JLC International
Phone: 215-340-2650
Fax: 215-340-3670

948 Lenape Drive Town Center, New Britain, PA 18901
jlcusa@jlcinternational.com
www.jlcinternational.com

EE07 Series

Interchangeable Humidity / Temperature Transmitter for OEM Applications

alterations according to customer specifications possible

The compact EE07 humidity and temperature probe is based on a new electronic concept in combination with the miniaturized SMD humidity sensor element HC105 series. A wide humidity and temperature working range, small dimensions of the polycarbonate or metal housing and appropriate filters allow for the use in a large variety of applications.

Calibration data and other measurement relevant functions (e.g. linearization or temperature compensation) are stored in the electronics, integrated in the probe. In combination with the M12 connector, replacement in seconds without readjustment of the evaluation electronics is guaranteed.
The digital output signal allows for easy processing of the measurement results and cost efficient interfacing to customers electronics.

Typical Applications

humidifiers and dehumidifiers
meteorological applications
climate and ventilation control
snowguns
OEM applications

Features

digital output
fast interchangeable
very small dimensions
highest accuracy
traceable calibration
easy interfacing to microcontroller

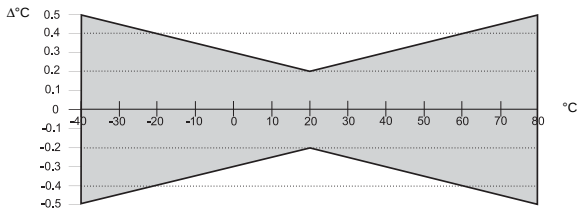
Technical Data

Measuring values

Relative Humidity

Sensor element	HC105
Digital output (2 wire)[1]	output value: 0.00...100.00% RH
Working range[2]	0...100% RH
Accuracy incl. hysteresis and nonlinearity	±2% RH (0...90% RH) ±3% RH (90...100% RH) Traceable to intern. standards, administrated by NIST, PTB, BEV...
Temperature dependence	< (0.025 + 0.0003 x RH) [$\frac{\%\ RH}{°C}$]

Temperature

Sensor element	Pt1000 (tolerance class A, DIN EN 60751)
Digital output (2 wire)[1]	output value: -40.00...+80.00°C (-40...176°F)
Accuracy	

General

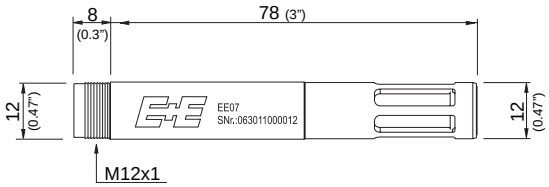
Supply voltage	SELV 3.8V DC - 5.5V DC	SELV = Safety Extra Low Voltage
Current consumption	< 1.5mA	
Housing	Polycarbonat / IP65	
Sensor protection	membrane filter, PTFE filter, metal grid filter (polycarbonate), metal grid filter (stainless steel)	
Electromagnetic compatibility[3]	EN 61000-6-3 EN 61000-6-1	CE
Temperature range	working temperature: -40...80°C (-40...176°F) storage temperature: -40...60°C (-40...140°F)	
max. cable length[4]	30m (98.4ft)	

1) serial protocol refer to www.epluse.com
2) refer to the working range of the humidtiy sensor HC105
3) EE07 is not protected against surge
4) dependent on selected Bus frequency

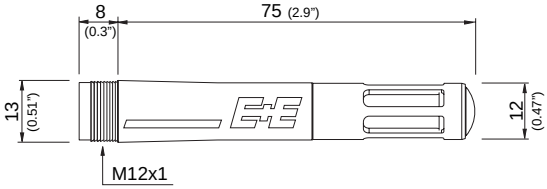
JLC International
Phone: 215-340-2650
Fax: 215-340-3670
948 Lenape Drive Town Center, New Britain, PA 18901
jlcusa@jlcinternational.com
www.jlcinternational.com

Housing Dimensions (mm)

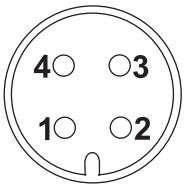
Metal housing
EE07-MFTx



Polycarbonate housing
EE07-PFTx



Connection Diagram



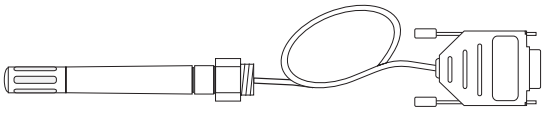
1...GND
2...+UB
3...DATA
4...CLOCK

Ordering Guide

HOUSING		MODEL		FILTER		COATING	
metal	(M)	humidity and temperature	(FT)	membrane filter	(1)	without	(no code)
polycarbonate	(P)			PTFE filter	(5)	with	(HC01)
				metal grid filter (polycarbonate)	(6)		
				metal grid filter (stainless steel)	(9)		
EE07-							

Accessories

- E2 interface - RS232 converter: (HA011001)
  For first testing measurements by a PC is a RS232 converter available
- M12x1 connector, cable ∅ 3.5-7 mm (0.14-0.28") (HA010701)
- filter caps (HA0101xx)
- radiation shield (HA010505)



E2 interface - RS232 converter

Order Example

EE07-PFT6

Housing:	polycarbonate
Model:	humidity and temperature
Filter:	metal grid filter (polycarbonate)