

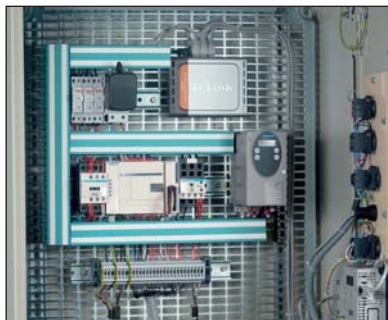


Level control system by means of PLC & touchscreen



ref. REGULEAU

REGULEAU IS SUPPLIED ALREADY WIRED AND READY FOR USE WITH TUTORIALS, INSTRUCTIONS, SOFTWARE PLC AND MONITORING PROGRAMS.



REGULEAU is a level control system relying on a PLC and touchscreen, which can be used in three detection modes, using

- 3 binary floats
- 4 height-adjustable conductive probes
- 1 4-20mA hydrostatic pressure sensor

The water drawn from the lower tank supplies the upper tank (where the sensors are located) before running away via a manual valve. The PLC's PID and the variable flow pump allow a level control.

EDUCATIONAL OBJECTIVES

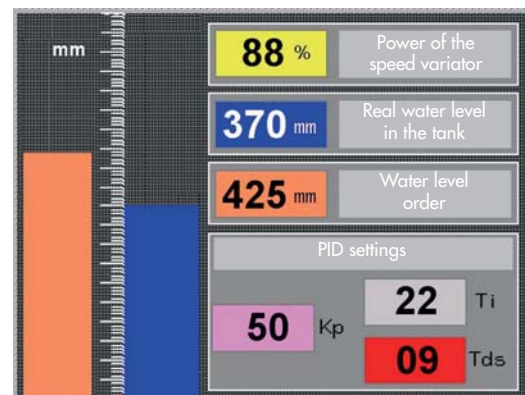
- to produce wiring diagrams
- to configure the PLC (TWIDO)
- to program the PLC (TWIDO)
- to configure the Ethernet links (PC / TWIDO / TOUCHSCREEN)
- to configure the touchscreen
- to program the touchscreen
- to configure 4-20mA water level control using the PID inside the PLC
- to wire the grid (grid with Harting connector option)
- Understand the functioning of the level regulation by PID, probes & sensors

