

# 8096 HUMIDITY-TEMPERATURE SENSOR



Precision measuring instrument

for measuring relative humidity and air temperature. The compact sensor is characterised by power-saving electronics and a high measuring accuracy. A sinter filter reliably protects the high-quality capacitive measuring element from air pollutants.

- Measuring element temperature: Pt100 1/3 DIN
- Capacitive humidity measuring element
- High measuring accuracy
- Special resistance to air pollutants
- High long-term stability

## APPLICATIONS

- Meteorology and industry
- Automatic weather stations in all climatic zones

Professional Line	8096
Id-No.	00.08096.230402 Standard model 00.08096.330402 Shock and vibration-tested precision instrument according to BV0230/ 0430 and BV0440/ 0240
Meas. range air temperature	-40...+70 °C
Meas. range rel. humidity	0...100 % r. h.
Accuracy air temperature	± 0.1 °C, 1/3 DIN IEC 751 Class B
Accuracy rel. humidity	± 2 % r. h. at: 5...95 % r. h. • +10...+40 °C (at > 0.5 m/s) • plus: 0.1 % r. h./ °C at: +10 °C • > +40 °C
Response time	Humidity: 20 s (without wind and without filter, otherwise at 1.5 m/s: 1.5 min)
Output	Humidity: 0...1 V DC = 0...100 % r.h. • Min. load resistance ≥ 2 k Ohm Temperature: Pt100 (4-wire circuit)
Range of application	0...100 % r. h. • -40...+70 °C
Supply voltage	6...30 V DC
Power consumption	1 mA
Measuring elements	humidity: capacitive • temperature: Pt100 1/3 DIN (DIN EN 60571) • IEC 751 Class B (± 0.1 °C)
Housing	stainless steel • IP 65 • protection class of filter IP 40 • sinter filter for outdoor use
Weight	approx. 0.3 kg
Standards	EMV: DIN EN 60945 - Kap. 9, 10
Cable	3.3 m · fixed cable
Accessories (order separately)	00.08141.600000 Sensor shelter with natural ventilation 00.08141.600004 Sensor shelter with artificial ventilation