

BL 931700

**pH Mini Controller**

with 4-20 mA Recorder Output

**SPECIFICATIONS**

	<b>BL 931700-0</b>	<b>BL 931700-1</b>
Range	0.00 to 14.00 pH	
Resolution	0.01 pH	
Accuracy (@20°C/68°F)	±0.02 pH	
Calibration	manual, 2 point, with offset and slope trimmers	
Dosing Relay	1, max 2A (fuse protected), 250 Vac, 30 Vdc	
	acid or alkaline	
Dosing Selection	contact open=acid dosage; activated when reading exceeds setpoint value contact closed=alkaline dosage; activated when reading falls below setpoint value	
Setpoint	adjustable from 0.00 to 14.00 pH	
Overtime	adjustable, typically from 5 to approx. 30 minutes	
Recorder Output	4-20 mA, accuracy ±0.20 mA, 500 Ohm max load	
Input Impedance	10 <sup>12</sup> Ohm	
Power Supply	12 Vdc adapter (included)	115/230 Vac ±10%; 50/60Hz
Dimensions	83 x 53 x 99 mm (3.3 x 2.1 x 3.9")	
Weight	200 g (7.1 oz.)	300 g (10.6 oz.)

**ORDERING INFORMATION**

**BL 931700-0** (12 Vdc) and **BL 931700-1** (115/230 Vac) are supplied with mounting brackets, transparent cover and instruction manual.

**PROBES**

**HI 1001** pH electrode for continuous flow-thru monitoring

**SOLUTIONS**

**HI 7004L** pH 4.01 calibration solution, 500 mL

**HI 7007L** pH 7.01 calibration solution, 500 mL

**HI 7010L** pH 10.01 calibration solution, 500 mL

**HI 70300L** Electrode storage solution, 500 mL

**HI 7061L** Electrode cleaning solution, 500 mL

**ACCESSORIES**

**HI 710005** 115 Vac/12 Vdc power adapter

**HI 710006** 230 Vac/12 Vdc power adapter

**HI 740146** Mounting brackets

**Easy installation**

BL 931700 mini pH controller has been designed for easy, affordable installation in tight spaces to perform simple yet effective process control. Thanks to its compact size, BL 931700 can be installed right next to tanks or vats.

This versatile controller is ideal for a wide variety of applications, such as textiles, papers, photographic solutions, plating baths, chemicals and water treatment.

BL 931700 is provided with a selectable setpoint for acid or basic dosage.

Measurements are directly acquired from a pH electrode in the range from 0 to 14 with a 0.01 pH resolution.

Accuracy is ensured by the 2 point calibration, performed manually through trimmers on the front panel.

You can also choose automatic or manual dosing mode with a switch on the front panel. Manual control is particularly useful during maintenance operations, because it permits you to enable or disable the dosing relay according to your need. The overtime control system advises you when the relay is active for too long, helping to prevent overdosing.

In addition, this model features a 4-20 mA analog output for recorder connection.

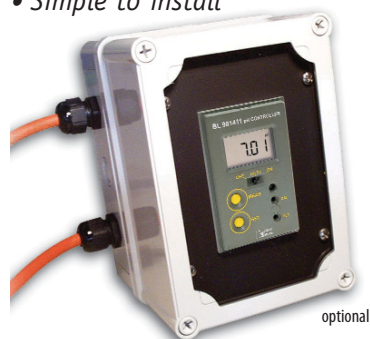
Two models are available:

**BL 931700-0** powered at 12 Vdc

**BL 931700-1** powered at 115 or 230 Vac

**HI 1211 Controller and Monitor in an Industrial Enclosure**

- *NEMA protection*
- *Simple to install*



These controllers will allow any system to be cost effectively monitored 24 hours a day.

## Ideal for Swimming Pools and Spas

BL 982411 is an ORP mini controller for panel mounting, specially designed for swimming pools and spas. Thanks to its compact size, BL 982411 can be installed in small spaces. BL 982411 is the ideal solution for those who have always checked ORP manually. With its automatic dosing, this mini controller will significantly reduce maintenance time.

BL 982411 can be used with any ORP electrode with standard BNC connector. The instrument measures ORP in the 0 to 1000 mV range and shows the readings on the large display. The status LED continuously indicates if the controller is in measurement, dosing or alarm mode.

BL 982411 is also provided with a relay for selecting the dosing direction, oxidizing or reducing.

You can also choose automatic or manual dosing mode with a switch on the front panel. Manual control is particularly useful during maintenance operations, because it permits you to enable or disable the dosing relay according to your need. The overtime control system advises you when the relay is active for too long, helping to prevent over-dosage.

Two models are available:

**BL 982411-0** powered at 12 Vdc

**BL 982411-1** powered at 115 or 230 Vac

## HI 1222 Controllers and Monitor in an Industrial Enclosure

- NEMA protection
- Simple to install



Combine any of HANNA's mini controllers into the HI 1222 for versatile monitoring and control.



SPECIFICATIONS	BL 982411-0	BL 982411-1
Range	0 to 1000 mV	
Resolution	1 mV	
Accuracy (@20°C/68°F)	±5 mV	
Calibration	manual, with CAL trimmer	
Dosing Relay	1, max 2A (fuse protected), 250 Vac, 30 Vdc	
Dosing Selection	reducing or oxidizing contact open=reducing dosage; activated when reading exceeds setpoint value contact closed=oxidizing dosage; activated when reading falls below setpoint value	
Setpoint	adjustable from 0 to 1000 mV	
Overtime	adjustable, typically from 5 to approx. 30 minutes	
Input Impedance	10 <sup>11</sup> Ohm	
Power Supply	12 Vdc adapter (included)	115/230 Vac ±10%; 50/60Hz
Dimensions	83 x 53 x 99 mm (3.3 x 2.1 x 3.9")	
Weight	200 g (7.1 oz.)	300 g (10.6 oz.)

### ORDERING INFORMATION

**BL 982411-0** (12 Vdc) and **BL 982411-1** (115/230 Vac) are supplied with mounting brackets, transparent cover and instruction manual.

### PROBES

**HI 2001** ORP electrode for continuous flow-thru monitoring

### SOLUTIONS

**HI 7020L** 200-275 mV test solution, 500 mL

**HI 7022L** 470 mV test solution, 500 mL  
**HI 7091L** Reducing solution, 500 mL  
**HI 7092L** Oxidizing solution, 500 mL  
**HI 70300L** Electrode storage solution, 500 mL  
**HI 7061L** Electrode cleaning solution, 500 mL

### ACCESSORIES

**HI 710005** 115 Vac/12 Vdc power adapter  
**HI 710006** 230 Vac/12 Vdc power adapter  
**HI 740146** Mounting brackets