

INDUSTRIAL AUTOMATION PRODUCT

330500-02-CN

330500 Velomitor Piezo-velocity Sensor

330500-02-CN converts absolute casing or bearing-housing vibration into a velocity-proportional electrical signal for machinery-condition monitoring.

IDENTITY	VERIFIED VALUE
Manufacturer	Bently Nevada
System family	Bently Nevada 330500 Velomitor Piezo-velocity Sensor
Part number	330500-02-CN
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	VALUE
Complete order number	330500-02-CN
Mounting-adapter code	02
Mounting adapter	M8 x 1
Sensitivity	3.94 mV/mm/s (100 mV/in/s), +/-5%
Frequency response	4.5 Hz to 5 kHz, +/-3 dB
Precision frequency response	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 peak
Mounted resonance	Greater than 12 kHz
Output bias	-12 +/-3 V

PARAMETER	VALUE
Dynamic output impedance	Less than 2400 ohm
Noise floor	0.004 mm/s RMS nominal
Case isolation	Isolated
Operating temperature	-55 to +121 degC
Maximum shock	5000 g peak
Housing material	316L stainless steel
Connector	2-pin MIL-C-5015
Mounting torque	32 to 46 kg-cm (24 to 40 in-lb)
Recommended cable length	Up to 63 m under stated datasheet conditions
Signal polarity	Motion toward connector: Pin A positive relative to Pin B

VERIFIED PRODUCT RECORD

DATA GROUP	VERIFIED VALUE
Installed host / carrier	M8 x 1 mounting point
Companion hardware	Two-pin MIL-C-5015 mating cable
Field connection	Compatible Bently Nevada monitor channel
Primary system function	Measures absolute vibration on a mounted machine surface
Controlled acceptance duty	Bearing-housing vibration monitoring

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System Role and Architecture

330500-02-CN converts absolute casing or bearing-housing vibration into a velocity-proportional electrical signal for machinery-condition monitoring.

FUNCTION 1

Measures absolute vibration on a mounted machine surface

FUNCTION 2

Uses integrated solid-state electronics for velocity output

FUNCTION 3

Provides an isolated stainless-steel sensor case

FUNCTION 4

Connects through a two-pin MIL-C-5015 interface

Matched system components

- M8 x 1 mounting point
- Two-pin MIL-C-5015 mating cable
- Compatible Bently Nevada monitor channel
- Prepared flat machine surface

SYSTEM INTEGRATION RECORD

INTEGRATION ITEM	DOCUMENTED ROLE
Installed host / carrier	M8 x 1 mounting point
Companion hardware	Two-pin MIL-C-5015 mating cable
Field connection	Compatible Bently Nevada monitor channel
Primary system function	Measures absolute vibration on a mounted machine surface
Controlled acceptance duty	Bearing-housing vibration monitoring

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Applications and Engineering Context

Bearing-housing vibration monitoring

Measures absolute vibration on a mounted machine surface

Machine-casing vibration measurement

Uses integrated solid-state electronics for velocity output

Structural vibration observation

Provides an isolated stainless-steel sensor case

Velocity-sensor replacement and verification

Connects through a two-pin MIL-C-5015 interface

TECHNICAL NOTE

Mount 330500-02-CN on a clean prepared surface using the M8 x 1 adapter and documented torque. Preserve connector polarity, route the cable away from mechanical strain and verify bias voltage plus vibration response before enabling alarms.

MODEL-SPECIFIC ACCEPTANCE EVIDENCE

CHECK	ACCEPTANCE CONDITION
Identity	330500-02-CN / 330500-02-CN recorded
Physical interface	M8 x 1 mounting point
Companion check	Two-pin MIL-C-5015 mating cable
Functional proof	Measures absolute vibration on a mounted machine surface
Application test	Bearing-housing vibration monitoring

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Engineering Precautions

1

Verify the full 330500-02-CN marking and M8 x 1 adapter before disturbing the installed sensor.

2

Place the monitored machine and vibration channel in the approved maintenance state.

3

Clean the mounting surface and adapter threads without damaging the sensor base.

4

Apply the documented mounting torque and do not use the connector body as a tightening point.

5

Preserve Pin A and Pin B polarity when reconnecting the two-pin MIL-C-5015 cable.

RELATED PRODUCTS ON APTER POWER

MODEL	SYSTEM ROLE	APTER POWER PAGE
330171-00-08-10-01-05	3300 XL 5/8 mm proximity probe	View 330171-00-08-10-01-05 page
330172-00-08-10-01-05	3300 XL 5/8 mm armored proximity probe	View 330172-00-08-10-01-05 page
330103-00-04-10-02-00	3300 XL 8 mm metric proximity probe	View 330103-00-04-10-02-00 page
330103-00-12-10-02-00	3300 XL 8 mm metric proximity probe	View 330103-00-12-10-02-00 page
330103-00-16-10-02-05	3300 XL 8 mm metric proximity probe	View 330103-00-16-10-02-05 page
330106-05-30-05-02-00	3300 XL 8 mm reverse-mount probe	View 330106-05-30-05-02-00 page
330130-045-00-00	3300 XL standard extension cable	View 330130-045-00-00 page
330130-080-02-05	3300 XL extension cable	View 330130-080-02-05 page

MANUFACTURER SOURCE RECORD

Bently Nevada 330500 Velomitor Piezo-velocity Sensor Datasheet

141632 Rev. V

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