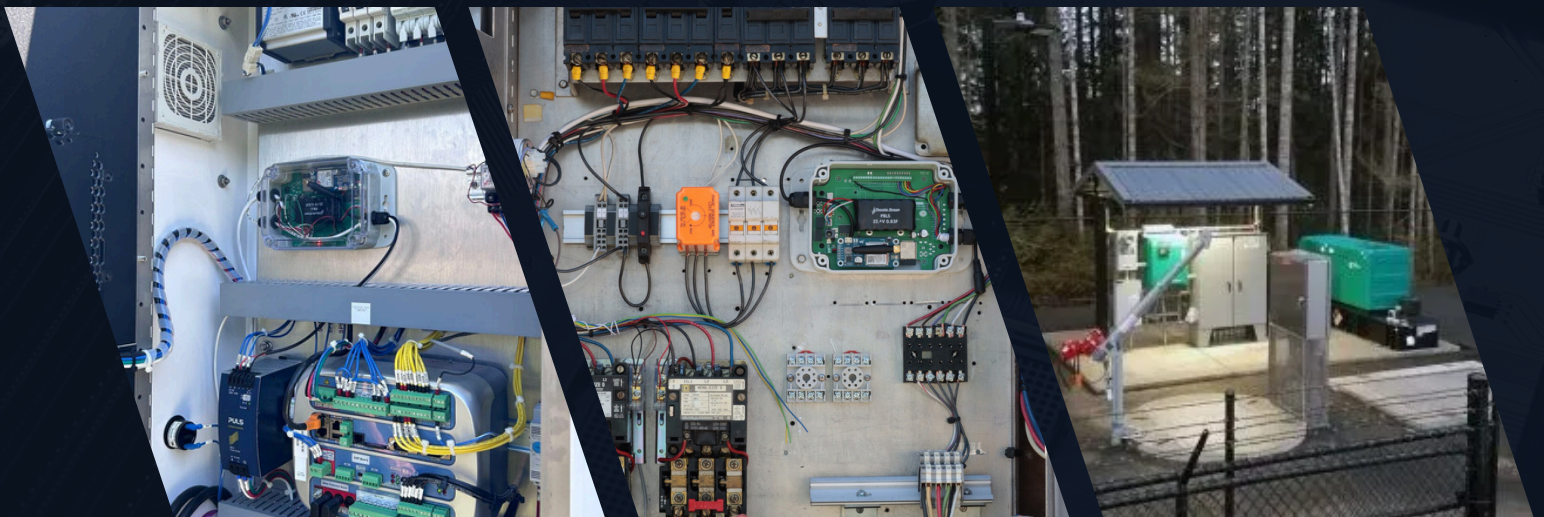


# RMC-1000/2000/2000I INSTALLATION & USER MANUAL



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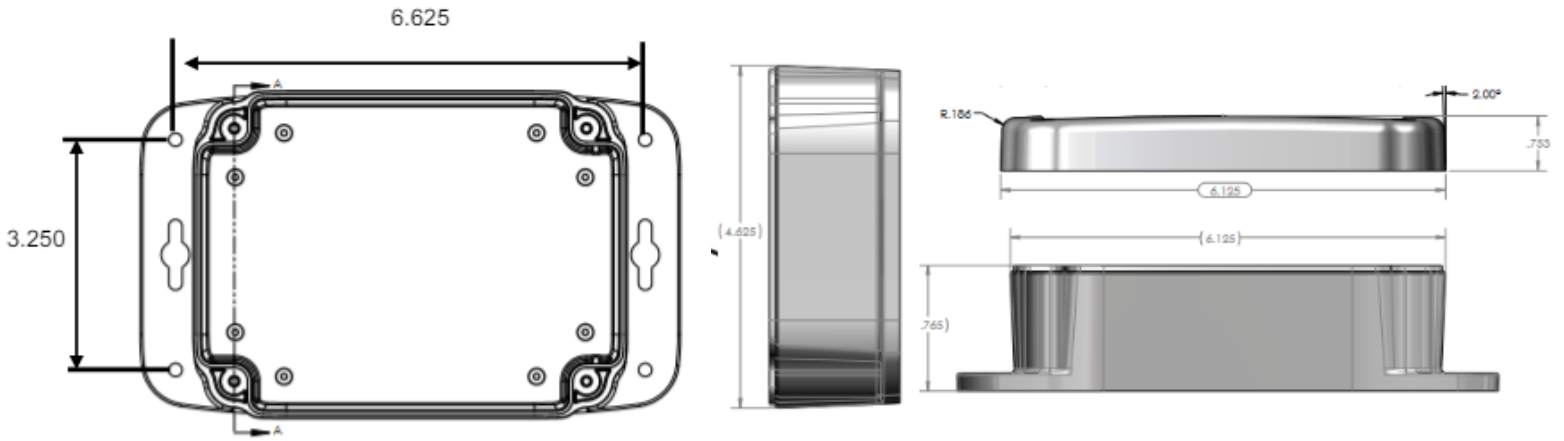
**Pg.24** Digital Output Configuration

