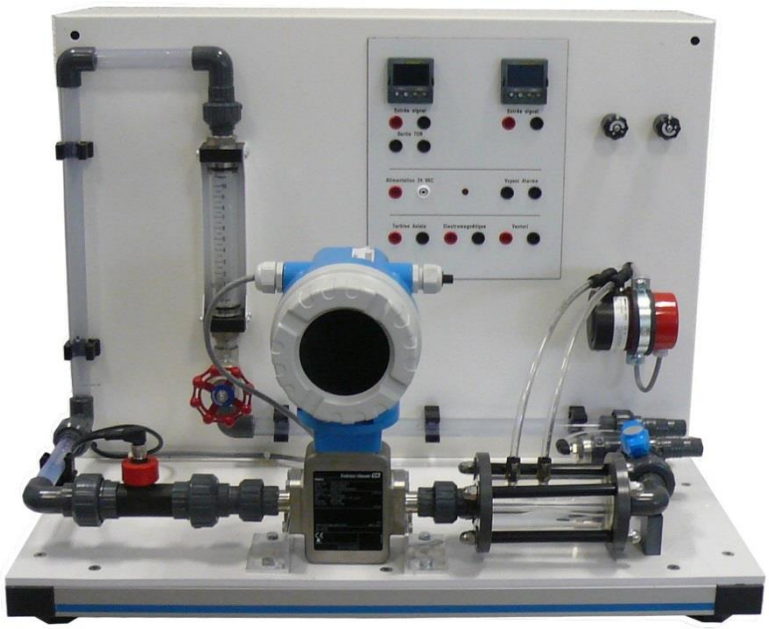
BMD100

FLOW MEASUREMENTS METHODS STUDY UNIT



Experimental capabilities

- **Indentification of industrial sensors.**
- **Work on the output signals**
- **Wiring of the sensor and of alarm LED**
- **Comparison of different sensors**
- **Calibration of a sensor**
- **Configuring of an indicator via a software with interface**
- **Study of a Venturi effect flowmeter**

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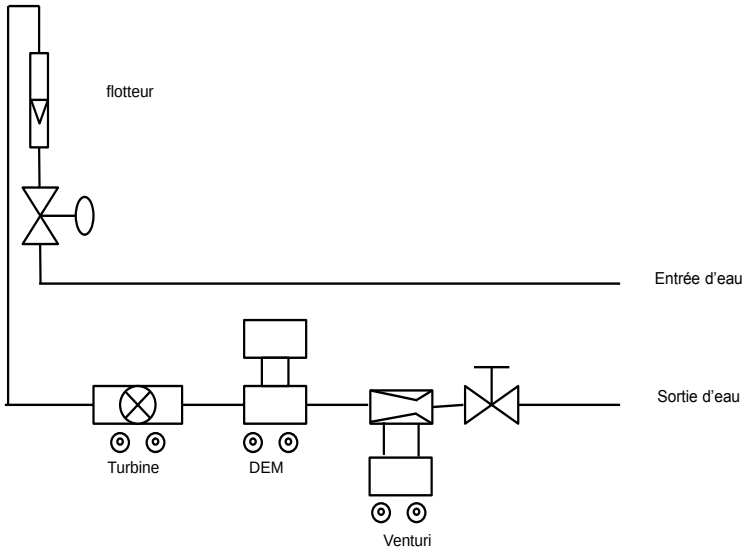
version : FT-BMD100-STD-C

BMD100

Operating principle

The BM 100 bench allows the study of different technologies of flow rate sensors. The sensors are placed in series.
Mains water ensures the flow rate of the circuit. Users will need to study the technology of each sensor, check their characteristics and connect them on a measurement loop. The display of flow rate measurements will be carried out by a digital controller that receives information from different flow rate measurements.
The unit comes complete equipped with technical and pedagogical documentation in French as well as all the accessories necessary for the proper functioning including software interface.
The robust design of this equipment makes it perfectly suited for use in schools.
Its anodized aluminum structure on wheels makes it extremely robust as well as great flexibility of integration into your premises.
The manufacturing of this equipment meets the European machine directive

