Bently Nevada 330101-00-13-10-02-00

COMPLETE PRODUCT INFORMATION

Bently Nevada 330101-00-13-10-02-00 is a 3300 XL 8 mm proximity probe with a 3/8-24 UNF thread and a 1 m standard, unarmored lead. Its ClickLoc connection forms the probe end of a selected XL measurement system for shaft vibration, position or timing-reference measurements.

Selected probe identity

330101	XL 8 mm probe; 3/8-24 UNF; without armor
AA00 / BB13	Retained mechanical order-code execution
CC10	1.0 m total probe length
DD02	Standard cable and ClickLoc; no included protector
EE00	Approval not required

Electrical-length choice

Probe	Length choice	Proximitor
1 m 330101 lead	No extension / 4 m / 8 m extension	Match 1 m / 5 m / 9 m system

Fluid-film bearing vibration

Measure radial shaft movement through a complete XL proximity channel on a fluid-film-bearing machine.

Static shaft position

Feed a matched conditioner with a non-contact signal proportional to the conductive target distance.

Timing-reference channels

Provide the probe input for an engineered Keyphasor or speed-measurement arrangement.

One-metre local installations

Use the probe-only electrical arrangement when the selected Proximitor and installed route support a 1 m system.

System role

The probe senses the distance to a conductive target without contact. Its lead and any selected extension feed the separate Proximitor conditioning stage. Keep the one-metre probe identity distinct from the final electrical system length and apply the performance row for the assembled 1 m, 5 m or 9 m channel.

Important Notice

Select the matching XL components and target calibration before evaluating performance. EE00 does not select an agency approval, and DD02 does not include a connector protector. Use the mechanical thread and engagement limits for this 3/8-24 execution.

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Probe lead and isolated test

Probe length	CC10 = 1.0 m
Connector	DD02 = miniature coaxial ClickLoc, standard cable
Protector	Not selected by DD02
Approval	EE00 = not required
Probe resistance	7.59 +/-0.50 ohm; center to outer conductor
Cable	75 ohm triaxial; FEP insulated

Construction and case interface

Tip material	Polyphenylene sulfide (PPS)
Case material	AISI 303 or 304 stainless steel
Case torque, nominal	11.2 N m; standard forward mounting
Case torque, maximum	33.9 N m; standard forward mounting
First three threads	7.5 N m recommended; 22.6 N m maximum

Connection and environment

Thread engagement	0.563 in; matching internal fit class
Bend radius	25.4 mm
Connector limit	0.565 N m
XL connector practice	Finger tight
Probe temperature	-52 to +177 deg C; operating and storage

Complete-channel and conditioner data

Linear range	2 mm; approximately 0.25 to 2.3 mm
Radial gap	-9 VDC; approximately 1.27 mm
Scale factor	7.87 V/mm (200 mV/mil)
Frequency response	0 to 10 kHz; +0 / -3 dB
Output resistance	50 ohm
Maximum current	12 mA
Sensor operation	-52 to +100 deg C
Sensor storage	-52 to +105 deg C

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01. Match the 3/8-24 UNF external thread and internal fit; keep engagement within the documented 0.563 in maximum.

02. Distinguish the 1 m probe lead from the finished system: use the matching 1 m sensor, or 4 m / 8 m extension for 5 m / 9 m systems.

03. Apply the correct support condition: standard forward mounting is 11.2 N m recommended; the first-three-threads condition uses 7.5 N m.

04. Keep the unarmored cable supported with a minimum 25.4 mm bend radius and avoid continuous strain at its junction.

Selected complete-system length

1 m system	1 m probe; no extension; matching 1 m Proximitor
5 m system	1 m probe + 4 m extension; matching 5 m Proximitor
9 m system	1 m probe + 8 m extension; matching 9 m Proximitor

05. Join two XL gold ClickLocs finger tight; the 0.565 N m connector maximum is separate from probe-case torque.

06. Select suitable environmental connector protection because DD02 does not include a protector; avoid unsuitable tape where turbine oil is present.

07. Check probe temperature separately from the Proximitor; the standard probe limit is -52 to +177 deg C and the conditioner operates only to +100 deg C.

08. After installation, verify target calibration, the radial gap where applicable and the intended monitor response under the machine protection procedure.

