

IO-Link vibration sensor VVB3

The smart backbone of maintenance



Product description

IO-Link vibration sensor (3-axis)



The smartest health tracker for your machine

Gain valuable insights into the health of your machinery with the new VVB3 condition monitoring sensor. The VVB3 sensor continuously detects vibration in three axes and additionally measures the surface temperature of non-rotating components. From these values, the smart sensor determines the machine's "vitals".

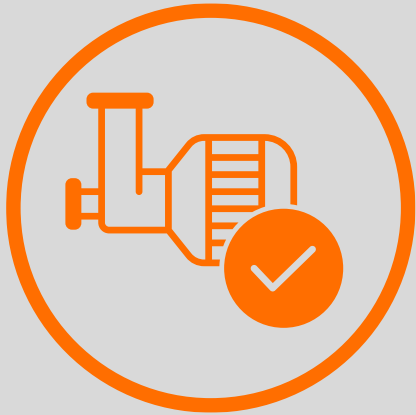
With its wide frequency range of 5,600 Hz, the sensor can detect anomalies, wear, bearing damage, insufficient lubrication or cavitation reliably and early. This allows you to react before any serious damage and increased follow-up costs can occur.

With VVB3, you invest in regular check-ups to keep your equipment running smoothly and ensure there are no underlying problems. Are you ready to unlock the power of predictive maintenance and monitor the fitness of your machinery? Get started today: ifm.com/cnt/vvb3

It's a **new day** for your machine reliability.

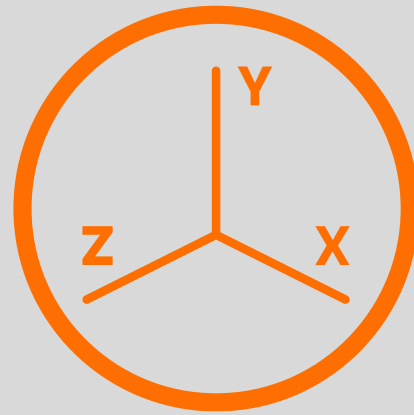


Comprehensive condition monitoring in one device



Reliable condition indicators

Obtain digital indicators for fatigue, impact, friction, crest and temperature from one device.



Early fault detection

3-axis MEMS technology with 5600 Hz frequency range.



Interoperability

IO-Link enables real-time usage of data.



Smart analytics

Rolling bearing analysis (BearingScout™) & unbalance detection directly in the device.

