Bently Nevada 330500-07-02

Complete Product Information

Bently Nevada 330500-07-02 is a Velomitor piezo-velocity sensor with the 3/8-16 UNC mounting-adapter option and ATEX approval selection.

01 Product identity and verified data

Complete model	330500-07-02
Product type	Velomitor piezo-velocity sensor
Manufacturer	Bently Nevada
Technical source	Bently Nevada 330500 Velomitor Piezo-velocity Sensor Datasheet, 141632 Rev. V
Measurement	Absolute bearing-housing, casing or structural vibration
Sensitivity	3.94 mV/mm/s (100 mV/in/s) +/-5%
Frequency response	4.5 Hz to 5 kHz, +/-3 dB
Precision frequency band	6 Hz to 2.5 kHz, +/-0.9 dB
Velocity range	1270 mm/s (50 in/s) peak
Amplitude linearity	+/-2% to 152 mm/s (6 in/s) peak
Mounted resonant frequency	>12 kHz
Output bias voltage	-12 +/-3 V DC

Engineering purpose

The purchase and installation checks for 330500-07-02 center on its 3/8-16 UNC adapter, ATEX-marked configuration, current-limited input and velocity baseline.

Selected order-code snapshot

Measurement role	Absolute vibration from a piezoelectric element with embedded velocity integration.
Selected mounting	3/8-16 UNC mounting adapter; rigid surface preparation and torque govern high-frequency coupling.
Electrical output	3.94 mV/mm/s sensitivity with -12 +/-3 V DC output bias.

02 Technical capability and engineering overview

Dynamic output impedance	<2400 ohm
Maximum signal cable length	305 m under stated cable conditions
Operating temperature	-55 to +121 deg C
Case material	316L stainless steel

Connector	2-pin MIL-C-5015, hermetically sealed
Mounting torque	32 to 46 kg cm maximum
Mounting adapter selection	3/8-16 UNC mounting adapter
Approval selection	ATEX approval

Evidence boundary

The adapter, approval, sensitivity, response and electrical data are from 141632 Rev. V. Installed performance still depends on rigid mounting, cable loading and the compatible monitor input.

Engineering overview

The 07 field selects the 3/8-16 UNC adapter, so the prepared mounting point must match that stud geometry and provide a flat, rigid path into the bearing housing or casing.

The 02 field selects the ATEX approval option. Retain the delivered approval marking and apply the applicable installation record; the suffix does not replace inspection of the actual label.

The embedded integrator produces velocity-proportional output at 3.94 mV/mm/s with a -12 +/-3 V DC bias under the stated conditions. Acceptance records mounting torque, bias, polarity and a controlled comparison with the machine vibration baseline.

Application map

Bearing-housing vibration

Measure absolute vibration at a rigid housing point fitted for the 3/8-16 UNC adapter.

Machine-casing vibration

Use on a prepared casing location after reviewing local stiffness and structural resonance.

Structural velocity trending

Apply where the velocity signal and ATEX-marked installation are included in the approved monitoring plan.

Existing Velomitor renewal

Preserve adapter thread, connector polarity, current-limited input and accepted velocity baseline.

03 System interpretation and selection boundaries

Product boundary	Apply the listed facts to 330500-07-02 and the documented 330500 Velomitor piezo-velocity sensor family context only.
Interface boundary	Connector, terminal, bus, cable and companion-device assignments must match the installed drawing.
Electrical boundary	Use exact-model values only; system-level ratings remain conditional on the complete installed configuration.
Configuration boundary	Switches, jumpers, addresses, firmware and project settings must be reconciled before energization.
Diagnostic boundary	Interpret indicators and fault states together with measured inputs, outputs and host-system status.
Acceptance rule	Use the approved system baseline and maintenance procedure for the final as-left decision.

Installed-system context

The offered item uses the 3/8-16 unc mounting adapter; mounting stiffness, connector, current-limited input and machine baseline govern application.

04 Lifecycle, offered scope and related references

Lifecycle status

Order-code coverage	141632 Rev. V defines option 07 as the 3/8-16 UNC adapter and option 02 as the ATEX selection.
Installed-channel dependency	Continued support depends on the rigid mounting surface, compatible current-limited input, signal cable and baseline.
Approval boundary	Retain the delivered ATEX marking and applicable installation record; do not infer site suitability from the suffix alone.
Release evidence	Record adapter, mounting torque method, connector and cable condition, bias voltage and returned velocity response.

Available unit details

Offered configuration	Velomitor sensor with 3/8-16 UNC mounting adapter.
Selected approval	ATEX option; verify the delivered approval marking.
Included scope	Sensor only; signal cable, monitor input and non-integral mounting parts are separate unless itemized.

Source and applicability record

Verified source	Bently Nevada 330500 Velomitor Piezo-velocity Sensor Datasheet, 141632 Rev. V
Applicability boundary	The adapter, approval, sensitivity, response and electrical data are from 141632 Rev. V. Installed performance still depends on rigid mounting, cable loading and the compatible monitor input.
Product family	330500 Velomitor piezo-velocity sensor family

Additional related product references

Related product	Bently Nevada 330930-040-03-00
Related product	Bently Nevada 84661-96
Related product	Bently Nevada 330102-00-28-10-02-05
Related product	Bently Nevada 330104-00-16-10-02-00

Product-specific purchasing decisions

Which mounting adapter is selected for 330500-07-02?	Option 07 selects a 3/8-16 UNC mounting adapter; verify thread condition, surface flatness and rigidity.

Engineering contact

Discuss the exact marking and installed application with Apter Power.
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