applications

Heating, ventilation, air conditioning  
 Building management

### Features

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

### Technical data

#### Measured values

##### Relative Humidity

Working range	10...90 % RH
Accuracy at 20 °C	±3 % RH (30...70 % RH), otherwise ±5 % RH
Temperature dependency	typ. ±0.05 % RH/°C

##### Temperature

Working range	-5...55 °C (23...131 °F)
T-Accuracy at 20 °C	±0.3 °C



#### Outputs

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

##### Passive T-sensor

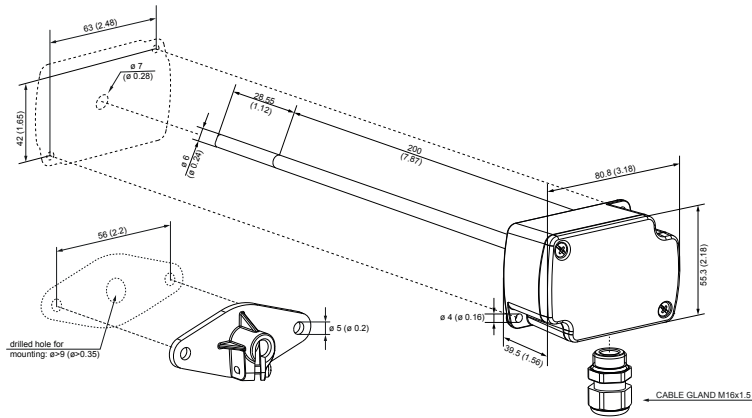
2-wire	see ordering guide
Wires resistance (terminal - sensor)	typ. 0.5 Ohm

#### General

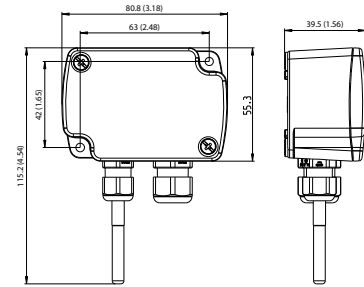
Power supply (Class III) 	for 0 - 10 V	15 - 35 V DC or 24 V AC ±20 %
	for 4 - 20 mA	$10 \text{ V} + R_L \times 20 \text{ mA} < U_V < 35 \text{ V DC}$
Current consumption	with DC power supply	typ. 5 mA
	with AC power supply	typ. 13 mA <sub>eff</sub>
Connection	Screw terminals, max. 1.5 mm <sup>2</sup>	
Housing material	Polycarbonate, UL94V-0 approved	
Protection class	IP65 / NEMA 4	
Cable gland	M16 x 1.5 / UL94-V2	
Sensor protection	PTFE filter, non-removable	
Electromagnetic compatibility	EN61326-1	Industrial environment
	FCC Part 15 Class B	ICES-003 Issue 5 Class B 
Working conditions	-5...55 °C (23...131 °F)	0...95 % RH (non-condensing)
Storage conditions	-25...60 °C (-13...140 °F)	20...80% RH

## Dimensions (mm/inch)

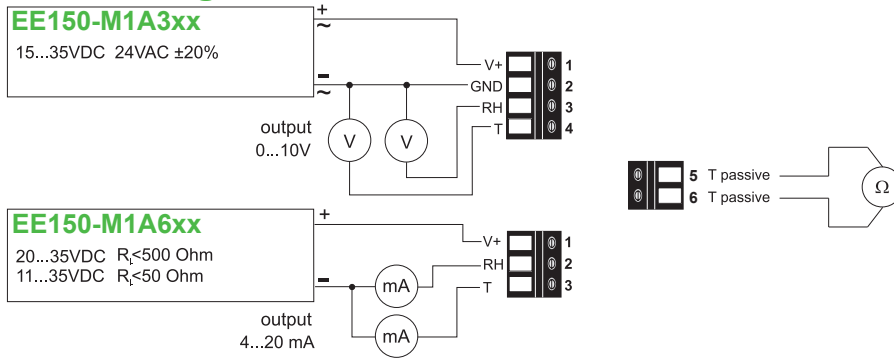
### Duct mount



### Wall mount



## Connection diagram



## Ordering Guide

		EE150-
Model	Humidity + Temperature	M1
Output RH / T	0-10 V 4-20 mA	A3 A6
Additional T-Sensor passive <sup>1)</sup>	none Pt100 DIN A Pt1000 DIN A NTC10k Ni1000 TK6180	no code TP1 TP3 TP5 TP9
Type	Duct mount Wall mount	no code T1
T-Unit	°C °F	no code MB2
T-Scale low	0 Value <sup>2)</sup>	no code SBL value
T-Scale high	50 Value <sup>2)</sup>	no code SBH value

1) T-Sensor details see [www.epluse.com/R-T\\_Characteristics](http://www.epluse.com/R-T_Characteristics)

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

## Order example

### EE150-M1A6TP1

Model: Humidity + Temperature  
Output RH / T: 4-20 mA  
Additional T-Sensor passive: Pt100 DIN A  
Type: Duct mount  
T-Unit: °C  
T-Scale low: 0  
T-Scale high: 50

### EE150-M1A6TP1T1MB2SBL-5SBH55

Model: Humidity + Temperature  
Output RH / T: 4-20 mA  
Additional T-Sensor passive: Pt100 DIN A  
Type: Wall mount  
T-Unit: °F  
T-Scale low: -5  
T-Scale high: 55

## Accessories

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Product configuration adapter	see data sheet EE-PCA
Product configuration software	EE-PCS (free download: <a href="http://www.epluse.com/EE150">www.epluse.com/EE150</a> )
Power supply adapter	V03 (see data sheet Accessories)
Conduit adapter, M16x1.5 to 1/2"	HA011110

## Scope of Supply

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- EE150 Humidity and Temperature Transmitter
- Cable gland
- Mounting flange (only at duct mount version)
- Test report according to DIN EN10204 - 2.2