Bently Nevada 330102-00-60-05-02-05

Engineering Installation, Diagnostic and Acceptance Guide

Bently Nevada 330102-00-60-05-02-05 is an armored 3/8-24 probe with a 6.0 in case and short 0.5 m standard lead for a matched 3300 XL 8 mm measurement chain.

01 Job scope and identity

Complete model	330102-00-60-05-02-05
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. AL

Field decisions

1 Freeze the installed datum

Confirm the 6.0 in case passes through the complete 3/8-24 sleeve without binding and reproduces the removed tip datum.

2 Inspect the selected body

Long-case misalignment, bracket flexibility or sleeve contact can create a false mechanical response even when the probe is electrically intact.

3 Rebuild the lead route

Shape and clamp the short 0.5 m armor so spring force cannot rotate the long probe or load its ClickLoc connector.

4 Close the coaxial joint

Keep the unprotected miniature ClickLoc dry, fully seated and isolated from armor movement.

5 Demonstrate the channel

Record the restored gap or bias, verify stable output while the bracket is secured and compare controlled monitor response with the original long-case channel.

Installation relationships

Mechanical datum	Match 0.0 in unthreaded reach and 6.0 in case to the port depth, bracket position and expected target travel.
Electrical chain	Use the 0.5 m probe lead only with the extension cable and Proximitor that reproduce the installed total length.
Resistance and response	Use 7.45 +/-0.50 ohm only as an isolated diagnostic reference; gap and dynamic acceptance still require the complete channel.

Pre-work evidence

Removal reference	Photograph 330102-00-60-05-02-05, measure the installed locknut or bracket datum and record probe position before loosening it.
Port evidence	Confirm the 6.0 in case passes through the complete 3/8-24 sleeve without binding and reproduces the removed tip datum.
Lead evidence	Shape and clamp the short 0.5 m armor so spring force cannot rotate the long probe or load its ClickLoc connector.
Connector evidence	Keep the unprotected miniature ClickLoc dry, fully seated and isolated from armor movement.
Baseline evidence	Record the restored gap or bias, verify stable output while the bracket is secured and compare controlled monitor response with the original long-case channel.

02 Pre-installation readiness

Model-specific installation decisions

Exact identity

330102-00-60-05-02-05 and every delivered revision or approval marking must be recorded before removal.

Installed system

3300 XL 8 mm proximity transducer system companion components, channel assignment and approved machine reference must remain traceable.

Mechanical baseline

Record the as-found mounting datum, reach, lock position, target clearance, routing and connector support.

Electrical baseline

Record the applicable stopped-machine gap, bias, continuity or channel value together with test conditions.

As-left configuration

Document the final mechanical position, cable protection, connector condition and complete companion-component identities.

Functional release

Compare the final monitor indication and controlled operating response with the approved baseline before handover.

Installation precautions

Check straightness through the full sleeve

The 6.0 in case must pass without side loading or contact along the installed guide.

Control cantilever

Support the long body and bracket so machine vibration is not amplified by the mounting structure.

Form the first armor bend

Keep the bend outside the connector load zone and within the documented route clearance.

Do not pull on the ClickLoc

Move and clamp the armor without transmitting force through the miniature coaxial joint.

Use resistance only as isolation evidence

A 7.45 ohm-class reading cannot establish matched-system calibration or operating gap.

Prove both static and dynamic return

Record the as-left bias and compare the monitor response during the approved controlled test.

Pre-installation release gates

Geometry gate	Long-case misalignment, bracket flexibility or sleeve contact can create a false mechanical response even when the probe is electrically intact.
Route gate	Shape and clamp the short 0.5 m armor so spring force cannot rotate the long probe or load its ClickLoc connector.
Joint gate	Keep the unprotected miniature ClickLoc dry, fully seated and isolated from armor movement.
Companion-chain gate	The marked probe lead, extension cable and Proximitor system-length option reconcile to the installed record.
Return-to-service gate	Record the restored gap or bias, verify stable output while the bracket is secured and compare controlled monitor response with the original long-case channel.

