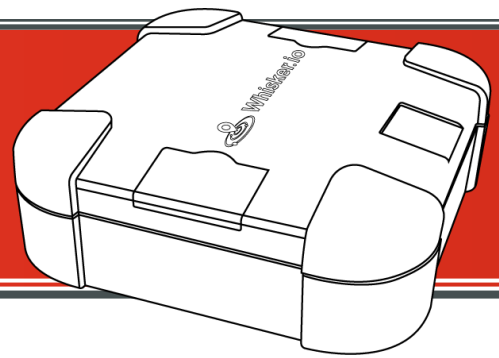


# WB1-9-xx-A4A4NNNN-0000-xx

Whisker.Block®, 4-20 mA Analog Inputs



## General Description

Whisker.Blocks® are long-range, wireless sensors that come in a variety of I/O and power configurations. These sensor blocks use our proprietary long range wireless communication technology, ensuring reliable and robust operation.

They can be configured for battery or external power. When powered from internal batteries, the sensors can operate for 10 or more years, depending on the sensors use and configuration.

Each sensor is housed in a durable, IP67 enclosure that supports a variety of mounting methods. External sensors are connected via one or two 4-pin M8 style waterproof connectors, depending on how many external channels are configured.

The long range, exceptional battery life, and flexible I/O configurations of the Whisker.Block® make it the perfect choice for nearly any IoT application.

## Power

This Whisker.Block® can be powered internally using a 3.7V, 5.2A-H LiThCl battery pack (10+ years of service life) or 8-24V DC through Connector 1 pin 1. Select variants are equipped with an internal 5V/18V sensor power supply that can provide up to 30mA to external sensors; this is available on pin 1 on both connectors when battery power is used and pin 1 of connector 2 when external DC power is used.

## Range

In an unobstructed, outdoor line-of-site environment, the sensor should be able to communicate for more than 0.5 miles assuming a receiving antenna elevation of 10 feet. If the receiving antenna is raised to 20 feet or more, the range should increase to more than 1.0 miles. Range performance will degrade if the internal antenna is used; maximum range is achieved with the external antenna.

## Ordering Information

Part Number	Description
WB1-9-0D-A4A4NNNN-0000-LR	4-20 mA Analog Input (x2), 900 MHz, 8-24V Ext DC, Internal Antenna
WB1-9-00-A4A4NNNN-0000-LR	4-20 mA Analog Input (x2), 900 MHz, battery powered, Internal Antenna
WB1-9-0D-A4A4NNNN-0000-XR	4-20 mA Analog Input (x2), 900 MHz, 8-24V Ext DC, External Antenna
WB1-9-00-A4A4NNNN-0000-XR	4-20 mA Analog Input (x2), 900 MHz, battery powered, External Antenna

## Internal Channels

This Whisker.Block® is configured with two (2) internal channels:



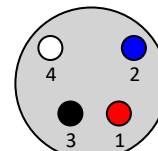
**Battery Voltage**



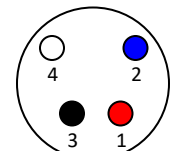
**Ambient Temperature**

## External Connections

This Whisker.Block® is configured with two (2) external channels:



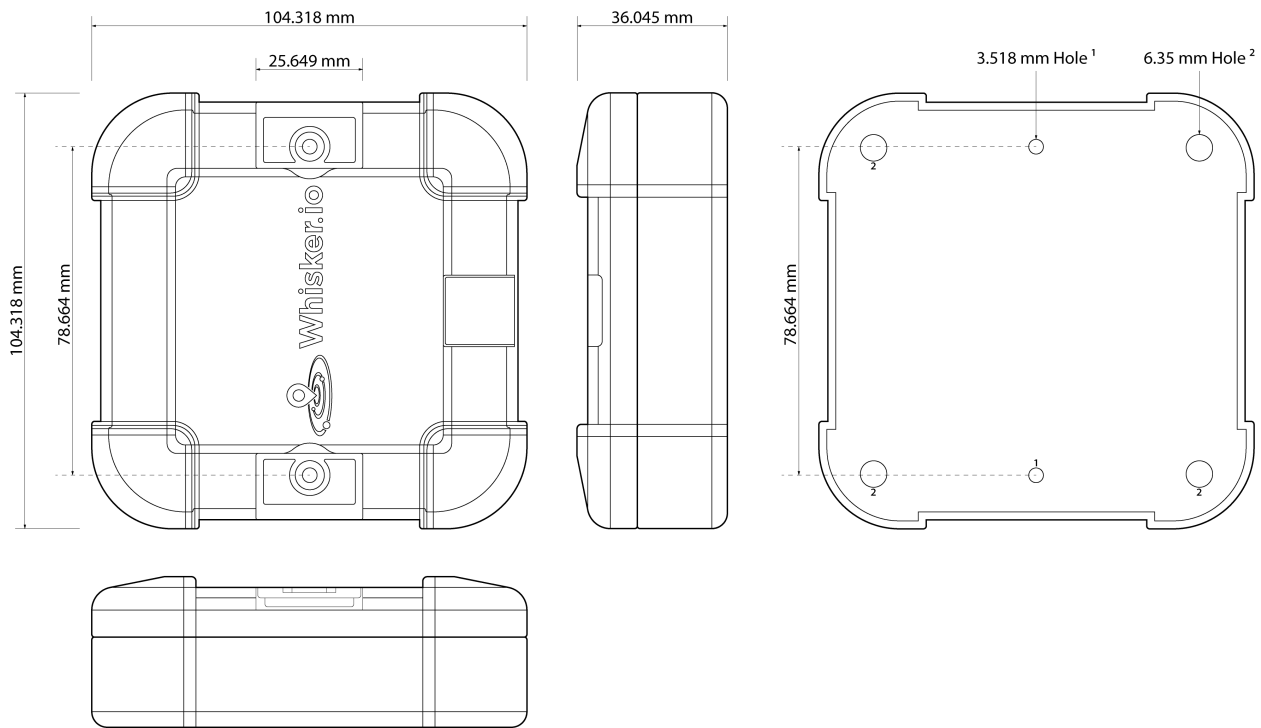
Not used



Con 1 (Right)

Connector	Pin	Function	Description
1	1	Vin(Vout)	8-24V Input (Sensor Voltage Out)
1	2	Channel 1	4-20 mA Analog Input
1	3	Channel 2	4-20 mA Analog Input
1	4	Ground	Circuit ground

# Mechanical Drawing – Whisker.Block®, 4–20 mA Analog Inputs



## Product Attributes

Type	Description
Series	Whisker.io®
Features	(2) 4–20 mA Analog Inputs, M8 Cable Assembly & Internal (Onboard) Temp
Sensor Type	Dual Analog Inputs Sensor Block
Battery	3.7V, 5.2A-H LiThCl
Battery Life Standard Pack	10–20 Years
DC Power	8-24V DC, 100mA max
Operating Temperature Range	-40 – 185 Degrees Fahrenheit
Antenna	Internal (LR) / External RPSMA (XR)
Transmission Range <sup>1</sup>	1.0 miles (typical)
Frequency Range	902–928 MHz
Internal Temperature Measurement Range	-40 – 185 Degrees Fahrenheit
Internal Temperature Measurement Accuracy	±1.8 Degrees Fahrenheit
Sensor Sample Rate	5 Minutes(battery power) /10 Seconds(DC power)(typical)
Enclosure	Module - IP67 Case
Packaging	Box
Analog Input Current Range	4–20 mA

1) Typical range: Outdoors, line of sight, unobstructed, antenna elevation 40 feet

