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HMP41, HMP42 and HMP45 Probes for HMI41 Indicator

The HMI41 Indicator with the HMP41 Probe.

HMI41 with the HMP42 Probe.

HMI41 with the HMP45 Probe.

Features/Benefits

- Humidity measurement range 0...100 %RH
- Temperature measurement range HMP41, HMP45: -20...+60 °C HMP42: -40...+100 °C
- For spot checking measurements
- Versatile and easy-to-use
- The HMI41 Indicator fits with all probes
- Extremely thin 4 mm probe head (HMP42)
- Incorporates Vaisala's HUMICAP® Sensor, which provides high accuracy, excellent long-term stability, neglible hysteresis, and insensitivity to dust and most chemicals
- NIST traceable (certificate included)

Vaisala's HMI41 Indicator can be used with any one of the four probes to quickly and easily measure humidity and temperature, and to make other measurement calculations such as dewpoint, wet bulb temperature, absolute humidity and mixing ratio.

HMI41 has an easy-to-read LCD display. Temperature readout is available in either degrees Centigrade or Fahrenheit. Calculated variables are available in metric and non-metric.

Ideal for spot checking applications

The HMI41 Indicator with probes is ideal for use in a variety of spot checking applications such as plant maintenance, air-conditioning system installation and inspection, freezers and storage and production areas.

HMP41:
This humidity and temperature probe is fix-mounted directly on the HMI41 Indicator. It can be upgraded to an HMP45 by purchasing the HMH45 handle and cable option.

HMP42:
The HMP42 humidity and temperature probe can be used for spot checking humidity and temperature in applications which require an extremely thin probe, such as:

- for monitoring the drying of structures during construction or after water damage
- in tight places
- in ducts or chambers
- under a linoleum floor

The probe diameter is only 4 mm, allowing access into very small, tight, and hard-to-reach spaces.

HMP45:
This humidity and temperature probe for general purposes features an extended spiral cable.

HMP46:
See preceding data sheet.

Technical Data

HMP41, HMP42, and HMP45 Probes

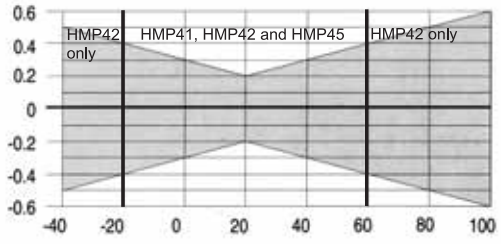
Humidity

Measurement range	0...100 %RH
Accuracy at +20 °C	
when calibrated against salt solutions (ASTM E014-85)	±2 %RH (0...90 %RH) ±3 %RH (90...100 %RH)
Temperature dependence of electronics	±0.05 %RH/°C
Typical long-term stability	better than 1 %RH per year
Response time (90%) at +20 °C in still air	(HMP41, HMP45) 15 s (HMP42) 30 s
Sensor HMP41 & 45	HUMICAP® 180
Sensor HMP42	HUMICAP® MINI

Temperature

Measurement range sensor head	
HMP41, HMP45	-20...+60 °C
HMP42	-40...+100 °C

Temperature accuracy over measurement range



Sensor (HMP41 & 45)	PT 1000 IEC 751 1/3 class B
(HMP 42)	PT 100 IEC 751 class B

General

Typical ranges of calculated variables		
dewpoint temperature		-40...+60 °C
absolute humidity		0...160 g/m³
wet bulb temperature		0...+60 °C
mixing ratio		0...160 g/Kg d.a.
Cable length (HMP42 & 45)		1500 mm; extended spiral cable
Operating temperature range		
HMP41		-20…+60 °C
HMP42		-40…+100 °C
HMP45		-40...+60 °C
Housing material		ABS plastic
Housing classification		
electronics		IP65
Sensor protection		
HMP41 & 45	plastic grid	HM46717
option	membrane filter	2787HM
HMP42	steel grid	19867HM
membrane	tube set (5pcs)	19858HM
Weight		
HMP41		30 g
HMP42		200 g
HMP45		160 g

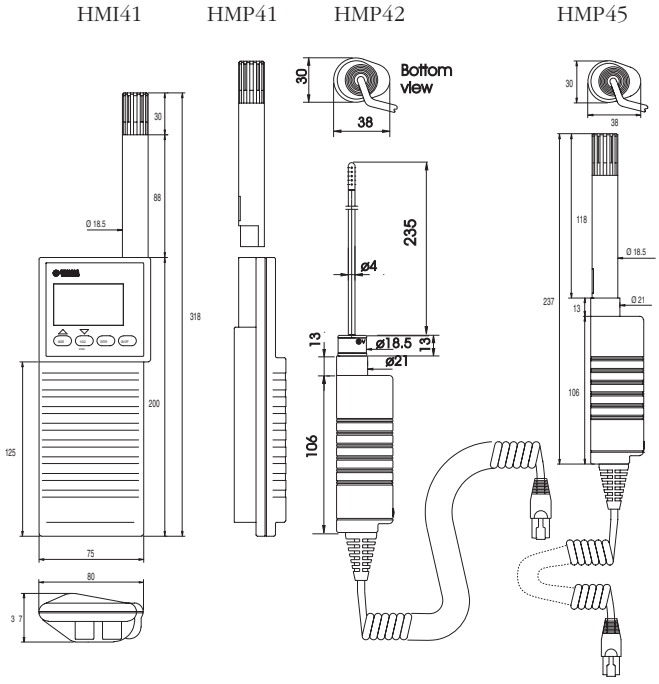
Complies with EMC standard EN61326-1:1997 + Am1:1998; Portable Equipment.

Accessories

PC cable	19446ZZ
Carrying case for HMI41 and HMP41/45	HM36736
HMP42	
Calibration adapter	HM37067
Rubber sleeve set	19809HM

Dimensions

Dimensions in mm.



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