

Model DS1200-PDT

4-20mA Dewpoint Hygrometer
Fixed range of -40°C to +30°C

The Model DS1200-PDT is a New Addition to the Alpha Moisture Systems Dewpoint Hygrometer family.

Model DS1200-PDT has a two wire 4-20mA transmitter designed for continuous measurement of moisture in a process gas or compressed air.

Low Cost Solution - Simple to Install and set up - Reliable - Accurate - Stable results.

The long lasting Polymer sensing element is ideally suited for monitoring the moisture content of compressed air. See applications examples below.
The PDT transmitter can also be factory configured to give a 4-20mA linear signal for %RH.
It is Supplied with a Certificate of Calibration traceable to NPL (/NIST)



FEATURES

- Very user friendly with advanced functionality
- DISPLAY in °C Dewpoint, %RH or g/m³
- 22V – 253V AC or DC Operation
- Accuracy better than ±2°C (±3.6°F) Td
- 2 Independent, fully programmable alarm relays
- Cable Length >1km to transmitter
- Ideally suited for higher dewpoints

Application Examples

- Fluid bed dryers
- Refrigerant dryers
- Desiccant wheel dryers
- Rotary wheel dryers
- Turbine air intakes
- Wind tunnels
- HVAC applications
- Cool stores
- Air braking systems
- Condensation alarms
- Controlled atmosphere environments
- Precision engineering applications
- Heat treatment gases
- Environmental chambers
- Product drying
- Ambient air monitoring
- Gas turbine frost protection systems
- Switchgear monitoring and many more...

The **Model PDT** transmitter has been designed to cope with extreme environmental conditions. The rugged stainless steel construction offers protection to IP65 (NEMA4), with transmitter electrical connections made via secure industrial connector.

Specifications

MODEL PDT Dewpoint Transmitter only

MEASURING RANGE: -40°C to +30°C dewpoint, %RH or g/m³
PRESSURE RANGE: -1 to 50 bar
POWER SUPPLY: 24 VDC (10 - 30 VDC)
PROTECTION CLASS: IP 65
EMC: according to DIN EN 61326
OPERATING TEMP: -20°C - +70°C
ELECTRICAL CONNECTION: M12, 5-pole
THREAD: G1/2"
DIMENSIONS: Ø 30 mm, length 130 mm
OUTPUT: 4-20 mA = -40°C to +30°C dewpoint
ANALOGUE OUTPUT MAX LOAD: 500 Ω
MECHANICAL WARRANTY: 12 months in case of faulty workmanship and defective parts.
CALIBRATION WARRANTY: 12 months.

OUTPUT SIGNAL: Linear 4 to 20mA, fully isolated. Maximum load 800Ω / 16Vdc
PROGRAMMABLE SIGNAL RANGES: 0...20 or 4...20mADC (Factory set)
ISOLATION: Voltage Test / Operation - 2.3kVac / 250Vac
CURRENT OUTPUT-LOAD (max): 20mA / 800Ω / 16VDC
LOAD STABILITY: ≤ 0.01% of span / 100 Ω
RELAY-
RELAY FUNCTION: setpoint
HYSTERESIS: 1% of range
ALARM RELAYS: 2 independent fully programmable switched contacts. Rated 2A @ 250Vac / 1A @ 24Vdc.
ANNUNCIATORS: AL1 & AL2 LED's on front panel indicating status of each alarm
ELECTROMAGNETIC COMPATIBILITY (EMC):

Emission & Immunity: Complies with EN 61326
UL, STANDARD OF SAFETY: Certified to UL508

WEATHERPROOF CLASSIFICATION: Front panel only - IP65 (NEMA 4X).
TEMPERATURE OPERATING RANGE: -20°C to +60°C
DISPLAY RESPONSE TIME (0-90%, 100 to 10%): 0.4s.
WIRE SIZE, PIN 45 & 46 (max): 1 x 1.5mm² stranded wire
WIRE SIZE, OTHERS (max): 1 x 2.5mm² stranded wire
RELATIVE HUMIDITY: < 95% RH
ERROR DETECTION: Cable loop break
DIMENSIONS (HxWxD): 48 x 96 x 120mm
CUT OUT DIMENSIONS: 44.5 x 91.5mm
WEIGHT: 230 grams

MODEL DS1200 Display only

DS1200 DISPLAY INDICATOR SPECIFICATIONS

ENCLOSURE: 1/8 DIN panel mounting ABS case
DISPLAY: 4 digit, 14 segment LED indicator. Red characters 13.8mm high. Factory set to display in °C, %RH or g/m³
SUPPLY VOLTAGE: Universal 22Vac - 253Vac 50/60Hz & 20Vdc - 300Vdc 150mA to 15mA
MAX VOLTAGE: 250 VRMS
MAX CURRENT: 2A /AC
MAX AC POWER: 500VA
MAX CURRENT AT 24 VDC: 1A
POWER CONSUMPTION: 3.5W Maximum

How to Order - Step 1 of 3

Order Model DS1200-PDT



How to Order - Step 2 of 3

Select a Longer Cable Below
CAB115-PDT + [XX] Length

Your PDT Transmitter comes complete with 2 metres of connecting cable as standard.

To order a longer length in metres, add number after this part number.

Example: CAB115-PDT-10 for 10m

Non-Standard off the shelf cables available in 3, 4, 5, 10, 12, 15, 25m lengths. For longer lengths please call.

