SPECIFICATIONS AND DIMENSIONS

SECTION 1

WEIGHT .............. 25 LBS
DIMENSIONS....... see Figure 2A
MOUNTING ......... see Figure 2A

ENCLOSURE
• Enamel painted Steel Enclosure
• Nema 4 Rated
• Continuous Hinged

DEW POINT CONTROLLER (humistat)
RANGE OF CONTROL .................. 4% to 98% Relative Humidity
(Note: Set plug and sensor determine actual operating range)
INPUT POWER ..................... 115V-1PH-56/60Hz
OUTPUT MODE ...................... SPDT. relay, 1 amperes,
noninductive maximum

DEW POINT SENSOR (hygrosensor)
RANGE OF CONTROL ............. 1.4% to 6% RH @ 80°F
TYPE .................. DUNMORE-TYPE lithium chloride element.

SET POINT PLUG
SET POINT .................... approx. 0°F Dew point @ 80°F

DEW POINT SAMPLE CELL
• Sample line isolation needle valve
• Sample cell bleed orifice fitting
MAXIMUM SAMPLE AIR PRESSURE .......... 150 PSIG
SAMPLE LINE CONNECTION SIZE ............. 1/4" tube fitting

ALARM OUTPUT CONTACT
ELECTRICAL RATING .................. 115V-1PH-60Hz, 10 amperes
OUTPUT MODE .................... Normally open contact,
latching (push-button must be pressed to reset)

LIGHT & RESET PUSH-BUTTON
• High Dew Point Light (red)
• Alarm Reset Push-button

PAGE 1
2.1 HANDLING

DO NOT DROP THE UNIT.

DO NOT LIFT ALARM BOX BY THE SAMPLE CELL.

2.2 INSTALLATION

BEFORE STARTING INSTALLATION PROCEDURES, TURN OFF POWER AND DEPRESSURIZE THE PIPING WHERE SAMPLE LINE IS TO BE INSTALLED, TO PREVENT INJURY. SERIOUS PERSONAL INJURY MAY RESULT IF THIS SAFETY RULE IS NOT FOLLOWED.

WHEN INSTALLING AND OPERATING THIS EQUIPMENT, COMPLY WITH THE NATIONAL ELECTRICAL CODE AND ALL APPLICABLE FEDERAL, STATE, AND LOCAL CODES.

3.1 INSTALLING THE UNIT

Mount the enclosure on a flat stable surface, where the alarm light can be easily seen. The unit should be installed as close as possible to the sample point. Allow enough space to open door and to connect the sample line. Reference FIGURE 2A for mounting hole dimensions.

3.2 INSTALLING THE DEW POINT SAMPLE LINE

A 1/4" sample line must be connected to the isolation needle valve on the sample cell.

CAUTION
 LENGTH OF SAMPLE LINE CAN EFFECT THE PERFORMANCE OF THE CONTROLLER. THE LENGTH SHOULD BE KEPT AS SHORT AS POSSIBLE.

The sample source should be less than 150 PSIG. Do not use a pressure regulating device between the source and the sample cell. The sample source should be free of contaminants and high temperatures (over 100°F).

Use copper or stainless steel tubing for the sample line. DO NOT USE PLASTIC TUBING.

3.3 ELECTRICAL CONNECTIONS

IMPORTANT
WHEN INSTALLING AND OPERATING THIS EQUIPMENT, COMPLY WITH THE NATIONAL ELECTRICAL CODE AND ALL APPLICABLE FEDERAL, STATE, AND LOCAL CODES.

3.3-1 POWER SUPPLY
The unit requires a power source of 115V-1PH-60Hz for operation. Make the necessary electrical connections from the power source to the unit. Reference FIGURE 3A, Wiring Diagram.

3.3-2 ALARM OUTPUT CONTACT
The alarm output contact is labeled as terminals numbered 7 & 8 inside the enclosure. The contacts can be used to activate a device in the event of an alarm condition.

If the alarm output contacts are to be used, make the necessary wiring connections from the alarm enclosure terminal strip to the remote device.

FIGURE 3A WIRING DIAGRAM
WARNING

THE HUMISTAT MODULE USES 115 VAC. AVOID CONTACT WITH EXPOSED TERMINALS WHEN PERFORMING SET POINT ADJUSTMENTS.

NEVER TEST THE HUMIDITY SENSOR WITH AN OHMETER OR OTHER DC MEASURING DEVICES, DOING SO WILL PERMANENTLY DAMAGE THE SENSOR.

DO NOT EXPOSE THE SENSOR TO TEMPERATURES EXCEEDING 140°F.

IF SENSOR IS EXPOSED TO LIQUID MOISTURE IT WILL BE PERMANENTLY DAMAGED.

5.1 HUMISTAT MAINTENANCE
Periodically DISCONNECT POWER and clean dust and lint from the PC board with a soft brush.

5.2 DEW POINT SENSOR MAINTENANCE
Periodically check the humidity sensor for accumulation of dust and lint. If necessary, use a soft brush to remove accumulated dust and lint from the exterior jacket, but DO NOT ATTEMPT TO REMOVE ALL TRACES OF LINT AND DUST WITHIN THE SENSOR, since the introduction of the brush, etc., may damage the sensor. A slight accumulation of dust will not impair the normal function of the sensor as long as it is not heavily contaminated.

It is recommended that the sensor be replaced every two (2) years.

IMPORTANT
ALWAYS CALIBRATE THE HUMISTAT AFTER THE DEW POINT SENSOR IS CLEANED. REFERENCE SECTION 5.4.
5.4 HUMISTAT CALIBRATION PROCEDURES

After the sampling line and power lines are connected, the humistat must be adjusted as follows:

- Unplug the cable from the dew point sensor.
- Plug the set plug into the cable.
- Apply power to the controller and adjust the potentiometer, (REFERENCE FIGURE 5A), on the PC board. Rotate the potentiometer back and forth, noting the position of the screwdriver slot when the relay clicks as it pulls in and drops out. Set the potentiometer midway between these two points.
- Remove the set plug.
- Plug the cable back to the dew point sensor.
- The humistat is now ready for operation.

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**FIGURE 5A HUMISTAT DETAIL**

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**REPLACEMENT PARTS**

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