

MANUFACTURER DOCUMENT PACKAGE

Manufacturer's Manual

Reference package for procurement and maintenance review

BENTLY NEVADA

84661-55

SELECTED MANUFACTURER TECHNICAL REFERENCE

Used with the applicable Bently Nevada 200350 and 200355 Accelerometers Datasheet 164804 configuration.

REFERENCE PACKAGE

OFFICIAL DOCUMENT

Selected official manufacturer pages follow this cover.

Source: Bently Nevada 200350 and 200355 Accelerometers Datasheet 164804

200350 and 200355 Accelerometers

Datasheet

Cordant™

164804 Rev. T

Card, part number 149811-02 and the Seismic Direct Input Card, part number 164746-01.

The 200350 and 200355 Accelerometers are contained within a hermetically sealed, stainless steel case. The design provides an extremely rugged transducer, well suited for harsh industrial environments. Each transducer's top mounted, 2-pin connector (MIL-C-5015) allows for easy installation and removal of the interconnecting signal cable. A ¼-28 threaded hole on the bottom of the casing accommodates multiple mounting options.

The 200350 and 200355 Accelerometers contain a piezoelectric sensing device, which generates charge when subjected to vibration. This charge is then converted electronically to a differential voltage signal, which is proportional to the acceleration that is parallel to the sensitive axis of the transducer.



1.1 Description

The 200350 and 200355 Accelerometers are general purpose, case-mounted seismic transducers designed

for use with Trendmaster Pro
Constant Current Direct Input



Most common machine malfunctions (unbalance, misalignment, etc.) occur on the rotor and originate as an increase (or at least a change) in rotor vibration. For any individual casing measurement to be effective for overall machine protection, the system must continually transmit a significant amount of rotor vibration to the machine casing, or mounting location of the transducer.

In addition, be careful to install the accelerometer transducer on the bearing housing or machine casing. Improper installation may decrease the transducer amplitude and frequency response and/or generate false signals that do not represent actual vibration. Refer to the appropriate instruction manuals and Application Notes.

Upon request, Bently Nevada provides engineering services that can identify the appropriate machine housing measurements and installation assistance if needed.



Do not use sensor part number 200350 for negative excitation voltage (-Vex).

Electrical

	200350	200355
Sensitivity	100 mV/g ±20% (10.2 mV/m/s ² ±20%)	100 mV/g ±5% (10.2 mV/m/s ² ±5%)
Frequency Range (±3 dB)	30-600,000 cpm (0.5-10,000 Hz)	12-600,000 cpm (0.2-10,000 Hz)
Measurement Range	± 50 g	
Transverse Sensitivity	≤ 7%	≤ 5%
Amplitude Linearity	± 1%	
Mounted Resonant Frequency	1500 kcpm (25 kHz)	1250 kcpm (20.8 kHz)
Broadband Electrical Noise (1-10kHz)	350 µg (3,434 µm/s ²)	50 µg (491 µm/s ²)
Output Bias Voltage	8 to 12 VDC	
Excitation Voltage	18 to 28 VDC	
Constant Current Excitation	2 to 20 mA	

1.2 Specifications

Parameters are specified from +20 to +30 °C (+68 to +86 °F) and 100 Hz unless otherwise indicated.



Safety Caution



Operation outside the specified limits will result in false readings or loss of machine monitoring.

2.1 Ordering Information



For the detailed listing of country and product-specific approvals, refer to the [Approvals Quick Reference Guide \(108M1756\)](#).

For additional technical documentation, please log in to bntechsupport.com and access the Bently Nevada Media Library.

200350 Accelerometer

200350 – AA – BB – CC

A: Mounting Stud

00	¼-28 SS w/ Brass tip, 0.5"
01	¼-28 to M6 x 1.00 Stainless Steel
02	¼-28 to M8 x 1.25 Stainless Steel
09	No mounting stud
10	1/4 -28 Adhesive Stud Mount
11	M6x1 Adhesive Stud Mount
12	M8x1.25 Adhesive Stud Mount
13	Magnetic Base Kit

B: Tolerance

00	100 mV/g ± 20% (10.2 mV/m/s ² ±20%)
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C: Approvals

00	No Approvals
01	CSA, ATEX, IECEx

200355 Accelerometer

200355 – AA – BB – CC

A: Mounting Stud

00	¼-28 SS w/ Brass tip, 0.5"
01	¼-28 to M6 x 1.00 BeCu
02	¼-28 to M8 x 1.25 BeCu
09	No mounting stud
10	1/4 - 28 Adhesive Stud Mount
11	M6x1 Adhesive Stud Mount
12	M8x1.25 Adhesive Stud Mount
13	Magnetic Base Kit

B: Tolerance

00	100 mV/g ± 5% (10.2 mV/m/s ² ±5%)
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C: Approvals

00	No Approvals
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2.2 Accessories

168303	200350 and 200355 Accelerometer User Guide
162411	Trendmaster Pro System User Guide
149831	Trendmaster DSM Datasheet
149823	Trendmaster DSM User Guide

Mounting Studs

Dimensional diagrams of all available mounting studs are shown in [Graphs and Figures](#)

164373	¼-28 Mounting Stud
164372	M6x1 Mounting Stud
167559	M8X1.25 Mounting Stud



Non-standard/custom lengths can also be ordered at additional cost

Standard Cable, Armored

84661 – AA

A: Length

03	Minimum length, 3 ft.
99	Maximum length, 99 ft.
XX	Desired length in ft.

The following are standard lengths

Feet	Meters (approx.)
6	1.8
8	2.4
10	3.0
12	3.6
15	4.5
17	5.0
20	6.0
25	7.6
30	9.0
33	10.0
50	15.2
99	30.0



Non-standard/custom lengths can also be ordered at additional cost