Bently Nevada 3300/50-02-02-00-00

Complete Product Information

Bently Nevada 3300/50-02-02-00-00 is a 3300 zero-speed tachometer with two transducer inputs and hermetically sealed alarm relays for speed annunciation.

Operating context

Although it produces a single speed measurement, the monitor accepts two transducer signals and applies internal voting to reduce false indications when one transducer fails. Supported input families include Bently Nevada 3300, 7200 and 3000 proximity systems and magnetic pickups; magnetic pickups are specifically not recommended for zero-speed monitoring.

Zero Speed Alert can be selected at a speed below 100 rpm. Detection uses three valid input triggers; when these are absent at standstill, up to one minute is required to declare the alarm. One valid pulse after power-up is required to enable alarm detection. These timing conditions must be included in the annunciator commissioning test.

Manual trigger threshold is adjustable from 0 to -18 Vdc and hysteresis from 0.2 to 2.0 V. Recorder format can be selected as 4-20 mA, 1-5 Vdc or 0 to -10 Vdc. The hermetically sealed relay option does not change the application boundary: the tachometer must not be used independently or as part of a speed-control or overspeed-protection system.

Configuration snapshot

Tachometer type	02 - Zero speed
Alert relay option	02 - Hermetically sealed
Agency approval option	00 - Not required
Safety barrier option	00 - None
Transducer inputs	Two proximity or magnetic-pickup signals; magnetic pickups not recommended for zero speed
Zero-speed alert range	Selectable below 100 rpm
Signal input impedance	10 kilohms

02 Signal path, configuration and acceptance

Nominal power consumption	2.5 W
Manual trigger threshold	0 to -18 Vdc
Trigger hysteresis	Selectable 0.2-2.0 V
Recorder formats	4-20 mA; 1-5 Vdc; 0 to -10 Vdc
Operating temperature	0 to +65°C
Application limitation	Not for speed control or overspeed protection

Exact configuration

Order options 02/02/00/00 select zero-speed monitoring, hermetically sealed relays, no requested agency approval and no safety barriers. Preserve the configured transducer and event settings.

Set the zero-speed alert

The zero-speed threshold can be selected below 100 rpm. Alarm setpoints are stored in nonvolatile memory. Use the correct module adjustment procedure and record the threshold separately from the recorder full-scale setting.

Include pulse qualification

After power-up, one valid pulse is required before alarm detection is enabled. Zero-speed detection then uses three valid input triggers; when these are not present at standstill, up to one minute is required to declare an alarm. Include this behavior in the test sequence.

Match the hermetic relay hardware

The order specifies hermetically sealed alert relays, no requested agency approval and no safety barriers. Confirm the zero-speed rear-module identity and contact circuit. Relay sealing alone does not confer an approval for a hazardous installation.

Input	Processing	Acceptance
02 - Zero speed	Zero Speed Tachometer	Prove the configured signal, alarm and recorder path

03 Applications and commissioning precautions

Stopped-shaft indication

Apply the below-100-rpm alert with its pulse qualification and standstill delay.

Dual-input measurement

Use the two-input voting arrangement with correctly configured transducers.

Operator annunciation

Connect the relay status to the intended external annunciator circuit.

Speed trend recording

Select the analog recorder format and full-scale setting for the receiving system.

Preserve the zero-speed type

Retain option 02 and the matching zero-speed rear module.

Choose suitable transducers

Magnetic pickups are not recommended for zero-speed monitoring.

Include power-up qualification

Alarm detection requires one valid input pulse after power-up.

Allow the specified delay

At standstill, absence of three valid triggers can require up to one minute to declare an alarm.

Set the trigger correctly

Match manual threshold, hysteresis and events per revolution to the actual signal.

Keep protection independent

Do not use this tachometer for speed control or overspeed protection.

04 Engineering questions and decisions

What does option 02 specify in 3300/50-02-02-00-00?

The first 02 selects the Zero Speed Tachometer type. The second 02 specifies hermetically sealed alert relays; the following 00/00 options mean no requested agency approval and no safety barriers.

At what speed can the zero-speed alert on 3300/50-02-02-00-00 be set?

The zero-speed alert can be selected and changed at a speed below 100 rpm. Use the intended threshold and verify it with controlled pulses representing the installed transducer and events-per-revolution configuration.

Why are magnetic pickups discouraged for 3300/50-02-02-00-00 zero-speed monitoring?

The manufacturer does not recommend magnetic pickups for the zero-speed function. Select an appropriate supported proximity-transducer arrangement for this application and prove valid triggering at the required low speed.

How long can 3300/50-02-02-00-00 take to declare a standstill alarm?

Zero-speed detection uses three valid input triggers. If three triggers are not detected with the rotor stopped, up to one minute is required to declare an alarm. One valid pulse after power-up is necessary to enable alarm detection.

Can 3300/50-02-02-00-00 act as an overspeed trip device?

No. It lacks the protective redundancy and response speed required for speed control or overspeed protection. Speed alerts are for annunciation; its proportional output is for data logging or chart recording.

How are the two transducer inputs used by 3300/50-02-02-00-00?

Two input signals feed a single speed measurement. Internal voting between the transducers reduces false indications when one transducer fails; this does not provide overspeed-protection redundancy.

Which trigger settings can be adjusted on 3300/50-02-02-00-00?

Manual threshold is selectable from 0 to -18 Vdc and triggering hysteresis from 0.2 to 2.0 V. Auto threshold applies above 10 Hz up to 10 kHz, so the low-speed signal must be evaluated against the appropriate trigger configuration.

How should the recorder load be selected for 3300/50-02-02-00-00?

The 4-20 mA output supports 0-600 ohms with 0 to +12 Vdc compliance. A voltage recorder requires at least 10 kilohms; its output impedance is 100 ohms. Match the input type and scaling to the configured recorder signal.

05 Lifecycle and offered-unit information

Lifecycle status

3300/50-02-02-00-00: This model belongs to the legacy 3300 monitoring platform. The platform entered obsolete Phase 5 in March 2014; manufacturer repair and replacement support ended in 2017.

Migration planning: Review the installed rack, transducers, alarm logic and machine requirements with Bently Nevada before selecting a replacement system. A newer monitoring platform is not a drop-in module replacement.

Availability: Apter Power availability is confirmed separately from the manufacturer lifecycle and support status.

Explore other Bently Nevada references

Portfolio navigation only; no compatibility or substitution is implied.

Bently Nevada 3300/03-03-00	View product
Bently Nevada 3300/03-02-01	View product
Bently Nevada 3300/61-03-01-01-00-00-00	View product

Available unit details

Bently Nevada 3300/50-02-02-00-00. Condition: New, original product. Confirm the rear zero-speed relay/input module, terminal accessories and any transducer systems separately in the quotation.

Installed-system record

Keep 3300/50-02-02-00-00 with the rear module, transducers, event ratio, threshold and hysteresis, zero-speed setpoint, relay settings and recorder scaling. Include the power-up and standstill test results with the final rack configuration.

Technical reference

Bently Nevada 3300/50 Tachometer Specifications and Ordering Information, 141512-01 Rev. H

Apter Power summary, not a manufacturer-issued manual.

Discuss the complete offered reference

Bently Nevada 3300/50-02-02-00-00

New, original product

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