



# METRIS VIBEPRO

WIRELESS CONDITION MONITORING

# Metris VibePro

## Maximum Uptime and Efficiency

Metris VibePro is your solution for real-time, 24/7 machinery health monitoring. Equipped with cutting-edge vibration and temperature sensors, VibePro delivers actionable insights that help you detect issues early and prevent costly downtime. With a battery life of up to 15 years and seamless wireless connectivity, it offers long-term reliability and flexible deployment across any industrial environment. Experience proactive maintenance, extend equipment lifespan, and keep your operations running smoothly with Metris VibePro, the future of predictive maintenance.

Metris VibePro stands out with its seamless architecture options, allowing for flexible deployment on-premises, in the cloud, or in a shared cloud environment, providing operational efficiency and data security. Whether hosted in an on-premises server or a cloud infrastructure like Azure, VibePro's architecture ensures optimal connectivity through Metris Vibe Gateways, which support Wi-Fi, Ethernet, or 3G/4G connections. This allows easy integration into existing networks, minimizing disruptions.

The VibePro system also includes intuitive dashboards that present real-time health data on all monitored machines. These dashboards give users an instant overview of machine statuses, highlighting any anomalies detected by the system's smart diagnosis feature. The smart diagnosis identifies early signs of mechanical issues, like misalignment or bearing

damage, by analyzing vibration data from multiple axes. This predictive maintenance tool helps prevent unplanned downtimes by providing maintenance recommendations.

For advanced users, the desktop application offers detailed vibration analysis through Fast Fourier Transforms (FFT) and customizable thresholds, making it ideal for experts requiring deep insights. Together, these features ensure that Metris VibePro not only extends machinery life but also empowers users with the tools to maintain peak operational performance.



### UNLOCK THE FUTURE OF MACHINE HEALTH

- **24/7 Automated Monitoring:** Constant, real-time machinery health tracking for early fault detection
- **Extreme Condition Durability:** Highest ATEX/IECEx rating and IP69, capable of withstanding up to 105 °C surface temperatures
- **Wireless Flexibility:** Easily integrate into any environment with wireless and wired options
- **Long Battery Life:** Up to 15 years of operation reduces maintenance needs
- **Comprehensive Data Analysis:** 3-axis vibration data and temperature monitoring for detailed diagnostics
- **Cloud & On-Premise Options:** Flexible hosting to meet varied security and scalability requirements
- **Easy Installation:** No need for manual sensor alignment—quick setup through advanced software.
- **Predictive Maintenance:** Smart diagnostics prevent costly downtime by flagging potential issues early.



# Metris Smart Diagnosis

- Comprehensive Machine Database: Leverages an extensive database of ANDRITZ machines, enabling the identification of known issues quickly and efficiently.
- Automated Troubleshooting Recommendations: Provides real-time maintenance recommendations tailored to detected faults, enabling fast resolution and minimizing downtime.
- Expert Support for Advanced Insights: Access to ANDRITZ machine experts for ongoing support and the creation of custom templates, ensuring continuous system improvement.

