330500 Velomitor Piezo-velocity Sensor Datasheet

Bently Nevada Machinery Condition Monitoring

141632 Rev. P



Description

Bently Nevada Velomitor Piezo-velocity Sensors are designed to measure absolute (relative to free space) bearing housing, casing, or structural vibration. The 330500 is a specialized piezoelectric accelerometer that incorporates embedded integrated electronics in a solid-state design.

Because the 330500 incorporates solid-state electronics and has no moving parts, it does not suffer from mechanical degradation and wear, and can be mounted vertically, horizontally, or at any other angle of orientation

Measuring Housings for Transducer Placement

If you are measuring a machine housing to determine where to place transducers, consider the types of measurements you want to obtain. Most common machine malfunctions like imbalance or misalignment originate at the rotor and cause a change—usually an increase—in rotor vibration.

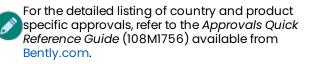
If you integrate the 330500 Velomitor output to measure displacement, electrical noise from interference and the transducer circuit can be amplified. The noise can degrade performance of 330500 transducers and produce inaccurate displacement data.

To obtain high quality data, place the transducer in a location where it can best detect machine vibration through the bearing housing or machine casing. Choose a location, grounding, and shielding that maximizes amplitude and frequency response and lessens data that doesn't represent actual machine vibration.

Bently Nevada provides engineering services to determine the optimum location to install transducers. For assistance, visit Bently.com.



Ordering Information



Velomitor Piezo-velocity Sensor

330500-AA-BB

A: Mounting Thread Adaptor Option		
No adapter		
1/2 - 20 UNF		
M8 x 1		
1/4 - 28 UNF		
1/4 - 20 UNC		
Unavailable for 330500.		
For 1/4-18 NPT mounting, order 330525.		
5/8 – 18 UNF		
3/8 – 16 UNC		
1/2 – 13 UNC		
B: Agency Approval Option		
Not required		
CSA/US/C		
ATEX (European)		
Multiple approvals (CSA, ATEX)		

Interconnection Cables

Standard Cable Lengths

Feet	Meters (approximate)
6 ft	1.8 m
8 ft	2.4 m
10 ft	3.0 m
12 ft	3.6 m
15 ft	4.5 m
17 ft	5.0 m
20 ft	6.0 m

Feet	Meters (approximate)	
25 ft	7.6 m	
30 ft	9.0 m	
33 ft	10.0 m	
50 ft	15.2 m	
99 ft	30.0 m	

Custom Cable Part Numbers

You can order custom cable lengths in increments of 1.0 ft (305 mm) at additional cost. Some cables have a minimum and maximum length.

Use 'NN' in these part numbers to specify the length (in feet) of the cable you want to order.

Part Number	Description
9571-NN	Two-conductor twisted, shielded 22 AWG cable with two-socket moisture-resistant female connector at one end, terminal lugs at the other end. Used with monitors. Not for use with 21128 Velocity Transducer Housing. Min. length: 2.0 ft (0.6 m) Max. length: 99 ft (30 m)
84661-NN	Two-conductor twisted, shielded 22 AWG armored cable with two- socket moisture-resistant female connector at one end, terminal lugs at the other end. Used with monitors. Not for use with 21128 Velocity Transducer Housing. Min. length: 3.0 ft (0.9 m) Max. length: 96 ft (29 m)
89477-NN	Two-conductor 18 AWG twisted, shielded cable with right angle two-socket plug at one end, terminal lugs at the other end. Used with monitors and with 21128 Velocity Transducer Housing. Min. length: 2.0 ft (0.6 m) Max. length: 99 ft (30 m)
125065-NN	Two-conductor 18 AWG twisted, shielded cable with two-socket plug and fluorosilicone elastomer boot at one end, terminal lugs at the other. Used with monitors. Not for use with 21128 Velocity Transducer Housing.

