

## HMP50 Miniature Humidity and Temperature Probe for OEM Applications



The HMP50 features good measurement performance in a small, rugged and simple probe.



### Features/Benefits

- Miniature-size humidity transmitter
- Very low power consumption - well suitable for battery-powered applications
- Short power-up time
- Measurement range  
0 ... 98 % RH and  
-10 ... +60 °C (+14 ... +140 °F)
- Cable detachable with standard M8 quick connector
- Rugged metal housing
- Interchangeable Vaisala INTERCAP® Sensor - no need for recalibration
- Optional outputs and cable lengths

The Vaisala INTERCAP® Humidity and Temperature Probe HMP50 is a simple and cost effective humidity transmitter suitable for volume applications or integration into other manufacturers' equipment.

The HMP50 is ideal for a variety of applications such as glove boxes, greenhouses, fermentation chambers, data loggers, and incubators.

### Installation flexibility

The probe cable has a screw-on quick connector for easy installation. Two different cable lengths are available, and customers can also use any M8 series cable of their choice.

### Several outputs available

The temperature measurement is optional. Three standard voltage outputs are available.

For the RH-only model, a current interface output is available. It can be used to build a 4 ... 20 mA loop-powered current output with external components (the optional current converter kit).

### Rugged design

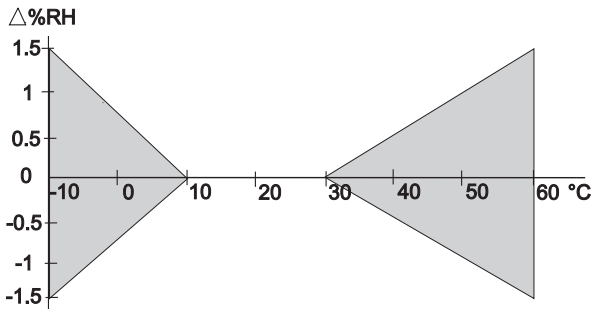
The aluminum body of the HMP50 is IP65-classified. The sensor is protected by a membrane filter and plastic grid, or optionally a stainless steel filter.

# Technical data

## Performance

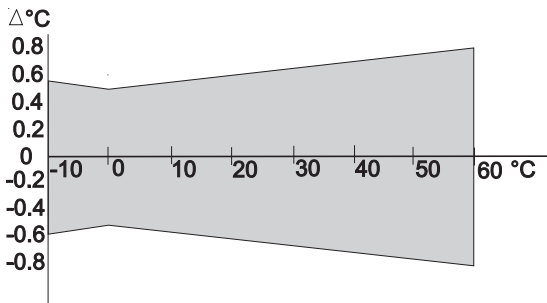
### RELATIVE HUMIDITY

Measurement range	0 ... 98 %RH
Typical accuracy at +20 °C (+68 °F)	
0 ... 90 %RH	±3 %RH
90 ... 98 %RH	±5 %RH
Stability	±2 %RH over 2 years
Temperature dependence	



### TEMPERATURE (OPTIONAL)

Measurement range	-10 ... +60 °C (+14 ... +140 °F)
Typical accuracy at +20 °C	±0.6 °C (±1.1 °F)
Temperature dependence	

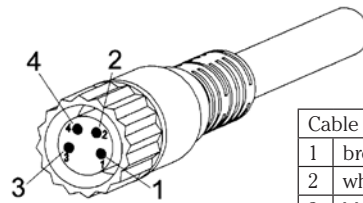


## Operating environment

Environmental temperature	
operating	-10 ... +60°C (+14 ... +140 °F)
storage	-40 ... +60°C (-40 ... +140 °F)
Environmental operating RH	0 ... 100%RH
Electromagnetic compatibility	Complies with EMC standard EN61326-1, Generic Environment

## Inputs and outputs

Operating voltage	7 ... 28VDC
for 0 ... 5 VDC output model	8 ... 28VDC
Current consumption	2 mA typical
Settling time at power-up	150 ms
Outputs (equals 0 ... 100% RH and -40 ... +60 °C)	0 ... 1/2.5/5VDC
Current interface	
External loads	
0 ... 1/0 ... 2.5V	RLmin 10kohm
0 ... 5	RLmin 50kohm



### Cable colors.

1	brown	+VDC 7...28VDC
2	white	+0...1/2.5/5 V 0...100 %
3	blue	-VDC
4	black	0...1/2.5/5 V -40...+60 °C

## Mechanics

Body material	chrome coated aluminium
Grid/filter material	chrome coated ABS plastic
Cable material	polyurethane
Housing classification	IP65
Body thread	M12x1 / 10 mm
Grid thread	M11x1 / 5 mm
Cable connector	4-pin M8 (IEC 60947-5-2)
Cable lengths	0.3 and 3 m
Weight	25 g (with 0.3 m cable)

## Options and accessories

Vaisala INTERCAP® sensor	15778HM
Vaisala INTERCAP® sensor with membrane	15872HM
Sensor protection	
plastic grid	DRW010522
membrane filter	DRW010525
stainless steel sintered filter	HM46670SP
Current output converter kit	26182HM
Plastic M12 installation nuts, pair	18350SP
Connection cable M8	
0.3 m	HMP50Z032
3 m	HMP50Z300

# VAISALA

For more information, visit [www.vaisala.com](http://www.vaisala.com) or contact us at [sales@vaisala.com](mailto:sales@vaisala.com)

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