Accu-Dose Accu-Watch RMC-1000/2000 User Manual

Michael Drive

Setup

Local Unit Time
10/25/2021
10:02 AM
CDT

Last Data Update
10/25/2021, 11:02 AM EDT

Pumps

#	State	Starts	Runtime
1		0	0:00
2		11	289:26
3		0	0:00

Triggers
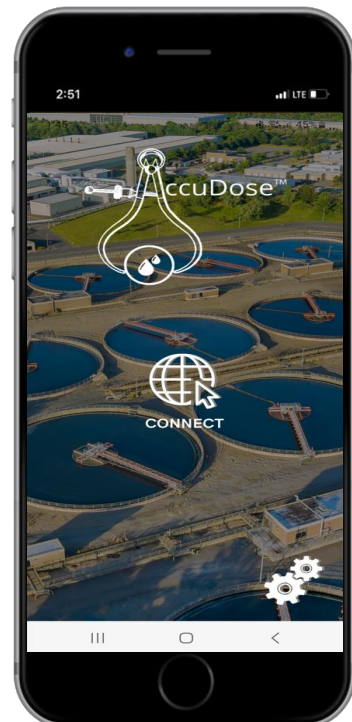
High Wet Well
High High Wet Well

Chem Pump

Turn on

Wetwell Level

5.9ft (26%)

Chemical Tank 1 Level

2040.7gal (76%)

Accu-Dose Accu-Watch RMC-1000/2000 User Manual
Table of Contents

Accu-Dose RMC-1000/2000 User Manual
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.
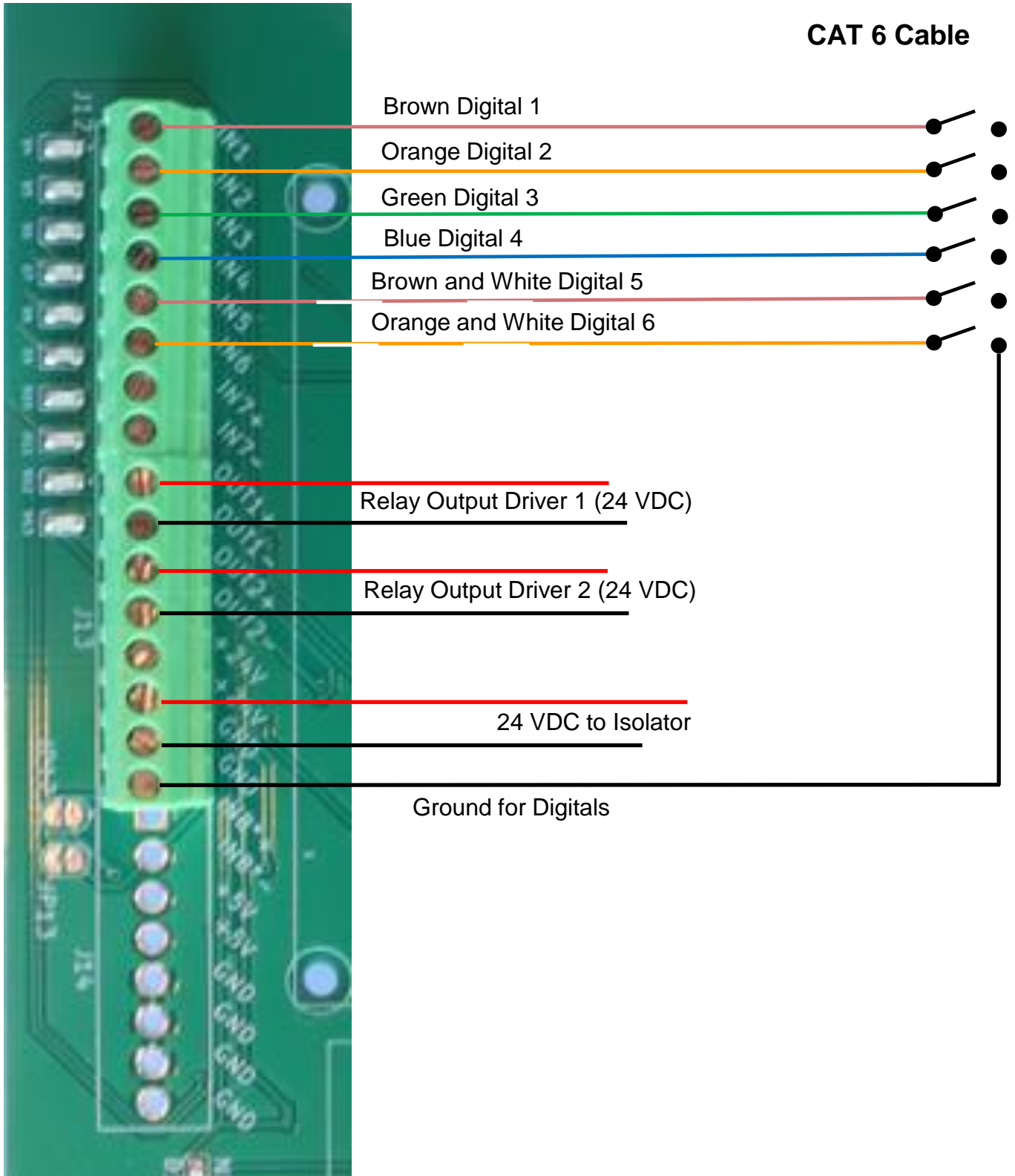
Accu-Dose RMC-1000/2000 User Manual
Installation

