BMP100

PRESSURE MEASUREMENT METHOD STUDY UNIT

Experimental capabilities

- **Methods of manipulation**
- **Theoretical reminders of different principles of pressure measurement**
- **Characteristic curves**
- **Comparison of sensors**
- **Adjustment of the indicator**
- **Calibration of Sensors in relation to a reference**
- **Supervision : Visualization of different signals by software**

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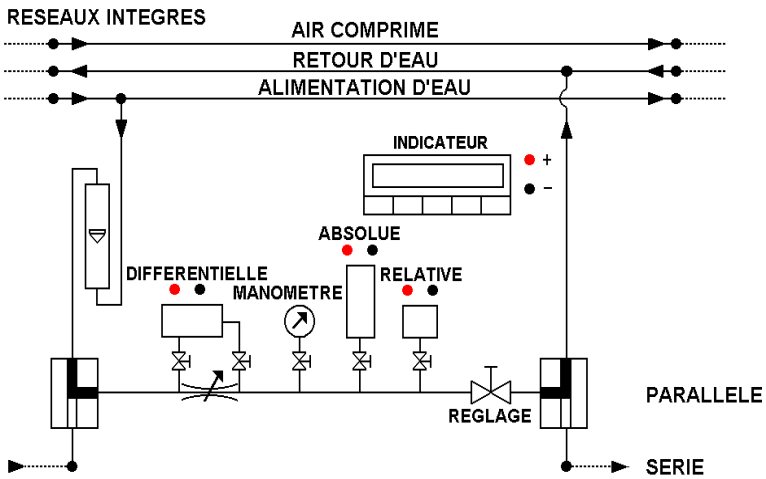
version : FT-BMP100-STD-C

BMP100

Operating principle

The BMP 100 bench allows the study of different technologies of pressure sensors. The sensors are placed in series.
The water network ensures the circuit pressure rise. Users will need to study the technology of each sensor, check their characteristics and connect them on a measurement loop. The display of pressure measurements will be carried out by a digital regulator which receives information from the various pressure measurements.
The unit comes complete with instrumentation, technical and educational materials in french and all the accessories necessary for the proper functioning including the software interface.
The robust design of this equipment makes it perfectly suited for school use.
Its anodized aluminum structure gives it great strength as well as a great flexibility of integration into your premises. The manufacture of this equipment meets the European machine directive.

Illustrations



Technical details

Absolute pressure sensor
Piezo-resistive sensor
Output current loop 4-20 mA
±0,5% accuracy of full scale

A relative pressure sensor
Measuring cell with ceramic membrane Certec
Output current loop 4-20 mA
±0,2% accuracy of the measuring range

Differential pressure sensor
Measuring cell with digital resonator
Output current loop 4-20 mA
+/- 0,075% precision of the measurement

Manometer of BOURDON-type
DN 100 all stainless steel
Accuracy class: 1
No analog output

Digital indicator
Programmable microprocessor
Accuracy class: 0.25%
5-digit display

Multiturn adjustment valve

Services required

- Electricity : 230 VAC mono - 50 Hz - 20 A
- Water supply: network 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

- User's manual
- Pedagogical manual
- Technical documentation of the components
- Lab exercises
- Certificate of conformity CE

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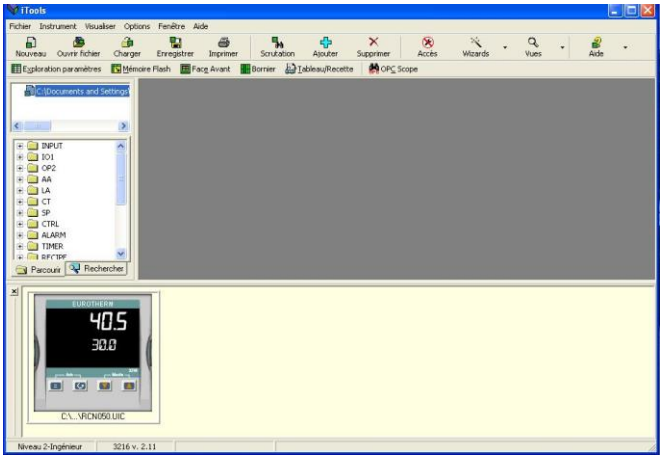
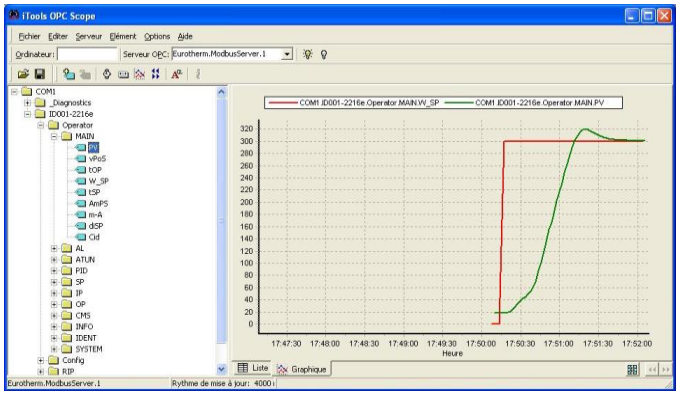
Setting, Supervision, Plotting curves,

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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