**Pg.25** Digital Output Configuration 2



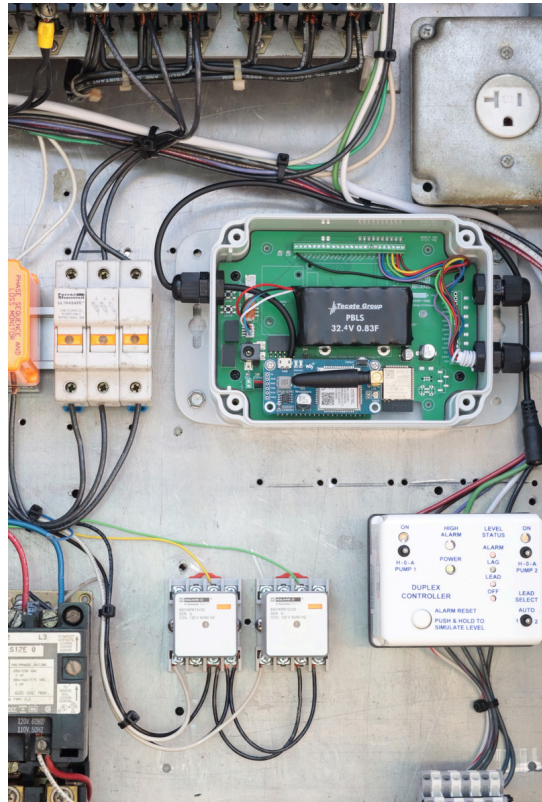
# INSTALLATION

## MOUNTING



### MECHANICAL INSTALLATION:

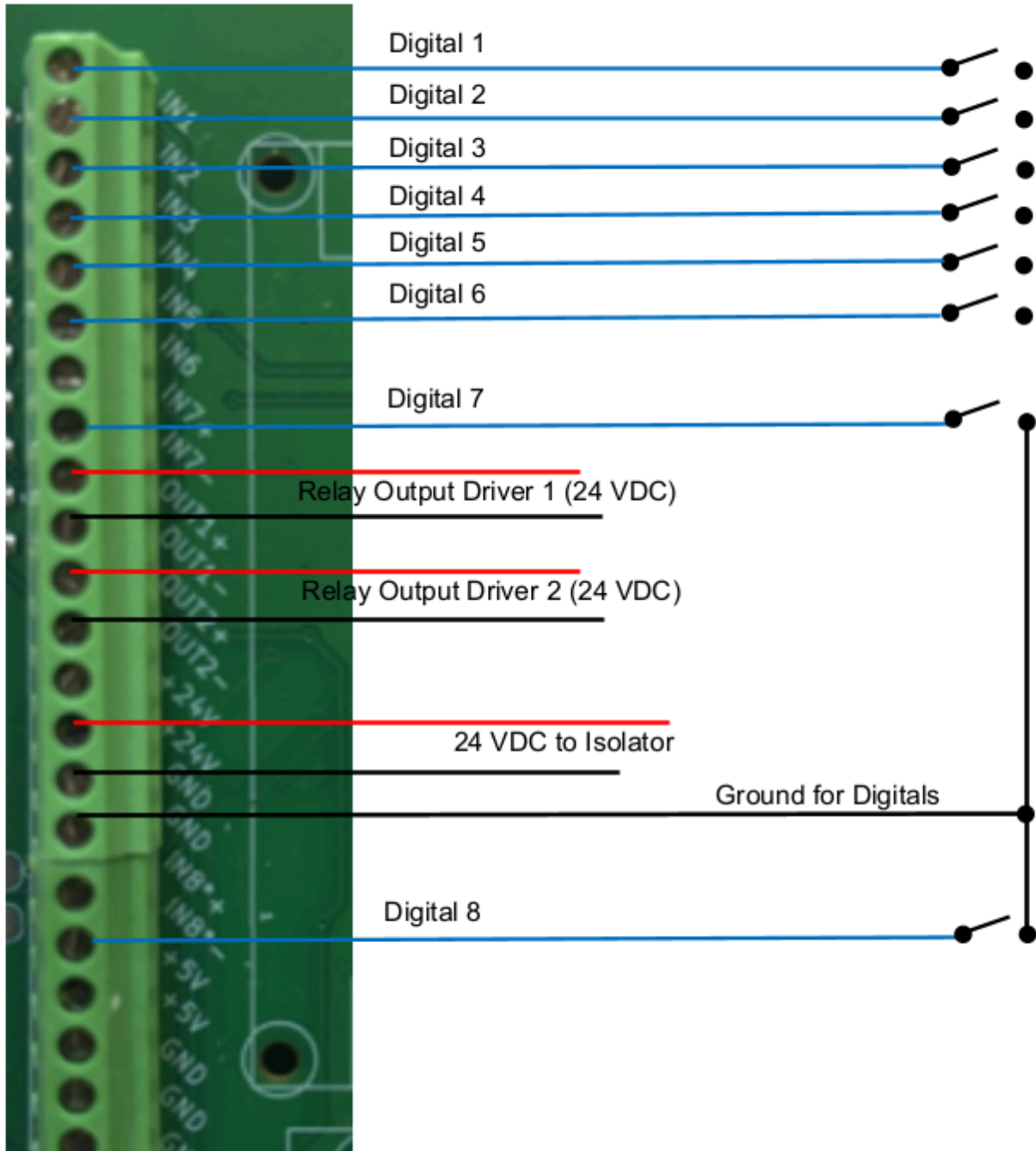
Select suitable location as close to the control panel or location of the digital and analog IO points. Mount the controller using the predrilled four screw holes in each corner. The controller can be mounted inside of an existing panel or outside on the side of the panel or any available mounting space.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



