

# EE10

## HVAC Humidity / Temperature Transmitter for Indoor Applications

EE10 room transmitters are the ideal solution for indoor applications such as HVAC in residential and official buildings. The very stylish, functional housing makes easy installation and fast exchange of the sensing unit for service purposes possible. The high quality E+E humidity sensor and state-of-the-art microprocessor controlled electronics are the guarantee for best accuracy and a wide range of options.

The standard humidity output of EE10 transmitters is 4 - 20 mA or 0 - 10 V. The temperature output signal can be active or passive.

All EE10 versions can be equipped with a good legible LC display. For EE10-FT versions the displayed values for humidity and temperature will alternate. Two different housing designs ensure professional appearance according to regional standards.



EE10

### Typical Applications

building management for residential and office areas  
 air conditioning in switching cabinets  
 climate control in hotels and museums

### Features

excellent price / performance ratio  
 easiest installation  
 modern design  
 long term stable  
 optional display

### Technical Data

#### Measuring Quantities

##### Relative Humidity

Humidity sensor	HC103	
Analogue output 0...100% RH	0-10 V	-1 mA < I <sub>L</sub> < 1mA
	4-20 mA (two wires)	R <sub>L</sub> < (U <sub>v</sub> -10)/0.02 < 500 Ohm
Working range <sup>1)</sup>	0...95 % RH	
Accuracy at 20°C (68°F) and U <sub>v</sub> =24VDC	±2% RH (40...60% RH)	±3% RH (10...90% RH)
	Traceable to intern. standards, administrated by NIST, PTB, BEV...	
Temperature dependence at 60% RH	typical 0.06% RH / °C (0.03% RH / °F)	
<b>Temperature (active output)</b>	0-10 V	-1 mA < I <sub>L</sub> < 1mA
	4-20 mA (two wires)	R <sub>L</sub> < (U <sub>v</sub> -10)/0.02 < 500 Ohm
Accuracy at 20°C (68°F) and U <sub>v</sub> =24VDC	FT3: ±0.25°C (±0.45°F)	FT6: ±0.4°C (±0.72°F)
	<b>Temperature (passive output)</b>	
Type of T-Sensor	please see ordering guide	

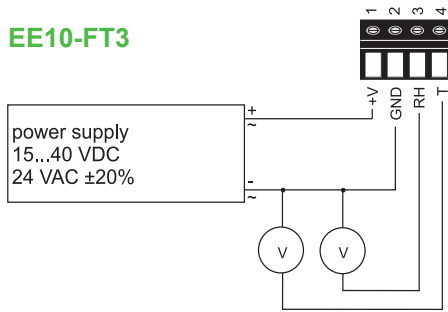
#### General Data

Voltage supply (U <sub>v</sub> )	for 0 - 10 V	15 - 40 VDC or 24 VAC ±20%
	for 4 - 20 mA	28V DC > U <sub>v</sub> > 10 + 0.02 x R <sub>L</sub> (R <sub>L</sub> < 500 Ohm)
Current consumption	for DC supply:	typical 4 mA
	for AC supply:	typical 15 mA <sub>eff</sub>
Electrical connection	screw terminals max. 1.5 mm <sup>2</sup> (AWG 16)	
Housing material	Polycarbonat	
	US Version: UL94V-0 approved / EU Version: UL94HB approved	
Protection class	IP30	
Display	for EE10-FTx version	Humidity / Temperature alternating
	for EE10-Fx and EE10-FPx version	Humidity
CE compatibility according	EN61326-1	
	EN61326-2-3	
Temperature ranges	working temperature range:	-5...55°C (23...131°F)
	storage temperature range:	-25...60°C (-13...140°F)

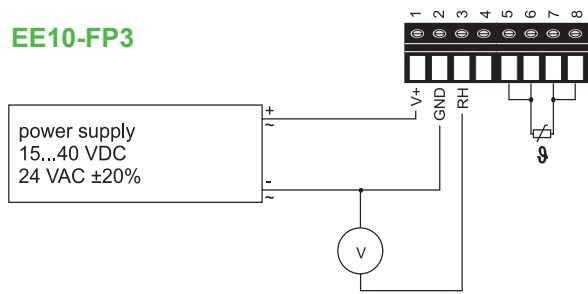
1) Please refer to the working range of the HC103

## Connection Diagram

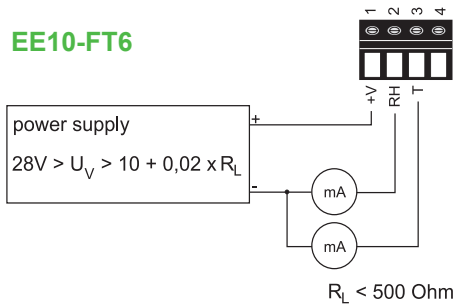
**EE10-FT3**



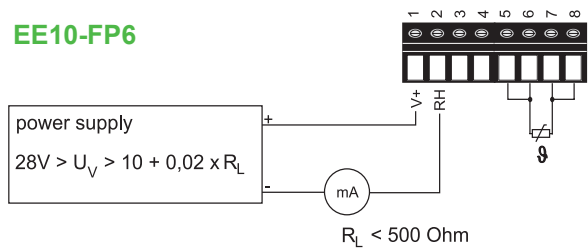
**EE10-FP3**



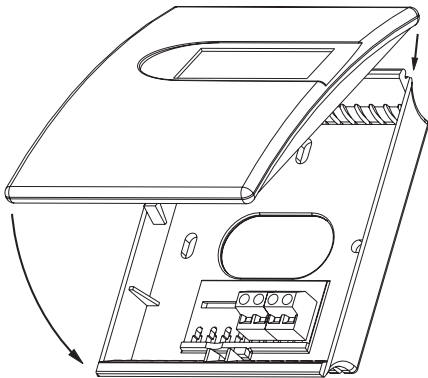
**EE10-FT6**



**EE10-FP6**



## Dimensions (mm)



Housing colour: Cover: RAL 9003 (signal white)  
Back: RAL 7035 (light grey)

## Order Example

**EE10-FT3-D04-T04**

Model: humidity + temperature  
Output humidity: 0-10V  
Output temperature: 0-10V  
Display: with display  
T-Unit: °C  
T-Scale: 0...50°C

EU: W x H x D = 85 x 100 x 26mm (3.3 x 3.9 x 1")  
US: W x H x D = 85 x 136 x 26mm (3.3 x 5.4 x 1")

## Ordering Guide

MODEL	OUTPUT	T-SENSOR (only passive)	DISPLAY	HOUSING	T-UNIT	T-SCALE <sup>1)</sup> (only for FT)
humidity + temperature (FT)	0 - 10 V (3)	Pt 100 DIN A	(A) without display (--)	EU (-)	°C (--)	0...50 (T04)
humidity+temp. passive (FP)	4 - 20 mA (6)	Pt 1000 DIN A	(C) with display (D04)	US (US)	°F (E01)	-5...55 (T31) 0...40 (T55) 20...120 (T15) 32...122 (T76) 32...132 (T96)
<b>EE10-</b>						

1) other scaling upon request