

EE060

OEM Humidity and Temperature Probe with Voltage Output

EE060 is the ideal solution for cost-effective, highly accurate and reliable measurement of relative humidity (RH) and temperature (T).

Excellent protection against external influences is ensured by the combination of completely encapsulated electronics and the long-term stable, very robust HCT01 humidity sensor with E+E proprietary protective coating. Together with the optional radiation shield, the probe can be also used outdoors.

EE060 is available as cable or plug version, with wide temperature and supply voltage ranges and 0-1V, 0-5V or 0-10V analog outputs. The 0-1V version features also an optional T sensor with passive output.



Typical Applications

- incubators and hatchers
- greenhouses and livestock barns
- humidifiers and dehumidifiers
- storage rooms
- HVAC

Features

- optimal price-performance ratio
- electronics encapsulated against water
- RH sensor coated against dust and dirt
- very robust sensing head
- excellent long term stability

Technical Data

Measuring values

Relative humidity

Sensor	HCT01-00D
Working range	0...100% RH
Analogue output 0...100% RH	0-10V $-1.0 \text{ mA} < I_L < 1.0 \text{ mA}$ 0-5V $-0.2 \text{ mA} < I_L < 0.2 \text{ mA}$ 0-1V $-0.1 \text{ mA} < I_L < 0.1 \text{ mA}$

Accuracy at 24V DC, 20°C (68°F)	±2.5% RH
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Temperature active

Sensor	Pt1000 DIN B
Analogue output -40...60°C (-40...140°F)	0-10V $-1.0 \text{ mA} < I_L < 1.0 \text{ mA}$ 0-5V $-0.5 \text{ mA} < I_L < 0.5 \text{ mA}$ 0-1V $-0.1 \text{ mA} < I_L < 0.1 \text{ mA}$

Accuracy at 24V DC, 20°C (68°F)	±0.3°C (±0.5°F)
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Temperature passive (with 0-1V output and 8-pole connector only)

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

General

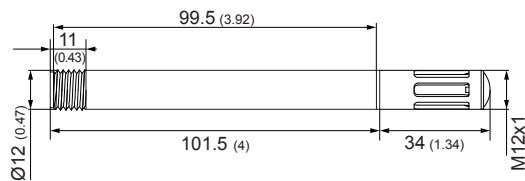
Supply voltage	HT1: 3.6...30V DC HT2: 10...30V DC HT3: 15...30V DC
Current consumption	typ. 1.5 mA
Electrical connection	M12 connector or cable (PVC, Ø 4.3mm, 4 x 25mm ²)
Housing	polycarbonate / IP65
Electromagnetic compatibility ¹⁾ (industrial environment)	EN61326-1 EN61326-2-3
Working and storage temperature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



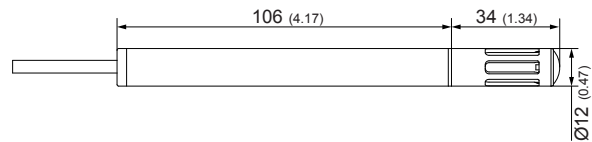
1) Analogue output 0-1V is not protected against surge!

Dimensions in mm (inch)

Connector version



Cable version

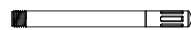


Connection Diagram

Connector version

Connector 4-pole (PM)

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



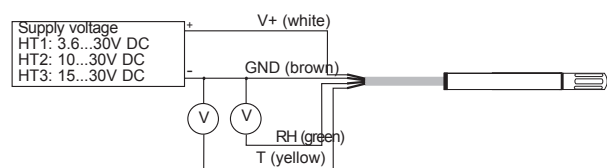
Supply voltage
HT1: 3.6...30V DC
HT2: 10...30V DC
HT3: 15...30V DC

Connector 8-pole (PV)

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



cable version (Type PN)



Ordering Guide

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

Order Example

EE060-HT2xPMxB

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

EE060-HT1CPVxB

Output: 0-1V
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
Connection cable for Type PM, free ends 1,5m (4.9ft) / 5m (16.4ft) / 10m (32.8ft)	HA010819/20/21
Connection cable for Type PV, free ends 1,5m (4.9ft) / 3m (9.8ft) / 5m (16.4ft) / 10m (32.8ft)	HA010322/23/24/25
Protection cap for M12 female cable connector	HA010781
Protection cap for M12 male probe connector	HA010782
Protection cap for 12 mm sensing head	HA010783
Plastic mounting flange for duct mounting	HA010202
Radiation shield	HA010502

Support literature

<http://goo.gl/6YZwj9>