03 Installation and commissioning

Controlled installation sequence

01 Record	Capture the complete 330102-00-60-05-02-05 marking, port datum, companion identities and pre-work channel value.
02 Compare	Long-case misalignment, bracket flexibility or sleeve contact can create a false mechanical response even when the probe is electrically intact.
03 Position	Confirm the 6.0 in case passes through the complete 3/8-24 sleeve without binding and reproduces the removed tip datum.
04 Route	Shape and clamp the short 0.5 m armor so spring force cannot rotate the long probe or load its ClickLoc connector.
05 Connect	Keep the unprotected miniature ClickLoc dry, fully seated and isolated from armor movement.
06 Prove	Record the restored gap or bias, verify stable output while the bracket is secured and compare controlled monitor response with the original long-case channel.

Commissioning acceptance criteria

Mechanical result	Confirm the 6.0 in case passes through the complete 3/8-24 sleeve without binding and reproduces the removed tip datum.
Cable result	Shape and clamp the short 0.5 m armor so spring force cannot rotate the long probe or load its ClickLoc connector.
Connector result	Keep the unprotected miniature ClickLoc dry, fully seated and isolated from armor movement.
Electrical-length result	Probe lead plus extension cable agrees with the installed Proximitor system-length selection.
Functional result	Record the restored gap or bias, verify stable output while the bracket is secured and compare controlled monitor response with the original long-case channel.

04 Diagnostics and escalation

What is the main alignment risk when installing 330102-00-60-05-02-05?	The 6.0 in case can bind or run off-axis in a long sleeve; verify sleeve straightness, bracket stiffness and free tip travel before final tightening.
How should the 0.5 m armored lead on 330102-00-60-05-02-05 be supported?	Place the first clamp close enough to control armor spring force but outside the connector strain zone, then maintain the allowed bend radius.

Why can an unarmored 330101 probe not replace 330102-00-60-05-02-05 by length alone?	The 330102 construction changes route stiffness and mechanical protection, while the 6.0 in case also fixes a different sensing-face datum.
What does a 7.45 +/-0.50 ohm reading establish for 330102-00-60-05-02-05?	It supports isolated probe diagnosis; it does not verify the extension cable, Proximitor calibration, gap or monitor scaling.

Additional diagnostic decisions

How is sleeve contact ruled out for 330102-00-60-05-02-05?	Confirm free insertion, stable locknut position and clearance through the whole 6.0 in path, then watch for a bias shift while securing the bracket.
Which baseline should be captured before removing 330102-00-60-05-02-05?	Record the installed sleeve datum, as-found gap or bias, companion identities and monitor indication under the approved stopped-machine state.
What proves the armored connection of 330102-00-60-05-02-05 after replacement?	A clean seated ClickLoc, supported armor, correct total electrical length and repeatable static and controlled dynamic response are all required.
Which handover details are specific to 330102-00-60-05-02-05?	Document the 6.0 in sleeve datum, bracket support, first armor bend, 0.5 m lead route, resistance check and returned channel response.

05 Handover and evidence package

Model-specific handover evidence

Identity	Photographs of the complete 330102-00-60-05-02-05 marking and delivered connector end.
Mechanical	Confirm the 6.0 in case passes through the complete 3/8-24 sleeve without binding and reproduces the removed tip datum.
Route	Shape and clamp the short 0.5 m armor so spring force cannot rotate the long probe or load its ClickLoc connector.
Signal path	Probe, extension cable, Proximitor and monitor-channel identities recorded as one chain.
Acceptance	Record the restored gap or bias, verify stable output while the bracket is secured and compare controlled monitor response with the original long-case channel.

Model-specific application limits

Mounting	3/8-24 UNF-2A; 0.0 in / 6.0 in
Probe lead	0.5 m
Probe resistance	7.45 +/-0.50 ohm
Matched-system range	2.0 mm
Matched-system scale	7.87 V/mm

Verified related product references

Related product	Bently Nevada 330102-00-28-10-02-05
Related product	Bently Nevada 330104-00-16-10-02-00
Related product	Bently Nevada 330500-00-01
Related product	Bently Nevada 330980-70-CN

Engineering contact



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