

A Precise Water Vapor Source for Field or Laboratory Use

The LI-610 Portable Dew Point Generator is a rugged, portable instrument that provides a stream of gas with a precisely controlled dew point. High accuracy and stability make the LI-610 an ideal water vapor source for field or laboratory use in the environmental and biological sciences.

The LI-610 can be used to calibrate the H₂O channel of gas analyzers, verify the calibration of dew point hygrometers, calibrate solid state humidity sensors, and provide precise control over water vapor mole fraction in environmentally regulated chambers.

- NIST certified
- Generates stable dew points from 0 to 50 °C
- Accuracy of ± 0.2 °C dew point
- Completely portable and self-contained (battery or AC operated)
- No need for gas tanks and mixing systems
- Millivolt output of dew point temperature for data acquisition
- External control via 0-5 V input signal



Specification

Model	LI-610
Dew Point Range	0 to 50°C (limited to 35°C below the cooling water temperature)
Accuracy	± 0.2 °C (0-50 °C)
Stability	<0.02 °C per day at 25°C typical; <0.04 °C per day at 25° C maximum
Noise Level	0.01 °C peak-to-peak
Repeatability	0.01 °C
Response Time	Typically 15 seconds per °C when changing from ambient to a higher dew point; 30
Temperature Sensor	Platinum resistance temperature detector (RTD)
Flow Rate	Adjustable; typically 2.0 liters per minute
Flow meter type	Dwyer series RMA. 2.5 liters per minute full scale
Flow Meter Accuracy	$\pm 4\%$ of full scale reading
Flow outputs	Two rapid connect hose fittings for 4 mm ID by 6 mm OD plastic tubing. Accepts 1/4" OD tubing with 1/8 to 3/16" ID
Maximum Input Flow	2 Liters per Minutes.
Analog Output	0 to 5V., 100 mV / °C
Control Output	0 to 5V., 100 mV / °C
Display	4 1/2 digit LCD for displaying dew point set temperature (°C), actual dew point temperature (°C), or battery voltage
Display Resolution	0.01°C
Operating Temperature	0 to 50 °C, 0 to 100 % RH
Power Requirements	10.5 to 16 VDC, 5.5 amps max current draw; or 108-126/216-252 VAC with 610-01 AC Module
Dimensions	23.5 H x 21 W x 28.5 D
Weight	7.86 kg 917.4 lbs.)