01 / Identity and job scope

BENTLY NEVADA

3300/20-03-01

Thrust Position Monitor

Product role

Bently Nevada 3300/20-03-01 is a dual thrust-position monitor for axial shaft observation through proximity transducer signals in a configured 3300 system.

Target	>	Inputs	>	Protection
Thrust collar or shaft		Two proximity channels		Configured position alarms

Applicability

The technical functions describe the 3300/20 design for the offered 3300/20-03-01 reference. Relay, agency and safety-barrier configuration must be confirmed from the complete supplied marking; no additional suffix is assumed.

Hardware and configuration

Bently Nevada 3300/20-03-01 belongs to the 3300/20 dual thrust-position monitor design, which continuously observes two independent axial-position channels. The probes should ideally observe the thrust collar directly so that indicated movement relates to thrust-bearing clearance. Preserve the offered 03-01 marking and verify the complete assembly identity before assigning any additional relay, approval or barrier selection.

Planning basis

This Apter Power guide supports identification and engineering planning. Apply the complete manufacturer and machine-builder procedures for the actual installation.

02 / Configuration and interface readiness

Item	Configuration relationship
Product type	Dual thrust-position monitor
Input channels	One or two proximity transducer signals
Input impedance	10 kΩ
Programmable sensitivity	200 mV/mil (8 V/mm) or 100 mV/mil (4 V/mm)
Nominal power	1.5 W
Signal accuracy	At +25°C: ±0.33% full-scale typical, ±1% maximum
Recorder outputs	Per channel: 4–20 mA, +1 to +5 Vdc or 0 to −10 Vdc

Technical context

The monitor accepts one or two proximity signals with a 10 kΩ input impedance and uses 1.5 W nominal power. Input sensitivity is programmable for 200 mV/mil (8 V/mm) or 100 mV/mil (4 V/mm), to match the transducer system. Each channel has an independent recorder output selectable as 4–20 mA, +1 to +5 Vdc or 0 to −10 Vdc; front and rear buffered transducer connections support signal observation.

Which input sensitivities are supported by 3300/20-03-01?

The design is programmable for 200 mV/mil (8 V/mm) or 100 mV/mil (4 V/mm). Select the setting for the actual transducer system, not from the abbreviated offered suffix alone.

What recorder outputs are available on 3300/20-03-01?

Each channel offers a selectable 4–20 mA, +1 to +5 Vdc or 0 to −10 Vdc signal proportional to the programmed scale. Match the receiver and configured range.

03 / Installation and connection decisions

Verify complete assembly identity

Match the full supplied marking and rear-module identity; do not infer missing relay or approval selections.

Match sensitivity

Set the monitor for the actual proximity system sensitivity and verify its calibrated response.

Set probes correctly

Check target position and operating gap throughout the intended axial travel under the manufacturer procedure.

Review voting logic

Confirm the required AND or OR logic and the limitations of the installed relay arrangement.

Installation context

A transducer gap that leaves its operating range can be interpreted as shaft movement, making probe adjustment and alarm voting essential. The monitor supports OR or AND voting; the manufacturer recommends two probes observing the same collar or shaft with AND voting for thrust applications. Both channels must then reach their setpoints for relay actuation. Verify the actual relay arrangement because quad-relay configurations require external contact wiring for AND voting.

Why is AND voting recommended for 3300/20-03-01?

Two probes observing the same collar or shaft can reduce false or missed trips from a single transducer problem. In AND voting both channels must reach their setpoints for the relay to actuate.

Can 3300/20-03-01 use AND voting with every relay arrangement?

Quad-relay arrangements do not provide internal AND relay voting; the required logic must be implemented externally through the contact arrangement. Verify the actual relay hardware.

04 / Functional acceptance planning

Application	Controlled review
Thrust-bearing observation	Monitor axial shaft position relative to the machine thrust clearances using suitably located proximity probes.
Dual-channel protection planning	Observe the same collar or shaft with two channels and configure the approved voting arrangement for the installed relay hardware.
Analog recorder integration	Send independent position signals to compatible recorder inputs with matching range, polarity and current or voltage selection.
Transducer signal inspection	Use the buffered front and rear outputs for appropriate signal observation during planned diagnostics and acceptance checks.

Why is probe gap critical for 3300/20-03-01?

A gap outside the operating range can appear as axial movement, while incorrect probe adjustment can prevent a required alarm. Follow the applicable setup and controlled test procedure.

Does the marking 3300/20-03-01 determine all rear-module options?

The provided identity does not state every relay, approval and safety-barrier option in the later ordering format. Confirm the complete supplied marking and rear module before selecting replacement hardware.

Release boundary

Use a controlled test to verify indications, alarms, relay response and restoration of bypass functions before normal operation.

Record
Keep the original configuration

>

Test
Observe controlled response

>

Release
Authorize normal operation

05 / Technical handover and support

Retained information

Keep the complete 3300/20-03-01 marking, host identity, connection photographs, configuration backup and controlled-test results in the service record.

Support planning

Confirm current support and replacement guidance with Bently Nevada for the installed identity and configuration. Apter Power availability and dispatch are separate quotation matters.

Reference basis

Bently Nevada 3300/20 Dual Thrust Position Monitor, 141500-01 Rev. J.

Apter Power technical summary. Apply the original instructions for the actual installation.

Related industrial automation products

Navigation only; no substitution or compatibility claim.

Bently Nevada 3300/14-01-20-02

Bently Nevada 3300/14-01-22-00

Bently Nevada 3300/03-02-01

Discuss your installed configuration

Send the full unit marking and connection details.

sales13@apterpower.com | +86 18030235313