

PDT

Dew point transmitter for general applications



Features and Benefits

- ▶ Long-lasting bulk Polymer sensing element offers excellent accuracy, stability and response speed
- ▶ Various dewpoint ranges available, -60 °C to +50 °C
- ▶ Compact 2-wire 4-20 mA Loop Powered Dewpoint Transmitter
- ▶ Economical solution for higher ‘wetter’ dewpoints, e.g. monitoring refrigerant driers
- ▶ IP66 / NEMA 4 Weatherproof Protection
- ▶ Optional Sensor Holder/Sample Cell for optimum sampling conditions
- ▶ Supplied with a calibration certificate traceable to National and International Humidity standards



The **PDT Dewpoint Transmitter** utilises a bulk Polymer sensing element. It is an economical choice for higher or ‘wetter’ dewpoints where your application only requires readings down to -60 °C dewpoint. Dewpoint ranges are offered as: **-60 °C to +20 °C**, **-40 °C to +30 °C** and **-20 °C to +50 °C** dewpoint.

This compact, 2-wire, 4-20 mA Loop Powered Dewpoint Transmitter is used for trace moisture measurement in gases and dry compressed air. Applications include refrigerant driers, cool stores, switchgear monitoring and more. Very easy to install, requiring little or no maintenance.

Long-lasting bulk Polymer sensing element offers excellent sensitivity, repeatability, and response speed.

Available separately, or combined with the DS4000 or DS1200 Display Indicators to make up a Hygrometer System. An alternative option is a combined system integrating the DIS030, a compact 4-20 mA Loop Powered Local Display that mounts directly on to the PDT Transmitter, as pictured above.

The PDT can be fitted directly into the pipeline, or our dedicated Dewpoint Sensor Holder/Sample Cell. The Dewpoint Sensor Holder/Sample Cell is highly recommended for optimum sampling conditions and allows the Transmitter to be removed for annual laboratory dewpoint calibration without interrupting the process.

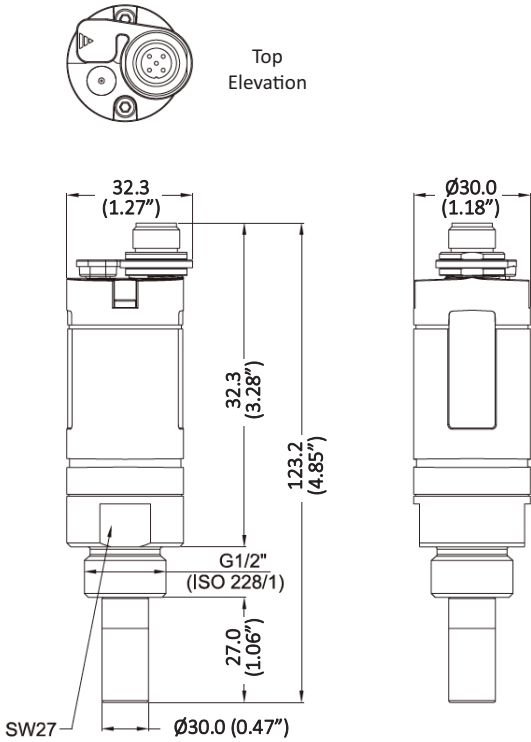
PDT - Dewpoint Transmitter Technical Data

Transmitter Type	2-wire, 4-20 mA Loop Powered Transmitter
Sensing Element	Polymer
Output Signal	Linear 4 to 20 mA with selectable engineering units
Power supply	24 Vdc (10 Vdc – 30 Vdc)
Dewpoint Ranges	See How to Order on page 3
Electromagnetic Compatibility (EMC)	Complies with BS EN ICE 61326-1
Accuracy	± 2 °C dewpoint (UK National Physical Laboratory traceable for range -90 °C to +20 °C)
Operating Temperature (Ambient and Process)	-20 °C to 70 °C
Operating Humidity (Ambient)	Maximum 95 %RH Non-Condensing
Pressure Range	-1 to 50 bar
Factory Calibration	Supplied with a calibration certificate traceable to National and International Humidity standards. We recommend annual laboratory calibration.
Sample Flow Rate	Flow independent, ideally 2 to 3 L/min

