
# OMEGA

## Quick Start Guide

Scan QR code to view full manual

BERMAD

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# SAFETY

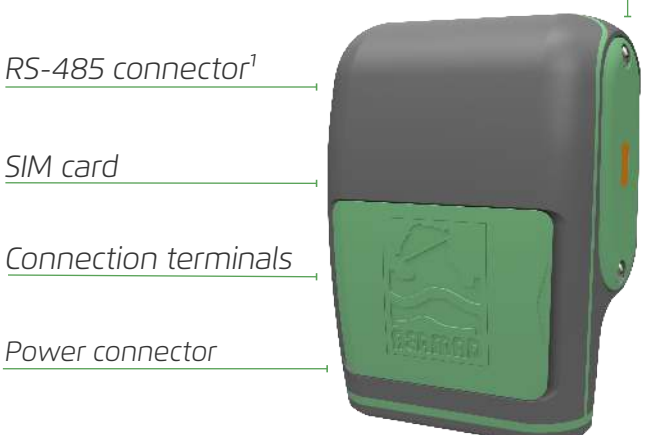
Before operating Omega, please read the safety section found in the Omega Installation and Operation Guide

**NOTE:** This product conforms with FCC and CE regulations. Please see the installation and operation guide for more information



# INTRODUCTION

## Omega Controller




[1] Available in Omega RS, RF, and X models only
[2] Not standard

## Typical Connection Layout

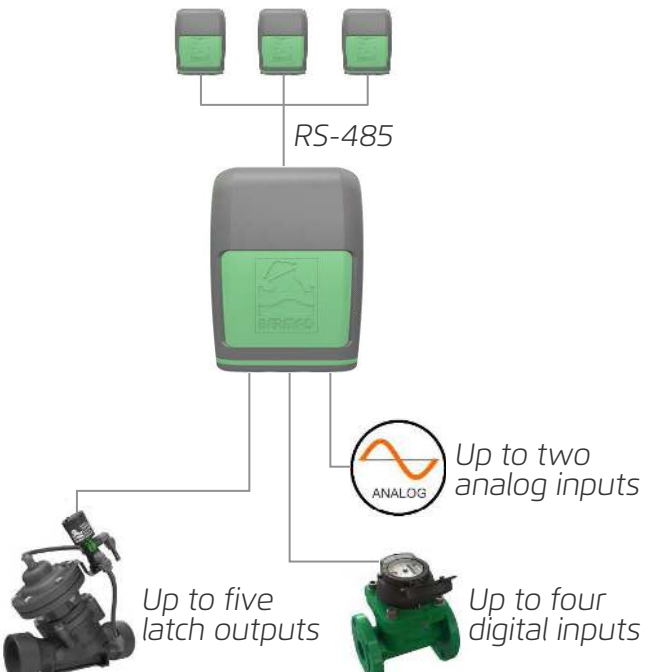
The following can connect to the Omega controller's connection terminals:

- Latch output connection terminals:
  - Latch solenoids - irrigation valves and master valve
  - Latch relay - water pumps
- Digital input connection terminals:
  - Water meters
  - Dry contact and open collector digital sensors

