Bently Nevada 330101-00-24-10-02-05

COMPLETE PRODUCT INFORMATION / exact probe and matched-system boundaries

This unarmored 3300 XL 8 mm probe is one element in a non-contact shaft vibration and position measuring chain. The full order code selects mechanical geometry, lead, connector and approval option.

01 Product identity

Exact order identity	330101-00-24-10-02-05
Product type	3300 XL 8 mm proximity probe
Mounting	3/8-24 UNF case without armor
Case configuration	0.0 in unthreaded section; 2.4 in overall case
Integral lead	1.0 m standard cable; miniature coaxial ClickLoc
Agency option	05 CSA/ATEX/IECEx selection; verify supplied marking

Engineering interpretation

Mechanical fit	Match the 3/8-24 threaded case and 2.4 in insertion envelope to the machine drawing.
Electrical fit	Use the approved 1 m transducer chain; confirm probe, extension arrangement and Proximitor together.
Approval boundary	Check the 05 option on the actual label and associated circuit drawing before hazardous-area use.

02 Probe construction and handling

Probe tip	Polyphenylene sulfide
Case	AISI 303 or 304 stainless steel
Standard cable	75 Ω FEP-insulated triaxial construction
Nominal 1.0 m probe DC resistance	7.59 ±0.50 Ω
Minimum cable bend radius	25.4 mm
Recommended forward-mount torque	11.2 N·m

Maximum 3/8-24 engagement	0.563 in
Probe operating/storage temperature	−52 to +177 °C

03 Matched-system performance

Matched-chain linear range	2.0 mm
Matched-chain incremental scale	7.87 V/mm ±5%, standard 1 m system at 0–45 °C
Recommended radial gap	About 1.27 mm, corresponding to −9 V DC
Matched-chain frequency response	0–10 kHz, +0/−3 dB
Reference target	AISI 4140 steel; verify recalibration for different alloys

System figures describe an approved probe, cable and Proximitor on the manufacturer reference target. The bare probe does not provide a standalone calibrated voltage output.

Technical source

Bently Nevada 3300 XL 8 mm Proximity Transducer System, 141194 Rev. AN. Order-code and component values are separated from matched-system figures in this summary.

04 Applications and fit

Radial shaft vibration	Locate the probe near the approved bearing location and preserve clearance over the shaft orbit.
Axial position	Face a conductive thrust target and verify the working span against expected machine movement.
Keyphasor reference	Use only with an approved target feature, matched electronics and monitor channel.
Service replacement	Preserve complete marking, mounting depth, cable length and monitoring configuration.

05 Installation precautions

Target and gap	Use the approved target material or review scale-factor correction; set the gap from the installed baseline.
Cable routing	Maintain the specified bend radius and protect the cable from abrasion and liquid ingress.
Connector	Keep miniature ClickLoc mating parts clean and fully seated; option 02 has no connector protector.
Mechanical handling	Apply the recommended torque and observe maximum thread engagement.
Environmental split	The probe tip, cable and electronics have distinct temperature and protection boundaries.

06 Technical questions

Why can the indicated gap on 330101-00-24-10-02-05 shift after replacement?	Check probe insertion, target surface, extension length and the matched Proximitor. Re-establish the machine-approved cold and hot gap baseline.
How should an open circuit on 330101-00-24-10-02-05 be isolated?	With the channel safely isolated, check connector seating and conductor continuity, then compare probe resistance with the documented 1 m reference. Do not treat a connector check alone as complete diagnosis.
What can attenuate higher-frequency vibration with 330101-00-24-10-02-05?	Check target geometry, cable routing and the monitor bandwidth. The published 0–10 kHz response belongs to the matched transducer chain.
How does a small shaft affect 330101-00-24-10-02-05?	Compare shaft diameter and target flatness with the manufacturer application limits; a small or curved target changes response and may require calibration review.
What must be checked before adding an extension cable to 330101-00-24-10-02-05?	Match the full probe-plus-extension electrical length to the installed Proximitor. The 1 m option is selected as an integral lead; an extra cable cannot be assumed compatible.
How can adjacent probes interfere with 330101-00-24-10-02-05?	Assess tip spacing, shaft geometry and channel output under the actual machine layout. Move sensing points or follow the manufacturer cross-talk guidance where needed.
What does the 05 approval option on 330101-00-24-10-02-05 require at installation?	Verify the actual nameplate and approval drawing, entity parameters and associated circuit. An order-code suffix alone does not approve the finished installation.
How should 330101-00-24-10-02-05 be accepted after exchange?	Record complete marking, installed chain, gap voltage, target condition and trend under a comparable operating state; preserve the as-left settings.

07 Engineering acceptance

Keep the complete 330101-00-24-10-02-05 marking with the installed channel record. Verify the supplied probe, mating connector, target and approved Proximitor chain before release. Record the gap baseline and comparable operating response after replacement.

Discuss the complete installed marking with Apter Power
sales13@apterpower.com | +86 18030235313