BL mini controllers are the perfect solution for water analysis and control

pH Mini Controllers

Monitoring and controlling pH in water conditioning and industrial applications is essential for water quality and maintaining infrastructure (piping and equipment). In the case of industrial effluent, neutralization of acidic waste is vital for environmental safety and public health. In boiler feed water conditioning, a pH of 8.5 is necessary to prevent scaling and corrosion of critical components. Maintaining a pH of 7.4 is fundamental for proper and efficient sanitization in swimming pools and spas. The efficacy of sanitizers, such as chlorine, is dependent on a controlled pH value.

ORP Mini Controllers

ORP (oxidation reduction potential) is the most dependable and consistent indicator of the sanitizing effectiveness of your pool, spa, or water treatment. As oxidizers, chlorine, peroxide, and ozone are added, the ORP value increases, providing a clear indication of the cleansing power of the water. Typically, an ORP value of 650 to 700 mV at a pH of 7.2 indicates that your water is properly treated and all harmful bacteria are killed in less than 1 second. ORP is also essential in chemical processing where reducing agents are used and a negative ORP value indicates proper neutralization.

Conductivity Mini Controllers

In water, an increase in conductivity indicates an increase in water hardness and a decrease in purity. Conductivity monitoring and control is essential in reducing water hardness and maintaining water quality. Water with a conductivity value of 0 to 140 µS/cm is considered "very soft," while 640 to 840 µS/cm is considered "hard" water. An increase in conductivity indicates an increase in the amount of damaging dissolved solids (salts) present in water. Conductivity monitoring and control is essential in industrial applications such as feed water control, blow down activation in cooling towers and water management. In these applications, high conductivity will cause scaling and corrosion of piping and damage to critical components.

TDS Mini Controllers

A TDS (total dissolved solids) measurement is an important indicator of water quality. An increase in TDS indicates an increase in the amount of dissolved solids (salts) present in the water. TDS monitoring and control is imperative in industrial applications such as feed water control, blow down activation in cooling towers and water management. In these applications, high TDS will cause scaling and corrosion of piping and damage to critical components.

A TDS measurement is also an important indicator of the effectiveness of water conditioning, an increase in TDS indicates an increase in water hardness and a decrease in purity. This will affect the quality of drinking water, feed water and rinse water. TDS monitoring and control is crucial in reducing water hardness and maintaining water quality and usability.

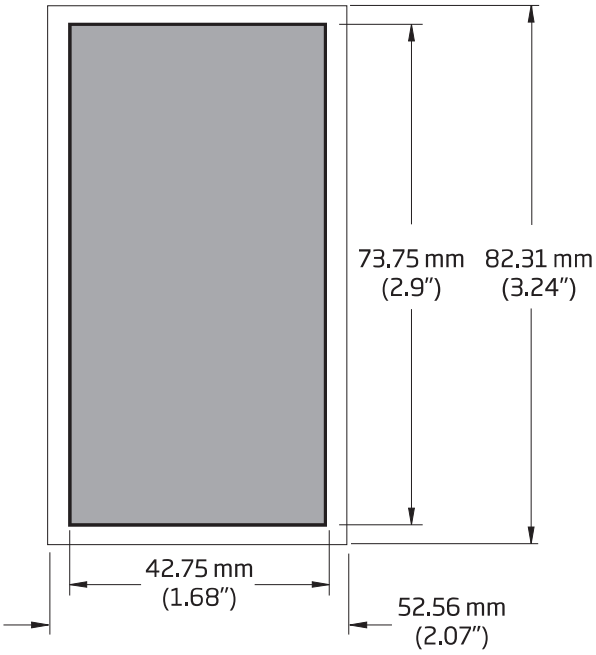
Resistivity Mini Controller

Resistivity, measured in Ω•M, is the optimal way to measure the quality of water produced by high purity systems, such as reverse osmosis (RO) systems and water conditioning equipment. As resistivity is the inverse of conductivity, it provides a more accurate characterization of water with very low conductive ability. As filter systems become less effective, the resistivity value will decrease, indicating a need for maintenance and/or replacement of filters and critical components. Properly functioning RO and water conditioning systems will consistently produce water with resistivity readings in the range of 16 to 18 MΩ•cm.

Any system can be cost effectively monitored 24/7

Hanna Mini Controllers

BL Series Mechanical Dimensions



Front View

Front view of the panel-mounted units.

