# SAHARA Dew Point Meter


## *Measures dewpoint from -148°F to +86°F*

At last, there is a product on the market that solves the critical problem of moisture analysis in a gas dryer system or related application.

Utilizing a microprocessor-based circuit, the SAHARA Dew Point Meter (SDPM) offers unequaled performance. The range of operations of this extremely rugged instrument is nearly double that of the competition. For instance, the dewpoint meter is capable of measuring dewpoints ranging from -148°F to +86°F.

Additionally, the probe can be used in environments with temperature swings between -166°F to +158°F. Most other meters have much smaller spans and simply stop working at 105°F.

As an extra added attraction of the system, the meter is offered in two configurations; a panel mounted unit operated at 120v AC with a 4-20 mA output and alarm signal, or a portable unit operating with 9 volt rechargeable batteries. This allows you to use the panel mount to control a gas dryer or critical gas process, while using the portable to measure dewpoints throughout the plant.

Many options are available by programming the unit using the front panel keypad.

| ELECTRONIC SPECIFICATIONS | |
|---|---|
| **Standard Dewpoint** | -148°F to +86°F<br>-100°C to +30°C |
| **Power** | Panel mount: 120v AC;<br>Portable: 9 volt rechargeable niCAD batteries |
| **Storage Temperature** | -22°F to +158°F |
| **Warm Up Time** | Will meet specified accuracy within 3 minutes of turn on |
| **Recorder Output** | Panel mount: 4-20 mA;<br>Portable: 0-100 mV |
| **Indicator** | Digital LCD reading °F or °C |
| **2 Alarms & 1 Fault** | Panel mount: Form C SPDT, contact rating 3A 120v AC, adjustable from front<br>Portable: Alarms not available |
| **Case** | Panel mount: general purpose RF shielded;<br>Portable: general purpose with handle RF shielded |
| **Dimensions** | 5.7" W x 2.8" H x 4.7" D<br>(14.48 cm x 7.21 cm x 11.07 cm) |
| **Weight** | 1.7 lbs. (0.77 kg.) |

| MOISTURE PROBE SPECIFICATIONS | |
|---|---|
| **Type** | Aluminum Oxide Moisture Sensor Element (Patented) |
| **Calibration** | Each sensor is factory calibrated against moisture standards |
| **Dew/Frost Point Range** | -148°F to +86°F |
| **Operating Temperature** | -166°F to +158°F |
| **Storage Temperature** | +158°F maximum |
| **Operating Pressure** | 0 - 5000 PSIG |
| **Flow Rate** | Gases: from Static to 5000 cm/sec linear velocity @ 1 atm |

### *Applications*

- Control of compressed air dryer
- Measurement of moisture in instrument air
- Measuring moisture in carbon dioxide gas
- Continuous monitoring of moisture in vacuum evacuation and gas refill in oil-filled transformers
- Measurement of moisture in hydrocracker gas streams
- Measurement of moisture in Argon. Used as a blanketing gas in glove box applications
- Measurement of moisture in nitrogen process gas for a polyester chip dryer
- Measurement of moisture in a hydrogen-rich hydrocarbon stream
- Measurement of moisture in an inert cover gas for polymers
- Measurement of moisture in conditioned air for failure analysis of electronic components
- Measurement of moisture in pigments for paints and plastics
- Measurement of moisture in helium gas for nuclear reactors
- Measurement of moisture in nitrogen-oxygen blanketing gas used in semiconductors production
- Measurement of moisture in service air systems aboard ships, including air systems for radar wave guides

SAHARA AIR PRODUCTS HENDERSON

**SAHARA AIR PRODUCTS**

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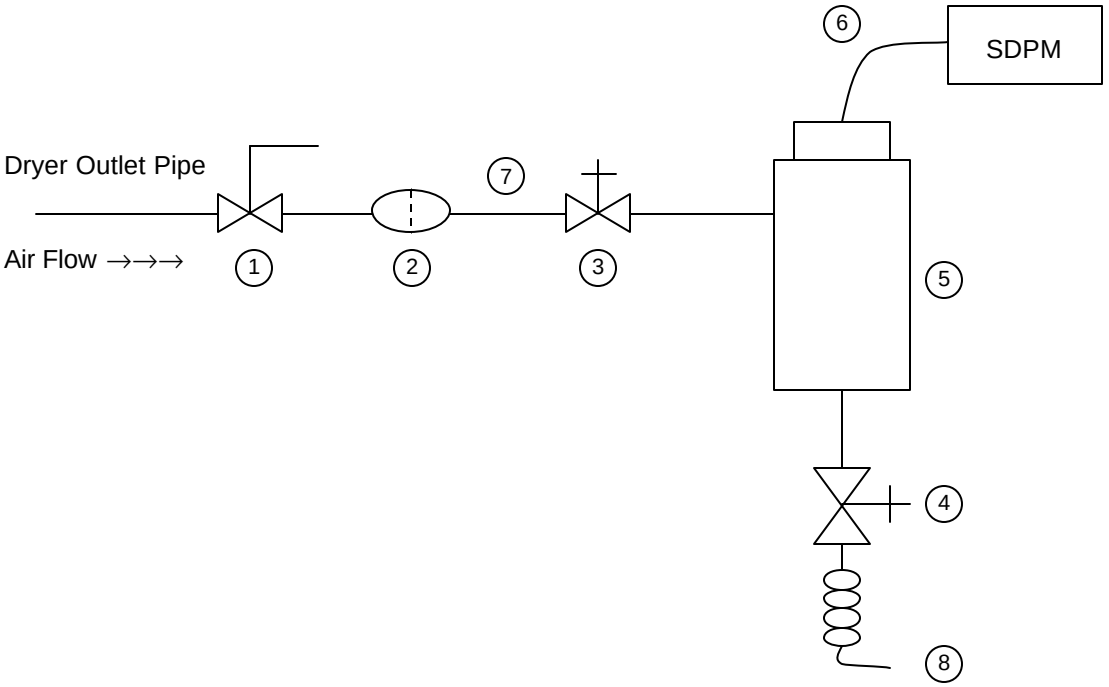
## RECOMMENDED INSTALLATION OF SDPM SAMPLING SYSTEM




| | | |
|---|---|---|
| 1. | 1/4" Ball Valve | Not included with SDPM (may be purchased from Henderson Engineering) |
| 2. | 1/4" In-line Filter | Not included with SDPM (may be purchased from Henderson Engineering) |
| 3. & 4. | 1/8" NPT x 1/4" O.D. Tube Needle Valves | Included with SDPM |
| 5. | Sample Cell | Included with SDPM |
| 6. | Cable (From Probe to SDPM) | Included with SDPM |
| 7. | 1/4" Tubing | Not included with SDPM |
| 8. | 1/4" Tube Pigtail | Not included with SDPM |

For dryer dewpoint demand control, SDPM tubing should be piped as close as possible to dryer outlet (before any dryer afterfilter, if possible). For very low dewpoint readings (-70° F and below), all tubing and fittings should be stainless steel to eliminate possible water vapor entrapment. Sample cell inlet valve to be fully opened and outlet valve cracked to atmosphere (2 SCFH minimum). A pigtail is recommended for low dewpoint measurements.