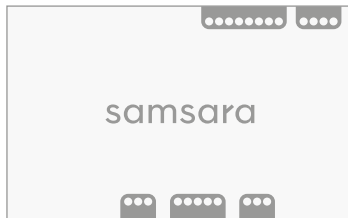


Industrial Controller

INSTALLATION AND DEPLOYMENT GUIDE

What's Included:



1x IG Controller



1x AC Power Supply (15V)



1x DIN Rail Mount



1x 915Mhz



1x LTE



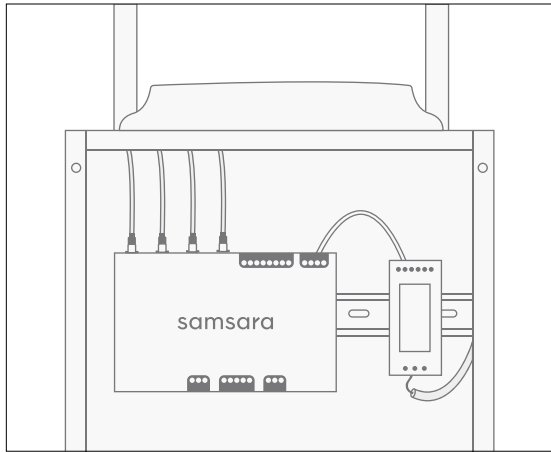
1x 2.4Ghz



4x Mounting Screws

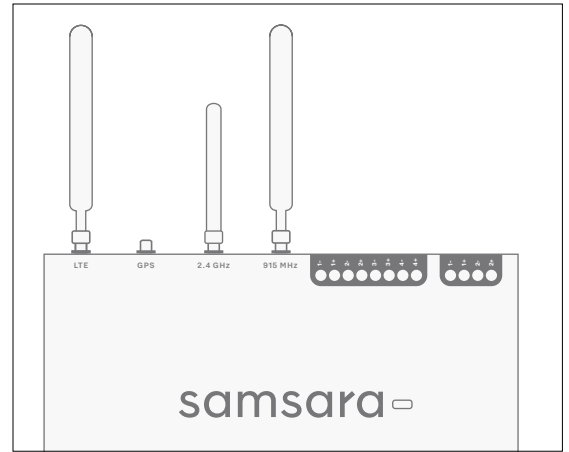
Installation

1



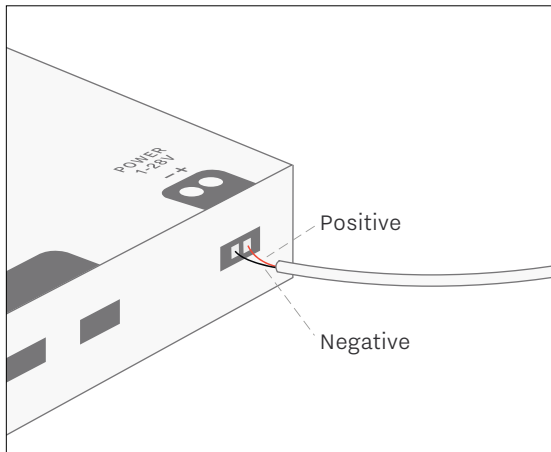
Mount the IG using the included DIN rail.

2



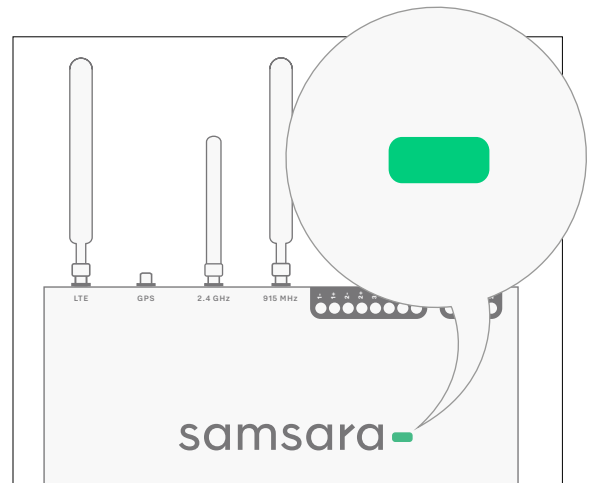
Attach the antennas to their corresponding connectors at the top of the controller.

3



Connect the IG to the AC power supply. Connect the ground screw on the side of the controller to your ground.