Wiring Diagram RMC-2000
Digital Inputs/Relay Outputs

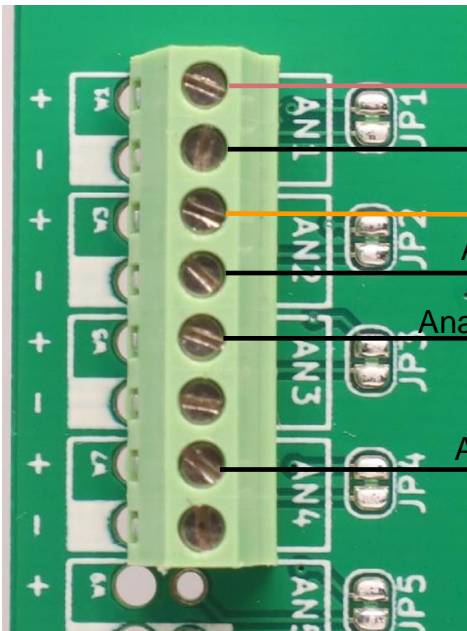**CAT 6 Cable**

Brown Digital 1

Orange Digital 2

Green Digital 3

Blue Digital 4

Brown and White Digital 5

Orange and White Digital 6

Relay Output Driver 1 (24 VDC)

Relay Output Driver 2 (24 VDC)

