

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	± 0.3 °C at -40...+85 °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

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Professional Line	8092
Output	Humidity: 0...1 VDC = 0...100 % r. h.; min. load resistance \geq 2.0 k Ω ; 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 B (DIN EN 60571); IEC 751 class B (\pm 0.1 °C)
Dimensions	H 122 mm; \varnothing 20 mm
Housing	Aluminium; lacquered; grey Membrane filter for outdoor use \varnothing 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

As of: 14.03.2025