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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-fric-
tion 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.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.

Machine diagnosis

Upon warning, measurement signals can be analyzed Avoid false alarms/shutoff by setting a delay interval to ignore transient signal elevations (such as those during machine startup). more extensive machine diagnosis or spectrum analysis.

Machine vibration severity

Reliable self-diagnosis

Alarm/shutoff delay

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*

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B5.7611	VIBREX® vibration monitoring for 1 location incl. 1 accelerometer
	and 3m/9'9" cable.
B5.7621	VIBREX® vibration monitoring for 2 locations incl. 2 accelerometers and 3m/9'9" cable
	and shirts s cable.
B5.7621CP	VIBREX® vibration monitoring for 2 locations w/ ICP-type accelero- meters (not included).
B5.7641	VIBREX [®] bearing monitoring for 2 locations incl. 2 accelerometers and 3m / 9'9"cable.
B5.7651	Combined VIBREX® vibration and bearing monitoring for 1 location incl. 1 accelerometer and 3m/9'9" cable.
pecial versions such as the low-speed bearing ydule or bonded accelerometer for thin-walled aring housings are described in VIBREX® sales flets 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/ $5.35\mu\text{A/ms}^{2}$), 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	IP65 (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 \leq 120 rpm) 20 to 79dB Range Alarm/warn Alarm: adjustable from 20 to 79 dB Warning: 15 dB_{sv} below alarm level Adjustable from 5 to 50 seconds - outputs - delay Vibration severity module – technical data Parameter Vibration velocity according to ISO 10 Hz - 1 kHz (ISO) 1 Hz - 1 kHz (Jow-speed', 60..600 min⁻¹) 2 Hz - 1 kHz (Jow-speed', 120..600 min⁻¹) 1 Hz - 3 kHz (gear, > 60 min⁻¹) 2 Hz - 2 kHz (gear, > 60 min⁻¹) Frequency range 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 Alarm/warn limits adjustable as outputs percentage of total measurement range Adjustable from 5 to 50 seconds Alarm/warn delay (50ms to 500ms for quick shutoff)

TECHNIK consists of the	
owing business areas	



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