**Tip:** When installing open collector sensors, verify the polarity matches what is marked on the Omega connector board

- Analog input connection terminals:
  - Analog sensors

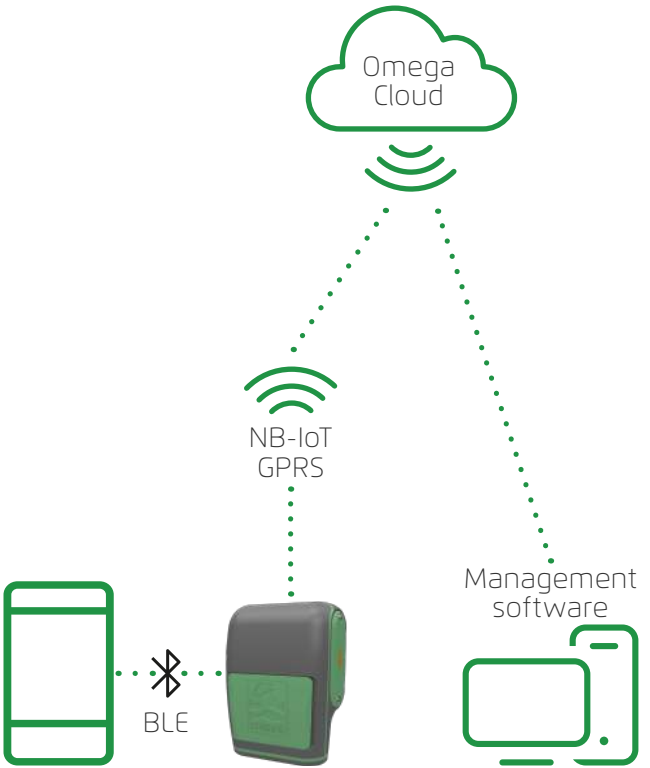
***Up to ten extension controllers –*** *total of 44 latch outputs, 44 digital inputs, and 22 analog inputs (RS models only)*



## Cloud Management System

BERMAD Cloud provides a centralized web-based user interface for the Omega controller, allowing for anywhere-anytime management and real-time visual monitoring of the irrigation system using a PC, tablet, or smartphone.
BERMAD Cloud offers the following benefits:

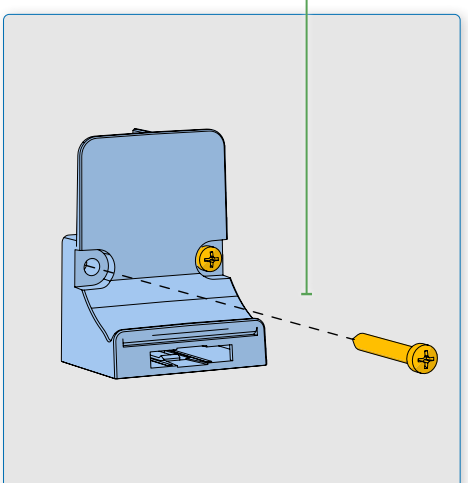
- Password protected login
- Dynamic dashboard
- Irrigation management and monitoring tools
- Alert controls
- Log information and report generation