Product benefits

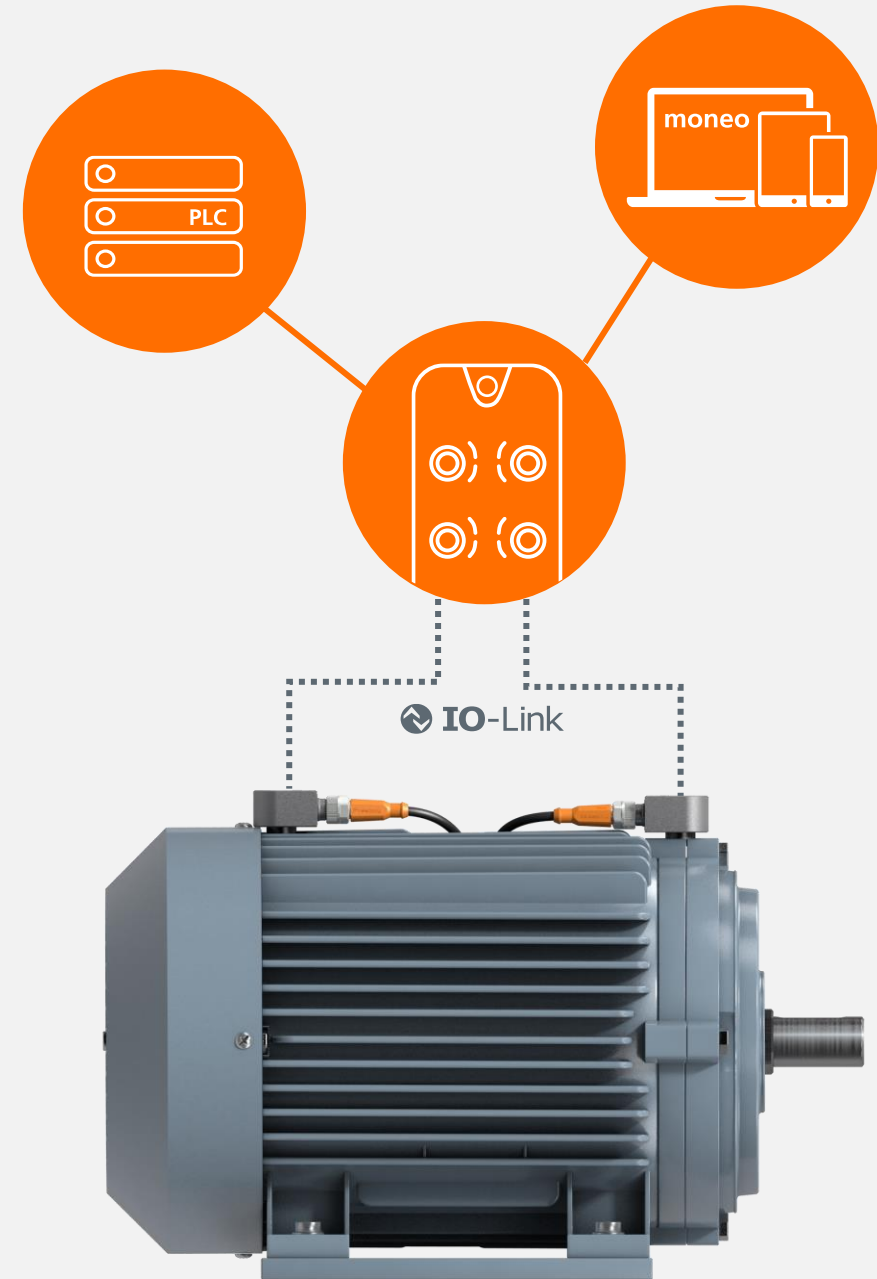
The right choice

Advantages

- Real-time monitoring of all condition indicators
- Integrated rolling element bearing and unbalance analytics
- Fast set-up with ISO 20816-3 profile parameters
- Highly flexible and scalable thanks to IO-Link

Application

- All rotating machines with continuous or partially continuous operation
- Simple machines without complex machine kinematics (multiple shafts and high process forces)
- For example: centrifugal pumps, geared motors, fans, vacuum pumps, separators, electric motors, etc.



