

Wall Mounted Fertigation Controller



HI 9914 is a wall mounted fertigation controller, designed to meet specific process control requirements in agricultural, horticultural and hydroponics applications.

The controller is provided with two measuring channels, one for pH and one for conductivity. The readings are displayed simultaneously on two independent LCDs with backlight.

The conductivity probe is designed with a built-in temperature sensor which allows the controller to automatically compensate for the temperature effect. The differential input and the use of a Matching Pin prevent grounding problems and thus ensure longer life to the pH electrode.

The controller includes two regulators for pH and conductivity, that can be adjusted from the front panel by setting two independent thresholds. The conductivity and pH controls are time separated and a timed operation mode avoid overdosing of fertilizer or acid. The controller status is indicated by LED indicators on the front panel. Moreover, the equipment is provided with a three-level sensor, to control the water level, the alarm condition and the irrigation sequences.

The instrument also features an alarm system, which is activated when an unusual working condition occurs. A humidity detector can be used to stop the controller if any leakage is detected. Water nozzle, circulation pump, feeding pump and alarm are equipped with relays.



Specifications

HI 9914	
Range	0.00 to 10.00 mS/cm; 0.00 to 14.00 pH
Resolution	0.01 mS/cm; 0.01 pH
Accuracy (@20°C/68°F)	± 5% F.S.; ± 0.02 pH
Calibration	manual, 1 point for EC with slope trimmer; 2 point for pH with offset and slope trimmers
Setpoint	2, selectable from 0.50 to 10 mS/cm and from 0.5 to 14.0 pH
Analog Output	0-5V ± 5% (0.5V/mS); 0-7 V ± 5% (0.5 V/pH)
Timer	adjustable from 1 to 10 minutes
Feed OK Output	12V, 15 mA
Humidity Sensor	activated if resistivity is below 220 KOhm
Water Nozzle Output	2A, 220V relay
Circulation Pump Output	2A, 220V relay
Feeding Pump Output	2A, 220V relay
Alarm output	2A, 220V relay
Water Level Inputs	contact type water level sensors
User Input	contact type switch
External FILL Button	contact type push-button
Power Supply	110/115 Vac ± 10% or 220/240 Vac ± 10%; 50/60 Hz
Environment	-10 to 50°C (14 to 122°F); RH max 95% non-condensing
Dimensions	221 x 181 x 90 mm (8.7 x 7.1 x 3.5")
Weight	1.75 kg (3.9 lb.)

Accessories

HI 3003/D	Glass-body conductivity probe with DIN connector for HI 9914	HI 7031L	1.41 mS/cm calibration solution, 500 mL bottle
HI 7004L	pH 4.01 buffer solution, 500 mL bottle	HI 7039L	5.00 mS/cm calibration solution, 500 mL bottle
HI 7007L	pH 7.01 buffer solution, 500 mL bottle	HI 70300L	Electrode storage solution, 500 mL bottle
HI 7010L	pH 10.01 buffer solution, 500 mL bottle	HI 7061L	Electrode cleaning solution, 500 mL bottle

Ordering Information

HI 9914 is supplied complete with instructions.

1 = 115 Vac power supply
2 = 230 Vac power supply

HI 9914 -

For a complete range of process electrodes and probes, see section T2.
For a complete range of calibration, cleaning and maintenance solutions, see section F.