Bently Nevada 330104-03-09-10-02-00

COMPLETE PRODUCT INFORMATION

Bently Nevada 330104-03-09-10-02-00 is an armored 3300 XL 8 mm proximity probe with an M10 x 1 mounting thread and a 1 m standard cable. Its ClickLoc connection supports a selected XL system for non-contact shaft vibration and position measurements.

Selected probe identity

330104	XL 8 mm probe; M10 x 1; armored
AA03 / BB09	Retained partial-thread mechanical execution
CC10	1.0 m total probe length
DD02	Standard cable; ClickLoc without included protector
EE00	Agency approval not required

Electrical-length choice

Probe	Length choice	Proximitor
1 m armored XL probe	Direct 1 m, or 4 m / 8 m extension	Matching 1 m, 5 m or 9 m XL sensor

Metric armored installations

Use the M10 x 1 armored execution where the machine mounting interface and cable route call for those features.

Radial vibration channels

Measure shaft motion on fluid-film-bearing machinery through a correctly calibrated XL transducer channel.

Static position measurement

Provide a non-contact distance signal to a compatible conditioner and the configured position-monitor function.

Selectable electrical routes

Plan a direct 1 m arrangement or the documented extension combination for a 5 m or 9 m channel.

System role

The probe responds to the distance from a conductive target while a separate Proximitor supplies the conditioned measurement output. Armor protects the lead mechanically; the selected extension and conditioner determine the complete electrical length. Mounting fit, cable option and calibration remain independent selection checks.

Important Notice

Retain the complete AA03 / BB09 mechanical execution and the matching XL electrical length. Armor does not select FluidLoc or supply a connector protector. EE00 must not be presented as a hazardous-area approval.

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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	15 mm; 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. Verify the selected M10 x 1 mechanical execution and keep thread engagement within 15 mm; do not force a binding mount.

02. Match the 1 m probe directly to a 1 m Proximitor or use the documented 4 m / 8 m extension for a 5 m / 9 m system.

03. Identify the supporting threads before tightening: normal case torque is 11.2 N m recommended; first-three-threads support uses 7.5 N m.

04. Route the armored lead with a minimum 25.4 mm bend radius and relieve sustained tension at its connection.

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 ClickLoc connectors finger tight; keep the connector maximum of 0.565 N m separate from case-torque limits.

06. Provide suitable protection for the DD02 junction. Standard cable and armor do not establish a FluidLoc cable execution.

07. Apply separate probe and Proximitor temperature limits and assess any pressure-seal requirement through the application procedure.

08. Confirm target calibration and gap response after assembly; EE00 does not by itself establish hazardous-area suitability.

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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What mechanical execution is selected by 330104-03-09-10-02-00?

330104 identifies an armored M10 x 1 XL probe. Retain the AA03 / BB09 partial-thread execution and verify the machine mounting fit before choosing a replacement.

Can 330104-03-09-10-02-00 be connected without an extension cable?

Yes, with the matching 1 m XL Proximitor. For a 5 m channel use a 4 m extension, and for a 9 m channel use an 8 m extension. Keep the full electrical length consistent with the sensor marking.

Does the armor on 330104-03-09-10-02-00 change its nominal probe resistance?

The documented 1 m probe check is 7.59 +/-0.50 ohm from center to outer conductor. Use the isolated component check; do not replace it with an extension conductor resistance or connected-channel reading.

Which M10 engagement and support checks apply to 330104-03-09-10-02-00?

Maximum engagement is 15 mm with a matching internal fit. Normal support uses 11.2 N m recommended case torque, while first-three-threads support uses 7.5 N m; investigate binding before tightening further.

Related proximity-probe portfolio

Bently Nevada 330103-00-08-10-01-00	Related XL probe; compare full execution
Bently Nevada 330103-00-08-05-02-CN	Related XL probe; compare full execution
Bently Nevada 330102-00-28-10-02-05	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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Is 330104-03-09-10-02-00 supplied with a connector protector or FluidLoc cable?

Neither is selected by DD02. It provides standard cable and a ClickLoc connector without an included protector. The armored execution is a separate mechanical selection.

Why can the 9 m channel using 330104-03-09-10-02-00 have a different accuracy limit?

At 0 to +45 deg C, the standard 9 m row specifies ISF within +/-6.5% and DSL below +/-0.038 mm. The standard 1 m and 5 m rows use +/-5% and below +/-0.025 mm under the same stated target and circuit conditions.

What does the final 00 on 330104-03-09-10-02-00 mean for approvals?

EE00 is the agency-approval-not-required selection. It is not evidence that a particular hazardous-area installation is certified; check the actual equipment requirements and supplied marking.

How should the two temperature locations for 330104-03-09-10-02-00 be assessed?

The standard probe operates and stores at -52 to +177 deg C. Its companion Proximitor operates to +100 deg C and stores to +105 deg C, so each installed location needs its own temperature check.

Related proximity-probe portfolio

Bently Nevada 330103-00-08-10-02-00	Related XL probe; compare full execution
Bently Nevada 330104-00-06-05-01-05	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; metric probe ordering pp. 13-14; extension ordering pp. 18-19. Field checks organize these facts for the installed machine procedure.

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