24 VDC to Isolator

Ground for Digitals

Wiring Diagram RMC-2000
Analog Inputs

Analog AN1 Positive

Analog AN1 Ground

Analog AN2 Positive

Analog AN1 Ground

4 to 20 MA Sensor. Sensor provides power

Analog AN3 Input Device Negative

Analog AN4 Input Device Negative

4 to 20 MA Sensor. RMC-2000 provides power
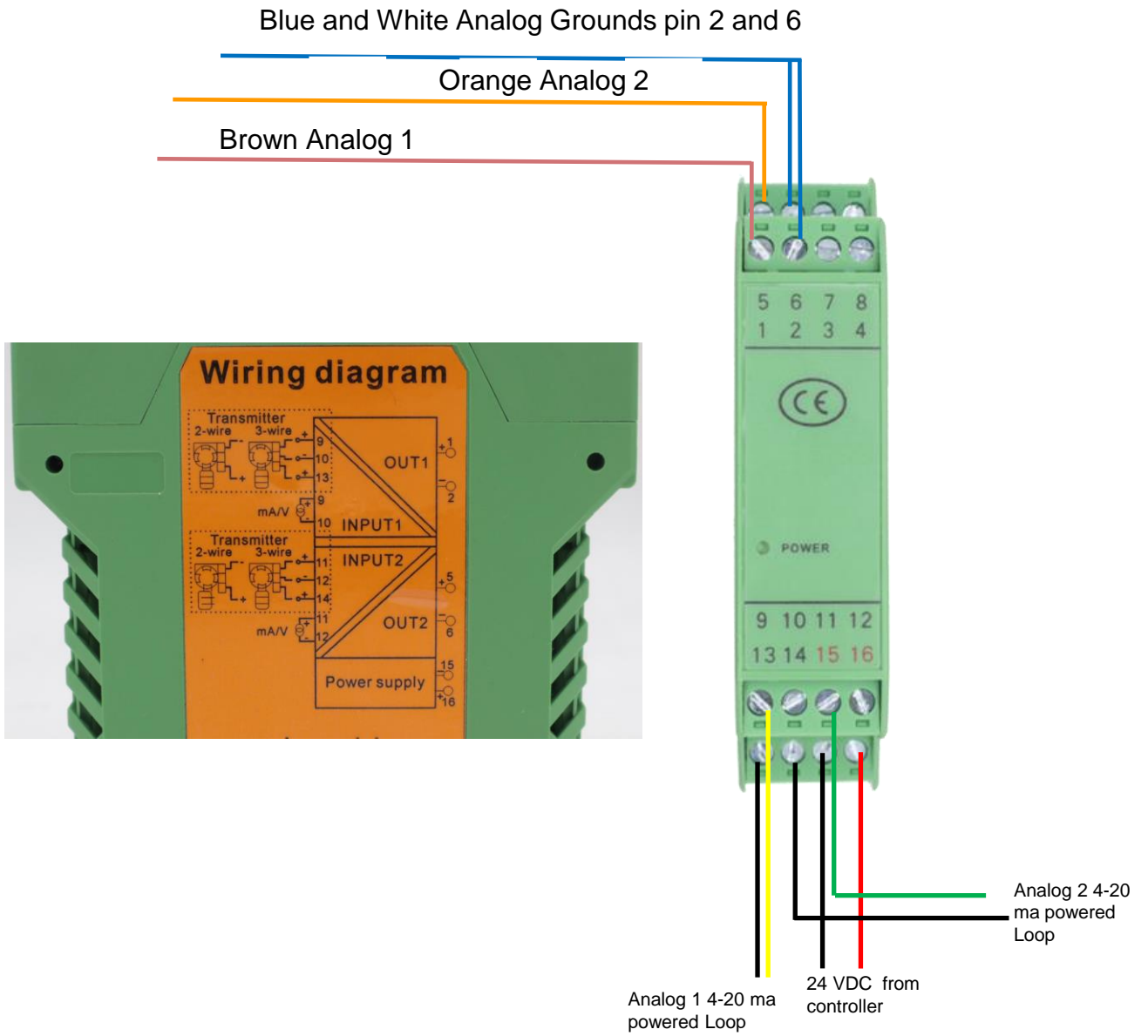
Analog AN3 Input Sensor 24 VDC

