

Low-Pressure Dew Point Monitor & Alarm

General Description

The Model 7148 low-pressure dew point monitor and alarm system is designed to provide a simple, reliable method of measuring the dew point (moisture content) of low-pressure (0 - 150 psig) dry air systems. This is the same system incorporated in our popular low-pressure membrane dehydrators. Here, it can be used as a stand-alone device, or downstream of an air dehydrator whose built-in monitor/alarm system is unreliable or no longer supported by the original manufacturer.

Measurement is made by a highly sensitive aluminum oxide sensor, which is bathed by a continuous stream of air. Its impedance varies with the air's moisture content, and is read by the humidity alarm controller. The operator may adjust the controller to achieve the desired alarm point. The analog dew point meter on the front of the control panel displays the current outlet air dew point. The entire alarm system may be calibrated by the operator without removal from the unit.

If at any time the outlet air moisture content exceeds the controller's set point, the controller activates the humidity alarm. This alarm includes the flashing red humidity alarm lamp, the audible alarm (buzzer), and the humidity alarm remote connection. The buzzer can be disabled by the audible alarm switch. The humidity alarm remote connection is a relay closure (closed on alarm) with a 6800-ohm resistor in parallel.

Specifications:

Fully qualified for high-impact shock per MIL-S-901, Grade A and Type I vibration, 4 - 50 Hz, per MIL-STD-167-1.

Indicating Range: 0° F to -60° F dew point

Alarm Point: Operator-adjustable from 0° F to -60° F dew point. Factory pre-set at -30° F unless ordered otherwise.

Indicator: Meter movement

Alarms: Local lamp and audible alarm; remote "dry contacts" with 6800-ohm supervisory resistor

Operating Pressure: 0 to 150 psig

Electrical Requirements: 115 VAC, 60 Hz, single-phase, 1 amp.

Fittings: Unions per MIL-F-1183 standard; others available on request.



Dimensions:

- Sensor Unit: 20" W x 6" H x 6" D.
- Control Panel: 9" W x 12" H x 7" D.

Weight: 20 pounds

Mounting:

- Sensor Unit: Support on pipe hangers (by customer).
- Control Panel: Mounting tabs.

Howell Laboratories, Inc.

188 Harrison Rd.
Bridgton, Maine 04009
(207) 647-3327

(888) 744-8359

e-mail: contracts@howelllabs.com
An Employee-Owned Company

FAX (207) 647-8273
web: www.howelllabs.com
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