

INDUSTRIAL AUTOMATION PRODUCT

330500-00-02

Velomitor Piezo-Velocity Sensor

Bently Nevada 330500-00-02 is an ATEX-approved Velomitor piezo-velocity sensor without a mounting adapter. It measures absolute machine-case vibration velocity for compatible monitoring channels.

IDENTITY	VERIFIED VALUE
Manufacturer	Bently Nevada
System family	Bently Nevada absolute vibration measurement
Part number	330500-00-02
Country	USA
HS code	8537101190

APTER POWER SALES TEAM

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Technical Specifications

Technical values below are limited to the named Bently Nevada product record.

PARAMETER	TECHNICAL VALUE
Sensitivity	3.94 mV/mm/s +/-5%
Frequency response	4.5 Hz to 5 kHz, +/-3 dB
Precision response	6 Hz to 2.5 kHz, +/-0.9 dB
Velocity range	1270 mm/s peak
Transverse sensitivity	5% maximum
Linearity	+/-2% to 152 mm/s peak
Mounted resonance	>12 kHz
Bias voltage	-12 +/-3 V DC
Output impedance	2400 Ohm maximum
Noise	0.004 mm/s rms
Maximum cable length	305 m
Operating temperature	-55 to +121 degC
Shock resistance	5000 g
Humidity	100%, non-submerged
Mounting-adaptor option	None
Agency approval option	ATEX

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System Role and Architecture

Bently Nevada 330500-00-02 is an ATEX-approved Velomitor piezo-velocity sensor without a mounting adapter. It measures absolute machine-case vibration velocity for compatible monitoring channels.

FUNCTION 1

Converts absolute machine-case velocity into a conditioned electrical signal

FUNCTION 2

Provides a DC bias used for transducer and wiring supervision

FUNCTION 3

Supports long field wiring to compatible monitoring inputs

FUNCTION 4

Operates as a hermetically sealed industrial vibration sensor

Matched system components

- compatible Velomitor monitor input
- approved mounting stud
- two-conductor shielded cable
- rigid bearing-housing surface

SYSTEM INTEGRATION RECORD

INTEGRATION ITEM	DOCUMENTED ROLE
Installed host / carrier	compatible Velomitor monitor input
Companion hardware	approved mounting stud
Field connection	two-conductor shielded cable
Primary system function	Converts absolute machine-case velocity into a conditioned electrical signal
Controlled acceptance duty	Compressor casing velocity monitoring

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Applications and Engineering Context

Compressor casing velocity monitoring

Converts absolute machine-case velocity into a conditioned electrical signal

Pump bearing-housing vibration

Provides a DC bias used for transducer and wiring supervision

Motor absolute-vibration measurement

Supports long field wiring to compatible monitoring inputs

Gearbox condition monitoring

Operates as a hermetically sealed industrial vibration sensor

TECHNICAL NOTE

Prepare a clean rigid mounting surface, use the approved stud and torque, preserve case isolation and shield practice, and verify bias voltage, noise floor, polarity, and velocity response.

MODEL-SPECIFIC ACCEPTANCE EVIDENCE

CHECK	ACCEPTANCE CONDITION
Identity	330500-00-02 / 330500-00-02 recorded
Physical interface	compatible Velomitor monitor input
Companion check	approved mounting stud
Functional proof	Converts absolute machine-case velocity into a conditioned electrical signal
Application test	Compressor casing velocity monitoring

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Engineering Precautions

- 1
- Verify 330500-00-02 and the ATEX approval marking before work.
- 2
- Place the monitored machine and channel in maintenance state.
- 3
- Prepare a flat, clean, rigid mounting surface.
- 4
- Use the approved mounting hardware without side-loading the sensor.
- 5
- Maintain case isolation and the documented shield termination.

RELATED PRODUCTS ON APTER POWER

MODEL	SYSTEM ROLE	APTER POWER PAGE
330171-00-12-05-01-05	3300 XL proximity probe	Open product page
200150-09-CN	General-purpose accelerometer	Open product page

MANUFACTURER SOURCE RECORD

330500 Velomitor Piezo-Velocity Sensor Datasheet
141632

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