

MANUFACTURER-SOURCE TECHNICAL REFERENCE

Bently Nevada 330400-02-00

Accelerometer Installation Guide

Bently Nevada Three-Wire Accelerometer, M8 x 1 Stud, No Agency Approval

DOCUMENT SCOPE

Independent Apter Power manual compiled only from the cited Bently Nevada manufacturer sources. No product photograph is included.

Product / lookup identity	Bently Nevada 330400-02-00
Reference number	330400-02-00
Document basis	Published Bently Nevada product records, PDFs, and manuals listed on page 3



Product page

<https://www.apterpower.com/Bently-Nevada/330400-02-00>

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Acceleration sensor signal path

Bently Nevada 330400-02-00 is a three-wire piezoelectric accelerometer for casing-acceleration measurement on critical machinery. Machine vibration acts on the piezoelectric sensing element, and the sensor's internal charge amplifier produces a dynamic voltage proportional to acceleration on separate power, signal and common conductors.

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| 01 | Machine vibration acts on the piezoelectric sensing element, and the sensor's internal charge amplifier produces a dynamic voltage proportional to acceleration on separate power, signal and common conductors. It requires -24 ± 0.5 VDC with 2 mA nominal bias current, has an -8.5 ± 0.5 VDC output-bias voltage, and covers 10 Hz to 15 kHz within ± 3 dB for casing and high-frequency vibration measurements. |
| 02 | The case-isolated 316L stainless-steel sensor uses a three-pin MIL-C-5015 receptacle and can be paired with Bently Nevada 130539, 16925 or 16710 interconnect cables, mating connector 00531080 and suitable 43217/37442 protective mounting hardware. Official Bently documentation also identifies the 330400 with the 2300 family, 3500/70M reciprocating-machinery monitor and 3701/46 PAS/PAV inputs; wiring, excitation and measurement configuration must be verified for the chosen monitor. |
| 03 | The transducer is mounted on a prepared bearing housing or machine casing where rotor vibration is transmitted to the measurement point. Official scenarios include gear-mesh monitoring, high-frequency impact and gas-leak signatures on reciprocating compressors, hydro-unit acceleration inputs and backward-compatible upgrades of older three-wire 23732-type acceleration systems; the requested -00 agency option must remain in a nonhazardous or otherwise approval-free installation unless the exact certified sensor variant is selected. |

Sensor, cable, and approval boundaries

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| 01 | Status: VERIFIED |
| 02 | Lifecycle evidence: 330400/330425 has a current Baker Hughes/Bently Nevada product page and a Rev. AB datasheet carrying a 2025 copyright and current ordering information. |
| 03 | Country Of Origin was not published for this exact item in the cited official sources. |

Mounting and signal checks

01	Treat 330400-02-00 as agency-approval option 00: do not claim or use CSA, ATEX or IECEx certification from the -05 option or family approval section; select the exact approved part when the area classification requires it.
02	Install the M8 x 1 stud on a properly prepared bearing housing or machine casing at 4.1 N·m and at a location that actually transmits rotor vibration; poor mounting can reduce amplitude/frequency response or create false signals.
03	Use a monitor that supplies the documented -24 ± 0.5 VDC three-wire PWR/SIG/COM interface and 100 mV/g scaling; do not wire it as a two-wire IEPE sensor or as a 4-20 mA device.
04	Keep vibration, temperature and frequency inside the published limits; energy above 15 kHz, especially near resonance, significantly reduces the stated 50 g measurement range, and the IP68-equivalent statement applies to the sensor rather than its cable.
05	Match the three-pin connector and cable, protect outdoor wiring in conduit/enclosure as documented, and use mounting base 37439-02 on pre-April-2004 non-G serial-number units to reduce base-strain sensitivity.

Identity and release controls

Status	VERIFIED
Official Ordering Pattern	330400-AA-BB
Source Ids	['BN_330400_DATASHEET', 'BN_330400_PRODUCT_PAGE']

Official Bently Nevada sources

330400/330425 Accelerometers	https://www.bakerhughes.com/bently-nevada/sensors/acceleration-velocity-sensors/330400330425-accelerometers
330400 and 330425 Accelerometer Acceleration Transducers Datasheet	https://dam.bakerhughes.com/m/19b6525be7684676/original/330400-and-330425-Accelerometer-Acceleration-Transducers-Datasheet-141638-pdf.pdf
43217 and 37442 Accelerometer Mounting Kit Datasheet	https://dam.bakerhughes.com/m/26503b723cddade7/original/43217-and-37442-Accelerometer-Mounting-Kit-Datasheet-141630-pdf.pdf
Accelerometers: How do they Work?	https://www.bakerhughes.com/bently-nevada/orbit-home/orbit-article/accelerometers-how-do-they-work
Condition Monitoring of Reciprocating Compressors in Oil & Gas	https://www.bakerhughes.com/bently-nevada/orbit-home/orbit-article/condition-monitoring-reciprocating-compressors-oil-and-gas
3701/46 ADAPT Hydro Monitor Datasheet	https://dam.bakerhughes.com/m/2bc3a7ac4020b4bf/original/3701-46-ADAPT-Hydro-Monitor-Datasheet-103M9138-pdf.pdf
3500 Machinery Protection Systems	https://www.bakerhughes.com/bently-nevada/monitoring-systems/machinery-protection/3500-machinery-protection-systems