

Industries and Factories



### **Industries and Factories**

The 4th Industrial Revolution, it defines the concept of a Smart Factory. Behind this concept lies a mix of technologies serving the factory of the future.

Connect the machines to the Internet through the Internet of Things (Industrial IOT-IIOT), collect the data in the Cloud and treat them through Artificial Intelligence algorithms so as to optimize the Operations and reduce costs through preventive / predictive maintenance. In general this allows an optimized and centralized management of its installations, equipment and machines. It also offers better operational and business tools Collection.

### **Machine Data**

Whether it is to collect the hours of use, the number of start-up cycles, the status of certain parameters, the recovery of errors and alarms, there is a sensor with adequate communication protocol.

### **Dashboard & Reports**

Processes data and provides reports and dashboards for the various stakeholders: Support, Management, Customers.

### **Preventive & Predictable Maintenance**

Data analysis must anticipate failures or non-optimized processes to be able to intervene quickly in the event of a problem, or even to prevent one in the future.

## **How System works?**

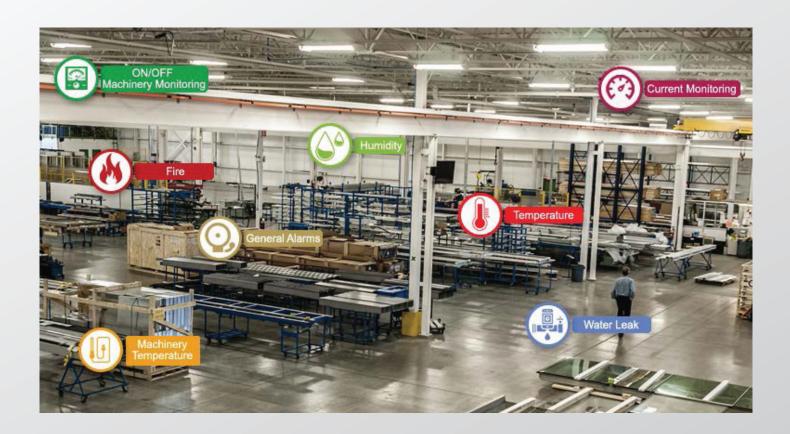




Industries, Factories and large establishments share similar challenges in environmental monitoring. Many aspects such as water leak, temperature, humidity, air quality, carbon dioxide, etc. have to be monitored constantly. Many times changing configurations of floor layouts need relocating of these sensors for optimum results.

Watch NET wireless sensors are easy and simple to use because of the long range signals. Preventive and predictive maintenance suggestions from our IoT platform can ensure smooth operations and very low downtime.

Watch NET IoT provides fully scalable environmental monitoring solutions to keep an eye on the maintenance of machines by a variety of sensors.





### Measurable Key Metrics

Few of the metrics that Watch*NET* IoT can monitor and analyze Industries and Factories

#### **Humidity at Multiple Locations of the Facility**

# Wireless Temperature and Humidity Sensor For Low Temperature

This commercial-grade temperature and humidity sensor can be used to monitor the temperature and humidity of a low-temperature environment and notify personnel by a text message, email or phone call, through our hosted online platform if the values go out of the set optimal range. This sensor is rugged and IP65 rated for a humid and moist environment. This device has a magnetic back panel that can be mounted on any metal surface.



WLRC-S16L

# Temperature of the Room / Facility from Different Points

# Wireless Temperature and Humidity Sensor For Low Temperature

This commercial-grade temperature and humidity sensor can be used to monitor the temperature and humidity of a low-temperature environment and notify personnel by a text message, email or phone call, through our hosted online platform if the values go out of the set optimal range. This sensor is rugged and IP65 rated for a humid and moist environment. This device has a magnetic back panel that can be mounted on any metal surface.



WLRC-S17

# Quick Changes in Temperature (High/Low) Monitored with a Thermocouple Sensor

# Wireless 2-Gang Thermocouple Sensor - Type K

This commercial-grade K Type thermocouple sensor can be used to monitor the temperature of the specific substance or environment and notify personnel by a text message, email or phone call, through our hosted online platform if the values go out of the set optimal range. The device comes in a sealed box making it moisture-proof and it withstands extreme conditions. This sensor is rugged and IP65 rated for a humid and moist environment. This device has a magnetic back panel that can be mounted on any metal surface.





# Sub-metering and current monitoring single-phase or three-phase

# Wireless 1-Phase Current Meter with 1 x 150A Clamp-On

This commercial-grade current meter can be used to monitor the usage of electric current by any equipment whether it is single-phase or three-phase. The device comes in a sealed box making it moisture-proof and withstands extreme conditions. This device can be installed on any metal surface as it comes with a built-in magnet. The core of this sensor that goes around the live wires can be opened and they are easy to install on an existing set-up. These monitors can also help in predictive maintenance of any equipment and ideal if used for residential purposes.

