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Product Name:

Computer Controlled Heat Exchanger Module

Product Code: LBNY-0005-10200050



Description:

Benchtop service unit, designed to accommodate a range of different small-scale heat exchangers.

The hot water pump is bi-directional (to allow co-current and counter- current investigations without reconfiguring the hardware) and the flow rate is under computer control.

The hot water vessel is made from clear acrylic (for visibility) and includes a 2kW heater with thermostatic overtemperature cut-out and low water level detection.

The cold water system includes a manually adjustable pressure regulator and a flow control valve which is under computer control.

Flow rates for both fluid streams in excess of 5L/min are achievable, but this may be restricted by some designs of heat exchanger .

All data is available to a (user supplied) Windows PC, via a USB interface. This computer is also used to control the flow rates, hot water temperature, and hot water direction.

Full software for educational use is included.

Comprises hot water vessel, hot water recirculation pump, cold water control system, computer interface and all necessary instrumentation.

Up to 10 temperatures (K-type thermocouples) can be monitored using the service unit. Operating range, $0-75\tilde{A},\hat{A}^{\circ}C$, resolution $0.1\tilde{A},\hat{A}^{\circ}C$.

Two flow meters are included, operating range 0.2 to 9 l/min resolution 0.1l/min

A comprehensive instruction manual is included.

Technical Specification:

Features:

Small-scale, benchtop equipment

All functions computer controlled, including reversing of one of the fluid streams for co-current and countercurrent investigations

Standard USB interface

Fast response times allow in depth investigations in a short time

Multiple, industrially representative heat exchangers available

Full educational software with data logging, control, graph plotting, and detailed Help

Suitable for project work. The service bench provides facilities for evaluating in-house heat exchanger designs Representative of industrial heat exchangers

Safety functions implemented to allow for remote operation by computer.



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