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EE08 Series

High-Precision Miniature Humidity / Temperature Transmitter

Accurate humidity / temperature measurement over a wide working range, fitted in a small-sized housing and high flexibility have been the main goals for the development of the EE08 series. Long term stable E+E sensor technology and an innovative electronic concept will meet these challenging objectives.

Low power consumption and short start-up time support efficient energy management for battery operated systems. Calibration data and other relevant functions like linearization or temperature compensation are stored in the probe. This feature, together with the optional connector, allows for easy replacement of the probe without a need for re-adjustment of the reading device (interchangeability).



The humidity and temperature measurement are available as analogue outputs (0-1/2.5/5V) or as a digital interface (E2-interface). Easy implementation and data processing is warranted.

Humidity and temperature reading can be re-adjusted using the calibration software; available as an accessory.

Typical Applications

meteorology / weather stations humidity / temperature data logging incubators fermentation chambers green houses snow machines dry storage facilities small dimensions wide working range, high accuracy traceable calibration customer adjustment possible interchangeable in seconds low power consumption / short start-up time analogue outputs / digital interface

Features

Technical Data

Measuring values

Relative Humidity			
Sensor	HC101		
Working range ¹⁾	0100% RH		
Digital output (2 wire) ²⁾	output value: 0.00100.00% RH		
Analogue output 0100% RH	0-1/2.5/5V	-0.2mA < I _L < 0.2mA	
Accuracy at 20°C (68°F)	±2% RH (090% RH)	±3% RH (90100% RH)	
	Traceable to intern. stand	lards, administrated by NIST, PTB, BEV	
Temperature dependence	typ. 0.03% RH/°C (typ. 0.02% RH/°F)		
Temperature			
Sensor	Pt 1000 (DIN A)		
Digital output (2 wire) ²⁾	output value: -40.00+80.00°C (-40176°F)		
Analogue output	0-1/2.5/5V	-0.2mA < I _L < 0.2mA	
Accuracy at 20°C (68°F)	0.6 0.6 0.4 0.3 0.2 0.1 0 -0.1 -0.2 -0.2 -0.4 -0.5 -0.6	bo 40 50 60 70 80 °C	

General

Supply voltage SELV	7 - 30V DC	
Current consumption	typ. < 1.3mA	
Digital interface	E2-interface level = $3.3V / \pm 0.1V$	
Housing	polycarbonate / IP65	
Sensor protection	metal grid filter	
Electromagnetic compatibility	EN 61000-6-3	()
	EN 61000-6-1	
Temperature ranges	working temperature: -4080°C (-40176°F)	
	storage temperature: -4080°C (-40176°F)	
1) refer to the working range of the humidtiy sensor HC101	2) serial protocol refer to www.epluse.com	
		EE08



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Dimensions (mm)









Connection Diagram



Ordering Guide

HOUSING	MODEL	OUTPUT	T-SENSOR (passive)	ТҮРЕ	FILTER
polycarbonate (P)	humidity active / temperature active (FT) humidity active / temperature passive (FP)	0 - 1V (1) 0 - 5V (2) 0 - 2.5V (7)	Pt 100 DIN A (A) Pt 100 DIN B (B) Pt 1000 DIN A (C) Pt 1000 DIN B (D)	with connector (D) with cable (E)	metal grid filter (6)
EE08-					

COATING	CABLE LENGTH (Type E only)	T-SCALING	
without coating (no code) with coating (HC01)	1m (3.3ft) (01 2m (6.6ft) (02 5m (16.4ft) (05	standard (-4080°C / -40176°F) (no code) other (Txx)	

 Order Example

 EE08-PFT2E602

 housing:
 polycarbonate

 model:
 humidity active / temp. active

 output:
 0 - 5V

 type:
 with cable

 filter:
 metal grid filter

 coating:
 without

cable length: 2m (6.6ft) T-scaling: -40...80°C (-40...176°F)

Accessories / Replacement Parts_

- M12 connection cable for type D, length 2m (6.6ft) (HA010320)
- M12 connection cable for type D, length 5m (16.4ft) (HA010321)
- radiation shield (HA010506)
- M12 flange coupling (HA010703)
- E2-interface RS232 converter (incl. calibration software) for testing purposes and customer adjustment (HA011005)