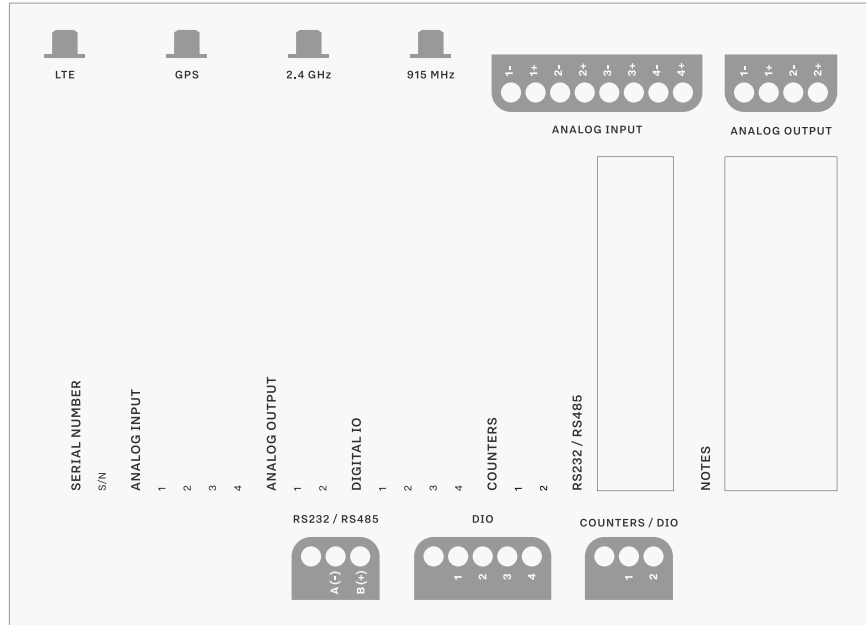
4



Power on the IG. After the five-minute initial boot, a green LED indicates that the controller is connected to the cloud.