# Wireless 3-Phase Current Meter with 3 x 150A Clamp-On

This commercial-grade current meter can be used to monitor the current usage of any equipment whether it is single-phase or three-phase. The device comes in a sealed box making it moisture-proof and withstands extreme conditions. This device can be installed on any metal surface as it comes with a built-in magnet. The core of this sensor that goes around built-in live wires can be opened, and are easy to install on an existing set-up. Current monitors can help in predictive maintenance of any equipment.





**WLRC-M1150** 



WLRC-M3150

#### Monitoring Air Quality, Temperature & Humidity

# Wireless PM2.5/ Temperature/ Humidity Sensor

This air quality sensor can pick up airborne particles in the air such as dust up to PM2.5. It also has a built-in temperature and humidity sensor and is ideal for any environment where air quality monitoring is required.





WLRI-S24M

#### **Special Projects**

#### Wireless Pulse Counter Interface

The wireless pulse counter interface device is connected with two pulse detection interfaces, which can calculate the number of pulses and send the detected number of pulses to the gateway display. It uses the SX1276 wireless communication module. The purpose of the pulse counter is to count the number of pulses during a specified amount of time. The time is dictated by the signal on the start/stop pin. When the start/stop pin is high, the algorithm is counting pulses.



WLRC-III

#### Wireless Accelerometer and Surface **Temperature Sensor**

This wireless accelerometer can detect the movement or vibration of any attached device, along with the surface temperature. This product is great to monitor pumps, motors, and industrial/commercial equipment for stress and working over the recommended temperature. For equipment that requires to be running all the time, this sensor helps prevent any failure.



WLRC-S31

#### **Wireless Light Sensor**

This commercial-grade indoor/outdoor wireless light sensor can detect the intensity of light in LuX of the environment. This can be used in many industries where the intensity of the light matters, like in a greenhouse, film studio and professional sports stadiums. This device can be used with a smart power outlet to create an automated lighting system. Light sensors can be used as a part of automation for grow-up operations where light intensity is vital.



WLRC-S20

### **Vibration Sensor - Spring Type**

This commercial-grade vibration detection sensor can be used to detect vibrations on mechanical equipment and on any surface that needs to monitor vibrations. The device is small and has a sleek design making it easy to install and handle. This device can be used to monitor machinery, vibrations for too long, vibration count per day and no vibration at all. This device helps in predicting maintenance by analyzing the efficiency of the machine on a daily basis.



### **Gateways**

WatchNET IoT gateways are one of the smart and intelligent devices within our IoT ecosystem.

It collects data from devices that do edge-based processing and then sends it to the cloud for storage, display and analytics.

This gateway works as a stand-alone controller to link devices connected to it and triggers actions accordingly to input logic to output devices. Basic or complex rules can be set on this gateway, that can work in an online or offline state within the network.

- Edge-based Data Processing
- LAN, WAN and Connectivity
- Low Bandwidth Consumption
- Built-in Wi-Fi Gateway

#### Wireless Smart IoT Gateway

This intelligent smart gateway provides connection to the cloud and control of devices connected. Multiple technologies for communication such as LAN and WiFi makes this gateway deployment easy in any building. Easy installation and configuration makes it ideal for small or large environmental monitoring and control projects. The built-in powerful antenna is capable of receiving long-range signals.



WLRI-G11

#### Mini Smart Gateway

This small form factor smart gateway provides connection to the cloud and local control of devices connected to it. It is easy to install and configure making it ideal for small environmental monitoring projects as it is also economical. The built-in powerful antenna is capable of receiving long-range signals.



### WatchNET IoT Cloud Software & Mobile APP

- ✓ Around-the-clock monitoring
- ✓ Compatible with over 100 sensors & devices (LoRa & NB-IoT)
- ✓ Real-time status update
- ✓ Instant alerts and notifications
- Customizable dashboard & floor layouts with quick data visualization
- ✓ Manage data from one platform
- ✓ Intuitive report with accurate historical records
- ✓ Powerful eMAP data visualization with actionable decisions
- ✓ Enhanced data logging
- ✓ Impressive web-based interface and mobile APP
- Powerful offline linkage feature enables the devices to act in critical scenarios, even if the smart suggestions and warnings
- ✓ Intelligent analytical engine can provide smart suggestions and warnings







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NatchNET IoT Industry Solution

**CANADA:** 

351 Ferrier Street, Unit 5 Markham, ON L3R 5Z2 Toll Free: 1-866-843-6865 Tel: 1-416-410-6865

**USA:** 

171 Cooper Ave. Suite 110 Tonawanda, New York 14150 Toll Free: 1-866-843-6865 Local: 1-716-877-7277

**MIDDLE EAST:** 

PO Box No 126312 Office Suite 703, Oxford Towers Business Bay, Dubai, UAE Tel: + 971 4 2767117