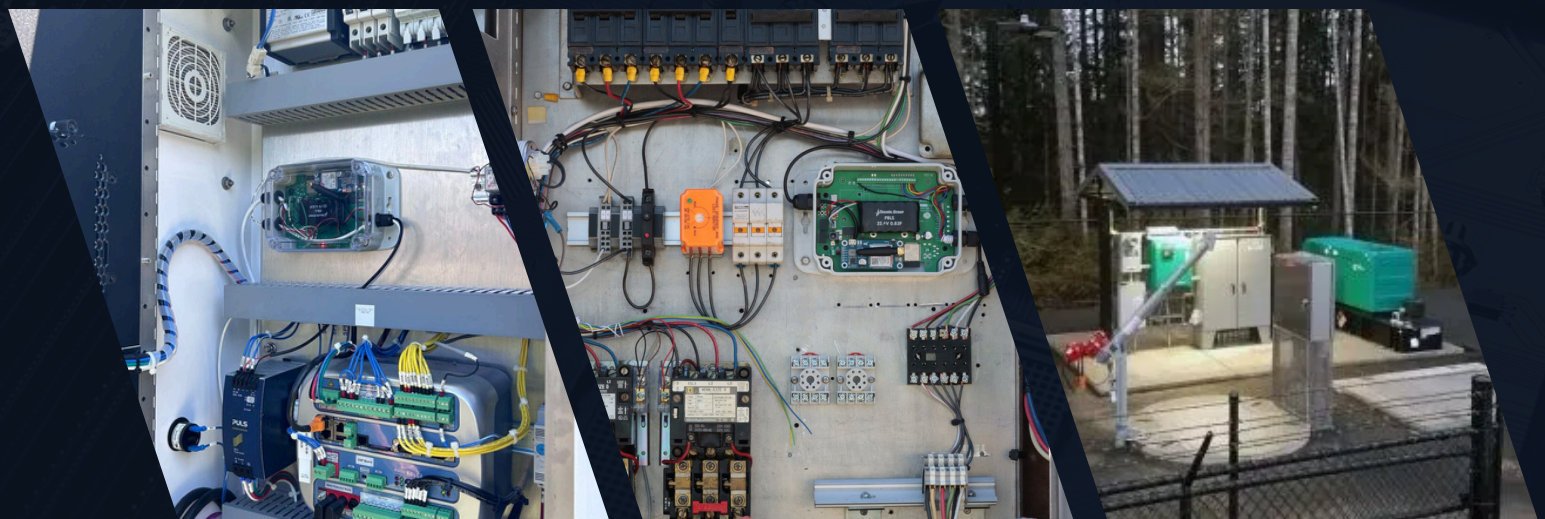


RMC-1000/2000/2000I INSTALLATION & USER MANUAL



www.accu-dose.com

Table of Contents

INSTALLATION

Pg.3 Mounting

Pg.4 RMC-1000/2000 Wiring Diagram Digital Inputs/Outputs

Pg.5 RMC-1000/2000 Wiring Diagram Analog Inputs

Pg.6 RMC-2000i Wiring Diagram Digital and Analog Inputs

Pg.7 Analog Isolator Wiring Diagram

SETUP

Pg.8 Apple and Android APP

Pg.9 Local Access User Interface

Pg.10 Connecting to the Server and User Interface

Pg.11 Main User Dashboard

Pg.12 Manage Profile and User Information

Pg.13-16 Manage Sites

USER INTERFACE

Pg.17 Datapoints

Pg.18 Events

Pg.19 Controller List

Pg.20 User Interface Main Screen

DEVICE SETUP

Pg.21 User Interface Device Setup

