



Features

- Fast thermal response time
- Low power consumption
- Start-up time < 2 s
- Measurement range:
0 ... 100 %RH; -40 ... +60 °C
(-40 ... +140 °F)
- Detachable cable with standard 4-pin M8 connector
- Plastic enclosure with IP54 classification
- Interchangeable Vaisala INTERCAP® sensor
- Optional RS-485 digital output supports Modbus® RTU
- Optional dew point, wet bulb temperature, absolute humidity, mixing ratio, and enthalpy output

Vaisala INTERCAP® Humidity and Temperature Probe HMP63 is a cost-effective humidity probe with plastic enclosure. It is designed for noncondensing indoor environments or integration into other manufacturers' equipment.

Easy installation

The probe fits into tight spaces. The cable has a threaded M8 connector for easy installation. Different cable lengths are available and other compatible M8-series cables can also be used. Accessories are available for different installation needs.

Low power consumption

HMP63 is suitable for battery powered applications thanks to its very low power consumption and fast start-up time.

Several outputs

Temperature measurement is a standard feature in HMP113, with dew point temperature, wet bulb temperature, absolute humidity, mixing ratio, and enthalpy as optional calculated parameters. Four voltage output ranges are available. An alternative RS-485 output with Modbus support is also available.

Fast thermal response time

HMP63 has a PC/ABS plastic enclosure. It is ideal for environments with fast temperature changes where standard measurement accuracy is sufficient.

No recalibration required

HMP63 includes an interchangeable Vaisala INTERCAP® sensor. No recalibration is required – the humidity sensor can simply be replaced, even in the field.

Technical data

Measurement performance

Relative humidity

Measurement range 0 ... 100 %RH

Typical accuracy:

at 0 ... +40 °C (+32 ... +140 °F) ±3 %RH (0 ... 90 %RH)
±5 %RH (90 ... 100 %RH)

at -40 ... 0 °C and +40 ... +60 °C
(-40 ... +32 °F and +104 ... +140 °F) ±5 %RH (0 ... 90 %RH)
±7 %RH (90 ... 100 %RH)

Humidity sensor Vaisala INTERCAP®

Temperature

Measurement range -40 ... +60 °C (-40 ... +140 °F)

Accuracy:

at +10 ... +30 °C (+50 ... +86 °F) ±0.5 °C (±32.9 °F)
at -40 ... +10 and +30 ... +60 °C
(-40 ... +50 and +86 ... +140 °F) ±0.6 °C (±33.08 °F)

Analog outputs

Accuracy at 20 °C (+68 °F) ±0.2 % of FS

Temperature dependence ±0.01 % of FS/°C (±0.006 % of FS/°F)

Inputs and outputs

Power consumption 1 mA average, max. peak 5 mA

Operating voltage¹⁾

With 1 V / 2.5 V output 5 ... 28 VDC

With 5 V output 8 ... 28 VDC

With loop power converter 8 ... 28 VDC

With digital output 5 ... 28 VDC

Start-up time

Probes with analog output 4 s at operating voltage
13.5 ... 16.5 VDC
2 s at other valid operating voltages

Probes with digital output 1 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) RS-485 2-wire half duplex, supports
Modbus RTU

External loads

0 ... 1 V R_L min. 10 kΩ

0 ... 2.5 V / 0 ... 5 V R_L min. 50 kΩ

Output parameters

Relative humidity, temperature, dew point temperature, wet bulb temperature,
absolute humidity, mixing ratio, enthalpy

¹⁾ Use lowest available operating voltage to minimize heating.

Operating environment

Operating temperature -40 ... +60 °C (-40 ... +140 °F)

EMC compliance EN 61326-1, basic immunity test
requirements

Mechanical specifications

IP rating IP54¹⁾

Cable connector 4-pin M8 (IEC 60947-5-2)

Materials

Body PC/ABS blend

Grid filter PC (glass reinforced)

Cable Polyurethane or FEP

Weight

Probe 9 g (0.3 oz)

Probe with 0.3 m (1 ft) cable 20 g (0.7 oz)

¹⁾ Not applicable with the plastic grid filter.

Spare parts and accessories

Sensors

Vaisala INTERCAP® sensor, 1 pc 15778HM

Vaisala INTERCAP® sensor, 10 pcs INTERCAPSET-10PCS

Sensor protection

Plastic grid filter DRW240185SP

Plastic grid with membrane filter ASM210856SP

Stainless steel sintered filter HM47280SP

Porous PTFE filter 219452SP

Probe installation

Probe mounting clamp set, 10 pcs 226067

Probe mounting flange 226061

Probe holder, 5 pcs ASM213382SP

Plastic locking bushing (3 pcs) for
attaching probe to HM40 DRW238590SP

Connection adapters

4 ... 20 mA loop power converter UI-CONVERTER-1CB

Mounting bracket for converter 225979

USB cable for PC connection 219690

Connection cable for HM70 219980SP

Connection cables with open wires

+60 °C 0.3 m (+140 °F 1 ft) HMP50Z032SP

+60 °C 1.2 m (+140 °F 4 ft) HMP50Z120

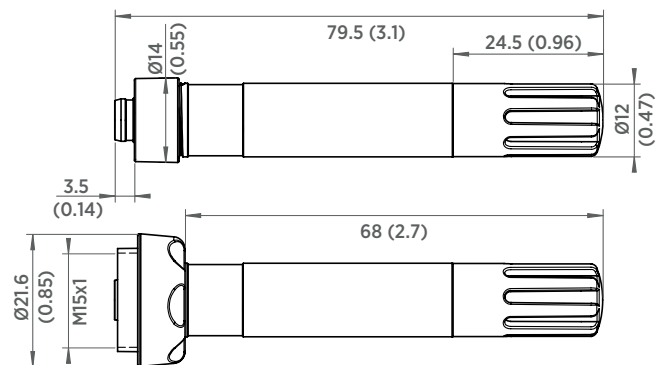
+60 °C 3 m (+140 °F 9.8 ft) HMP50Z300SP

+80 °C 1.5 m (+176 °F 5 ft) 225777SP

+80 °C 3 m (+176 °F 10 ft) 225229SP

+180 °C 1.5 m (+356 °F 5 ft) FEP 238025

+180 °C 3 m (+356 °F 10 ft) FEP 226902SP



Dimensions in mm (inches)

