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

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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. %						
Accuracy	0.3 % based on the full-scale reading						
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 $\Omega,$ 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

DA	Ca Versi	on:														
	00	Wall m	Wall mounted with ProMinent® logo													
		Operat	Operating voltage:													
		6	90 - 25	90 - 253 V, 50/60 Hz												
	Channel 1 (the measured variable is selected during initial commissioning):															
			1	Measu	rement +	control,	2 pumps	2 contro	ol inputs	, 2 mA o	utputs					
Channel 2 (the measured variable is selected during initial commissioning													ng 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	Packag	Package 3: 2nd measurement + control, additionally 2 pumps, additionally 3 control inputs										
			Package 4: 2nd measurement + control, additionally 2 pumps, additionally 3 co disturbance variable (mA or frequency), pH compensation for chlorine											3 control inpu	uts,	
					Softwa	re prese	nts:									
					0	No defa	ult settin	gs								
					3	pH-/OF	IP measu	rement/o	control (p	oH 2 way	, ORP 1	way)				
					4	pH-/Cl2	2 measure	ement/co	ontrol (pł	H 2 way,	chlorine	e 1 way)				
					5	pH-/CIC	02 measu	irement/	control (pH 2 wa	y, chlorir	ne dioxide	e 1 way)			
					6	pH-/Cl2	measure	ement/co	ontrol wit	th distur	bance va	ariable (pł	H2 way,	chlorine 1 w	ay)	
					7	CIO2-/0	DRP mea	suremen	t/contro	l (chlorin	e dioxid	e 1 way, (DRP for I	monitoring)		
				Channel connections:												
					 Channel 1 / 2 via terminals (mA and mV) Channel 1 via SN 6 coaxial connection (only for pH and ORP via mV) 											
						2	Channe	1 2 Via 31 1 1 and 2	via SN (a coavia		tion (only	for pH	ne via IIIV)	m۱۸	
							Connec	tion of a		o coaria	actuato				111V)	
							0	None	ligital St	21130137	aotuatt	//3.				
							Ŭ	Comm	inicatio	n:						
								0	None							
								-	Data lo	aaer:						
									0	No data logger						
									1	Data lo	Data logger with measured value display and SD			SD card		
										Hardwa	ware upgrade:					
										0	None					
										1	Protective RC circuit for power relay					
											Appro	vals:				
											0	None (C	CE stand	ard)		
												Certific	ates:			
												0	None			
													Docum	nentation la	nguage:	
													EN	English		
	Ca 00	6	- 1	0	0	0	0	0	0	0	0	0	EN			

DULCOMETER® instrumentation