Pg.22 Analog Input Configuration

Pg.23 Digital Input Configuration

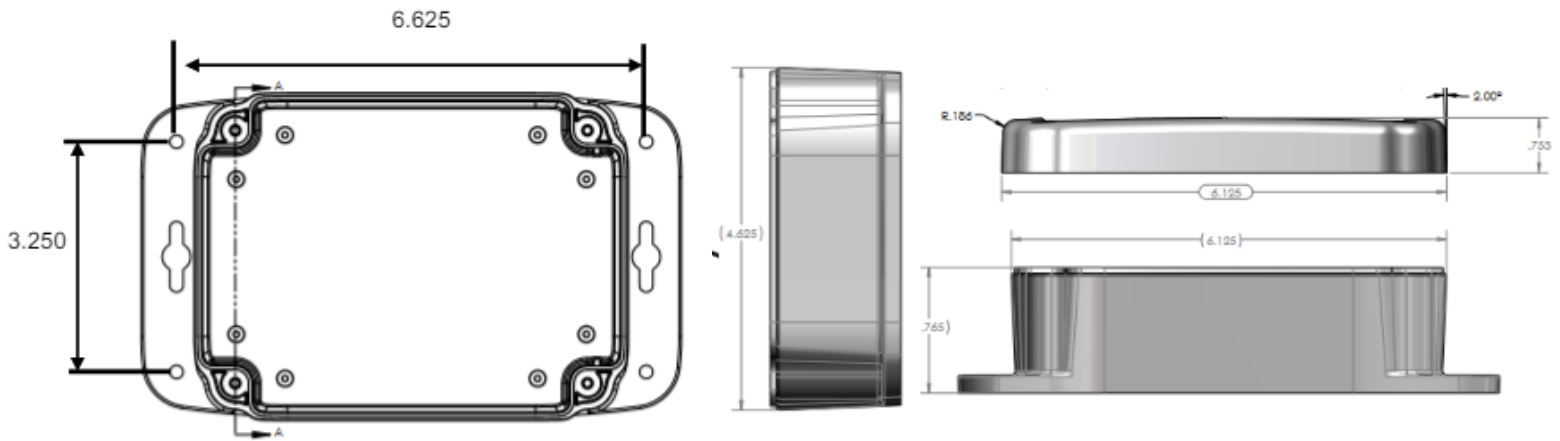
Pg.24 Digital Output Configuration

Pg.25 Digital Output Configuration 2



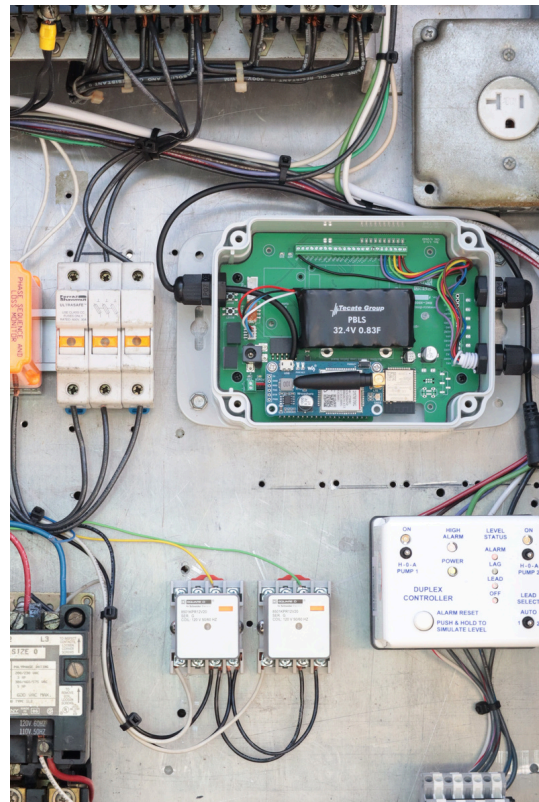
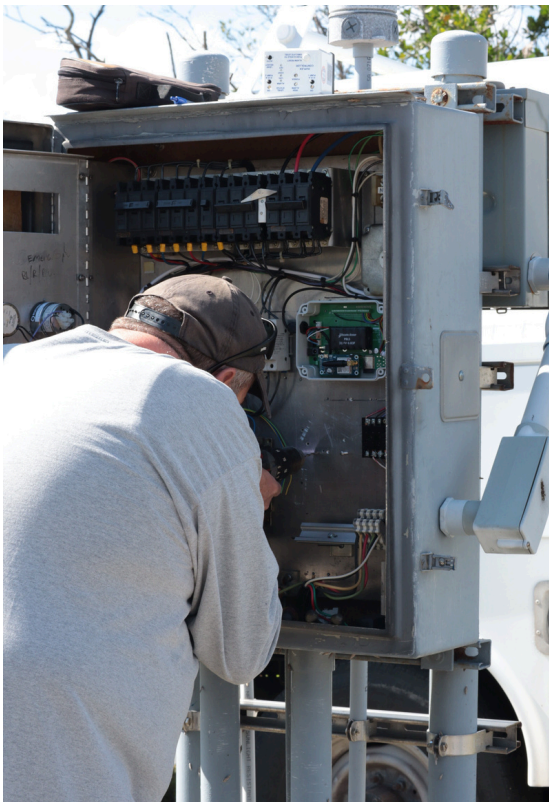
INSTALLATION

MOUNTING



MECHANICAL INSTALLATION:

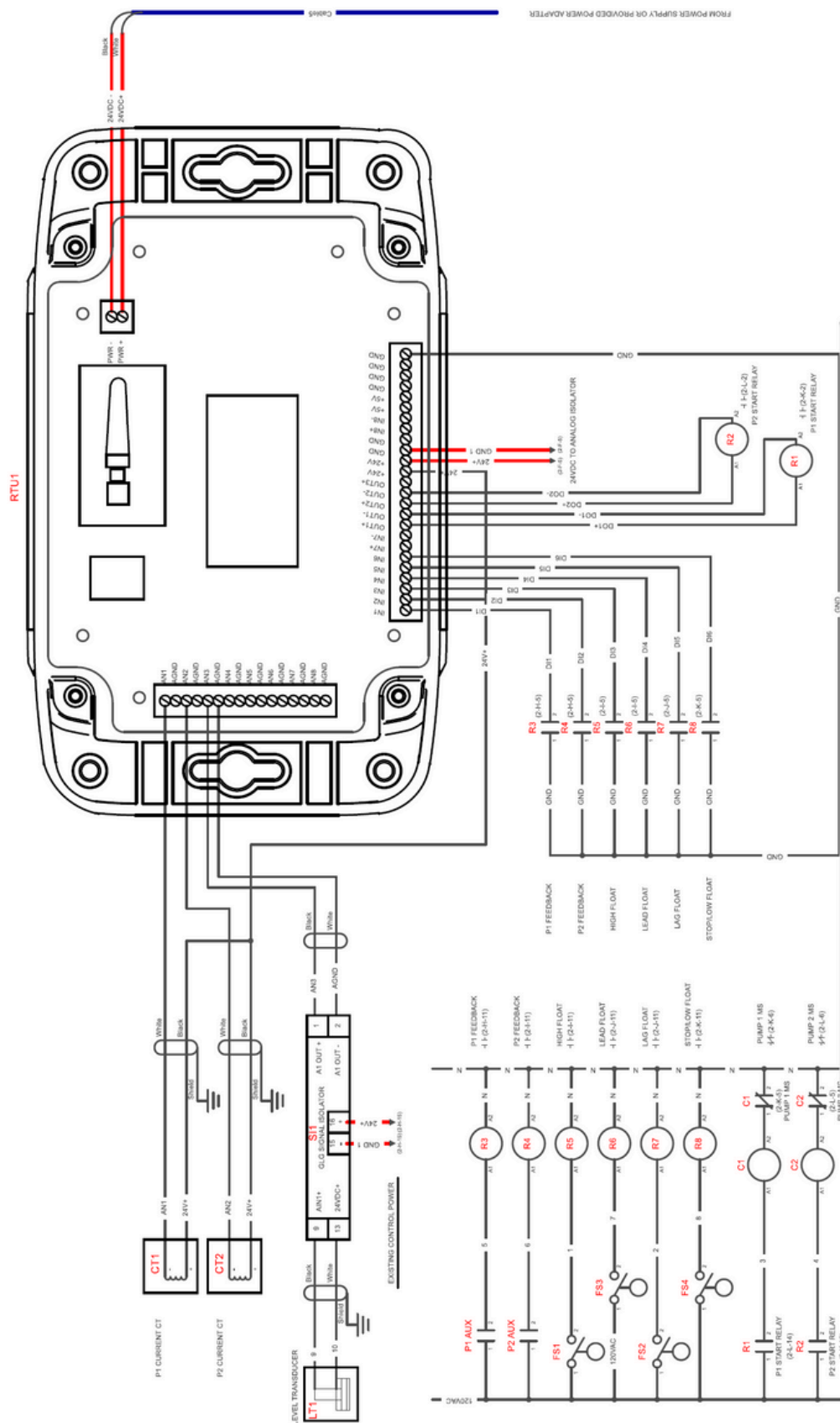
Select suitable location as close to the control panel or location of the digital and analog IO points. Mount the controller using the predrilled four screw holes in each corner. The controller can be mounted inside of an existing panel or outside on the side of the panel or any available mounting space. The controller is weather proof.



