Bently Nevada 330701-00-10-10-02-00

01 Function and selected configuration

Measurement role

Bently Nevada 330701-00-10-10-02-00 places the sensing tip at the shaft or thrust target while the signal conditioner remains accessible outside the measurement point. The installed probe, extension cable and Proximitor form one calibrated electrical system.

Supplied probe or sensor configuration

standard 1/2-20 UNF case, zero unthreaded section, 1.0 m standard lead and miniature ClickLoc connector. This order has no unthreaded case section and a 1.0 in overall case length. The 02 cable option uses standard cable with a miniature ClickLoc connector; it does not include the connector-protector option.

Measurement path

Moving target	11 mm probe	Matching extension	11 mm Proximitor

Probe configuration	Standard mount, 1/2-20 UNF, no armor
Lead and connector	1.0 m, miniature ClickLoc, standard cable
Matched-system performance	3.94 V/mm scale factor and 4.0 mm linear range

A 1.0 m probe combines with a 4.0 m or 8.0 m extension to match a 5.0 m or 9.0 m 3300 XL 11 mm Proximitor. System performance depends on the target, gap, temperature and electrical configuration.

330701-00-10-10-02-00 / Technical operating envelope

02 Technical operating envelope

Transducer family	3300 XL 11 mm
Mounting thread	1/2-20 UNF-2A
Mount style / armor	Standard mount / unarmored
Unthreaded case length	0.0 in
Overall case length	1.0 in
Total probe length	1.0 m
Connector / cable option	Miniature ClickLoc / standard cable
Probe DC resistance	5.9 ±0.5 ohm; center to outer conductor
Probe cable	75 ohm triaxial, FEP insulated
Probe tip / case material	PPS / AISI 304 stainless steel
Recommended case torque	15.2 N·m
Maximum rated case torque	45.2 N·m

Maximum thread engagement	0.750 in; matching internal fit class
Maximum connector torque	0.565 N·m; finger-tight recommended
Minimum cable bend radius	25.4 mm
Probe operating / storage temperature	-52 to +177 °C
Matched system lengths	5.0 m or 9.0 m
Nominal system scale factor	3.94 V/mm (100 mV/mil)
System linear range	4.0 mm; approximately 0.5 to 4.5 mm gap
Recommended system gap	2.5 mm
Typical system frequency response	0 to 8 kHz; +0/-3 dB
Target calibration	AISI 4140 steel
Agency approval option	00 - Not required

System values require a matched 3300 XL 11 mm probe, extension and Proximitor. Reference conditions include AISI 4140 steel, -24 V DC supply, 10 kohm load and 2.5 mm gap; operating limits do not guarantee reference accuracy.

330701-00-10-10-02-00 / System integration and applications

03 System integration and applications

Axial thrust position

Use the matched system linear range to monitor a thrust target, with sufficient target area and stable probe support.

Radial shaft displacement

Observe non-contact shaft motion on fluid-film-bearing machinery using the correct 11 mm conditioner and monitor scaling.

Compressor rod position

Apply the complete transducer system to rod position or rod-drop measurements after checking target geometry and mounting clearance.

Ramp differential expansion

Use the long-range system in an engineered steam-turbine ramp arrangement; the mechanical ramp geometry is part of the measurement design.

System and supply context

This standard-mount probe is one element of a 3300 XL 11 mm chain. A matching extension cable, 330780 Proximitor and monitoring channel are separate unless specified in the quotation.

Measurement boundary

The applications below describe the complete calibrated system. Target material, geometry, gap and channel configuration determine suitability for the installed machine.

330701-00-10-10-02-00 / Engineering selection decisions

04 Engineering selection decisions

Which extension completes a 5 m channel using 330701-00-10-10-02-00?

Its 1.0 m probe length requires a 4.0 m 3300 XL 11 mm extension with a 5.0 m Proximitor. The sum of probe and extension lengths must match the conditioner calibration.

What resistance check is appropriate for the disconnected 330701-00-10-10-02-00 probe?

The 1.0 m probe DC resistance is 5.9 ±0.5 ohm from center conductor to outer conductor. Compare the isolated probe with that value; measuring a complete connected circuit is not the same test.

Can 330701-00-10-10-02-00 replace only the probe in a 7200-series measurement chain?

A 7200-to-3300 XL 11 mm conversion requires replacement of all transducer components with the matching XL 11 mm components and review of the monitor configuration. Do not assume that changing this probe alone creates a calibrated system.

What thread-engagement limit should be checked before seating 330701-00-10-10-02-00?

The maximum listed engagement for a matching 1/2-20 internal thread is 0.750 in. Excessive engagement can cause binding. Confirm the mounting bore and available travel before applying the recommended case torque.

330701-00-10-10-02-00 / Configuration boundary and references

05 Configuration boundary and references

Lifecycle and support

The current manufacturing and OEM support stages for the exact 330701-00-10-10-02-00 code require confirmation from Bently Nevada. A technical datasheet is not an exact-unit lifecycle notice. Apter Power availability is confirmed separately.

Replacement assessment

Check case reach, mounting thread, total electrical length, target calibration and the monitor transducer selection. An 8 mm, NSv or legacy 7200 probe is not an automatic substitute.

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 11 mm Proximity Transducer System, 146256 Rev. T. Applicable user guide: 146255.

Related product navigation

- Bently Nevada 330730-040-00-00
- Bently Nevada 330730-080-00-00
- Bently Nevada 330780-50-00

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

Product enquiries