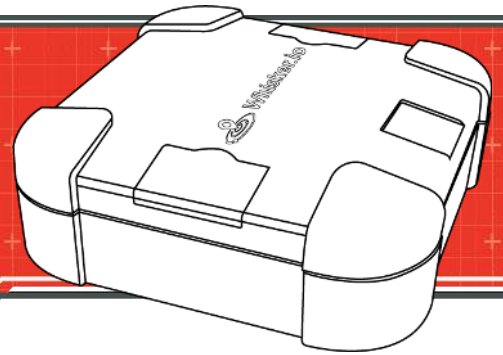# D6 Labs™
Engineered IoT Solutions

WB1-9-00-C1NNNNNN-0000-LR

Whisker.Block®, 0-10A A.C. Current Transformer

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® is powered internally using a 3.7V, 5.2A-H LiThCl battery pack that should give 10+ years of service life before a battery change is required, assuming a 5 minute update period.

Range

They come in a variety of configurations with multiple external channels for various analog and digital inputs.In an unobstructed, outdoor line-of-site environment, the sensor should be able to communicate for more than 0.8 kilometers assuming a receiving antenna elevation of 3.0 meters. If the receiving antenna is raised to 6.1 meters or more, the range should increase to more than 1.6 kilometers.

When used in environments where line of sight cannot be obtained or where there are many reflective obstacles in the transmission path, the range will degrade due to multi-path fading. It is impossible to predict the transmission range of a Whisker.Block® in any specific situation, so we do encourage users to take advantage of our site survey tools to ensure coverage exists anywhere a sensor is to be deployed. For more information on site survey techniques, see application note .

Internal Channels

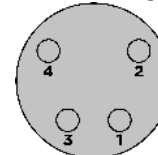This Whisker.Block® is configured with two (2) internal channels:

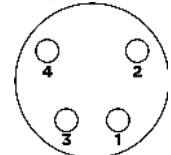**V$_{DC}$**   **Battery Voltage**

Ambient Temperature

External Connections

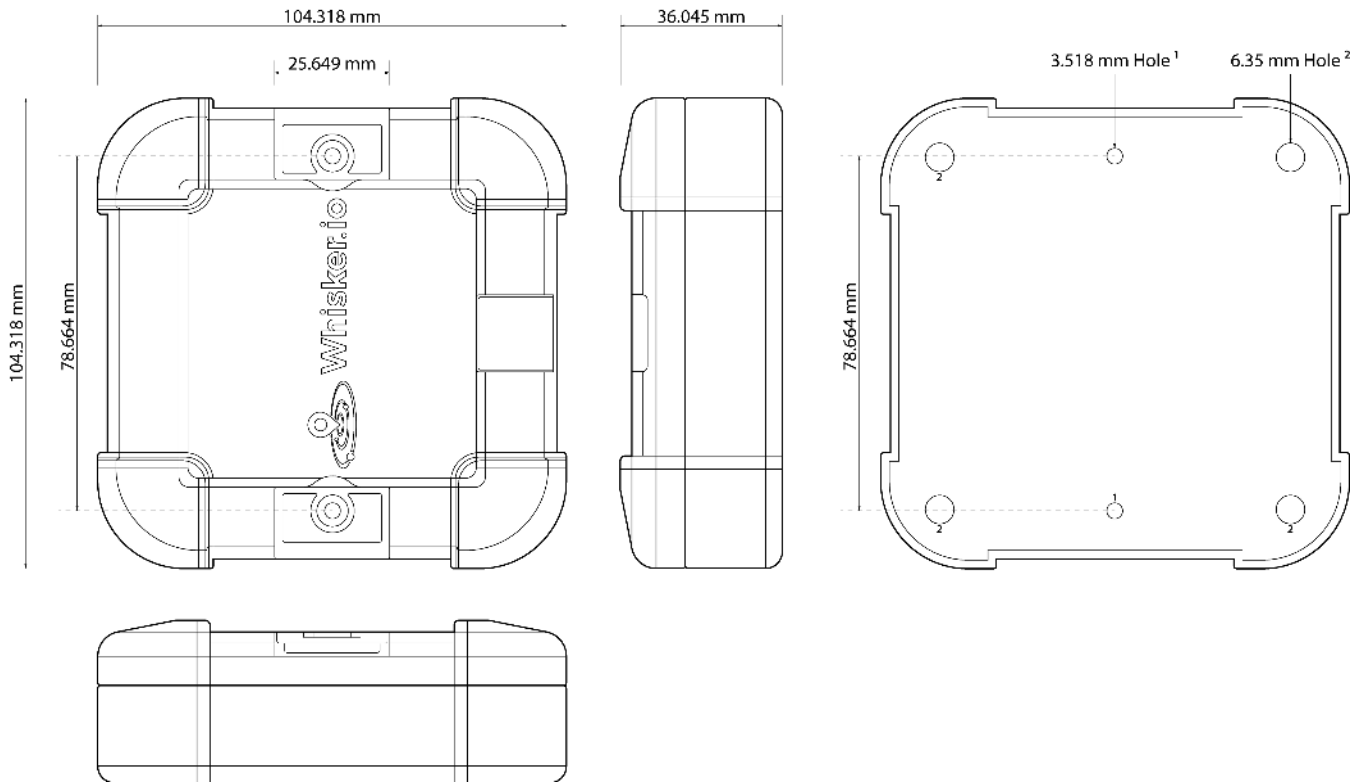This Whisker.Block® is configured with one (1) external channels:

Con 2: Not used   Con 1 (Right)

Connector	Pin	Function	Description
1	1	Not used	Not used
1	2	Channel 1	C.T. Input
1	3	Not used	Not used
1	4	Ground	Circuit ground

Whisker.io™

www.d6labs.com
sales@d6labs.com
Page 1
1-844-365-8647

Mechanical

Electrical Specifications

Parameter	Minimum	Typical	Maximum	Units
Battery Life—Standard Pack	N/A	10	20	Years
Operating Temp. Range	-40		+85	Degrees Celsius
Transmission Range		0.8-1.6		kilometers[1]
Frequency Range	902		928	MHz
Internal Temperature Measurement Range	-40		+85	Degrees Celsius
Internal Temperature Measurement Accuracy	-1		1	Degrees Celsius
Sensor Sample Rate		5		Minutes
Current Input[2]	0		10	Amps A.C.

1) Outdoors, line of sight, unobstructed, antenna elevation 3 meters
2) Using a C.T. with a 0-5V DC output scaled for 0-10Amps such as our CT-SCT010T-10A (Supplied with Block)

Order Information

Part Number	Description
WB1-9-00-C1NNNNNN-0000-LR	900MHz, battery powered, int. antenna, int. temperature, ext. 0-10A current trans. input qty. (1)