

HM 500.03

Rotameter with transducer



The illustration shows a similar unit

Description

■ rotameter with transducer as accessory for HM 500

The rotameter is installed in the water circuit of the HM 500 trainer. The rotameter float is housed in a conical tube made of transparent PA which opens out in the direction of flow. The flow resistance of the float causes it to be subjected to an upward force. This force counteracts the downward gravitational force of the float. The float moves vertically until equilibrium is established between the two forces.

The resultant position of the float provides information about the flow rate. The flow rate can be read from the position of the float on the scale. In addition a transducer is mounted on the side of the housing of the rotameter. The transducer detects the position of the float and transmits it as an electrical signal. The measured value can be read directly on an integrated display.

Learning objectives/experiments

- familiarisation with the principle of operation
- flow measurement
- plotting a pressure loss curve
- comparison with other flow meters

Specification

- [1] rotameter as accessory for trainer HM 500
- [2] conical tube through which flow passes, tube made of transparent PA
- [3] flow rate readable on scale via position of float and from display of the transducer
- [4] connections to facilitate pressure loss measurement with the HM 500
- [5] operation with water
- [6] vertical installation
- [7] all connections rated for HM 500 trainer

Technical data

Float

- integrated permanent magnet
- Transducer
- chain of reed switches
- Pipe connections: DN 32
Auxiliary power: 24VDC

Measuring ranges
flow rate: 200...2500L/h

LxWxH: 820x270x140mm
Weight: approx. 6kg

Scope of delivery

- 1 rotameter with transducer
- 1 set of instructional material

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Required accessories

HM 500 Flow meter trainer