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**Product Name :** Flow Networks

Product Code: LBNY-0005-10300073



## **Description:**

Flow Networks system reproduces the problem that usually appears in pressure and flow calculation in pipes that generally have different diameters, lengths and are interconnected; these systems of pipes (in series, parallel or meshed) can complicate the pressure and flow calculation. The flow measurements can be done using the volumetric reservoir of the hydraulic bench (required and not included in this item) and it allows also the study of the relationship between pressure drop and fluid velocity. The module is made of some transparent tubes with different diameters, and it includes a number of valves placed in specific points of the network. The quick couplings used in this system enable fast and easy exchange of pipes creating therefore several network configurations. These pipes interconnections are known as flow networks. For example, a water-supply network of a town or the fire-protection system in a building can be considered as flow networks. With this module, students can perform experiments that can simulate the behavior of the flow network in different conditions.

## **Technical Specification:**

## **Performable Experiments:**

Measurement and testing of load losses of different pipe networks in series connection.

Piping network modeling to design and calibrate every component to predict the flow rate through each pipe section.

Analysis of the system behavior when another pipe in parallel is installed.

Calculation and testing of distribution of flows and their directions in meshed piping system.

Calculation and testing of flow distribution through several piping systems in parallel connection.



## **Laboratory Instrument India**