

Bently Nevada 3500/42M 135489-03

Four-channel Proximito/Seismic monitor component

Product identity and system role

The Bently Nevada 3500/42M is a four-channel Proximito/Seismic Monitor that accepts proximity, velocity or acceleration signals for shaft and casing vibration, position and combined shaft-absolute measurements.

01 / FUNCTION

Accepts one to four proximity, velocity or acceleration transducer signals.

02 / FUNCTION

Supports radial vibration, thrust, acceleration, velocity and shaft-absolute measurements.

03 / FUNCTION

Programs channels in pairs with separate or identical measurement configurations.

04 / FUNCTION

Provides buffered transducer and 4-20 mA recorder outputs for commissioning and trending.

IDENTITY FIELD	VERIFIED VALUE
Exact I/O identity	Internal barriers; internal terminations; four Velomitor channels
Channels	1 to 4 proximity, velocity or acceleration inputs
Power consumption	7.7 W typical
Standard Prox/Accel input impedance	10 kOhm

Official technical parameters

Bently Nevada 3500/42M 135489-03 / manufacturer-published values

PARAMETER	OFFICIAL VALUE
Exact I/O identity	Internal barriers; internal terminations; four Velomitor channels
Channels	1 to 4 proximity, velocity or acceleration inputs
Power consumption	7.7 W typical
Standard Prox/Accel input impedance	10 kOhm
Transducer supply	-24 Vdc nominal
Buffered-output impedance	550 Ohm
Recorder output	4-20 mA per channel
Recorder load	0 to 600 Ohm
Recorder update	100 ms or less
Channel programming	Pairs may use separate or identical configurations
Measurement types	Radial vibration, REBAM, thrust, acceleration, differential expansion, shaft absolute, eccentricity and velocity
Operating temperature	-30 to +65 degrees C
Storage temperature	-40 to +85 degrees C

Official evidence boundary

Official evidence: 3500/42M Proximitors/Seismic Monitor Datasheet, 143694 Rev. AC. Technical statements in this document are limited to that manufacturer publication and the exact ordering identity shown.

Applications and engineering checks

Bently Nevada 3500/42M 135489-03

Shaft-relative vibration

Use proximity inputs for radial shaft vibration and position channels.

Casing seismic vibration

Use the documented seismic transducer type for velocity or acceleration measurements.

Shaft-absolute vibration

Combine compatible shaft-relative and casing signals in the configured channel pair.

Machine-position measurements

Apply thrust, eccentricity or differential-expansion channel types as documented.

01 / PRECAUTION

Confirm the exact I/O module and its transducer population before replacement.

02 / PRECAUTION

Preserve paired-channel assignments when moving or restoring the module.

03 / PRECAUTION

Match proximity, Seismoprobe, Velomitor or accelerometer wiring to the selected input type.

04 / PRECAUTION

Verify transducer sensitivity and supply requirements before energizing.

05 / PRECAUTION

Review gap, bias and buffered outputs before accepting the processed measurement.

06 / PRECAUTION

Keep recorder loads within 0-600 Ohm and verify output scaling.

07 / PRECAUTION

Function-test Alert, Danger and Not-OK paths with controlled signals.

08 / PRECAUTION

Record final channel type, filter, full scale, alarm setpoints and acceptance response.

Model-specific engineering FAQ

Eight evidence-mapped decisions

What sensor population differentiates 3500/42M 135489-03?

135489-03 is the internal-barrier, internal-termination I/O variant populated for four Velomitor channels.

Which input characteristic must agree with the Velomitor setup on 3500/42M 135489-03?

Use the Velomitor input arrangement and documented transducer power rather than a Prox/Accel circuit assumption.

How is casing-velocity polarity verified on 3500/42M 135489-03?

Check the installed sensor orientation and buffered waveform polarity before accepting the processed velocity channel.

Why can 3500/42M 135489-03 not replace the four-channel Prox/Accel variant without review?

The populated transducer interface, supply and internal-barrier path are different even though both carry the same base family number.

What paired-channel decision should be restored for 3500/42M 135489-03?

Recover whether the two channels in each pair use identical or separate Velomitor measurement configurations.

How is the 4-20 mA velocity output from 3500/42M 135489-03 accepted?

Verify full-scale mapping, 0-600 Ohm load, response time and agreement with the buffered Velomitor signal.

What barrier-related check precedes energization of 3500/42M 135489-03?

Confirm approved field wiring, compatible Velomitor sensors, grounding and the internal-barrier I/O identity.

Which baseline data should be retained after installing 3500/42M 135489-03?

Keep sensor orientation, bias, broadband velocity, filter, full scale, alarm response and recorder-output evidence for all four channels.

EVIDENCE MAP A

FAQ 01 — pp. 19-22

FAQ 03 — pp. 3-12

FAQ 05 — pp. 1-2

FAQ 07 — pp. 18-22

EVIDENCE MAP B

FAQ 02 — pp. 3-6

FAQ 04 — pp. 19-22

FAQ 06 — pp. 4-12

FAQ 08 — pp. 1-22

Related products and contact

Verified ApterPower navigation links; not approved substitutes

NO.	RELATED APTERPOWER PRODUCT	LINK
01	Bently Nevada 3500-40M-176449-01	Bently Nevada 3500-40M-176449-01
02	Bently Nevada 3500-64M-140734-05	Bently Nevada 3500-64M-140734-05
03	Bently Nevada 126623-01	Bently Nevada 126623-01
04	Bently Nevada 114M5335-01	Bently Nevada 114M5335-01
05	Bently Nevada 9200-06-05-10-00	Bently Nevada 9200-06-05-10-00
06	Bently Nevada 350800-01-180-00	Bently Nevada 350800-01-180-00

Navigation boundary

These links provide nearby catalogue references only. Confirm the complete machine, rack, I/O, transducer and ordering-code requirements before selecting any alternate article.

Official evidence boundary

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