# INSTALLATION

## WIRING DIAGRAM

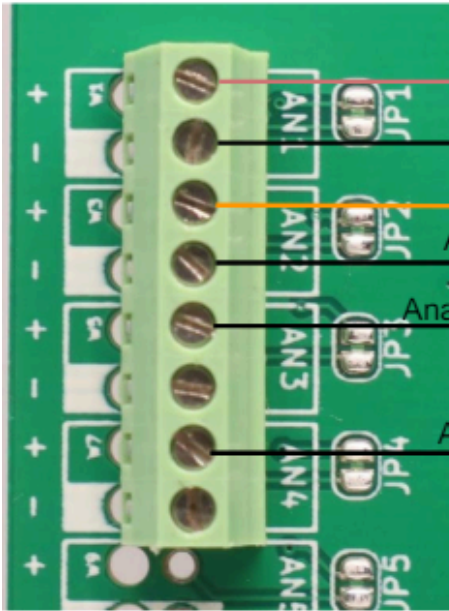
### DIGITAL INPUTS/ RELAY OUTPUTS



# INSTALLATION

## WIRING DIAGRAM

### ANALOG INPUTS



Analog AN1 Positive

Analog AN1 Ground

Analog AN2 Positive

Analog AN1 Ground

Analog AN3 Input Device Negative

Analog AN4 Input Device Negative

4 to 20 MA Sensor.  
Sensor provides power.

4 to 20 MA Sensor. RMC-2000 provides power.

