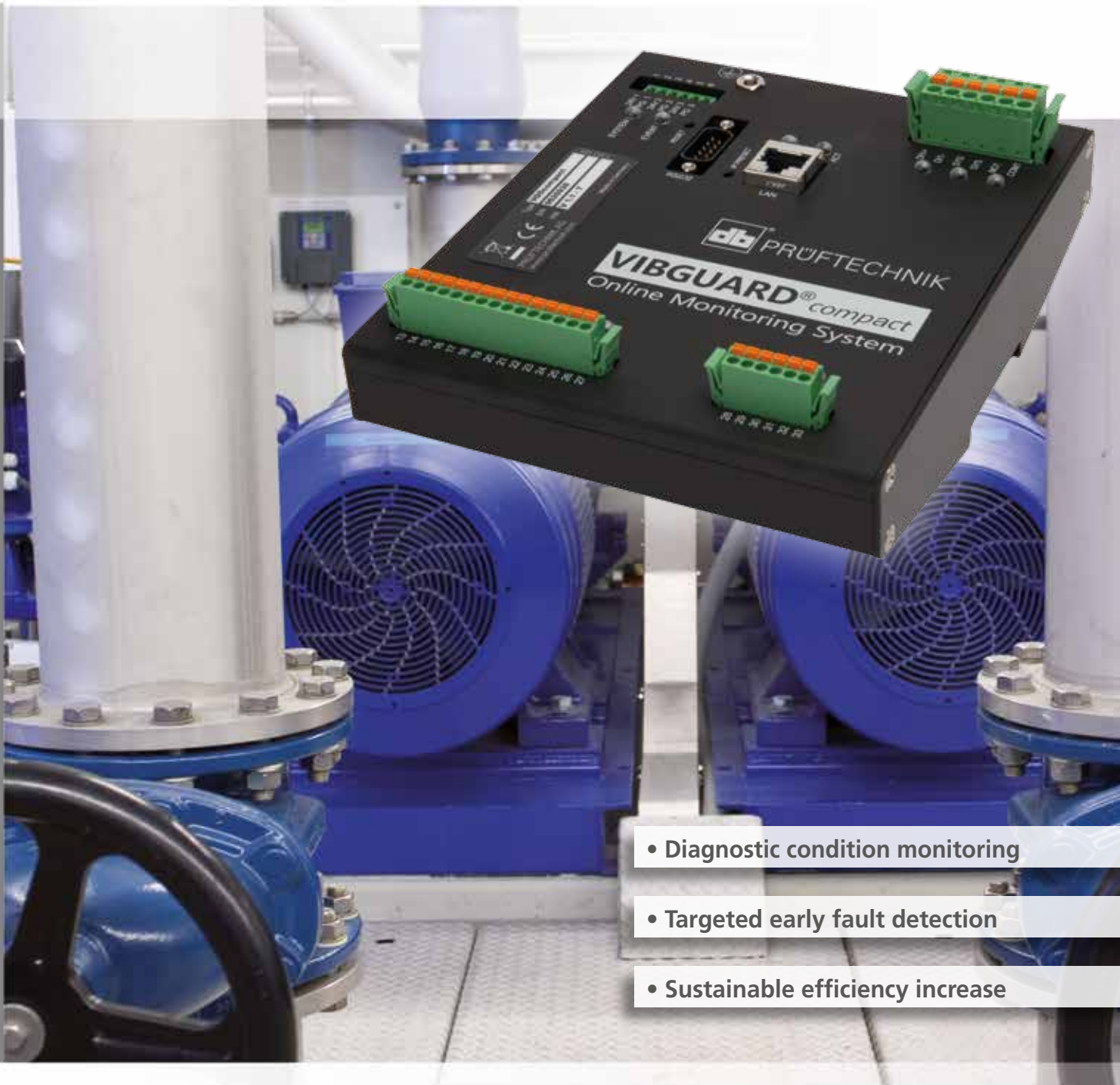


# VIBGUARD<sup>®</sup> compact

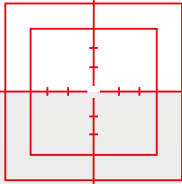
Online Condition Monitoring for Single Aggregates.  
More security. More efficiency. More Industry 4.0.



- Diagnostic condition monitoring
- Targeted early fault detection
- Sustainable efficiency increase

# VIBGUARD® compact

## Intelligent Online Condition Monitoring for Single Aggregates



PRUFTECHNIK Condition Monitoring increases the efficiency of your machines. VIBGUARD® compact is an intelligent online condition monitoring system for diagnostic condition monitoring, capable of meeting the high demands of machines and assets with high availability and frequently changing operating conditions. Thus VIBGUARD® compact provides premium asset drive unit and machinery manufacturers, along with their operators, with the benefits of predictive maintenance combined with Industry 4.0 requirements.