INSTALLATION

WIRING DIAGRAM

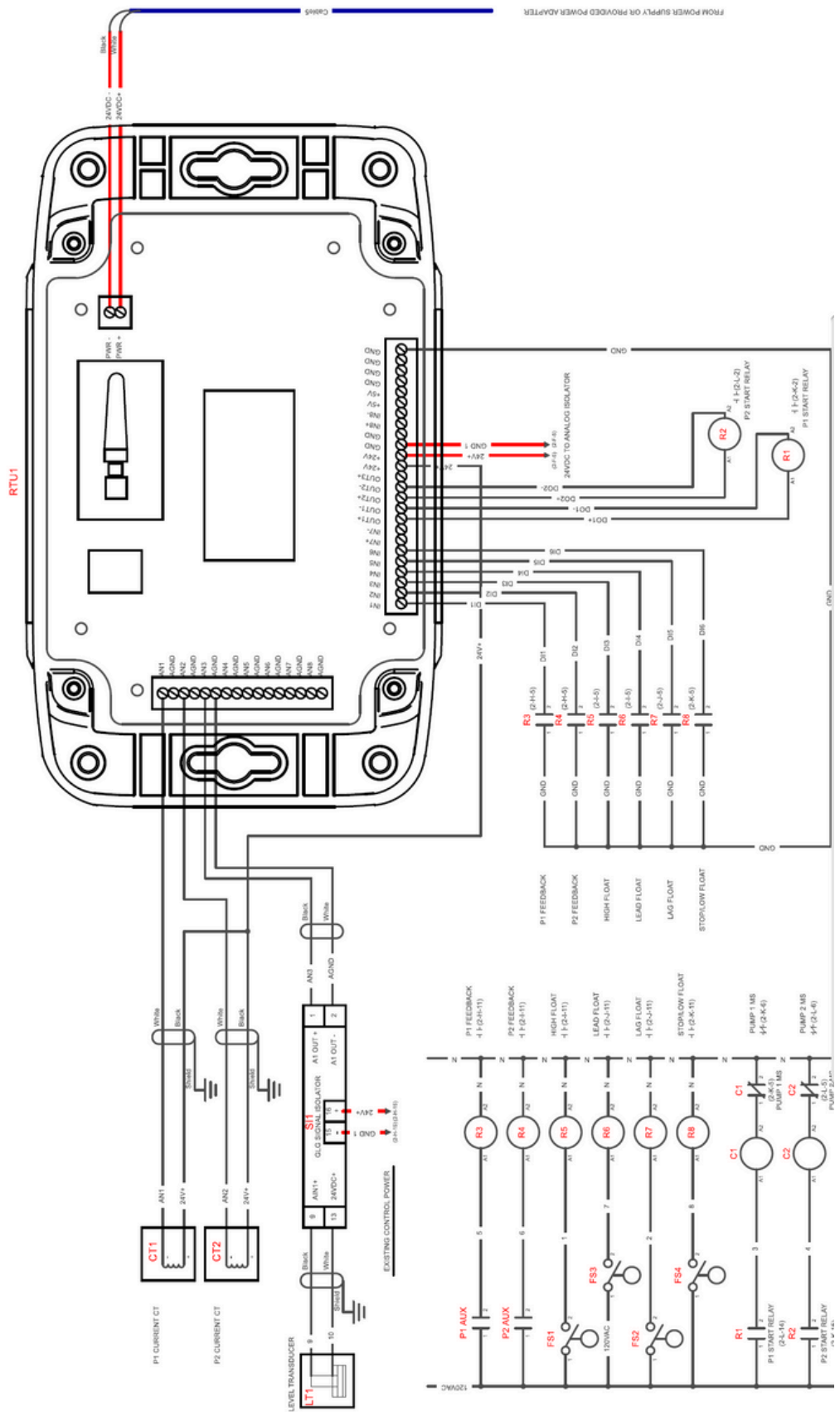
DIGITAL INPUTS/ RELAY OUTPUTS



INSTALLATION

WIRING DIAGRAM

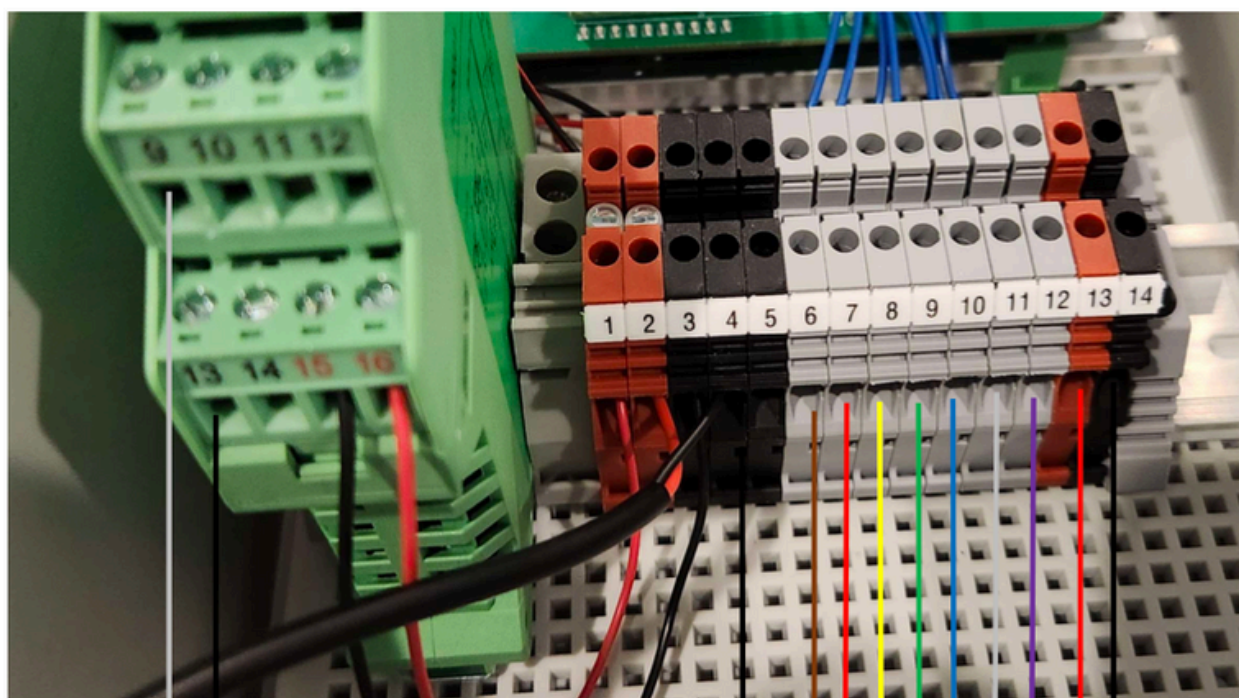
ANALOG INPUTS



INSTALLATION

WIRING DIAGRAM

ANALOG ISOLATOR



Sensor
Analog 1
Pin 13 +
Pin 9 --
White and Black

Digital Inputs
Ground
Pin 5 Black

Wet Well pump 1
running feedback
Pin 6 Brown

Wet Well pump 2
running feedback
Pin 7 Red

High Float
Pin 8 Yellow

Digital 4
Pin 9 Green

Digital 5
Pin 10 Blue

Digital 6
Pin 11 White

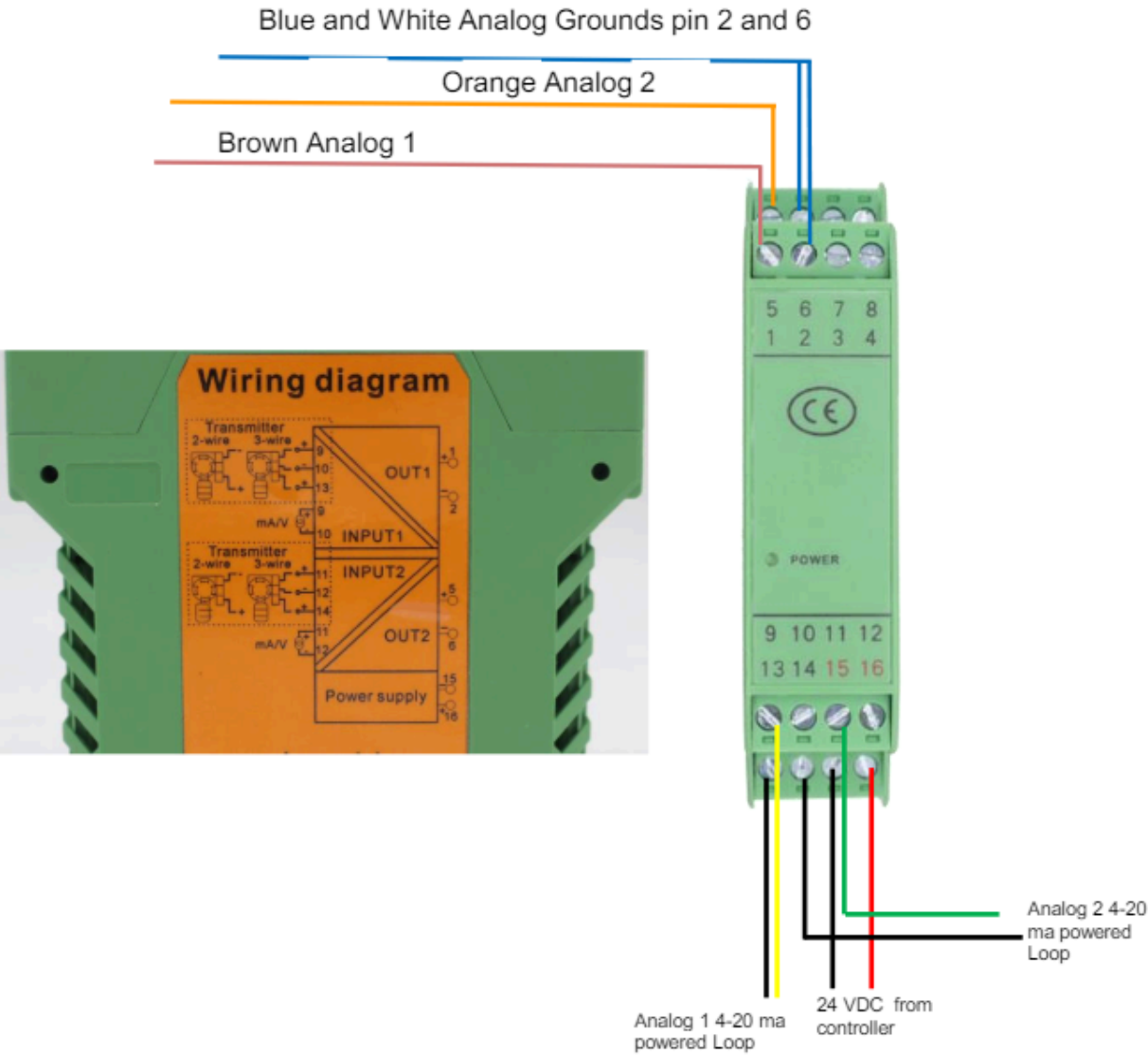
Level Sensor
Analog 1
Pin 13 +
Pin 14 --
Analog to others device

Digital 7
Pin 12 Violet

INSTALLATION

