Bently Nevada 330851-02-000-050-10-00-05

01 Scope and measurement boundary

1 Identify the exact probe

Match 330851-02-000-050-10-00-05, the M30×2 interface and the 1.0 m lead before disturbing the installed channel. Preserve the original channel identity and target arrangement.

2 Secure the work area

Place the affected turbine measurement or protection function in the site-approved maintenance state. Prevent unexpected machine movement and isolate the electrical circuit before disconnecting the probe chain.

Selected focus	Check the AISI 4140 calibration basis, collar surface and actual multiple-approval markings for the intended installation.
Target arrangement	Record same-side collar, complementary collar or compensated ramp geometry
Required companions	Matching 3300 XL 25 mm conditioner and any required extension cable
Calibration basis	Check the installed target material and system calibration

330851-02-000-050-10-00-05 / Prepare the signal path

02 Prepare the signal path

1 Check electrical continuity

The disconnected 1.0 m probe should have center-to-outer-conductor resistance of 6.2 ± 0.5 Ω. Keep the probe measurement separate from any extension-cable contribution.

2 Retain calibrated components

The 1 m probe lead combines with the appropriate 4 m or 8 m extension cable to form a 5 m or 9 m system using the matching 3300 XL 25 mm Proximitor Sensor.

Cable type	75 Ω triaxial FluidLoc with PFA insulation
Connector preparation	Keep mating surfaces clean and preserve the connector protector
Lead routing	Minimum bend radius 25.4 mm; support against abrasion
System conversion	Replace all three transducer components when upgrading older systems

330851-02-000-050-10-00-05 / Mount and connect

03 Mount and connect

1 Locate the sensing face

Check the 50 mm case reach and M30×2 thread against the mounting. Align the probe to the intended target and set the gap using the applicable transducer procedure.

2 Protect the joint

Tighten the electrical connector finger tight, fit its protection and retain the cable route. Do not pull the lead to reposition the probe or use the connector to carry cable tension.

Threaded-case torque	68 N·m recommended; 163 N·m maximum rated
Connector torque	Finger tight; 0.565 N·m maximum
Probe seals	Front and rear seals with FluidLoc lead
Verification mounting	Use a mounting arrangement permitting controlled relative displacement

330851-02-000-050-10-00-05 / Verify calibrated response

04 Verify calibrated response

1 Restore the matched chain

Reconnect the correct conditioner and electrical length. Check sensor power under load, polarity and the monitor input before interpreting the indicated displacement.

2 Compare motion and output

Apply controlled relative movement through the useful gap interval and compare with a mechanical reference. Confirm the output direction, range and channel response for the actual collar or ramp arrangement.

Nominal scale factor	0.787 V/mm for the matched system
Nominal linear interval	Approximately 0.63–13.33 mm under reference conditions
Reference target	Bently Nevada AISI 4140 steel; adequate flat target area
Supply limitation	A sensor supply more positive than -23.5 Vdc can reduce range

330851-02-000-050-10-00-05 / Fault separation and handover

05 Fault separation and handover

1 Distinguish cable from geometry

For an implausible value, first check circuit integrity and the correct electrical-length assembly. Then check alignment, gap, target surface and relative movement instead of changing calibration to hide a mechanical error.

2 Record the accepted channel

Check the AISI 4140 calibration basis, collar surface and actual multiple-approval markings for the intended installation. Retain the full marking, system length, target material, measured gap and functional test result with the machine record.

Technical basis: Bently Nevada 3300 XL 25 mm Proximity Transducer System, 163236 Rev. M.

Related product navigation

- Bently Nevada 330851-02-010-140-10-00-05
- Bently Nevada 330851-04-000-030-10-00-05
- Bently Nevada 330851-04-000-030-10-01-05

These are related references, not confirmed substitutes or an automatically approved assembly.