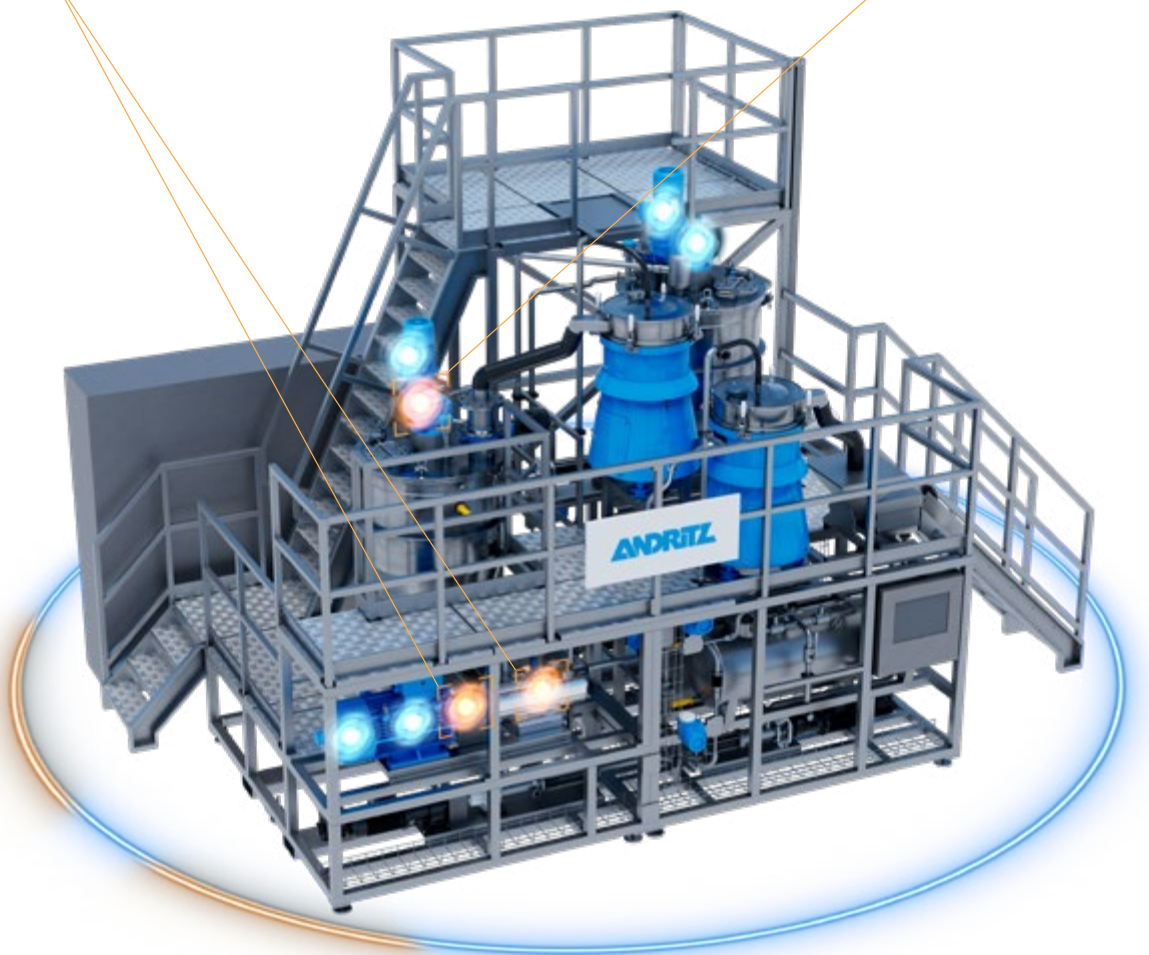
## METRIS SMART DIAGNOSIS FOR TURBEX EXTRACTOR:

### **TURBEX: BEARING DAMAGE**

- Check the bearing temperature.
- Ensure proper lubrication.
- Internally inspect the bearing for wear.
- Check the housing seals.
- Replace the bearing if necessary.

### **AGITATOR: BENT SHAFT**

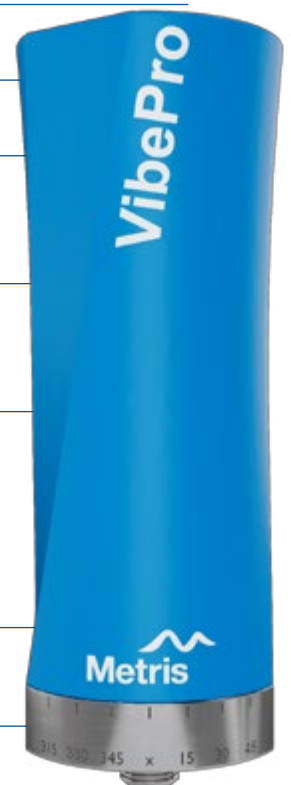
- Check if the shaft sliding bushings show abnormal wear.
- Check for cracks in the structure securing the agitator.
- Inspect the shaft for bending.



