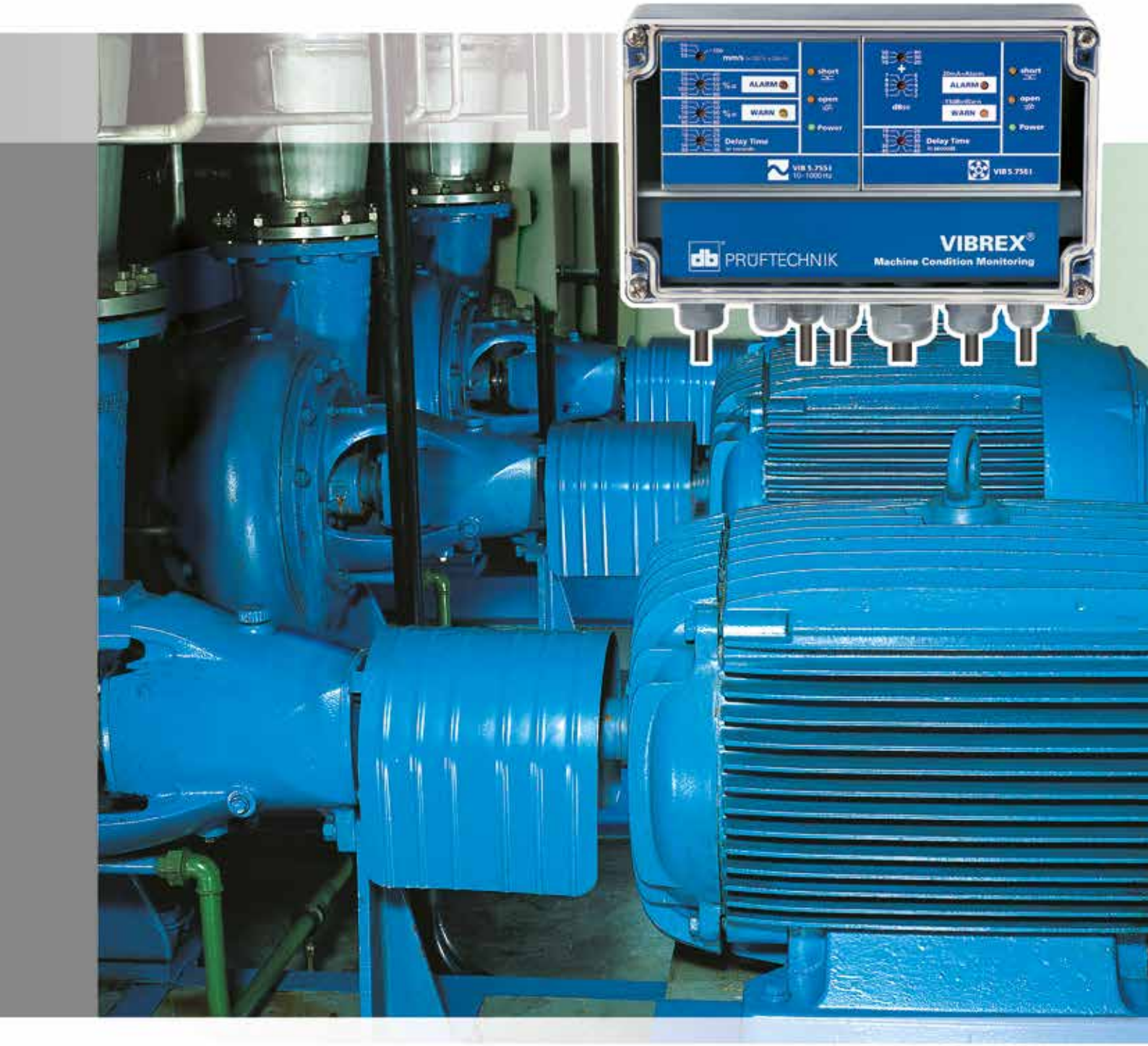
PRÜFTECHNIK

VIBREX®

Flexibility in machine protection and monitoring



Permanent monitoring for 1 or 2 locations

Continuous monitoring
VIBREX® provides a modular solution for one or two channel monitoring of vibration severity and anti-friction bearing condition and performs automated alarm-based switching as well. It brings reliable control into an affordable range for the vast majority of rotating equipment. Even inaccessible machines can now be monitored at a fraction of the usual expense.

VIBREX® cuts costs with 2-in-1 sensors
VIBREX® slashes investment costs by using the patented dual-function Tandem-Piezo® sensor to measure both machine vibration and bearing signals with less sensors, less
cable, less installation effort: only one double-duty accelerometer and one economical RG58 cable are needed per bearing, so you can use the same standard sensor for all applications. And no signal amplifiers are required, even over large distances!

Rugged industrial design
VIBREX® industrial accelerometers bond or screw into place in only a few minutes. IP67/68 protection means they're fully waterproof, and their advanced Tandem-Piezo® design provides superior resistance to base strain and thermal effects.

- 'Install-and-forget' simplicity
- Flexible modular design
- Budget-priced monitoring
- 4 - 20 mA output
- Zero-potential relay outputs
- Optional buffered signal output
- IP65 for harsh environments
- ICP version available

Reliable bearing monitoring

VIBREX® utilizes the shock pulse technique to evaluate anti-friction bearing condition: high-frequency signals indicate bearing damage long before failure so that replacement can be planned well ahead of time, reducing downtime, parts and labor.