PDT Standard Cable 2 Meters



Part No. CAB115-PDT

How to Order - Step 3 of 3

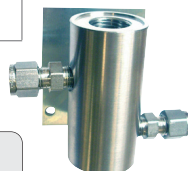
Select A Transmitter Holder

Comes complete with mounting plate.

SH-PDT + [X] [X] Pipe Fittings

X = Choose INLET Pipe Fitting
 0 = None 1/8" NPT Port
 4 = 1/4" - Pipe OD
 8 = 1/8" - Pipe OD
 6 = 6mm - Pipe OD

X = Choose OUTLET Pipe Fitting
 0 = None 1/8" NPT Port
 4 = 1/4" - Pipe OD
 8 = 1/8" - Pipe OD
 6 = 6mm - Pipe OD



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

For more details on the PDT range,
 please visit our new website
www.amsystems.co.uk

RELATED PRODUCTS

Basic Sample System



Model SS-B
 Built for multiple applications. Includes Sensor holder, Adjustable Flow Meter and Pressure Regulator

Made to Order Sample Systems



Model DS1200-PDT
 Purpose built sample systems made to order in Stainless Steel or ABS Plastic cabinets

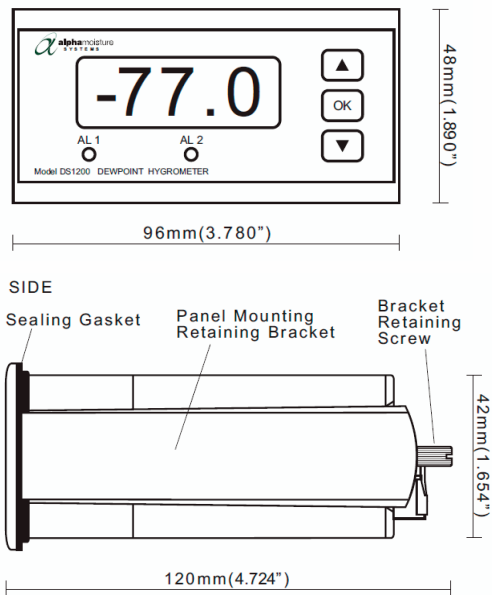
Large Range of Accessories



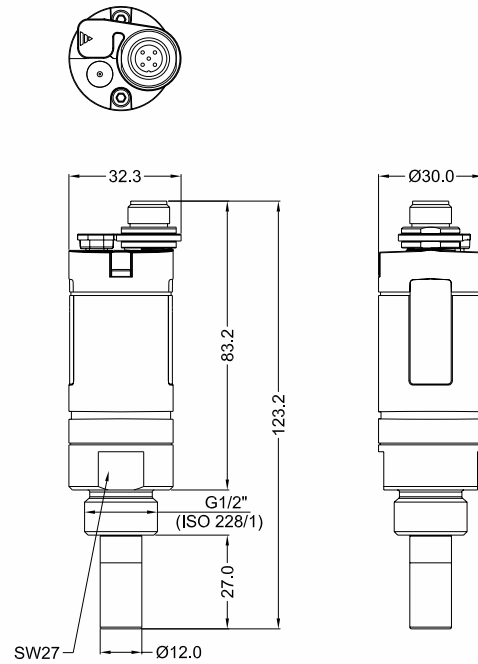
High quality accessories and replacement components available from stock. See our website for more details.

Dimensions

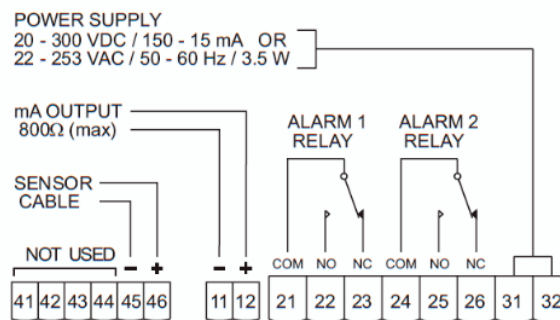
Model DS1200 Dewpoint Display



Model PDT Dewpoint Transmitter

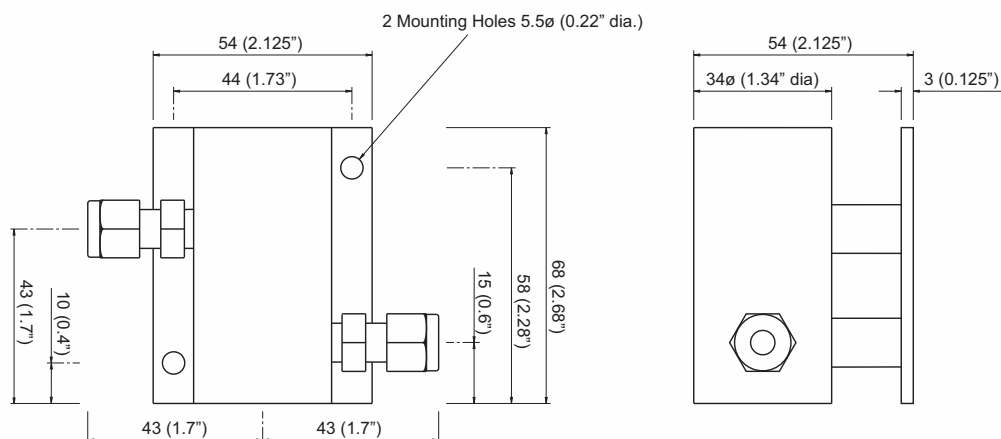


Model DS1200 Display Connection Details



Model SH-PDT Transmitter Holder

Flow Through Sample Cell



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

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Product specification may be subject to change.