WIRING DIAGRAM

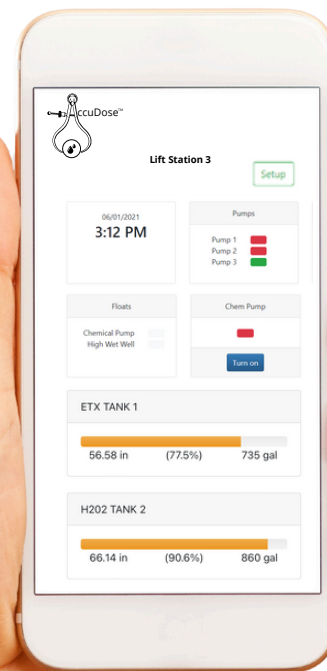
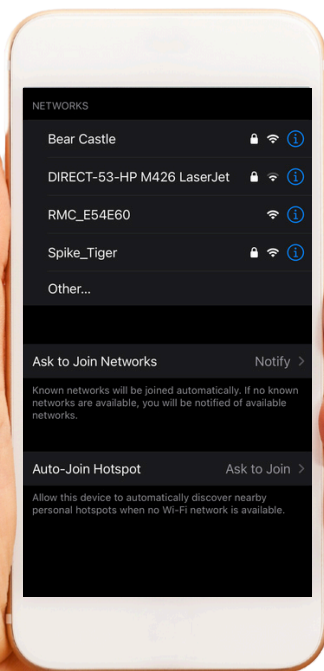
ANALOG ISOLATOR



SETUP

APPLE AND ANDROID APP

- Download the APP from our website.
- Connect to the local RMC WIFI network from network list. (See image below.)
- Select the AccuDose icon.
- The APP will open up and there will be two selections available. The “Connect” button will connect you directly to the server and the cloud based user interface.
- The Setup button will connect you directly to the local user interface.
- Note: the smart device must be connected to the “RMC-2000” network in the WIFI network selection to connect directly to local access point.