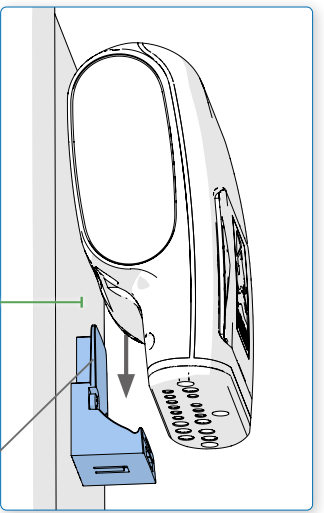
# MOUNTING OMEGA

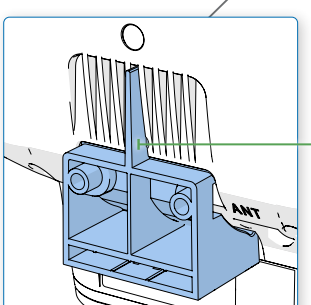
## Wall Mounting

***1.*** *Attach the mounting bracket to the wall using two screws*



***2.*** *Position the Omega controller onto the bracket*

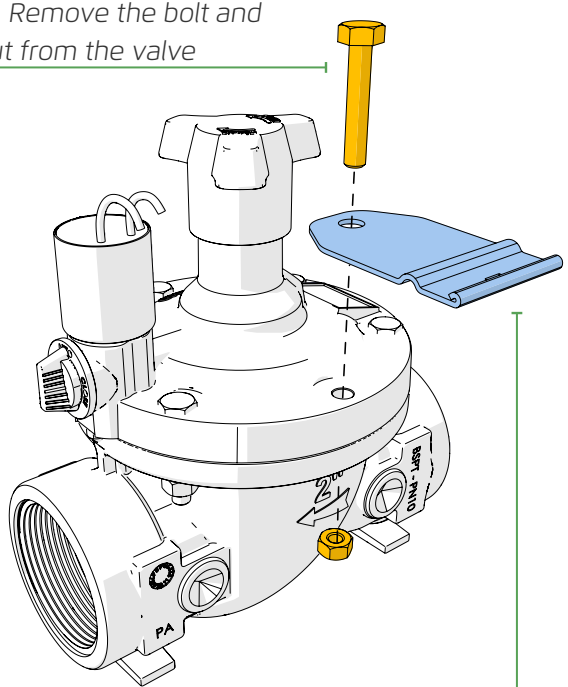





***3.*** *Verify the bracket is fully inserted into the controller slot*

# Valve Mounting

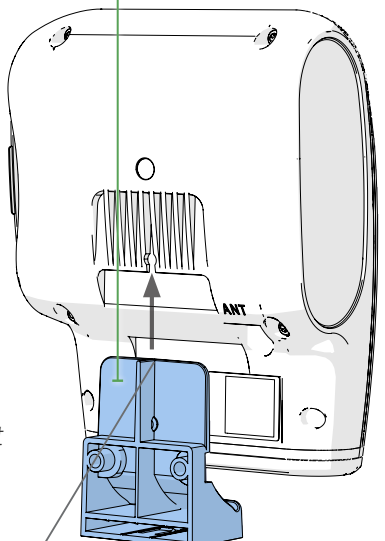
***1.*** *Remove the bolt and nut from the valve*



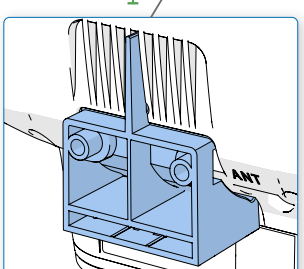

***2.*** *Attach the bracket adapter plate to the valve using the bolt and nut which were removed*

**NOTE:** The bracket adapter plate provided by BERMAD is designed for horizontal installations, and is suitable for the BERMAD 200 series valves without further need for adjustments

