

DULCOMETER DACb Controller

Intelligent measuring and control!



ProMinent® introduces its latest multi-parameter controller, the **DACb**. 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. Data logging 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
- PROFIBUS DP, Profinet and Modbus RTU
- Optional 24V DC power

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Specifications

Measuring range	
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
Resolution	
	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. %
Accuracy	0.3 % based on the full-scale reading
Measurement input	pH/ORP (input resistance > 0.5 x 10 ¹² Ω)
Temperature compensation	Pt 100/Pt 1000 for pH, conductivity, and fluoride sensors
Correction range	0 - 212 °F
pH compensation range for chlorine	Sensor CLE 3 and CLE 3.1; 6.5 - 8.5, sensor CBR 6-5 - 9.5
Disturbance signals/feed forward	Flow via 0/4-20 mA or contact water meter 1 - 500 Hz, the interference variable acts on both channels
Control characteristic	P/PID control
Control	2 x bidirectional control
Analog outputs	3 x 0/4-20 mA electrically isolated, max. load 450 Ω, range and assignment (measured, correction, control variable) can be set
Control outputs	4 x 2 pulse frequency outputs for metering pump control, 2 relays (limit value, 3-point step or pulse length control)
Alarm relay	250 V ~3 A, 700 VA contact type changeover contact
Digital control inputs	(7) as a remote control input for the functions pause control / sample water fault, parameter set switch-over, level monitoring of chemical tanks
Electrical connection	90-253 V, 50/60 Hz, 25 VA or 24 V DC
Field bus connection	PROFIBUS - DP, Modbus RTU
Ambient temperature	0 - 122° F (for indoor installation or with a protective enclosure)
Enclosure rating	
	Wall mounted: IP 67 (NEMA 4X)
	Installation in the control cabinet: IP 54 for control cabinet door
Tests and approvals	CE, MET (corresponding to UL according to IEC 61010)
Housing material	PC with flame proofing equipment
Dimensions	9.84 x 8.66 x 4.80 in. (WxHxD)
Weight	3 lbs.

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