SETUP

LOCAL ACCESS USER INTERFACE



Network

Device

Network Setup

Mac Address: 94:3C:C6:46:0C:F0

☐ Connect to Wifi

☒ Enable Cellular Modem

APN

hologram

Signal Strength

-69

Update

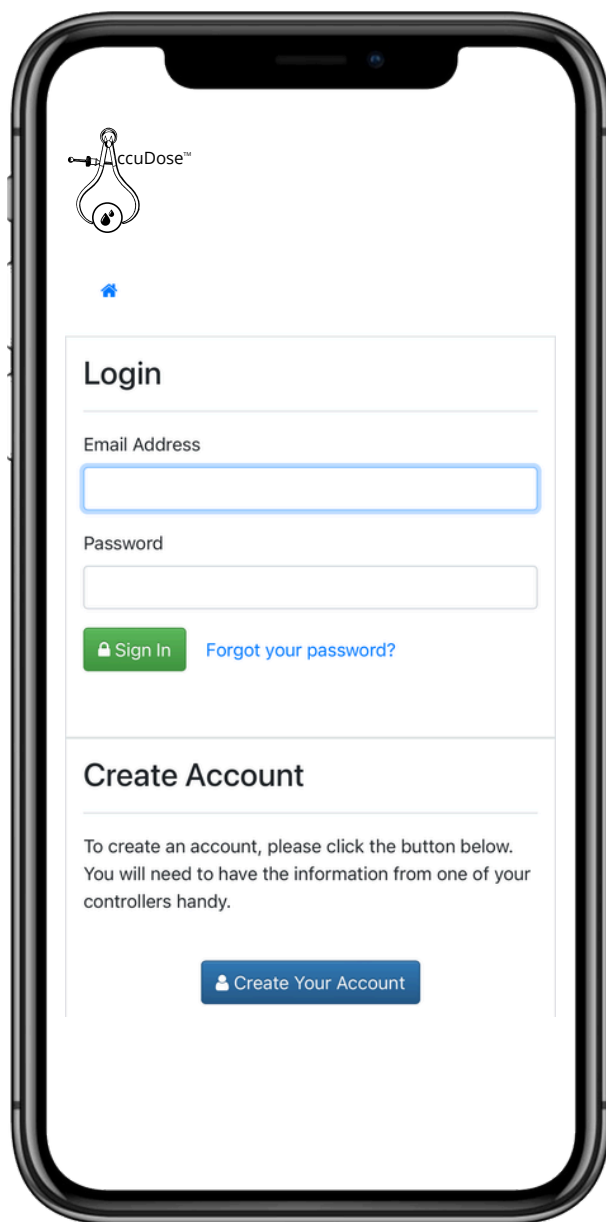
(Device will disconnect from cellular network while updating the cell signal)

Save Network Config and Reboot

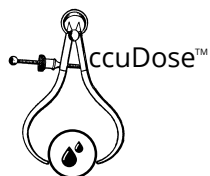
- Mac Address: The electronic serial number of the device.
- Connect to Wifi: Check this box to connect device through the local Wifi network.
- Enable Cellular Modem: Check this box to connect device through Cellular.
- APN: the Cellular carrier APN address.
- Signal Strength: The signal strength of the Cellular connection to the tower.
- Save Network Config and Reboot: Save revised settings.

SETUP

CONNECTING TO THE SERVER AND USER INTERFACE



- Open up the APP and select “Connect”.
- The Server sign up screen will appear (See Diagram 1 Below).
- Enter the “Email Address” and “Password” supplied with unit.
- Then select “Sign In”.



[Home](#) > My Account

My Account

Welcome to your dashboard. Here you can manage all your controller information and programming.

<p>Sites</p> <p>2</p> <p>View List</p>	<p>Controllers</p> <p>9</p> <p>View List</p>	<p>Logs</p> <p>Datapoints</p> <p>Events</p>
<p>Users</p> <p>4</p> <p>View List</p>	<p>Notifications</p> <p>Kevin Buchanan</p> <p>Re-assign</p>	

- My Account - Setting up individual profile (page 11).
- Sites- List of Sites (page 12).
- Users- List of all of the users for the notifications (page 13).
- Notifications- Select who will receive the alarms and notifications (page 14-15).
- Datapoints- Logs of all the analogs and digitals (page 16).
- Events- Logs of all of the actual events (page 17).
- Controllers- List of the users controllers (page 18).

SETUP

MANAGE PROFILE AND USER INFORMATION

AccuDose™

[My Account](#) · [Edit Profile](#)

Manage Profile

User Information

First Name
Kevin

Last Name
Buchanan

Email Address
acorninspect@gmail.com

Password

Confirm Password

Company Name
Acorn Inspect

Time Zone
(UTC-06:00) Central Time (US & Canada)

Mobile Phone
9312069810
(Enter your full telephone number, including area code, with no spaces)

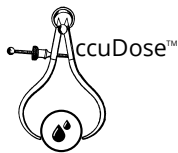
Mobile Phone Carrier
Verizon Wireless

[Save](#)

- First Name- User's first name.
- Last Name- User's last name.
- Email Address- User's email address.
- Password- Assigned password.
- Company Name- Organization name.
- Time Zone- The time zone where the system is located.
- Mobile Phone- User's mobile phone number for texts and emails.
- Mobile Phone Carrier- The cellular carrier of the user's cell phone

SETUP

MANAGE SITES



Site List

Add New Site

Site Name	Address	Country		
Demo		United States	Manage Controllers	Edit
Tank	1250 Walter Head Road Cedar Hill TN	United States	Manage Controllers	Edit

- Site List- All sites can be managed, edited, or a new site added.



