

2.4 Controller DULCOMETER Compact

2.4.1 Controller DULCOMETER Compact

Compact yet fully equipped - the basic water analysis unit



As a controller in water analysis, the DULCOMETER Compact is the correct controller for control tasks that require only a 1 way control.

The DULCOMETER Compact controller is a one-channel PID controller for the measured variables pH, ORP, chlorine and inductive conductivity. It can monodirectionally control the measured variable, monitor limit values and transmit the measured value via an mA output, e.g. to a PLC. The mA output can optionally also be configured as a controlled variable output. The controller has one pulse frequency output to control one metering pump. One output relay can optionally be used as an alarm or limit value or to control motor-driven metering pumps or solenoid valves. A digital input is used to switch off the control or to process a sample water limit contact by remote control. The impact of temperature on the measurements can be provided by temperature measurement or by manual input. Menu-driven operation is language-independent.

Your Benefits

- Flexibility in the choice of measured variable for pH and ORP
- Always the optimum measured value resolution by using auto-ranging with the conductivity measurement
- Depending on the requirement, various display options for conductivity, such as: conductivity, TDS (Total Dissolved Solids), salinity and specific resistance
- Safety thanks to sensor monitoring with pH for glass breakage and line breakage
- VARIOus installation options: wall-mounted, installation on an upright or in a control cabinet



Technical Details

- Measured variables: pH, ORP, chlorine, conductive and inductive conductivity
- Method of installation, degree of protection: Combination housing (wall mounting, control panel mounting, pillar assembly) IP 67, control panel IP 54
- Measurement: 1 measuring channel, temperature compensation for conductivity and pH
- Control: PID controller, monodirectional controller (e.g. with pH acid or alkali)
- Control inputs: 1 digital control input

Field of Application

- Measurement and control of water parameters in industrial and process water treatment plants
- Permeate monitoring in reverse osmosis systems
- Measurement and control of the hygiene parameters in swimming pools

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Technical Data

Measuring range	pH: 0 ... 14 ORP: -1000 ... +1000 mV Chlorine: 0.05 ... 5 ppm, shock metering up to 10 ppm, max. 12 h with chlorine sensors CLB 2- μ A-5 ppm and CLB 3- μ A-5 ppm Conductive conductivity: 0.5 μ S/cm ... 20 mS/cm (auto-ranging) Inductive conductivity with ICT 2: 20 μ S/cm ... 2000 mS/cm (auto-ranging) Inductive conductivity with ICT 5: 200 μ S/cm ... 2000 mS/cm (auto-ranging)
Resolution	pH: 0.01 pH ORP: 1 mV Chlorine: 0.01 ppm Conductivity: 0.1 μ S/cm (depends on the measuring range)
Accuracy	0.5% of the upper range value
Temperature compensation range	0 ... 120 °C, chlorine 1 ... 45 °C
Control	Monodirectional PID control with selectable control direction
Inputs	Sensor input for the relevant measured variable Temperature sensor input: pH: Pt 1000, chlorine and conductivity: Pt 100/ Pt 1000 1 digital input as a remote control input for the pause control / sample water fault functions
Outputs	1 pulse frequency output for controlling metering pumps 1 active 0/4...20 mA output configurable as a measured or control variable, max. load: 400 Ω 1 output relay used as a changeover contact, can be configured as an alarm, limit value or pulse width-modulated control output for motor-driven metering pumps
Cell constant, conductive conductivity	0.05 ... 12.0 cm ⁻¹
Voltage supply	100 ... 230 V, 50/60 Hz, 5 W
Permissible operating temperature	-10 ... +60 °C
Enclosure rating	IP 67, based on NEMA 4 X Indoor
Dimensions	135 x 125 x 75 mm (H x W x D)
Weight	0.5 kg



2.4 Controller DULCOMETER Compact

2.4.2 Identity Code Ordering System for DULCOMETER Compact

DCCa	Type of mounting						
	W	Wall/pipe mounting IP 67					
	S	With fitting kit for control panel mounting IP 54					
		Version					
		00	With ProMinent logo				
			Operating voltage				
			6	90 ... 253 V, 48/63 Hz			
				Measured variable			
				C0	Free chlorine		
				PR	pH/ORP (switchable)		
				L3	Conductive conductivity (unit designation: COND_C)		
				L6	Inductive conductivity (unit designation: COND_I)		
					Hardware extension		
				0	None		
				2	SN 6 input for pH/ORP		
					Approvals		
				01	CE (Standard)		
					Certificates		
				0	none		
					Documentation language		
					DE German		
					EN English		
					ES Spanish		
					IT Italian		
					FR French		
					FI Finnish		
					BG Bulgarian		
					CN Chinese		
					CZ Czech		
					GR Greek		
					HU Hungarian		
					JP Japanese		
					KR Korean		
					LT Lithuanian		
					LV Latvian		
					NL Dutch		
					PL Polish		
					PT Portuguese		
					RO Romanian		
					RU Russian		
					SE Swedish		
					SK Slovakian		
					SI Slovenian		
					SV Swedish		
					TH Thai		

Accessories

	Order no.
Cable combination, coaxial, Ø 5 mm 0.8 m - SN6 - pre-assembled	1024105
Cable combination, coaxial, Ø 5 mm 2 m - SN6 - pre-assembled	1024106
Cable combination, coaxial, Ø 5 mm 5 m - SN6 - pre-assembled	1024107
SN6 coaxial connector, retrofit component, D1Cb, DAC, DCCa	1036885
Assembly set for installation in control cabinet	1037273

