

# Bently Nevada 200157-17-05 Manual

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

## Description

Manufacturer : Bently Nevada

Product No. :200157-17-05

Product Type : Enveloping Trendmaster Pro

Accelerometer

Made in U.S.A

MOunting stud option : 17 3/8-24 to 3/8-16 UNC 1-3/8 inch  
hex plate 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

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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\*\*\*\*\*

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