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_L < 1mA
	4-20 mA (two wires)	R_L < (U_v-10)/0.02 < 500 Ohm
Working range[1]	0...95 % RH	
Accuracy at 20°C (68°F) and U_v=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)	

Temperature (active output)

	0-10 V	-1 mA < I_L < 1mA
	4-20 mA (two wires)	R_L < (U_v-10)/0.02 < 500 Ohm
Accuracy at 20°C (68°F) and U_v=24VDC	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

General Data

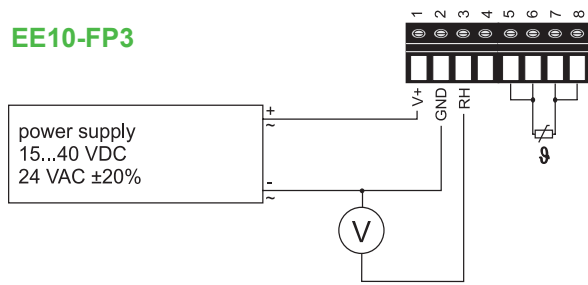|		
Voltage supply (U_v)		
for 0 - 10 V	15 - 40 VDC or 24 VAC ±20%	
for 4 - 20 mA	28V DC > U_v > 10 + 0.02 x R_L (R_L < 500 Ohm)	
Current consumption	for DC supply:	typical 4 mA
	for AC supply:	typical 15 mA$_{eff}$
Electrical connection	screw terminals max. 1.5 mm^2 (AWG 16)	
Housing material	Polycarbonat	
	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

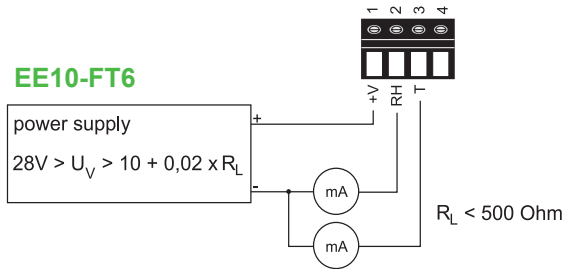$C \epsilon$

Connection Diagram

EE10-FT3

power supply
15...40 VDC
24 VAC ±20%

EE10-FP3

power supply
15...40 VDC
24 VAC ±20%

EE10-FT6

power supply
$28V > U_V > 10 + 0,02 \times R_L$

$R_L < 500\ Ohm$

EE10-FP6

power supply
$28V > U_V > 10 + 0,02 \times R_L$

$R_L < 500\ Ohm$
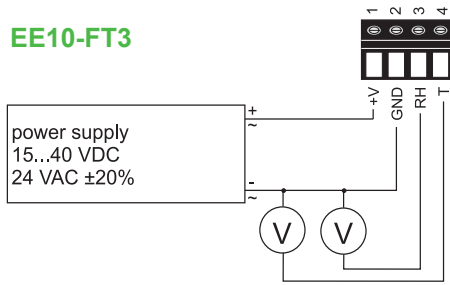
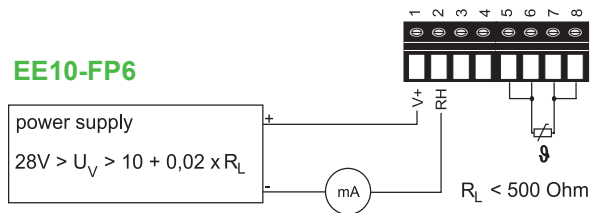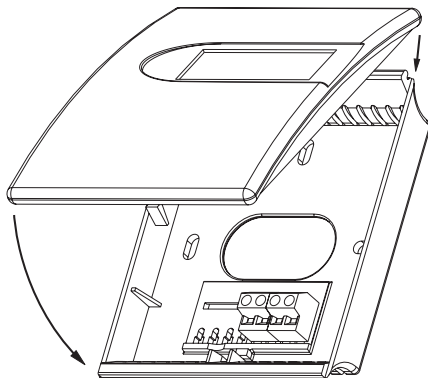## Dimensions (mm)

Housing colour:

Standard (EU & US):
Front cover: Signal white   RAL 9003
Back cover: Light grey   RAL 7035

Optional (only EU):
Front and ⎤   Grey   (Anthracite grey RAL 7016)
back cover ⎦   Silver   (White aluminum RAL 9006)

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

Ordering Guide

MODEL	OUTPUT	T-SENSOR[1] (only passive)	DISPLAY	HOUSING DESIGN & COLOUR		T-UNIT	T-SCALE[2] (only for FT)	
humidity + **(FT)**	0 - 10 V **(3)**	Pt 100 DIN A **(A)**	without display **(--)**	EU-Standard (RAL9003 / RAL7035)	**(--)**	°C **(--)**	0...50	**(T04)**
temperature	4 - 20 mA **(6)**	Pt 1000 DIN A **(C)**	with display **(D04)**	EU-Grey (RAL7016)	**(G)**	°F **(E01)**	-5...55	**(T31)**
humidity + **(FP)**		Ni1000, TK6180 **(J)**		EU-Silver (RAL9006)	**(S)**		0...40	**(T55)**
temperature passive		NTC10k **(E)**		US (RAL9003 / RAL7035)	**(US)**		20...120	**(T15)**
		NTC1.8 **(G)**					32...122	**(T76)**
							32...132	**(T96)**
EE10-								

1) T-Sensor details see www.epluse.com/R-T_Characteristics   2) other scaling upon request

Order Example

EE10-FT3-D04-T04

Model:	humidity + temperature
Output:	0-10 V
Display:	with display
Housing design & colour	EU-Standard (RAL9003 / RAL7035)
T-Unit:	°C
T-Scale:	0...50

Scope of supply

- EE10 Transmitter according to ordering guide
- Mounting materials
- Test report according to DIN EN10204 - 2.2