Bently Nevada 330103-04-10-10-02-05

01 Define the selected installation

1 Record the complete probe arrangement

Identify 330103-04-10-10-02-05 at the machine. Record the 100 mm case, 40 mm unthreaded section and M10 x 1 mounting interface together with the installed conditioner and any extension cable.

2 Place the channel in maintenance

Coordinate the monitoring channel and affected machine protection before disconnecting the probe. An intentional gap change or open connection must not be mistaken for an operating condition.

3 Separate mechanical and electrical choices

The 1.0 m total probe length must be included in the complete electrical-length calculation. A compatible extension and Proximitor Sensor must form the selected 3300 XL 8 mm system; connector fit alone does not establish calibration.

Configuration	Selected value
Probe total length	1.0 m
Case mounting	M10 x 1
Connector protection	Separate insulation assessment

330103-04-10-10-02-05 / Mount and align the sensing tip

02 Mount and align the sensing tip

1 Control engagement and clearance

Use the M10 x 1 support interface. The selected overall case is 100 mm, but maximum thread engagement remains 15 mm. Keep the 40 mm smooth section clear of unintended clamping or contact.

2 Check the conductive target

For a flat target, verify at least 15.2 mm diameter. For a shaft, the minimum diameter is 50.8 mm and the recommended minimum is 76.2 mm. Nearby metal and adjacent probes can alter the response.

3 Establish a useful starting gap

Prepare approximately 1.27 mm radial-vibration gap, then confirm about -9 VDC using the complete matched system under the stated calibration conditions. Mechanical spacing alone is not the final verification.

Mounting check	Acceptance focus
Thread engagement	15 mm maximum
Target material	Calibration matched to actual target
Gap response	Confirm conditioned voltage

330103-04-10-10-02-05 / Route and protect the cable

03 Route and protect the cable

1 Preserve the calibrated lead

The integral probe length is 1.0 m. Route the standard FEP-insulated 75-ohm triaxial cable without cutting, splicing or crushing it. Cable routing must preserve the selected electrical configuration.

2 Insulate the junction

This option supplies a ClickLoc connector without a factory-installed connector protector. Use finger-tight locking of gold ClickLoc connectors and prevent the junction from contacting conductive structures. Do not apply case-mounting torque to the connector.

3 Keep sealing functions separate

Standard cable is not the FluidLoc selection. Connector insulation does not provide pressure containment, and the probe pressure seal is not rated below -34°C.

Cable decision	Required distinction
Selected cable	Standard FEP; no FluidLoc claim
Cable length	1.0 m retained
Mechanical protection	Routing and junction insulation

330103-04-10-10-02-05 / Verify electrical behavior

04 Verify electrical behavior

1 Measure the isolated probe

With the probe disconnected for an appropriate resistance test, compare center-to-outer conductor resistance with 7.59 ± 0.50 ohm. Resolve opens, shorts and damaged connectors before energizing the chain.

2 Check the complete transfer response

The complete matched system provides a nominal 7.87 V/mm scale factor and a 2 mm linear measurement range. Radial-vibration setup uses approximately 1.27 mm gap, corresponding to -9 VDC under the specified AISI 4140 steel calibration conditions. Check the actual output against controlled gap changes, retaining the target and calibration conditions.

3 Compare the monitor indication

Verify the receiving channel shows the expected gap and motion response. A resistance result alone does not prove system scale factor, linearity or the monitor conversion settings.

Verification layer	What it proves
Continuity	Conductive cable path
Gap response	Complete chain behavior
Monitor comparison	Configured receiving-channel interpretation

330103-04-10-10-02-05 / Release and retain the baseline

05 Release and retain the baseline

1 Resolve configuration differences

Confirm the installed 330103-04-10-10-02-05, conditioner electrical length and connector protection agree with the intended channel. Any difference in cable, mounting or target must be resolved before release.

2 Retain commissioning results

Record the final DC gap, controlled-response measurements and monitor settings. Restore the agreed protection state only after the measurement chain and its receiving channel respond correctly.

Technical basis: Bently Nevada 3300 XL 8 mm Proximity Transducer System Datasheet, 141194 Rev. AN.

Related product navigation

- Bently Nevada 330180-51-CN
- Bently Nevada 330180-91-CN
- Bently Nevada 330180-51-00

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