**3.** *Insert the mounting bracket into the Omega controller*

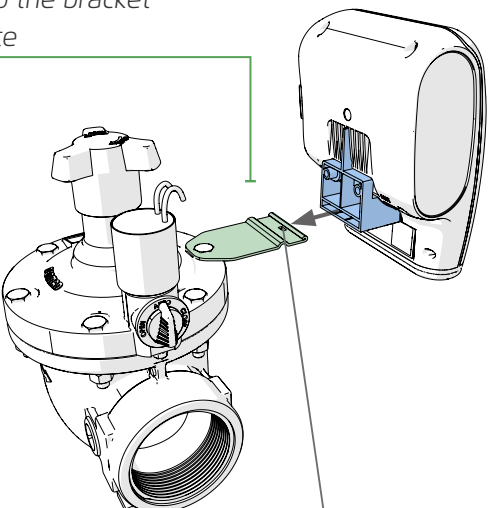


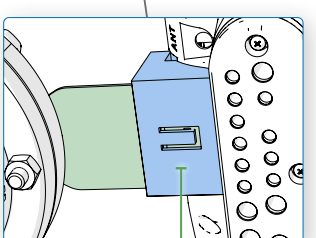

**4.** *Verify the bracket is fully inserted into the controller slot*






**5.** *Position the mounting bracket onto the bracket adapter plate*

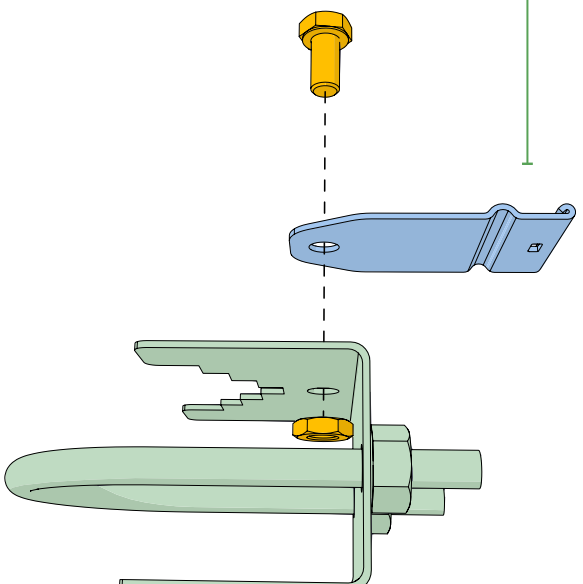




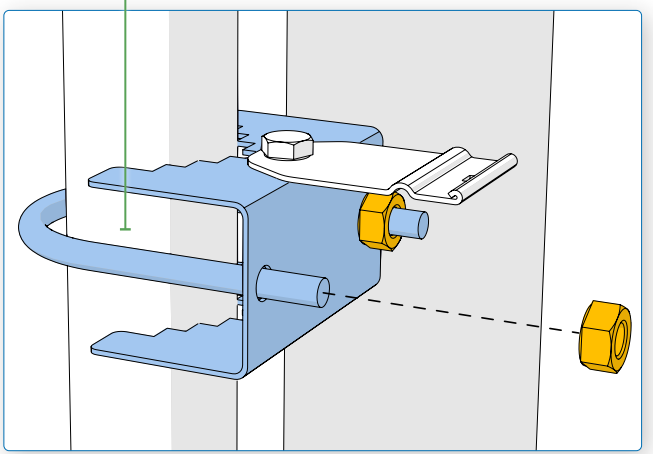

**6.** *Verify the bracket adapter plate clicks in place and is securely fastened to the mounting bracket*

## Pole Mounting

***1.*** *Attach the bracket adapter plate to the U-clamp using a bolt and nut*

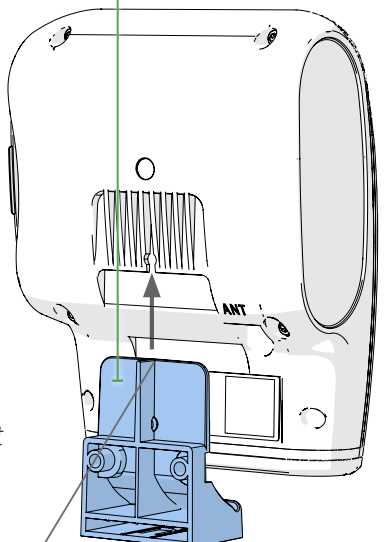


***2.*** *Attach the U-clamp to the pole using two nuts*

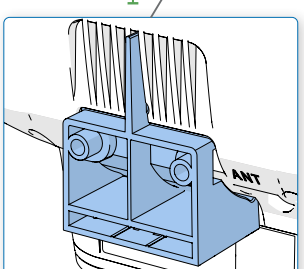


**NOTE:** The U-clamp is an optional accessory that must be ordered separately. The U-clamp provided by BERMAD fits 1" (DN25) to 2" (DN50) pole diameters

