Bently Nevada 330701-00-25-90-02-00

01 Eddy-Current Proximity Probe / system role

Product function and operating context

Bently Nevada 330701-00-25-90-02-00 places the sensing tip at the shaft while its long integral lead reaches a matching conditioner without an additional extension-cable junction.

The nine-metre probe lead is the electrical-length element of the matching nine-metre system. Adding an ordinary extension would change the calibrated cable arrangement; route the integral lead without shortening or splicing it.

Integration checkpoints

- Remote conditioner positioning
- Imperial probe brackets
- Shaft vibration monitoring
- Axial displacement measurement

Connection architecture	Long integral probe lead
Installation focus	Thread engagement and stable target clearance
Calibration boundary	Complete matched 11 mm transducer system

The fully threaded imperial case gives adjustment at the mounting point. The selected case length does not establish the operating gap: bracket position, target movement and usable linear range must be checked separately. The ClickLoc connection provides a locking coaxial interface.

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02 Technical operating envelope

Tip diameter	11 mm
Case thread	1/2-20 UNF
Unthreaded case length	0.0 in
Overall case length	2.5 in
Total probe length	9.0 m

Cable construction	Standard, unarmored
Connector	Miniature coaxial ClickLoc
Probe resistance	8.5 +/-1.1 ohm
Matched-system scale	3.94 V/mm nominal
Matched-system linear range	4.0 mm

System ratings require the matched probe, cable and conditioner under the specified target and calibration conditions.

Electrical length

Connect the nine-metre probe to the matching nine-metre 11 mm conditioner. Additional cable changes the calibrated chain; preserve the factory lead and assess routing before installing the probe.

Mounting engagement

For the 1/2-20 case, the maximum thread engagement is 0.750 in. A long threaded case does not authorize burying the tip region in surrounding metal; keep the sensing area clear.

System validation

At the standard target and calibration conditions, the system uses a recommended 2.5 mm gap. Validate gap voltage and incremental response together before relying on the monitor scale.

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03 System integration and applications

Remote conditioner positioning

The nine-metre integral lead can reach the matching conditioner without an added extension.

Imperial probe brackets

Use the fully threaded half-inch case in a matching rigid mounting arrangement.

Shaft vibration monitoring

Connect the calibrated 11 mm chain to a monitor with its correct scale.

Axial displacement measurement

Assess shaft travel against the usable gap range on the actual target.

Application and compatibility boundary

System performance depends on the companion 11 mm Proximitor and target conditions. The standard calibration uses AISI 4140 steel; another material or a small target can change the voltage-versus-gap relationship and requires an application-specific evaluation.

Available unit verification

Verify the fully threaded imperial case, nine-metre lead and unarmored ClickLoc connection. Confirm the probe locknut, connector protection, matching Proximitor, mounting bracket and any field-wiring accessories in the quotation. Evaluate the actual interfaces and included accessories against the installed arrangement.

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04 Engineering selection decisions

Why should 330701-00-25-90-02-00 normally reach the conditioner without an extension cable?

Its integral probe lead already supplies the nine-metre electrical length. Adding an extension changes the tuned transducer chain, so the conditioner and complete cable arrangement must be matched.

Can excess lead on 330701-00-25-90-02-00 be cut to fit the cabinet route?

No. Cutting or splicing changes electrical characteristics and connector integrity. Plan a protected route for the factory lead while respecting bend and strain limits.

Does the long threaded case of 330701-00-25-90-02-00 permit unlimited engagement into a bracket?

No. The 1/2-20 case has a maximum engagement limit of 0.750 in. Excess surrounding metal near the sensing end can influence the measurement.

How does a different shaft material affect 330701-00-25-90-02-00?

The standard system calibration uses AISI 4140 steel. A different conductive material can change sensitivity and linearity, so verify the actual target rather than applying the standard scale without evaluation.

Why can a correct static gap voltage on 330701-00-25-90-02-00 still leave a measurement problem?

One voltage point does not verify the slope or complete travel range. Check controlled displacement, polarity and available linear travel around the working position.

What changes are needed when 330701-00-25-90-02-00 replaces a 7200-series probe?

The 3300 XL 11 mm conversion requires compatible probes, cables and conditioners as a complete system, together with suitable monitor configuration. It is not a probe-only substitution.

How should adjacent probes be considered when locating 330701-00-25-90-02-00?

Target size, shaft diameter and tip separation affect electromagnetic cross-talk. Evaluate the complete geometry when space is restricted instead of assuming that each probe is independent.

Why should 330701-00-25-90-02-00 be checked at the monitor as well as at the conditioner?

The field wiring and monitor configuration complete the signal path. Correct local gap response does not prove the remote scaling, polarity, filtering or alarm action.

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05 Configuration boundary and references

Lifecycle and support

The current manufacturing and manufacturer-support stage for this exact model is not confirmed.

Replacement assessment

Retain the imperial mounting geometry and the nine-metre electrical chain. A different lead length or an 8 mm system requires a separate compatibility and calibration assessment.

Available unit details

Offered reference: Bently Nevada 330701-00-25-90-02-00. Condition: New, original product. Verify the fully threaded imperial case, nine-metre lead and unarmored ClickLoc connection. Confirm the probe locknut, connector protection, matching Proximitor, mounting bracket and any field-wiring accessories in the quotation; companion equipment is included only when itemized.

Document roles: The original excerpt retains manufacturer tables and drawings; this brief addresses selection and system context; the separate installation guide covers field procedures and acceptance.

Technical basis: Bently Nevada 3300 XL 11 mm Proximity Transducer System, 146256 Rev. T.

Related product navigation

- Bently Nevada 330180-50-05
- Bently Nevada 330180-91-00
- Bently Nevada 330103-00-18-05-02-05

Related products for separate application assessment; verify the platform and interface. No interchangeability is implied.

Product enquiries