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

01 / IMPERIAL-THREAD PROXIMITY PROBE

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 order-code execution

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

Probe and electrical-length selection

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

Measurement 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.

Selection boundary

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.

Related proximity-probe portfolio

Bently Nevada 330103-12-25-10-01-00	Related XL probe; compare full execution
Bently Nevada 330103-00-12-10-01-00	Related XL probe; compare full execution

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Probe-specific interfaces

Nominal Probe DC Resistance	7.59 +/-0.50 ohm; center to outer conductor
Standard Probe Cable	75 ohm triaxial; FEP insulated
Probe Tip Material	Polyphenylene sulfide (PPS)
Probe Case Material	AISI 303 or 304 stainless steel
Recommended Case Torque	11.2 N m; standard forward mounting
Maximum Case Torque	33.9 N m; standard forward mounting
First-Three-Threads Torque	7.5 N m recommended; 22.6 N m maximum
Maximum Thread Engagement	0.563 in; matching internal fit class
Minimum Cable Bend Radius	25.4 mm
Maximum Connector Torque	0.565 N m
Two XL ClickLoc Connectors	Finger tight
Standard Probe Temperature	-52 to +177 deg C; operating and storage

Probe resistance measurement

The 7.59 +/-0.50 ohm value is measured between center and outer conductors of the isolated 1 m probe. Do not apply extension end-to-end resistance values to this measurement, and keep the disconnected component check separate from the powered system response.

Connection protection

DD02 selects standard cable and a miniature coaxial ClickLoc connector without an included protector. Choose suitable connector protection for the local environment. Silicone tape supplied with XL extension cables is not recommended at probe-to-extension joints exposed to turbine oil. Optional FluidLoc cable must not be assumed from the base family.

Probe construction

TipLoc molding bonds the probe tip to the body, while CableLoc secures the lead-to-tip connection. The documented maximum rated tensile strengths are 330 N from case to lead and 270 N at the lead-to-extension connector. These are strength ratings, not acceptable continuous routing loads.

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Three supported system lengths

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

Complete-channel measurement

Matched System Linear Range	2 mm; approximately 0.25 to 2.3 mm
Radial Vibration Gap Setting	-9 VDC; approximately 1.27 mm
Nominal System Scale Factor	7.87 V/mm (200 mV/mil)
System Frequency Response	0 to 10 kHz; +0 / -3 dB

Reference conditions

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.

Select the correct accuracy row

For standard 1 m and 5 m systems at 0 to +45 deg C, ISF is 7.87 V/mm within +/-5% and DSL is below +/-0.025 mm. For the standard 9 m system at the same temperature interval, the corresponding values are +/-6.5% and below +/-0.038 mm. These are complete-channel limits, not an isolated probe calibration.

Extended-temperature performance

With the probe at -35 to +120 deg C and the conditioner and extension at 0 to +45 deg C, the standard 1 m / 5 m performance row allows ISF within +/-10% and DSL within +/-0.076 mm. The 9 m row instead allows +/-18% and +/-0.152 mm. Apply each temperature condition to the appropriate component.

Related proximity-probe portfolio

Bently Nevada 330103-00-06-90-02-00	Related XL probe; compare full execution

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Different torque interfaces

Standard forward mount	11.2 N m recommended; 33.9 N m maximum
First three threads	7.5 N m recommended; 22.6 N m maximum
Two XL ClickLoc connectors	Finger tight; 0.565 N m connector maximum

Thread engagement

Use the matching 3/8-24 UNF internal fit and remain within the 0.563 in engagement limit. Excessive engagement can bind during mounting. The case-support condition determines which case-torque row applies; connector torque is a separate limit.

Companion power interface

Non-incendive circuit per drawing 140979	-17.5 to -26 VDC
Circuit with barriers	-23 to -26 VDC
Maximum Proximitor current	12 mA
Output resistance	50 ohm

Monitor field wiring

The Proximitor-to-monitor path is separate from the probe-plus-extension electrical length. The field circuit uses 0.2 to 1.5 mm2 conductors; a three-conductor shielded triad with tinned wiring is recommended. The documented maximum is 305 m, with high-frequency rolloff evaluated against the published response curves.

Separate temperature locations

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.

Pressure-seal boundary

The probe uses a Viton O-ring and is not pressure tested before shipment. Required pressure-seal testing and containment provisions belong to the specific application; the part number does not establish a tested pressure rating.

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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.

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.

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.

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.

Related proximity-probe portfolio

Bently Nevada 330103-00-04-10-01-05	Related XL probe; compare full execution
Bently Nevada 330103-00-22-50-12-05	Related XL probe; compare full execution
Bently Nevada 330103-00-11-50-02-00	Related XL probe; compare full execution

Portfolio boundary

The linked XL probes have different mounting and order-code executions. Review the full mechanical, cable, electrical-length and approval selection independently; a related listing is not evidence of a replacement match.

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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