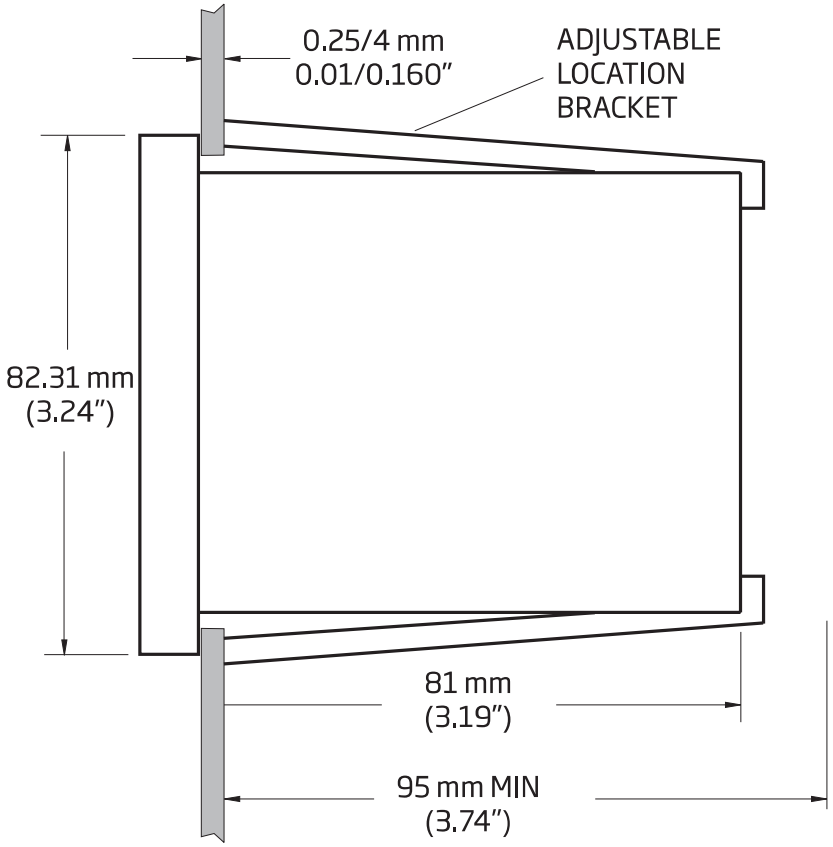
Dimensions show the cutout size for installation and also the outside dimensions of the panel.

Side View

Side view of panel-mounted controllers.

Adjustable location brackets allow the controller to slide into the cutout and will hold the unit securely in place.

130 or 87 mm (depending on model) is the minimum amount of room required to install the meter with all wiring.



BL981411

pH Mini Controller

- Large Clear LCD
- Fire Retardant Casing
- BNC Connection
- Splash-resistant cover

The BL981411 is a compact, pH process controller designed for applications where space or cost is important. The device contains a high impedance pH input and may be used with any pH electrode with a standard BNC connector. It's adjustable dosing relay may be configured to dose above or below a user programmable pH setpoint. Users may choose from automatic or manual dosing modes allowing for easy maintenance and troubleshooting.

Adjustable Dosing Relay

The BL981411 features a dosing relay which may be configured to dose above or below a user programmable pH setpoint.

Selectable Overdose Protection

The mini controller may be programmed to deactivate a valve, pump, or connected device if its activation continues over a selected time; adjustable from 5 to 30 minutes.

Selectable Control Override

With the flick of a switch, normal "Auto" operation may be overridden turning your connected device "Off" from operation or always "On."

Fuse Protected Dosing Contacts

The mini controller is protected for up to a 2A load from a connected pump or device.

Easy Peripheral Connection

Quick-connect terminal blocks provide for easy connection to power, communication, dosing control, or sensors.

Matching Pin Connection

An included matching pin option helps protect the sensor from ground loop effects that may lead to erratic readings or system damage.

Specifications	BL981411
Range	0.0 to 14.0 pH
Resolution	0.1 pH
Accuracy (@25°C/77°F)	±0.2 pH
Calibration	manual, through CAL (offset) trimmer
Dosing Relay	maximum 2A (fuse protected), 250 Vac, 30 VDC
Dosing Selection	acid or alkaline contact open=acid dosage=relay ON if measurement > setpoint contact closed=alkaline dosage=relay ON if measurement < setpoint
Setpoint	adjustable from 0 to 14 pH
Overtime	adjustable, typically from 5 to approximately 30 minutes
Input Impedance	10^{12} Ohm
Power Supply	BL981411-0: 12 VDC adapter (included); BL981411-1: 115/230 VAC; 50/60Hz
Dimensions	83 x 53 x 99 mm (3.3 x 2.1 x 3.9")
Weight	BL981411-0: 200 g (7.1 oz.); BL981411-1: 300 g (10.6 oz.)
Ordering Information	**BL981411-0** (12 VDC) and **BL981411-1** (115/230V) are supplied with mounting brackets, transparent cover and instruction manual.
Recommended Probe	**HI1001** PVDF body pH electrode with 1/2" NPT thread, BNC connector and 3 m (9.8') cable for continuous flow-thru monitoring (not included).

pH solutions begin on page 2.154