My Account > Manage Sites > Add Site

New Site

Site Information

Site Name

Address

Address 2

Country

United States


City

State

Save

SETUP

MANAGE USER AND NOTIFICATIONS



[Home](#) > [My Account](#) > Manage Users

User List

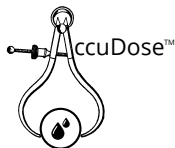
Add New User

Name	Email	
Enzo Lebeau	llebeau@accu-dose.com	Edit
John Smith	kbuchanan37043@yahoo.com	Edit
Kevin Buchanan	acorninspect@gmail.com	Edit
Shivan LINGAM	saaigm@gmail.com	Edit

- User List- All users can be managed, edited, or a new user added.

SETUP

MANAGE USER AND NOTIFICATIONS



User Information

First Name

Richard

Last Name

Cunha

Email Address

rccunha@comcast.net

Password

Confirm Password

Role

Manager

Time Zone

(UTC-05:00) Eastern Time (US & Canada)

Mobile Phone

5086429911

(Enter your full telephone number, including area code, with no spaces)

Mobile Phone Carrier:

Verizon Wireless

Sites

☐ All Sites

☐ Demo

☒ Tank

Save

Managers: have access to any sites that they've been allowed to see and can be set to receive notifications

Users: are the same as Managers but cannot get notifications.

View-only Users: can only view units and cannot update config. If a view-only user tries they'll be prevented from doing so (they can still see the current config).

Role

Manager

Manager


User

View-Only User

Sites: These are the specific sites that this manager can access from the server. You can select All Sites or only the checked sites.

SETUP

MANAGE USER AND NOTIFICATIONS




My Account > Manage Users

User List

Add New User

Name	Email	
Enzo Lebeau	llebeau@accu-dose.com	Edit
John Smith	kbuchanan37043@yahoo.com	Edit
Kevin Buchanan	acorninspect@gmail.com	Edit
Shivan LINGAM	saaigm@gmail.com	Edit

- User List- All users can be managed, edited, or a new user added.



My Account

Notifications

This page allows you to select who will receive all the selected notifications in your account. A user must be given the manager role to show up here, which you can do by editing their account.

Select which users you would like to receive all controller notifications under this account.

☐ Enzo Lebeau

☐ John Smith

☒ Kevin Buchanan

☐ Shivan LINGAM

Save

- Notifications List- Select user to be notified.

USER INTERFACE

DATA POINTS

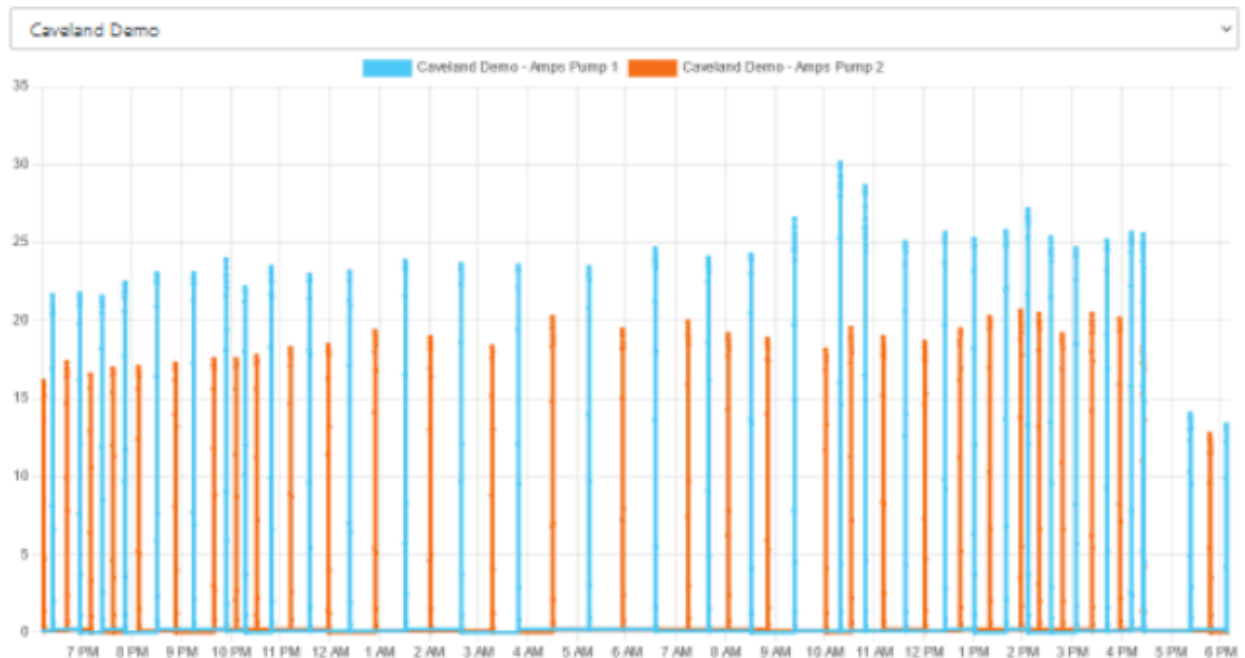


[My Account](#) > [Data Logging Reports](#)

Data Logging Report

Analog

Choose a device from the dropdown to update the graph. Click on any of the sensors in the legend to toggle their visibility.



Daily Statistics

[CSV](#) [PDF](#)

Controller Name	Variable	Info	Date	
<input type="text"/>	<input type="text"/>	<input type="text"/>	From: <input type="text" value="2021-11-30"/>	To: <input type="text" value="2021-12-07"/> <input type="button" value="Search"/>
Caveland Demo	Pump 1	Starts:	50	2021-12-06
Caveland Demo	Pump 1	Runtime:	01:12:40	2021-12-06
Caveland Demo	Pump 2	Starts:	51	2021-12-06
Caveland Demo	Pump 2	Runtime:	01:10:19	2021-12-06

- Datapoints- All analog and digital historical data can be viewed and also CSV or PDF files can be downloaded.



