

# VAISALA



## Vaisala HUMICAP® Hand-Held Humidity and Temperature Meter HM40



The HM40 Humidity Meter can be chosen either in standard or remote probe version.

The HM40 is a compact and portable humidity meter at hand everywhere you go. It is an ideal spotchecking tool that is easy to use and provides reliable measurement. It can be used for a wide range of various portable measurement applications. According to a user's needs, the meter is available in two models: standard and with a remote probe.

### Simple and easy to use

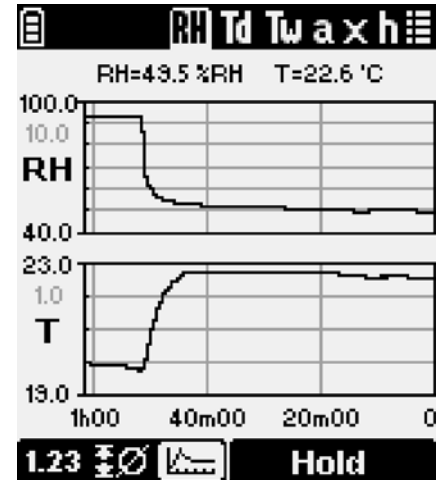
The HM40 includes a user-friendly, large graphical display and easy-to-use push buttons. The user interface is simple and intuitive to use, and available in 10 languages. Also, many other settings can be modified by the user to best suit his individual needs. In addition to relative humidity and temperature, the HM40 provides five calculated humidity parameters,

all available in both metric and nonmetric units.

The meter is powered by 2 AA-sized batteries. An external NiMH battery recharger with USB connection and rechargeable NiMH batteries are offered as an option. Each HM40 comes also with a handy belt clip and a case.

### Easy recalibration

The calibration of the HM40 is easy: just send the meter back to a Vaisala Service Center for recalibration or simply plug in a recently calibrated interchangeable HMP113 measurement probe. Alternatively, the HM40 can be user calibrated on site using a humidity reference, e.g. the Vaisala Humidity Calibrator HMK15.



The graph clearly indicates when the readings have stabilized.

### Benefits

- Compact and portable, easy to use hand-held meter
- Versatile meter with wide measurement range and multiple calculated parameters
- Standard and remote probe models available
- Ideal for spot-checking, on the go

### Features

- Humidity measurement range 0 ... 100 %RH
- Operating temperature range -10 °C ... +60 °C
- Incorporates the proven Vaisala HUMICAP® 180R Sensor
- The interchangeable measurement probe HMP113 can be user calibrated
- Graphical display indicates when measurement has stabilized
- Hold-button to freeze the screen and save the reading
- Multilingual user interface with 10 languages (EN, DE, FR, JA, ZH, PT, ES, RU, FI, SV)

# Technical Data

## Performance

RELATIVE HUMIDITY	
Measurement range	0 ... 100 %RH
Accuracy (including non-linearity, hysteresis, and repeatability):	
at 0 ... +40 °C (+32 ... +104 °F)	±1.5 %RH (0 ... 90 %RH) ±2.5 %RH (90 ... 100 %RH)
at -10 ... 0 °C and +40 ... +60 °C (+14 ... +32 °F and +104 ... +140 °F)	±3.0 %RH (0 ... 90 %RH) ±4.0 %RH (90 ... 100 %RH)
Factory calibration uncertainty	
at +20 °C (+68 °F)	±1.5 %RH
Humidity measurement response time (90%) with plastic grid filter	17 s
Stability	±2 %RH over 2 years
Humidity sensor	HUMICAP® 180R
TEMPERATURE	
Measurement range	-10 ... +60 °C (14 ... 140 °F)
Accuracy over temperature range:	
at 0 ... +40 °C (+32 ... +104 °F)	±0.2 °C (0.36 °F)
at -10 ... 0 °C and +40 ... +60 °C (+14 ... 32 °F and +104 ... +140 °F)	±0.4 °C (0.72 °F)
Temperature sensor	Pt1000 RTD Class F0.1 IEC 60751

## Mechanics

Weight (with alkaline batteries)	
With standard probe	230 g
With handle	330 g
Materials	
Meter body	PC/ABS blend, acrylic display lens
Probe holder	PC/ABS blend (grey)
Probe	PC/ABS blend (white)
Filter	PC (glass reinforced)
Housing classification	IP54
Mechanical drop endurance	0.4 m with probe attached 1.0 m without the probe

## General

Power-up time	< 3 s
Batteries	2 × AA sized, 1.5 V
Calculated parameters	Td, Tw, a, x, h
Menu languages	English, German, French, Finnish, Spanish, Swedish, Chinese (simplified), Russian, Japanese, Portuguese
Display	LCD (140 x 160 pixels)
Operation time	typical 100 hours (without backlight)
Operation temperature range	-10 ... +60 °C (+14 ... +140 °F)
Storage temperature range	-30 ... +70 °C (-22 ... +158 °F)
Electromagnetic compatibility (EMC)	European Union directive EN61326-1 for portable equipment

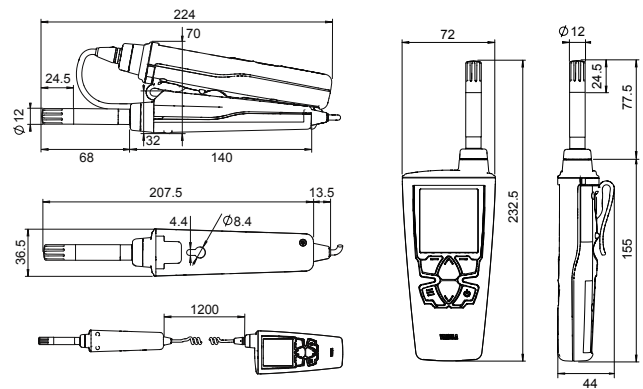
## Accessories and Spare Parts

HMP113 probe for HM40*	
HM40 handle and cable	HM40HANDLE
Plastic nut for HMP113 attachment (3 pcs)	DRW238590SP
NiMH rechargeable batteries (4 pcs)	229247SP
External battery recharger with USB connection and 2 batteries	229249SP
Case for HM40 (indicator and probe)	235849SP
Plastic grid filter for HMP113 probe	DRW236214SP
Plastic grid with membrane filter for HMP113 probe	230727SP
Belt clip (3 pcs)	227710SP
Battery cover (3 pcs)	225688SP

\* See the HM40 order form when ordering a spare probe for HM40.

## Dimensions

Dimensions in mm



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