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Product Name :
Multifunction Process Control Teaching System

Product Code :
LBNY-0005-1280001



Description :

The instrumentation includes temperature sensors, two differential water pressure sensors, a mechanical level sensor (float switch) and an electronic level sensor (conductivity). It includes a variable volume process tank, a hot water tank with electric heater and indirect heating/cooling coil, a hot water pump, two non-dedicated pumps, three on/off solenoid valves and a proportioning valve. This allows the configuration to be quickly changed, offering a wide variety of different loops. The inlets and outlets of the various pumps, valves and tanks incorporate self-sealing quick release fittings.

The contains everything that is needed to perform a range of single-loop process control experiments in conjunction with a PC.

A pressure regulating valve with filter is also included to isolate the equipment from fluctuations in the water supply pressure. The flexible nature of the system also allows for a wide variety of different disturbances to be applied to the loops to allow the effectiveness of the control parameters to be compared. As all these disturbances are under software control, they can be repeated precisely during the optimisation process, thus allowing an excellent degree of fine-tuning to be implemented.

Technical Specification :

This includes a computer interface (USB), and all of the parameters can be controlled directly from the computer, i.e. the pump speeds, the valve positions and the heater power. This approach means that a separate electronic console is unnecessary for most applications. The computer also displays the readings from the various measurement sensors. The software supplied with the unit includes on/off, time proportioned and proportional/integral/derivative (PID) algorithms where all the parameters are easily accessed and adjusted by

the user.

Specifications:

Desk top mounted and includes a built in USB computer interface

A multi-function process control teaching system, capable of demonstrating level, flow, pressure and temperature control loops

Options include: reactor vessel with conductivity measurement, pH measurement, pneumatic control valve and electronic console.



Laboratory Instrument India