**3.** *Insert the mounting bracket into the Omega controller*

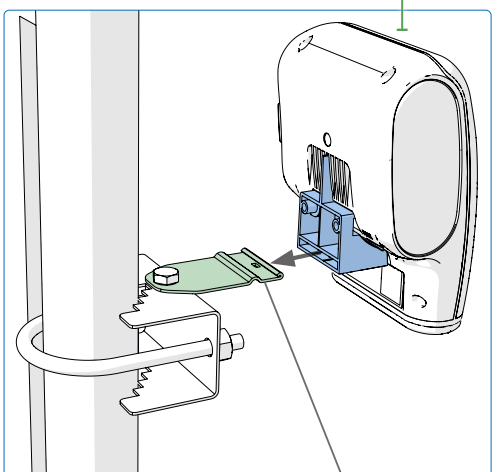



**4.** *Verify the bracket is fully inserted into the controller slot*

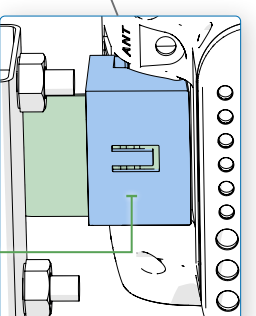





**5.** *Position the mounting bracket onto the bracket adapter plate*



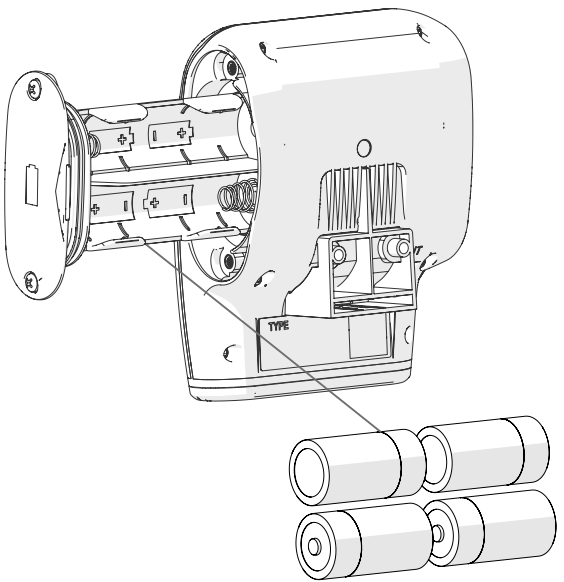
**6.** *Verify the bracket adapter plate clicks in place and is securely fastened to the mounting bracket*



# POWERING OMEGA

## Battery Power Supply

The Omega controller is powered by four LR-14 (C-size) alkaline batteries (see battery datasheet in full manual)




*Insert four batteries according to the orientation shown in the battery compartment*

**NOTE:** In offline mode, the controller can run on battery power for up to five years

**Tip:** For best performance in outdoor installation, use batteries with an operating temperature range of -18° to 55° C or greater

