Bently Nevada 330101-00-75-10-02-00

01 Function and selected configuration

Product function

The extended threaded case of Bently Nevada 330101-00-75-10-02-00 gives the mounting arrangement additional reach while the eddy-current sensing tip remains close to the shaft. The mechanical reach and the calibrated electrical length serve different purposes.

Selected configuration

The selected case has a 3/8-24 UNF mounting thread, 7.5 inches overall length and 0 inches unthreaded section. Its standard 75-ohm triaxial cable uses FEP insulation. The miniature coaxial ClickLoc connection is supplied without a factory-installed connector protector; it is separate from the case mounting interface.

Functional path

Conductive target	8 mm probe	Matched cable path	Proximitor output

Mounting interface	3/8-24 UNF; unarmored probe construction
Electrical length	1.0 m total probe cable
Connection	ClickLoc connector without factory protector

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.

330101-00-75-10-02-00 / 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
Matched-system nominal scale factor	7.87 V/mm
Matched-system linear range	2 mm under specified calibration conditions

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.

Probe continuity

The 1.0 m probe resistance is 7.59 ± 0.50 ohm from center to outer conductor. Disconnect it for the appropriate measurement.

Conditioned 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.

330101-00-75-10-02-00 / System integration and applications

03 System integration and applications

Shaft vibration

Use the 1.0 m probe path to acquire non-contact shaft motion within the calibrated system range.

Static shaft position

Condition the probe gap signal with the matched Proximitor Sensor for a monitor configured for position.

Machine mounting

The 7.5 inches case and 0 inches unthreaded section define the available reach and support interface for this selection.

Measurement-chain renewal

Use the 7.59 ± 0.50 ohm probe resistance as one isolated continuity check before a full gap-response verification.

System and supply context

330101-00-75-10-02-00 is one sensing element in a matched 3300 XL 8 mm transducer system. The probe configuration is 3/8-24 UNF with 1.0 m total length; the Proximitor Sensor, extension cable when needed and mounting accessories are separate items unless listed.

Application boundary

The applications below concern the complete calibrated measurement chain. Target material, physical clearance and monitor configuration determine suitability for each machine position.

How far may the mounting thread of 330101-00-75-10-02-00 enter the support?

Maximum thread engagement for the 3/8-24 case is 0.563 inch. A longer case does not permit deeper engagement; excessive engagement can bind the probe.

330101-00-75-10-02-00 / Engineering selection decisions

04 Engineering selection decisions

Does the 7.5-inch case on 330101-00-75-10-02-00 change its electrical system length?

No. Case reach is a mechanical selection; the total probe length is 1.0 m. Select the Proximitor and any extension cable by the complete electrical length, not the case length.

Which target geometry is suitable for the sensing tip of 330101-00-75-10-02-00?

Use a flat target at least 15.2 mm in diameter, or a shaft at least 50.8 mm in diameter; 76.2 mm is the recommended minimum shaft diameter. Nearby conductive surfaces also affect the field.

Why is 330101-00-75-10-02-00 not a 4–20 mA field transmitter?

The probe is an eddy-current sensing element that requires a compatible Proximitor Sensor. The conditioner produces a voltage proportional to the target gap; the probe alone does not provide a powered current-loop output.

How does a different shaft alloy affect calibration of 330101-00-75-10-02-00?

The specified system accuracy and interchangeability are based on an AISI 4140 steel target. A different target material requires a calibration assessment rather than automatic use of those accuracy limits.

Temperature boundaries	Apply the probe temperature limit separately from the lower Proximitor operating-temperature limit.
Target calibration	Verify target material and geometry. AISI 4140 steel is the reference calibration target.

330101-00-75-10-02-00 / 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

Retain the 3/8-24 UNF mounting interface, selected case geometry and 1.0 m probe length. Assess the complete transducer chain and supplied connector protection before selecting a replacement.

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