### Welcome to Industry 4.0

The 6 measuring channels each provide in-depth diagnostic data (e.g., time signals or envelope signals) as well as up to 6 overall readings – for example overall vibration value or bearing condition – for continuous monitoring purposes.

To put it simply, "Big Data" alone would not be enough for us. Smart preprocessing and analysis of generated "machines state data" is both demand and reality for the VIBGUARD® compact.

The VIBGUARD® compact 'Event Recorder' captures and saves relevant results automatically and comprehensively, thereby providing a fundamental basis for full machine diagnostics. Its bidirectional Modbus TCP interface allows VIBGUARD® compact to be integrated to Industry 4.0 environments as an intelligent online condition monitoring system in the blink of an eye.

### Highlights of the VIBGUARD® compact

- ▶ 6 fully synchronous measuring channels
- ▶ Continuous data acquisition on each channel with a 130 kHz sampling rate
- ▶ TachoPulse input for speed synchronous measurements (order tracking, orbit analysis)
- ▶ Continuous parallel data acquisition for overall value monitoring and diagnostic monitoring
- ▶ Overall value trends storage with adjustable data reduction
- ▶ Event recording
- ▶ Digital input and output for integration of control signals (e.g., triggers from diagnostic measurements)
- ▶ Network capable (Ethernet, Modbus TCP)
- ▶ Multicolored LEDs on all measuring channels for fast channel status evaluation (OK, alarm state, sensor error)
- ▶ Compact design – can be rail mounted



# VIBGUARD® compact

## Intelligent Online Condition Monitoring for Single Aggregates

### Perfect for high demands

As an intelligent online condition monitoring system, the VIBGUARD® compact performs complex monitoring tasks in real time, particularly for critical single aggregates with high availability requirements, variable operating conditions, and complex components. All 6 measuring channels are designed as highly dynamic analog input channels and can be configured with either ICP® vibration sensors or voltage input signals for process parameters.

### Multiple fields of application

The VIBGUARD® compact is perfect for diagnostic condition monitoring of extruders, large fans, multiphase or vacuum pumps, turbo compressors, roller stands and centrifuges. In connection with speed and digital additional single aggregate information, VIBGUARD® compact can ensure reliable monitoring, and can protect against unplanned downtimes, secure production, and sustainably increase the efficiency of the aggregate.

### Variant rich

The VIBGUARD® compact adapts to its point of use – as a system module for a cabinet, or pre-installed to an IP 65 compact housing.



- VIBGUARD® compact System module
- with voltage supply for top rail installation
- 300 x 200 x 130 mm IP 65 compact housing



#### Technical data

Number of channels	6 (either ICP/UI)
synchronous measuring channels	all
Speed inputs	1
Digital inputs	1
Digital outputs	2 relay outputs
Dynamic	110 dB for 24 Bit
FFT number of lines	Up to 102,400
Interfaces	Ethernet 100Mbit, 1x RS232
Services	Modbus TCP
Data storage	2 GB Flash, 256 MB RAM
Supply voltage	24V / 0.5A
Housing	Aluminum IP22 or housing

*"The VIBGUARD® compact monitoring concept satisfies our highest demands on an online condition monitoring system. Our highly dynamic machines can be diagnosed more safely and also more efficiently. The system enables operators and maintenance personnel to put forward science-based recommendations."*

Frank Gottschalk, Technical Diagnostic Vattenfall Europe Mining AG Schwarze Pumpe

# VIBGUARD® compact – part of the PRUFTECHNIK strategy

## OMNITREND® Center

With OMNITREND® Center, VIBGUARD® compact uses a modern, powerful, and easy to use software platform for configuration and measured data analysis.



### PRUFTECHNIK offers solutions in the following areas:



Alignment Systems



Condition Monitoring



Nondestructive Testing



Service & Support

Laser measurement systems and services for optimum machine and asset alignment.

Vibration measurement systems for machine and asset monitoring, as well as services, e.g., for machine problem diagnostics.

Systems and services for quality assurance and process control in semi-finished goods production.

We offer professional services worldwide to support our customers in the areas of alignment and condition monitoring.



Approval of Air Carrier Security Programs

# www.pruftechnik.com

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PRUFTECHNIK  
 Condition Monitoring GmbH  
 Oskar-Messter-Str. 19-21  
 85737 Ismaning, Deutschland  
 Tel.: +49 89 99616-0  
 Fax: +49 89 99616-200  
 info@pruftechnik.com  
 www.pruftechnik.com  
 A member of the PRUFTECHNIK group