

# ez-Control, total control at your fingertips

The ez-Control accurately controls pH, Temperature, Dissolved Oxygen, Foam/Level and Agitation in bioreactors and fermentors. The color touch screen interface guides the user through the intuitive operation. The adaptive control features allow the user to focus on the process while the controller keeps tight control on the important process parameters. What makes this controller unique are its ease of use, its small footprint, its flexibility and its accurate control. The optional ADDA board offers an additional 8 analog inputs, 4 analog outputs, 8 digital inputs and 8 digital outputs.

## Features

- Simple operation
- Adaptive PID control
- OPC compliance
- User definable controlloop configuration
- Store, copy and reload process configurations
- Local data storage and display up to 72 hours
- Synoptic, trending and bar graph displays
- Multiple user levels

## Applications

- Autoclavable bioreactors
- Steam in Place bioreactors
- Single Use Bioreactors
- Microbial and Cell cultivation
- Batch, Fed-Batch, Perfusion and Continuous cultivation





## Specifications

	Measurement range	Measurement accuracy
<b>pH</b>	0 - 14 pH	0.01 pH
<b>Temperature</b>	0 - 150 °C	0.1°C
<b>Dissolved Oxygen</b>	0 - 100% saturation	0.1%
<b>Foam/Level</b>	Conductivity based measurement	On / off control
<b>Agitation</b>	0 - 1250 rpm	1 rpm
	0 - 2000 rpm	1 rpm
<b>Analog in</b>	8 x	
<b>Analog out</b>	4 x	
<b>Digital in</b>	8 x	
<b>Digital out</b>	8 x	
<b>Fluorophor pH</b>	Optional 5.5 - 8.5 pH	± 0.1 pH
<b>Fluorophor Dissolved Oxygen</b>	Optional 0 - 100% saturation	± 0.1 %
<b>Biomass</b>	Optional	
<b>Display</b>	10.4 Inch color display with resistive touchscreen	
<b>Communication interfaces</b>	1 x Ethernet port (computer communication)	
	2 x USB slave,	
	1 x USB master	
<b>Control type</b>	PID control with selectable auto-tuning adaptive control	
<b>Actuators</b>	Up to 3 fixed speed pumps	
	Up to 4 Mass Flow Controllers	
	Heating and cooling via thermocirculator, heating blanket, cooling water valve	
	Water cooled condenser connection	
<b>Additional features</b>	Emergency stop connection, central alarm output,	
	Color touch screen operation	
<b>Process connections</b>	2 x Gas outlet, water for condenser (in and out),	
	Water for temperature control (in and out)	
<b>Power</b>	230 Vac 50 Hb / 115 Vac 60 Hb	
<b>Dimensions (dxwxh)</b>	474 x 408 x 711 mm	
<b>Weight (kg)</b>	30 kg	