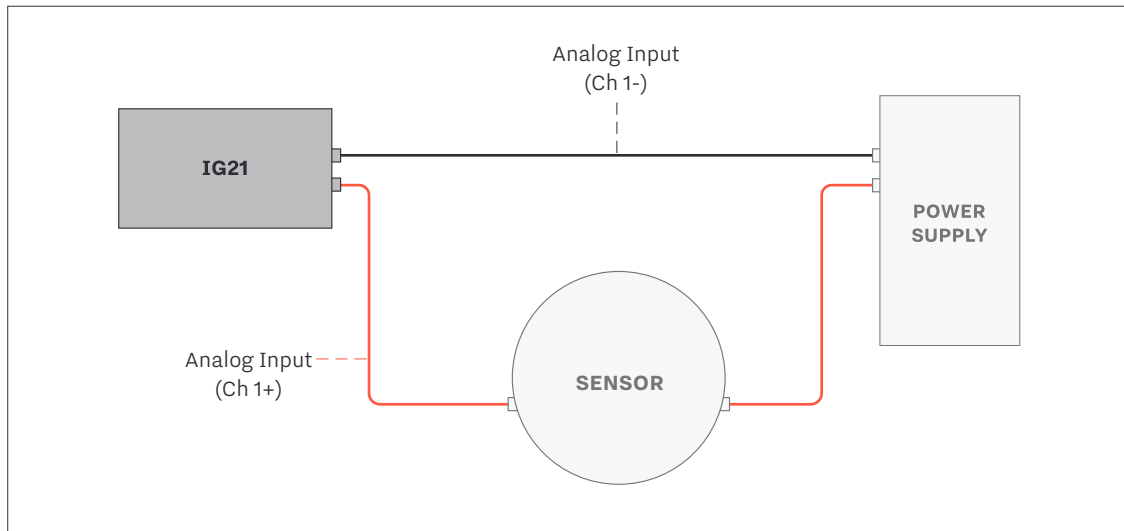
Connecting Sensors

4x Analog Inputs
 2x Analog Outputs
 6x Digital Input/Outputs



Connecting Analog Inputs

1



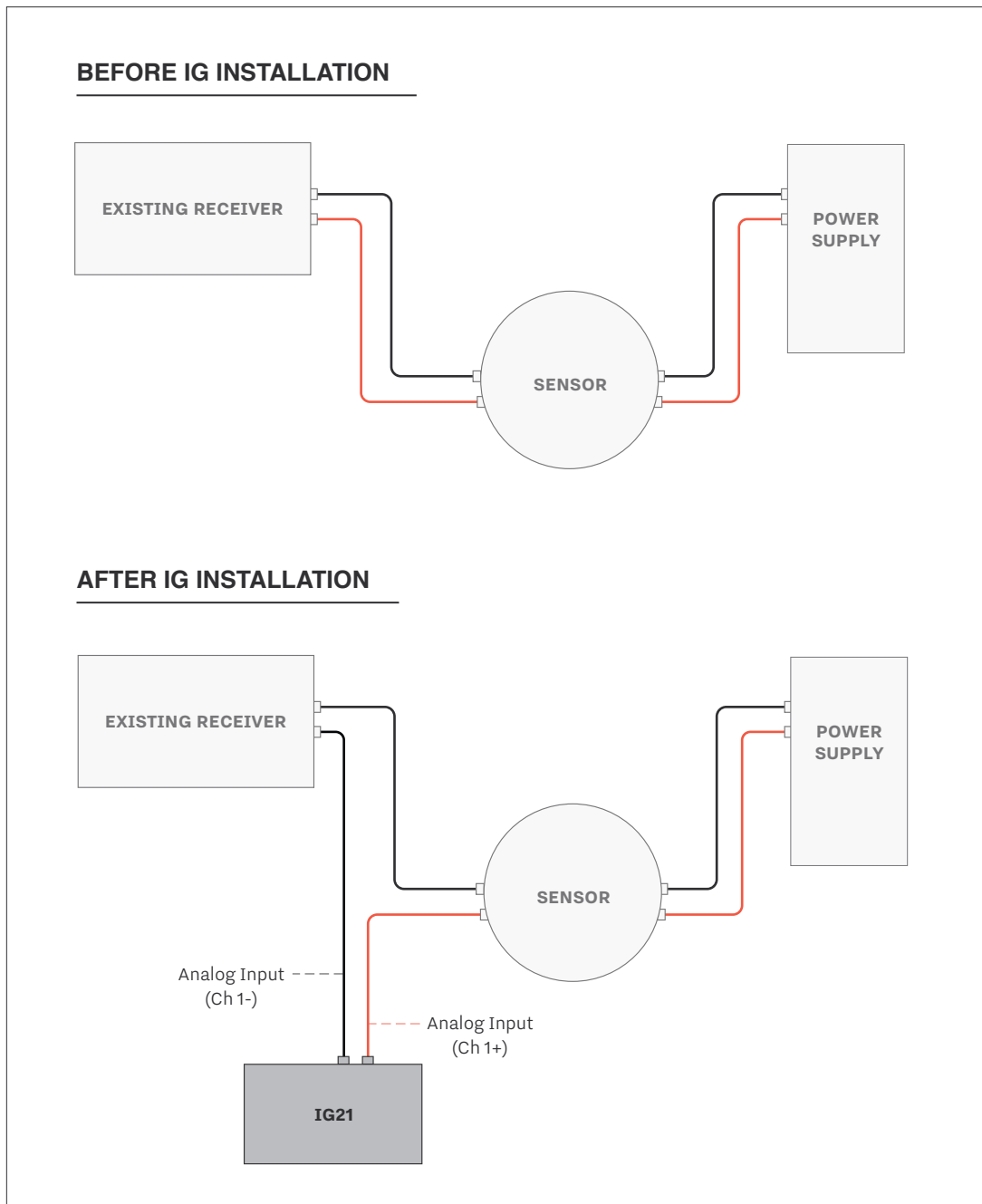
Recommended wiring for connecting a single sensor.

WIRES

- Positive (POS +)
- Negative (NEG -)

Connecting Analog Inputs (cont'd)

