Bently Nevada 330400&330425&330500 Series Service Manual

330425-01-CN

1. Description

Manufacturer : Bently Nevada

3. Product Information

Manufacturer : Bently Nevada

Product No. :330425-01-CN

Product type : Accelerometer Acceleration Transducers

Made in U.S.A

Mounting Thread Option : 0 1 ¼-28 UNF integral stud

Agency Approval Option :CN Country Specific

Sensitivity 10.2 mV/m/s2 (100 mV/g) ±5%.

Acceleration
range
490 m/s2 (50 g) peak overall
acceleration within the 10 Hz to
15 kHz frequency span.
Vibration at frequencies above
15 kHz, especially at the
transducers resonance will
significantly decrease this
range.

Amplitude
Linearity
±1% to 490 m/ s2 (50 g) peak.

Broadband
Noise Floor
(10 Hz to 15
kHz)
0.039 m/s2 (0.004 g) rms.

Frequency
Response
10 Hz to 15 kHz
(600 cpm to 900,000 cpm)
±3dB;
30 Hz to 10 kHz
(1800 cpm to 600,000 cpm)
±10%

Temperature
Sensitivity
-11% to +3% typical over the
operating temperature range.

Transverse
Sensitivity Less than 5% of axial.

Mounted
Resonant
Frequency
Greater than 30 kHz.

Amplitude of
Resonant
Peak
20 dB maximum.

Base Strain Sensitivity
For serial
numbers
preceded by
the letter “G”
(including all
new sensors
49 mm/s2/mstrain (0.005
g/mstrain)
For serial
numbers
NOT

preceded by
the letter “G”
(shipped
prior to April
2004)
980 mm/s2/mstrain (0.100
g/mstrain) without Mounting
Base (API adapter);
4.9 mm/s2/mstrain (0.0005
g/mstrain) with Mounting Base
(API adapter) supplied with the
accelerometer.
For units bearing
serial numbers NOT
preceded by the
letter “G”, Bently
Nevada
recommends
installing with the
Mounting Base to
minimize base strain
sensitivity.
Maximum
cable length
305 metres (1000 ft) with no
degradation of signal.
Power requirements
Input
Voltage -24 ± 0.5 Vdc.
Bias Current 2 mA nominal.
Output Bias
Voltage: -8.5 ± 0.5 Vdc.
Grounding Case isolated.
Environmental Limits
Operating
and storage
temperature
-55°C to +121°C (-67°F to
+250°F)
Shock
Survivability
49,050 m/s2 (5000 g) peak,
maximum.
Relative
humidity
100% condensing, nonsubmerged. Case is
hermetically sealed.
Magnetic
Field
Susceptibility
<2.21 mm/s2/gauss (225
mg/gauss) [50 gauss, 50-
60Hz].
IP Rating
Equivalent to an IP 68 (Dust
tight and watertight). Please
note that this is for the sensor
only and does not apply to the
cable.

Physical

Weight (no

cable) 99 g (3.5 oz), typical

Diameter 23 mm (0.93 in).

Height 59 mm (2.3 in), including

mounting stud.

Connector 3-pin MIL-C-5015 Receptacle

316L stainless steel

Mounting

Surface 32 minch rms.

Mounting

Torque 4.1 N·m (3.0 ft·lb).

Case

Material 316L stainless steel

Weight (no

cable) 100 g (3.5 oz), typical

Mounting

Angle Any orientation