

Bently Nevada 3500/40M 135489-04

Four-channel Proximitor monitor component

Product identity and system role

The Bently Nevada 3500/40M is a four-channel Proximitor Monitor for proximity-based vibration and position measurements including radial vibration, thrust position, eccentricity, differential expansion and REBAM.

01 / FUNCTION

Accepts one to four proximity-transducer signals.

02 / FUNCTION

Supports radial vibration, thrust, eccentricity, differential expansion and REBAM channel types.

03 / FUNCTION

Provides buffered transducer outputs and 4-20 mA recorder outputs.

04 / FUNCTION

Compares conditioned measurements with configurable Alert and Danger setpoints.

IDENTITY FIELD	VERIFIED VALUE
Exact I/O identity	Internal barriers; internal terminations
Channels	1 to 4 proximity-transducer inputs
Power consumption	7.7 W typical
Standard input impedance	10 kOhm

Official technical parameters

Bently Nevada 3500/40M 135489-04 / manufacturer-published values

PARAMETER	OFFICIAL VALUE
Exact I/O identity	Internal barriers; internal terminations
Channels	1 to 4 proximity-transducer inputs
Power consumption	7.7 W typical
Standard input impedance	10 kOhm
Radial/thrust/eccentricity sensitivity	3.94 or 7.87 mV per micrometre
Differential-expansion sensitivity	0.394 or 0.787 mV per micrometre
REBAM sensitivity	40 or 80 mV per micrometre
Transducer supply	-24 Vdc nominal
Buffered-output impedance	550 Ohm
Recorder output	4-20 mA proportional to full scale
Direct filter selections	4-4000 Hz or 1-600 Hz, channel dependent
Typical accuracy	+/-0.33% of full scale
Maximum accuracy error	+/-1% of full scale
Operating temperature	-30 to +65 degrees C

Official evidence boundary

Official evidence: 3500/40M Proximitior Monitor Datasheet, 141535 Rev. R. Technical statements in this document are limited to that manufacturer publication and the exact ordering identity shown.

Applications and engineering checks

Bently Nevada 3500/40M 135489-04

Radial shaft vibration

Condition proximity-probe dynamic motion for machinery-protection alarming.

Thrust position

Monitor axial position with a matched proximity system and configured alarm limits.

Differential expansion

Measure relative thermal growth using the documented paired-channel configuration.

Eccentricity or REBAM

Apply the appropriate sensitivity and filtering to slow-roll or bearing measurements.

01 / PRECAUTION

Identify the exact I/O type and termination method before disturbing field wiring.

02 / PRECAUTION

Match every channel to its documented proximity probe, extension cable and Proximitor Sensor.

03 / PRECAUTION

Restore transducer sensitivity and channel type before setting alarm values.

04 / PRECAUTION

Verify gap voltage and buffered output before accepting dynamic measurements.

05 / PRECAUTION

Keep recorder wiring within the 4-20 mA load specification and preserve grounding.

06 / PRECAUTION

Confirm selected filters and full-scale ranges against the machine configuration.

07 / PRECAUTION

Run a controlled functional test of Alert, Danger and Not-OK behavior.

08 / PRECAUTION

Archive final gap, scale, alarm and recorder-output results before return to service.

Model-specific engineering FAQ

Eight evidence-mapped decisions

What distinguishes the barrier-equipped identity of 3500/40M 135489-04?

135489-04 is the internal-barrier, internal-termination I/O variant and must remain paired with the documented 3500/40M channel configuration.

How do internal barriers change the pre-energization check for 3500/40M 135489-04?

Confirm the approved barrier circuit, compatible transducer system, grounding and hazardous-area documentation before applying rack power.

Which position measurements may be configured through 3500/40M 135489-04?

The monitor supports thrust position, eccentricity and differential expansion in addition to vibration functions.

How should the 10 kOhm input characteristic be considered for 3500/40M 135489-04?

Use the documented proximity-transducer interface and avoid test equipment that would disturb the standard 10 kOhm input path.

What alarm test is appropriate for a barrier channel on 3500/40M 135489-04?

Inject or simulate a controlled input through an approved method and verify Alert, Danger and Not-OK response without bypassing the barrier design.

Why must the -24 Vdc supply be checked at the field side of 3500/40M 135489-04?

Bias at the installed transducer verifies power, polarity, barrier path and field continuity together.

What mismatch would a buffered-output comparison reveal on 3500/40M 135489-04?

A difference from the expected raw transducer signal can indicate wiring, barrier, sensitivity or configuration problems before processed alarms are tested.

Which hazardous-area records belong with 3500/40M 135489-04 after commissioning?

Retain the exact barrier I/O identity, channel wiring, compatible transducer, configuration, gap, alarm test and authorization evidence.

EVIDENCE MAP A

FAQ 01 — pp. 9-11

FAQ 03 — pp. 1-2

FAQ 05 — pp. 1-8

FAQ 07 — pp. 3-7

EVIDENCE MAP B

FAQ 02 — pp. 7-11

FAQ 04 — p. 3

FAQ 06 — pp. 3-4

FAQ 08 — pp. 7-11

Related products and contact

Verified ApterPower navigation links; not approved substitutes

NO.	RELATED APTERPOWER PRODUCT	LINK
01	Bently Nevada 169459-01	Bently Nevada 169459-01
02	Bently Nevada 3500-05-02-05-00-00-01	Bently Nevada 3500-05-02-05-00-00-01
03	Bently Nevada 330101-00-48-50-02-05	Bently Nevada 330101-00-48-50-02-05
04	Bently Nevada 3500-50	Bently Nevada 3500-50
05	Bently Nevada 3500-33-149986-01	Bently Nevada 3500-33-149986-01
06	Bently Nevada 3500-15-133292-01	Bently Nevada 3500-15-133292-01

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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