

Dew Point Sensor – A Series

For refrigerant or desiccant dryers with dew point of
-70°C or -40°C

Features:

- Dew Point Range options:
-100°C to +20°C
(-148°F to +68°F)

-80°C to +20°C
(-112 to +68°F)
- Accuracy
+/- 2°C for dew points
between +20 to -80°C
+/- 3°C for dew points
between -80 to -100°C
- Gas systems up to 4 Mpa
(600psi)
- Up to four output signals
(i) Pressure Dew Point
(ii) Relative Humidity
(iii) Temperature and
(iv) Pressure (with
optional integrated
pressure sensor)
- Two outputs as standard
(i) Digital - Modbus and
(ii) Analog - 4-20mA
- Fast response time
- Includes Measuring
Chamber and M12
connector
- IP65 rated
- Options
(i) integrated pressure
sensor
(ii) 5m Cable
(iii) Multiple Gas options
(iv) In-Built Display
- Alarm relay – only
available on the 'Dew
Point Sensor with Display'



This precision dew point sensor is ideal for compressed air and inert gas systems up to 4 Mpa (600psi) with refrigerant, desiccant, drum or membrane dryers.

The alumina sensor is suited to dew points down to -100°C (-148°F) and has excellent accuracy, response speed and long-term stability. It also has good anti-pollution ability.

The innovative temperature compensation algorithm and multi-point temperature compensation calibration improves the drift of the sensor, ensuring high-accuracy measurements over a wide temperature range.

The optional integrated pressure sensor makes measuring simpler and easier to manage, reducing wiring and installation costs.

More information: www.compressedairalliance.com/products

Benefits of dew point monitoring:

- Improve system reliability
- Reduce product contamination risks
- Reduce system maintenance
- Reduce operating and energy costs
- Improve dryer reliability
- Improve filter life and performance
- Reduce risk of rust and corrosion build up
- Reduce risk of bacteria, fungus and yeast build up
- Be aware of changes in dryer performance before moisture appears in your plant

Specifications

Sensor

Sensor Technology Alumina sensor

Sensor Filter Stainless steel mesh filter
(filter level 70 um)

Contact us for other filter options

Measurement Range

Pressure Dew Point Range -80 to +20 °C (-112 to +68°F)
-100 to +20°C (-148 to +68°F)

Gas Temperature Measurement Range -40 to +100 °C
-40 to +212°F

Pressure Measurement Range

- with pressure sensor 0 to 17 bar
- without pressure sensor 0 to 50 bar

Accuracy

Dew Point Accuracy

- +20 to -80°C ±2%
- 80 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

Pressure changes with temperature ±0.01 bar / 10°C

Dew Point Measurement Response Time

-50 to +20 °Ctd 20 sec [40 sec]

+20 to -50 °Ctd 1 min [3 min]

Reference Conditions: 63% [90%], 20 °C, 1bar(a), 4L/min

Working Environment

Operating Temperature -30 to +70°C
-22 to +158°F

Relative Humidity 0 to 95% RH

Minimum gas flow > 1L /min

Output

Outputs 4-20 mA (3 wire)
Modbus RTU (RS485)

Current Output Resolution 0.002 mA

Current Output Temperature Drift 0.01% of span/°C

Current Output Load Max 500 ohm

Alarm Relay Output

- Standard Dew Point Sensor Not available
- Sensor with Display Normally open
32 VDC/500 mA

Connector

- Standard Dew Point Sensor 1 x 5 pin M8, female
- Sensor with Display 2 x 5 pin M12, female

Power Supply

Power Requirement 10 ... 30 VDC

- Standard Dew Point Sensor Max 50 mA @ 24 V
- Sensor with Display 16 ... 30 VDC
Max 150 mA @ 24 V

Electromagnetic Compatibility Meets IEC 61326-1

Other

Process Connection G1/2" thread

Contact us for UNF process connection

IP Rating IP65

Casing

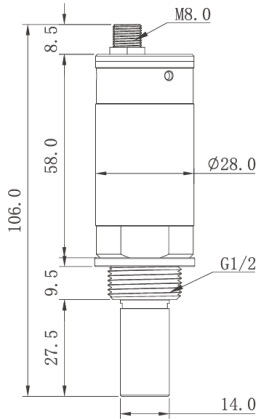
- Standard Dew Point Sensor Stainless Steel
- Sensor with Display Anodised Aluminium

