

# i-Control, the scalable control system

i-Control is an easy to operate bioreactor control system and utility console. This scalable control solution is used to control processes in bioreactor systems from laboratory scale to pilot plant and production scale saving time and money during scale-up. The i-Control is available in a Single, a Dual bioreactor set-up as well as in a Quad (4 bioreactors) configuration. This standard control solution can be supplied with Allen Bradley or Siemens PLC's. Basic functionality includes advanced process control for numerous parameters, fully automatic sterilization and Clean In Place routines. The off-the shelf system is supplied pre-configured and ready to use.

## Features

- Off-the shelf standard Solution
- Reliable control platform (Allen Bradley and Siemens hard- and software)
- Supplier independent solution based on industry standard hardware
- Local Control and local display
- Integrates with any factory automation system
- Cost effective
- Fully documented supply eases validation
- Can be used in a 21CFR part 11 compliant system

## Applications

- Laboratory scale bioreactors
- Pilot plant scale bioreactors
- Production scale bioreactors
- Microbial cultures
- Cell cultures



## Specifications

### pH/Temp input

pH amplifier	Range	0 pH 14 pH
	Accuracy	± 0.01 pH
Temperature amplifier	Type	Pt 100 (3-wire type)
	Range	0°C +150°C
	Accuracy	± 0.1°C

### DO/Level input

DO amplifier	Type	Polarographic
	Range	0 % 500 % (air)
	Accuracy	± 0.1 %
Level amplifier	Type	On/Off signal
	Sensitivity	Software-selectable:
	High	Conductivity ≥ 26 µS equals "Contact"
	Low	Conductivity ≥ 200 µS equals "Contact"
2 Channel analog inputs	Range	4 – 20 mA
	Accuracy	± 0.1% Full Scale value
2 Channel analog outputs	Range	4 – 20 mA
	Accuracy	± 0.1% Full Scale value
2 Channel analog inputs for RTDs	Sensor Type	Pt-100
	Range	-200°C . . .+800°C
	Accuracy	± 0.2 % Full Scale value
	Resolution	0.1°C