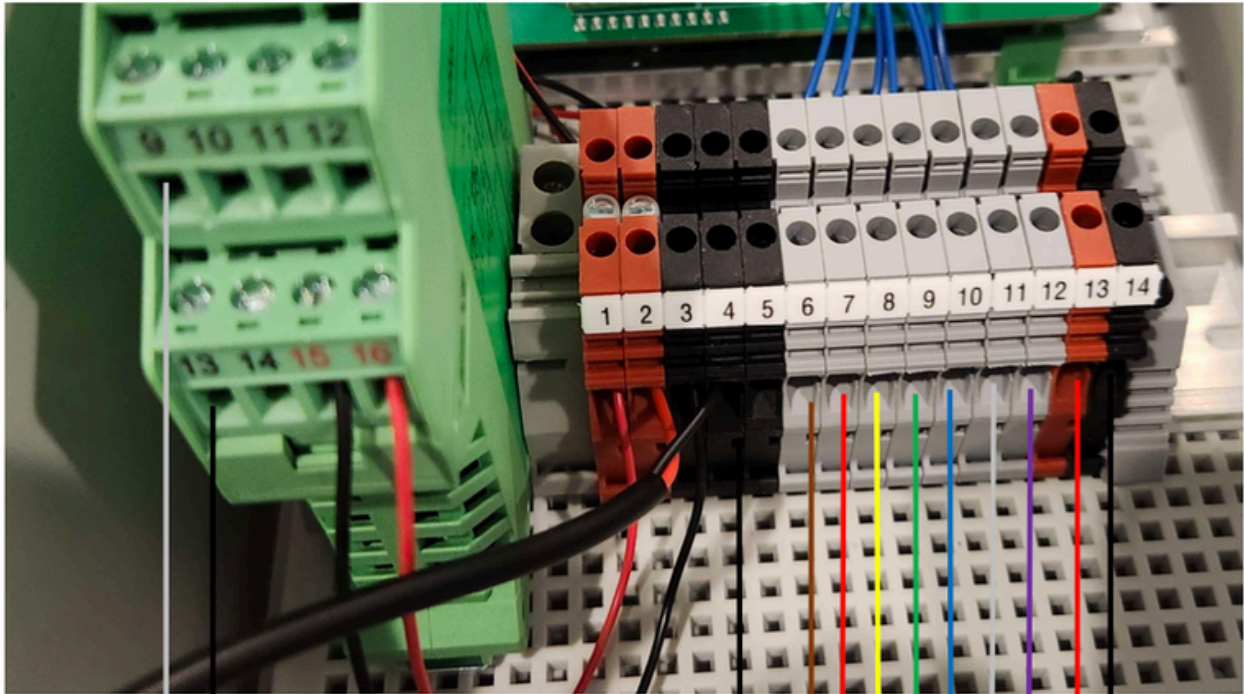


Analog AN3 Input Sensor 24 VDC

# INSTALLATION

## WIRING DIAGRAM

### ANALOG ISOLATOR

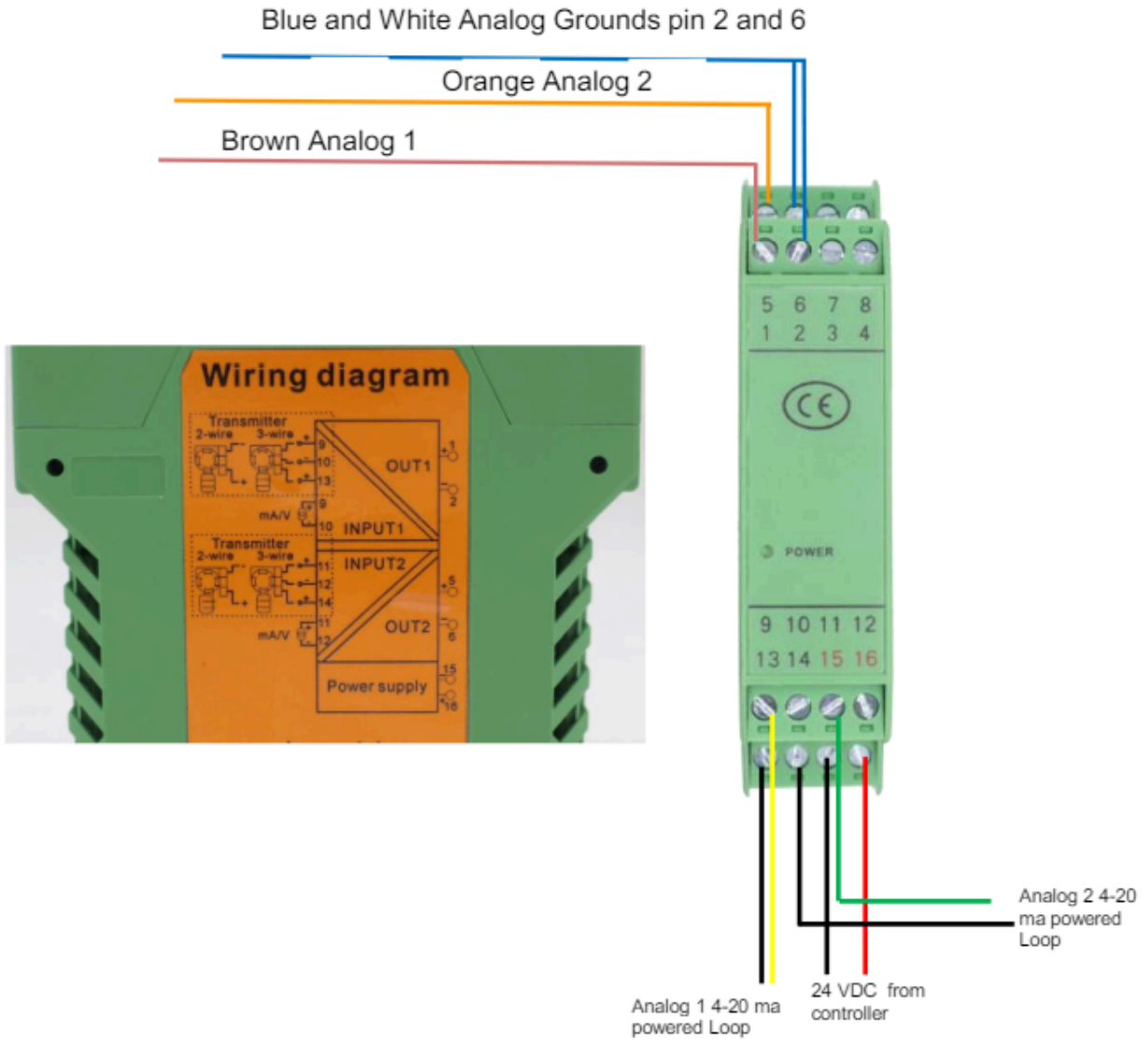


- Sensor Analog 1  
Pin 13 +  
Pin 9 --  
White and Black
- Digital Inputs Ground  
Pin 5 Black
- Wet Well pump 1 running feedback  
Pin 6 Brown
- Wet Well pump 2 running feedback  
Pin 7 Red
- High Float  
Pin 8 Yellow
- Digital 4  
Pin 9 Green
- Digital 5  
Pin 10 Blue
- Digital 6  
Pin 11 White
- Digital 7  
Pin 12 Violet
- Level Sensor Analog 1  
Pin 13 +  
Pin 14 --  
Analog to others device

