The proven basic water treatment unit – the DULCOMETER® Compact Controller

Measured variables pH/ORP and free chlorine
Now new: conductive conductivity

NEW

The measuring and control unit DULCOMETER® Compact was configured up to now for the measurement of pH/ORP or free chlorine. The reliable controller is now also configured for the measured variable conductive conductivity. This basic unit therefore offers the fundamental functions for water treatment applications.

pH and ORP measured variables are available in a single controller and can easily be selected. Operation is simple and language-independent. DULCOMETER® Compact Controllers are supplied with a fixed configuration depending on the measured variable selected.

Benefits

- It is possible to switch between the measured variables pH and ORP in a single controller
- Automatic selection of the measuring range by auto-ranging with conductivity
- Language-independent operation (CAL, PARAM, CONFIG, ERROR…)
- Operating statuses are immediately visible by three LEDs
- Process safety thanks to monitoring of pH and conductivity sensor
- Optimum adaptation of the controller to the control process by PID control characteristics
- The control direction can be selected for “Raise measured value” and “Lower measured value”
- Precise measurement thanks to temperature compensation of the pH, chlorine and conductivity measured value

Features

- Illuminated display
- Pulse frequency relay for control of the metering pump
- Power relay can be configured as an alarm, limit value or pulse width-modulated control output for metering pumps or solenoid valves
- Analog output 0/4-20 mA can be configured as a recorder or control output
- Digital input to switch off the controller or process a sample water contact by remote control
- With conductivity: Display of the conductivity, specific resistance, salinity and TDS as well as linear and non-linear temperature compensation

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Measuring and control unit DULCOMETER® Compact

Key applications

- Waste water treatment
- Potable water treatment
- Swimming pool water treatment

Technical data

Measuring ranges	pH 0.00 ... 14.00 ORP -1,000 ... +1,000 mV Chlorine 0.05 … 5.00 ppm Conductive conductivity 1 µS/cm … 20 (100*) mS/cm
Dissolution	pH 0.01 ORP 1 mV Chlorine 0.01 ppm Conductive conductivity 0.01 µS/cm / 1 µS/cm / 1 mS/cm
Temperature compensation	for pH, chlorine and conductivity via Pt 100/Pt 1,000
Compensation range	0 … 120 °C
Control behaviour	PID
Control	1-sided control with selectable control direction (raise/lower)
Signal current output	1x 0/4-20 mA galvanically isolated Max. load 400 Ω, adjustable range and assignment (measured or control variable)
Control output	1 pulse frequency output for control of the metering pump 1 relay (alarm or limit value relay or pulse length control)
Electrical connection	100 - 230 VAC, 50/60 Hz
Ambient temperature	-10 ... +60 °C
Degree of protection	IP 67
Dimensions	135 x 125 x 75 mm (H x W x D)
Weight	0.5 kg

*With limited specification up to 100 mS/cm.

A complete measuring station comprises

Measuring transducer/controller DULCOMETER® Compact
pH sensor
Fitting DGMa..., DLG III..., immersion fitting
Temperature sensor Pt 100 or Pt 1,000
Sensor cable
Buffer solutions
Photometer

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