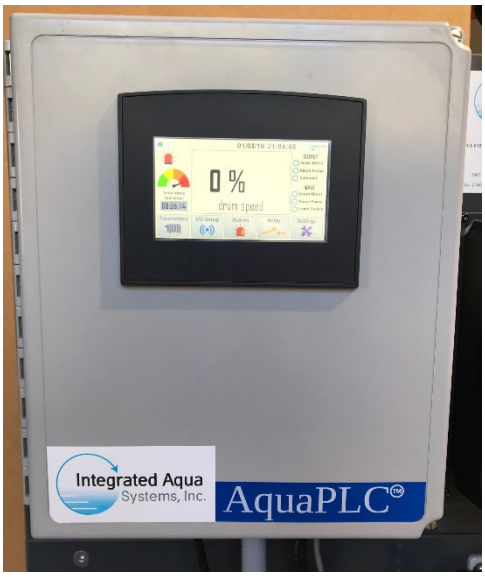
AquaPLC™ Intelligent Drum Filter Controller

AquaPLC Intelligent™ Controls (IC)

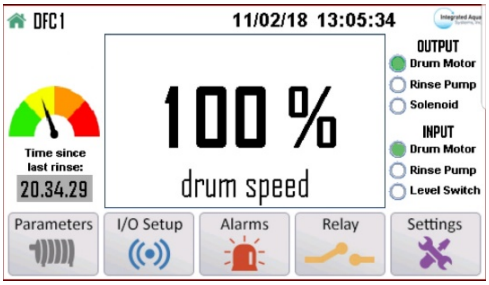
Intelligent™ Controls technology, exclusively available Integrated Aqua Systems, maximizes the capacity of drum filters to offer the most efficient and economical operation available on the market today. With IAS' new AquaPLC™ for Intelligent Drum Filter Controls (IC), drum filters can be set-up and programmed for maximum efficiency by responding dynamically to changes in TSS loading. Intelligent Drum Filter Controls allow the buildup of filter cake on drum screens, which will allow finer solids capture and also prolong intervals between backwash events. AquaPLC™ controls minimize backwash water usage, electrical consumption. Refer to IAS Intelligent Controls Logic sequencing for settings.



AquaPLC™ Intelligent Controller with HMI

Features:

- Rich color display 4.3" touchscreen HMI
- User selectable filter mode of operation (Basic, Continuous, Intelligent Controls) compatible with any make drum filter.
- Fully configurable, easy to navigate digital menus for multi-level setpoints, drum speed, backwash level setpoint, alarms.
- Built-in Event and Alarm Datalogger
- Device Feedback Confirmation with alarms
- Interlocking capability with external alarms (i.e. audible/visual alarm)
- Display Analytics include:
    - Drum filter level status monitoring and backwash cycle status in real time
    - Interval timer since last backwash cycle
    - Water level indication (inches/mm)
    - Drum rotational speed in real-time 0-100%
    - Visual Alarm notification
    - Input/Output Status Menu
- Input/Output connections include:
    - Main power on/off
    - Pressure transducer, level switch, drum motor control, optional solenoid valve, rinse pump motor control
    - OPTIONAL Ethernet Communication port



4.3" Touch screen HMI with display graphics

Includes pre-installed on/off switch, power cord, wiring inputs/outputs for level sensors, external device motor controls and optional ethernet connection.

Integrated Aqua Systems, Inc.

Data Sheet

Specifications for:	AquaPLC™ Intelligent Drum Filter Controller
Enclosure	
Type (IP Class)	NEMA 4 (IP 66)
Materials	fiberglass housing, 316SS hardware
Dimensions (O.D.) inches	12.5" x 10.5" x 8" (LxWxH)
Mounting	fiberglass mounting tabs
Enclosure Weight	10 lbs (3.7 kg)
Power Supply	115V-60Hz, NEMA 5-15 male plug w/ 6 ft power cord or hardwired
Power Control	backlit Main Pwr On/Off switch included
Power Connections (standard)	Qty (5) 1/2" compression wire glands, Qty (1) 1/2" liquid tight
Certifications	UL/CUL, CSA
HMI Features	
Type (IP Class)	Panel mounted NEMA 4X (IP65/66)
Display Type	TFT, LCD flat panel color touch display
Display Resolution	backlit white LED 4.3" screen, 480 x 272 pixels
Controller Type	PLC
Power Supply	24VDC, max consumption 6.6 watts
Clock (RTC)	Real time clock functions (date and time)
Battery Back-up	7 years typical at 25°C, battery back-up for RTC and system data
Battery replacement	Yes. Coin-type 3V, lithium battery, CR2450
Memory	Application Logic 112KB, Images 2MB, Fonts 512KB
Certifications	UL/CUL, CE
Communications	
Port 1 (included)	Onboard Mini-B USB 2.0 included
Port 2 (optional)	Optional Ethernet Interface Module incl RJ45 female w/ threaded cap
Protocol	Modbus TCP/UDP (Port 2 only)
Alarm Output	powered 24VDC relay, general alarm
Monitoring & Control System	
Modes of Operation	User Selectable - Disable, Basic, Continuous, Intelligent (IC)
Diagnostics	% drum speed
	internal drum water level (IC only) in inches, visible gauge
	time since last rinse
	active backwash indication
	run status/fault type indication
	alarm indication
Output Relays (24VDC)	Qty (7) toggle On/Off, visible LED indication
Analog Output	Qty (1) 4-20mA
Analog Inputs	Qty (1) analog level sensor, 4-20mA
Digital Inputs	Qty (1) for level switch
Environment	
Operational Temperature	0 to 50°C (32 to 122°F)
Relative Humidity (RH)	10% to 95% (non-condensing)
Operating Altitude	2000m (6562 ft)