FerMac 200 Bioreactor

A low maintenance, modular, autoclavable cost effective bioreactor control system

Each module, although totally independent, can stack together to create an extremely neat, combined unit with inter-linking power cables.

Key Features of the FerMac 200 Bioreactor Fermenter

- Low cost, low maintenance truly modular system
- Robust, easy-to-use control modules
- Fully autoclavable vessels with baffles and cooling coil attached to top plate
- Modules stackable to create neat, combined unit
- Modules available individually for specific control requirements

Our modular bioreactor

The FerMac 200 series offers a real alternative to our competitors with a truly modular system approach. Each module, although totally independent, can stack together to create an extremely neat, combined unit with inter-linking power cables.

The controllers are easy to understand and simple to use - ideal for projects where equipment familiarisation time may be limited - and because the modules are totally independent, they can also easily be used to upgrade older equipment.

The FerMac 200 has one of the lowest purchase and maintenance costs in the industry allowing you to get the most from a limited budget.

FerMac 231 Temperature & Agitation Controller

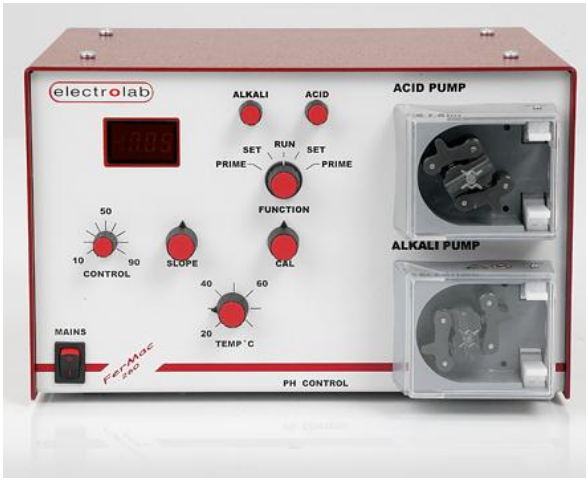
The FerMac 200 agitation system is equipped with a powerful direct drive DC motor and the carefully designed locking system ensures the motor cannot accidently be removed from the vessel. Uniquely, this locking system also tightens as the motor drives harder, preventing vibration and enabling the agitator to work with the most viscous of media. Agitation speed is easily set by a single control knob.

Temperature control is achieved using an industry standard Pt100 sensor for stable measurement with the temperature displayed on an LED display. A single push switch changes the display to read the set point parameters.

The vessel is heated by a wrap-around silicone heater mat which operates at low voltage, making it safe to use in the wet laboratory environment, and which can easily be wiped clean if it becomes soiled. Cooling is on demand, operated by a valve mounted on a separate service plate to enable cooling water to circulate through the heat exchanger. Water and electrics are kept strictly segregated.

FerMac 240 Temperature Controller

Using the same system of industry standard Pt100 sensor and low voltage heater as our FerMac 231 combined temperature & agitation controller, the FerMac 240 is supplied as separate temperature controller only. Both the Pt100 and wrap-around heater can be modified to suit different vessel types and designs.



FerMac 260 pH Controller

After temperature, pH is the most relevant parameter to measure and control. The FerMac 260 features a high impedence integrated amplifier to ensure accurate measurement of pH and to enable a wide range of pH electrodes to be used. The pH controller uses industry standard peristaltic pumps.

FerMac 250 Oxygen Meter

The FerMac 250 Oxygen Meter is able to measure dissolved air/oxygen in solution (dO). It has two built-in pre-amplifiers to enable it to cope with either low-cost glass galvanic electrodes or industry standard stainless steel polarographic electrodes.

FerMac 280 Foam Controller

The FerMac 280 Foam Controller is switchable for use either with a foam detector to control anti-foam on demand, or without a foam detector to be used as a feed/time pump. Foam is controlled by dosing using a peristaltic pump which gives a shot of anti-foam, allowing a delay time for the foam to subside before the next shot is applied. As a feed pump, the shot and delay timers can be set to control the output of the pump against time.

FerMac 200 Vessels

The FerMac 200 Vessel is designed with practicality and simplicity in mind. Available in 2, 5, or 10 litre working volumes, each vessel has ample ports which are machined directly into the stainless steel top plate.

This allows all the O-ring seals to be fitted on the sterile side inside the vessel, which helps to reduce carry-over contamination. Unlike some of our competitors, there are no exposed threads on the top plate which can prove difficult to clean. With its integrated baffle and cooling coil, the vessel is quick and easy to strip down for cleaning.