DCM 51 Series Controller

Upgraded

A Recreational and Attraction Water Chemistry Solution

*The **ProMinent® DCM 51 Series** controller is the perfect partner for monitoring and controlling water chemistry parameters and processes. The DCM 51 Series precision, flexibility and uncompromising quality represent a world-class solution to ensure a safe and healthy water experience.*

Features & Benefits

- Proprietary sensor technology
- Oxidant specific sensor
- Combined chlorine control[1]
- Simultaneous chlorine/ORP control
- Built-in WiFi router
- VFD control
- Loading compensation via true proportional control
- Hydraulically advanced flowcell assembly
- Automatic discrete control and flow adjustments of chemical dosing pump[2]
- Capable of interface and control of UV systems via ProMinent's proprietary chlorine probes and real time combined chlorine readings
- Ability for tiered alarm notification via text/email, graphing data, and daily summary emails all standard.
- New intuitive and easy to use remote interface with device recognition for easy operation on tablets, smart phones, and computers.

Notes:
1 - Requires optional total chlorine probe
2 - When used with ProMinent dosing pumps

Applications

- Swimming pools, Therapy pools & Hot tubs
- Water parks & Splash pads
- Amusement Park Attractions, Zoos & Aquariums

Ordering Information

- **DCM 510** - Controller package for pH, ORP and Temp **(P/N: 1080771)**
- **DCM 511** - Controller package for pH, ORP and PPM on non-stabilized (CYA) water **(P/N: 1080772)**
- **DCM 512** - Controller package for pH, ORP, Free, Total and Combined Chlorine on non-stabilized (CYA) water **(P/N: 1080773)**
- **DCM 513** - Controller package for pH, ORP and PPM with CYA stabilized water **(P/N: 1080774)**
- **DCM 516** - Controller package for 2 pool control with pH, ORP, and PPM with CYA Stabilized water **(P/N: 1079665)**

NSF®

Certified to
NSF/ANSI Standard 50

DCM 51 Series Controller

Specifications

Operator Interface	
Remote	Fully interactive ethernet and WiFi TCP/IP graphical interface with security access codes
Local	2 line - 20 character OLED display, 12 buttons, multicolor status LED: Steady BLUE = "OK", Flashing RED = "ALARM", Steady RED = (Stopped), Multicolor output LEDs indicate relay output status as feeding/ off/ alarmed/ or stopped. Ethernet and WiFi status LEDs

Sensors	
Included Sensors	pH, ORP, Temperature
Optional Sensors	Free chlorine, total chlorine, calculated combined chlorine, salt generated free chlorine, stabilized chlorine, conductivity, bromine, feed verification, corrosion, flow rate, water level, UV Intensity, calculated LSI/Ryznar water totalizer
Field Upgrades	Sensors and input modules are available for field upgrades

Inputs		
Digital Inputs	8, (7 fully configurable) Examples: Sample Flow Switch, Return Line Flow Switch, Digital pulse flow meter(s), auto-fill float switch, external interlocks	
Analog Inputs	Up to 10 standard (configurable options) + 4 virtual (LSI, Combined Chlorine, GPM, etc.)	Example: 1 Cond, Sample Temp, pH, ORP, Free Cl, Total Cl, Comb. Cl, UV intensity[4-20mA], room temperature, 2 additional gpm [4-20mA] inputs

Outputs		
Control Relays	9 total: 2 AC line voltage, 3 Dry contact (AC or DC), 4 DC 24V (all fully assignable)	
	1. Acid Feed	6. UV Pause
	2. Oxidant Feed	7. Temperature control or Fireman
	3. Chlorine boost / caustic feed	8. UV Chloramine control
	4. CO2 feed	9. DCS/BMS OK or Alarm
	5. Auto Fill / alarm	
	Interlocked with sample and recirc flow when used for chemical feed	
Digital Outputs	4 (Fully assignable as dry contact sets or variable frequency pump)	
	1. UV, salt Cl2 generator or Heater control	
	2. PID Acid Pump / VFD control	
	3. Chlorine PID Control/ UV Pause	
	4. DCS BMS OK or Alarm / Eco! mode mode for recirc pump	
	Base feed available if sensor disconnected	
Analog Outputs	Optional 2 isolated, 4-20mA	

Control		
	On/off	Chlorine boost / ozone control
	ORP assisting residual	Flow restored delayed (adjustable)
	P/PI/PID	Emergency "off" for recirculation pump
	Event timers	Autofill
	UV boost / VFD control	Chemical feed verification (optional)
	Chem Feed stop during Backwash or Bump	Pulsed pump speed

Communication	
	HTML server on board (standard)
	10Base T, TCP/IP ethernet, optional wireless 3G cellular
	HTML, micro web server with DHCP or user definable IP address
	Standard built-in WiFi hotspot (smartphone/ iPad/ Tablet)
	USB port for Datalog extraction, configuration saving, configuration uploading, & field software updates

Security	
	Local and remote access protected by access codes (Up to 29 unique users and passwords with 3 access levels)

SYSTEM	
Power	90-253VAC, 50/60Hz, 7.9Amp, single phase
Fusing	Outputs fused @ 6.3 Amps total @ 120/250 VAC, Internal circuits fused at 1.6Amps
Surge Suppression	Integral Surge Suppression - Relays 1-5
Accessory Power	15VDC Thermally fused @ 60 mA, NEMUR inputs U-V thermally fused at 20mA
Enclosure	Non-metallic, NEMA 4X / 7.5" x 11.3" x 5.5" (WxHxD)
Convenience	Field Software upgrades via USB flash drive, Configuration cloning via Flash drive

Warranty	
	5 years on electronics
	2 years on ORP, pH sensors
	1 year on all other parts

ProMinent®