



## DEPOLOX® POOL COMPACT CONTROLLER

### WALLACE & TIERNAN® ANALYZERS/CONTROLLERS

The DEPOLOX® Pool Compact controller is a state of the art disinfection controller that measures the pool water free chlorine concentration, temperature as well the ORP and pH values. The controller provides chemical feed outputs to a variety chemical feed devices to control the disinfection parameter of either free chlorine or ORP as well as a chemical feed output to maintain the pH value at the desired setpoints.

### DESIGN AND FUNCTION

The system comprises of a pressurized flow cell, accommodating up to three sensors and state of the art electronics. The flow cell permits visual checks of the sample water flow as well as the free chlorine, ORP and pH sensors. The integral "Multi-Sensor" continuously monitors the sample water flow, measures the sample water temperature and includes a large water ground to protect against electrical noise. The flow control valve guarantees a constant sample water flow and quartz grit enables hydro mechanical cleaning of the free chlorine sensor for long term measurement stability. The flow cell includes an LED light stick which indicates the pool water chemistry status from a distance.

The electronics includes an intuitive user interface via its 4" glass panel color touch display making setup and operation of the controller much easier when compared to conventional LED displays. Various controller outputs, alarm contacts and three digital inputs are standard. Four 0/4 - 20 mA outputs are available as an option. Six freely assignable relay contacts are also available that can be configured as chemical feed outputs or alarm contacts. In addition the following safety functions are built-in: alarm and chemical feed interruption triggered by the sample water flow switch; alarm and chemical feed interruption in case of circulation pump failure; shutdown in the case of supply-tank-empty-alarm; dosing time monitoring and dosing

### Benefits:

- 4,3" color touch screen for truly intuitive operation with shatterproof glass panel
- Integrated web view allows visualization all parameters on web enabled devices
- Modern communication via RS 485, USB and Ethernet interface, Modbus TCP communication integrated
- Integrated safety functions
- LED lit flowcell with alarm status via color change

### Pre-configured systems include:

- chlorine/pH
- chlorine/pH with 4 mA outputs
- chlorine/pH/ORP
- chlorine/pH/ORP with 4 mA outputs
- retrofit kits for ORP measurement and 4 mA outputs

time delay. The plug-in sensors, the pre-wired sensor cables and the modular mounting provide for fast and simple installation, start-up and maintenance of the system.

## ELECTRONIC MODULE MEASUREMENT INPUTS

### Free chlorine:

Rugged 3-electrode chlorine sensor with sealed electrolyte KCl supply. Potentiostatic 3-electrode amperometric design; Measuring range 0 to max 10 mg/l, adjustable 1, 2, 3, 5 and 10 mg/l; Resolution: 0.01 mg/l; Temperature compensation 0 - 50 °C; Sensor plug connection IP 67

### pH value:

Measuring range 0 to 14 pH, start of range adjustable from 0 to 6, end of range adjustable from 8 to 14 pH, scale freely selectable in 1 pH increments; Resolution 0.01 pH; Temperature compensation 0 - 50 °C  
Sensor plug connection IP 67

### ORP:

Measuring range 0 to 1000 mV; start of range from 0 to 400 mV, end of range from 500 to 1000 mV, Scale freely selectable in 100 mV steps; Resolution 1 mV; Sensor plug connection IP 67

### Multi-sensor:

- Measurement of sample water temperature by Pt 1000 sensor
- Sample water flow switch activation: 18 l/h with a hysteresis of  $\pm 3$  l/h;
- Large stainless steel water ground to protect against external electrical noise

### Display:

4.3 inch capacitive colour touchscreen with backlight

### Digital inputs:

1 x assigned to sample water flow switch , 4 x freely selectable, e.g. chemical tank empty, external stop

### Output contacts:

6 x freely selectable alarm contacts/general alarm signal as well as controller outputs for free chlorine, or ORP as well as pH

Relay status is depicted on the operating display  
max. 5 A/250 V AC, 0.2 A/220 V DC

### Analog outputs (optional):

4 x 0/4 - 20 mA, freely configurable  
Load protected  $\leq 500$  Ohm, Accuracy  $< 0.5$  % FS  
Galvanically isolated up to 50 V relative to earth

**Power supply:** 100 - 240 V AC  $\pm 10$  %, 50 - 60 Hz

**Ambient temperature:** 0 - 50 °C

**Enclosure:** IP 66

**Testing and marking:** CE

**Dimensions (W x H x D):**

320 x 311 x 135 mm (12.5 x 12 x 5 inches)

**Weight (incl. packing):** approx. 5 kg (11 lbs)

## FLOW CELL MODULE

### Flow control valve:

- Controlled sample water flow: 33 l/h
- Control range 0.2 - 3.0 bar at valve inlet (3 - 43 psig)
- Maximum back pressure: From pressureless up to 1.5 bar at valve outlet (0 to 22 psig)
- Maximum sample water temperature: 50 °C
- LED alert (white, yellow and red)

### Additional features:

- Isolating valves at sample water inlet and outlet of the flow block module in pressurized design
- Ball check valve at sample water inlet
- Simple cell drain assembly
- Integrated fitting to hold sensor during calibration

### Sample water connections:

PVC hose 6 x 3 mm or PE hose 6 x 1 mm

Tubing connectors on 1/2 " union

**Weight (incl. packing):** approx. 2.5 kg (5.5 lbs)

**Dimensions (W x H x D):**

253 x 375 x 163 mm (10 x 15 x 6 inches)



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