

# 8093 HUMIDITY-TEMPERATURE SENSOR



Small and energy-efficient compact sensor

The 8093.1 sensor is a compact precision measuring device for measuring relative humidity and temperature. It impresses with energy-efficient electronics, high measurement accuracy, and a reliable membrane filter to protect against air pollutants. Ideal for demanding applications in meteorology and industry, it offers long-lasting stability when handled properly.

- Low power consumption
- Good dynamical behaviour
- Reliable membrane filter as protection against pollutants
- High long-term stability and nearly linear characteristic line

## APPLICATIONS

- Building technology
- Traffic systems
- Buoys
- Agricultural weather stations
- Environmental measurement technology

Professional Line	8093
Id-No.	00.08093.100000
Meas. range air temperature	-30...+70 °C
Meas. range rel. humidity	0...100 % r. F.
Accuracy air temperature	± 0.2 °C at -27...+70 °C; Plus: ± 0.007 °C at < +10 °C and > +40 °C
Accuracy rel. humidity	± 2 % r. h. at 5...95 % r. h.; +10...+40°C; Plus: < 0.1 % r. h./ °C at < +10°C and > +40°C
Response time	Humidity: < 20 s (without wind and without filter, otherwise at 1.5 m/s: 1.5 min)
Long-term stability	Typical under normal conditions < 1% r. h./ year
Output	0...1 VDC = 0...100% r. h.; min. load resistance ≥ 2.5 kΩ; Pt100 (4-wire circuit)
Supply voltage	10...30 VDC
Power consumption	< 1 mA
Measuring elements	Capacitive; Pt100 1/3 DIN; IEC 751 Class B
Dimensions	H 122 mm; Ø 20 mm
Housing	Aluminium; lacquered; grey-white
Protection class	IP 65; membrane filter as sensor protection IP 30
Weight	Approx. 0.3 kg
Standards	CE/ EMC: DIN 50082-2; EN 55011 Cl. B
Included in delivery	5 m cable
Accessories (order separately)	00.08141.600000 Sensor shelter with natural ventilation 00.08141.600004 Sensor shelter with artificial ventilation