COMPONENTS PARTS OF THE MODEL

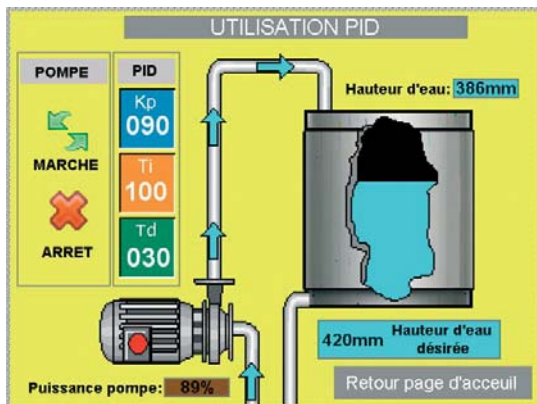
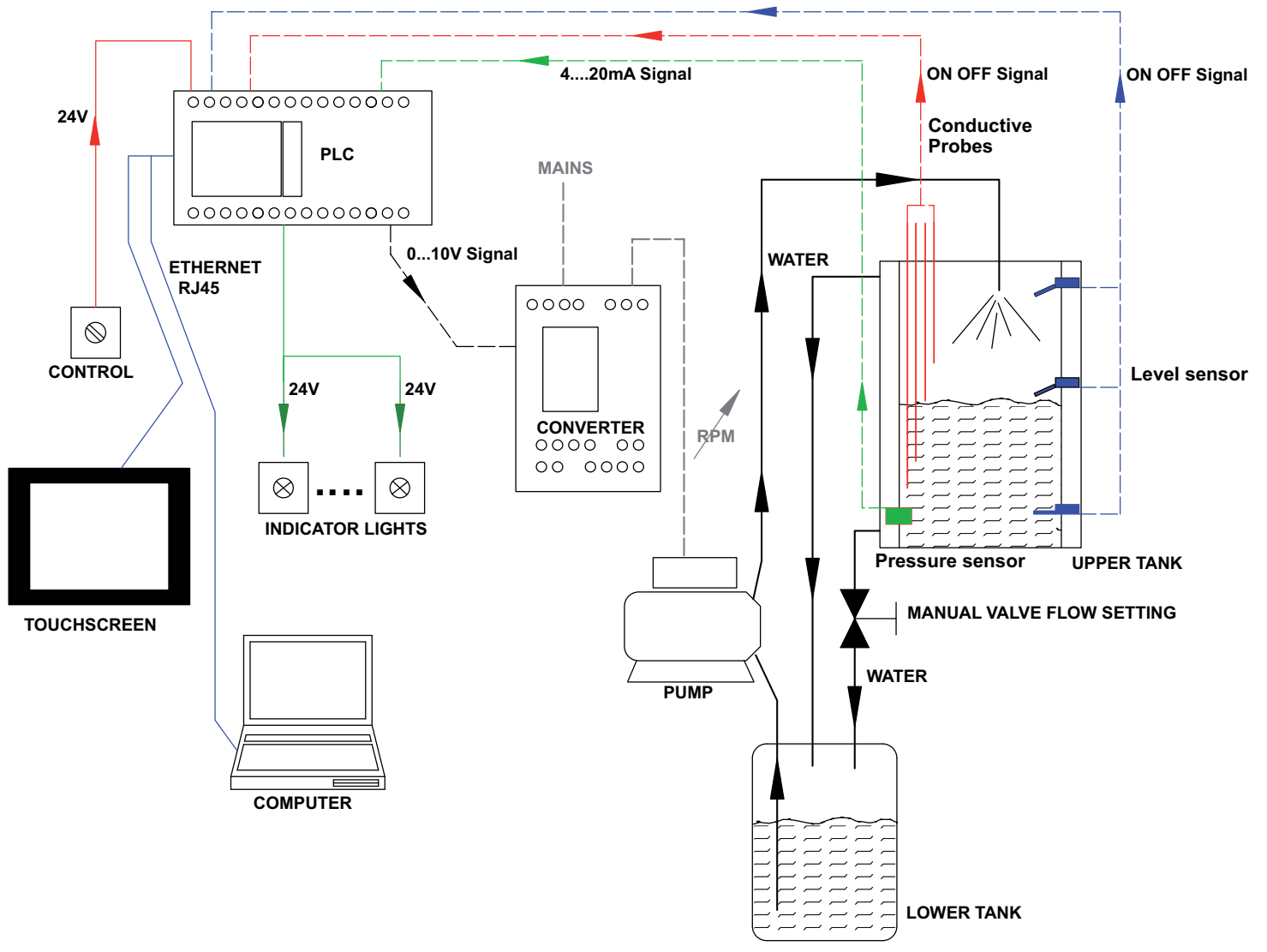
- 1 100L lower tank
- 1 transparent 60L upper tank, graduated in cm
- 3 level sensors with binary float (24V-3A).
- 4 50cm long Ø 6mm conductive probes.
- 1 hydrostatic pressure sensor.
Rating: 4-20mA output for 0-600mm water level
- Cabinet and console
- 1 5.7" TFT touchscreen
- 1 4-port RJ45 Ethernet hub
- 1 three-phase speed controller
- 1 PLC with software, fitted with a TCP/IP interface for the RJ45 link to a PC and the touchscreen.
14 Inputs + 10 Binary Outputs (24V)
1 analogue input 4-20mA
1 analogue output 4-20mA and 0-10V
- 1 30mA residual current circuit breaker. thermal-magnetic circuit breakers
- General power supply via 400V three-phase socket
- Base with wheels + brake. 1200 x 750mm

ACTION OF THE MONITORING

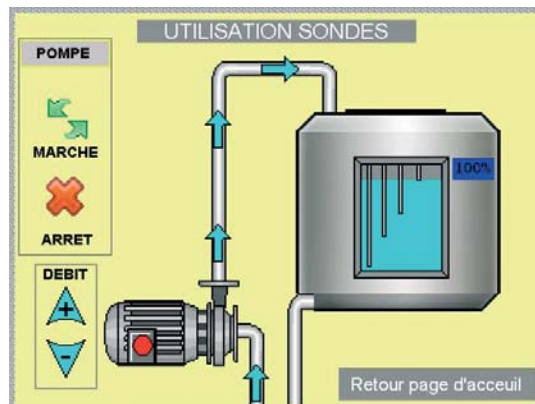
- starting and stopping the system
- choice of level control type
- water level and settings bargraphs
- display and adjustment of the PID parameters
- display of the speed controller's power in correlation with the pump delivery
- adjusting the settings



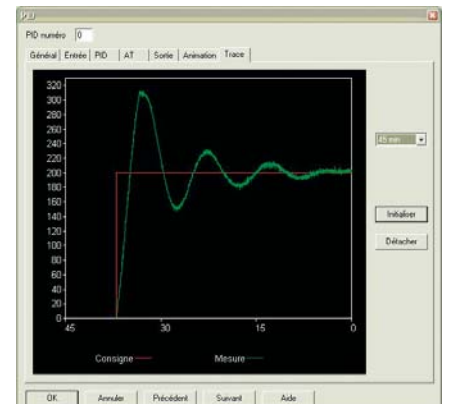
Example of monitoring on the touchscreen



PID status on the touchscreen



Probes status on the touchscreen



Automatic drawing of the measuring value/order value