



Basic Whisker.Block™ IoT Sensor

General Description

Whisker.Blocks™ are battery powered, long range wireless devices that can monitor and control the world around them from as much as 1 mile away or more. They are designed to be extremely flexible and can easily be configured to meet exacting requirements.

The Basic **Whisker.Block™** is configured with an internal temperature sensor and two external digital inputs. The sample period for these inputs can be set by the user from 5 minutes to every 24 hours.

Power

The Basic **Whisker.Block™** is powered from 2xAA batteries which will last 5 years with a 5-minute sample period using alkaline batteries. If Energizer Ultra Lithium Batteries, battery life can be extended to 15 to 20 years if the sample period is increased to an hour or more.

Antenna

This Whisker.Block™ provides an RPSMA connector, allowing the customer to select the antenna that is appropriate for the application.

It is important to select the proper antenna for the application. Generally, smaller or less expensive antennas will exhibit lower performance and therefore less transmission range.

Digital Six Labs offers a variety of antennas that are compatible with Whisker.Blocks™:

Part Number	Size	Cost	Range
TQX-900-A (AI)	Smallest	Lowest	Good
TQX-900-B (BI)	Small	Middle	Better
TQX-900-E	Larger	Higher	Best

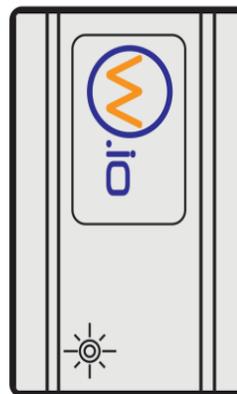
Internal Channels

As stated earlier, the Basic **Whisker.Blocks™** is configured to monitor three channels: internal temperature and two external digital inputs.

The internal temperature sensor is accurate within +/- 5°C.

Up to two dry contacts can be monitored using the two digital inputs. These can be connected to the **Whisker.Block™** using the 6 position removeable terminal strip.

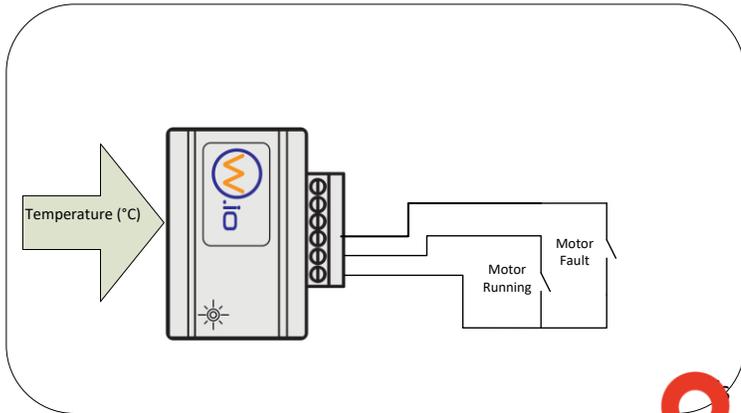
External Connections



Terminal	Signal	Description
1	NA	NA
2	NA	NA
3	NA	NA
4	DIN2	Digital Input 2
5	DIN1	Digital Input 1
6	GND	NA



Typical Application – Motor Control Monitor



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Electrical Specification

Parameter	Minimum	Typical	Maximum	Units
External Supply voltage	1.8	3.0	3.6	VDC
Battery life – 2xAA Energizer Alkaline		5		Year
Operating Temp. Range (with alkaline batteries)	-20	25	40	°C
Operating Temp. Range (with LiFeSO2 batteries)	-40	25	60	°C
Transmission range		1		Miles ¹
Temperature measurement range	-40		80	°C
Temperature measurement accuracy	-5		+5	°C
Maximum periodic sample rate	-	-	24	Hours/sample
Minimum periodic sample rate	5	-	-	Minutes/sample

Order Information

Part Number	Description
WB-900-0000-ES	902-928MHz Basic Whisker.Block™ with external antenna. TQX-900-A antenna included
WB-868-0000-ES	868MHz Basic Whisker.Block™ with external antenna. TQX-900-A antenna included

