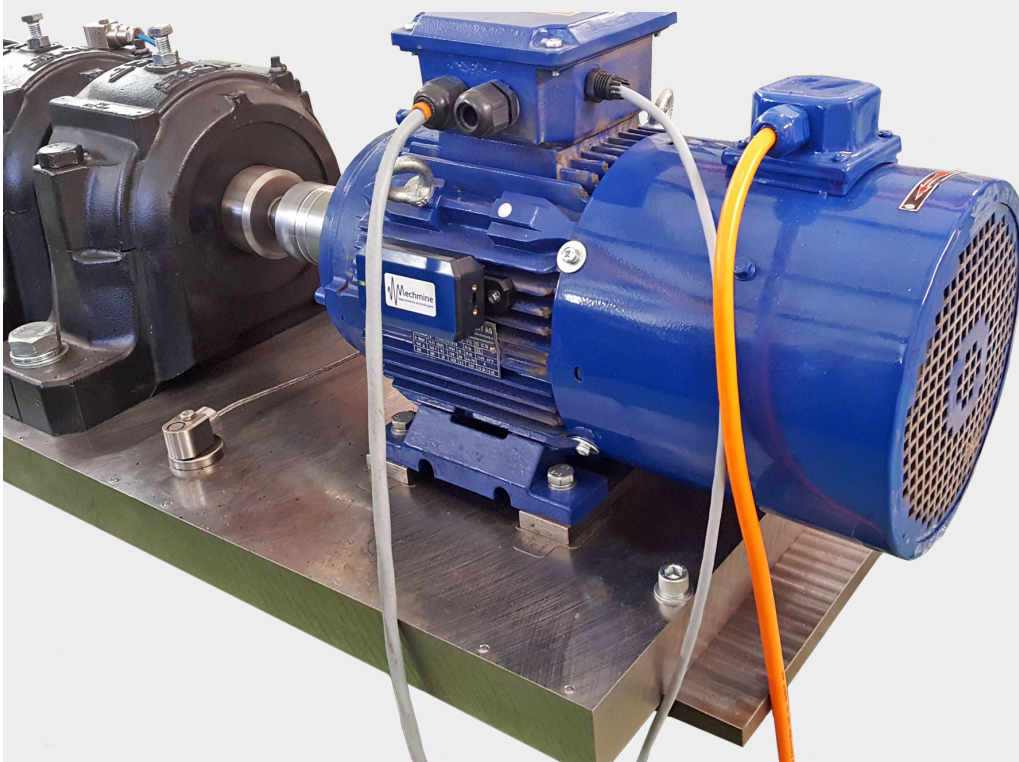# Single-point acquisition unit mmBasebox

– **Retrofit sensor solution: simple, quick, affordable**
– **Contains multiple sensors: acceleration, magnetic field, sound, temperature**
– **100 % safe, galvanically isolated from machine control system or internal IT network**
– **Can monitor speed variable drives!**
– **Supplies machine monitoring data to Condition Monitoring and Predictive Maintenance tools**
– **Applications: electrical motors, electrical generators, pumps, ventilators, vans**

mmBasebox unit –
available in two versions:
– Power-over-Ethernet (PoE)
– 4G / 5G wireless LTE NB-IoT

Typical application,
monitoring a drive.
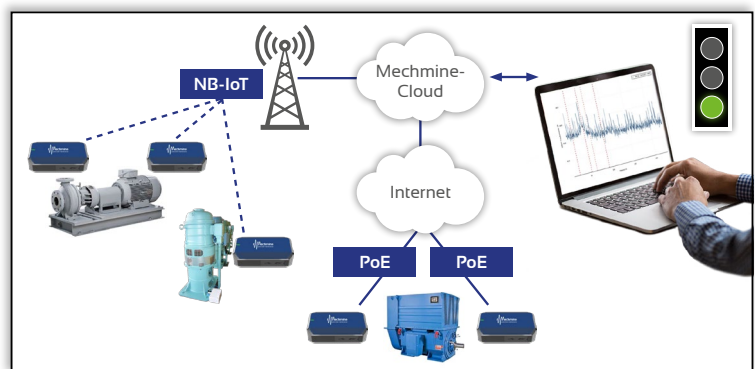
Mechmine
predictive maintenance

Problem solution

Detect bearing or gearbox defects, misalignment or imbalance at an early stage before damage and unplanned production downtime occurs. Typical hardware for high-resolution vibration analysis is less attractive for monitoring smaller machines, e.g. power below 500 kW. The mmBasebox is suitable to monitor such machines at low cost. The data is transferred for further processing and analysis to the Mechmine-Cloud mmViewer. Customers benefit from the best-in-class algorithms inside mmViewer, the advanced condition monitoring and predictive maintenance tool. The mmBasebox can transmit data
via 4G/5G cellular (LTE NB-IoT) or PoE (Power-over-Ethernet) cables to the Mechmine Cloud. Customers can conviently access the data, alarms and analysis results via a browser from any device.

Features

Sensors
– Vibration sensor
   – Axis: 3
   – Ranges: ± 10 g, ± 20 g, ± 40 g
   – Bandwidth: <5.5kHz sensor resonant frequency
– Magnetic field sensor
   – Axis: 3
   – Ranges: ± 1300 uT (x,y), ± 2500 uT (z)
   – Bandwidth: > 300 Hz
– Sound sensor
   – Dynamics: 105 dB, 69 dBA SNR
   – Bandwidth: typ. 28 kHz
– Temperature sensor
   – Range: – 55°C to 150°C
   – Accuracy: ±0.5°C

Battery power: two coins CR2477

Switch to power on / off unit

LED status indicator (green,orange,red)

Operating temperature range: – 40°C to + 85°C

Protection (IEC 60529): IP65

Communication options:
– LTE Cat-M1 / NB1 / EGPRS (max. 375 kbps), ultra low power wireless solution
– PoE port, 10 / 100Base-Tx Ethernet (IPv4,IPv6 for TCP / IP traffic)

Dimensions and Connectors

Size (L × W × D) in mm: 84 × 52 × 27

Weight: 140 g incl. alu mount

Connectors:
– LTE NB-IoT: USB-C, Micro-SD Card, SIM Card
– PoE: USB-C, RJ45, Micro-SD Card

Compliance

CE FC