

# Bently Nevada 200157-09-05 Manual

|                |                            |
|----------------|----------------------------|
| Brand          | Bently Nevada              |
| Product Series | 200150&200151              |
| Product Type   | Enveloping Trendmaster Pro |

## Description

"Manufacturer : Bently Nevada

Product No. :200157-09-05

Product Type : Enveloping Trendmaster Pro  
Accelerometer

Made in U.S.A

MOunting stud option : 09 3/8-24 to 3/4 NPT, 1-1/4 inch hex  
stud

Approvals : 05 = Multiple Approvals (CSA, ATEX, and IECEx)

Accelerometer 200157

Used with ProTIM Option : Standard Accelerationto-Velocity with Acceleration  
Enveloping channel type (-06)

Type of Application : Roller element bearing and certain types of cavitation effects

### Specifications

All specifications are at +25°C (+77°F), unless  
otherwise specified.

#### Electrical

Sensitivity @

80 Hz ( $\pm 12\%$ )

10.2 mV/(m/s<sup>2</sup>) (100 mV/g)

Measurement Range

Accelerometer 200157

Measurement Range in m/s<sup>2</sup> (g)  $\pm 245$  ( $\pm 25$ )

Frequency Range Referenced to 80Hz

( $\pm 10\%$ )

Accelerometer 200157

Frequency Range in Hz

(cpm) 10 to 10,000 (600 to 600,000)

Mounted

Resonant

Frequency

>20 kHz (>1200 kcpm)

Amplitude

Linearity

(1 to 10g pk)

±2%

Transverse

Sensitivity

≤7%

Settling Time (Within 5% of Bias)

Accelerometer Settling Time (ms)

200157 ≤300

Excitation

Voltage

4.7 to 5.5 Vdc

Polarity

(Acceleration

from Base to

Connector)

SIG+ positive with respect to

SIG-.

Quiescent

Current

<800 µA

Output Bias

Voltage

+2.5 ± 0.23 Vdc

Accelerometer 200157

Measurement Range in mm/s<sup>2</sup> (mg) 14.7 (1.5)

Environmental

Axial Shock

Limit

49,050 m/s<sup>2</sup> pk (5,000 g pk)

Temperature

Range

-40 °C to +105 °C (-40 °F to +221

°F)

Sealing

(Hermetic)

5X10<sup>-8</sup> atm•cc/s (3.1X10<sup>-9</sup>

atm•in<sup>3</sup>/s), maximum

Relative

Humidity

100% relative, condensing,

non-submerged

www.AutoDCSTech.com

Physical

Size (Hex x

Height)

17.5 mm x 45.7 mm (11/16 in x 1.8

in)

Weight 58 g (2.0 oz), typical

Mounting

Thread

3/8-24 female

Mounting

Torque

2.7 to 6.8 N•m (2 to 5 ft•lbf)

Sensing

Element

Ceramic

Sensing

Geometry

Shear

Housing and connector material

200155 316L stainless steel

Temperature

Range

-55 °C to +121 °C (-67 °F to +250

°F)

Cure Time 24 hours"

[www.AutoDCSTech.com](http://www.AutoDCSTech.com)