Illustrations



Technical details

Variable area flowmeter
Linear scale 0-10 L/min on 100 mm
Direct reading no analog output

Axial turbine flowmeter
Output signal PNP 12-24 VDC – 1 KΩ
Scale : 2 - 40 L/min
Accuracy : +/- 0,5% of full scale
Signal converter : output 4- 20 mA

Venturi effect flowmeter
Pressure taps upstream and downstream
connected on differential pressure transmitter
Current output 4-20 mA

Electromagnetic flowmeter
Accuracy: +/- 0,5% of measured value
Signal converter : output 4- 20 mA

Digital indicator
Two programmable indicators
with microprocessor via a PC
Measuring input 4-20 mA
One of the two indicators is equipped with a relay output for alarm signal

Multiturns adjustment valve

Services required

- Electricity: 230 VAC mono - 50 Hz - 20 A
- Water supply : 10 l/min – 3 bars
- Or water supply by the module UTL 050
- Dimensions: (LxWxH mm): 780 x 570 x 590
- weight (Kg): 40

Note : if the equipment installation is operated by our staff, all supplies and exhaust connections required must stand at less than 2m from the machine

Documentation

- Training manual on the control
- Instruction handbook
- Technical file
- Practical work
- Technical documentation of all components
- PC for supervision not included
- CE certificate of conformity

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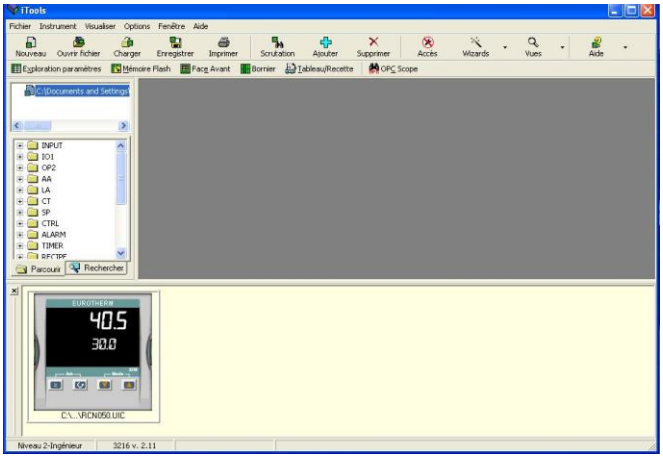
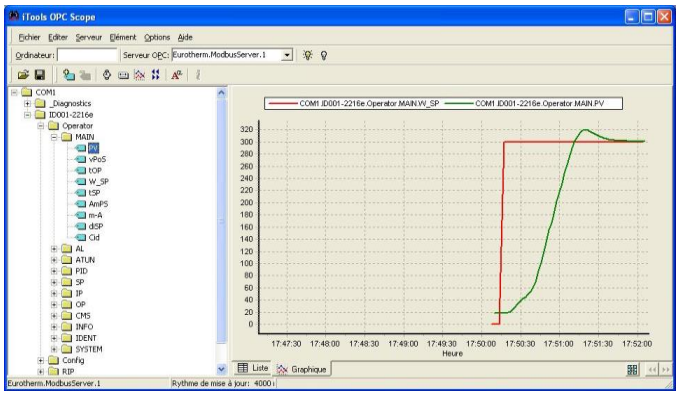
Setting, Supervision, Plotting curves,

The bench is also equipped as standard with a supervision and setting software. The connection towards the PC is made by a standard USB port. The software is divided into two parts :

SETTING :

This part provides access to display parameters directly via data explorer similar to Windows.
The front of the regulator is reproduced on the PC screen and the operator can operate the buttons and controls as if it were on the pilot





SUPERVSION, PLOTTING CURVES :

This part allows to draw curves with the regulator's signals.
For example in this image here one visualizes the setpoint and the real-time measurement, but it is possible to add other parameters such as the output signal ...

Options

- Module of water supply
- Ref: UTL050

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