**Model DS1200-AMT**

Single Channel Dew Point Hygrometer

Ranges available between -120°C to +20°C (-166°F to +68°F) dewpoint

User friendly solution for continuous on-line dewpoint measurement in dry process gases and dry compressed air, offering powerful functionality and simple interface through advanced digital technology.

**Fast Response - Stable - Reliable - Accurate - Easy to Install.**

Model DS1200 from Alpha Moisture Systems is a single channel on-line hygrometer designed to measure dewpoint in process gases and dry compressed air. The panel mounted ½ DIN dewpoint meter, providing panel protection to IP65 (NEMA4X), combines with the Model AMT range of ultra high capacitance sensors for accurate trace moisture measurement.

**FEATURES**

- User Friendly & Advanced Functionality
- Factory set in either °C or °F Dewpoint, ppm(v), ppb(v), g/m³ or lbs/MMSCF
- 22V – 253V AC or DC Operation
- Linear 4-20mA Retransmission Signal
- 2 Independent, Fully Programmable Alarm Relays
- “AUTOCAL” CALIBRATION FEATURE
- Fast Response
- Long Term Stability
- IP66 / NEMA4 Weatherproof Protection
- Calibration traceable to National & International Standards

Combination of advanced digital technology of the display electronics and the transmitter, makes this the system of choice for a wide range of applications where precise indication, control and monitoring is critical.

Model DS1200-AMT system can be factory configured to read in °C dewpoint, °F dewpoint, ppm(v), ppb(v), g/m³ or lbs/MMSCF. The measured value is displayed on a large 4 digit, 13.8mm high, fourteen segment LED display. **Model DS1200-AMT Dewpoint Hygrometer** is fully configured to the customer’s specifications.

The instrument offers two fully programmable alarm relays, which can be independently set across the full operating range. An optically isolated analogue signal, linear with the measured unit is also available (to interface with any external device).

**Model DS1200-AMT** can be supplied with any one of a range of dewpoint transmitters, which have all been specially manufactured to provide long term stability, so ensuring a long and trouble free service life.

The long lasting sensing element offers excellent sensitivity, repeatability and response speed - especially on dry down. Integrated electronics in each transmitter allow calibration data to be stored within its memory, making transmitters completely field interchangeable.

Each transmitter is calibrated to provide overall system accuracy of better than ±2°C dewpoint and supplied with a certificate traceable to international humidity standards.

**Model DS1200-AMT** also incorporates the invaluable “AUTOCAL” feature for easy field verification of the system response, without recourse to any additional equipment. Accidental or unauthorised operation is prevented by a simple initiation routine.

The system allows the display unit to be sited in excess of 1000m from the transmitter, connected by a simple twisted pair cable.
**Model DS1200-AMT Dewpoint Hygrometer**

**Display Indicator Specifications**

- **Sensor Type:** MODEL DS1200-AMT Dewpoint Hygrometer
- **Transmitter & General Specifications**
  - **Sensing Element:** 300Vdc 150mA to 15mA
  - **Display:** 13.8mm high. Factory set to display in °C, °F, ppm(v), ppb(v), g/m³
  - **Output Signal:**
    - **AutoCal:** Operated via two button switches on the Transmitter body. Locked in normal operating mode to avoid tamper.
    - **Isolation:**
      - **Sensor & General Specifications**
        - **Alarm Relays:** Two independent fully programmable switched contacts. Rated 2A @ 250Vac / 1A @ 24Vdc.
        - **Transmitter Enclosure:** DIN EN 175301 connector.
        - **Annunciators:** AL1 & AL2 LED's on front panel indicating status of each alarm.
        - **Electromagnetic Compatibility (EMC):** Complies with BS EN 61326-1
        - **Weatherproof Classification:** Weatherproof Class 4.
        - **Weight:** 175 grams
        - **Weight:** 230 grams
        - **Weight:** 316 Stainless steel body with size C, DIN EN 175301 connector.

**Specifications**

- **Sensor Protection:** 316 Sintered stainless steel filter - 50 micron
- **Operating Pressure:** From 1kPa (0.01 barA) to Maximum 35,000kPa (~350 barA)
- **Sample Flow Rate:** Flow independent but ideally 2 to 5 standard litres per minute. Max: 25 litres/min
- **Weatherproof Classification:** IP66 / NEMA4X when Connector mated to Transmitter.
- **Mechanical Connection:** 3/4” UNEF (16tpi) with integral Viton “O” ring seal.
- **Weight:** Transmitter and connector - 175 grams
- **Cable:** Supplied with 2m length standard two core cable. Nominal diameter 3.4mm, 92ohms/km at 20°C
- **Electromagnetic Compatibility (EMC):** Complies with BS EN 61326-1
- **Temperature Coefficient:** Transmitter temperature compensated for operating range.
- **Repeatability:** Better than ±0.3°C dewpoint
- **Factory Calibration:** Supplied with Certificate of Calibration traceable to NPL / NIST
- **Accuracy:** ±1°C dewpoint (NPL / NIST traceable for range -90°C to +20°C)
- **Operating Temperature:** -20°C to +60°C
- **Storage Temperature:** -20°C to +70°C
- **Operating Humidity (External):** Maximum - 95% RH
  - Non-condensing
- **Warm Up Time:** 10 seconds
- **Mechanical Warranty:** 24 months in case of faulty workmanship and defective parts.
- **Calibration Warranty:** 12 months (not valid if transmitter is subject to corrosives or misuse)

**Ordering Information**

- **How to Order - Step 1 of 3**
  - **Select from a standard range below**
  - **Model Code:** RDC: -80°C to -20°C dewpoint
  - **SRC:** -110°C to -20°C dewpoint
  - **GYC:** -80°C to 0°C dewpoint
  - **PLC:** -100°C to 0°C dewpoint
  - **SDC:** -100°C to +20°C dewpoint
  - **SSRC:** -120°C to -20°C dewpoint
  - **LDC:** -120°C to +20°C dewpoint
  - **SHDC:** -65°C to 0°C dewpoint
  - **HDC:** -65°C to +20°C dewpoint
  - **RDF:** -112°F to -4°F dewpoint
  - **SRF:** -116°F to -4°F dewpoint
  - **GYF:** -112°F to +32°F dewpoint
  - **PLF:** -148°F to +32°F dewpoint
  - **SDF:** -148°F to +68°F dewpoint
  - **SSRF:** -184°F to +68°F dewpoint
  - **LDF:** -85°F to +68°F dewpoint
  - **SHDF:** -85°F to +32°F dewpoint
  - **HDF:** -85°F to +68°F dewpoint

- **How to Order - Step 2 of 3**
  - **Select a longer cable below**
  - **Model Code:** CAB069-AMT + [XX]
  - **Range Code:** CAB069-AMT + [XX]
  - **Length:** 2 Meters
  - **Part No.:** CAB069-AMT

- **How to Order - Step 3 of 3**
  - **Select a transmitter holder below**
  - **Model Code:** ADH-AMT 303 + ADH-AMT 316 +
  - **Pipe Fittings:** [X] [X]

**Order Example:**

- Dewpoint Transmitter Model AMT-GYC = -80°C to 0°C dp
  - Model DS1200-AMT COMES COMPLETE WITH A STANDARD 2 METRE CONNECTING CABLE.
Dimensions

Model AMT Dewpoint Transmitter

Model ADSH-AMT Transmitter Holder
Flow Through Sample Cell

Model DS1200 Display
Stable, Accurate and Reliable Alarmed Monitor

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