

Bently Nevada 3500/40M 125680-01

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-termination I/O module
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 125680-01 / manufacturer-published values

PARAMETER	OFFICIAL VALUE
Exact I/O identity	Internal-termination I/O module
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 125680-01

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

Why must internal terminal numbers be preserved when replacing 3500/40M 125680-01?

This exact I/O variant terminates field circuits internally, so the installed channel-to-terminal mapping must be captured before removal.

Which measurement families can the 3500/40M assembly using 3500/40M 125680-01 support?

Documented types include radial vibration, thrust position, eccentricity, differential expansion and REBAM.

How is proximity sensitivity selected for channels connected through 3500/40M 125680-01?

Choose the configured sensitivity for the actual proximity system; radial, thrust and eccentricity use documented 3.94 or 7.87 mV per micrometre options.

What gap-related check should precede alarm testing on 3500/40M 125680-01?

Verify probe gap or bias and the buffered transducer output before accepting processed vibration or position values.

Which direct-filter choices may appear with 3500/40M 125680-01?

The datasheet identifies 4-4000 Hz and 1-600 Hz direct-filter selections depending on the configured channel type.

What accuracy envelope should be used to review a channel using 3500/40M 125680-01?

The published reference is $\pm 0.33\%$ typical and $\pm 1\%$ maximum of full scale under the stated conditions.

How is the recorder output from 3500/40M 125680-01 verified?

Check the 4-20 mA signal against the configured full scale and confirm the field circuit preserves the approved grounding path.

Which results close an internal-termination replacement of 3500/40M 125680-01?

Record terminal identity, probe system, gap, sensitivity, filter, full scale, alarms and recorder response for every active channel.

EVIDENCE MAP A

FAQ 01 — pp. 9-11

FAQ 03 — pp. 3-5

FAQ 05 — pp. 4-6

FAQ 07 — pp. 3-7

EVIDENCE MAP B

FAQ 02 — pp. 1-2

FAQ 04 — pp. 3-6

FAQ 06 — pp. 4-7

FAQ 08 — pp. 1-11

Related products and contact

Verified ApterPower navigation links; not approved substitutes

NO.	RELATED APTERPOWER PRODUCT	LINK
01	Bently Nevada 3500-22-01-01-01	Bently Nevada 3500-22-01-01-01
02	Bently Nevada 350610-00-05	Bently Nevada 350610-00-05
03	Bently Nevada 3500-15-106M2686-00	Bently Nevada 3500-15-106M2686-00
04	Bently Nevada 3500-54M-286566-01	Bently Nevada 3500-54M-286566-01
05	Bently Nevada 9571-12	Bently Nevada 9571-12
06	Bently Nevada 21504-000-032-10-02	Bently Nevada 21504-000-032-10-02

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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