# INSTALLATION

## WIRING DIAGRAM

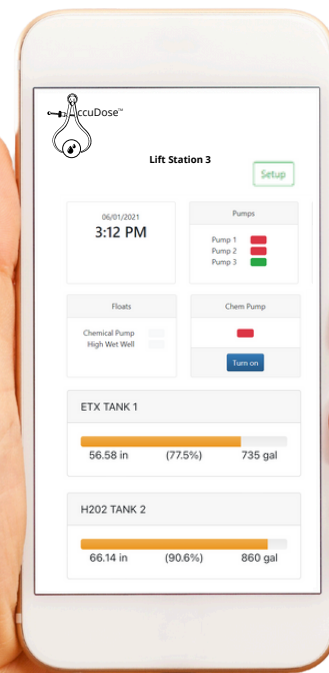
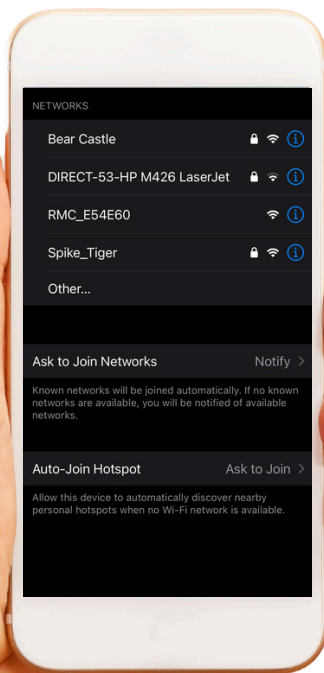
### ANALOG ISOLATOR



## 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

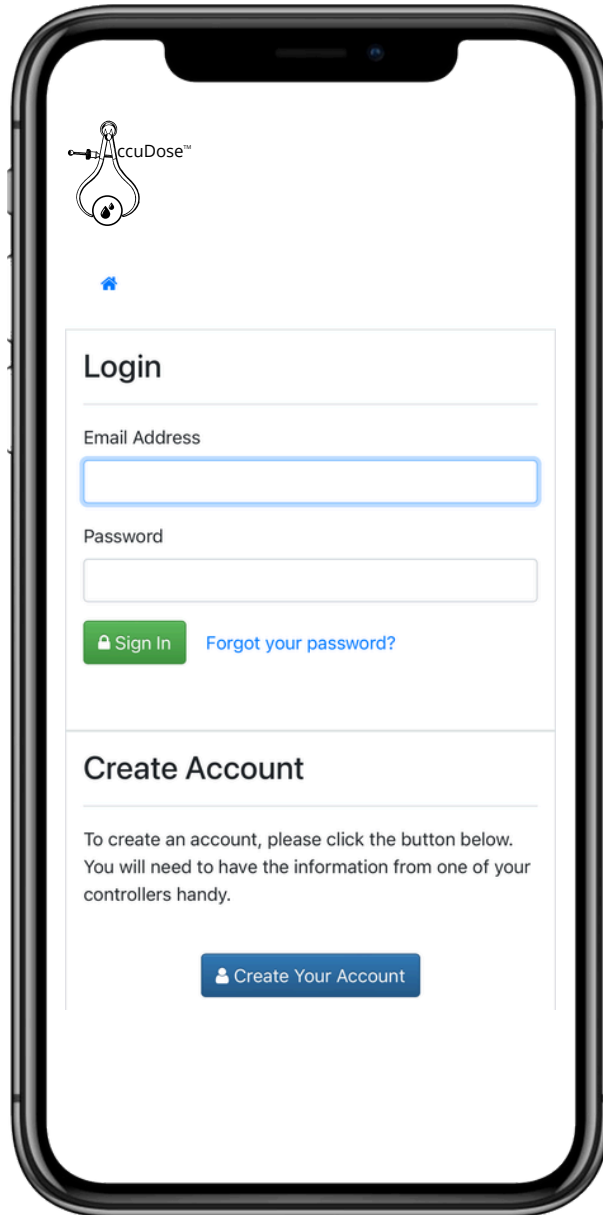
(Device will disconnect from cellular network while updating the cell signal)

Save Network Config and Reboot

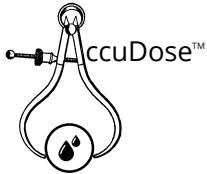
- Mac Address: The electronic serial number of the device.
- Connect to Wifi: Check this box to connect device through the local Wifi network.
- Enable Cellular Modem: Check this box to connect device through Cellular.
- APN: the Cellular carrier APN address.
- Signal Strength: The signal strength of 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><a href="#">View List</a></p>	<p>Controllers</p> <p>9</p> <p><a href="#">View List</a></p>	<p>Logs</p> <p><a href="#">Datapoints</a></p> <p><a href="#">Events</a></p>
<p>Users</p> <p>4</p> <p><a href="#">View List</a></p>	<p>Notifications</p> <p>Kevin Buchanan</p> <p><a href="#">Re-assign</a></p>	

