

Humidity Sensor NP524-G

Dual humidity measurement in gases

For relative and absolute moisture in air

- The humidity monitoring sensor NP524-G is designed for inline measurement of the relative and of the absolute water content in air at once.
- Accuracy of relative humidity is $\pm 2\%$ RH
Accuracy of absolute humidity is $\pm 2^\circ\text{C}$.
- 2 linear voltage outputs (0 ... 10 V)
- Polymeric sensor element based on CMOS chip technology ensures highest reliability and excellent long term stability.
- Stainless steel housing with protection type IP67.

Features

- Simultaneous humidity measurement with dual voltage output
- Inline humidity monitoring
- Relative humidity (% RH)
- Absolute humidity (dew point)
- Excellent long-term stability
- High accuracy over large range
- Polymeric sensor element with CMOS technology



Humidity

- **Range 1**
0 ... 100 % RH
- **Range 2**
-50 °C DP ... +60 °C DP
- **Repeatability**
±0.1 % RH
- **Nonlinearity**
below 1 % RH
- **Resolution**
0.03 % RH
- **Response time**
4 sec.
- **Hysteresis**
±1 % RH
- **Accuracy**
±2 % RH (10 ... 90 %)
±2 °C dew point (-40 ... +40 °C DP)
- **Long term stability**
below 2 % RH per year

Electronic

- **Power supply**
12 ... 24 V DC
- **Power consumption**
0.1 W
- **Output 1 (RH)**
0 ... 10 V
- **Output 2 (°C DP)**
0 ... 10 V
- **Load**
max. 3 kOhm

Applications

- Pharmaceutical- and food industry
- Humidifiers
- Research and development
- Greenhouses
- Medical applications

Mechanical

- **Operating Temp.**
-20 °C ... +80 °C
- **Operating pressure**
0 ... 3 bar (0.3 MPa)
- **Thread**
½ inch
- **Housing**
stainless steel
- **Diameter housing**
27 mm
- **Protection sleeve**
stainless steel 80 µm
- **Mounting depth**
50 mm
- **Protection rate**
IP67
- **Connector**
circular 4 pins, M12x
IEC 61076-2-101