Bently Nevada 330104-02-09-10-01-00

01 Armored Metric Proximity Probe

Bently Nevada 330104-02-09-10-01-00 places the sensing element at the shaft while supporting protected cable routing. A stable mechanical reference and matched electrical chain allow the monitor to distinguish position and vibration.

1 **Conductive target** — 2 **Eddy-current probe** — 3 **Matched coaxial chain** — 4 **Conditioner to monitor**

Conductive target in the installed system

The 90 mm case, 20 mm unthreaded section and M10 x 1 interface determine how this execution is fitted. Check bracket engagement, sensing-field clearance and connector access before setting the gap. The mechanical location must remain stable through the intended machine conditions.

Eddy-current probe in the installed system

The 1.0 m integral lead must be combined with the extension required by the selected conditioner. A matched 5 m arrangement uses a 4.0 m extension; this example does not authorize another transducer family or an arbitrary splice. Protect and support the coaxial junction.

Matched coaxial chain in the installed system

Target material, nearby metal and mixed component generations can affect calibration. Verify response across the intended travel, then test the receiving monitor before restoring protection.

Electrical performance applies to the matched probe, cable and Proximitor under specified target, load and temperature conditions. Probe mechanical and connector selections are execution-specific.

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02 Ratings, interfaces and applicable limits

Sensing principle	Non-contact eddy current
Tip diameter	8 mm
Mounting thread	M10 x 1
Integral lead length	1.0 m
Lead construction	armored standard lead with connector protector
Probe upper temperature	+177 °C
Matched-system scale factor	7.87 V/mm nominal
Matched-system linear range	2 mm
Default calibration target	AISI 4140 steel

Configuration-specific engineering data

Ordered geometry	90 mm case, 20 mm unthreaded section
Example 5 m extension	4.0 m; match conditioner calibration
Radial gap recommendation	−9 V DC, approximately 1.27 mm
Connector installation	Finger-tight ClickLoc
System ISF accuracy	±5% standard 5 m; specified conditions

Applying these values to the complete installation

Electrical performance applies to the matched probe, cable and Proximitor under specified target, load and temperature conditions. Probe mechanical and connector selections are execution-specific. Apply calibration for the actual target material and geometry. A plausible DC output alone does not establish the correct scale.

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03 Application decisions and system boundaries

01 Relative shaft vibration

Use protected cable routing at a rigid radial measurement location.

02 Shaft position measurement

Maintain linear travel about the configured working gap.

03 Existing channel restoration

Retain target, calibrated length and monitor assignment.

04 Transducer response checking

Compare controlled gap changes with electrical output.

Target-dependent conversion

Apply calibration for the actual target material and geometry. A plausible DC output alone does not establish the correct scale.

Electrical chain integrity

Match integral lead, extension and conditioner length. Support and protect the junction without modifying the calibrated cable.

Channel release

Validate the monitor and required alarm response after accepting the transducer signal; the local probe check covers only part of the path.

Replacement boundary: Match 90 mm case, 20 mm unthreaded section, M10 x 1, 1.0 m lead and the full transducer calibration.

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04 Eight questions beyond the specification table

1. **Does armor on 330104-02-09-10-01-00 remove the need for cable support?**

   No. Armor does not eliminate connector loading, bend constraints or routing support.

2. **How does the unthreaded section affect mounting 330104-02-09-10-01-00?**

   The bracket must engage actual thread while positioning the tip correctly. Do not treat the whole case as usable thread.

3. **Can the protector on 330104-02-09-10-01-00 compensate for a loose connector?**

   No. Establish correct ClickLoc engagement before fitting protection.

4. **Why keep the armored lead of 330104-02-09-10-01-00 clear of moving parts?**

   Rubbing can abrade the jacket or load the probe. Armor does not make repeated contact acceptable.

5. **What should be checked if 330104-02-09-10-01-00 becomes noisy after conduit work?**

   Review lead strain, connector condition and interference exposure while retaining gap and scaling references.

6. **Does an armored lead make 330104-02-09-10-01-00 a FluidLoc execution?**

   No. Armor and fluid-blocking construction are separate options.

7. **Why check the monitor after accepting the mounting of 330104-02-09-10-01-00?**

   Correct mounting does not prove scaling or alarm behavior. Validate the electrical and supervisory paths.

8. **Can a target coating or surface repair affect 330104-02-09-10-01-00?**

   Yes. Changes in material seen by the field can affect calibration. Reassess the actual target before reusing the conversion.

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05 Selection boundary and service reference

Identify the offered assembly

Compare the probe marking, 90 mm case, 20 mm unthreaded section, M10 x 1 and termination. Request available label and connector photos. Have your maintenance team compare the offered 330104-02-09-10-01-00 with the installed equipment and applicable Bently Nevada documents.

Lifecycle and replacement assessment

The current production and manufacturer-support stage for this exact execution is unconfirmed. Match 90 mm case, 20 mm unthreaded section, M10 x 1, 1.0 m lead and the full transducer calibration.

Companion equipment and scope

Confirm the probe assembly; extension, Proximitor and monitor only when itemized. A related product is not an automatic substitute; assess the installed interface and application requirements independently.

Engineering handover

Validate the monitor and required alarm response after accepting the transducer signal; the local probe check covers only part of the path. Retain the complete hardware identities, approved configuration and accepted test outcome with the installation record.

Related product references

Bently Nevada 330878-50-00

Bently Nevada 330103-00-03-10-01-00

Bently Nevada 330103-00-12-10-01-00

Technical basis: Bently Nevada 3300 XL 8 mm Proximity Transducer System, 141194 Rev. AN. Apter Power technical synthesis for this product configuration.