

Dew Point Sensor - Outdoor

IP67 rating

Key Features

- IP67 rating
- Dew Point Range:
 - -60°C to +60°C | -76°F to +140°F
 - -110°C to +20°C | -166°F to +68°F
- Accuracy: up to $\pm 2\%$
- 2.0" IPS LCD display with an ultra-wide viewing angle
- Power Supply: 16 to 30 vDC
- Two outputs as standard:
 - Digital - Modbus RTU
 - Analog - 4...20 mA
- Powder-coated Aluminium housing
- Measure: Pressure Dew Point Relative Humidity, Temperature, Pressure (optional)



About

This dew point sensor is ideal for use in outdoor or harsh indoor environments. The optional integrated pressure sensor makes measuring simpler and easier to manage, reducing wiring and installation costs.

All of Compressed Air Alliance's dew point sensors have 10 + dewpoint calibration and multi-point temperature compensation.

The auto-calibration circuit design automatically compensates for measuring drift caused by temperature, contamination, and aging, thus providing long-term stability and high accuracy measurements.

Applications

- Manufacturing and industrial use
- Clean, dry compressed air and inert gases
- Temporary or permanent installation
- Outdoor or harsh environments

Specifications

Measurement Range

Pressure Dew Point Range

Option 1	-60°C to +60°C -76°F to +140°F	Polymer sensor
Option 2	-110°C to +20°C -166°F to +68°F	Alumina-Oxide Sensor

Gas Temperature	-40 to +100°C -40 to +212°F
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Gas Pressure (optional)	0 to 17 bar 0 to 246 psi
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Accuracy

Dew Point Accuracy

- +20 to -60°C ±2%
- 60 to -100°C ±3%

Temperature Accuracy

- 0 to +50°C ±0.3°C
- 40 to 0°C and +50 to +100°C ±0.5°C

Pressure Accuracy (@23°C)	±0.3% F.S
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Pressure changes with temperature ±0.01 bar / 10°C

The accuracy and response time of the sensor can be affected by the on-site conditions, contaminants in the gas and incorrect installation.

Dew Point Response Time

-50 to +20 °Ctd	20 sec [40 sec]
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+20 to -50 °Ctd	1 min [3 min]
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Reference Conditions: 63% [90%], 20 °C, 1bar(a), 4L/min

Power Supply

Power Requirement	16 to 30V DC/ 4.5W @ 24V
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Electrical Connection	Terminal Strip
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Electromagnetic Compatibility	Meets IEC 61326-1
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Display

Display	2.0" IPS ultra-wide viewing angle LCD screen with capacitive touch
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Output

Analogue Output	4-20 mA
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Digital Output	Modbus RTU (RS485)
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Output Signals	Pressure Dew Point, Relative Humidity, Temperature, Pressure (optional)
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Current Output Resolution	0.002 mA
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Current Output Temperature Drift	0.01% of span/°C
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Current Output Load	Max 500 ohm
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Alarm Relay Output	Normally open 32 VDC/500 mA
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Working Environment

Ambient Temperature	-30 to +70°C -22 to +158°F
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Gas types	Compressed air, nitrogen, oxygen, carbon dioxide and other non-condensable gases
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Minimum Gas Flow	>1L/min
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Gas Pressure	<ul style="list-style-type: none"> With pressure sensor 0 to 17 bar (246 psi) Without pressure sensor 0 to 50 bar (725 psi)
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Other

