

EE10 Series

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.



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
traceable calibration

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)

| | | |
|---|------------------------|--|
| Analogue output 0...50°C (32...122°F) ²⁾ | 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) | 15 - 40 VDC or 24 VAC ±20% | |
| for 0 - 10 V | | |
| 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) | |
| 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) |

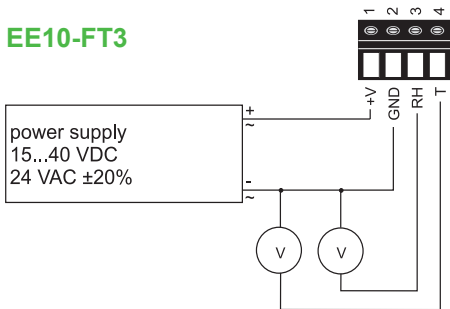
1) Please refer to the working range of the HC103

2) Other T-scaling refer to page 146

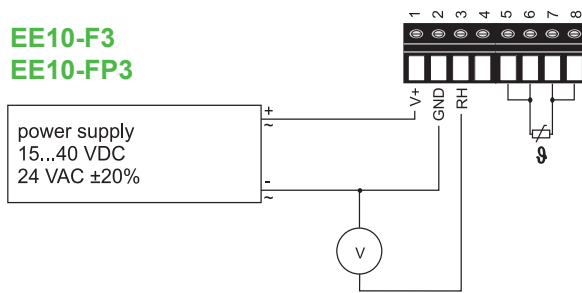


Connection Diagram

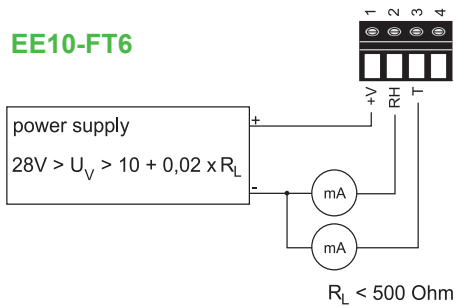
EE10-FT3



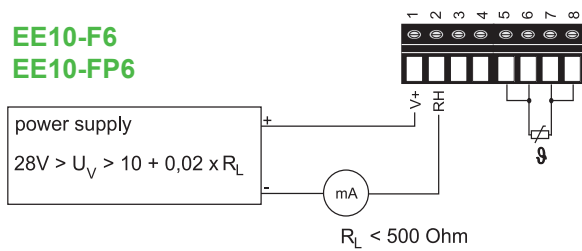
EE10-F3 EE10-FP3



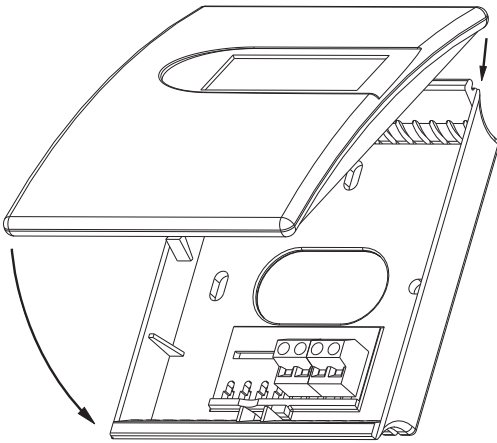
EE10-FT6



EE10-F6 EE10-FP6



Dimensions (mm)



W x H x D = 85 x 100 x 26mm
 (3.3 x 3.9 x 1")

Housing: PC
 Protection class: IP30

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

Ordering Guide

| MODEL | | OUTPUT | T-SENSOR (only passive) | DISPLAY | T - UNIT (only for (D04)) | T-SCALE (only for FT) | |
|--------------------------------|------|---------|----------------------------|-------------------|------------------------------|--------------------------|---------------|
| humidity + temperature | (FT) | 0-10V | (3) | Pt 100 DIN A (A) | without display (-) | °C (-) | 0...50 (T04) |
| humidity | (F) | 4-20 mA | (6) | Pt 1000 DIN A (C) | with display (D04) | °F (E01) | -5...55 (T31) |
| humidity + temperature passive | (FP) | | | | | | 0...40 (T55) |
| | | | | | | | other (Txx) |
| EE10- | | | | | | | |