TIMKEN

TIMKEN® WIRELESS SENSOR AND MONITORING SOLUTION FAQ - FREQUENTLY ASKED QUESTIONS



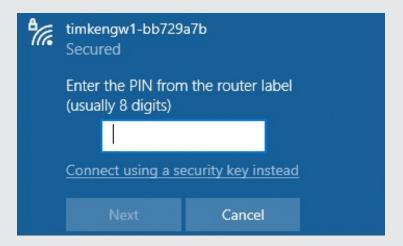
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This FAQ covers the most common questions about the Timken® Wireless Sensor and Monitoring Solution. Please visit www.timkensensor.com for more information and resources, including the quick-start guide, instruction videos, User Manual, the Terms of Use that apply to your use of this system, safety information, and important product warnings. Please review all available information before installing and using this system.

TIMKEN GATEWAY

- **Q**: Where is my gateway password?
- A: Passwords are unique to each gateway and are written on the bottom of the gateway. For enclosed gateways, it is necessary to unscrew the lid and open the enclosure to find the password.
- Q: I can't connect via WiFi to the gateway it says the password is invalid
- A: Check that you are entering the password as a network security key and not as a PIN. On PCs you will have to click the message "Connect using a security key instead."



- Q: What is the browser address to view the dashboard in WiFi mode?
- A: 192.168.0.1
- Q: What is the browser address to view the dashboard in ethernet mode?
- A: The IP address will vary based on the settings used by your IT department to allow the gateway into the network. The IP address will be stored in the "Static IP" field under Ethernet settings in the Admin->Settings menu.

Q: How do I install the Timken Gateway?

A: Review the installation guide here.

Q: What kind of environment can the gateway operate?

A: The Timken Gateway has an operating temperature of 0 °C to +50 °C (32°F to 122°F).

The Timken Enclosed Gateway has is certified to IP66/IP67 and can operate within the range of -20 °C up to +50 °C and a relative humidity of 20-90%, noncondensing. Impact Resistance (EN 62262) IK08.

Q: How many sensors can connect to the Timken Gateway?

A: The number of nodes connected within the mesh network is not limited, though we recommend using an additional gateway if more than 100 nodes are connected.

Q: What is the connection range between Timken Gateway and the nodes?

A: The maximum distance between the Timken Gateway and the nodes, and in-between nodes, can vary up to 60 meters, depending on the individual deployment environment. A clear line of sight between devices will help a longer distance and optimal conditions for radio transmission.

Q: Does the Timken Gateway require specific network or firewall configuration?

A: The Timken Gateway can be connected directly to phone, laptop, or pc through its WiFi connection. This circumvents any potential requirements for network configuration.

It can connect into the network but does required additional steps. Please see this document for setup.

Q: Can I connect my computer via Ethernet cable directly to the Timken Gateway?

A: The Timken Gateway cannot be connected directly via ethernet cable to your computer, but it can be connected via ethernet cable to a local network and then be accessed from a computer in the same network.

Q: Can I use the Timken Gateway with third-party sensors?

A: No, the gateway and sensors are configured to be used only with other Timken gateway and sensors.

Q: How can I update the Timken Gateway?

A: Please see the <u>user manual</u> to learn how to update your Timken product.

TIMKEN SENSORS

Q: How are the Timken Wireless Sensors installed?

A: Timken Wireless Sensors can be either mounted without an adapter directly to the grease fitting or tapped hole in a housing or other mounting surface. The sensors have a 1/8-27 NPT end as that was the most common tapped hole in the Timken and other mounted bearing housings. In addition to that, a grease pass-through adapter can be used with or without one of the adapter or extension fittings. For flat un-tapped housings or equipment, there is an adapter to glue or epoxy direct to the surface. Please see our adapter installation guide and chart.

Q: Do Timken sensors need wired hardware?

A: The Timken Wireleess Sensors work wirelessly via a Bluetooth Wirepas mesh network. Only the Timken Gateway needs to be powered.

Q: How does the Wirepas mesh work?

A: Wirepas Mesh is a low-power wireless connectivity protocol. Based on mesh network architecture, all the nodes in the network are homogeneous and make all connection decisions depending on the local radio environment.

Q: How can I access the sensor data?

A: The Timken sensor data is collected and visualized in the dashboard that resides within the gateway.

Q: What kind of environment can the gateway operate?

A: The Timken Wireless Sensor can handle temperatures within the ranges of –40 degrees Celsius up to +85 degrees Celsius. Please see the exact certifications in the download section of each product on www.timkensensor.com.

Q: What time intervals can the Timken Wireless Sensor take measurements?

A: The standard measurement interval time is 30 minutes, but longer intervals can be selected as well. The shortest measurement interval is 5 minutes (about 10 minutes for raw data, depending on the exact network speed), which will drain the battery of the product faster than with a longer time interval. For setup purposes, it is possible to use a 5-minute interval for a short time. This setting is not recommended for continuous use as it will drain the battery much more quickly.

Q: How can I review the UN 38.3 lithium battery test summary for the sensor's battery?

A: Timken has the report on file and it is available upon request.

BACKEND

Q: Do I need my own backend to access the sensor data?

A: You can analyze and visualize your data on the Timken dashboard within the gateway. Please see the instructions.

TIMKEN SUPPORT

Q: How can I contact Timken Customer Support?

A: Before contacting support, please review the material on our website: www.timkensensor.com. If more support is needed, please visit the support section with the website for contact information.

Q: How long will it take to get an answer?

A: Timken Customer Support should answer most common questions while on the phone for level 1 and level 2 support. There are three levels of support with the third one typically requires more detailed review and answers but strive to be still within 2 business days.

TIMKEN

The Timken team applies their know-how to improve the reliability and performance of machinery in diverse markets worldwide. The company designs, makes and markets bearings, gear drives, automated lubrication systems, belts, brakes, clutches, chain, couplings, linear motion products and related industrial motion rebuild and repair services.

Stronger. By Design.