[Home](#) > [My Account](#) > Event Logging Reports

Event Logs

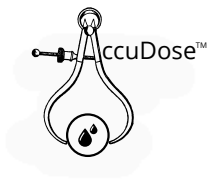
[CSV](#) [PDF](#)

Controller Name	Date	Action	Info
<input type="text"/>	From: <input type="text" value="2021-11-30"/> To: <input type="text" value="2021-12-07"/>	<input type="text" value="--All Events--"/>	<input type="button" value="Search"/>
Caveland Demo	2021-12-07 17:08:25	Pump changed	Pump 1 off
Caveland Demo	2021-12-07 17:07:00	Pump changed	Pump 1 on
Caveland Demo	2021-12-07 16:48:30	Pump changed	Pump 2 off
Caveland Demo	2021-12-07 16:46:55	Pump changed	Pump 2 on
Caveland Demo	2021-12-07 16:24:34	Pump changed	Pump 1 off
Caveland Demo	2021-12-07 16:23:10	Pump changed	Pump 1 on
Caveland Demo	2021-12-07 15:27:31	Pump changed	Pump 2 off
Caveland Demo	2021-12-07 15:27:30	Pump changed	Pump 1 off

- Events- All analog and digital historical event can be viewed and also CSV or PDF files can be downloaded.

USER INTERFACE

CONTROLLER LIST



[Home](#) > [My Account](#) > Manage Controllers

Controller List

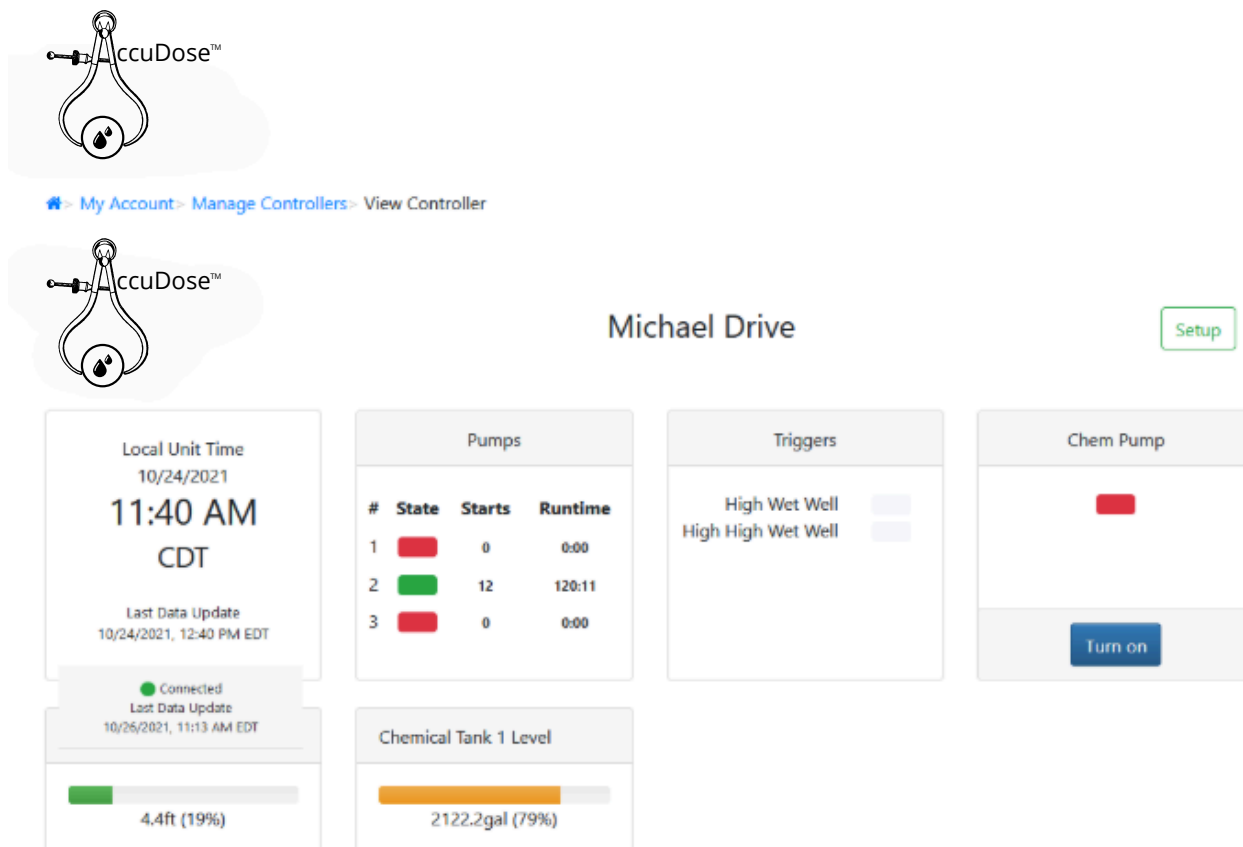
Add New Controller

Controller Name	Site Name	MAC			
AB12	Demo	461014	View	Stats	Edit
AECOM Demo	Tank	CAAEEC	View	Stats	Edit
BP Process 23	Demo	460CF0	View	Stats	Edit

- Controller List- All controllers can be managed, edited, or a new added added.

USER INTERFACE

USER INTERFACE MAIN SCREEN



Copyright © 2021 Accudose

- Name of site: Michael Drive
- Local unit time: Local time at controller location via the internet.
- Connected: Displays the status of the connection between local controller and the cloud based server.
- Pumps: Shows the current state of the pump, number of starts of each pump, and the actual runtime of each pump.
- Triggers: Displays the status of high wet well or other alarms.
- Chem Pump: Displays the status of the chemical feed pump in dosing mode.
- Wetwell: Displays real time level of the wetwell.
- Chemical Tank 1 Level: Displays real time level of the chemical tank.

DEVICE SETUP

USER INTERFACE DEVICE SETUP

[Home](#) > [My Account](#) > [Manage Controllers](#) > Remote View: Pulsar



Pulsar

Setup

Application

Device Setup

Name

Pulsar

Time Zone

(UTC-05:00) Eastern Time (US & Canada)

Analog Sensor Config

Show/Hide

Digital Sensor Config

Show/Hide

Output Config

Show/Hide

MODBUS Config

Show/Hide

Save Device Config

Copyright © 2023 Accudose

- Time Zone: Set your local Time Zone.
- Name: Set the name of this controller.
- Analog Sensor Config: Select Show/Hide button.
- Digital Sensor Config: Select Show/Hide button.
- Output Config: Select Show/Hide button.
- MODBUS Config: Select Show/Hide button

DEVICE SETUP

ANALOG INPUT CONFIGURATION

The screenshot displays the 'Analog Sensor Config' window with a 'Show/Hide' button in the top right. The configuration is split into two columns for 'Analog 1' and 'Analog 2'. Each column contains the following fields:

