Bently Nevada 330104-01-08-50-01-CN

01 / ARMORED FIVE-METRE PROBE

Bently Nevada 330104-01-08-50-01-CN is an armored 3300 XL 8 mm proximity probe with an M10 x 1 thread and a 5 m standard lead. Its protected ClickLoc connection is intended for the matching 5 m Proximitor system used for non-contact shaft vibration and position measurements.

Selected order-code execution

330104	XL 8 mm probe; M10 x 1; with armor
AA01 / BB08	Retained mechanical order-code execution
CC50	5.0 m total probe length; matching 5 m sensor only
DD01	Standard cable, ClickLoc and connector protector
CN	Country-specific approval option; inspect marking

Direct five-metre path

Probe	Connection	Proximitor
5 m armored 330104 lead	Direct protected ClickLoc junction	Matching 5 m XL system

System role

The probe converts changing conductive-target distance into the input for a separate Proximitor conditioning stage. The five-metre lead already provides the selected system electrical length. Mechanical armor, connector protection and the cable sealing option are independent features and must be read from the complete code.

Electrical-length boundary

CC50 is a five-metre probe designed for the five-metre Proximitor only. Connect the integral lead to the matching conditioner without adding an extension. Do not apply a one-metre-probe-plus-extension recipe to this selected five-metre execution.

Related proximity-probe selections

Bently Nevada 330103-03-06-05-02-00	Related XL probe; compare full execution

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Probe-specific properties

Nominal Probe DC Resistance	8.73 +/-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	15 mm; 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

Resistance test interpretation

The isolated five-metre probe has nominal DC resistance of 8.73 +/-0.50 ohm from center to outer conductor. This is not an extension end-to-end conductor value or a resistance specification for an energized, connected channel.

Cable and protector

DD01 includes the connector protector with the standard ClickLoc cable execution. The armored case family and connector protector are independent selections. FluidLoc is a different cable option and must not be inferred from armor or from the presence of the protector.

Mechanical strength

TipLoc molding bonds the probe tip and body, while CableLoc secures the lead at the tip. Maximum rated tensile strength is 330 N from case to lead and 270 N at the lead connector. These strength ratings are not continuous installation loads.

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Measurement response

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

Published channel performance assumes XL 8 mm components, an AISI 4140 steel target, -24 VDC supply, a 10 kohm load and 1.27 mm probe gap. The general reference temperature is +18 to +27 deg C and altitude is no greater than 2000 m unless a performance row states different conditions.

Five-metre accuracy rows

For the standard 5 m system at 0 to +45 deg C, scale factor is 7.87 V/mm within +/-5% and deviation from straight line is below +/-0.025 mm. With the probe at -35 to +120 deg C and the Proximitor at 0 to +45 deg C, the stated 5 m row changes to +/-10% and +/-0.076 mm. These are complete-system performance limits.

Separate component temperatures

The standard probe operates and stores at -52 to +177 deg C. The conditioner operates at -52 to +100 deg C and stores at -52 to +105 deg C. Locate and assess the two components separately; the probe temperature rating does not extend the Proximitor range.

Pressure-seal boundary

The probe uses a Viton O-ring and is not pressure tested before shipment. Continuous exposure below -34 deg C can cause premature pressure-seal failure. Assess containment and any required pressure test through the application procedure; the electrical operating range does not establish a tested pressure rating.

Related proximity-probe selections

Bently Nevada 330106-05-30-05-02-CN	Related XL probe; compare full execution
Bently Nevada 330104-00-24-10-02-00	Related XL probe; compare full execution

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Case and connector torque

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 gold ClickLocs	Finger tight; connector maximum 0.565 N m

Metric fit

Use the matching M10 x 1 internal fit and keep engagement within 15 mm. Retain the selected partial-thread execution during replacement and verify the actual supporting threads before choosing the case-torque row.

Conditioner supply

Non-incendive circuit per drawing 140979	-17.5 to -26 VDC
With barriers	-23 to -26 VDC
Maximum Proximitor consumption	12 mA
Proximitor output resistance	50 ohm

Approval selection

108M1756 Rev. AV lists CN for the 330104 family. CN covers China-specific hazardous-area requirements, including NEPSI/CCC and ATEX/IECEx markings as applicable. Read the supplied marking, certificate and installed circuit requirements; the country option alone is not a universal approval for every location.

Separate monitor circuit

The Proximitor-to-monitor wiring is a separate circuit from the five-metre probe lead. The manufacturer specifies 0.2 to 1.5 mm2 conductors and recommends three-conductor shielded triad with tinned field wiring. The maximum documented field run is 305 m; evaluate high-frequency rolloff using the published response curves.

Related proximity-probe selections

Bently Nevada 330103-00-14-10-01-00	Related XL probe; compare full execution

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Can an extension be added to 330104-01-08-50-01-CN to reach a more distant conditioner?

The 5 m probe is designed for the 5 m Proximitor only. Its integral lead already provides the selected electrical length; adding an extension is not the documented arrangement.

Which features distinguish armor and DD01 on 330104-01-08-50-01-CN?

330104 identifies the armored metric probe execution. DD01 separately selects standard cable, a miniature coaxial ClickLoc connector and its protector; it does not select FluidLoc.

Is the connector protector included with 330104-01-08-50-01-CN?

Yes. DD01 includes a protector with the standard ClickLoc cable execution. Confirm that the supplied protector is present and properly fitted when inspecting the received probe.

Acceptance record

Code	Full model, CN and DD01 verified
Length	5 m probe directly matched to 5 m sensor
Mechanics	M10 fit, engagement and case support checked
Connection	ClickLoc seated and protector fitted
Component test	Isolated probe resistance recorded
Channel test	Target, gap and monitor response accepted

Related proximity-probe selections

Bently Nevada 330103-00-03-05-02-00	Related XL probe; compare full execution
Bently Nevada 330103-00-04-05-02-05	Related XL probe; compare full execution

Manufacturer references

3300 XL 8 mm Proximity Transducer System, 141194 Rev. AN: resistance and reference conditions p. 4; performance pp. 5-6; construction and torque p. 7; engagement p. 8; temperatures p. 9; metric probe family/options pp. 13-14. Approvals Quick Reference Guide 108M1756 Rev. AV: CN explanation p. 10 and 330104 applicability p. 26. Field checks follow the installed machine procedure.

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