Accu-Dose RMC-1000/2000 User Manual
Installation
Wiring Diagram
Analog Isolator

Blue and White Analog Grounds pin 2 and 6

Orange Analog 2

Brown Analog 1

Analog 2 4-20 ma powered Loop
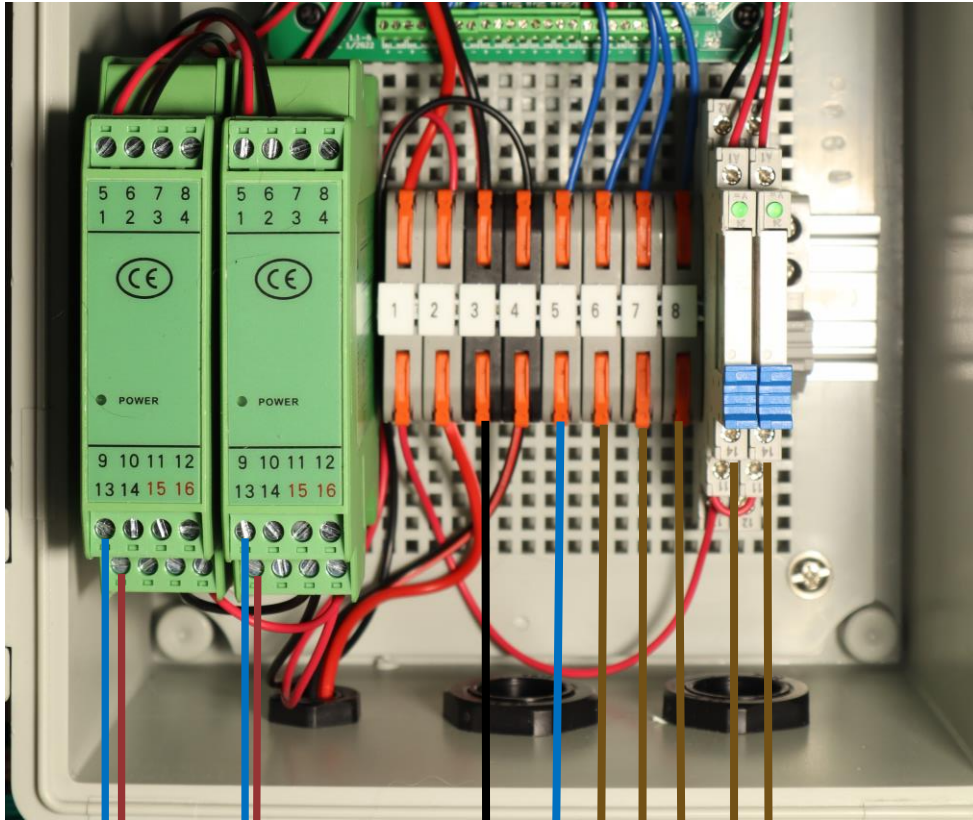
24 VDC from controller

Analog 1 4-20 ma powered Loop

Accu-Dose RMC-1000/2000 User Manual
Installation
Wiring Diagram RMC-2000i

Level Transducer 1
Analog 1
Pin 13 - Blue
Pin 9 + Brown

Level Transducer 2
Analog 2
Pin 13 - Blue
Pin 9 + Brown

Relay output 1
control (Optional)

Relay output 2
control (Optional)

