

MANUFACTURER-SOURCE TECHNICAL REFERENCE

Bently Nevada 330425-01-05

Product Reference

Bently Nevada 330425-01-05 Casing Acceleration Transducer

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 330425-01-05
Reference number	330425-01-05
Document basis	Published Bently Nevada product records, PDFs, and manuals listed on page 3



Product page

<https://www.apterpower.com/Bently-Nevada/330425-01-05>
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Product role and published parameters

WHAT IT IS, WHAT IT DOES, AND WHERE IT FITS

Bently Nevada 330425-01-05 is a three-wire piezoelectric acceleration transducer for casing-vibration measurement on highly critical machinery; suffix 01 specifies a 1/4-28 UNF integral mounting stud and suffix 05 specifies multiple CSA, ATEX and IECEx approvals. Mounted directly on a prepared bearing housing or machine casing, it converts axial casing acceleration into an analogue voltage signal through its internal charge amplifier so a compatible machinery-protection or condition-monitoring channel can trend the vibration and apply configured alarm or protection logic. System context: Bently Nevada 330425-01-05 Casing Acceleration Transducer.

Published field	Manufacturer-published value or verified identity note
Official document weight note	The current official datasheet contains both 99 g and 100 g typical entries. Keep the backend weight empty, suppress any 0 sentinel, and verify the current unit before logistics use.
Manufacturer	Bently Nevada, a Baker Hughes company
Exact part number	330425-01-05
Product type	Three-wire piezoelectric acceleration transducer with internal charge amplifier
Mounting option 01	1/4-28 UNF integral stud
Approval option 05	Multiple approvals: CSA, ATEX and IECEx; exact installation conditions apply
Sensitivity	2.5 mV/(m/s ²), equivalent to 25 mV/g, ±5%

System function and signal path

01	Measured Signal: Axial acceleration of the mounting surface/bearing housing/machine casing.
02	Transduction: Piezoelectric sensing element and internal charge amplifier convert mechanical acceleration into an analogue voltage signal with 25 mV/g nominal sensitivity.
03	Dynamic Range: 75 g peak overall acceleration within the 10 Hz to 15 kHz span, with ±1% amplitude linearity to 75 g peak under the specified conditions.
04	Electrical Interface: Three-wire powered transducer using -24 ±0.5 Vdc, 2 mA nominal bias and -8.5 ±0.5 Vdc output bias; case is isolated.

Applications, answers, and official sources

1 Critical-machinery casing acceleration: Measures absolute casing acceleration on a rigid bearing housing or machine casing where sufficient rotor vibration is transmitted to the selected point.

2 Gear-mesh monitoring: The manufacturer specifically cites gear-mesh monitoring as an application requiring the 330425's wide 10 Hz to 15 kHz casing-acceleration bandwidth and 75 g peak range.

3 High-frequency housing condition monitoring: Supplies a 25 mV/g analogue acceleration signal for trending and diagnostic analysis of high-frequency machine-housing vibration within the documented response range.

4 Reciprocating acceleration channels: Bently Nevada lists 330425 as a supported transducer for acceleration and reciprocating-acceleration channels on the 1900/65A and as an input to acceleration-related functions on the 3500/70M, when configured by the applicable monitor manual.

Frequently asked questions

What is Bently Nevada 330425-01-05?	It is a three-wire piezoelectric acceleration transducer for critical-machinery casing vibration, with a 1/4-28 UNF stud and multiple CSA/ATEX/IECEx approvals.
What does suffix 01 mean?	The official ordering table defines 01 as a 1/4-28 UNF integral mounting stud.
What does suffix 05 mean?	It is the multiple-approvals option covering CSA, ATEX and IECEx; the exact hazardous-area installation conditions still apply.
What is its sensitivity?	The 330425 sensitivity is 25 mV/g $\pm 5\%$, equivalent to 2.5 mV per m/s^2 .
What acceleration range does it measure?	Bently Nevada specifies 75 g peak overall acceleration within the 10 Hz to 15 kHz span.
How is 330425 different from 330400?	330425 has 25 mV/g sensitivity and a 75 g peak range; 330400 has 100 mV/g and 50 g peak, and is the model specifically described as addressing API 670 accelerometer requirements.

Official Bently Nevada sources

330400 and 330425 Accelerometer Acceleration Transducers Datasheet	https://dam.bakerhughes.com/m/19b6525be7684676/original/330400-and-330425-Accelerometer-Acceleration-Transducers-Datasheet-141638-pdf.pdf
330400/330425 Accelerometers product page	https://www.bakerhughes.com/bently-nevada/sensors/acceleration-velocity-sensors/330400330425-accelerometers
1900/65A General Purpose Equipment Monitor Datasheet	https://dam.bakerhughes.com/m/431ea7aa66550d9f/original/1900-65A-General-Purpose-Equipment-Monitor-Datasheet-173401-pdf.pdf
3500 Machinery Protection System product page	https://www.bakerhughes.com/bently-nevada/monitoring-systems/machinery-protection/3500-machinery-protection-systems