

pH CONTROL

Mod. REGA-pH/EV

INTRODUCTION

This system consists of a stirred reactor that is fed with an acid solution by a metering pump. Controlling the flow rate of another metering pump that sends a basic solution into the reactor, will enable to control the pH inside the reactor. A control and data-acquisition software (SCADA) for Windows enables the supervision of the system from a PC connected via the serial cable of the equipment.

TRAINING PROGRAM:

This unit enables to develop and analyze the following subjects:

- Proportional, Integral and Derivative control
- Response and characteristics of the process
- Determining the dead time
- Tuning techniques of controllers
- System supervision via software SCADA
- Calibration of a pH-meter

TECHNICAL CHARACTERISTICS:

- Framework of AISI 304 stainless steel with castors
- 3 tanks of borosilicate glass with capacity of 25 l
- Jacketed reactor of AISI 316 stainless steel with stirrer and capacity of 15 litres
- Microprocessor pH transmitter indicator with 4 to 20 mA output signal
- Measuring electrode
- Double body metering pump of AISI 316 stainless steel, including a pneumatic actuator driven by signal of 0.2 to 1 bar
- 2 electro-pneumatic converters, 4 to 20 mA / 0.2 to 1 bar
- Electronic microprocessor PID controller with 4-line Liquid-Crystal Display (LCD) and serial card
- Piping and valves of AISI 304 and 316 stainless steel
- Switchboard IP55, complying with EC conformity mark, including plant synoptic and ELCB
- Emergency pushbutton
- SCADA software (for control and data acquisition): this software runs in Windows and enables to control ON-OFF signals, analog signals coming from the PID controller, real-time trend and historical trend

Dimensions: 1700 × 800 × 2200 (h) mm

Weight: 310 kg



REQUIRED

UTILITIES (PROVIDED BY THE CUSTOMER)

- Power supply: 400 Vac 50 Hz three-phase - 2 kVA (Other voltage and frequency on request)
- Compressed air (female valve of 1/4"): 15 Nm³/h @ 6 bar max.
- Tap water (valve with 1/2" hose connector)

ACCESSORIES (NOT INCLUDED)

- Personal Computer running Windows

SUPPLIED WITH

THEORETICAL-EXPERIMENTAL HANDBOOK

