

# 8092 HUMIDITY-TEMPERATURE SENSOR



## High long term stability

A particular feature of this compact sensor is the sophisticated electronics and the guaranteed outstanding measuring accuracy. The high-quality capacitive measuring element is reliably protected against air pollutants by a membrane filter. The combined sensor is designed for high-quality use in meteorology and industry. The user can independently calibrate the sensor using the calibration and adjustment software.

- capacitive humidity measuring element
- special resistance to air pollutants
- high long term stability
- signal output humidity: 0...1 V (linear 0...100 %)
- temperature measuring element: Pt100 1/3 DIN
- signal output temperature: 4-wire-circuit Pt100

## APPLICATIONS

- building technology
- traffic systems
- automatic weather stations

Professional Line	8092
Id-No.	00.08092.330402
Meas. range air temperature	-40...+85 °C
Meas. range rel. humidity	0...100 % r. h.
Accuracy air temperature	± 0.2 °C at -27...+70 °C
Accuracy rel. humidity	± 1.5 % r. h. at 10...90 % r. h. at 23 °C < 10 % r. h. > 90 % r. h. ± 2 % r. h. · temperature influence TK (unequal 23 °C): < 0.02 % r. h. /K
Response time	Humidity: < 10 s (without filter) · at 1.5 m/s wind: < 1.5 min (with filter)
Long-term stability	typical under normal conditions < 1 % r. h./ year
Output	Humidity: 0...1 VDC = 0...100 % r. h. · min. load resistance ≥ 2.0 kΩ · Temperature: Pt100 (4-wire circuit)
Range of application	Humidity: 0...100 % r. h. · Temperature: -40...+85 °C
Supply voltage	5...30 VDC
Power consumption	< 3 mA
Measuring elements	Humidity: capacitive · Temperature: Pt100 1/3 DIN (DIN EN 60571) · IEC 751 class B (± 0.1 °C)
Dimensions	H 122 mm · Ø 20 mm
Housing	aluminium · lacquered · grey · membrane filter for outdoor use Ø 20 x 25 mm · M18 x 1
Protection class	Housing: IP 65 · Sensor filter area: IP 30 · Measuring head: IP 54 · Plug: IP 67
Weight	approx. 0.3 kg
EMC standards / Electrical safety	EN 61326-2-3
Accessories (order separately)	00.08141.600000 Sensor shelter with natural ventilation 00.08141.600004 Sensor shelter with artificial ventilation 32.08092.061050 Cable 5 m with cable socket Further accessories on request e.g. humidity standard

As of: 09.09.2022