

# Vaisala INTERCAP® Humidity and Temperature Probe HMP60



*The HMP60 for extreme conditions.*

## Features/Benefits

- Miniature-size humidity probe
- Low power consumption
- Measurement range:  
0 ... 100 %RH; -40 ... +60°C
- Cable detachable with  
standard M8 connector
- Rugged metal housing
- Interchangeable Vaisala  
INTERCAP® Sensor
- Optional RS485 digital output  
Optional dew point output
- Applications: volume  
applications, integration  
into other manufacturers'  
equipment, glove boxes,  
greenhouses, fermentation  
chambers, data loggers

## HMP60

The HMP60 is a simple, durable and cost-effective humidity probe. It is suitable for volume applications, integration into other manufacturers' equipment, incubators, glove boxes, greenhouses, fermentation chambers, and data loggers.

## Easy installation

The probe cable has a screw-on quick connector for easy installation. Different cable lengths are available. Also other compatible M8 series cables can be used. Accessories are available for different installation needs.

## Low current consumption

The HMP60 is suitable for battery-powered applications because of its very low current consumption.

## Several outputs

There are two configurable voltage outputs with relative humidity, temperature or dew point scaling. Four voltage output ranges are available.

## Rugged design

The HMP60 is designed for extreme conditions. The aluminum body of the HMP60 is classified as IP65. The probe has a sealed structure and the sensor is protected by a membrane filter and a plastic grid, or optionally by a stainless steel filter.

## Recalibration not needed

The Vaisala INTERCAP® Sensor is interchangeable. No recalibration is required; the sensor can simply be replaced, also in the field.

# Technical data

## Performance

### RELATIVE HUMIDITY

Measurement range	0 ... 100 %RH
Typical accuracy	
temperature range	0 ... +40 °C
0 ... 90 %RH	±3 %RH
90 ... 100 %RH	±5 %RH
temperature range	-40 ... 0 °C, +40 ... +60 °C
0 ... 90 %RH	±5 %RH
90 ... 100 %RH	±7 %RH
Humidity sensor	Vaisala INTERCAP®

### TEMPERATURE

Measurement range	-40 ... +60 °C
Accuracy over temperature range -40 ... +60 °C	±0.6 °C

### DEW POINT

Measurement range	-40 ... +60 °C
Typical accuracy	
temperature range	0 ... +40 °C
when dew point depression < 15 °C	±2 °C
temperature range	-40 ... 0 °C, +40 ... +60 °C
when dew point depression < 10 °C	±3 °C
dew point depression = ambient temperature - dew point	

## Operating environment

Operating temperature	-40 ... +60 °C
Electromagnetic compatibility	Complies with EMC standard EN61326-1, Basic immunity test requirements

## Inputs and outputs

Operating voltage	5 ... 28 VDC / 8 ... 28 VDC with 5V output
(Use lowest available operating voltage to minimize heating.)	8 ... 28VDC with loop power converter
Current consumption	1 mA average, max. peak 5 mA
Start-up time at operating voltage	<14 V: 1 s; >14 V: 4 s
Outputs	
2 channels	0 ... 1 VDC / 0 ... 2.5 VDC / 0 ... 5 VDC / 1 ... 5 VDC
1-channel loop-power converter (separate module, compatible with humidity accuracy only)	4 ... 20 mA
digital output (optional)	RS485 2-wire half duplex

### External loads

0 ... 1 V	R <sub>L</sub> min 10 kΩ
0 ... 2.5 V / 0 ... 5 V	R <sub>L</sub> min 50 kΩ

## Mechanics

### Materials

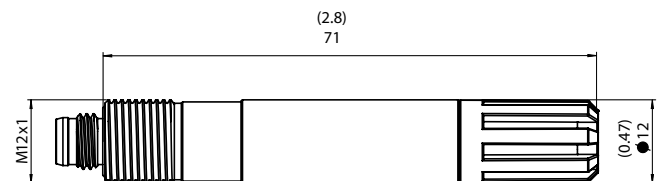
body	chrome coated aluminum
grid filter	chrome coated ABS plastic
cable	polyurethane or FEP
Housing classification	IP65
Body thread	M12x1 / 10 mm
Cable connector	4-pin M8 (IEC 60947-5-2)
Weight with 0.3 m cable	23 g

## Options and accessories

Vaisala INTERCAP® Sensor, 1 piece	15778HM
Vaisala INTERCAP® Sensor, 10 pcs	INTERCAPSET-10PCS
Sensor protection	
plastic grid	DRW010522
membrane filter	DRW010525
stainless steel sintered filter	HM46670SP
4 ... 20mA loop power converter	UI-CONVERTER-1
Mounting bracket with lid	225979
Plastic M12 installation nuts, pair	18350SP
USB cable for PC connection	219690
Probe mounting clamp set, 10 pcs	226067
Probe mounting flange	226061
Connection cables	
0.3 m PU	HMP50Z032
3 m PU	HMP50Z30A
180°C 3 m FEP	226902

## Dimensions

in mm (inches)



# 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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