Machine vibration severity

Vibration modules are available for standard severity rating according to ISO guidelines – or for special applications such as gearboxes and low-speed machines (all the way down to 60 rpm!)

Active control and more...

VIBREX® springs into action when serious conditions arise: separate alarm and warning LED indicators show you at a glance when measurements exceed limit settings. An alarm relay issues a signal and switches off the machine via PLC.

Reliable self-diagnosis

Each module contains self-diagnostic routines that automatically alert you to short circuits, broken connections and power status; the OK relay trips to indicate the problem immediately.

Machine diagnosis

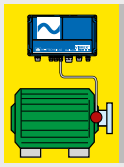
Upon warning, measurement signals can be analyzed via direct sensor connection or use of optional buffered signal outputs to VIBSCANNER® or VIBXPERT® – for more extensive machine diagnosis or spectrum analysis.

Alarm/shutoff delay

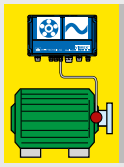
Avoid false alarms/shutoff by setting a delay interval to ignore transient signal elevations (such as those during machine startup).

Monitoring ‘à la carte’ with specialized modules

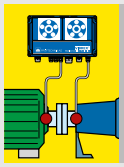
Mix and match modules as needed



One-channel
bearing or vibration monitoring at one location



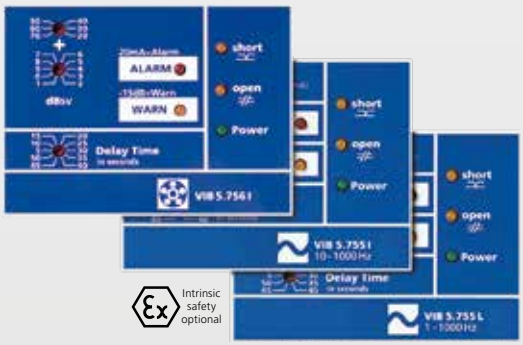
Combined
one-channel bearing and vibration monitoring at one location



Two-channel
bearing and/or vibration monitoring at two locations

Select
the plug-in VIBREX® module for your machine type and RPM:

- **Vibration severity (ISO)**
- **Bearing condition**
- Vibration, low-speed machines
- Bearing condition, low-speed
- Gearbox vibration
- Quick shutoff
- mV signal output
- Other applications on request



Order numbers Standard systems*

VIB5.761I	VIBREX® vibration monitoring for 1 location incl. 1 accelerometer and 3m/9‘9“ cable.
VIB5.762I	VIBREX® vibration monitoring for 2 locations incl. 2 accelerometers and 3m/9‘9“ cable.
VIB5.762ICP	VIBREX® vibration monitoring for 2 locations w/ ICP-type accelero-meters (not included).
VIB5.764I	VIBREX® bearing monitoring for 2 locations incl. 2 accelerometers and 3m / 9‘9“cable.
VIB5.765I	Combined VIBREX® vibration and bearing monitoring for 1 location incl. 1 accelerometer and 3m/9‘9“ cable.

*Special versions such as the low-speed bearing module or bonded accelerometer for thin-walled bearing housings are described in VIBREX® sales leaflets available free of charge.

VIBREX® – technical data	
Operating modes	1- or 2-channel monitoring: anti-friction bearings and/or overall vibration severity
Inputs	1 or 2 accelerometers; mains/DC power
Sensor	Current linedrive accelerometers (1.0/ 5.35 µA/ms^{-2}); ICP-type accelerometers (100 mV/g)
Outputs (each module)	1 analog signal output (4-20 mA) 1 alarm relay (max. 3 A @ 250 VAC) 1 OK relay for warning/error mV output for signal analysis (optional)
Display	5 LEDs: alarm, warning, short circuit, open circuit and power supply
Power requirements	AC: 115V/230V, switchable; 50/60 Hz or DC: 24 V, <300 mA
Op. temperature	-10°C to +60°C / 14°F to 140°F
Env. protection	IP 65 (dustproof/spray waterproof)
Dimensions (W x H x D)	200 mm x 120 mm x 77 mm 7 7/8“ x 4 3/4“ x 3“
Intrinsic safety	optional, with safety barrier and intrinsically safe transducer

Bearing module – technical data	
Parameter	Shock pulse evaluation (bearing cond.) (optional: ‚low-pulse‘ for n ≤ 120 rpm)
Range	20 to 79 dB$_{sv}$
Alarm/warn - outputs - delay	Alarm: adjustable from 20 to 79 dB$_{sv}$ Warning: 15 dB$_{sv}$ below alarm level Adjustable from 5 to 50 seconds
Vibration severity module – technical data	
Parameter	Vibration velocity according to ISO
Frequency range	10 Hz - 1 kHz (ISO) 1 Hz - 1 kHz (‚low-speed‘, 60..600 min^{-1}) 2 Hz - 1 kHz (‚low-speed‘,120..600 min^{-1}) 1 Hz - 3 kHz (gear, > 60 min^{-1}) 2 Hz - 3 kHz (gear, > 120 min^{-1}) 10 Hz- 3 kHz (gear, quick shutoff)
Meas. range	0 - 10, 20, 50, 100, 600, 2000 mm/s (adj.)
Alarm/warn outputs	Alarm/warn limits adjustable as percentage of total measurement range
Alarm/warn delay	Adjustable from 5 to 50 seconds (50ms to 500 ms for quick shutoff)

PRUFTECHNIK delivers maintenance solutions worldwide


Alignment Systems


Condition Monitoring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PROVEN QUALITY
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- Global Presence
- Qualified Support
- Quality Service

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