Wet Well pump
running feedback
From pump panel
110 VAC

Pin 13   Relay   Pin 5

Pin 14   Pin 9

Wet Well pump
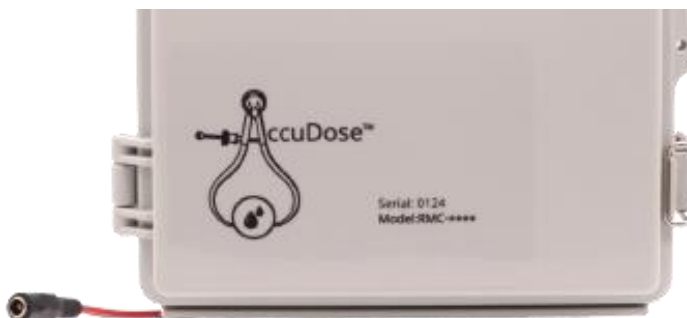running feedback
Relay

Digital Input 4

Black Wire digital
ground feedback

Digital Input 3

Digital Input 2

24 VDC power
Adapter

Accu-Dose RMC-1000/2000 User Manual

Apple and Android Accudose APP

- ➤ Download the APP from either the Apple store or the Android Play store.
- ➤ Select the AccuDose desktop icon.
- ➤ The AccuDose 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.
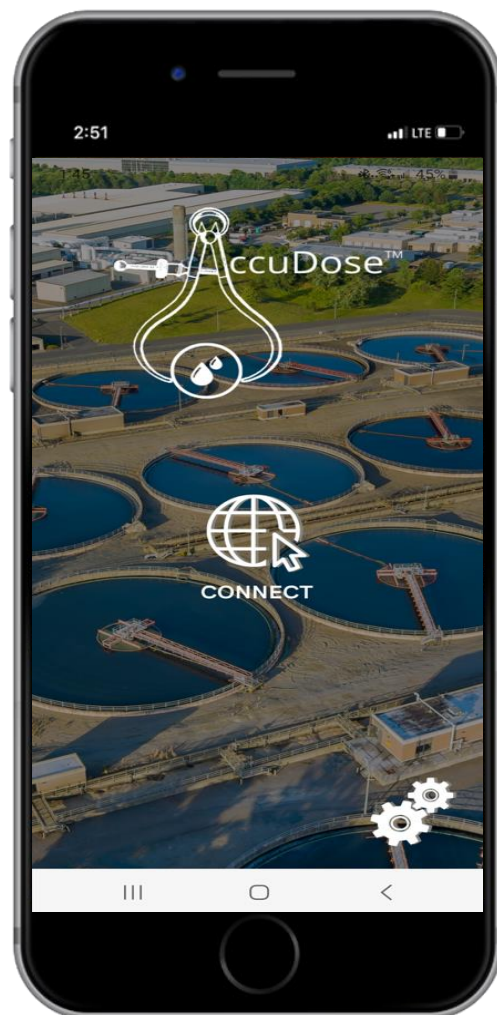
Accu-Dose RMC-1000/2000 User Manual

Local Access User Interface Network Setup

- ➤ 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.

9

Accu-Dose RMC-1000/2000 User Manual

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".

Diagram 1

Accu-Dose RMC-1000/2000 User Manual

Connecting to the Server and User Interface (2)

- ➢ My Account ⚙ - Setting up individual profile (page 10).
- ➢ Sites- List of Sites (page 11).
- ➢ Users- List of all of the users for the notifications (page 12).
- ➢ Notifications- Select who will receive the alarms and notifications (page 12).
- ➢ Datapoints- Logs of all the analogs and digitals (page 13).
- ➢ Events- Logs of all of the actual events (page 14).
- ➢ Controllers- List of the users controllers (page 15).

Accu-Dose RMC-1000/2000 User Manual

Manage Profile and User Information

> 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.

Manage Sites

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

Accu-Dose RMC-1000/2000 User Manual

Manage User and Notifications

AccuDose™

🏠> 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.

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.

Accu-Dose RMC-1000/2000 User Manual

Manage User and Notifications

AccuDose™

🏠> 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.

AccuDose™

🏠> 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.

