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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 re-configuring 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 over-temperature 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 $\text{Å}$ , $\text{Å}$  $^{\circ}\text{C}$ , resolution 0.1 $\text{Å}$ , $\text{Å}$  $^{\circ}\text{C}$ . 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

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



**Laboratory Instrument India**