

# Bently Nevada 3500/42M 128240-01

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                  | External terminations; Seismoprobe channel type   |
| 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 128240-01 / manufacturer-published values

| PARAMETER                           | OFFICIAL VALUE                                                                                                   |
|-------------------------------------|------------------------------------------------------------------------------------------------------------------|
| Exact I/O identity                  | External terminations; Seismoprobe channel type                                                                  |
| 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 128240-01

## 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

|                                                                                                                                                                                                                                             |                                                                                                                                                                                                                 |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p><b>Which transducer type is documented for 3500/42M 128240-01?</b></p> <p>128240-01 is the external-termination Seismoprobe I/O variant; the datasheet notes other transducer types are supported but not recommended for this code.</p> | <p><b>What external hardware must be retained with 3500/42M 128240-01?</b></p> <p>Keep the correct external termination block, interconnect cable and Seismoprobe field wiring with the I/O module.</p>         |
| <p><b>How should seismic velocity scaling be confirmed for 3500/42M 128240-01?</b></p> <p>Match the selected channel type and transducer sensitivity to the installed Seismoprobe, then verify a controlled velocity response.</p>          | <p><b>Why is channel-pair documentation important for 3500/42M 128240-01?</b></p> <p>The monitor programs channels in pairs even when each channel has a separate measurement configuration.</p>                |
| <p><b>What recorder-interface check applies to 3500/42M 128240-01?</b></p> <p>Confirm 4-20 mA scaling, 0-600 Ohm load and 100 ms or faster update for each active output.</p>                                                               | <p><b>How can a temporary instrument affect tests on 3500/42M 128240-01?</b></p> <p>Respect the 550 Ohm buffered-output impedance and avoid loading that changes the observed transducer signal.</p>            |
| <p><b>Which field checks precede alarm verification on 3500/42M 128240-01?</b></p> <p>Verify external block identity, cable continuity, shielding, sensor orientation and buffered output before testing processed alarms.</p>              | <p><b>What acceptance record closes work on 3500/42M 128240-01?</b></p> <p>Retain the Seismoprobe identity, external termination path, sensitivity, filter, full scale, recorder scaling and alarm results.</p> |

| EVIDENCE MAP A     | EVIDENCE MAP B     |
|--------------------|--------------------|
| FAQ 01 — pp. 19-22 | FAQ 02 — pp. 19-22 |
| FAQ 03 — pp. 3-12  | FAQ 04 — pp. 1-2   |
| FAQ 05 — pp. 4-6   | FAQ 06 — pp. 3-5   |
| FAQ 07 — pp. 3-22  | FAQ 08 — pp. 1-22  |

# Related products and contact

Verified ApterPower navigation links; not approved substitutes

| NO. | RELATED APTERPOWER PRODUCT              | LINK                                                    |
|-----|-----------------------------------------|---------------------------------------------------------|
| 01  | Bently Nevada 3500-15-04-04-114M5330-01 | <a href="#">Bently Nevada 3500-15-04-04-114M5330-01</a> |
| 02  | Bently Nevada 3500-33                   | <a href="#">Bently Nevada 3500-33</a>                   |
| 03  | Bently Nevada 3500-05-01-02-00-00-00    | <a href="#">Bently Nevada 3500-05-01-02-00-00-00</a>    |
| 04  | Bently Nevada 3500-65-145988-02         | <a href="#">Bently Nevada 3500-65-145988-02</a>         |
| 05  | Bently Nevada 3500-15-106M1079-01       | <a href="#">Bently Nevada 3500-15-106M1079-01</a>       |
| 06  | Bently Nevada 3500-40M-140734-01        | <a href="#">Bently Nevada 3500-40M-140734-01</a>        |

## 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

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

## APTER POWER CONTACT

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