

## 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

<b>Measuring range</b>	<p>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-µA-5 ppm and CLB 3-µA-5 ppm          Conductive conductivity: 0.5 µS/cm ... 20 mS/cm (auto-ranging)          Inductive conductivity with ICT 2: 20 µS/cm ... 2000 mS/cm (auto-ranging)          Inductive conductivity with ICT 5: 200 µS/cm ... 2000 mS/cm (auto-ranging)</p>
<b>Resolution</b>	<p>pH: 0.01 pH          ORP: 1 mV          Chlorine: 0.01 ppm          Conductivity: 0.1 µS/cm (depends on the measuring range)</p>
<b>Accuracy</b>	0.5% of the upper range value
<b>Temperature compensation range</b>	0 ... 120 °C, chlorine 1 ... 45 °C
<b>Control</b>	Monodirectional PID control with selectable control direction
<b>Inputs</b>	<p>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</p>
<b>Outputs</b>	<p>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</p>
<b>Cell constant, conductive conductivity</b>	0.05 ... 12.0 cm <sup>-1</sup>
<b>Voltage supply</b>	100 ... 230 V, 50/60 Hz, 5 W
<b>Permissible operating temperature</b>	-10 ... +60 °C
<b>Enclosure rating</b>	IP 67, based on NEMA 4 X Indoor
<b>Dimensions</b>	135 x 125 x 75 mm (H x W x D)
<b>Weight</b>	0.5 kg



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### 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