

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	$-1 \text{ mA} < I_L < 1 \text{ mA}$
	4-20 mA (two wires)	$R_L < (U_v - 10) / 0.02 < 500 \text{ Ohm}$
Working range ¹⁾	0...95 % RH	
Accuracy at 20°C (68°F) and $U_v=24\text{VDC}$	±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)	


Temperature (active output)

Analogue output 0...50°C (32...122°F) ²⁾	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°C (68°F) and $U_v=24\text{VDC}$	FT3: ±0.25°C (±0.45°F)	FT6: ±0.4°C (±0.72°F)

Temperature (passive output)

Type of T-Sensor	please see ordering guide
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General Data

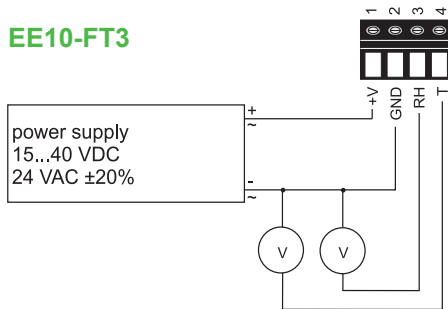
Voltage supply (U_v)	for 0 - 10 V	15 - 40 VDC or 24 VAC ±20%
	for 4 - 20 mA	$28\text{V DC} > U_v > 10 + 0.02 \times R_L$ ($R_L < 500 \text{ Ohm}$)
Current consumption	for DC supply:	typical 4 mA
	for AC supply:	typical 15 mA _{eff}
Electrical connection	screw terminals max. 1.5 mm ² (AWG 16)	
Housing	PC / 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)
	working temperature with display:	-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

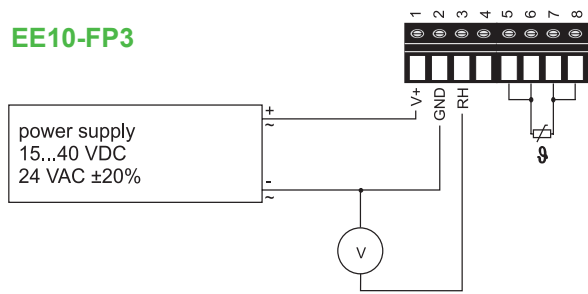
2) Other T-scaling refer to data sheet "T-Scalings"

Connection Diagram

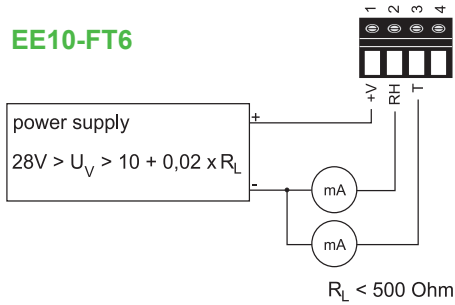
EE10-FT3



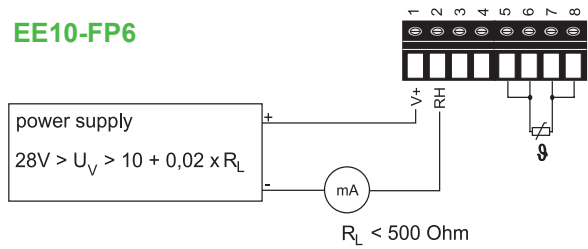
EE10-FP3



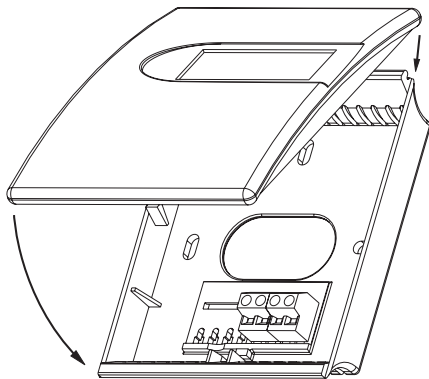
EE10-FT6



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

Europe: W x H x D = 85 x 100 x 26mm (3.3 x 3.9 x 1")
USA: 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 (only for FT)
humidity + temperature (FT)	0 - 10 V (3)	Pt 100 DIN A (A)	without display (--)	Europa (--)	°C (--)	0...50 (T04)
humidity+temp. passive (FP)	4 - 20 mA (6)	Pt 1000 DIN A (C)	with display (D04)	USA (US)	°F (E01)	-5...55 (T31)
						0...40 (T55)
						other (Txx)
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