

ProMinent® diaLog DACa

diaLog DACa Multi-parameter Controller: Overview



NEW

The DULCOMETER® diaLog DACa multi-parameter controller is the new controller platform from ProMinent. It replaces the D1Ca/D2Ca controllers. The diaLog DACa can also be installed in a control cabinet using the optional mounting kit. The diaLog DACa has been specifically developed for the continuous control of liquid analysis parameters in water treatment processes, environmental technology and industry.

The DULCOMETER® diaLog DACa multi-parameter controller is available in a version with one or two measuring channels and can work with conventional analogue sensors and actuators. It is also equipped to communicate with digital sensors and actuators via the CANopen sensor/actuator bus. The diaLog DACa controller intelligently closes the control circuit between ProMinent® DULCOTEST® sensors and ProMinent® metering pumps offering special functions, as required in water treatment.

Typical applications

- Potable water treatment
- Waste water treatment
- Industrial and process water treatment
- Swimming pool water treatment

Standard equipment

- 1 measuring channel with 14 freely selectable measured variables (via the mV or mA input. The measured variables conductive and inductive conductivity are currently only available with the D1Ca).
- PID controller with frequency-based metering pump control for 2 metering pumps.
- 2 analogue outputs for measured value, correction variable or control variable (dependent on the optional equipment).
- 2 digital inputs for sample water fault detection, pause and parameter switching.
- 2 relays with limit value functions, timer and non-continuous control, 3-point step control (dependent on the optional equipment).
- Measured variables and language selection during commissioning.
- Temperature compensation for the pH and fluoride measured variables.
- Saving and transfer of device parameterization using the SD card.
- Subsequent upgrade of the software functions by means of an activation key or firmware update.

Optional accessories

- Second, complete measuring and control channel with second PID controller.
- PC configuration software*.
- Data and event logger with SD card.
- Measured value tendency display via controller display.
- Disturbance variable processing (flow) via mA or frequency.
- Compensation of the pH influence on chlorine measurement.
- 3 additional inputs, e.g. for level monitoring.
- PROFIBUS® DP *.
- ModBus RTU *.
- Visualization via LAN/WLAN web access *

* in preparation

ProMinent® diaLog DACa

diaLog DACa Multi-parameter Controller: Technical data

Measuring range

mV connection type

pH: 0.00 - 14.00

ORP voltage: -1,500 - +1,500 mV

Connection type mA

Chlorine, Chlorine dioxide, Chlorite, Bromine, Ozone, Hydrogen peroxide (PER sensor), Hydrogen peroxide (PEROX sensor with converter), Peracetic acid

Connection type mA

pH, ORP voltage, Fluoride

Conductivity

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. %

0.3 % based on the full-scale reading

Accuracy

Measurement input

pH/ORP (input resistance > 0.5 x 1012 Ω)

Correction variable

Temperature via Pt 100/Pt 1000

Correction range

0 - 212 °F

pH compensation range for chlorine

6.5 - 8.5

Disturbance signals

Flow via mA or frequency

Control characteristic

P/PID control

Control

2 x bidirectional control

Signal current output

2 x 0/4 - 20 mA electrically isolated, max. load 450 Ω, range and allocation (measured, correction, control variable) can be set

Control outputs

2 x 2 pulse frequency outputs for metering pump control

2 relays (limit value, 3-point step or pulse length control)

2 x 0/4 - 20 mA

Alarm relay

250 V ~3 A, 700 VA contact type changeover contact

Electrical connection

90-253 V, 50/60 Hz, 25 VA

Ambient temperature

0 - 55 °F (for indoor installation or with protective housing)

Enclosure rating

Wall mounted: IP 67

Control cabinet mounting: IP 54

Tests and approvals

CE, MET (corresponding to UL according to IEC 61010)

Housing material

PC with flame proofing equipment

Dimensions

250 x 220 x 122 mm (WxHxD)

Weight

3 lbs.

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Identcode Ordering System diaLog DACa

DACa	Version:														
	00	Wall mounted with ProMinent® logo													
	S0	With fitting kit for control cabinet													
		Operating voltage:													
		6	90 - 253 V, 50/60 Hz												
			Channel 1 (the measured variable is selected during initial commissioning):												
			1	Measurement + control, 2 pumps, 2 control inputs, 2 mA outputs											
				Channel 2 (the measured variable is selected during initial commissioning or software presetting):											
				0	No 2nd channel										
				2	Package 2: Disturbance variable (mA) or external setpoint specification via mA or pH compensation for chlorine (all acting on channel 1)										
				3	Package 3: 2nd measurement + control, additionally 2 pumps, additionally 3 control inputs										
				4	Package 4: 2nd measurement + control, additionally 2 pumps, additionally 3 control inputs, disturbance variable (mA or frequency), pH compensation for chlorine										
					Software presents:										
					0	No default settings									
					3	pH-/ORP measurement/control (pH 2 way, ORP 1 way)									
					4	pH-/Cl2 measurement/control (pH 2 way, chlorine 1 way)									
					5	pH-/ClO2 measurement/control (pH 2 way, chlorine dioxide 1 way)									
					6	pH-/Cl2 measurement/control with disturbance variable (pH 2 way, chlorine 1 way)									
					7	ClO2-/ORP measurement/control (chlorine dioxide 1 way, ORP for monitoring)									
						Channel connections:									
						0	Channel 1 / 2 via terminals (mA and mV)								
						1	Channel 1 via SN 6 coaxial connection (only for pH and ORP via mV)								
						2	Channel 2 via SN 6 coaxial connection (only for pH and ORP via mV)								
						3	Channel 1 and 2 via SN 6 coaxial connection (only for pH and ORP via mV)								
							Connection of digital sensors / actuators:								
							0	None							
								Communication:							
								0	None						
									Data logger:						
									0	No data logger					
									1	Data logger with measured value display and SD card					
										Hardware upgrade:					
										0	None				
										1	Protective RC circuit for power relay				
											Approvals:				
											0	None (CE standard)			
												Certificates:			
												0	None		
													Documentation language:		
													EN	English	
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