

EE060

OEM Humidity / Temperature Transmitter with Voltage Output

EE060 probes are the ideal solution for cost-effective, highly accurate and reliable measurement of relative humidity and temperature.

Excellent protection against external influences is ensured by the combination of completely encapsulated electronics and the long-term stable HCT01 sensor with E+E proprietary protective coating. EE060 is available with an integrated cable or a threaded connector, with wide temperature and supply voltage ranges and dual 0-1 V, 0-5 V or 0-10 V analogue outputs, for humidity and temperature.

The result of the wide temperature range and the flexible supply voltage in combination with the excellent long-term stability is a versatile applicable probe.

The E+E proprietary sensor coating is a protective layer applied to the active surface of the HCT01 sensing element.

The coating extends substantially the life-time and the measurement performance of the E+E sensor in corrosive environment. Additionally, it improves the sensor's long term stability in dusty, dirty or oily applications by preventing stray impedances caused by deposits on the active sensor surface.



Typical Applications

stables, incubators, hatchers
 green houses
 humidifiers and dehumidifiers
 monitoring of storage rooms
 HVAC applications

Features

excellent price/performance ratio
 very good long term stability
 easy installation
 well protected against dust and dirt

Technical Data

Measuring values

Relative humidity

Sensor	HCT01-00D
Working range	0...100 % RH
Analogue output 0...100 % RH	0-10 V $-1.0 \text{ mA} < I_L < 1.0 \text{ mA}$ 0-5 V $-0.2 \text{ mA} < I_L < 0.2 \text{ mA}$ 0-1 V $-0.1 \text{ mA} < I_L < 0.1 \text{ mA}$
Accuracy at 24V DC, 20 °C (68 °F)	±2.5 % RH

Temperature active

Sensor	Pt1000 DIN B
Analogue output -40...60 °C (-40...140 °F)	0-10 V $-1.0 \text{ mA} < I_L < 1.0 \text{ mA}$ 0-5 V $-0.5 \text{ mA} < I_L < 0.5 \text{ mA}$ 0-1 V $-0.1 \text{ mA} < I_L < 0.1 \text{ mA}$
Accuracy at 24V DC, 20 °C (68 °F)	±0.3 °C (±0.5 °F)

Temperature passive (with 0-1 V output and 8-pole connector only)

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

General

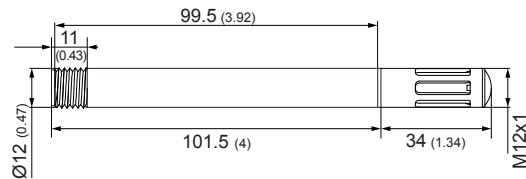
Supply voltage	HT1: 3.6...30 V DC / HT2: 10...30 V DC / HT3: 15...30 V DC
Current consumption	typ. 1.5 mA
Electrical connection	M12 connector or cable (PVC, Ø 4.3 mm, 4 x 25 mm ²)
Housing	polycarbonate / IP65
Electromagnetic compatibility ²⁾ (industrial environment)	EN61326-1 EN61326-2-3
Working and storage temperature	-40...+60 °C (-40...140 °F)

1) Analogue output 0-1 V is not protected against surge!

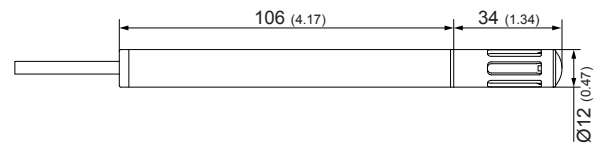


Dimensions in mm (inch)

connector version



cable version

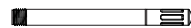


Connection Diagram

connector version

Connector 4-pole (M)

- 1...V+
- 2...RH-out
- 3...GND
- 4...T-out



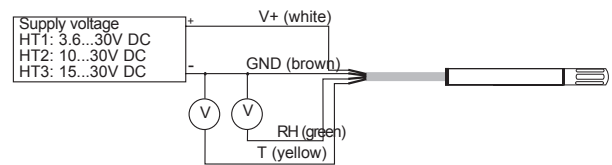
Supply voltage
 HT1: 3.6...30V DC
 HT2: 10...30V DC
 HT3: 15...30V DC

Connector 8-pole (M)

- 1...T-passive
- 2...not connected
- 3...not connected
- 4...RH-out
- 5...T-out
- 6...GND
- 7...T-passive
- 8...V+



cable version



Ordering Guide

ANALOG OUTPUT	T-SENSOR PASSIVE ¹⁾ (with 0-1 V output and 8-pole connector only)	ELECTRICAL CONNECTION	CABLE LENGTH	FILTER
0 - 1 V (1)	none (x)	connector 4-pole (PM)	0.5 m (1.6 ft) (A)	membrane filter (B)
0 - 5 V (2)	Pt1000 DIN A (C)	connector 8-pole (for T-Sensor passive) (PV)	1.5 m (4.9 ft) (C)	
0 - 10 V (3)	NTC10k at 25 °C (E)	cable (PN)	3 m (9.8 ft) (E)	
			with connector (x)	
EE060-HT				

1) T-Sensor details see www.epluse.com/R-T_Characteristics

Order Example

EE060-HT2xPMxB

Output: 0-5 V
 T-Sensor passive: none
 El. Connection: connector 4-pole
 Cable length: with connector
 Filter: membrane filter

EE060-HT1CPVxB

Output: 0-1 V
 T-Sensor passive: Pt1000 DIN A
 El. Connection: connector 8-pole
 Cable length: with connector
 Filter: membrane filter

Accessories (For further information, see data sheet „Accessories“)

Female connector 4pol. self assembly M12x1	HA010707
Female connector 8pol. self assembly M12x1	HA010704
Connecting cable 5 pins, M12x1 plug-socket 2 m (6.6 ft) / 5 m (16.4 ft) / 10 m (32.8 ft)	HA010816/HA010817/HA010818
Connecting cable 8 pins, M12x1 socket - flying leads 3 m (9.8 ft) / 5 m (16.4 ft) / 10 m (32.8 ft)	HA010323/HA010324/HA010325
Connecting cable 5 pins, M12x1 socket - flying leads 1.5 m (4.9 ft) / 5 m (16.4 ft) / 10 m (32.8 ft)	HA010819/HA010820/HA010821
Plastic mounting flange for duct mounting light grey / black	HA010202/HA010214
Radiation shield	HA010502

Support literature

www.epluse.com/EE060