Fermentation Process Control Software

Lower-Level Control System Functions

1. Real-time online monitoring and control of process parameters with integrated data acquisition and configuration.
2. Online feedback regarding the measurement and execution status of all operational parameters.
3. Built-in digital parameter calibration functionality.
4. Support for flexible parameter setting and adjustments.
5. Seamless data transmission to the host computer and execution of remote operational commands.

Main Interface

Auto-Sterilization Module

Host Computer System Functions

- Precision monitoring and control of agitation speed, temperature, pH, and dissolved oxygen (DO).

- Support for online parameter settings with multi-level password protection.

- Implements PID control with seamless switching between manual and automatic modes.

- Real-time display and logging of all monitored data, supported by trend curves and customizable report formats.

- Support for copying, exporting, and printing of historical curves and real-time data.

- Data is logged directly to the local hard drive, supporting long-term archival, data backup, and analysis.

- User-friendly human-machine interface (HMI) featuring a visualized operational layout.

- Automatic data protection mechanisms to ensure no data loss during power interruptions.

- Real-time graphical display of dynamic operations including acid/alkali addition, antifoaming, and feeding.

- Dynamic visualization of active cooling and heating cycles.

- Display of feeding processes with automated total volume statistics.

- Integrated intelligent control for automated antifoam dosing.

Fermentation Process Analysis Software