Bently Nevada Service Manual

330752-25-CN

1. Description

330752-25-CN

3. Product Information

330752-25-CN | Bently Nevada | High Temperature Velomiter System

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 ±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