

# EE10 Series

## HVAC Humidity and 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 LCD display. For EE10-FT versions the displayed values for humidity and temperature will alternate.



EE10

### Typical Applications

building management for residential and office areas  
 air conditioning  
 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 %r.H.	0-10 V	$-1 \text{ mA} < I_L < 1 \text{ mA}$
	4-20 mA (two wires)	$R_L < (U_V - 10) / 0.02 < 500 \text{ Ohm}$
Working range <sup>1)</sup>	0...95 %r.H.	
Accuracy at 20 degC and $U_V = 24 \text{ VDC}$	$\pm 2 \text{ %r.H. (40...60%r.H.)}$	$\pm 3 \text{ %r.H. (10...90 %r.H.)}$
Temperature influence at 60%r.H.	typical 0.06 %r.H. / degC	


##### Temperature (active output)

Analogue output 0...50 degC <sup>2)</sup>	0-10 V	$-1 \text{ mA} < I_L < 1 \text{ mA}$
	4-20 mA (two wires)	$R_L < (U_V - 10) / 0.02 < 500 \text{ Ohm}$
Accuracy at 20 degC and $U_V = 24 \text{ VDC}$	$\pm 0.25 \text{ degC (FT3)}$	$\pm 0.4 \text{ degC (FT6)}$

##### Temperature (passive output)

Type of T-Sensor	please see ordering guide	
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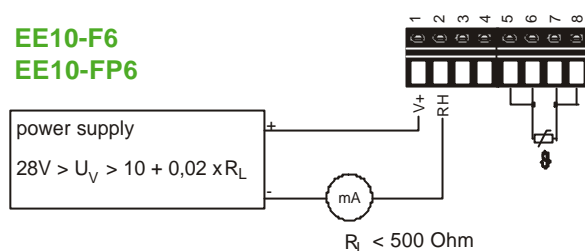
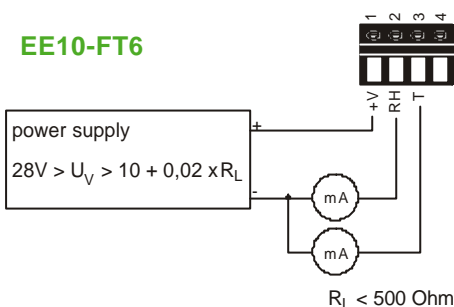
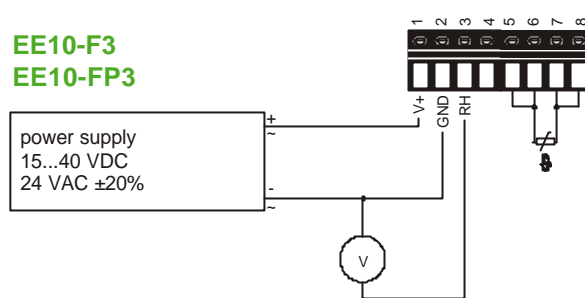
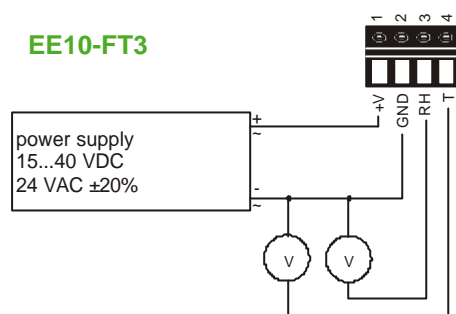
#### General Data

Voltage supply ( $U_V$ )	for 0 - 10 V	15 - 40 VDC or 24 VAC $\pm 20\%$
	for 4 - 20 mA	$28 \text{ V} > U_V > 10 + 0.02 \times R_L$ ( $R_L < 500 \text{ Ohm}$ )
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>	
Display	for EE10-FTx version	Humidity / Temperature alternating
	for EE10-Fx and EE10-FPx version	Humidity
CE compatibility according	EN 50081-1	
	EN 50082-1	
Temperature ranges	Working temperature range:	-5...+55 degC
	Working temperature with display:	-5...+55 degC
	Storage temperature range:	-25...+60 degC

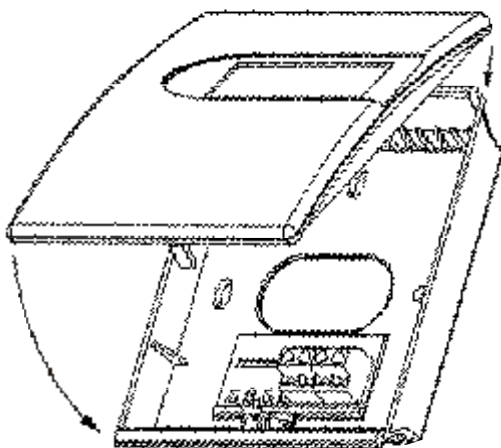
1) Please refer to the working range of the HC103!

2) Other scalings possible upon request

## Connection Diagram



## Dimensions (mm)



W x H x D = 85 x 100 x 26

Housing: PC  
Protection class: IP20

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

(other colours upon request)

## Order Example

### EE10-FP6D-D04

Model: Humidity + Temperature Transmitter with passive T-output  
Output humidity: 4-20mA  
Output temperature: Pt 1000 DIN B  
Display: with Display  
Display: %RH

## Ordering Guide

MODEL		OUTPUT	T-SENSOR (only passive)	T-SCALE (only for FT)	DISPLAY	T - UNIT (only for (D04))
humidity + temperature	(FT)	0-10V	Pt 100 DIN A	standard (0...50degC)	without display	°C
humidity	(F)	4-20 mA	Pt 100 DIN B	other	with display	°F
humidity + temperature passive	(FP)		Pt 1000 DIN A			
			Pt 1000 DIN B			
EE10-						