

EE06 Series

Small Size Humidity / Temperature Transmitter for OEM Applications

The analogue humidity output provides according to model type, a current signal with 4-20mA or a voltage signal with 0-1V. A passive temperature output signal is available for both versions.

The voltage version can be ordered also with an active output.

Wide temperature and supply voltage ranges, excellent long term stability and the optional sensor coating allow the use in many applications.



EE06

Typical Applications

stables
green houses
humidifiers and dehumidifiers
monitoring of storage rooms

Features

very small dimensions
excellent price/performance ratio
very good long term stability
easy installation
optional sensor coating

Technical Data

Measuring values

Relative humidity

	EE06-x1 (voltage output)	EE061-x6 (current output)
Sensor	HC101	HC105
Working range ¹⁾	0...100% RH	0...100% RH
Analogue output 0...100% RH	0-1 V -0.2 mA <math>I_L < 0.2 \text{ mA}</math>	4...20mA (two wire) $R_L < 500 \text{ Ohm}$
Accuracy at 20°C (68°F), 12V DC	±3% RH (10...90% RH) ±5% RH (<10% RH and >90% RH)	±3% RH (10...90% RH) ±5% RH (<10% RH and >90% RH)
Temperature dependence [% RH/°C]	model F/FT: $-0.00035 \times \text{RH} \times (T-20^\circ\text{C})$ model FP: $\text{typ. } (-0.003 \times \text{RH} + 0.01) \times (T-20^\circ\text{C})$	model F/FP: $\text{typ. } \pm 0.03$

Temperature active

Sensor	Pt1000 (class A, DIN EN 60751)
Analogue output -40...60°C (-40...140°F)	0-1 V -0.2 mA <math>I_L < 0.2 \text{ mA}</math>
Accuracy at 12V DC, 20°C (68°F)	±0.3°C (±0.5°F)

Temperature passive

Output	resistive, 2 wire	resistive, 4 wire
Type of T-Sensor	refer to ordering guide	refer to ordering guide

General

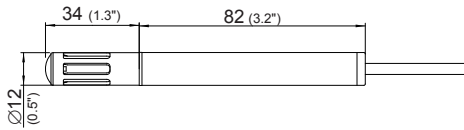
Supply voltage	4.5V DC - 30V DC	9V DC - 28V DC
Current consumption	typ. 1.5 mA	
Electrical connection	cable with 0.5m (1.6ft) or 3m (9.8ft)	cable with 0.5m (1.6ft) or 3m (9.8ft)
Housing	polycarbonate / IP65 in vertical mounting (filter cap upside)	polycarbonate IP65
Sensor protection	membrane filter, metal grid filter	membrane filter, metal grid filter
Electromagnetic compatibility	EN61326-1 EN61326-2-3	EN61326-1 EN61326-2-3
Temperature ranges	working temperature: -40...60°C (-40...140°F) storage temperature: -40...65°C (-40...149°F)	working temperature: -40...60°C (-40...140°F) storage temperature: -40...70°C (-40...158°F)

¹⁾ Refer to the working range of the humidity sensor

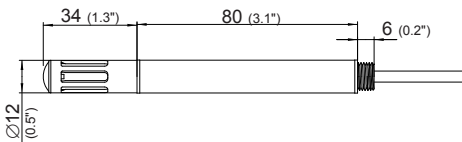
Dimensions (mm)

EE06-x1 (voltage output)

Type A:

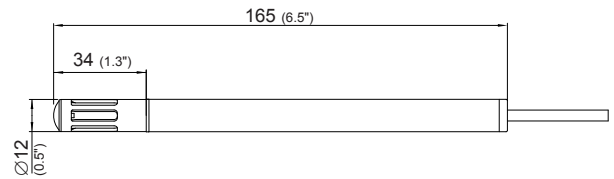


Type C:



EE061-x6 (current output)

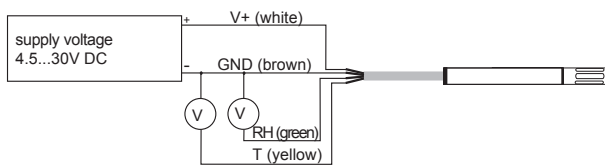
Type A:



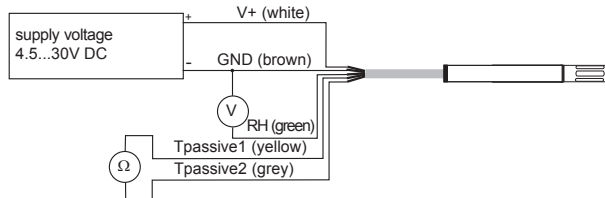
Connection Diagram

EE06-x1 (voltage output):

with active T-output:

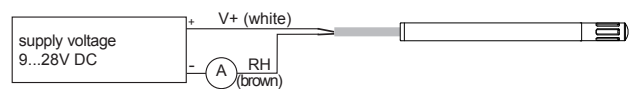


with passive T-sensor:

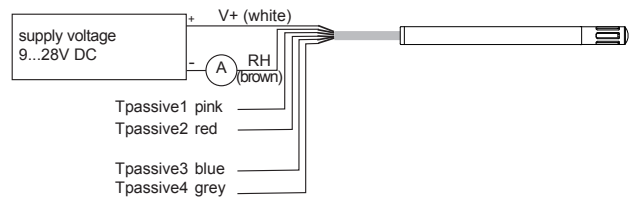


EE061-x6 (current output):

with active humidity output:



with active humidity output and passive T-sensor:



Ordering Guide

Voltage Output:

MODEL	OUTPUT	T-SENSOR (passive only)	TYPE	FILTER	COATING	CABLE LENGTH
humidity + temperature (FT)	0 - 1V (1)	Pt 100 DIN A (A)	with housing (A)	membrane filter (1)	without coating (no code)	0.5m (1.6ft) (co code)
humidity (F)		Pt 1000 DIN A (C)	with thread (C)	metal grid filter (6)	with coating (HC01)	3m (9.8ft) (K300)
humidity+temperature passive (FP)		NTC 10K at 25°C (E)				
EE06-						

Current Output:

MODEL	OUTPUT	T-SENSOR (passive only)	FILTER	COATING	CABLE LENGTH
humidity (F)	4 - 20mA (6)	Pt 100 DIN A (A)	membrane filter (1)	without coating (no code)	0.5m (1.6ft) (co code)
humidity+temperature passive (FP)		Pt 1000 DIN A (C)	metal grid filter (6)	with coating (HC01)	3m (9.8ft) (K300)
		NTC 10K at 25°C (E)			
EE061-					

Order Example

EE061-FP6A6HC01K300

model: humidity+temperature passive
 output: 4 - 20mA
 T-sensor: Pt 100 DIN A

filter: metal grid filter
 coating: with coating
 cable length: 3m

Accessories

For more information please refer to data sheet "Accessories"