

BHGE's Bently Nevada

2300 Vibration Monitor Series



The 2300 Vibration Monitors are designed for use on a broad range of machine trains or individual casings where the sensor point count fits the monitor's channel count and where advanced signal processing is desired.

These monitors provide very low cost condition monitoring and protection capabilities on less critical and essential machinery. The monitors are available with proximity sensing to be used on fluid film bearing machines and velomitor sensing to monitor slow speed machines.

Description

Designed to continuously assess and protect essential balance-of-plant equipment assets, the 2300 Vibration Monitors can be used a wide range of industries including oil & gas, power generation, water treatment, pulp & paper, manufacturing, mining, cement, and more.

These monitors include two channels of seismic and proximity measurement inputs from various accelerometer and proximity types. There is a speed input channel for time-synchronous measurements and an output channel for relay contacts.

Monitor features also include a configurable 4-20 mA output which interfaces more points to a DCS and System 1* connectivity for Trendmaster SPA interface configuration. This connectivity allows users to leverage existing DSM SPA infrastructure.

Key Features

- Robust, compact, self-contained device
- 127 x 127 x 76 mm (5 x 5 x 3 in) device size
- Two acceleration/velocity/proximity inputs with synchronized sampling for advanced diagnostics
- Real-time key measurements provided with alarm configuration (Direct pk, Direct rms, Derived pk, Velocity pk, Velocity rms, Displacement pp, Displacement rms, Speed)
- Two protection relays
- Two protection relay outputs with configurable set points
- One dedicated speed/KPH input (Proximity*, Proximity switch or magnetic pickup)
- Local monitor status LEDs
- Local display showing overall values and speed
- Convenient local and remote reset for alarms and relays
- BNMC (Bently Nevada Monitor Configuration) device configuration and display software
- Local configuration lockout and remote configuration lock (two reserved contacts)
- Three 1:1 buffered transducer outputs (including speed signal) with short circuit and EMI protection, via BNC connectors
- 24 VDC and optional 240/110 V DIN rail mounted power supplies
- Ethernet connectivity with Modbus functionality
- Continuous velocity, acceleration and proximity monitoring and protection suitable for BOP applications
- Next generation platform
- Configurable 4-20 mA output available on the 2300/20 monitor
- Trendmaster SPA interface configuration available on the 2300/25 monitor

Benefits

- Compact form factor and skid- or local-mounting capability reduces wiring and installation cost
- Configurable measurements from each channel fit individual customer needs
- Synchronous data acquisition and measurements, and flexibility for multiple tachometer types
- Key machine and monitor information clearly displayed at the monitor; no separate display required compliments operation-driven reliability (ODR)
- Meets individual customer alarm reset needs: can reset either locally or in control center
- Overall Data and Event displayed on BNMC and enables easy 2300 Series Vibration Monitors configuration
- Secure, tamper-proof configuration management
- Enable portable data collection from the 2300 Series Vibration Monitors
- Operates from low- or high-voltage power source
- Provides needed PdM condition monitoring data
- Expandable architecture
- Advanced technology electronics and signal processing
- Connectivity to System 1* condition monitoring and diagnostic system enabled

Channel Name	Channel	Channel Type	Measurement	Active	Integrated	Top Scale	Bottom Scale	High Pass...
Magnetic Pickup Speed Channel	3	Magnetic Pickup Speed Channel	Speed	<input checked="" type="checkbox"/>	<input type="checkbox"/>	5,000 rpm	0.0 rpm	-
Acceleration Channel 1	1	Acceleration Channel	Direct	<input checked="" type="checkbox"/>	<input type="checkbox"/>	80.0 g pk	0.0 g rms	10.0 Hz
Acceleration Channel 1	1	Acceleration Channel	Direct rms	<input checked="" type="checkbox"/>	<input type="checkbox"/>	80.0 g rms	0.0 g rms	10.0 Hz
Acceleration Channel 1	1	Acceleration Channel	Derived pk	<input checked="" type="checkbox"/>	<input type="checkbox"/>	80.0 g dpk	0.0 g dpk	10.0 Hz
Acceleration Channel 1	1	Acceleration Channel	Integrated pk	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	5.0 in/s pk	0.0 in/s pk	10.0 Hz
Acceleration Channel 1	1	Acceleration Channel	Integrated rms	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	5.0 in/s rms	0.0 in/s rms	10.0 Hz
Acceleration Channel 1	1	Acceleration Channel	Bias	<input checked="" type="checkbox"/>	<input type="checkbox"/>	-24.0 V	0.0 V	
Acceleration Channel 2	2	Acceleration Channel	Direct	<input checked="" type="checkbox"/>	<input type="checkbox"/>	80.0 g pk	0.0 g pk	10.0 Hz
Acceleration Channel 2	2	Acceleration Channel	Direct rms	<input checked="" type="checkbox"/>	<input type="checkbox"/>	80.0 g rms	0.0 g rms	10.0 Hz
Acceleration Channel 2	2	Acceleration Channel	Derived pk	<input checked="" type="checkbox"/>	<input type="checkbox"/>	80.0 g dpk	0.0 g dpk	10.0 Hz
Acceleration Channel 2	2	Acceleration Channel	Integrated pk	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	5.0 in/s pk	0.0 in/s pk	10.0 Hz
Acceleration Channel 2	2	Acceleration Channel	Integrated rms	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	5.0 in/s rms	0.0 in/s rms	10.0 Hz
Acceleration Channel 2	2	Acceleration Channel	Bias	<input checked="" type="checkbox"/>	<input type="checkbox"/>	-24.0 V	0.0 V	
Relay 1	4	Relay Channel	Discrete	<input checked="" type="checkbox"/>	<input type="checkbox"/>			
Relay 2	5	Relay Channel	Discrete	<input checked="" type="checkbox"/>	<input type="checkbox"/>			

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