



# Advanced machine condition monitoring in a small package!

**VDAU-6000 Condition Monitoring and Analysis System** 

## VDAU-6000 Condition Monitoring and Analysis System



VDAU-6000 provides cost-effective condition monitoring and diagnostic capability for critical machines and balance-of-plant machines, in plant or remote, for a wide range of energy and process industries. It was designed to maximize machine output, prevent unplanned shutdowns and minimize lifecycle costs of most machine types.

Many machines, including complex gearboxes, can be completely monitored by a single unit. VDAU-6000 provides 16 sensor inputs (which can be nearly any type of vibration and process sensor) and can do up to 12 potential failure mode detection measurements (descriptors) per sensor. Simple yet reliable narrow-band and broadband measurements as well as calculated failure mode descriptors provide automatic early fault detection. Trending capability provides an overview of the health of the machine as well as an indication of the development of incipient machine faults such as unbalance, misalignment and bearing faults.

Vibration expertise is not necessary for utilizing the comprehensive fault detection capability, however VDAU-6000 offers advanced diagnostic tools for the diagnostician to perform root cause analysis. This includes an event recorder for automatically storing raw time signals by an event trigger, and powerful post-processing tools to analyse the data. Once configured, VDAU-6000 does not require a PC or server for automatic condition monitoring functions, as all measurement calculations are done on-board and all communications are direct via Modbus.

VDAU-6000 is highly flexible and easy to configure, and is supported by Brüel & Kjær Vibro's international sales and support network with a wide range of services, including diagnostics, long-term service agreements, upgrades and complete turn-key solutions.

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#### ★ Technical profile

#### Sensor inputs:

- 16 differential AC/DC and trigger inputs
- CCS, -24V acceleration sensors
- Displacement sensors
- PT-100 temperature sensors

#### Digital I/O:

- 4 digital inputs
- 2 digital outputs (relay)

#### Communications hardware:

- 3 Ethernet ports usable as switch
- 1 SFP port (fibre optic)

#### Communications protocols:

- Modbus TCP/IP master and slave
- OPC DA/UA (via PC)
- Poll data via HTTP request

# $\star$ Highlights Stand alone:

- On-board calculation of descriptors (no PC required)
- Up to 200 descriptors per unit (band-pass, band-stop, tracking, phase, envelope etc.)

#### **Remote applications:**

• UMTS and wireless router available

#### Fault Analysis:

- Event recording
- Post-processing of raw data (time waveform)
- No diagnostic expert needed