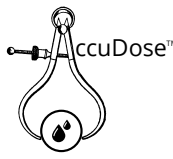
- My Account - Setting up individual profile (page 11).
- Sites- List of Sites (page 12).
- Users- List of all of the users for the notifications (page 13).
- Notifications- Select who will receive the alarms and notifications (page 14-15).
- Datapoints- Logs of all the analogs and digitals (page 16).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

## SETUP

### MANAGE PROFILE AND USER INFORMATION

The image shows a smartphone screen with the AccuDose logo at the top left. Below the logo is a navigation bar with 'My Account' and 'Edit Profile'. The main heading is 'Manage Profile'. Underneath is a 'User Information' section containing several input fields: 'First Name' (Kevin), 'Last Name' (Buchanan), 'Email Address' (acorninspect@gmail.com), 'Password' (masked with asterisks), 'Confirm Password' (empty), 'Company Name' (Acorn Inspect), 'Time Zone' (UTC-06:00 Central Time (US & Canada)), 'Mobile Phone' (9312069810), and 'Mobile Phone Carrier' (Verizon Wireless). A green 'Save' button is located at the bottom center of the form.

- 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



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	<a href="#">Edit</a>
John Smith	kbuchanan37043@yahoo.com	<a href="#">Edit</a>
Kevin Buchanan	acorninspect@gmail.com	<a href="#">Edit</a>
Shivan LINGAM	saaigm@gmail.com	<a href="#">Edit</a>

- 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



[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.



