Bently Nevada 330104-10-20-10-02-00

01 Armored Eddy-Current Proximity Probe / system role

Product function

Bently Nevada 330104-10-20-10-02-00 combines an extended unthreaded section with a metric mounting case for a specifically positioned shaft measurement point.

Selected configuration

The ordered mechanical arrangement has a 200 mm case with a 100 mm unthreaded section. Compare this geometry with the bracket and target position so that the probe can be secured without forcing its cable or shifting the intended sensing direction.

Integration checkpoints

- Fluid-film bearing monitoring
- Static position measurement
- Reference-pulse sensing
- Probe replacement service

Measurement role	Non-contact shaft position and vibration
Cable construction	Armored standard coaxial lead
Signal path	Matched probe, cable arrangement and Proximitor

The 1.0 m integral lead is combined with a compatible extension cable to establish the selected system electrical length. The probe cable length is not the total system length, and a mechanically matching extension does not establish electrical compatibility.

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02 Technical operating envelope

Sensing principle	Non-contact eddy current
Tip diameter	8 mm
Mounting thread	M10 x 1
Unthreaded section	100 mm
Case length	200 mm
Integral lead length	1.0 m

Lead construction	Armored standard coaxial cable
Connector	Miniature coaxial ClickLoc
Nominal system sensitivity	7.87 V/mm (200 mV/mil)
System linear range	2 mm (80 mils)
Standard calibration target	AISI 4140 steel

Probe configuration follows the metric ordering table; stated system performance requires a matched transducer chain and the specified target conditions.

Why can a nearby shaft shoulder affect 330104-10-20-10-02-00 measurement?

The probe responds to conductive material in its sensing field. A shoulder or adjacent metal can alter the response compared with a flat calibration target. Verify the installed geometry over the required shaft movement.

What distinguishes a cable-routing fault from target movement at 330104-10-20-10-02-00?

Hold the target relationship fixed during a controlled inspection and check whether cable or connector movement changes the output. An output change without target motion directs attention to the electrical or mechanical connection path.

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03 System integration and applications

Fluid-film bearing monitoring

Measure shaft motion with a compatible proximity channel.

Static position measurement

Observe conductive target position within the matched-system range.

Reference-pulse sensing

Support a properly configured Keyphasor or speed-reference arrangement.

Probe replacement service

Match mounting geometry and electrical length to the installed chain.

System and supply context

330104-10-20-10-02-00 belongs to the 3300 XL 8 mm system installation described by the technical reference. Connected equipment and accessories must be included explicitly in the configured assembly.

Application boundary

The following uses describe supported engineering roles; they do not establish interchangeability with another model or remove application-specific validation.

How should 330104-10-20-10-02-00 be checked after an extension cable is replaced?

Verify the new cable family and electrical length against the probe and Proximitor. Then perform a controlled gap-response test. A mechanically mating connector does not prove that the complete chain retains its calibration.

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04 Engineering selection decisions

Why does the unthreaded portion of 330104-10-20-10-02-00 matter to the mounting assessment?

It changes where the usable thread begins relative to the case and sensing tip. Compare the actual bracket engagement and target clearance with the ordered geometry. Matching the thread diameter alone does not establish a suitable mechanical installation.

Can 330104-10-20-10-02-00 share one Proximitor input with another probe?

The specified transducer chain uses one probe with its compatible cable and conditioner. Do not parallel probes onto one input; doing so changes the electrical system and does not provide two valid measurement channels.

How should 330104-10-20-10-02-00 be used for a speed-reference application?

Use a compatible conditioner and receiving channel configured for the intended target geometry and pulse interpretation. Verify pulse quality through the expected speed range. The probe order code alone does not define a complete speed-measurement system.

What makes a bench test of 330104-10-20-10-02-00 representative of the installed channel?

Use the intended conditioner, cable arrangement and a suitable target material with controlled movement. Record the test configuration. Testing the probe with an unrelated cable or target can conceal an application mismatch.

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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

Compare the complete 330104-10-20-10-02-00 identity, installed connections and configuration before selecting a replacement. The conditioner output represents both static gap and dynamic target motion. Target material, mounting geometry and receiver configuration must remain within the intended measurement design. Armor protects the routed lead but does not replace proper support or connector protection.

Document roles

Use the original manufacturer excerpt for its preserved technical tables and drawings. This product brief explains selection and system context. The separate installation guide covers preparation, connection, tests and handover; use it together with the applicable manufacturer instructions.

Technical basis

Bently Nevada 3300 XL 8 mm Proximity Transducer System, 141194 Rev. AN.

Related product navigation

- Bently Nevada 330130-080-01-05
- Bently Nevada 330130-030-01-CN
- Bently Nevada 330130-045-01-CN

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

Product enquiries