

Bently Nevada Service Manual

330752-25-CN

1. Description

330752-25-CN

3. Product Information

Description

The 330750 and 330752 High Temperature Velomitor System sensor head and integral cable are designed for high temperature environments. This enables you to mount the sensing head on surfaces with temperatures up to +400°C (+752°F).

Earlier versions of the 330750 and 330752 High Temperature Velomitor System were limited to environments with a maximum temperature of +300°C (+572°F). The serial number of current versions that measure up to +400°C (+752°F) are preceded by the letter "G".

To accomplish this, the transducer design segregates the sensing element from the signal conditioning electronics. The two are permanently connected using an integrated cable. The integrated cable eliminates connectors which are a significant source of transducer failures.

The cable enables you to position the signal conditioning electronics in a cooler location. The internal electronics withstands temperatures of 55°C to +121°C (-67°F to +250°F). The integrated design makes it possible to capture machinery performance data comparable to other Bently Nevada Velomitor transducers, but at significantly higher temperatures.

For lower temperature environments, use the standard 330500 Velomitor Piezo-velocity Sensor. You can install it in locations with a maximum operating temperature of +121°C (+250°F).

Electrical

Sensitivity 5.7 mV/mm/s (145 mV/in/s)

±5%

Frequency

Response

15 to 2000 Hz (900 to 120,000

cpm) ± 3.0 dB;

20 to 1000 Hz (1,200 to 60,000

cpm) ± 0.9 dB

Transient

Temperature

Sensitivity

0.0762 mm/s/°C (0.003

in/s/°C), typical, as defined

in ISO 5347-18:1993(E)

Amplitude

Range

635 mm/s (25 in/s) peak

below 680 Hz.

2940 m/s² (300 g) peak

above 680 Hz.

Vibration at frequencies

above 2 kHz decreases this range.

Transverse

Sensitivity Less than 5% of Sensitivity

Amplitude

Linearity

±2% to 152 mm/s (6 in/s)

peak

Mounted

Resonant

Frequency

Greater than 5 kHz

Output Bias

Voltage -12 $\pm$ 2.0 VDC

Broadband

Noise Floor

(15Hz to 2kHz)

0.127 mm/s (0.005 in/s) rms

nominal

Grounding Case Isolated

Maximum

Cable Length

305 meters (1000 feet) with

no degradation of signal.

Environmental Limits

Operating and Storage Temperature Range

Sensing Head

Maximum mounted surface

temperature -55°C to

+400°C (-67°F to +752°F)

Integral

Hardline Cable

-55°C to +400°C

(-67°F to +752°F)

Electronics -55°C to +121°C

(-67°F to +250°F)

Shock

Survivability 24,535 m/s² (2500 g) peak

Relative

Humidity

To 100% non-submerged;

case is hermetically sealed.

Maximum Use

Altitude

2000 meters (6561 ft) above

sea level

Outdoor Use

Standard installation for

these sensors is in a

protected enclosure with

wiring protected in conduit.

Splash boots can be added

for additional protection if

needed by customer's

requirements.

Case 300 series stainless steel

Connector

2-pin Mil-C-5015 receptacle,

hermetically-sealed, 304

stainless steel shell.

Polarity

When the applied velocity is

from the base to the top of

the transducer, Pin A

becomes positive with

respect to Pin B.

Bend Radius Minimum bend radius of

51mm (2.0in)

Temperature

Class Temperature Range

T4 -40°C to +100°C

T1 -40°C to +400°C

Manufacturer : Bently Nevada

Product No. : 330752-25-CN

Product Type : High Temperature Velomiter System

Made in U.S.A

Length : 2.5 - 2.5 meters

Approvals: CN = Approvals country specific

