Bently Nevada 330103-10-13-05-02-00

Engineering Installation, Diagnostic and Acceptance Guide

Bently Nevada 330103-10-13-05-02-00 is a M10 x 1 unarmored 3300 XL 8 mm probe with 100 mm unthreaded reach, a 130 mm case and 0.5 m total probe length. It operates only inside a matched eddy-current transducer chain.

01 Work package

Complete model	330103-10-13-05-02-00
Product type	3300 XL 8 mm proximity probe
Manufacturer	Bently Nevada
Technical source	Bently Nevada 3300 XL 8 mm Proximity Transducer System Datasheet, 141194 Rev. AN

Field decisions

1 Establish identity

Capture the full marking, installed companion components and baseline before disconnection.

2 Inspect interfaces

Verify mounting, cable, connector, armor, approval and environmental boundaries.

3 Fit the exact chain

Preserve the documented probe-cable-Proximitor or sensor-monitor relationship.

4 Prove response

Use the approved stopped-machine and operating acceptance procedure.

5 Record as left

Save markings, configuration, test values and operating observations.

Pre-work evidence

Installed drawing	Record the drawing, machine location and channel designation that govern 330103-10-13-05-02-00.
Probe marking	Capture the complete order identity and any tag or revision visible on the delivered item.
Mechanical reference	Record thread or sleeve datum, insertion depth, lock position and expected target travel.
Cable identity	Confirm lead construction, connector condition, routing, strain relief and electrical-length relationship.
Companion electronics	Record the matching extension cable, Proximitor or signal conditioner and monitor channel.

02 Interface and configuration map

Probe family	3300 XL 8 mm
Thread	M10 x 1
Cable armor	No armor
Unthreaded length	100 mm
Overall case length	130 mm
Total probe length	0.5 m
Connector	Miniature coaxial ClickLoc without connector protector
Approval selection	No agency approval selected
Nominal probe DC resistance	7.45 +/- 0.50 ohm
Matched-system linear range	2.0 mm under stated reference conditions
Matched-system scale factor	7.87 V/mm (200 mV/mil)
Proximitor supply	-17.5 to -26 V DC; 12 mA maximum without barriers
Proximitor output resistance	50 ohm
Reference target	AISI 4140 steel
Measurement roles	Static position, dynamic vibration, phase reference and speed

Chain controls

Target condition	Confirm target material, width, runout surface and clearance from nearby conductive material.

Static baseline	Record stopped-machine gap or bias and compare it with the approved maintenance baseline.
Operating baseline	Record monitor indication and expected response after the complete channel is returned to service.

03 Installation workflow

Confirm the complete marking

Match every field of 330103-10-13-05-02-00 with the installed spare-parts record before removal or installation.

Protect the sensing face

Keep the probe tip, connector and cable free from impact, moisture, metal chips and unsupported loading.

Preserve the mechanical datum

Record reach, thread engagement, lock position and target relationship before disturbing the installed component.

Control the cable route

Maintain the approved bend radius, separation and strain relief; do not twist, kink or crush the coaxial path.

Restore the operating point

Use the approved stopped-machine procedure to restore gap or bias and verify expected target travel.

Prove the complete channel

Verify the as-left electrical reading, monitor indication and operating response before return to service.

Application checks

Radial shaft vibration

Use a documented bearing location and matched transducer chain to measure shaft motion relative to the probe mounting.

Axial position

Aim the probe at an approved conductive thrust target and keep the full expected travel inside the characterized working region.

Phase or speed reference

Use only with an approved once-per-turn target feature and a monitoring channel configured for phase or speed reference.

Installed-channel maintenance

Preserve the exact probe, cable, Proximitor, mounting geometry and machine baseline recorded for the existing channel.

Controlled sequence

01 Isolate	Place the monitored machine and channel in the approved maintenance state; prove the required isolation.
02 Photograph	Capture 330103-10-13-05-02-00, the installed datum, connector, route and companion-component markings.
03 Measure	Record mechanical position and the applicable stopped-machine electrical reading before removal.
04 Compare	Check delivered identity, interfaces and evidence against the approved drawing and spare-parts record.
05 Install	Fit without twisting the lead; preserve thread engagement, target clearance, bend radius and strain relief.
06 Set point	Establish the operating gap or datum only with the approved stopped-machine procedure.
07 Prove	Compare local reading, monitor indication and controlled operating response with the accepted baseline.
08 Handover	Record as-left values, photographs, deviations, responsible technician and release approval.

