

# DULCOMETER® DACb Controller

Intelligent measuring and control



ProMinent®

**ProMinent®** introduces its latest multi-parameter controller, the **DACb**. Built on the existing DACa platform, the DACb now offers one, two or three channels for the continuous measurement and control of process variables in water and wastewater applications.

The large screen HMI allows for easy viewing of process events and changes color when faults occur. Datalogging and SD card storage allows the operator to keep valuable information for over a year!

Packaged in a NEMA 4X enclosure, the DAC offers more flexibility for industrial and municipal projects by offering measurement of 14 process variables, pH and temperature compensation, feed forward and up to three analog outputs. Create a complete packaged system by adding sensors, flow cell, plumbing and backpanel.

## Features & Benefits

- One, two or three channels
- 2-way PID control
- Data and event logging with SD Card (optional)
- Three analog outputs
- Seven digital inputs
- Four frequency outputs
- Two powered relays
- Measured value trend display
- pH compensation for Free Chlorine
- Temperature compensation for pH, conductivity, and fluoride
- NEMA 4X enclosure
- LAN/ Ethernet Connectivity available Q2 2018
- Profibus®-DP, Modbus RTU
- Optional 24V DC power

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## Specifications

<b>Measuring range</b>	
mV connection type	pH: 0.00 - 14.00
	ORP voltage: -1,500 - +1,500 mV
Connection type mA (amperometric measured variables, measuring ranges corresponding to sensors)	Chlorine, Chlorine dioxide, Chlorite, Bromine, Ozone, Hydrogen peroxide (PER sensor), Hydrogen peroxide (PEROX sensor with PEROX transducer V2 Order No. 1047979), Peracetic acid
Connection type mA (potentiometer measured variables, measuring ranges corresponding to the transmitter)	pH, ORP voltage, Fluoride
Conductivity (measuring ranges corresponding to the transmitters)	via Transmitter 0/4 - 20 mA
Temperature	via Pt 100/Pt 1000, measuring range 0 - 302 °F
<b>Resolution</b>	pH: 0.01
	ORP voltage: 1 mV
	Temperature: 32 °F
	Amperometric analysis (chlorine etc.): 0.001/0.01 ppm, 0.01 vol. %, 0.1 vol. %
<b>Accuracy</b>	0.3 % based on the full-scale reading
<b>Measurement input</b>	pH/ORP (input resistance > 0.5 x 10 <sup>12</sup> Ω)
<b>Temperature compensation</b>	Pt 100/Pt 1000 for pH, conductivity, and fluoride sensors
<b>Correction range</b>	0 - 212 °F
<b>pH compensation range for chlorine</b>	Sensor CLE 3 and CLE 3.1; 6.5 - 8.5, sensor CBR 6-5 - 9.5
<b>Disturbance signals/feed forward</b>	Flow via 0/4-20 mA or contact water meter 1 - 500 Hz, the interference variable acts on both channels
<b>Control characteristic</b>	P/PID control
<b>Control</b>	2 x bidirectional control
<b>Analog outputs</b>	3 x 0/4-20 mA electrically isolated, max. load 450 Ω, range and assignment (measured, correction, control variable) can be set
<b>Control outputs</b>	4 x 2 pulse frequency outputs for metering pump control, 2 relays (limit value, 3-point step or pulse length control)
<b>Alarm relay</b>	250 V ~3 A, 700 VA contact type changeover contact
<b>Digital control inputs</b>	(7) as a remote control input for the functions pause control / sample water fault, parameter set switch-over, level monitoring of chemical tanks
<b>Electrical connection</b>	90-253 V, 50/60 Hz, 25 VA or 24 V DC
<b>Field bus connection</b>	PROFIBUS - DP, Modbus RTU
<b>Ambient temperature</b>	0 - 122° F (for indoor installation or with a protective enclosure)
<b>Enclosure rating</b>	Wall mounted: IP 67 (NEMA 4X)
	Installation in the control cabinet: IP 54 for control cabinet door
<b>Tests and approvals</b>	CE, MET (corresponding to UL according to IEC 61010)
<b>Housing material</b>	PC with flame proofing equipment
<b>Dimensions</b>	9.84 x 8.66 x 4.80 in. (WxHxD)
<b>Weight</b>	3 lbs.