[Home](#) > 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

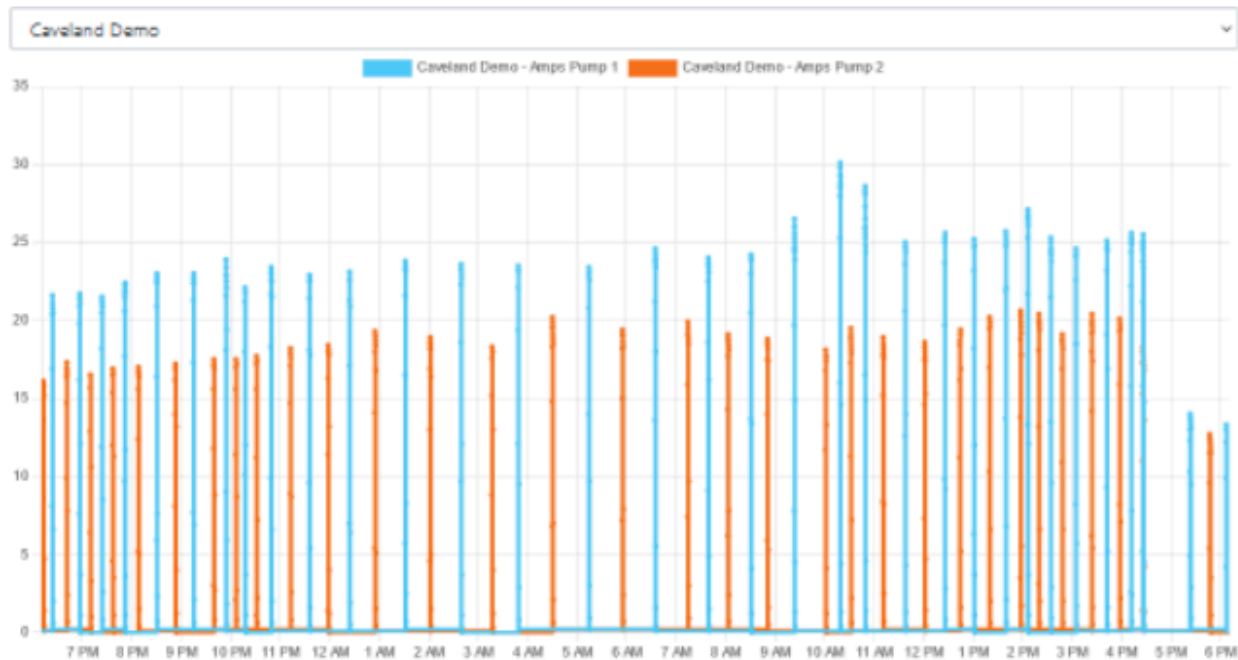


My Account > Data Logging Reports

### Data Logging Report

#### Analogs

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: 2021-11-30 To: 2021-12-07 <input type="button" value="Search"/>
Cleveland Demo	Pump 1	Starts: 50	2021-12-06
Cleveland Demo	Pump 1	Runtime: 01:12:40	2021-12-06
Cleveland Demo	Pump 2	Starts: 51	2021-12-06
Cleveland 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

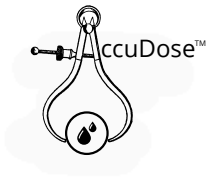
[CSV](#) [PDF](#)

Controller Name	Date	Action	Info
<input type="text"/>	<b>From:</b> <input type="text" value="2021-11-30"/> <b>To:</b> <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	<a href="#">View</a> <a href="#">Stats</a> <a href="#">Edit</a>
AECOM Demo	Tank	CAAEEC	<a href="#">View</a> <a href="#">Stats</a> <a href="#">Edit</a>
BP Process 23	Demo	460CF0	<a href="#">View</a> <a href="#">Stats</a> <a href="#">Edit</a>

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

## USER INTERFACE

### USER INTERFACE MAIN SCREEN

AccuDose™

My Account > Manage Controllers > View Controller

AccuDose™

Michael Drive Setup

Local Unit Time  
10/24/2021  
**11:40 AM**  
CDT  
Last Data Update  
10/24/2021, 12:40 PM EDT

Connected  
Last Data Update  
10/26/2021, 11:13 AM EDT

4.4ft (19%)

Pumps

#	State	Starts	Runtime
1	Red	0	0:00
2	Green	12	120:11
3	Red	0	0:00

Triggers

High Wet Well

High High Wet Well

Chem Pump

Turn on

Chemical Tank 1 Level

2122.2gal (79%)

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- 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	Time Zone
<input type="text" value="Pulsar"/>	<input type="text" value="(UTC-05:00) Eastern Time (US &amp; Canada)"/>

---

Analog Sensor Config	Show/Hide
Digital Sensor Config	Show/Hide
Output Config	Show/Hide
MODBUS Config	Show/Hide

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- 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' interface, which is divided 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 field with a percentage sign, both set to '2'.
- Units:** A dropdown menu, both set to 'Inches'.
- Gallons/Inch:** A numeric input field, both set to '5'.
- Low:** A numeric input field, both set to '-1'.
- High:** A numeric input field, both set to '45'.
- Max:** A numeric input field, both set to '50'.
- Alarm Delay (sec):** A numeric input field, 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

Digital 1			Digital 2		
Type Wetwell Pump State			Type Wetwell Pump State		
Name Pump 1 Status			Name Pump 2 Status		
Input State Active When Closed			Input State Active When Closed		
Start Count Alarm 0	Runtime Alarm (min) 0	Gallons Per Cycle 1000	Start Count Alarm 0	Runtime Alarm (min) 0	Gallons Per Cycle 1000

Digital 3			Digital 4		
Type Float Sensor			Type Alarm		
Name High Float			Name Pump 1 Fail		
Input State Active When Closed			Input State Active When Closed		

#### 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

Output Config Show/Hide

Relays are in a Lead/Lag configuration

Relay 1	Relay 2
Type: Dosing Pump	Type: Manual
Name: Pump1 on/off	Name: Relay 2
Dosing Mode: Pump State (dropdown open)	

MOXBUS Config Show/Hide

Output Config Show/Hide

Relays are in a Lead/Lag configuration

Relay 1	Relay 2
Type: Dosing Pump	Type: Manual
Name: Pump1 on/off	Name: Relay 2
Dosing Mode: Pump State	
Pump State: Wetwell Pump Running (dropdown open)	

### 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 condition of the existing wet well pump.
- Dose Runtime- this setting will dictate how long the output will stay on after the appropriate condition is met in the pump state setting.