04 Diagnostic decision table

Which extension cable and Proximitor belong with 330103-10-13-05-02-00?	Use 330103-10-13-05-02-00 in a documented 3300 XL 8 mm chain whose probe plus extension cable equals the selected system length. Confirm every component marking before disconnection.
How should the 130 mm case of 330103-10-13-05-02-00 be checked mechanically?	Compare the M10 x 1 port depth, 100 mm unthreaded reach, lock position and target travel with the approved machine drawing.
What does the connector selection on 330103-10-13-05-02-00 require during installation?	The selected interface is Miniature coaxial ClickLoc without connector protector. Keep it clean and dry, fully seat it, and add only the approved environmental protection and strain relief.
How should the matched-system performance of 330103-10-13-05-02-00 be proved?	Restore the approved gap, confirm bias and monitor indication, then compare the operating response with the accepted machine baseline; do not treat the probe as a standalone voltage source.
What evidence should be captured before removing 330103-10-13-05-02-00?	Photograph the complete 330103-10-13-05-02-00 marking, installed datum, connector, cable route and companion electronics. Record the stopped-machine baseline for the 3300 XL 8 mm proximity probe.
How should connector integrity be checked on 330103-10-13-05-02-00?	Isolate the channel, inspect the coaxial contacts for moisture and damage, verify continuity only with an approved method, and provide strain relief so the connector carries no cable load.
What commissioning record is required for 330103-10-13-05-02-00?	Retain the exact markings, mechanical datum, companion-component identities, as-left gap or bias, monitor indication and the accepted operating response.

When should 330103-10-13-05-02-00 be withheld from service?	Do not release the channel if the complete identity, mechanical fit, cable construction, connector, approval marking or measured response differs from the approved installed record.

Release review

Installation relationship	The M10 x 1 mounting, 100 mm unthreaded reach and 130 mm case establish the probe position.
Electrical boundary	The 0.5 m probe and miniature coaxial clickloc without connector protector must remain within the documented 3300 XL 8 mm chain.
Technical reference	Bently Nevada 3300 XL 8 mm Proximity Transducer System Datasheet, 141194 Rev. AN.

Engineering questions

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What commissioning record is required for 330103-10-13-05-02-00?	Retain the exact markings, mechanical datum, companion-component identities, as-left gap or bias, monitor indication and the accepted operating response.
When should 330103-10-13-05-02-00 be withheld from service?	Do not release the channel if the complete identity, mechanical fit, cable construction, connector, approval marking or measured response differs from the approved installed record.

Acceptance and support

Retain the full marking, installed-chain identities, test readings and approved machine configuration. Confirm the exact offered item and included scope in the written quotation.

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

Verified related product references

Related product	330500-00-01
Related product	330980-70-CN
Related product	330930-040-03-00
Related product	84661-96

Commissioning record template

Installed asset	Machine, bearing, channel or cabinet reference
Companion identities	Probe, cable, sensor, interface or monitor markings
Mechanical datum	Mounting reference, reach, alignment or sealing condition
Electrical datum	Chain length, connector, shield, supply or input assignment
Before-work baseline	Gap, bias, vibration, continuity or channel observation

As-left result	Final measured value and functional proof
Approval basis	Applicable drawing, control requirement or site procedure
Handover	Technician, date, revision and maintenance-record location

Escalation triggers

Identity conflict	Stop if the complete marking, suffix, revision or approval identity differs from the approved record.
Host mismatch	Escalate if the rack, carrier, backplane, terminal unit or controller assignment is not documented for 330103-10-13-05-02-00.
Interface damage	Do not energize with bent contacts, damaged insulation, loose retainers, contamination or heat discoloration.
Environmental breach	Review any exposure beyond the documented temperature, vibration, humidity, contamination or enclosure boundary.
Unapproved substitution	Do not transfer ratings or compatibility from an adjacent order code without manufacturer evidence.
Configuration conflict	Stop if hardware settings, firmware, channel assignment or project configuration disagree with the installed record.
Unstable measurement	Investigate noise, drift, intermittent status or inconsistent readings before replacing another component.
Failed functional proof	Keep the asset in the approved maintenance state until the complete acceptance sequence is passed and recorded.

Evidence package

Nameplate evidence	Overall and close photographs showing 330103-10-13-05-02-00, revision, approval and serial details where present.
Installation evidence	Views of the rack position, mechanical datum, terminal assignment, cable route and strain relief.
Configuration evidence	Export or screenshots identifying the approved hardware assignment and parameters without exposing credentials.
Baseline evidence	As-found readings with units, test conditions, machine state and the instrument used.
Inspection evidence	Connector, contact, insulation, fastener, contamination and heat-condition observations.
Functional evidence	As-left readings and the controlled input, output or channel response used for acceptance.
Change evidence	Any wiring, setting, firmware or mechanical change linked to its approved work reference.
Release evidence	Technician, reviewer, date, asset reference and the maintenance-record location for traceability.

Evidence quality controls

Traceability	Each value is tied to 330103-10-13-05-02-00, the asset location, test state, instrument and date.
Repeatability	The same approved method and comparable operating state are used for before-and-after readings.
Resolution	Recorded precision does not exceed the capability of the instrument or source document.
Reference state	Stopped, energized, loaded and process-running observations are clearly distinguished.
Change control	Every changed setting, connection or mechanical datum has an approved reason and reviewer.
Retention	Evidence remains accessible with the maintenance record for future troubleshooting and replacement review.