

# The OPTIME system components



reddot winner 2021



## OPTIME consists of:

- Wireless **sensors** that monitor machines and devices
- A **gateway** that receives the data from the sensors and transfers it to the cloud
- A **digital service** that analyzes this data and provides expert fault diagnostics – conveniently delivered to you via an app on your desktop or mobile device

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We pioneer motion

# How I don't leave it for the next shift



## High-scale monitoring at the lowest cost



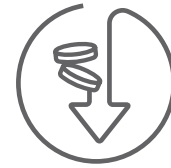
In the extensive facilities used in the mining industry, both humans and machines have to pass a true test of their toughness. The earlier you can identify problems on even the smallest components in your pumps, conveyor systems, fans, mixers, and drives, the better and more reliably you can carry out and plan your processes.

But condition monitoring can be expensive. Which is why up to 95% of all machines inside factories are only sporadically monitored, or often not at all. This can lead to unplanned breakdowns and downtime.

OPTIME from Schaeffler allows for comprehensive condition monitoring that is both easy and affordable. Thanks to its simple plug & play installation, OPTIME allows you to start monitoring hundreds of rotating machines in just a few hours.

With the ability to work on almost all machines, OPTIME can detect potential damage, imbalances or misalignments – even weeks in advance! This enables you to easily and conveniently plan your long-term maintenance, manpower or spare-parts requirements.

## Your key benefits at a glance



**Highly cost-efficient.**  
Monitoring hundreds of rotating machines for a few cents each per day – up to 50% cheaper than handheld measurement



**Installs quickly.**  
Installing the sensors and setting up the OPTIME app takes mere minutes – no prior experience required.



**Expert know-how.**  
Digital Service provides professional diagnostics based on expert algorithms and machine learning, available 24/7 via app – so you'll always make the right decision.



**For beginners & experienced users.**  
With its intuitive operation, OPTIME provides crucial information and comprehensive expandability – perfect for a broad range of users and applications.

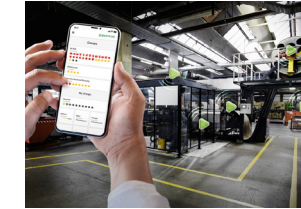
## This is how OPTIME works

### Plug.



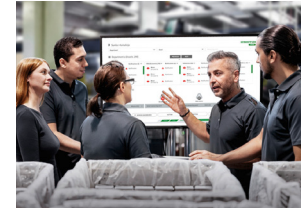
The vibration sensors are attached to each machine using screws or adhesive. Then they are activated via NFC. All sensors automatically connect to each other and the gateway. Together they form a mesh network, which is among the most reliable and energy-efficient IoT networks available today. The system can be expanded with additional sensors at any time.

### Play.



The app displays trends and, using a multi-stage warning system, provides a visual representation of the severity of potential incidents. In an emergency, it can sound an alarm and present additional information. Exceptionally intuitive in its operation, the app offers a comprehensive array of tools that make it the perfect solution for everyone – from beginners to experts. Depending on the user's requirements, the monitored machines can be organized into groups. The machines' operational status can then be displayed in a variety of user-specific formats.

### Predict.



The system detects malfunctions weeks in advance and provides information on the root causes. This works with continuous automatic analyses based on Schaeffler's extensive rolling bearing expertise, know-how in condition monitoring as well as machine learning algorithms. This way, OPTIME can make planning maintenance work, identifying manpower requirements, and procuring spare parts quick, easy and cost-effective.