RHT75

Relative Humidity and Temperature Probe

The new generation of Relative Humidity and Temperature Probe RHT75, developed and manufactured by MicroStep-MIS, provides reliable and accurate relative humidity and temperature measurement.

Accuracy typical 2 %RH

Long-term stability < 1 %RH/year

Humidity sensor 0 to 100 %RH

Digital and analog interface

Relative humidity measurement

Measurement range	0 to 100 %RH
Accuracy (@ 25 °C)	±2 %RH
Short term hysteresis	< 1 %RH
Typical long-term stability	±1.0* % per year
Calibration traceability	MBW calibration
Sensor type	capacitive sensor
Resolution	0.05 %RH, 0.01 °C

Temperature measurement

Measurement range	−65 °C to +70 °C
Accuracy	±0.3 (-40 to +60) °C

* Possibility with passive PT100

General

Operating temperature range	−65 °C to +70 °C
Housing classification	IP 65 (except sensors)
Sensor protection	PTFE sintered filter
EMC compliance	tested and conforms to IEC 61326:2002
Connector	M12 5-pin male (optional)

Power consumption (1 measurement per 10 s, analog output ON)	2 mW
Power consumption (1 measurement per 10 s, analog output OFF)	1.2 mW
Settling time at power-up	< 3 s
Communication standard	• SDI-12 V1.3 • analog out (0 V to 1 V) • RS-485 (optional) • 3.3 V UART (optional) • second analog out (0 V to 1 V) (optional)
Measurement period	from 1 s
Supply voltage	5 to 30 V DC

Optional continuous heating

Heating power	≤ 250 mW (adjustable)
Output value	Dew point [°C]

Factory calibration

Relative humidity [%RH]	Expanded uncertainty U [%RH]
10	0.60
30	0.60
50	1.0
70	1.0
95	1.2