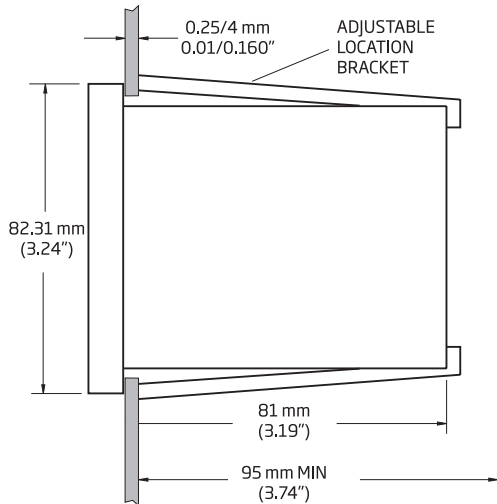


# Hanna Mini Controllers

## BL Series Mechanical Dimensions

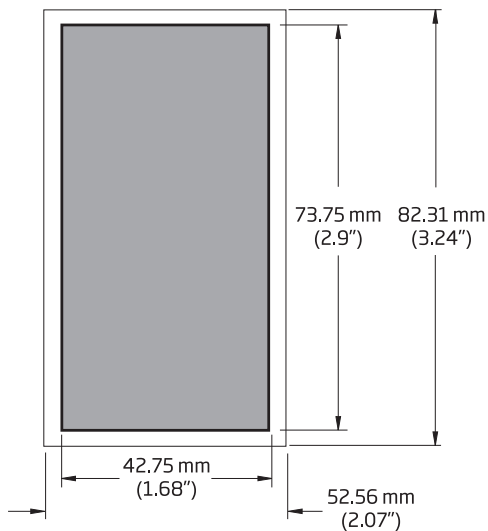


### Side View

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.

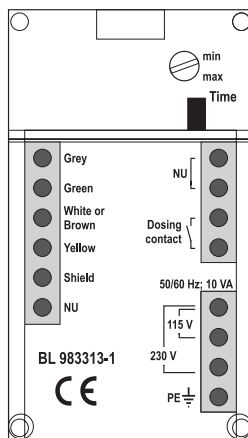
130 or 87 mm (depending on model) is the minimum amount of room required to install the meter with all wiring.



### Front View

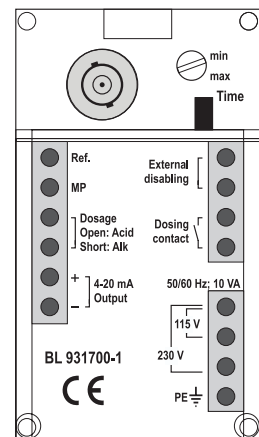
Front view of the panel-mounted units.

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



### Rear View

Rear view of the BL983313-1 with electrical connections.



### Rear View

Rear view of the BL931700-1 with electrical connections.

BL983313 • BL983320 • BL983322

## EC Mini Controllers

Measuring in  $\mu\text{S}/\text{cm}$ 

- Adjustable setpoint
- Fire-retardant casing
- Selectable overdose protection system
- Splash-resistant cover



These Hanna mini controllers have been specially designed for water conditioning and growing applications. Compact in size, they can be mounted in confined spaces or even right next to the vat or barrel containing the chemicals. These meters permit automatic control of installations previously checked manually.

EC measurements are shown on the display and the multi-colored LED continuously indicates if the mini controller is in measurement, dosing, or alarm mode.

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

Specifications	BL983313	BL983320	BL983322
Range	0 to 1999 $\mu\text{S}/\text{cm}$	0.0 to 199.9 $\mu\text{S}/\text{cm}$	0.00 to 19.99 $\mu\text{S}/\text{cm}$
Resolution	1 $\mu\text{S}/\text{cm}$	0.1 $\mu\text{S}/\text{cm}$	0.01 $\mu\text{S}/\text{cm}$
Accuracy (@25°C/77°F)	±2% F.S.	±2% F.S.	±2% F.S.
Setpoint	adjustable from 0 to 1999 $\mu\text{S}/\text{cm}$	adjustable from 0 to 199.9 $\mu\text{S}/\text{cm}$	adjustable from 0 to 19.99 $\mu\text{S}/\text{cm}$
Temperature Compensation	automatic from 5 to 50°C (41 to 122°F) with $\beta = 2\%/^{\circ}\text{C}$		
Calibration	manual, with CAL trimmer		
Dosing Relay	maximum 2A (fuse protected), 250 Vac, 30 VDC contact closed when measure > setpoint		
Overtime	adjustable, typically from 5 to approximately 30 minutes		
Power Supply	models "-0": 12 VDC adapter (included) models "-1": 115/230 VAC; 50/60Hz		
Dimensions	83 x 53 x 99 mm (3.3 x 2.1 x 3.9")		
Weight	models "-0": 200 g (7.1 oz.) models "-1": 300 g (10.6 oz.)		
Ordering Information	BL983313-0 (12 VDC), BL983313-1 (115/230V), BL983320-0 (12 VDC), BL983320-1 (115/230V), BL983322-0 (12 VDC) and BL983322-1 (115/230V) are supplied with mounting brackets, transparent cover and instruction manual.		
Recommended Probe	HI7634-00 EC/TDS probe with internal temperature sensor and 2 m (6.6') cable (not included).		

EC solutions begin on page 6.42