

## **Metrologics - Pump Automation and Control Systems**

Metrologics is now proudly offering automation and control systems for liquid pumping systems. Our pump automation and control systems offer simple to advanced features detailed below.

## **Features:**

- Class 1, Division 2, Groups C &D, Certified Controller
  - o Available to system integrators for packaging
  - Available in fully integrated enclosure
- **Local LCD Keypad Interface**
- **Built-in Flow Computer** 
  - Flow rates
  - Volumes (Today and Yesterday)
  - o Local storage and reporting in multiple Engineering Units
- **Data Logging** 
  - o Optional Removable Micro SD card
  - o User selectable and adjustable number of samples and reporting frequency Examples:
    - **Daily Volumes**
    - Tank Levels
    - Discharge Pressure
    - **Battery Voltage**
    - Solar Voltage
    - Power Usage
      - Pump 1 Motor Current
      - Pump 2 Motor Current
      - **System Total Current**
    - Additional Inputs and Outputs

- Multiple Units of Measurement and Display
  - Inches
  - Centimeters
  - o PSIG
  - o KPa
  - o Quarts
  - Liters
  - Gallons
  - o Barrels
  - o Etc.
- Graphical and Text Based User Interface
  - Administration
  - Status
- Advanced Control Algorithms
  - o Pump control using ISA-PID
    - Auto Tuning
    - Bumpless Transfer
    - Anti-reset Windup
  - o Flow Control
  - o Other Proprietary Custom Controls Available
- User Configurable Alarms and Shutdowns
  - o Transmitter Failure
  - o Pump Failure
  - Pressure
  - Tanks
  - Voltages
  - Communication
- Additional Inputs and Outputs for Monitoring and Control
  - Digital Inputs
  - Digital Outputs
  - o Optional Expansion I/O Modules
- 3 Communication Ports
  - o RS232, RS485, CAN, Radio, Zigbee (user selectable)
  - o Optional Port 1 Selection for Internal Ethernet, or Cellular
  - CAN bus for networking and remote I/O Modules
  - o Extensive Modbus Register Map for SCADA interface
- Optional Self Contained Solar Charged DC Power System
  - o 12 or 24 VDC
- **Custom Functionality Programming Services Available**
- End to End Data Acquisition and Information System Web Portal Available

- o Cellular or Satellite communications systems infrastructure
- Hosted Database with Long-Term Storage
- o Customizable User Interface, accessible from any browser or smart device
- o Advanced information and reporting tools
- o Report by Exception alarming (text message, email, IVR, voice)
- Complete remote control interface to remote site
  - Send rate setpoints to remote pumps
- Stand-Alone SCADA system licenses available with custom programming services
- Low Power Operation
  - Lower installation and total site costs
- Configurations (per controller)
  - o Gas/Air pneumatic powered pumps
  - o DC Electric powered pumps
    - Single and 3-phase (PWM)
  - AC VFD powered pumps
  - o Multiple controllers can be networked using either the CAN bus or Ethernet for large system networks

To contact us with your project needs:

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