

ERD -010-B



Software D_REG

Ref : ERD 010 100



ERD 010 B including:

ERD010000 : I. R. P. I. module (Industrial Process Control Interface). Enabling the conversion of the Unit (PC) into industrial controller with 3 inputs and 2 outputs. Connection is carried out by safety 4mm sockets in current loop industrial interface.

It has: 2 relay outputs, 2 optocoupled inputs, 0/24 Vdc ON/OFF
 3 current inputs, 2 current outputs, 0-4/20 mA
 USB link to the computer (RS232 on request)

STANDARD CONFIGURATIONS

ERD010B : Industrial process control Command Pack

Reference	Description	Quantity
ERD 010 000	Industrial process control interface «IRPI » provided with its control program under Windows (PC not included)	1
ERD 010 100	D_REG program, control and acquisition	1
ERD 010 010	Technical guide and user guide	1
EGD 000 006	USB cord, AA model	1
EGD 000 005	24 Vdc, 2.9 A Power Supply	1
EGD 000 018	Suitcase for packing the unit and its accessories	1

Document non contractuel

ERD010100 : D_REG, CONTROL PROGRAM:

On Windows XP and later (Professional editions) environment, it enables the control of the « IRPI » interface, via USB link (RS232 on request).

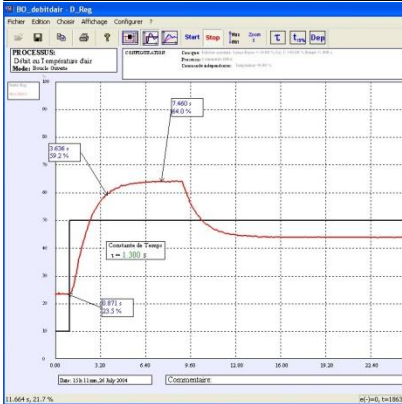
- selection of the system structure: flow or temperature open loop / closed loop systems,
 - selection of control type and specific values: constant step, ramp, sine, trapezoid signals,
 - selection of the corrector and its adjustments (can be modified during operation),
 - selection of acquisition and recording parameters,
 - selection of measurements units,

It also enables the structured running of experimental work:

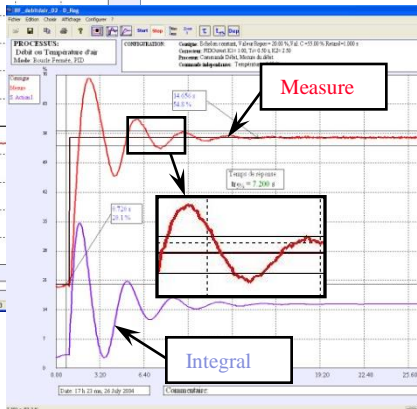
- request of time response display of one (or several) characteristic parameter(s) : flow, temperature, spacing, corrector output, etc. . .
- modification of time diagram scales (X or Yzoom)
- recording of the running test, comparison with the preceding tests,
- determination of automatic control characteristic values (time constant, 5% time response, overflow amplitude etc. . .),
- response curves recording,
- transfer of result curves to be controlled by others process software such as *MATLAB*.

Example of curves:

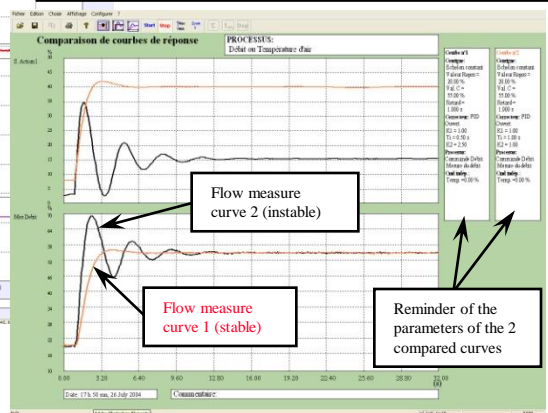
Air flow OL step response, with automatic measurement of the time constant: 1 sec.



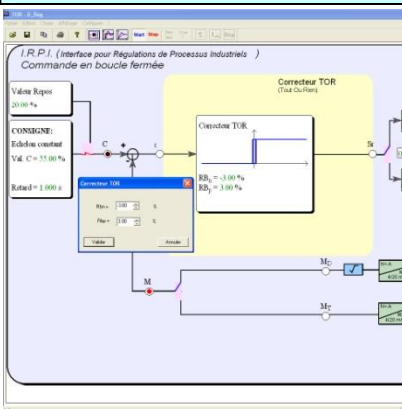
Air flow CL (PI) response without disturbance, with automatic calculation of 5% response time



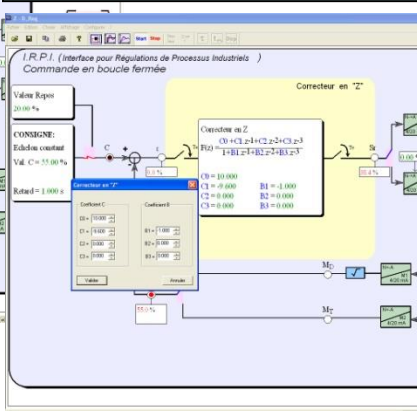
Comparison of 2 tests with 2 kinds of values (flow measure and integral output)



Main page screen. Closed loop air flow control with On/Off corrector



•Main page screen. Closed loop air flow control with digital Z corrector



•Main page screen. Closed loop air flow control with PI corrector