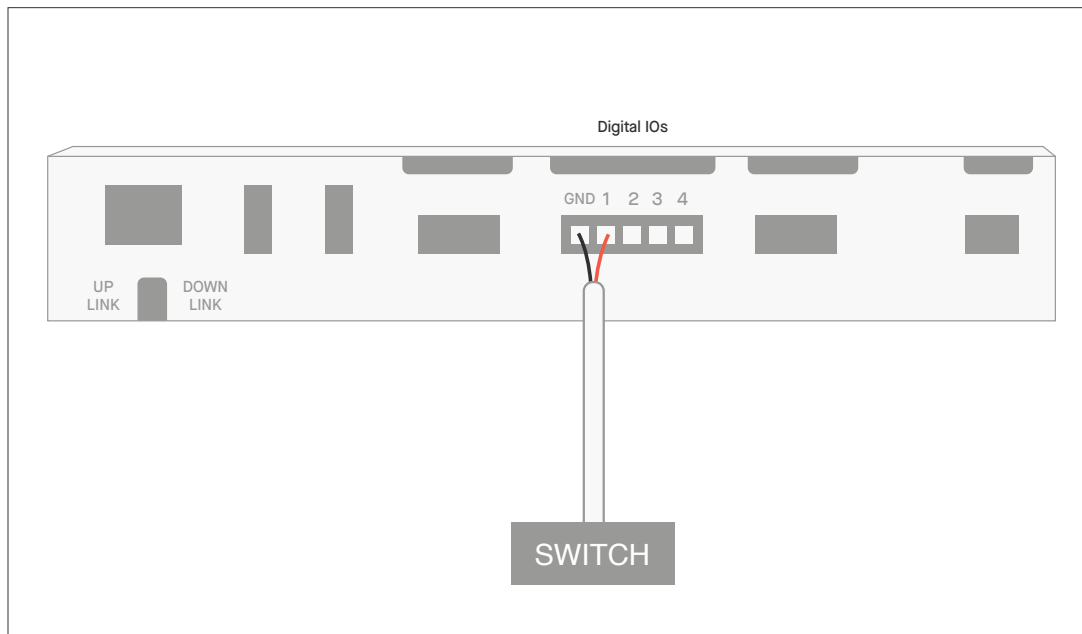
2



Recommended wiring for adding the IG to an existing current loop with an existing PLC.

Connecting Digital Inputs

1

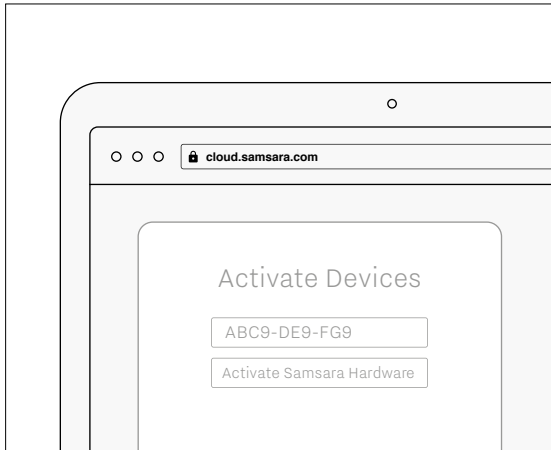


Connect the input to both GND and the desired terminal (1-4).
On the IG21, GND terminals are internally tied to the negative terminal

Note: For counters, use Digital IO 5 or 6.

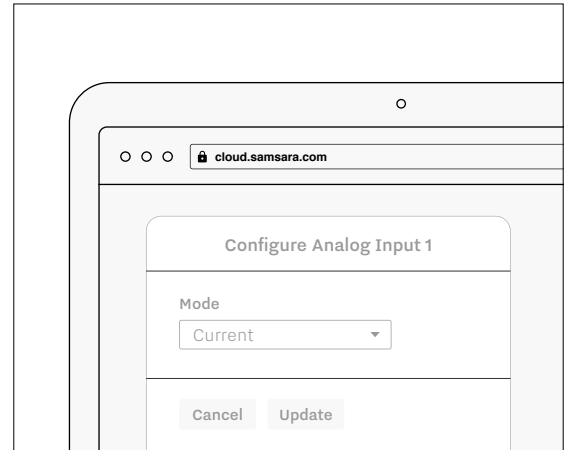
Activation and Configuration

1



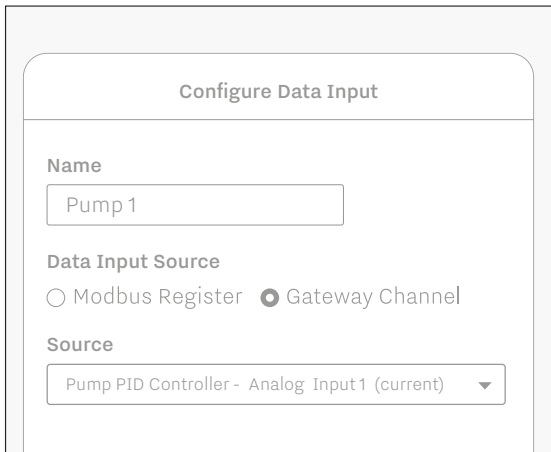
Create an account at cloud.samsara.com and activate the IG by entering the serial number found on the back of the box and left corner of the gateway.

