

Bently Nevada 3300/47 is a two-input complementary differential-expansion monitor that combines alternating proximity-probe ranges to extend axial expansion measurement beyond one probe's linear span.

Exact identity

Model	3300/47
Function	Complementary input differential expansion
Inputs	Two proximity-probe transducer signals
Display	Magnitude and direction on LCD
Rack space	One 3300 rack position

Installed context

Exact item 3300/47	Installed context Mating component or rack position	Acceptance Machine-specific functional check
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Steam-turbine differential expansion

Measure rotor-to-casing axial growth where one standard probe range is insufficient.

Complementary probe arrangements

Use two probes mounted so their linear regions cover adjacent portions of the travel.

Startup and shutdown trending

Observe thermal expansion direction and magnitude as the machine changes operating state.

Protective alarm channels

Drive configured alert and danger logic from the accepted complementary measurement.

Related Bently Nevada models

Bently Nevada 330103-00-03-10-02-00	Related portfolio reference; verify the complete execution.
Bently Nevada 330103-00-20-10-02-00	Related portfolio reference; verify the complete execution.
Bently Nevada 330104-00-03-05-02-00	Related portfolio reference; verify the complete execution.
Bently Nevada 330104-02-10-10-02-00	Related portfolio reference; verify the complete execution.
Bently Nevada 330905-00-03-10-02-00	Related portfolio reference; verify the complete execution.
Bently Nevada 330980-51-CN	Related portfolio reference; verify the complete execution.

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Manufacturer-supported characteristics

Signal Inputs	Two proximity-probe transducer signals
Input Impedance	10 kOhm
Selectable Scale Factors	100, 20 or 10 mV/mil (4, 0.787 or 0.392 V/mm)
Power Consumption	1.5 W nominal
Signal-Conditioning Accuracy	Within +/-0.33% of full scale typical; +/-1% maximum
Recorder Output	User-programmable current or voltage output

Additional data

Alarm Setpoints	Two independently adjusted full-scale alarm setpoints
Buffered Outputs	One coaxial output per transducer on the front panel
Operating Temperature	0 to +65 deg C
Storage Temperature	-40 to +85 deg C
Humidity	To 95%, non-condensing
Rack Requirement	One rack position; positions 1 and 2 reserved for power supply and system monitor

Interpretation boundary

The base model 3300/47 does not identify a complete A/B/C/D ordering execution. Confirm the front-panel and nameplate option codes before selecting full-scale range, transducer input or relay configuration.

Evidence discipline

Unverified weight, dimensions and suffix meanings are intentionally omitted. Confirm them only from the exact manufacturer record or nameplate.

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01 / Field precaution

Confirm the complete 3300/47 option code before assigning range or transducer type.

02 / Field precaution

Document both probe orientations, gaps and the mechanical crossover geometry.

03 / Field precaution

Verify the selected scale factor matches both connected transducer systems.

04 / Field precaution

Check recorder-output format and receiving-system scaling before loop connection.

05 / Field precaution

Confirm alert and danger direction for positive and negative expansion travel.

06 / Field precaution

Keep buffered outputs isolated and use suitable diagnostic instruments.

07 / Field precaution

Do not occupy rack positions reserved for the power supply or system monitor.

08 / Field precaution

Prove the crossover response and both alarm directions before returning protection to service.

Acceptance checkpoints

Identity	Full model and nameplate recorded
Mechanical	Mounting, enclosure and routing inspected
Electrical	Power, loop or cable checks follow the applicable source
Integration	Mating components and system length confirmed
Acceptance	Machine-specific functional result recorded

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What does Bently Nevada 3300/47 measure?

It measures complementary input differential expansion using two proximity-probe signals.

Why does Bently Nevada 3300/47 use two probes?

The paired arrangement extends the useful measurement range beyond the linear span of one probe.

How is direction shown on Bently Nevada 3300/47?

The LCD indicates both magnitude and direction of differential expansion.

Which input impedance applies to Bently Nevada 3300/47?

Each proximity-probe signal input is specified at 10 kOhm.

Can Bently Nevada 3300/47 use only the base model for ordering?

No. The complete option code is needed to establish range, transducer input, relay and approval selections.

What outputs are available from Bently Nevada 3300/47?

It provides a configurable recorder output and front-panel buffered transducer outputs.

Where can Bently Nevada 3300/47 be installed in a rack?

It uses one rack position, excluding the positions reserved for the power supply and system monitor.

What should be tested after replacing Bently Nevada 3300/47?

Verify both probe signals, crossover behavior, displayed direction, recorder scaling and alert/danger response.

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Evidence record

Manufacturer	Bently Nevada, a Baker Hughes company
Reference	3300/47 Complementary Input Differential Expansion Monitor Specifications and Ordering Information 141590-01 Rev. F
Exact identifier	3300/47
Evidence boundary	Only directly supported family and ordering statements are used

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Recommendation rule

Brand + model links identify related Bently Nevada pages. They do not claim compatibility or substitution.

Service record

Retain exact identity, installed point, companion components, as-found condition, inspection evidence and machine-specific acceptance result.

Manufacturer evidence

141590-01 Rev. F: complementary-input principle p. 1; inputs, accuracy, outputs and alarms pp. 2-3; physical and ordering information p. 4; configurable options p. 5; field wiring p. 6.

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