



Two panel mount units used in a fertigation system

HI8001 (panel mount) and HI8002 (wall mount) models

The HI8001 and HI8002 fertigation controllers provide up to 10 programs to irrigate up to 32 sectors using time or volume irrigation control. Each irrigation program has one pH and one EC setpoint. The start condition of the program, the irrigation sectors and the time or volume for each sector are user defined. The irrigation water is pH corrected based on the pH control, with acid or alkaline solution and can contain nutrients for crops based on up to 4 fertilizer receipts. Correction of time or volume of irrigated water can be based on accumulated solar radiation or can be manually requested by user. Agitator control and filter cleaning control are performed automatically. The instruments read up to 3 EC probes, one to verify the incoming water EC, and the other two are in-line redundant for safety to measure the current irrigation water EC. The two pH electrodes are mounted in-line redundant for safety to read the irrigation water pH. The instruments provide an alarm system and logging organized on user selectable three levels.

HI8051 (panel mount) model

The HI8051 fertigation controller provides up to 10 irrigation programs to irrigate up to 24 sectors using time or volume control. Each irrigation program has one pH and one EC setpoint. The start condition of the program, the irrigation sectors and the time or volume for each sector are user defined. The irrigation water is pH corrected based on the pH control with acid or alkaline solution and can contain nutrients for crops based on up to 4 fertilizer receipts. Fertilizer dosing is performed based on the EC, volumetric or ratiometric control. Another important feature is the correction of irrigated water volume or time based on accumulated solar radiation or manually requested by user. Agitator control and filter cleaning control is performed automatically.

The instrument reads up to 3 EC probes, one to verify the water incoming EC, and the other two redundant in-line for safety, to measure the current irrigation water EC. The two pH inputs are mounted in-line redundant for safety to read the irrigation water pH. This instrument provides an alarm system and logging organized on three user selectable levels. An important added feature is this models ability to mix 3 sources of incoming water. Fresh water, reused water and all dosing are performed based on the motorized valves that are activated by motors that allow different flows of the fertilizers, acid and alkaline solutions used for pH correction.



HI98143 pH/EC Transmitter

Models	HI8001/HI8002	HI8051
Irrigation control	Time/volume control, 10 programs/5 priority levels with up to 99 repetition	Time/volume control, 10 programs/5 priority levels with up to 99 repetition
Irrigation start condition	By Time, by solar radiation, by 5 external tank low level	By Time, by solar radiation, by 5 external tank low level
Fertilization control	By EC	By EC, By volume, Ratiometric
Fertilizers	Up to 4 valves	Up to 4 motorized valves
pH control/correction	Acid or alkaline	Acid or alkaline, motorized pump
Agitators control	Yes	Yes
Filter control/cleaning	2 differential presostate/2 filter cleaning relays	2 differential presostate/2 filter cleaning relays
Fertilizer tank levels/counters control	Level	Level and counters
Irrigation counter	Yes	Yes
Acid/Alkaline tank level/counter control	Level	Level and counter
EC inputs	Up to 3, 0.0 to 10 mS/cm	Up to 2, 0.0 to 10 mS/cm
pH inputs	Up to 2, 0.0 to 14.0 pH	1, 0.0 to 14.0 pH
Temperature Compensation	EC, pH	EC, pH
Solar radiation input	1; 0 to 2000 W/m ²	No
Temperature	No	1
Wind speed	No	No
Engine power back-up	No	No
Irrigated sectors	Up to 32	Up to 24
Mixing source of water	No	Yes, 3 sources
PC connectivity	RS 232	
Alarms	Yes, user selectable levels	
Logging	Yes, three level	
Power Supply	115V/220V ±10% 50Hz/60Hz	
Environment	wall mounted: NEMA 4X specifications	
Dimensions	wall mounted: 280 x 330 x 165 mm (11.2 x 13.2 x 6.6"); panel mounted: 178 x 260 x 116 mm (7.1 x 10.4 x 4.6")	
Weight	wall mounted: 4.95 Kg (11 lb.); panel mounted: 3.4 Kg (7.5 lb.)	

Ordering Information

Each HI8000 Series model is supplied instructions.

Choose your configuration:

HI8001-0100U Fertigation controller with priority for pH and EC, panel mount, 8 sectors, English, 115V.

HI8001-0100D Fertigation controller with priority for pH and EC, panel mount, 8 sectors, English, 230V.

HI8001-0200U Fertigation controller with priority for pH and EC, panel mount, 16 sectors, English, 115V.

HI8001-0200D Fertigation controller with priority for pH and EC, panel mount, 16 sectors, English, 230V.

HI8001-0300U Fertigation controller with priority for pH and EC, panel mount, 16 sectors, English, 115V.

HI8001-0300D Fertigation controller with priority for pH and EC, panel mount, 16 sectors, English, 230V.

HI8001-0400U Fertigation controller with priority for pH and EC, panel mount, 32 sectors, English, 115V.

HI8001-0400D Fertigation controller with priority for pH and EC, panel mount, 32 sectors, English, 230V.

HI8002-0100U Fertigation controller with priority for pH and EC, wall mount, 8 sectors, English, 115V.

HI8002-0100D Fertigation controller with priority for pH and EC, wall mount, 8 sectors, English, 230V.

HI8002-0200U Fertigation controller with priority for pH and EC, wall mount, 16 sectors, English, 115V.

HI8002-0200D Fertigation controller with priority for pH and EC, wall mount, 16 sectors, English, 230V.

HI8002-0400U Fertigation controller with priority for pH and EC, wall mount, 32 sectors, English, 115V.

HI8002-0400D Fertigation controller with priority for pH and EC, wall mount, 32 sectors, English, 230V.

HI8051-0300U Acid based fertigation controller with dual pH control, differential EC control, actuator control, multiple dosing and irrigation pump control, panel mount, 24 sectors, English, 115V.

HI8051-0300D Acid based fertigation controller with dual pH control, differential EC control, actuator control, multiple dosing and irrigation pump control, panel mount, 24 sectors, English, 230V.

Required Accessories	<p>HI98143-22 pH/EC isolated transmitter, 4-20 mA sourcing current output <i>1 transmitter is needed in configuration with 1 EC probe and 1 pH probe (no probe redundancy feature)</i> <i>2 transmitters are needed in configuration with 2 EC probes and 2 pH probes (for probe redundancy feature)</i> <i>3 transmitters are needed in configuration with 3 EC probes and 2 pH probes (for probe redundancy feature and EC water incoming compensation)</i></p>
Recommended Accessories	<p>HI1001 "flow-thru", double junction pH electrode with BNC connector and 3 m (10') cable. <i>1 or 2 electrodes are needed (2 electrodes for probe redundancy feature)</i></p>
	<p>HI3001 "flow-thru", 4 platinum ring EC probe with built-in temperature sensor & 3 m (10') cable. <i>1, 2 or 3 probes are needed (2 for probe redundancy feature; 3 for probe redundancy feature and EC water incoming compensation)</i></p>
	<p>HI60542 Electrode Holder for Direct Pipe (Order according with the total amount of ordered probes)</p>
	<p>HI710005 115 VAC to 12VDC power adapter</p>
	<p>HI710006 230 VAC to 12VDC power adapter</p>