Process Connection	ISO G1/2" thread
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IP Rating	IP67
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Housing Material	Stainless Steel SUS304 + Powder-coated Aluminium
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Sensor Filter	Stainless steel mesh filter (filter grade 30-45 um)
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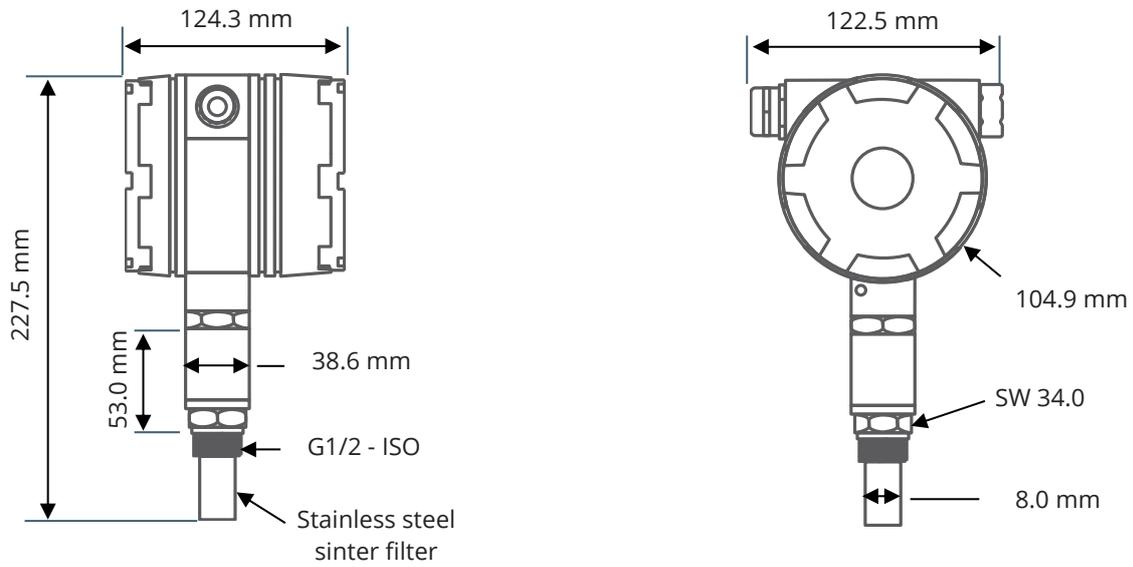
Weight	1.7 kg
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Installation	Permanent or Temporary
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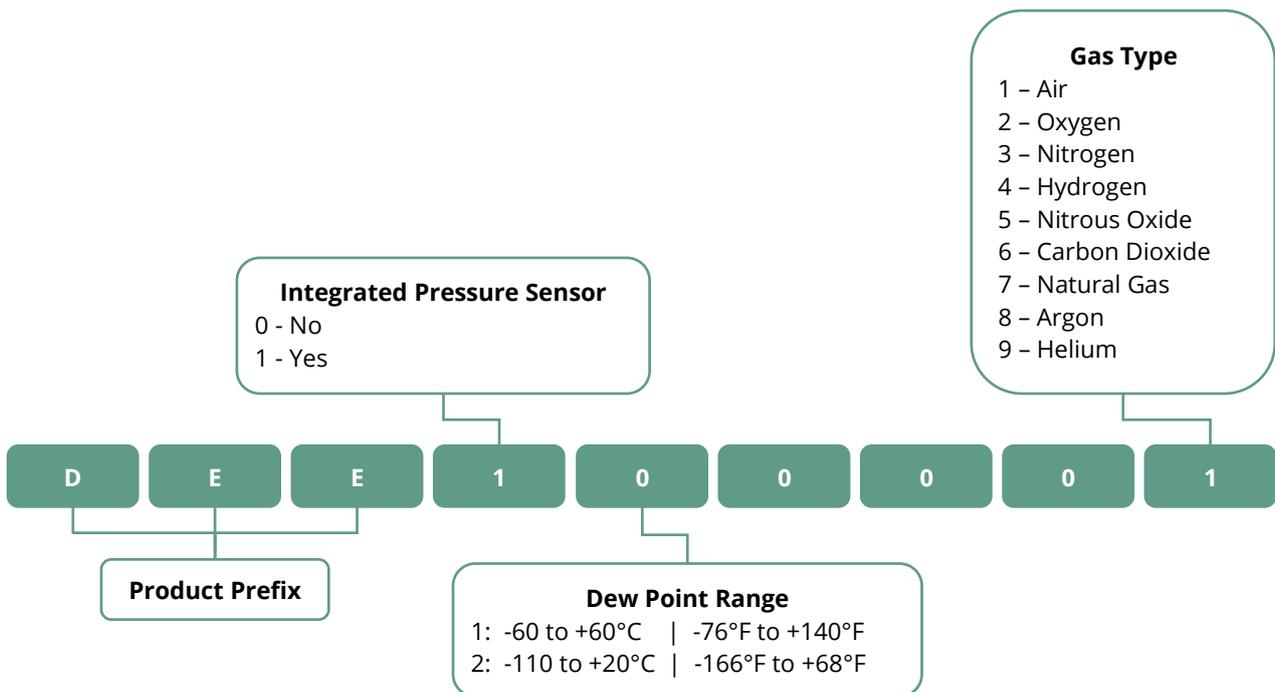
Calibration	Every 2 years
Annual calibration is required if the sensor is exposed to relative humidity above 85%.	

Warranty	12 months
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Dimensions



How to Order



Other Dew Point Sensors



W Series Dew Point Sensor

Wall mount dew point monitor. Comes with a large display and alarm (red/green light, siren)

Pressure Dew Point Range

-110°C to +20°C (-166°F to +68°F) or

-80°C to +20°C (-112°F to +68°F) or

-60°C to +60°C (-76°F to +140°F)

Gas Contamination

Minimal to moderate contamination

Outputs

4-20mA and alarm relay

Technology

Alumina-Oxide or Polymer sensor (depending on dew point range)

Options

Integrated pressure sensor

Power Plug (USA, Euro, UK or Australian plug)



A Series Dew Point Sensor

Ideal for very low dew points

Pressure Dew Point Range

-110°C to +20°C (-166 °F to +68°F) or

-80°C to +20°C (-112°F to +68°F)

Gas Contamination

Minimal contamination

Outputs

Modbus & 4-20mA

Technology

Alumina-Oxide sensor

Options

Integrated pressure sensor, in-built display, data cable, outdoor casing (IP67 rating)



K Series Dew Point Sensor

Robust sensor, suitable for harsh conditions

Pressure Dew Point Range

-60°C to +60°C (-76°F to +140°F)

Gas Contamination

Moderate levels of contamination

Outputs

Modbus & 4-20mA

Technology

Polymer sensor

Options

Integrated pressure sensor, in-built display, data cable, outdoor casing (IP67 rating)



Mini Dew Point Sensor

Entry level sensor. Compact design. Can be used in small spaces

Pressure Dew Point Range

-60°C to +60°C (-76°F to +140°F)

Gas Contamination

Moderate levels of contamination

Outputs

Modbus & 4-20mA

Technology

Polymer sensor

Options

Stainless Steel or Aluminium casing

Note: No integrated pressure or in-built display option available



H Series Dew Point Meter

Portable / Handheld dew point meter. Ideal for temporary measurement

Pressure Dew Point Range

-110°C to +20°C (-166°F to +68°F)

-60°C to +60°C (-76°F to +140°F)

Gas Contamination

Minimal to moderate contamination

Outputs

None. Stand alone unit

Technology

Alumina-Oxide or Polymer sensor (depending on dew point range)

Options

None – comes with integrated pressure sensor and measurement chamber



Strength

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