**CAUTION**: Running the Omega controller on battery power in online mode shortens battery life significantly

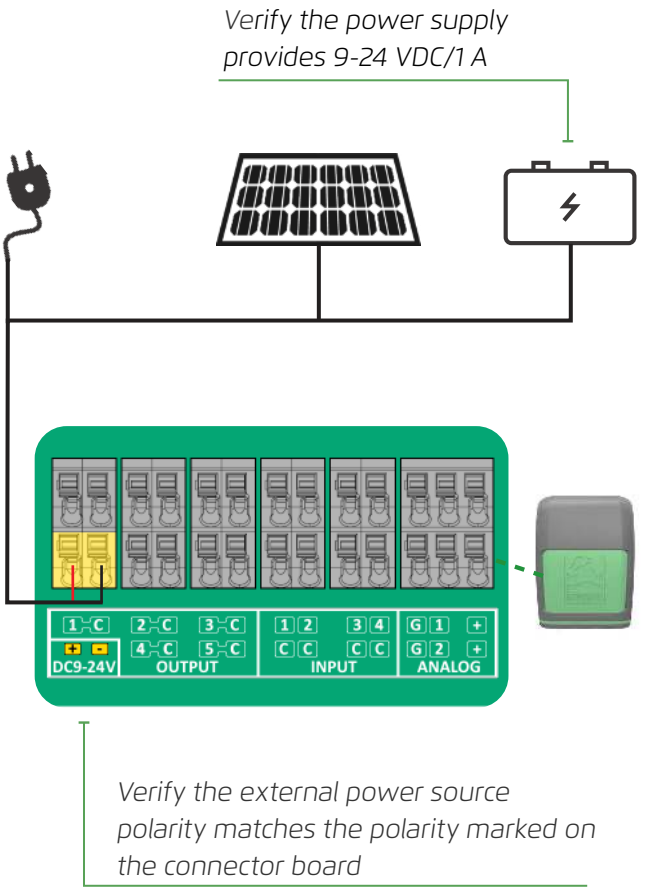
## External Power Source

The Omega controller can be powered by electrical grid power, external high-capacity batteries, or solar panels

**NOTE:** An external power supply is necessary if operating the Omega controller in online mode for an extended amount of time

**CAUTION**:

- Connect the power cable to the Omega power connectors before turning on the power source
- The Omega controller must first be unplugged from the external power source before disconnecting the power supply cables from the power connectors

