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Lift Station Guardian The Smart Lift Station Controller. **



TRACK PUMP HEALTH

Save your pumps.

Get a snapshot view of pump health, operating summary, energy usage, and the net present value of repairs to make informed maintenance decisions backed by financial metrics. The Lift Station Guardian operates pumps within POR by continually monitoring pump health to maximize pump life.



ALARM & EVENT ENGINE Get notified.

Adopt the easily configurable and fully customizable alarm system so that you see alarms you want to see. Filter nuiscance alarms, receive text messages, and configure new



PLANNING & ANALYTICS

Plan for expansion.

Generate planning reports that show station rated capacities, peak dry weather demands, peak wet weather demands, and under or oversized lift stations to determine if additions to the system are needed to accommodate expansion.



ACCURATE INFLOW & OUTFLOW

Compute flow from level.

The shape of the wet well is derived from level sensor data collected during fill cycles to calculate flow from the volumetric change over time. Wet wells **Computed Wet Well Capacity** tend to have irregular shapes due to stub-outs, inlet pipes, emergency suction lines, and sloped sumps. Wet Well Walls Stub-out

AUTOMATED MAINTENANCE

Simplify maintenance.

- On Demaind Maintenance Reports
- Track Inflow & Infiltration
- Automatic Force Main Scouring & Pump Snoring
- · Clear Pump Clogs

FAST COMMISSIONS

Ease of installation.

Enjoy rapid commissioning and configuration from your smart phone. Simply answer a few questions about a station to fully commission the Lift Station Guardian.





PHYSICAL

- 20" x 24" x 8" (W x H x D)
- · Fiberglass Enclosure
- · NEMA 4, 4x, and 12 Rated Outdoor Enclosure
- · UL508A Rated Panel
- Temperature Rating: -20°C to +50°C

ELECTRICAL

Power Consumption: 3A
Input Power: 120VAC
Digital Inputs: 24V Source
Digital Outputs: Dry Contact
Analog Inputs: 24V Source (4-20mA)

COMMUNICATIONS

- · Cellular Communication for Cloud Based Monitoring and Control
- Supports Modbus, USS, DF1, and Ethernet/IP for Communications with VFD's
- · Integrates with Existing SCADA Systems Using Modbus RTU

PLATFORM

- · Operate Pumps within their Preferred Operating Ranges
- · Run the Optimal Combination of Pumps and Speeds
- · Rapid Commissioning from Mobile Devices
- · Remote Monitoring and Configuration
- Accurate Inflow and Outflow
- · Flexible Data Exportation
- $\boldsymbol{\cdot}$ Ties Into Existing SCADA Systems

MAINTENANCE

- · Track Pump Health
- · Scheduled Pump Snoring
- · Scheduled Force Main Scouring
- · Net Present Value of Repairs
- Track Inflow & Infiltration
- · Automatically Clear Pump Clogs
- Float Testing

INTERNAL I/O

- · HOA Status (Per Pump)
- Power Status (Power Loss Monitoring with Alarming)

FIELD I/O

- · High Float
- · Low Float
- · Wet Well Level
- Discharge Pressure
- · Pump Current (per pump)
- · Seal Fail (per pump) optional
- Thermal Overload (per pump) optional
- · Generator Status optional
- · Phase Fault optional
- · Flow Meter (pulse or analog) optional

INCLUDED EQUIPMENT

- 1 Weighted Wet Level Sensor (0-25psi, 50' Cable)
- 2 Mercury Float Switches (N/O, 50' Cable)
- 1 Discharge Pressure Sensor (0-200psi, 1/2" NPT)
- 3 Current Transmitters (0-200A)

ALARMS

- · Fully Configurable Alarm System
- · Text Message Alarms

REPORTS

- · Monthly Pump Report Cards
- · Maintenance Reports
- · Planning Reports





