

pH and EC Transmitter with Isolated Output



HI 98143 is a pH and conductivity transmitter designed to accept signals directly from a pH electrode and a conductivity probe at the same time.

Direct connection of the probes to the transmitter assures a positive electrical connection with no signal loss. This transmitter is most useful in remote process control applications.

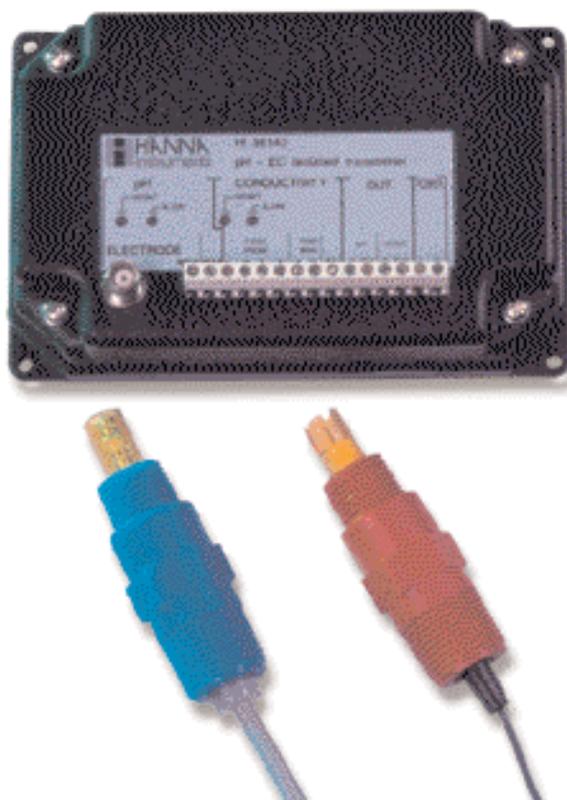
Four models are available, transmitting a 0-1 V, 0-4 V or 4-20 mA signal. The output signals are proportional to the input signals but independent of changes in load or cable capacitance.

Temperature compensation for conductivity measurements is performed by the transmitter's ATC circuitry.

The transmitter can be connected to any pH or conductivity controller, recorder, computer or any data monitoring device that accepts 0 to 1 V, 0 to 4 V or 4 to 20 mA input.

HI 98143 is an ideal tool for applications that require the monitoring of both pH and conductivity at the same time.

The HI 98143-22 model has been specifically designed to be used with the HI 8000 fertigation controllers.



Specifications

| | HI 98143-01 | HI 98143-04 | HI 98143-20 | HI 98143-22 |
|-------------------------------|---|------------------------------|-------------|-------------|
| Range | | 0 to 14 pH; 0 to 10 mS/cm | | |
| Accuracy (@20°C/68°F) | | pH: ±0.5% F.S.; EC: ±2% F.S. | | |
| Input Impedance | | 10 ¹² Ohm | | |
| Calibration | manual; with offset (pH4/10) and slope (pH7) trimmers for pH; at 0 and 5 mS/cm for EC | | | |
| Temperature Compensation (EC) | automatic, 0 to 60°C (32 to 132°F) with β=2%/°C | | | |
| Output (isolated) | 0-1 V | 0-4 V | 4-20 mA | 4-20 mA |
| Protection | IP 54 | | | |
| Power Supply | 12-24 Vdc | | | |
| Environment | 0 to 50°C (32 to 122°F); RH max 95% non-condensing | | | |
| Dimensions | 160 x 105 x 31 mm (6.3 x 4.1 x 1.2") | | | |
| Weight | 280 g (9.9 oz.) | | | |

Accessories

| | | | |
|------------|--------------------------------------|-----------|---|
| HI 7004/1L | pH 4.01 buffer solution, 1 L bottle | HI 7039L | 5000 μS/cm calibration solution, 500 mL bottle |
| HI 7007/1L | pH 7.01 buffer solution, 1 L bottle | HI 7855/1 | 1 m (3.3') connection cable with BNC and screw connectors |
| HI 7010/1L | pH 10.01 buffer solution, 1 L bottle | | |

Ordering Information

All HI 98143 models are supplied complete with instructions.

HI 98143-01 with 0-1 V isolated output

HI 98143-04 with 0-4 V isolated output

HI 98143-20 with 4-20 mA isolated output

HI 98143-22 with 4-20 mA isolated output (specific for the HI 8000 controllers)

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.