RH/T Probe for Handheld Meters RHA

- ◆ **Low cost**
- ◆ **Voltage output signal**
- ◆ **Built-in temperature sensor available**
- ◆ **May be used with H5800 handheld meter or separately**
- ◆ **Compact and convenient in use**
- ◆ **Fast connection**

Using thin-film sensor, whose capacitance varies proportionally to medium relative humidity, RHA measures relative humidity of air and non-aggressive gases at normal ambient pressure and converts it into standard voltage signal. Based on the RHT transducer, but with its electronics fitted into a cylindrical body, this probe is especially suitable for fast measurements in combination with handheld humidity measuring devices that feature programmable or scalable input. Furthermore, a platinum temperature sensor may be built in the probe for simultaneous medium temperature measurement. Through its flexible cable with miniature connector, the RHA probe can be easily connected to a H5800 meter to form a lightweight multifunctional and widely applicable device for handheld relative humidity measurement.

Technical specifications

Input

Humidity	capacitive sensor, 0...100 %RH
Temperature (option)	Pt100 or Pt1000 (w=1.385) [1], -10...50 °C
- accuracy	class 'B'

Output

Output voltage	min. 0...max. 100 mV DC
Linearity proportional to	measured value

Accuracy

Measurement error	2.5% from span
Non-linearity	within measurement error
Temperature drift	0.1% from span for 1 °C

[1] H5800 requires Pt1000!

Power supply

Supply voltage	DC from the handheld meter
Admissible variations	20 mVp-p at 50 Hz

Operating conditions

Ambient temperature	-10...50 °C
Ambient humidity	0...85 %RH, non-condensing

Design and materials

Case material	stainless steel
Sintered filter (option)	stainless steel, 75 µm
Wiring	1...5 m PVC or silicone cable w/ 4-pin M8 connector type 'C3'
Dimensions	ø16x min. 120 mm (w/o cable and filter)
Weight	30 g (w/o cable and filter)
Protection class	IP54 (except sensor)

Ordering code   RHA - G8 - #1.#2

Code	Feature or option	Code values
G8	Cable length 'k' [m] and type	**1PV…5PV** - PVC, **1SL…5SL** - silicone
#1	Built-in temperature sensor [1]	**X** - none, **D** - Pt100, **G** - Pt1000
#2	Sintered filter	**X** - none, **S** - sintered filter mounted