Dew Point Sensor – A Series

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

Key Features

- Dew Point Range:
  - -110°C to +20°C | -166°F to +68°F   or
  - -80°C to +20°C | -112 to +68°F
- IP65 rating
- Accuracy:
  - +/- 2°C for dew points between +20 to -80°C
  - +/- 3°C for dew points between -80 to -110°C
- Power Supply: 10 … 30 VDC
- Output:
  - Digital - Modbus and
  - Analog - 4-20mA
- Measure:
  - Pressure Dew Point (PDP), Relative Humidity (RH) and Temperature.
  - Optional: Pressure
- Alarm relay – only available on the 'Dew Point Sensor with Display'

About

This precision dew point sensor is ideal for compressed air and inert gas systems up to 4 Mpa (600psi). The optional integrated pressure sensor makes measuring simpler and easier to manage, reducing wiring and installation costs.

The alumina sensor is suited to dew points down to -110°C (-166°F). It has excellent accuracy, response speed, long-term stability and anti-pollution ability.

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

Applications

- Manufacturing and industrial use
- Gas systems up to 4 Mpa (600psi)
- Permanent or temporary measurement
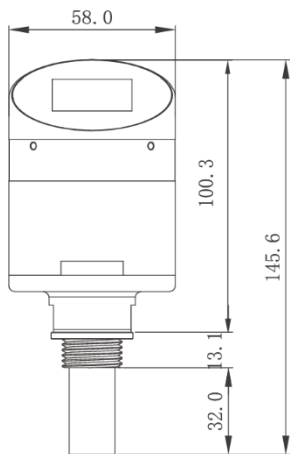- Gas pressure up to 50 bar (725 psi)

More Info

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) -110 to +20°C (-166 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 -110°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 M12, female
• Sensor with Display	2 x 5 pin M12, female

Power Supply	
Power Requirement	
• Standard Dew Point Sensor	10 ... 30 VDC Max 50 mA @ 24 V
• Sensor with Display	16 ... 30 VDC Max 150 mA @ 24 V
Electromagnetic Compatibility	Meets IEC 61326-1

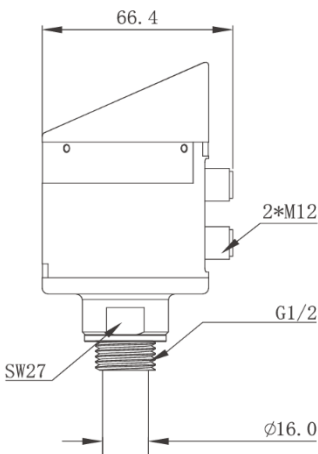| Other	
Process Connection	G1/2" thread
Contact us for UNF process connection	
IP Rating	IP65
Casing	
• Standard Dew Point Sensor	Stainless Steel
• Sensor with Display	Anodised Aluminium
Display	
• Standard Dew Point Sensor	NA
• Sensor with Display	1.5" touch screen
HS Code	9025.80.00

Dimensions
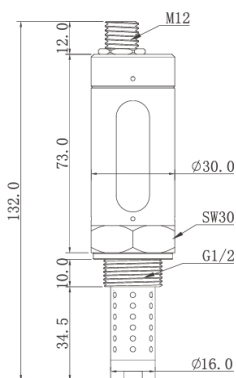
Standard Dew Point Sensor
(no display)

Dew Point Sensor with Display

How to Order

Find a Distributor: www.caasensors/distributors

Integrated Pressure Sensor
0 - No
1 - Yes

Connector & Cable
1 – M12 Connector Only
2 – M12 with 5M Cable

Gas Type
1 – Air
2 – Oxygen
3 – Nitrogen
4 – Hydrogen
5 – Carbon Monoxide
6 – Carbon Dioxide
7 – Argon
8 – Helium

| D | E | A | 1 | 2 | 0 | 0 | 0 | 2 |

Product Prefix

Display
0 - No
1 - Yes

Dew Point Range
0: -80 to +20°C (-112 to +68°F)
1: -110 to +20°C (-166 to
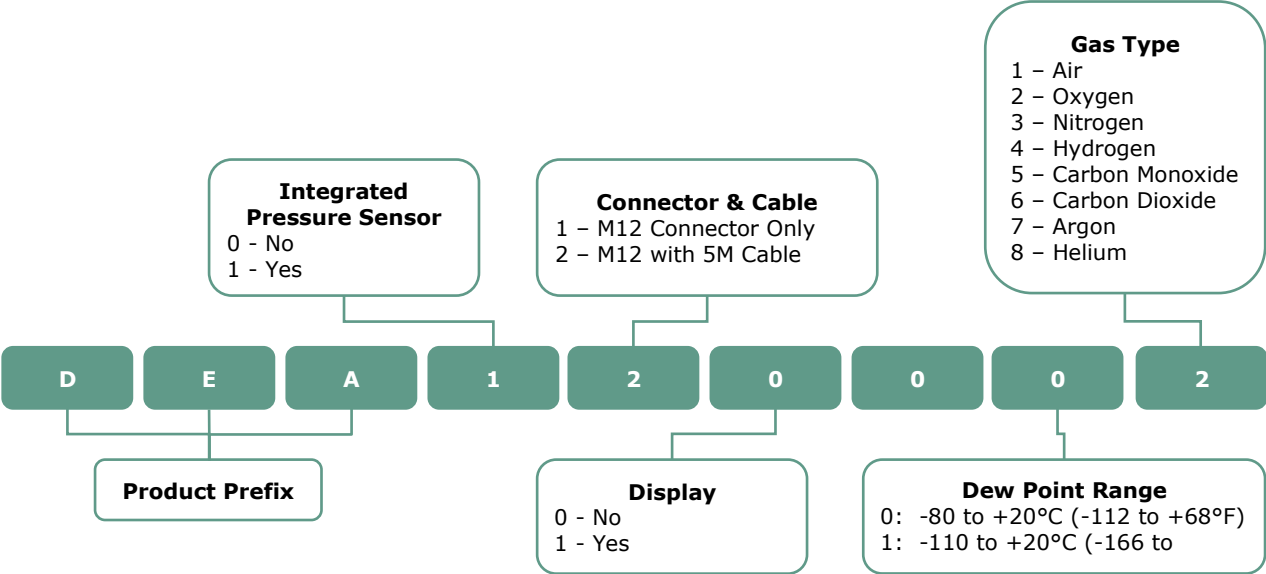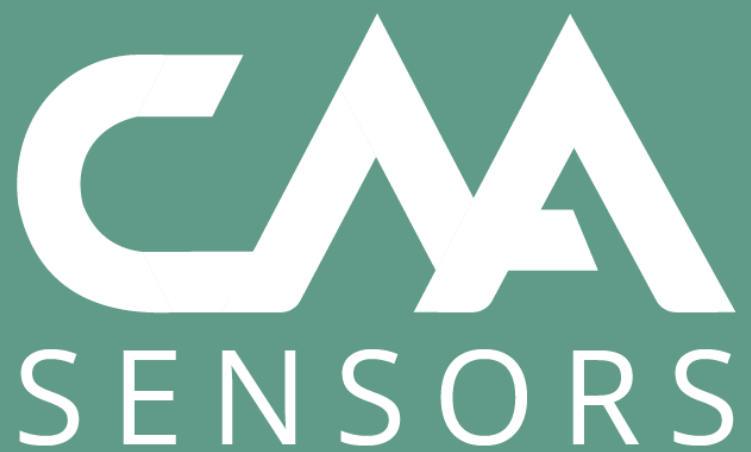
CAA SENSORS

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