Bently Nevada 330850-51-05

01 Map the DE measurement geometry

Identify moving and fixed references

Record collar or ramp location, rotor direction and casing reference before removing components.

Separate redundant and complementary channels

Record how the two transducers are combined in the monitor; do not infer the logic from probe count alone.

Same-side collar	Redundant measurements
Opposite-side collar	Complementary measurement arrangement
Ramp geometry	Radial-motion compensation required

How can a DE channel using 330850-51-05 distinguish axial growth from radial movement on a ramp?

Use the designed second transducer and compensation geometry. Verify both channels against controlled movement; a ramp’s response alone can include radial motion and introduce measurement error.

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02 Restore the calibrated chain

Check all three components

Compare the offered conditioner with the installed probe and extension-cable references.

Verify total electrical length

Use only compatible components with the required combined length; do not count the monitor field cable.

Conditioner execution	5.0 m, DIN mount
Example matched chain	1 m probe + 4 m extension
Legacy conversion	Change probe, extension and conditioner together

Does using two probes with 330850-51-05 automatically double the measurement span?

No. Same-side collar probes provide redundant readings. Complementary opposite-side geometry can extend combined travel, but the monitor logic and each transducer’s valid range must be checked together.

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03 Establish the field supply and wiring

Measure loaded terminal voltage

Include the effect of cable and barrier drops when assessing available headroom.

Trace signal and shield paths

Compare the actual three-conductor wiring with the assigned monitor input and grounding design.

Without barriers	−17.5 to −26 V DC
With barriers	−23 to −26 V DC
Full-range review	More positive than −23.5 V may reduce span

What changes when 330850-51-05 is calibrated for a target other than AISI 4140 steel?

The standard accuracy and interchangeability specifications do not apply to that alternative target calibration. Validate the actual target-specific chain and response rather than retaining the default error allowance.

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04 Verify target response through movement

Retain perpendicular alignment

Use the proper bracket arrangement so controlled movement does not change target alignment.

Compare motion with indication

Record the reference movement, output direction and indicated displacement through the required working region.

Reference target	AISI 4140 steel under standard conditions
Typical scale conversion	2 mm change → 1.574 V nominal change
Independent evidence	Physical movement and monitor result

Why is a long field cable not interchangeable with the calibrated cable before 330850-51-05?

The probe-side cable is part of the electrical-length calibration; field wiring carries the conditioned output to the monitor. Review each circuit separately, including high-frequency response for long field runs.

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05 Accept the complete DE interpretation

Review compensation and channel combination

Confirm that redundancy, complementary span or ramp compensation behaves as intended.

Record the final operating boundaries

Retain component identity, supply, target, gap and temperature assumptions with the acceptance results.

Output path	Correct direction and channel scaling
Operating environment	Conditioner within its own temperature limits
Handover	No unexplained motion or signal discrepancy

Other Bently Nevada product references

Bently Nevada 330101-15-27-05-02-05

Bently Nevada 330104-00-05-10-12-05

Bently Nevada 330104-05-12-10-02-00

Separate product references; no substitution or compatibility is implied.