Display

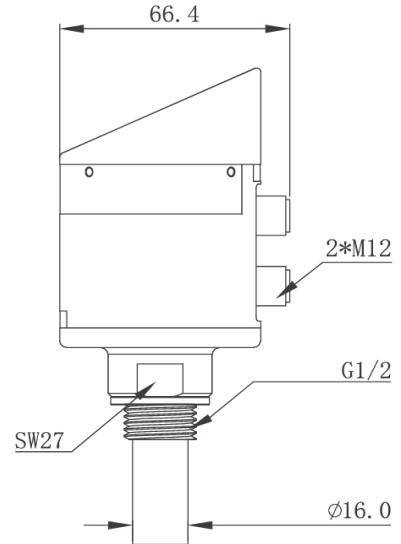
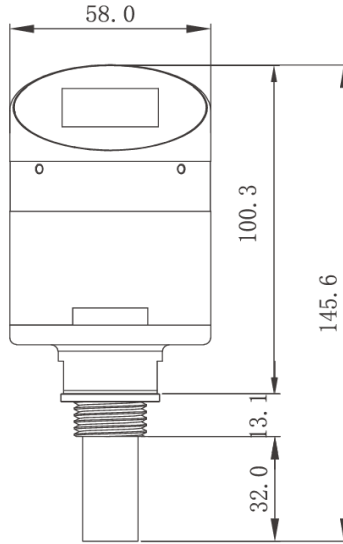
- Standard Dew Point Sensor NA
- Sensor with Display 1.5" touch screen

Dimensions (mm)

Standard Dew Point

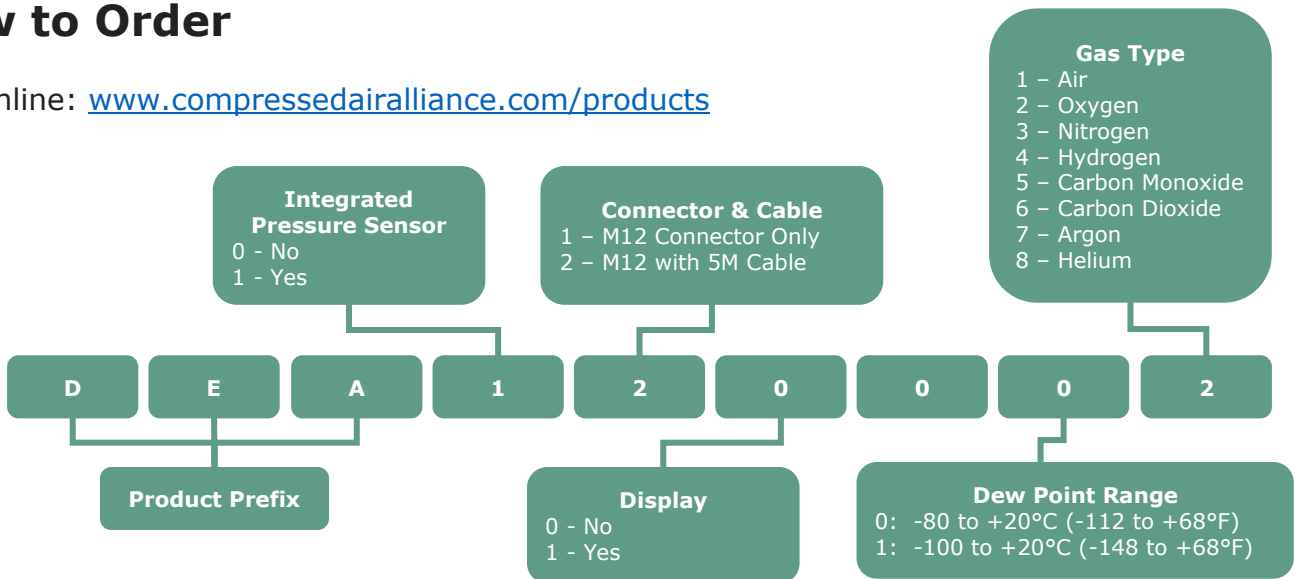


Dew Point Sensor with Display



How to Order

Buy online: www.compressedairalliance.com/products



Other Dew Point Sensors



W Series Dew Point Sensor

Wall mount dew point monitor. Ideal for applications that require a large display or visual alarm

Pressure Dew Point Range

-110°C to +60°C (-166°F to +140°F)

Gas Contamination

Minimal to moderate contamination

Outputs

None. Stand alone unit

Technology

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

Options

Integrated pressure sensor

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



Q Series Dew Point Sensor

"Top of the range" sensor

Pressure Dew Point Range

-110°C to +0°C (-166°F to +32°F)

Gas Contamination

High purity gases. Little to no contamination

Outputs

Modbus & 4-20mA

Technology

Quartz sensor technology

Options

Integrated pressure sensor, in-built display, data cable



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



Mini Dew Point Sensor

Entry level sensor. Compact design and 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



P Series Dew Point Meter

Portable dew point meter. Ideal for temporary measurement

Pressure Dew Point Range

-110°C to +60°C (-166°F to +140°F)

Gas Contamination

Minimal to moderate contamination

Outputs

None. Stand alone unit

Technology

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

Options

Integrated pressure sensor

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