

HUMIDITY CONTROLLERS

Model 5311
Model 5112

Cost effective solution for maintaining humidity levels below ambient in sealed chambers, desiccators and dry boxes. Available as either a fixed-point controlled dry gas valve (Model 5311) or as an adjustable set point controller (Model 5112).

Features:

- **Model 5311 (controlled valve):**
 - Single-point control (5% RH)
 - Custom settings between 5-30%RH
 - Integrated solenoid valve & regulator
 - 12 VDC universal power module
 - Optional battery power

- **Model 5112:**
 - User adjustable set point
 - Humidity level display
 - Controlled output:
 - 90-240 VAC/50-60 Hz, 3 amps
 - Dehumidifier ON/OFF override

Stand-alone or panel mount

- **Accuracy:**
 - Measurement: $\pm 2\%$ RH
 - Set pt. Tracking: $\pm 3\%$ RH
 - Display: $\pm 0.1\%$ RH



Model 5311



Model 5112



electro-tech systems, inc.

www.electrotechsystems.com

3101 Mt. Carmel Avenue, Glenside, PA 19038 • Tel: (215) 887-2196 • Fax: (215) 887-0131

Description:

Both the Model 5311 and 5112 utilize capacitive film humidity sensors. The Model 5311 sensor generates a digital output relative to the specified set point (default is 5% RH). When the humidity level rises above 7% RH, the sensor generates a signal that activates a solid state relay which in turn opens the dry gas solenoid valve. When the humidity level drops below 4% the sensor generates a "0" deactivating the valve. Optional set points can be specified at time of order.

The Model 5112 sensor generates a signal proportional to the humidity level over the entire 0-100% RH range. Measurement accuracy is $\pm 2\%$ RH. The sensor is mounted on a 30" (194cm) cable for installation inside the controlled environment and is supplied with a 3/8" NPT compression fitting attached to the cable.

The Model 5311 consists of an integrated solenoid valve with adjustable pressure regulator and control module, both of which operate from 12 VDC. A 90-240 VAC universal power module provides the necessary power. The controller requires approximately 250 ma with the solenoid on and only 10 ma when the solenoid is off. The unit may also be battery powered using the optional adapter cable.

The Model 5112 can control any dehumidification operating system that requires 90-240 VAC at a maximum of 3 amps. The dehumidification system power cord is plugged into the 3-prong North American outlet on the rear panel. The Controller applies power whenever the humidity is above the set point by 2% RH.

The controller enclosure conforms to DIN 43700, measuring 3.78"Wx3.78"Hx3.35"D (9.6x9.6x8.5 cm). It can be located on top or next to the controlled environment or installed directly into a panel cutout using the available mounting clips.

The front panel consists of a 3½-digit LCD readout that continuously displays the relative humidity and when the Set Pt button is depressed, the set point. The set point is changed using a screwdriver adjustable, multi-turn potentiometer. A DEHUMIDIFIER ON/OFF switch overrides the controller and manually turns off the dehumidifier. A green LED indicates when the dehumidifier is activated.

Specifications:

Model 5311:

Sensor type: Temp compensated, capacitive film
Range: Fixed pt: 5% RH std.
Accuracy: $\pm 2\%$ RH
Lo/Hi band: 4% RH (off) / 7% RH (on)
Set pt adjust: None
Manual contr: None
Display: None
Resolution: -
Control Out: Solenoid valve
Power req.: 90-260 VAC Pwr Module, 30W
Gas in/out : ¼" quick disconnect
Dimensions: -

Model 5112

Temp compensated, capacitive film
Adjustable: 0-100% RH
 $\pm 2\%$ RH
2% RH below set pt / 2% RH above set pt
20-turn screw driver adjust potentiometer
Dehumidify ON/OFF pushbutton switch
3½-digit LCD
0.1% RH
3 Amp solid state relay
90-260 VAC, 50/60Hz, 700W max

3.78"Wx3.78"Hx3.35"D
(DIN 43700)9.6x9.6x8.5 cm)

Warranty: One (1) year

Specifications subject to change without notice

12/07