- Type:** A dropdown menu. For Analog 1, it is 'Wet Well Tank'; for Analog 2, it is 'Chemical Tank'.
- Name:** A text input field. For Analog 1, it is 'Wet Well Tank Level'; for Analog 2, it is 'Analog Input 2'.
- Mode:** A dropdown menu, both set to '4-20mA Low->High'.
- Sensitivity:** A numeric input with a help icon, both set to '2'.
- Units:** A dropdown menu, both set to 'Inches'.
- Gallons/Inch:** A numeric input, both set to '5'.
- Low:** A numeric input for the low alarm setpoint. For Analog 1, it is '-1'; for Analog 2, it is '-1'.
- High:** A numeric input for the high alarm setpoint. For Analog 1, it is '45'; for Analog 2, it is '45'.
- Max:** A numeric input for the maximum value. For Analog 1, it is '50'; for Analog 2, it is '50'.
- Alarm Delay (sec):** A numeric input, both set to '0'.

- Type- Type of analog being monitored e.g. wet well, chemical tank, flow, etc. Select drop down menu to chose type of analog.
- Name- Name of the analog.
- Mode- this is the type of electrical input.
- Sensitivity- how often the analog will report to server based on percentage of analog change.
- Units- Engineering units.
- Gallons/Inch- this is the value the user enters that represents the number of gallons in one inch or one foot of liquid in this well or tank repectively.
- Low- The setpoint for low alarm trigger.
- High- the setpoint for high alarm trigger.
- Max- engineering units at 20 ma.
- Alarm Delay- this is the amount of time in seconds entered by the user that the alarm will have to be active to trigger and actual alarm. *Example: If the high level alarm setpoint is reached or exceeded that alarm will not be actually triggered and sent until the Alarm Delay value times out.*

DEVICE SETUP

DIGITAL INPUT CONFIGURATION

Digital Sensor Config

Show/Hide

<div><div>Digital 1 Type</div><div>Wetwell Pump State</div></div> <div><div>Name</div><div>Pump 1 Status</div></div> <div><div>Input State</div><div>Active When Closed</div></div> <div><div>Start Count Alarm</div><div>0</div></div> <div><div>Runtime Alarm (min)</div><div>0</div></div> <div><div>Gallons Per Cycle</div><div>1000</div></div>	<div><div>Digital 2 Type</div><div>Wetwell Pump State</div></div> <div><div>Name</div><div>Pump 2 Status</div></div> <div><div>Input State</div><div>Active When Closed</div></div> <div><div>Start Count Alarm</div><div>0</div></div> <div><div>Runtime Alarm (min)</div><div>0</div></div> <div><div>Gallons Per Cycle</div><div>1000</div></div>
<div><div>Digital 3 Type</div><div>Float Sensor</div></div> <div><div>Name</div><div>High Float</div></div> <div><div>Input State</div><div>Active When Closed</div></div>	<div><div>Digital 4 Type</div><div>Alarm</div></div> <div><div>Name</div><div>Pump 1 Fail</div></div> <div><div>Input State</div><div>Active When Closed</div></div>

Pump Alarm Config:

- Type- Type of digital being monitored e.g. Wetwell Pump, Float Sensor, Alarm, etc.
- Name- Name of the digital.
- Input State- Select whether the digital that is being monitored is active open or closed.
- Start Count Alarm- Enter the number of pump starts that when exceeded in 24 hrs will trigger an alarm.
- Runtime Alarm-Enter the number of runtime minutes that when exceeded in 24 hrs will trigger an alarm.

DEVICE SETUP

DIGITAL OUTPUT CONFIGURATION

The screenshot shows the 'Output Config' window with a 'Show/Hide' button in the top right. A checkbox labeled 'Relays are in a Lead/Lag configuration' is present. The window is divided into two columns for Relay 1 and Relay 2. Relay 1 settings include: Type (Dosing Pump), Name (Pump1 on/off), and Dosing Mode (Pump State). The Dosing Mode dropdown menu is open, showing options: Pump State, Analog Level - Rising Setpoint Timed, Analog Level - Falling Setpoint Timed, Analog Level - High On/Low Off, and Analog Level - Low On/High Off. A 'Modbus Config' button is at the bottom left, and another 'Show/Hide' button is at the bottom right.

This screenshot shows the same 'Output Config' window. The Dosing Mode for Relay 1 is now set to 'Pump State', and its dropdown menu is open, showing options: Wetwell Pump Running, Wetwell Pumps Turn On, Wetwell Pumps Turn Off, and Wetwell Pumps Turn On or Off. The other settings for Relay 1 and Relay 2 remain the same.

Digital Output Config:

- Type- There are two types of digital outputs. Dosing Pump and Manual.
- Dosing Pump- This selection allows you to control a digital output based on a choice of settings.
- Manual- This selection allows you to turn on and off the digital output manually with a button.
- Name- Name of the digital output.
- Dosing Mode- Select what type of digital input will control the Relay output.
- Wetwell Pumps Turn On.
- Wet well Level-Timed- the output will go on based on level set points. The output will come on for the amount of time set by the user in Dose Runtime box.
- Wet well- High on/Low Off- This selection will control the output based on a high and low setpoint. The output will go on when the high setpoint is reached and off when the low setpoint is reached.

DEVICE SETUP

DIGITAL OUTPUT CONFIGURATION 2

Relay 1

Type

Dosing Pump

Name

Pump 1

Dosing Mode

Wetwell Level - Low On/High Off

Setpoints

Low

25

%

High

50

%

Relay 1

Type

Dosing Pump

Name

Pump 1

Dosing Mode

Pump State

Pump State

Wetwell Pumps Turn Off

Wetwell Pumps Turn On

Wetwell Pumps Turn Off

Wetwell Pumps Turn On or Off

Wetwell Pump Running

Relay 1

Type

Dosing Pump

Name

Pump 1

Dosing Mode

Pump State

Pump State

Wetwell Pumps Turn On or Off

Dose Runtime (seconds)

60

Digital Output Config

- Wet well- Low on/High Off- This selection will control the output based on a high and low setpoint. The output will go on when the low setpoint is reached and off when the high setpoint is reached.
- Pump State- This selection will control the output based on the conditon of the existing wet well pump.
- Dose Runtime- this setting will dictate how long the output will stay on after the appropriate conditon is met in the pump state setting.