PredictAlert Predictive Maintenance

FREQUENTLY ASKED QUESTIONS

How does the BOB sensor run?

BOB is equipped with a motion sensor to measure the vibrations along the X, Y, and Z axes. It can identify faults via the vibration Fourier transform, which shows the vibratory signature.

When in operation, and after baseline learning: BOB measures the equipment vibration periodically without sending a message. If all goes well, he sends a report every 6 hours with a summary of the measurements of this period. In the event of a vibration anomaly, it sends an alert immediately.

Some machines have several operating modes. BOB can learn these different modes of operation through artificial intelligence and identify them later, or even adapt to their changes.

How is the sensor connected?

BOB operates on a LoRa network.

LoRaWAN gateways are installed throughout your facility to ensure optimal coverage. LoRa connectivity benefits include long battery life on the sensors and excellent long-range coverage, regardless of facility size, you are covered.

Can I move BOB when it is in operation?
Once BOB has been installed and learned the vibratory pattern of the machine, it should not be moved. The vibrations depend precisely on the area where BOB was initially placed. If it is moved, the vibratory signature will change and no longer correspond to what has been learned. If this is the case, either BOB can learn the vibrations of the new zone on its own, or it will go into alert mode because it "perceives" it has detected a failure: if so, it will be necessary to reset it!

What happens if the machine turns off when BOB is learning?

BOB pauses and starts learning again when the machine reboots. It is not ideal to put a BOB sensor on a machine that rarely is on.

How to affix BOB on my machine?

There must be a good mechanical contact (coupling) between BOB and its support to ensure proper vibration measurement. There are several ways to affix BOB:
- by magnetization
- by a clamp

- by gluing via double-sided tape
- by screwing

Does BOB run outdoors or indoors?

BOB runs both indoors and outdoors because it is robust and resistant to rain and dust (IP 68). However, the weather conditions, especially the temperature, can alter the battery and degrade the autonomy.

What is the BOB learning phase?

BOB is equipped with artificial intelligence, and it can learn the vibratory signatures of equipment and deduce anomalies. Initially, BOB does not know any equipment. When turned on, it must be placed on the machine: it will listen deeply to the vibrations of the machine for a few hours, then slightly for a few days. After seven days, BOB considers that it knows the machine and goes into normal operation. During the learning period, the results provided by BOB are therefore necessarily limited.

How to access to BOB's analysis?

The BOB Assistant data and reports are collected and available on a web dashboard and mobile devices, using the account that you created when the sensors were installed. From there, you can explore BOB results, log your analyses, and export essential data. It is also possible to synchronize the platform's analyzes to your own databases through standard APIs.