Bently Nevada 200350-00-00-00

01 Sensor role and configuration

Case acceleration, not shaft displacement

This piezoelectric accelerometer measures motion transmitted into a bearing housing or machine casing. Its ceramic shear element generates charge under vibration; internal electronics convert that response into a voltage proportional to acceleration along the sensitive axis. A suitable structural transmission path is necessary for the reading to represent the machine fault being monitored.

Exact 00-00-00 configuration

The first 00 selects a 1/4-28 stainless-steel mounting stud with a brass tip. The middle 00 specifies 100 mV/g sensitivity with ±20% tolerance. The final 00 specifies no approvals. These selections belong to this ordered configuration; the 200355 tolerance and an approved 01 variant must not be substituted in its technical description.

Measurement path

Bearing housing / casing	200350 sensing element	Positive constant-current input	Acceleration channel

Nominal scale	100 mV/g (10.2 mV per m/s²), ±20%
Operating signal	±50 g acceleration range; 0.5 Hz to 10 kHz at ±3 dB
Receiving hardware	Trendmaster Pro 149811-02 Constant Current Direct Input Card or 164746-01 Seismic Direct Input Card

200350-00-00-00 / Electrical and environmental envelope

02 Electrical and environmental envelope

Sensitivity	100 mV/g ±20%
Frequency band	0.5 Hz to 10 kHz (±3 dB)
Transverse response	≤7%
Amplitude linearity	±1%
Mounted resonance	25 kHz
Noise, 1-10 kHz	350 µg
Output impedance	<150 ohm
Case isolation	>100 MΩ

Positive excitation	18-28 V DC, 2-20 mA
Output bias	8-12 V DC
Settling to 1% of bias	≤2.0 s
Discharge time constant	≥0.3 s
Operating temperature	-54 to +121 °C
Shock survivability	5,000 g peak
Enclosure	IP68
Humidity condition	100% RH, condensing, non-submerged

Reference conditions: +20 to +30 °C and 100 Hz unless otherwise indicated. The 25 kHz resonance is not the upper calibrated measurement frequency. Shock survivability is not the measuring range, and IP68 does not grant hazardous-area approval.

200350-00-00-00 / Mounting and input integration

03 Mounting and input integration

Interface	Function	Integration requirement
Mounting stud	Transfers casing motion	1/4-28 stainless steel with brass tip; 2.7-6.8 N·m mounting torque
Top connector	Signal / power and ground	2-pin MIL-C-5015; identify pins from sensor drawing and cable documentation
9571 cable family	Unarmored connection	Twisted shielded pair, two-socket connector and terminal lugs; choose actual length
84661 cable family	Armored connection	Select length and route with connector access and mechanical protection in mind
Input card	Excitation and signal acquisition	Compatible Trendmaster Pro 149811-02 or 164746-01; positive current source

Cable loading is a condition of performance

The 31 m recommended length assumes 50 g maximum vibration at 10 kHz and cable capacitance of 200 pF/m. A cable-length option does not by itself prove adequate high-frequency response. For longer runs, resolve excitation, capacitance and input requirements before use. The splash-proof cable is not recommended for 200350.

Supply boundary: sensor, cable, input card and acquisition equipment are separate line items unless explicitly included in the quotation. Related cable pages are selection references, not an automatically approved assembly.

200350-00-00-00 / Engineering decisions and limits

04 Engineering decisions and limits

Question	Technical decision
Can a negative input supply be retained?	No. The 200350 requires positive excitation; check the receiving card before connection.
Does good DC bias prove a working vibration channel?	No. An 8-12 V DC bias is an electrical check; confirm dynamic response and monitor scaling.
Can a 200355 tolerance be applied?	No. This 200350 configuration has ±20% sensitivity tolerance, not ±5%.
Can the sensor be placed on any casing surface?	No. The point must transmit relevant vibration. A flexible cover or poor contact can distort the response.
Does IP68 imply approval for a hazardous area?	No. The final 00 option has no approvals. Apply the intended environment and installation limits.

Verification priorities

Check the physical mounting and axis first, then positive excitation, settled bias and receiving-channel sensitivity. Verify a controlled vibration response through the complete channel. Do not compensate for a loose mounting point or incorrect supply by changing the displayed scale.

200350-00-00-00 / Document scope and related cable references

05 Document scope and related cable references

Use each document for its purpose

This Apter Power brief explains the exact ordered configuration and its engineering limits. The separate original datasheet excerpt preserves manufacturer pages. The separate installation guide organizes field checks. These documents do not set a machine-specific alarm threshold, replace an installation manual or establish a safety rating.

Lifecycle and replacement boundary

The current manufacturing and OEM support stages for the full 200350-00-00-00 code require manufacturer confirmation. Published technical data is not an exact-unit lifecycle notice. Confirm replacement suitability against sensitivity, mounting, excitation and approvals; Apter Power sourcing availability is a separate commercial question.

Technical basis

Bently Nevada 200350 and 200355 Accelerometers, Datasheet 164804 Rev. T. Applicable sensor User Guide: 168303. Only the 200350 data column and the 00-00-00 configuration are used for exact-model claims in this brief.

Related product navigation - armored cable options

- Bently Nevada 84661-20
- Bently Nevada 84661-10
- Bently Nevada 84661-33

Verify connector, actual length and installed-channel requirements before selecting a cable.

Product enquiries