Application overview

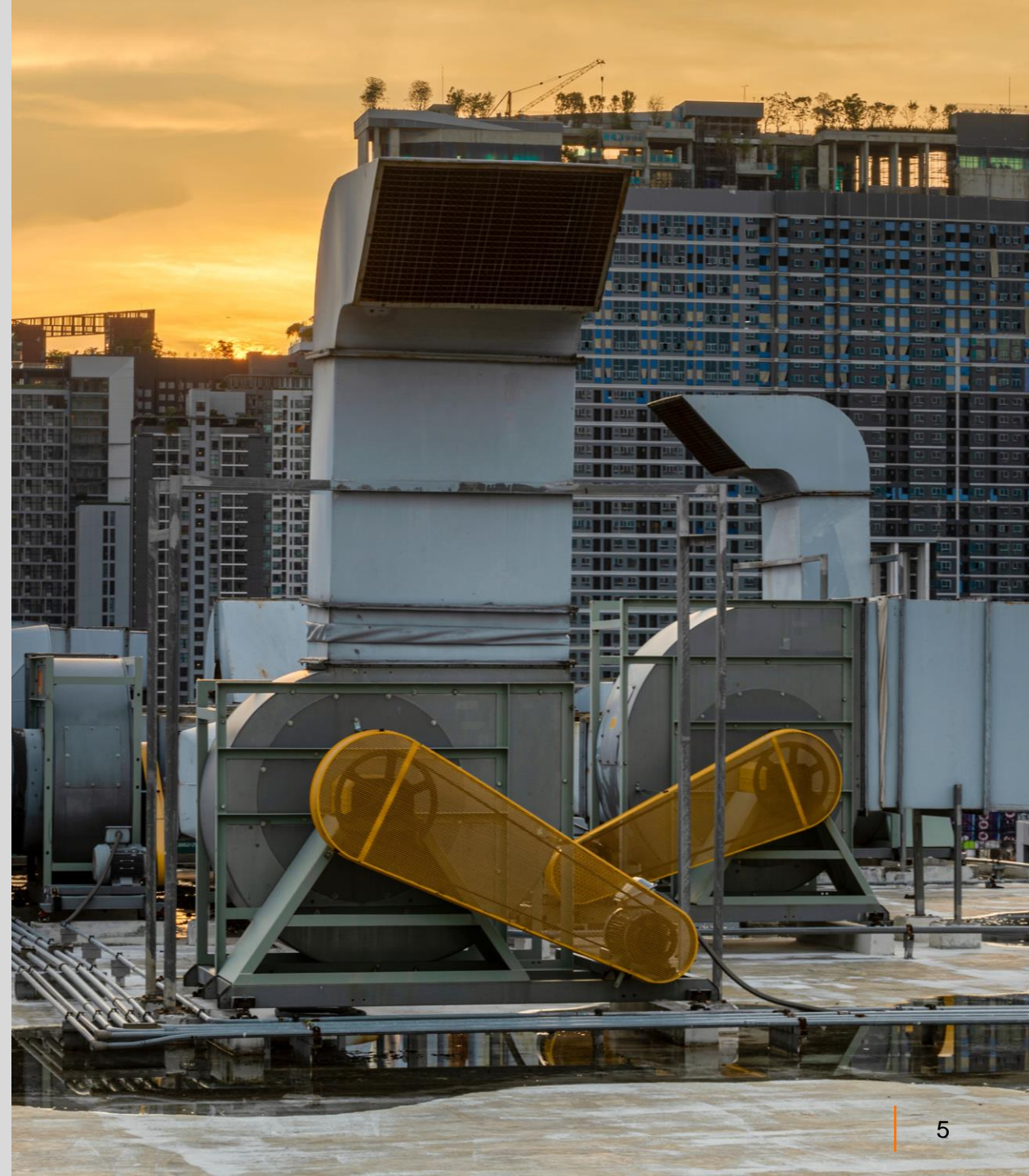
Fan monitoring

Condition monitoring of fan applications

The 3-axis vibration sensor VVB continuously monitors important condition indicators in order to detect unexpected failures at an early stage.

In addition to condition indicators such as **fatigue (v-RMS)**, **impact (a-Peak)**, **friction (a-RMS)**, **crest** and **temperature**, the new device also provides smart analytics.

One of these analysis functions is the integrated unbalance detection. In fan applications, it can be used to detect dirt accumulation on the rotor early and remove it before any damage occurs.



Application overview

Pump protection

Reliable pump monitoring with a single device

Featuring an ultra-rugged stainless steel housing (IP68 / IP69), the new VVB sensor is designed for use in harsh industrial environments.

Its **3-axis MEMS technology** provides precise results even with high-frequency damage patterns such as cavitation

Standardised **IO-Link technology** allows you to seamlessly integrate various additional smart features such as the **integrated trend history**, **diagnostic device data** or **raw data (BLOB)** into any system.



Application overview

Reliable vacuum pumps

Cost savings through condition-based maintenance

Vacuum pumps are critical components in many different industrial sectors such as the **semiconductor**, **pharmaceutical**, **food**, and **beverage** industries.

The device is a fully-fledged condition monitoring system for vacuum pumps.

