

PORTABLE DEW POINT MONITOR

MODEL 8072
8072-230VAC

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DIAGRAMS

ASSEMBLY DIAGRAM	- 8072ASSY
WIRING DIAGRAM	- 6392NWD

PLASTIC PROCESS EQUIPMENT, INC.
8303 CORPORATE PARK DRIVE
MACEDONIA, OHIO 44056

PHONE (800)362-0706

FAX (800) 223-8305

DEW POINT MONITOR MODEL 8072

The Dew Point Monitor is an on line instrument for checking the operation of a desiccant dryer. The monitor samples process air from the dryer into an internal manifold containing a **HYGROSENSOR** which varies electrical resistance proportional to the dew point or relative humidity of the sampled air.

SPECIFICATIONS:

Dew Point Range: -40°F to +15 F (-40°C to -9°C)

Sensor Part #: 1205DM

Accuracy: ±2°F

Alarm Set Point: -10°F (-23 °C) Adjustable

Recorder Output: 2 pin connector, 4-20mA scaled as -40°F to +70°F (0-5V by jumper change)

$$\text{mA} = \frac{\text{DP} + 67.5}{6.875} \quad \text{or} \quad \text{V} = \frac{\text{DP} + 40}{22}$$

-40 = 4mA or 0V 70 = 20mA or 5V

Indicators : GREEN LIGHT indicating acceptable "dry" condition
RED LIGHT and BEEPER indicating unacceptable "moist" condition

Power Requirements: 115VAC +10% (230VAC optional)
50/60Hz

Power Consumption: 5 Watts

Pump Specifications: Flow: 2.5 L/min (0.08 SCFM)
Vacuum: 6.8" of Hg
Pressure: 3.2 psi
(All pump specifications are nominal)

Dimensions: 8072 Carrying Case - 9" x 12-1/2" x 5" Deep

Weight: 8 lbs. shipping

PRINCIPLE OF OPERATION

With the help of an internal vacuum pump, the Monitor pulls sample air through a copper cooling coil into the sensor manifold. There, the **HYGROSENSOR** measures the air's dew point by changing electrical resistance. This resistance is measured and digitally processed to provide a linear voltage proportional to dew point. The linear voltage drives a digital display, a comparator, and the recorder output.

OPERATION

The Dew Point Monitor is used to sample air that is at a pressure between -1 and +7 psig. If you are sampling compressed air, use model 8075. Air up to 500°F (drybulb) can be sampled if appropriate tubing is used. The plastic Tygon tubing supplied can withstand temperatures up to 180°F.

