

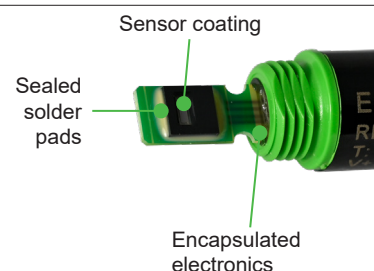
EE060

EE060 probes are 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 HCT01 sensing element 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.

Humidity / Temperature Probe with Voltage Output



Protective Sensor Coating

The E+E proprietary sensor coating is a protective layer applied to the active surface of the sensing element. The coating substantially extends sensor lifetime and ensures optimal measurement performance in corrosive environment (salts, off-shore applications). Additionally, it improves the sensors' long term stability in dusty, dirty or oily applications by preventing stray impedance 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

Measurands

Relative humidity

Working range	0...100 % RH
Analogue output 0...100 % RH	0 - 10 V (-1.0 mA < I _L < 1.0 mA)
	0 - 5 V (-0.2 mA < I _L < 0.2 mA)
	0 - 1 V (-0.1 mA < I _L < 0.1 mA)

Accuracy at 24 V DC, 20 °C (68 °F)¹⁾ ± 2.5 % RH

Temperature

Analogue output	0 - 10 V (-1.0 mA < I _L < 1.0 mA)
T scale no code: -40...+60 °C (-40...140°F)	0 - 5 V (-0.5 mA < I _L < 0.5 mA)
SBH80: -40...+80 °C (-40...176°F)	0 - 1 V (-0.1 mA < I _L < 0.1 mA)

Accuracy at 24 V DC, 20 °C (68 °F) ± 0.3 °C (± 0.5 °F)

General

Supply voltage	A1: 3.6 - 30 V DC / A2: 10 - 30 V DC / A3: 15 - 30 V DC
Current consumption, typ.	1.5 mA
Electrical connection	Cable PVC (Ø 4.3 mm (0.17"), 4 x 0.25 mm ²) Connector plug M12 x 1 (4 poles)

¹⁾ Traceable to international standards, administrated by NIST, PTB, BEV,...

The accuracy statement includes the uncertainty of the factory calibration with an enhancement factor k=2 (2-times standard deviation).

The accuracy was calculated in accordance with EA-4/02 and with regard to GUM (Guide to the Expression of Uncertainty in Measurement).

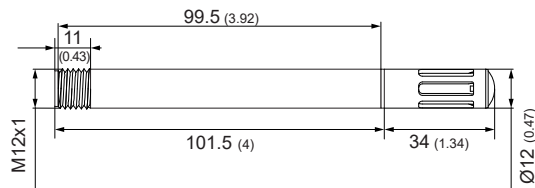
Enclosure material	Polycarbonate		
Protection rating	IP65		
Electromagnetic compatibility ²⁾	EN 61326-1	EN 61326-2-3	UK CA CE
	Industrial Environment		
	FCC Part15 Class B	ICES-003 Class B	
Working temperature range	-40...+80 °C (-40...176 °F)		
Storage temperature range	-40...+80 °C (-40...176 °F)		

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

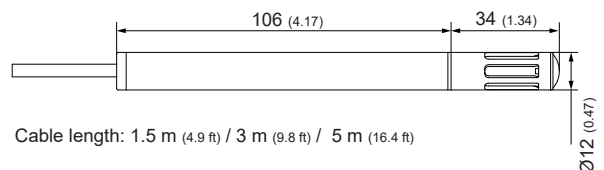
Dimensions

Values in mm (inch)

Connector version (Type E9)



Cable version (Type E8)



Ordering Guide

		EE060-	
Hardware Configuration	Model	Humidity and temperature	M1
	Output	0 - 1 V	A1
		0 - 5 V	A2
		0 - 10 V	A3
	Filter	Membrane	no code
	Metal grid	F3	
Electrical connection	Cable	E8	
	M12 connector, 4 pole		E9
Cable length	1.5 m (4.9 ft)	KL150	
	3 m (9.8 ft)	KL300	
	5 m (16.4 ft)	KL500	
T Scale	T scale low	-40 °C	no code
	T scale high	60 °C	no code
		80 °C	SBH80

Order Example

EE060-M1A3E8KL150

Model:	Humidity and temperature
Output:	0 - 10 V
Filter:	Membrane
Electrical connection:	Cable
Cable length:	1.5 m (4.9 ft)
T scale low	-40 °C (-40 °F)
T scale high	60 °C (140 °F)

EE060-M1A1F3E9SBH80

Model:	Humidity and temperature
Output:	0 - 1 V
Filter:	Metal grid
Electrical connection:	M12 plug, 4 pole
Cable length:	None
T scale low	-40 °C (-40 °F)
T scale high	80 °C (176 °F)

Accessories

(for further information, see data sheet "Accessories")

Female connector 4 pole, M12x1, self assembly	HA010707
Connecting cable 5 pole, M12x1 plug - socket 2 m (6.6 ft) / 5 m (16.4 ft) / 10 m (32.8 ft)	HA010816/HA010817/HA010818
Connecting cable 5 pole, 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 Ø12 mm (0.47") black	HA010214
Wall mounting clip Ø12 mm (0.47")	HA010211
Protection cap for Ø12 mm (0.47") probe	HA010783
Radiation shield	HA010502