

INDUSTRIAL AUTOMATION PRODUCT

330525-01

Piezo Velocity Sensor

Bently Nevada 330525-01 is a Velomitor XA piezo-velocity sensor that integrates an accelerometer signal into velocity output. Its stainless-steel case and weatherproof connection support harsh industrial machinery monitoring.

IDENTITY	VERIFIED VALUE
Manufacturer	Bently Nevada
Complete model	330525-01
Product role	Piezo Velocity Sensor
System family	Velomitor XA Piezo-Velocity Sensor
Country of origin	USA

DOCUMENT SCOPE

Exact identity, manufacturer-supported technical data, installation checks, applications, precautions and controlled verification records.

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330525-01

Technical Specifications

PARAMETER	VERIFIED VALUE
Complete model	330525-01
Sensor type	Integrating piezoelectric accelerometer
Output sensitivity	3.94 mV/mm/s (100 mV/in/s), +/-5%
Frequency response	4.5 to 2000 Hz, +/-3 dB
Precision frequency band	6 to 1000 Hz, +/-0.9 dB
Velocity range	1270 mm/s (50 in/s) peak
Amplitude linearity	+/-2% to 152 mm/s peak
Transverse sensitivity	Less than 5%
Mounted resonance	Greater than 12 kHz
Housing	316L stainless steel
Approval option	01 = CSA/NRTL/C
Country of origin	USA

Model-Specific Engineering Note

ENGINEERING BOUNDARY

Confirm the 330525-01 approval option, mounting surface, orientation, connector and cable route before installation. Compare the final signal with the approved machine baseline and monitoring-channel configuration.

Pre-Installation Checks

NO.	REQUIRED CHECK
1	Verify the complete 330525-01 marking and approval code.
2	Prepare a clean, flat and rigid mounting surface.
3	Install in the approved orientation and mounting location.
4	Use the documented connector, cable and sealing arrangement.
5	Protect the sensor from impact and connector contamination.

System Role and Architecture

Bently Nevada 330525-01 is a Velomitor XA piezo-velocity sensor that integrates an accelerometer signal into velocity output. Its stainless-steel case and weatherproof connection support harsh industrial machinery monitoring.

FUNCTION 1
Integrated velocity output

FUNCTION 2
Wide 4.5 to 2000 Hz response

FUNCTION 3
316L stainless-steel housing

FUNCTION 4
Weatherproof connector interface

Common Applications

APPLICATION	ENGINEERING CONTEXT
Casing vibration	Measures absolute vibration on bearing housings and machine structures.
Low-speed machinery	Provides velocity measurement where a robust piezo-velocity sensor is appropriate.
Harsh industrial areas	Uses the stainless-steel housing and documented sealed connector arrangement.
Monitoring-system retrofit	Connects to approved Bently Nevada monitoring channels with the required field wiring.

CONTROLLED ACCEPTANCE DUTY

Confirm identity, physical interface, companion hardware, configured values and functional response against the installed-system record before release.

Engineering Precautions

NO.	PRECAUTION
1	Verify the complete 330525-01 marking and approval code.
2	Prepare a clean, flat and rigid mounting surface.
3	Install in the approved orientation and mounting location.
4	Use the documented connector, cable and sealing arrangement.
5	Protect the sensor from impact and connector contamination.
6	Route cable away from high-noise and high-temperature sources.
7	Confirm channel sensitivity and alarm scaling before startup.
8	Compare measured vibration with the approved machine baseline.

Model-Specific FAQ - Part 1

QUESTION	ANSWER
What is Bently Nevada 330525-01?	It is a Velomitor XA piezo-velocity sensor with integrated velocity output.
What sensitivity is documented?	The datasheet lists 3.94 mV/mm/s, equivalent to 100 mV/in/s, with a +/-5% tolerance.
What frequency range is documented?	The sensor is specified from 4.5 to 2000 Hz at +/-3 dB, with a 6 to 1000 Hz precision band at +/-0.9 dB.
What is the peak velocity range?	The documented range is 1270 mm/s, or 50 in/s, peak.

Model-Specific FAQ - Part 2

QUESTION	ANSWER
What material is used for the housing?	The case is 316L stainless steel.
What does option 01 identify?	For model 330525, option 01 identifies the documented CSA/NRTL/C approval selection.
How long can the connected cable be?	Baker Hughes states that approved installations can use cable runs up to 305 m, subject to the complete monitoring design.
What confirms successful commissioning?	Mounting is secure, channel scaling is correct and the measured velocity is stable and credible against the machine baseline.

Related Products on Apter Power

MODEL	APTER POWER PAGE
Bently Nevada 128240-01	View Bently Nevada 128240-01
Bently Nevada 128275-01	View Bently Nevada 128275-01
Bently Nevada 128275-01E	View Bently Nevada 128275-01E
Bently Nevada 128275-01F-C2-A0130944-01	View Bently Nevada 128275-01F-C2-A0130944-01
Bently Nevada 128276-01E-C2-A0131151-01	View Bently Nevada 128276-01E-C2-A0131151-01
Bently Nevada 128718-01	View Bently Nevada 128718-01
Bently Nevada 129478-01	View Bently Nevada 129478-01
Bently Nevada 129525-0050-02	View Bently Nevada 129525-0050-02

MANUFACTURER SOURCE RECORD

330525 Velomitor XA Piezo-Velocity Sensor Datasheet
Baker Hughes / Bently Nevada publication 141633 Rev. M

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