Conditioned measurement reference

The reference channel consists entirely of XL 8 mm components with an AISI 4140 steel target, -24 VDC supply, 10 kohm load and 1.27 mm probe gap. Unless another row states otherwise, components are +18 to +27 deg C and altitude is no greater than 2000 m. A different target calibration changes the applicability of the stated system accuracy.

Environmental distinction

The standard probe operates and stores at -52 to +177 deg C. The Proximitor operates at -52 to +100 deg C and stores at -52 to +105 deg C. Exposure below -34 deg C can cause premature pressure-seal failure; the broad electrical temperature range is not a pressure-containment guarantee.

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Does CC10 in 330101-00-13-10-02-00 force the completed channel to be only 1 m long?

No. CC10 defines the 1 m probe lead. It can form a matching 1 m probe-only system, a 5 m system with a 4 m extension, or a 9 m system with an 8 m extension.

Why is the 3/8-24 engagement limit relevant to 330101-00-13-10-02-00?

The maximum documented engagement is 0.563 in with a matching internal thread fit. Greater engagement can cause binding even when the nominal thread designation is correct.

Which isolated probe resistance is appropriate for 330101-00-13-10-02-00?

For the 1 m probe, nominal DC resistance from center conductor to outer conductor is 7.59 +/-0.50 ohm. This is a probe measurement, not extension end-to-end conductor resistance.

What changes when 330101-00-13-10-02-00 is supported at its first three threads?

The first-three-threads condition uses 7.5 N m recommended and 22.6 N m maximum case torque. The standard forward-mount values are 11.2 N m recommended and 33.9 N m maximum.

Related proximity-probe portfolio

Bently Nevada 330103-12-25-10-01-00	Related XL probe; compare full execution
Bently Nevada 330103-00-04-10-01-05	Related XL probe; compare full execution
Bently Nevada 330103-00-11-50-02-00	Related XL probe; compare full execution

Component versus channel test

The isolated probe resistance and the assembled-channel functional test answer different questions. Preserve both results when recording a replacement.

Document purposes

Technical Reference	Selected execution, component data and system performance
Installation & Commissioning Guide	Thread, wiring, gap and functional-acceptance workflow
Complete Product Information	Product facts, uses, precautions and questions

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Does the DD02 selection on 330101-00-13-10-02-00 include FluidLoc cable or a connector protector?

Neither is selected. DD02 identifies the standard cable and miniature coaxial ClickLoc connector. The protector and FluidLoc executions have different ordering options.

Is the same accuracy row used for every electrical length containing 330101-00-13-10-02-00?

No. At 0 to +45 deg C, the standard 1 m and 5 m systems have ISF within +/-5% and DSL below +/-0.025 mm; the standard 9 m system uses +/-6.5% and below +/-0.038 mm. Apply the stated target and reference conditions.

What does a -9 VDC gap reading mean when commissioning 330101-00-13-10-02-00 for radial vibration?

It is the recommended radial-vibration gap setting, approximately 1.27 mm for the documented XL target calibration. Confirm the actual target and assembled system before applying that voltage-to-gap relationship.

Can EE00 on 330101-00-13-10-02-00 be treated as a hazardous-area approval?

No. EE00 is the approval-not-required ordering choice. A hazardous-area installation needs the actual approved component execution and the applicable circuit documentation.

Related proximity-probe portfolio

Bently Nevada 330103-00-12-10-01-00	Related XL probe; compare full execution
Bently Nevada 330103-00-22-50-12-05	Related XL probe; compare full execution
Bently Nevada 330103-00-06-90-02-00	Related XL probe; compare full execution

Recommendation scope

Linked probes belong to the related XL portfolio. Compare their full thread, lead, connector and approval choices; these links do not establish interchangeability with this execution.

Manufacturer reference

3300 XL 8 mm Proximity Transducer System, Datasheet 141194 Rev. AN. System role pp. 1-3; resistance and reference conditions p. 4; gap and accuracy p. 5; response p. 6; mechanical interfaces p. 7; engagement and connector practice p. 8; temperatures p. 9; imperial probe ordering p. 13; extension ordering pp. 18-19. Field checks organize these facts for the installed machine procedure.

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