# Datasheet Metris VibePro

## FEATURES

|                             |                                                                                                                                               |
|-----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|
| Measurements:               | Surface Temperature<br>Acceleration in 3 axes                                                                                                 |
| Dimensions                  | 34 x 98 mm                                                                                                                                    |
| Sampling Frequency          | 100 - 25600 Hz                                                                                                                                |
| Amplitude                   | up to 64 g                                                                                                                                    |
| Maximum Frequency           | 6000 Hz (Z)<br>9000 Hz (X)<br>9000 Hz (Y)                                                                                                     |
| Ambient Temperature         | -40 °C - 85 °C                                                                                                                                |
| Machine Surface Temperature | -40 °C - 105 °C                                                                                                                               |
| Waveform                    | 15000 samples (3 axes measurement)<br>45000 samples (1 axes measurement)                                                                      |
| Measurement Interval        | Default 120 min<br>Minimum: 5 minutes<br>Maximum: 7 days                                                                                      |
| Communication               | Wireless, BLE 2.4 GHz                                                                                                                         |
| Range                       | 50 m line of sight                                                                                                                            |
| Battery                     | Lithium-Thionylchlorid (proprietary)<br>Exchangeable<br>Lifetime up to 15 years, strongly dependent on<br>temperature and settings            |
| Mounting                    | M8 Thread<br>Glue Face Stud (optional)<br>Conical Mount Stud (optional)<br>Fin Mount Stud (optional)                                          |
| Analysis Parameter          | FFT acceleration<br>FFT velocity<br>FFT envelope<br>Waveform<br>Waveform envelope<br>Bandvalues can be configured customizable<br>Temperature |
| Labels                      | IP69, CE, Ex II 3D Ex ic IIIC T135 °C Dc<br>FCC, II 1G Ex ia IIC T4 Gα, II 1D Ex ia IIIC T135<br>Da (pending)                                 |



# Datasheet Metris Vibe Gateway (Cassia X2000)

## FEATURES

|                 |                                                                                                                                                                                                                                                                                                                                                                                                            |
|-----------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Dimensions      | 186 mm (W) x 159 mm (L) x 254 mm (H)                                                                                                                                                                                                                                                                                                                                                                       |
| Weight          | 1450 g                                                                                                                                                                                                                                                                                                                                                                                                     |
| Communication   | BLE<br>WiFi<br>Ethernet<br>Cellular Modem (3G/4G) (optional)                                                                                                                                                                                                                                                                                                                                               |
| Power interface | Power over ethernet                                                                                                                                                                                                                                                                                                                                                                                        |
| Environmental   | Temperature: -40 °C – 65 °C<br>Humidity: 0 – 90 % non condensing<br>Wind: 135 km/h (gusts up to 215 km/h)                                                                                                                                                                                                                                                                                                  |
| Mounting        | Wall or pole mounting kid                                                                                                                                                                                                                                                                                                                                                                                  |
| Certifications  | Available: FCC (US), IC (Canada), CE (Europe), SRRC (China), China RoHS, CB, RoHS, REACH, RCM (Australia & New Zealand), TELEC (Japan), BQB, CRC (Colombia), NCC & BSMI (Taiwan), ANATEL (Brazil), ICASA & NRCS (South Africa), SUBTEL (Chile), IMDA (Singapore), SIRIM (Malaysia), NRTA (Egypt), IFT & NYCE (Mexico) • Available in 2024: NBTC (Thailand), SDPPI (Indonesia), WPC (India), PTA (Pakistan) |
| IP Rating       | IP66                                                                                                                                                                                                                                                                                                                                                                                                       |



## THE METRIS COMPETENCE

ANDRITZ offers a broad and constantly growing range of innovative products and services in the industrial digitalization sector under the brand name Metris, helping customers to

- enhance plant efficiency and profitability
- optimize the use of resources
- achieve constant and highest product quality
- reduce production downtime
- maximize user-friendliness

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