

Industrial Controller

INSTALLATION AND DEPLOYMENT GUIDE



Installation



Mount the IG using the included DIN rail.



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



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



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



Recommended wiring for connecting a single sensor.

WIRES

Positive (POS +) Negative (NEG -)

Connecting Analog Inputs (cont'd)

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

	Digital IOs
UP DOWN LINK LINK	

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



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.
> 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).

	Configure Data Input
Name	
Pump 1	
Data Input S	Source
⊖ Modbus	Register 💿 Gateway Channe
Source	
Pump PID C	Controller - Analog Input1 (current)

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)

Scale data by		
• Min/Max) Formula	
Input Min (µA)	Input Max (µA)	
4000	20000	
Output Min	Output Max	
0	0	
Units		
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.

Value Open	Value Closed
Slowing Down	Speeding Up

For digital inputs, specify the open and closed labels.

Connecting and Configuring Third-Party Devices

UP DOWN LINK LINK

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

•		sam	sar	0 -	
	ETHERNET	GND A(-) B(+)	GND 1 2 3 4	GND 1 2	POWER 10-28V - +

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.

	Add Third Party Device	e
Name		
New Dev	vice	
		- · \
Samsara G	ateway (Modbus Master or Control 1	Device)
Samsara G Conveyo	ateway (Modbus Master or Control 1	Device)

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.

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