

HM 500.04

Electromagnetic flow meter



Learning objectives/experiments

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

Specification

- [1] electromagnetic flow meter as accessory for HM 500 trainer
- [2] operates according to Faraday's Law of Induction
- [3] display indicating flow rate
- [4] connections to facilitate pressure loss measurement with the HM 500
- [5] connections to supply auxiliary power via the HM 500
- [6] vertical and horizontal installation possible

Technical data

Max. flow rate: 4760L/h
 Auxiliary power: 24VDC
 Pipe connections: DN 32

LxWxH: 820x360x200mm
 Weight: approx. 8kg

Scope of delivery

- 1 electromagnetic flow meter
- 1 set of instructional material

Description

- **electromagnetic flow meter as accessory for HM 500**
- **high-precision industrial measuring instrument**

A display indicates the flow rate. The necessary connections are provided so that the pressure loss can be determined with the HM 500.

The electromagnetic flow meter is installed in the water circuit of the HM 500 trainer. It operates according to Faraday's Law of Induction. When a conductor is moved in a magnetic field, a voltage is induced in the conductor. The flowing fluid represents the moving conductor. The magnetic field is generated by a switched direct current of alternating polarity. The induced voltage is tapped at two insulated electrodes. The magnitude of this induced voltage is proportional to the flow rate.

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Required accessories

HM 500 Flow meter trainer