



## LEVEL CONTROL SYSTEM BY MEANS OF PLC & TOUCHSCREEN

### EDUCATIONAL OBJECTIVES

- Studying, putting into service, getting started and setting of the system
- Understanding the setting and the programming by PLC
- Understanding the PID level regulation, probes and sensors

### TEACHING RESOURCES – PRACTICAL WORKS

#### Practical works

- Drawing of wiring diagrams
- Setting and programming the PLC
- Configuration of the PC Ethernet links / PLC / Touch Screen
- Configuration and setting of the touch screen
- Setting the 4-20mA water level regulation with the PID of the programmable PLC
- Wiring the grid
- Understanding the functioning of the level regulation by PID, probes and sensors

### REF. REGULEAU

**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.

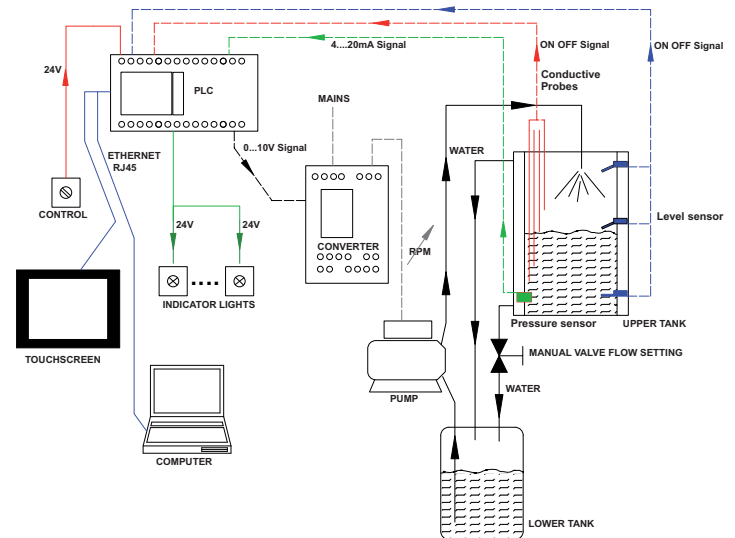
### COMPONENTS PARTS OF THE MODEL

- 1 100L lower tank
- 1 transparent 60L upper tank, graduated in cm
- 3 level sensors with binary float (24V-3A).
- 4 immersed 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 analog input 4-20mA  
1 analog output 4-20mA and 0-10V
- 1 Vijeo Designer® software with a complete monitoring program
- 1 30mA residual current circuit breaker. thermal-magnetic circuit breakers
- 230V power supply
- Base with wheels + brake. 1500 x 750mm - Weight 144kg

### 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

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



Removable grid quickly taken through Harting® plugs.