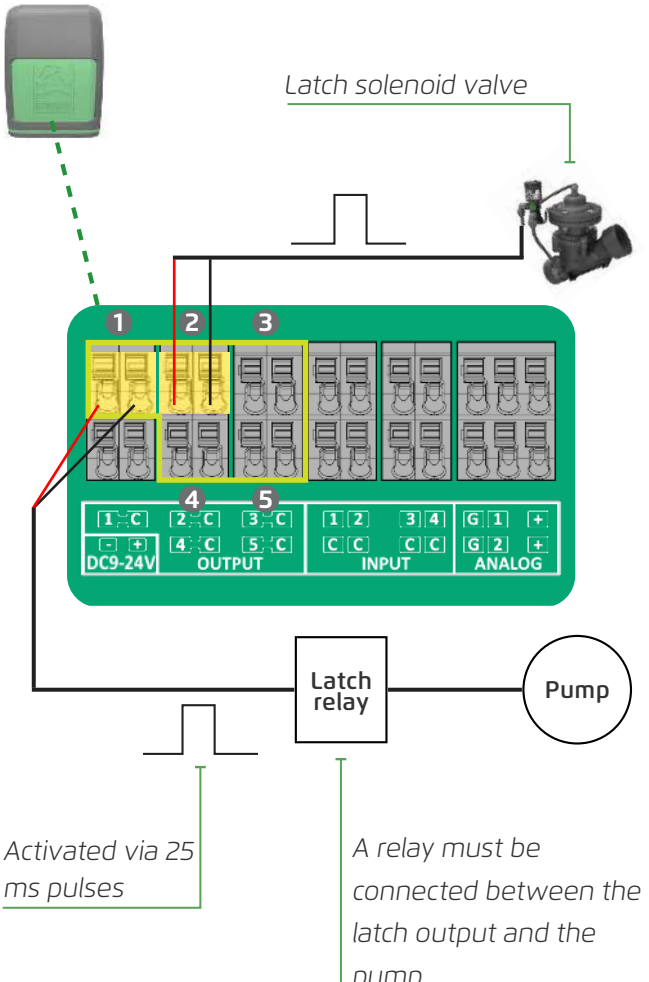


# CONNECTING PERIPHERALS

## Latch Output Connections

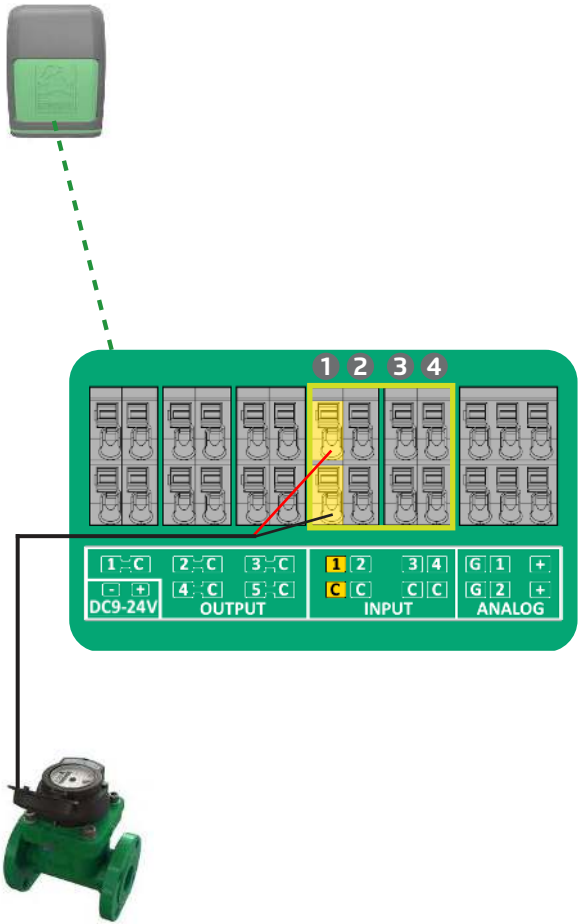
Up to five devices (such as valves and water pumps) can be connected to the Omega controller latch outputs

**NOTE:** The Omega RS model features up to four latch outputs and one RS-485 MODBUS



## Digital Input Connections

Up to four devices (such as water meters and digital sensors) can be connected to the Omega controller digital inputs.




**NOTE:** Digital inputs can be connected to devices with one of the following outputs:
- Dry contact
- Open collector

**CAUTION**: Ensure the open collector connects according to the input polarity marked on the connector board.

## Analog Input Connections

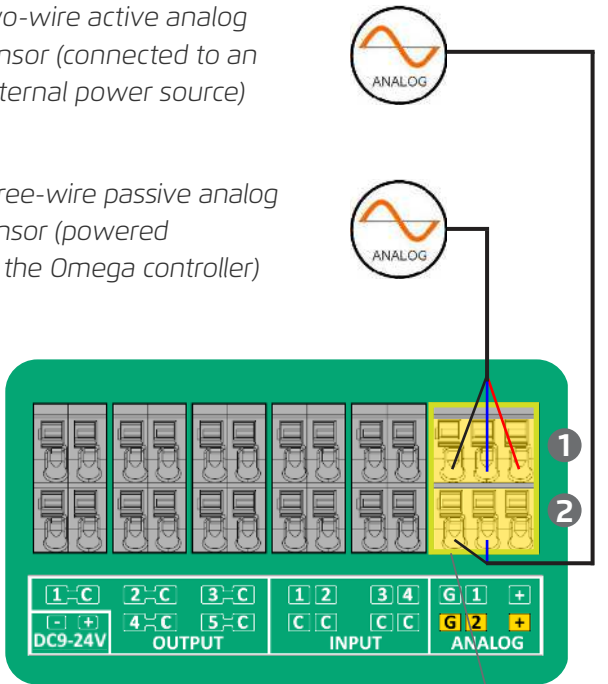
Up to two devices (such as the following types of analog sensors) can be connected to the Omega controller analog inputs.

**NOTE:** The controller supports both analog voltage (0-10 V) and analog current (4-20 mA) sensor

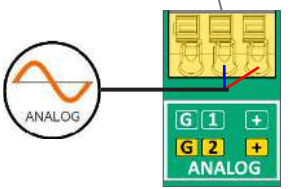
**CAUTION**: Ensure setting the correct analog protocol before connecting the sensor

