Bently Nevada 200355-00-00-00

01 Function and selected configuration

Product function

The low-frequency response of Bently Nevada 200355-00-00-00 extends casing measurements down to 12 cycles per minute. Its shear sensing element converts vibration along the sensitive axis into a voltage for a compatible Trendmaster Pro input.

Selected configuration

100 mV/g ±5% sensitivity, a 1/4-28 brass-tipped stainless-steel stud and no approval option. The selected 00 mounting option supplies a 1/4-28 stainless-steel stud with a brass tip. The sensor is welded and hermetically sealed; its case is electrically isolated from the measurement circuit.

Functional path

Casing vibration	Shear sensing element	100 mV/g output	Trendmaster input

Acceleration scale	100 mV/g ±5%, measuring range ±50 g
Frequency response	0.2 to 10,000 Hz within ±3 dB
Excitation	18 to 28 V DC, constant current 2 to 20 mA

Trendmaster Pro Constant Current Direct Input Card 149811-02 and Seismic Direct Input Card 164746-01 are supported interfaces. Sensor sensitivity, current excitation, cable loading and channel scaling must be evaluated together.

200355-00-00-00 / Technical operating envelope

02 Technical operating envelope

Sensitivity	100 mV/g ±5%	Output impedance	<100 ohms
Measuring range	±50 g	Discharge time constant	≥0.8 seconds
Frequency range, ±3 dB	0.2 to 10,000 Hz	Case electrical isolation	>100 megohms
Transverse sensitivity	≤5%	Operating temperature	-54 to +121 °C
Amplitude linearity	±1%	Shock survivability	5,000 g peak
Mounted resonant frequency	20.8 kHz	Sealing	Welded hermetic, IP68
Broadband electrical noise	50 µg; 1 to 10 kHz	Connector	Top-mounted two-pin MIL-C-5015
Output bias	8 to 12 V DC	Mounting thread	1/4-28 female; supplied stud option 00
Excitation voltage	18 to 28 V DC	Mounting torque	2.7 to 6.8 N·m
Constant-current excitation	2 to 20 mA	Sensing geometry	Ceramic shear element
Settling within 1% of bias	≤5.0 seconds	Recommended cable length	31 m at 50 g, 10 kHz and 200 pF/m

The ±3 dB response, ±50 g measuring range and 5,000 g shock survivability describe different limits. Do not interpret shock survival as a measurement capability.

200355-00-00-00 / System integration and applications

03 System integration and applications

Slow machine casing trends

Acquire low-frequency acceleration where a 0.2 Hz sensor response is needed and the input channel supports that bandwidth.

Broadband condition monitoring

Collect casing acceleration through 10 kHz within the ±3 dB response range, using a rigid mounting surface.

Trendmaster Pro input channels

Integrate with constant-current direct-input or seismic direct-input cards using the correct 100 mV/g scaling.

Harsh industrial monitoring

Use the hermetically sealed stainless-steel sensor on suitable non-submerged machinery surfaces within the temperature limit.

System and supply context

This is a powered piezoelectric accelerometer. Input card, signal cable and mounting accessories must be checked as one measurement channel; only itemized accessories are supplied.

Application boundary

Application bandwidth is limited by the complete installation, including the mounting stiffness, cable and receiving input, not only the sensor specification.

Why is the 200355-00-00-00 input scaled at 100 mV/g rather than a velocity unit?

Its voltage represents acceleration along the sensitive axis. A velocity display requires appropriate integration in the receiving equipment; it is not the direct sensor output.

200355-00-00-00 / Engineering selection decisions

04 Engineering selection decisions

How slowly can 200355-00-00-00 follow casing vibration?

Its ±3 dB frequency range starts at 0.2 Hz, equivalent to 12 cycles per minute. The receiving channel must also preserve that low-frequency bandwidth.

How long should bias be allowed to settle on 200355-00-00-00?

Allow up to 5 seconds for the output bias to settle within 1% after power application before assessing a steady-state reading.

What does the 50 µg noise figure mean for 200355-00-00-00?

It is the broadband electrical noise over 1 to 10 kHz. Evaluate the noise over the actual analysis bandwidth when working with weak vibration signals.

How much cross-axis response can 200355-00-00-00 introduce?

Transverse sensitivity is no more than 5%. Orient the sensitive axis toward the required measurement direction and assess large orthogonal vibration when interpreting results.

Allow bias stabilization	Wait for the bias to settle before judging baseline or noise.
Separate overload from survival	Keep measured acceleration within ±50 g; shock survival is a different specification.

200355-00-00-00 / Configuration boundary and references

05 Configuration boundary and references

Lifecycle and support

The current manufacturing and OEM support stages for 200355-00-00-00 require confirmation from Bently Nevada. Apter Power availability is confirmed separately.

Replacement assessment

Match the 200355 low-frequency response, 100 mV/g sensitivity tolerance, constant-current input and mechanical mounting before substituting a sensor.

Document roles

Use the original manufacturer excerpt for its preserved technical tables and drawings. This product brief explains configuration and selection boundaries. The independent installation guide organizes preparation, connection, testing and handover. It does not replace the applicable manufacturer installation instructions.

Technical basis

Bently Nevada 200350 and 200355 Accelerometers, 164804 Rev. T.

Related product navigation

- Bently Nevada 200350-00-00-00
- Bently Nevada 200350-12-00-CN
- Bently Nevada 330400-02-00

These are related references, not confirmed substitutes or an automatically approved assembly.

Product enquiries