Bently Nevada 3300/52-01-00-00

Installation & Commissioning Guide

01 Define the direction-monitoring installation

Retain the full reference

Order options 01/00/00 specify epoxy-sealed relays, no requested agency approval and no barriers. Verify transducer sequence, event count and the external reverse-alarm enable circuit. Compare the offered monitor with its rear input/relay assembly and the installed rack position before planning replacement.

Identify the machine direction convention

This monitor uses two proximity signals to identify direction. Record the normal forward direction, target geometry, transducer positions and the process conditions under which reversal may occur. Keep the machine drawing with the monitor configuration.

Preserve independent protection

The reverse-rotation monitor is not intended for speed control or overspeed protection. Speed alerts are for annunciation and recorder signals for logging or chart recording. Maintain separate suitable protective functions according to the machine design.

Prepare controlled access

Follow the site machinery-monitoring maintenance and isolation procedure before disturbing rack wiring or transducer circuits. Record the expected effect on the reverse-alarm enable and contact outputs, and use ESD precautions when handling the assembly.

Field reference

Alert relay option	01 - Epoxy sealed
Agency approval option	00 - Not required
Barrier option	00 - None

02 Confirm probe sequence and input configuration

Prove the forward pulse sequence

For forward rotation, the notch is detected by transducer A before transducer B. The target must provide the prescribed signal overlap. Confirm the sequence from the actual signal traces and machine drawing; exchanging the two inputs changes the direction interpretation.

Retain the specified probe geometry

The archived drawing allows axial offset to obtain the proper transducer spacing. Use the manufacturer arrangement and the actual target geometry rather than setting probes solely by apparent physical spacing. Confirm the mounting condition through the operating range.

Choose the correct input route

The reference supports Bently Nevada 3300, 7200 and 3000 proximity systems, with external transducer inputs or appropriate system Keyphasor inputs. The input impedances differ: 10 kilohms for external transducers and 130 kilohms for system Keyphasor transducers.

Set trigger threshold and hysteresis

Manual trigger threshold is adjustable from 0 to -24 Vdc. Hysteresis choices are 0.2, 0.5, 1.0 and 2.0 V. Confirm the actual gap and pulse excursions against the selected trigger conditions before interpreting direction or speed.

Field reference

Forward order	A then B
External input impedance	10 kilohms
System Keyphasor impedance	130 kilohms
Trigger range	0 to -24 Vdc

Source	Setting	Result
Match both transducers and the target	Preserve scale and trigger or input choices	Prove the indicated and recorded measurement

03 Configure event count, enable and recorders

Match events per revolution

One event per revolution supports 0.05-20,000 rpm, while two events supports 0.05-10,000 rpm. Two events per revolution is valid only with external transducer inputs. Keep the event setting consistent with the actual shaft target.

Check the enable circuit

An external contact closure at the input module enables the reverse-rotation and reverse-speed alarms. Record the intended contact state and its relationship to the machine operating sequence. The enable input must be included in functional testing.

Retain direction-specific scaling

Separate recorder outputs represent forward and reverse speed, each proportional to its selected full-scale range. Select 4-20 mA, 1-5 Vdc or 0 to -10 Vdc and verify both receiving inputs. Do not exchange the direction labels at the recorder.

Verify relay and timing settings

The ordered relay construction is epoxy sealed. Reverse-rotation delay is three shaft revolutions or one second, whichever is longer. Forward-speed alarm and reverse-rotation reset settings can be latching or nonlatching; retain the actual installed choices.

Field reference

One event	0.05-20,000 rpm
Two events	0.05-10,000 rpm; external input only
Alarm enable	External contact closed
Reverse-rotation delay	Three revolutions or one second, whichever is longer

Decision	Output	Verification
Use the configured measurement and setpoint	Check relay mode and the receiving circuit	Measure delay and prove reset behavior

04 Commission direction and alarm behavior

Test forward and reverse signals

Use the approved machine or signal-simulation test to prove the A/B order in each direction. Check indicated rpm, direction and the enabled state together. Verify the target overlap and input validity before interpreting a reverse-rotation event.

Apply the relevant measurement tolerance

At +25°C, speed indication accuracy is ±(0.02% of reading + 1 rpm). The recorder has additional format-dependent error. Use the correct tolerance for the measured quantity and retain the applied signal, event count and displayed result.

Prove enable and contact response

Confirm the disabled and enabled conditions, then check reverse-rotation and speed alarm responses with the intended delay and reset configuration. Test the receiving annunciator independently of the front-panel indication and restore normal operating conditions afterward.

Retain diagnostic and event information

The display provides gap, speed setpoints, maximum reverse speed and reverse-rotation count through its front-panel controls. Record useful event and diagnostic information before clearing it, and resolve invalid triggering or monitor errors before returning the channel to service.

Field reference

Direction test	Forward A/B order and reverse order proved
Speed test	Correct event count and indicated rpm
Alarm test	Enable, delay, contacts and reset proved
Final record	Configuration and event information retained

Observe	Resolve	Release
Record signal and diagnostic indications	Correct the fault and repeat the affected test	Restore normal settings and retain results

05 Handover and migration planning

Keep a complete direction reference

Retain 3300/52-01-00-00 with the rear module, probe references, target drawing, A/B order, event count, trigger settings, enable logic, relay reset settings and both recorder ranges. Include the direction and alarm test results.

Review the legacy platform

The 3300 platform entered obsolete Phase 5 in March 2014; manufacturer repair and replacement support ended in 2017. Review a replacement at system level, including sensor geometry and machine logic. Product availability from Apter Power is a separate matter.

Explore other Bently Nevada references

Portfolio navigation only; no compatibility or substitution is implied.

Bently Nevada 3300/55-01-04-18-18-00-00-05-00	View product
Bently Nevada 3300/26-XX-XX-XX-00-00-01-00	View product
Bently Nevada 3300/65-13-01-00-00-01-00	View product

Discuss the complete offered reference

Bently Nevada 3300/52-01-00-00

New, original product

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Technical reference

Bently Nevada 3300/52 Reverse Rotation Monitor, archived Specifications and Ordering Information reference associated with document 141513

Apter Power engineering guide. Use the complete manufacturer and machine instructions for installation and release.