**SUGAR BUSH MANAGEMENT SYSTEM**

*My Sugarbush in my pocket*

This gateway offers the same functionalities than our standard cellular gateway (TL400-01-A), but also has the ability to operate up to 10 hours during power outage. This gateway will also send an alert (sms) when power outage is detected.

**Cellular Gateway**

The Gateway controls all communications between the multiple wireless sensors. All wireless sensors send data towards the gateway via a mesh network. Then, using the cellular network, the gateway will upload all sensor data to Trilogik’s web server. With this methodology, users do not have to worry about data history.

*Power Requirements:*
- **Required:** 110VAC / 12VDC
- **Not Required:** no internet connection is required

*Configuration Required.*

**Cellular Gateway with battery backup**

This gateway offers the same functionalities than our standard cellular gateway (TL400-01-A), but also has the ability to operate up to 10 hours during power outage. This gateway will also send an alert (sms) when power outage is detected.

*Power Requirements:*
- **Required:** 110VAC / 12VDC
- **Not Required:** no internet connection is required

*Configuration Required.*

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**Be notified by text**

*Send a text message to:*
- start the pumps
- increase the level of vacuum
- consult the reading of each of your sensors
- monitor in real time the level of your tanks
- start the transfer pumps
- consult the performance of your releaser

*Improve your quality of life!*

*Alerts by text messages according to the different components which are part of the system. Configuration required.*

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**Take action remotely**

*When:*
- you lose vacuum
- your vacuum pump has stopped
- the level of your tank is high
- the performance of one of your lines decreases
- someone comes into your sugar house

*Cellular Gateway*

*My Sugarbush in my pocket*
This sensor measures distance to the closest target using ultrasonic technology. It allows monitoring tank levels without being in contact with the tank’s content.

**Repeater**

The repeater acts as a bridge between two sensors that are out of reach. Multiple repeaters can be placed end to end in order to reach long distances in the sugar bush.

**Vacuum sensor**

The vacuum sensor is installed at the end of main lines, and performs vacuum pressure readings with +/- 0.1 in HG accuracy.

**Weather sensor**

This sensor has an external probe providing the temperature with an accuracy of +/-0.5C on an operating range of -40C to +80C. In combination with the gateway, this sensor sends alerts (sms) when the temperature exceeds the limits (high/low). The user can change the limits remotely via text message. Like other sensors, the door sensor also provides ambient temperature reading.

**Tank level sensor**

This sensor measures distance to the closest target using ultrasonic technology. It allows monitoring tank levels without being in contact with the tank’s content.

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Everything has been thought out… with this sugar bush management system sugaring has become much easier for me. It was impossible to have internet at the sugar shack, with Trilogik I get all my alerts by text messages… tank levels, leaks, intrusion in the sugar shack etc… I can even start or stop my pump remotely for energy saving. I save a lot of time when I check my leaks, I can see the problems quickly. I can also consult and view my history at any time.

**Carl Faucher, Owner**

Ste-Sophie de Halifax, QC
3,700 Tops

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<td>Battery life: 1 season</td>
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This sensor monitors the door state (open/closed). In combination with the gateway, this sensor provides a cheap and effective alarm system for the sugar shack.

Electric Power Sensor
This sensor measures the alternative (AC) current of an appliance. It is installed around the hot wire, without having to cut the wire, for an easier installation. In combination with the gateway, this sensor will send alerts when the appliance, like a vacuum pump, is turned ON or OFF. Like other sensors, the door sensor also provides ambient temperature reading.

Relay Box (start/stop)
Junction box including a magnetic contactor allowing to turn ON/OFF a motor of up to 10HP (220VAC). When connected to a cellular gateway, this product allows to remotely control the operation of a motor like a vacuum pump with a simple text message.

Door sensor
This sensor monitors the door state (open/closed). In combination with the gateway, this sensor provides a cheap and effective alarm system for the sugar shack.

Releaser counter
This sensor is installed on the releaser and counts the amount of times the releaser dumps sap in a day, this allows monitoring the amount of sap collected during the day, as well as the total amount of sap collected from the beginning of the season.

Pressure sensor
This sensor provides the pressure of the osmosis (0-100 psi). This information is used to check whether it is time to perform a maintenance of the osmosis.

Bluetooth® access point
The Bluetooth® access point allows you to access the sensor network from your smartphone.