Bently Nevada 330525-CN

01 Select a meaningful housing location

1 Define the measurement direction

Identify the machine fault signals and direction that the monitoring channel must observe. Choose a housing position with a mechanically sound vibration path from the rotating assembly. Record the existing location and orientation before replacement so a change in mounting does not become confused with a change in machine condition.

2 Check the circuit and installation assembly

Confirm the complete 330525-CN marking, the two-pin connection and the intended mating cable. Identify the receiving velocity channel and its powered-sensor capability. List any boot, clamps and mounting accessories separately, and check the offered parts against that list. Keep the approved area classification and unit markings with the installation review.

Measured quantity	Housing velocity
Reference sensitivity	3.94 mV/mm/s
Mounting surface	Rigid and mechanically sound
Circuit type	Powered velocity sensor input

330525-CN / Mount the sensor without loading the cable

02 Mount the sensor without loading the cable

1 Prepare the mating interface

Inspect the sensor and machine mounting surfaces for damage or contamination. Use the correct mounting arrangement and approved installation instruction. The sensor mounting maximum is 45 N·m; it is a ceiling, not a requirement to tighten every installation to that value. Keep tools and mechanical loads away from the hermetic connector.

2 Assemble the weather protection

Use the appropriate mating cable and sealing components. Check the boot and clamps where fitted, with the cable restrained so machine vibration cannot pull at the connector. The XA environmental performance depends on the completed assembly. Maintain the minimum 1.5 in cable bend radius and avoid trapping the cable against a sharp housing edge.

Torque limit	45 N·m maximum
Cable bend radius	1.5 in minimum
Joint condition	Fully mated and protected
Environmental boundary	Non-submerged installation

330525-CN / Connect and check the powered signal circuit

03 Connect and check the powered signal circuit

1 Identify pins before reconnection

Trace the installed cable to its terminal point and retain the pin identities. Pin A and Pin B are part of the sensor circuit; do not infer the connection from case metal because the case is isolated. Compare the cable identification with the actual installed terminal arrangement before applying power.

2 Check excitation and bias

Under the approved energization procedure, verify the compatible negative supply and bias-current arrangement. The required circuit operates at -22 to -30 VDC and 2.5–6.0 mA. The output-bias specification is -12 ±3.0 VDC referenced to Pin A. Investigate abnormal bias before using a dynamic reading for machine assessment.

Supply window	-22 to -30 VDC
Bias-current window	2.5–6.0 mA
Case	Electrically isolated
Field cable	Use the specified type and assessed length

330525-CN / Check the velocity response

04 Check the velocity response

1 Compare like-for-like measurements

Use a suitable controlled vibration reference or the approved site test method to evaluate the receiving channel. Retain the test frequency, amplitude convention and bandwidth with the result. The sensitivity reference is at 100 Hz and +20 to +30 °C. A peak value and an RMS value cannot be compared without accounting for the waveform.

2 Separate sensor behavior from mounting effects

If the measured response differs from the expected result, inspect the mount, cable and bias before attributing the difference to the machine. Check the selected monitor sensitivity and filter band. The broader 4.5–2000 Hz band and the flatter 6–1000 Hz band have different amplitude tolerances; use the band relevant to the test.

Excitation result	Stable bias before dynamic testing
Test record	Frequency, amplitude and units
Receiving channel	Velocity sensitivity and filters
Mounting review	No looseness or cable loading

330525-CN / Handover the verified measurement

05 Handover the verified measurement

1 Resolve the full signal path

Confirm that the installed 330525-CN, mating cable and receiving channel form the intended velocity measurement. Retain the final mounting location, pin assignment, bias and response results. Resolve any change in cable type, mounting stiffness or channel scaling before the measurement is used for an alarm decision.

2 Maintain a repeatable baseline

Record the configuration and operating conditions used for the accepted reading. Future comparisons should use the same point, direction and units. Restore the channel to its agreed service state only after the responsible personnel accept the results. Related references below are identification aids and do not establish interchangeability or included accessories.

Technical basis: Bently Nevada 330525 Velomitor XA Piezo-velocity Sensor, 141633 Rev. M.

Related product navigation

- Bently Nevada 330500-02-CN
- Bently Nevada 330500-01-00
- Bently Nevada 330500-02-02

These are related references, not confirmed substitutes or an automatically approved assembly.