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

Questions?  samsara.com/support
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 -)

Questions? samsara.com/support
Recommended wiring for adding the IG to an existing current loop with an existing PLC.
Connecting Digital Inputs

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)

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

*Reference your sensor’s datasheet for these values.

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. Add Third Party Device

   Name
   New Device

   Samsara Gateway (Modbus Master Device)
   Conveyor Control 1

   Type
   Modbus TCP

   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.