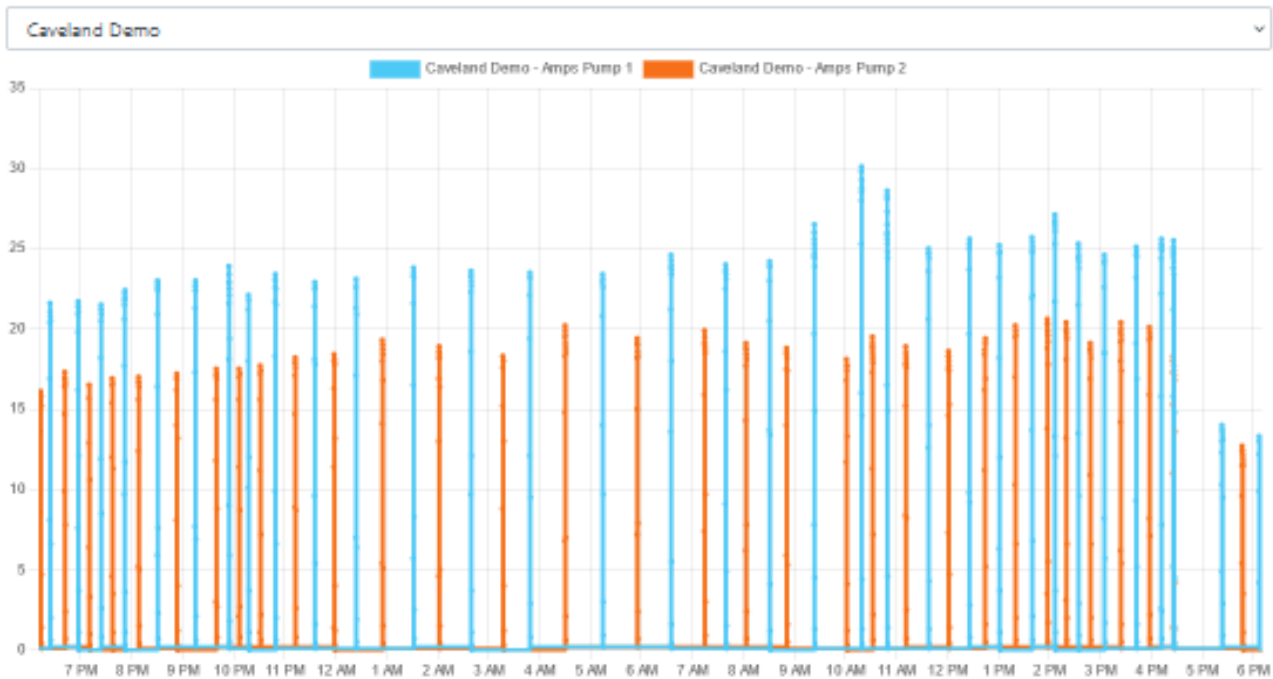# Accu-Dose RMC-1000/2000 User Manual

Datapoints

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

Events

AccuDose™

🏠> My Account> Event Logging Reports

Event Logs

📄 CSV 📄 PDF

Controller Name	Date	Action	Info
From: 2021-11-30 To: 2021-12-07	--All Events-- ⇕		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.

Accu-Dose RMC-1000/2000 User Manual
Controller List

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

User Interface Main Screen

- ➢ 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 Accudose mode.
- ➢ Wetwell: Displays real time level of the wetwell.
- ➢ Chemical Tank 1 Level: Displays real time level of the chemical tank.

Accu-Dose RMC-1000/2000 User Manual

User Interface Device Setup

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

Accu-Dose RMC-1000/2000 User Manual

Analog Configuration

- ➢ Type-Type of analog being monitored e.g. wetwell, 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 repectivley.
- ➢ 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.

Digital Input Configuration

Digital Sensor Config — Show/Hide

Digital 1

Type
Wetwell Pump State

Name
Pump 1 Status

Input State
Active When Closed

Start Count Alarm: 0
Runtime Alarm (min): 0
Gallons Per Cycle: 1000

Digital 2

Type
Wetwell Pump State

Name
Pump 2 Status

Input State
Active When Closed

Start Count Alarm: 0
Runtime Alarm (min): 0
Gallons Per Cycle: 1000

Digital 3

Type
Float Sensor

Name
High Float

Input State
Active When Closed

Digital 4

Type
Alarm

Name
Pump 1 Fail

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.

Digital Output Configuration

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.

Digital Output Configuration 2

Relay 1

Type

Dosing Pump

Name

Pump 1

Dosing Mode

Wetwell Level - Low On/High Off

Setpoints

Low		High	
25	%	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.