2



To configure a new input, go to **Settings > Gateways > Inputs** for the new gateway. Click each input to set the **Mode** (e.g. current, counter, PLC).

3



Under **Settings > Data Inputs > Configure New Data Input**, name the input, select **Gateway Channel**, and select the gateway channel connected to the input.

Activation and Configuration (cont'd)

4

The screenshot shows a configuration panel titled "Scale data by...". It has two radio buttons: "Min/Max" (selected) and "Formula". Below this are four input fields: "Input Min (µA)" with the value "4000", "Input Max (µA)" with the value "20000", "Output Min" with the value "0", and "Output Max" with the value "0". At the bottom, there is a "Units" dropdown menu currently set to "Gallons".

For analog inputs, scale the data using min/max values or a formula*. Select the the correct units for the input.

*Reference your sensor's datasheet for these values.

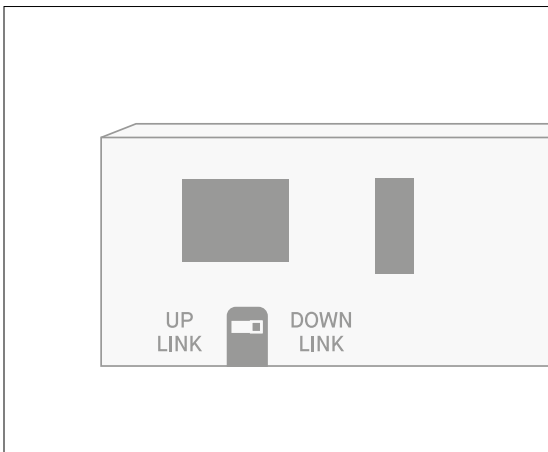
5

The screenshot shows a configuration panel for digital inputs. It has two input fields: "Value Open" with the text "Slowing Down" and "Value Closed" with the text "Speeding Up". At the bottom, there are three buttons: "Delete", "Cancel", and "Update".

For digital inputs, specify the open and closed labels.

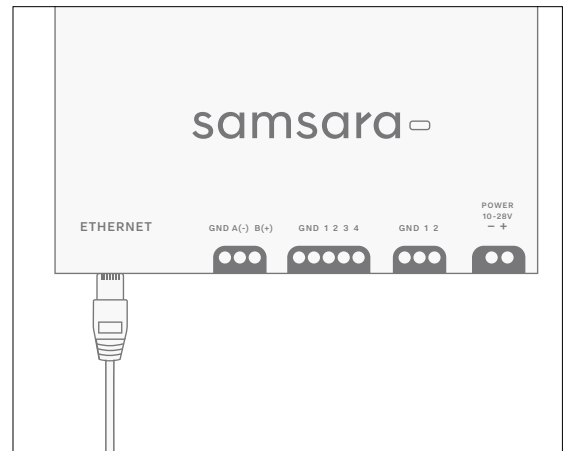
Connecting and Configuring Third-Party Devices

1



Make sure the UPLINK/DOWNLINK switch is set to the downlink position before you connect your device.

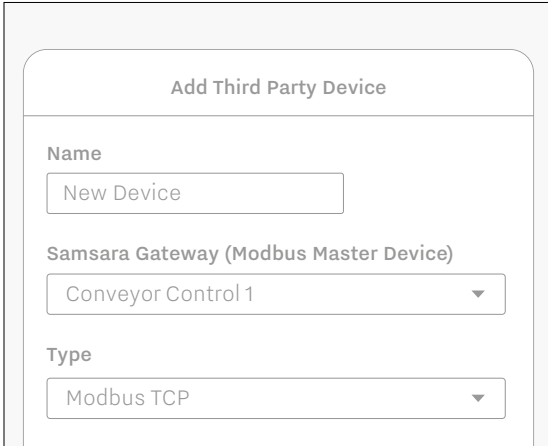
2



Modbus TCP: Connect the slave device via ethernet to the ethernet port.

Modbus RTU: Connect the slave device via RS485 to the RS232/RS485 terminal.

3



Go to **Settings > 3rd Party Devices > Configure New Device**. Once created, select the device and click **Configure New Register** to map each register to the IG.