




## VIBXPERT® – the new two channel FFT data collector and signal analyzer for hazardous areas

for monitoring and diagnosing machine conditions in the chemical industry, in refineries, in the oil and gas industry and in any other potentially explosive environment that requires intrinsically safe measuring systems.

- ▶ 102,400 lines of resolution
- ▶ Simple joystick operation
- ▶ Acceptance measurements
- ▶ Runup / coastdown analysis
- ▶ Time waveform analysis
- ▶ Balancing, 1 plane or 2 planes
- ▶ Intrinsic safety  II 2 G EEx ib IIC T4

# VIBXPERT® Ex – Technical data

## Measurement channels

2 analog channels (A & B), selectable:

- Voltage (AC/DC, ±30 V max.)
- Current (AC/DC, ±30 mA max.)
- ICP® signal (2 mA, 24 V max.)
- LineDrive signal (10 V, 10 mA max.)

1 analog channel:

- temperature measurement sensor (thermocouple type K)

1 digital channel:

- 1+1 pulse/tacho (RPM, trigger, key phaser)
- Pulse & AC signals (± 26 V)

## Parameters - analog measurement channels (A & B)

Frequency range	0.5 Hz to 51 kHz
Dynamic (measured/total)	96 dB / 136 dB
Sampling rate	< 131 kHz per channel

## Outputs

Stroboscope control: TTL

Signal out: for headphone and signal processing

## Memory

RAM, internal	64 MB
CompactFlash	4 GB

## Display

LCD, illuminated, 480x320 pixels (1/2 VGA)

## Measurement range / accuracy

RPM	10...200 000 rpm / ±1‰ / ±1rpm
Temperature	-50...+1800°F / ±1% / ±1°F
Displacement*	6000 µm (p-p) / ±1%
Velocity*	6000 mm/s (p-p) / ±1%
Acceleration*	6000 m/s <sup>2</sup> (p-p) / ±1%

\* Current LineDrive transducer (1µA/ms<sup>-2</sup>) and sensor with voltage output (100mV/g); Reference: 159.15 Hz

## FFT

F <sub>min</sub>	0.5 Hz ... 10 Hz, selectable
F <sub>max</sub>	200 Hz ... 51 kHz, selectable
Lines	100 ... 102400
Window	Rectangular, Hanning, Flattop, Hamming, Blackman, Bartlett, Kaiser

## Operating modes

Multimode (non-route)

- Overall values: vibration (acceleration, velocity, displacement), current, voltage (AC/DC), shock pulse (roller bearing condition), temperature, RPM
- Signals: spectrum (amplitude, envelope), time waveform, cepstrum, phase & cross-channel phase, orbit, coastdown measurement, impact test

Data acquisition (Route)

- Guidance via tree, list view or machine graphic
- Process optimization for quick data acquisition

Balancing (optional)

- Dynamic balancing in 1 or 2 planes

## Supply

Lithium-ion battery	(7.2V / 4.8Ah).
Chargeable in device	charge time < 5 hours

## Temperature range

Storage	-5°F .. +140°F
Operation	-15°F .. +140°F
Charge	30°F .. +120°F

## Protection class

IP65, dustproof and waterproof

## Intrinsic safety, classification

Ⓔ II 2 G Ex ib IIC T4

## Dimensions

9.8 x 8.6 x 1.5 inches (LxWxH)

## Weight

5 lbs.

## Vibration transducers (accessories)

### VIBCODE®

- Hand-held transducer with automatic location identification
- reliable identification of the coded measurement location
- reproducible measurement conditions
- intrinsic safety: Ⓔ II 2 G EEx ib IIC T4
- order no. VIB 8.660-XVS

### Industrial accelerometer - type VIB 6.142 DEX

Mobile industrial accelerometer for standard machines

- machine vibration & roller bearing condition (shock pulse)
- medium and high rotational speed (> 600 rpm)
- magnetic, bonded or threaded mounting
- intrinsic safety: Ⓔ II 2 G EEx ib IIC T4 (Gas)
- Ⓔ II 2 D Ex ibD 21 T187°C (Dust)

### Industrial accelerometer - type VIB 6.147 EX

Mobile industrial accelerometer for 'low-speed' machines

- machine vibration
- low rotational speed (> 120 rpm)
- magnetic, bonded or threaded mounting
- intrinsic safety: Ⓔ II 2 G EEx ib IIC T4 (Gas)
- Ⓔ II 2 D Ex ibD 21 T187°C (Dust)

Additional information is available in the six-page VIBXPERT® brochure or in the VIBXPERT® product catalog. You can download these documents directly from our website or order a printed copy by phone.



Visit us at [www.ludeca.com](http://www.ludeca.com)

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**Productive maintenance technology**