Bently Nevada 330101-00-32-10-02-05

01 Function and selected configuration

Product function

Bently Nevada 330101-00-32-10-02-05 senses a conductive target without contact, supporting shaft-position and vibration measurements when combined with the correct 3300 XL components. Target material and the complete electrical length determine the calibrated measurement response.

Selected configuration

Unarmored 8 mm probe, 3/8-24 UNF thread, standard 1.0 m cable and ClickLoc connector. The selected probe has no unthreaded case section, a 3.2-inch overall case and a 3/8-24 UNF mounting thread. The standard 75-ohm triaxial cable uses FEP insulation and terminates in a miniature coaxial ClickLoc connector. Connector option 02 does not include the factory-installed connector protector.

Functional path

Conductive target	8 mm probe	Matched cable path	Proximitor output

Probe construction	8 mm PPS tip and stainless-steel case
Cable selection	1.0 m total probe length; standard unarmored cable
Matched-system response	7.87 V/mm nominal scale factor

The probe operates as one element of a measurement system rather than as a self-powered transmitter. A compatible Proximitor Sensor conditions the signal, and the total probe-plus-extension electrical length must match the selected system. Standard system lengths are 1 m without an extension cable, or 5 m and 9 m with the corresponding extension.

330101-00-32-10-02-05 / Technical operating envelope

02 Technical operating envelope

Measurement principle	Non-contact eddy current
Mounting thread	3/8-24 UNF
Total probe length	1.0 m
Cable impedance	75 ohm triaxial
Cable insulation	FEP, standard cable
Probe tip material	PPS
Probe case material	AISI 303 or 304 stainless steel
Nominal probe DC resistance	7.59 ± 0.50 ohm, center to outer conductor
Standard probe temperature	-52°C to +177°C
Nominal matched-system scale factor	7.87 V/mm (200 mV/mil)

System performance assumes matched 3300 XL 8 mm components and the specified calibration conditions. The nominal 7.87 V/mm response is produced by the complete chain. Probe temperature and Proximitor Sensor temperature have different limits.

Output boundary

The Proximitor Sensor conditions the probe signal.

Target boundary

System accuracy assumes the specified target material.

330101-00-32-10-02-05 / System integration and applications

03 System integration and applications

Radial shaft vibration

Measure dynamic shaft movement relative to the bearing housing on a fluid-film-bearing machine using a properly gapped and calibrated chain.

Shaft position monitoring

Use the static proximity response to track target position within the complete system linear range.

Keyphasor reference

Apply the system to a suitable reference target while validating geometry, pulse response and the receiving monitor setup.

Installed-system renewal

Replace the exact probe configuration while retaining the required cable path, Proximitor calibration and target relationship.

System and supply context

This probe belongs in a matched 3300 XL 8 mm measurement chain. The offer covers the identified probe; an extension cable, Proximitor Sensor and installation hardware are separate unless itemized.

Application boundary

The applications below describe complete-system measurements. Mechanical access alone does not establish electrical compatibility or an approved overspeed-protection design.

What resistance check applies to the 1.0 m Bently Nevada 330101-00-32-10-02-05 probe?

Nominal resistance from the center conductor to the outer conductor is 7.59 ± 0.50 ohm. This is a probe continuity check, not a substitute for a complete calibrated gap-response test.

330101-00-32-10-02-05 / Engineering selection decisions

04 Engineering selection decisions

Does Bently Nevada 330101-00-32-10-02-05 generate a 4–20 mA signal on its own?

No. It is a proximity probe that works with a compatible Proximitor Sensor and the required cable path. The complete system produces a voltage related to target distance.

Which cable and connector are fitted to Bently Nevada 330101-00-32-10-02-05?

The selected standard cable is 75-ohm triaxial with FEP insulation. Option 02 supplies a miniature coaxial ClickLoc connector without a factory-installed connector protector.

Can Bently Nevada 330101-00-32-10-02-05 be installed with unlimited thread engagement?

No. The maximum engagement for the 3/8-24 probe thread is 0.563 inch, with a matching internal-thread fit. Excessive engagement can cause binding even if the overall case is longer.

How can target geometry affect Bently Nevada 330101-00-32-10-02-05 measurements?

The minimum flat target diameter is 15.2 mm. The minimum shaft diameter is 50.8 mm, with 76.2 mm recommended; smaller shafts can alter scale factor. Adjacent probe spacing must also limit cross-talk.

Protect the connector	Keep the ClickLoc connection clean and dry; use appropriate connector protection for the installation.
Respect separate temperatures	Evaluate probe, extension cable and Proximitor Sensor environments separately.

330101-00-32-10-02-05 / Configuration boundary and references

05 Configuration boundary and references

Lifecycle and support

A current production or end-of-support phase is not confirmed for this complete order code.

Replacement assessment

Match the probe mounting arrangement, cable length and complete transducer-system calibration. Do not substitute an NSv or 3300 XL 11 mm component solely because a connector appears similar.

Document roles

Use the original manufacturer excerpt for its preserved technical tables and drawings. This product brief explains configuration and selection boundaries. The independent installation guide organizes preparation, connection, testing and handover. It does not replace the applicable manufacturer installation instructions.

Technical basis

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

Related product navigation

- Bently Nevada 330130-080-00-00
- Bently Nevada 330130-040-02-05
- Bently Nevada 330130-085-02-05

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

Product enquiries