*Two-wire active analog sensor (connected to an external power source)*

*Three-wire passive analog sensor (powered by the Omega controller)*




*Two-wire passive analog sensor*

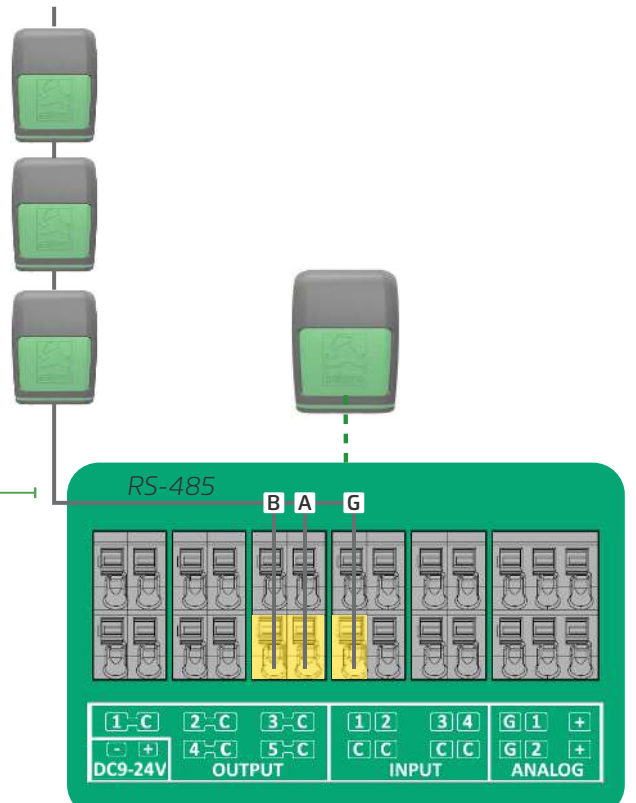


# COMMUNICATING VIA RS-485 CABLE

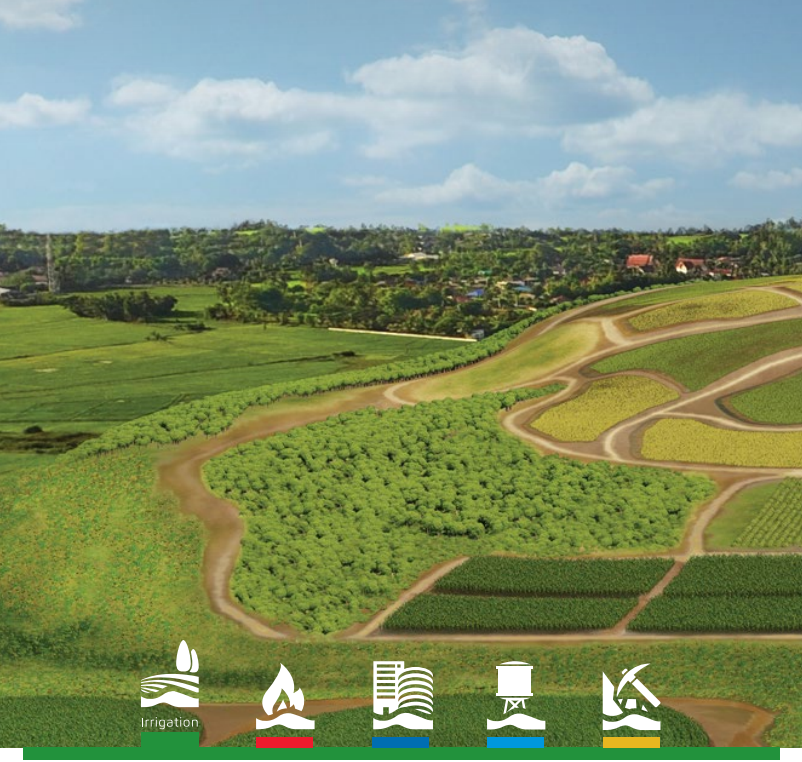
Additional inputs and outputs can be connected either wired or wirelessly to the Omega controller using an RS-485 cable.

*Each extension controller can connect to four latch outputs, four digital inputs, and two analog inputs*

*Up to ten extension controllers can be connected in parallel via an RS-485 communication cable*




*RS models only*

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