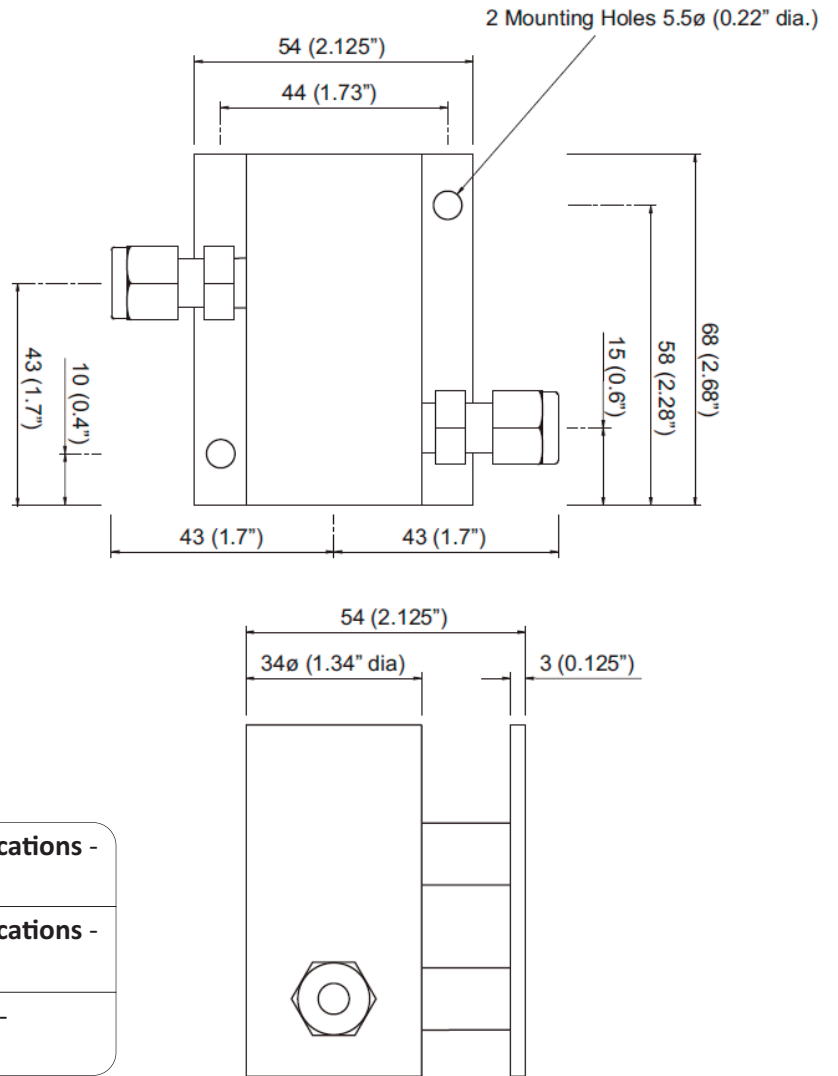
Electrical Connection	M12, 5-pole
Mechanical Connection	G1/2"
Transmitter Body	Zinc alloy, PC, ABS
Sensor Protection	316 Sintered stainless steel filter – 50 micron
Ingress Protection	IP 65 / NEMA 4 when Connector coupled to Transmitter
Manufacturer's Warranty	12 months in case of defective parts or faulty workmanship

Dimensions Measurement Units in millimeters / (inches)

PDT Transmitter



ASH-PDT Transmitter Holder



- DS4000 Hygrometer Display Technical Specifications -**
See Datasheet - Document No. 3037
- DS1200 Hygrometer Display Technical Specifications -**
See Datasheet - Document No. 3039
- DIS030 Local Display Technical Specifications -**
See Datasheet - Document No. 2991

Note: The Assembly is shown with 1/4 OD tube fittings. The dimensions across the tube fittings will vary for all other size fittings.

How to order:

1 Transmitter Range: PDT- [XX/XX]

Range in Dewpoint

-60 °C to +20 °C (-76 °F to +68 °F)	60/20
-40 °C to +30 °C (-40 °F to +86 °F)	40/30
-20 °C to +50 °C (-04 °F to +122 °F)	20/50

Example: PDT-60/20 =
-60 °C to +20 °C dewpoint, or equivalent in °F

2 Cable: CAB115 + [XX]

The PDT Transmitter comes complete with 2 metres of connecting cable and a connector plug as standard.



For a longer cable length with connecting plug, simply enter the required length after the part number above up to 10 meters maximum:

Example: CAB115 - 7 =
7 meters with connector plug.

3 Transmitter Holder with Fittings SH-PDT + [X][X]

- Comes complete with mounting plate.



INLET Pipe Fitting

No Fittings	0
1/4" - Pipe OD	4
1/8" - Pipe OD	8
6 mm - Pipe OD	6

OUTLET Pipe Fitting

No Fittings	0
1/4" - Pipe OD	4
1/8" - Pipe OD	8
6 mm - Pipe OD	6

NOTE: No Fittings Needed = Ports are 1/8" NPT Female

Example: For Transmitter Holder with 2 x 1/4" fittings
Order SH-PDT-4-4

4 Display:



DS4000

Advanced Display with more functions and features



DS1200

Standard Display



DIS030

Local Display

- These displays are perfect for continuous on-line measurements with the PDT Dewpoint Transmitter
- Fast Response
- Single channel on-line hygrometer
- Simple 2 wire connections
- 4-20 mA loop powered

See separate datasheets for full specifications

Corrosive Gases: The Sensor should not be exposed to corrosive gases (or corrosive contaminants in the gas sample) as these can chemically attack the sensor, impairing calibration accuracy and/or damaging it beyond economic repair. Examples of such gases are mercury (Hg), ammonia (NH₃), chlorine (Cl₂) etc. Strong oxidising agents such as ozone (O₃) should also be prevented from coming into contact with the sensor.

Recommended Related Products

Custom-Compact
Sampling Systems
based on the
DS1200-PDT
Hygrometer System



Custom-Compact
Sampling Systems
based on the
DIS030-PDT
Hygrometer System



1769 PDT pd210923-Iss-8

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Product specification may be subject to change.

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