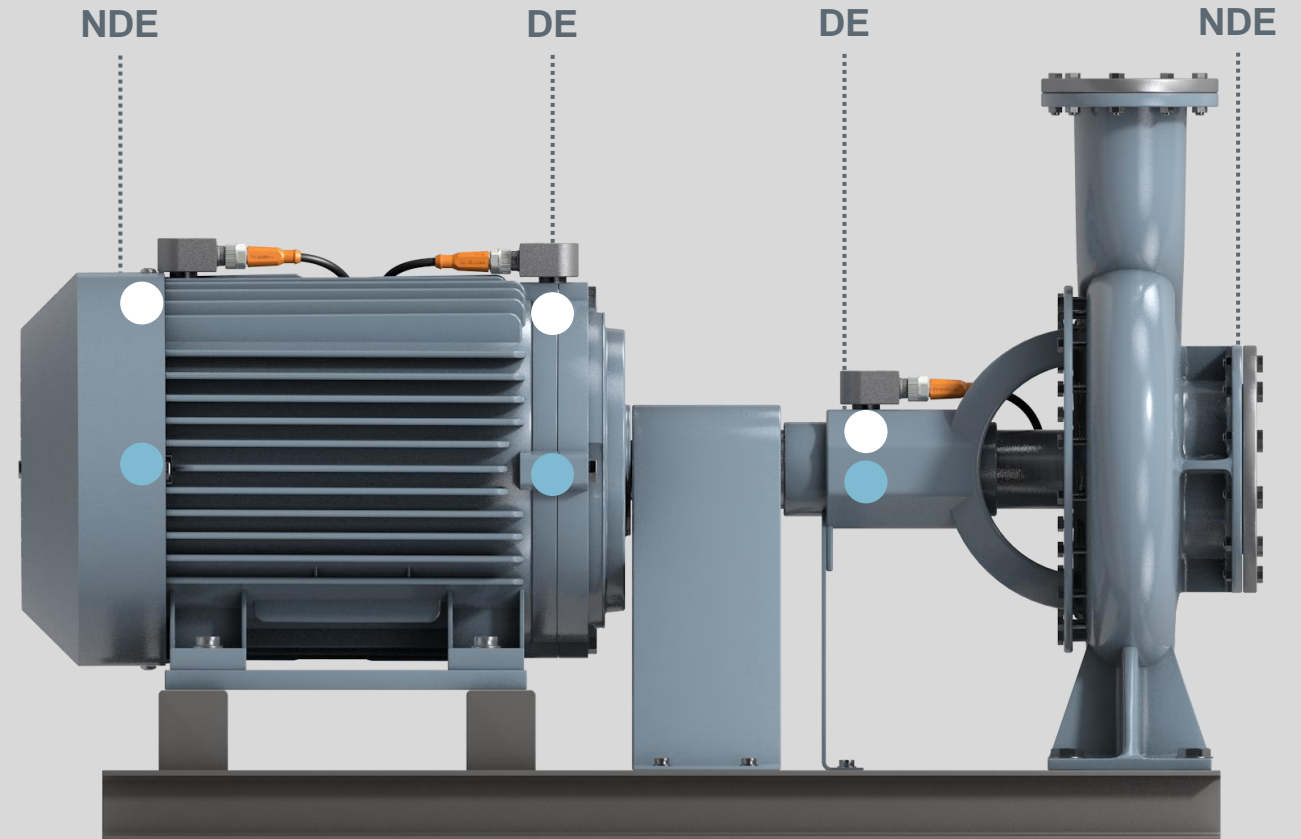
- The smart **BearingScout™** algorithm is an integrated rolling bearing demodulation for safe and early **rolling element bearing diagnostics**.
- Additional trend indicators provide everything needed to detect screw rotor friction, electrical problems or misalignments at an early stage.



Good to know

Fit and go!

- Rule 1:** The main load zone is always the drive end (DE). With large motors, it is recommended to install an additional sensor at the non-drive end (NDE).
- Rule 2:** The ideal measuring direction is **horizontal** or **vertical** in the direction of the main shaft directly at each rolling bearing point.
- Rule 3:** The device is ideally mounted in solid material without damping intermediate layers.
- Rule 4:** Direct screw mounting is always preferable. In case of restrictions, we provide suitable mounting accessories for your application.



Good to know

Turn your data into actionable insights



Seamless integration

Flexible and scalable for your ecosystem.



Your maintenance copilot

The sensor that makes the difference – integrated monitoring and smart diagnostics in one device.



Machine health

Continuous transparency of machine reliability.



Totally simple

With the new VVB and the IIoT platform moneo, maintenance is easier than ever before.



IO-Link vibration sensor VVB3

ifm.com

