

AQUAVX™



REMOTE MONITORING DEVICE FOR MID-SIZED SYSTEMS

HIGHLIGHTS

- SCADA-like capabilities for mid-sized municipal, industrial and commercial water and wastewater applications
- Field-proven, reliable and cost-effective monitoring solution
- Standard I/O includes 10 digital/pulse inputs, 4 analog inputs, 2 relay outputs and 58 Modbus RTU PLC channels
- No networks to maintain, no engineering and no 3rd party licensing

FEATURES

- Local user interface features:
 - View run-times, cycles, levels, flow and totalized flow on the local display
 - Control pumps, valves and other field devices
 - View inflow, outflow and rain event totals
 - Dynamic scrolling display allows you to choose which channels to display
 - Local keypad and display for viewing status, configuration changes and more
- Alarm notifications via email, text message or voice calls
 - Excessive run times or cycles or excessive variation in pump run times or cycles
 - Exceeding limits on tank levels, pressure, flow rates or motor amps
 - Power fail and low battery level
 - Loss of cellular or Modbus communications
 - Rainfall exceeds the limit
- Local display automatically rotates any data selected for quick viewing of complete system status, including current alarms, values and signal strength
- Scheduled and/or on-demand reports for run times, total inflow and outflow, alarm history and complete audit trail
- Local relays can be automatically controlled based on preconfigured set points or conditions. They de-energize automatically when all channels have returned to normal conditions, upon the programmable timer expiring or upon local or remote request
- Peer-to-peer communication between Aquavx and Messenger units enabling system-wide controls
- Remote site viewing and management through RemotelQ™ using mobile or desktop devices

OPTIONS

- Camera for incident-based events via on-demand snapshots that become historical data
- Solar kit with accessories for powering the Aquavx system
- High gain OMNI antenna
- 50' antenna cable





TECHNICAL DATA AND SPECIFICATIONS

MECHANICAL DATA	
Weight	Panel mount: 3.5lbs NEMA 4X: 10.5lbs
Enclosures	NEMA 4X Flush/Panel mount metal enclosure
Dimensions W x H x D	NEMA 4X: 11.83" x 13.45" x 6.31" Panel Flush Mount: 9.34" x 6.72" Metal Enclosure: 8.2" x 5.2" x 3.6"
Operating Temperature	-30° to +70° C (-22° to +158° F) Modem Op Temp: -40° to +85° C (-40° to +185° F)

ELECTRICAL DATA	
Pulse Input Parameters	50% duty cycle at a maximum frequency of 5 Hz (200msec period) max=25 VDC, greater than or equal to 4 VDC is a pulse high, less than or equal to 1.6 VDC is a pulse low
Battery Backup	12 V, rechargeable sealed lead acid battery, 12-hour minimum
Power Supply	100-240 VAC to 13.8 VDC, 50-60Hz, 1.9A, DIN-rail mounted, UL-rated
Modes	Run Mode: Average is 50 mA @ 15 VDC. Max is 850 mA during CELL transmit
Electrical Protection	Solid-state surge protection is provided on digital input, analog input and serial port. All fuses are solid-state automatic resettable requiring no maintenance
Field Wiring	All I/O wiring uses quick-disconnect pluggable connectors (16-22 AWG)

MECHANICAL DATA	
Humidity	0-90% non-condensing @ +40° C (+104° F)
Serial Port	1 RS485
Cellular Modem	LTE/CATM1 dual modem utilizing AT&T or Verizon
Warranty	Two years on Aquavx board, one year on the modem

INPUTS / OUTPUTS	
Analog Inputs	4 capable of interfacing directly to 4-20mA, 0-5V, 1-5V signals. Can be flowmeters to provide flow rate and total flow
Digital Inputs	10 digital/pulse inputs 0-5Hz, dry contact, open collector or closure to ground with voltages up to 25 VDC. Capable of supporting pulse inputs for rainfall or flowmeters (with flow rate and accumulated total flow)
Relay Outputs	2 relay outputs 0.5A @ 125 VAC or 30 VDC for local control of local audio/visual devices or for controlling field devices such as pumps and valves. Contact rating: .75A @ 30 VDC
Modbus I/O	20 Modbus RTU read coil/input status channels. Performs like physical digital inputs 30 Modbus RTU read holding/register channels. Performs like physical analog inputs 8 Modbus RTU write coil digital channels. Performs as relay outputs

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