Bently Nevada 330980-50-CN

INSTALLATION AND COMMISSIONING GUIDE

Bently Nevada 330980-50-CN is a panel-mount Proximitor Sensor for a 5.0 m matched 3300 XL NSv transducer chain.

01 Job scope and safe-work boundary

The offered item is the Proximitor Sensor. Probe, extension cable, field wiring and mounting accessories are separate unless identified in the quotation.

Match the complete marking	Compare 330980-50-CN with the installed sensor, chain and applicable Bently Nevada NSv documentation.
Check the offered item before ordering	Request photos of 330980-50-CN, terminals, mounting pad and nameplate; compare them with the installed sensor and Bently Nevada documentation.

Before work starts

Identity baseline	The 50 option in 330980-50-CN selects a 5.0 m system length and panel mounting; verify the CN country-specific marking on the offered label.
Installed context	The sensor conditions the signal from a matched 3300 NSv probe and extension cable for the monitor input.
Required record	Send the complete 330980-50-CN marking and installed-system identifiers for technical review.
Stop condition	Stop if the complete marking, interface or approved chain cannot be matched.

Readiness data

Sensor family	330980 3300 XL NSv Proximitor Sensor
System length	50: 5.0 m (16.4 ft)
Mounting	50: panel mount
Agency option	CN country-specific suffix; verify offered label
System input	One 3300 RAM or 3300 NSv probe and extension cable
Matched-system scale factor	7.87 V/mm (200 mV/mil)
Matched-system linear range	1.5 mm (60 mil); approximately 0.25 to 1.75 mm gap
Recommended gap setting	1.0 mm (40 mil)

02 Pre-installation readiness

Read the full sensor code	Match 330980-50-CN, system length and approval marking.
Check the complete chain	Confirm the probe and extension cable total 5.0 m.
Verify panel mounting	Compare pad, fixing, terminal clearance and enclosure grounding.
Protect terminals	Restore wiring and shield ownership from the as-found record.
Confirm target calibration	Check actual target material and installed gap procedure.
Prove the channel	Record supply, static output and controlled monitored response.

Why these checks matter

Geometry	The correct thread alone does not prove case reach, target clearance or sensor calibration.
Electrical length	Use a 5.0 m matched probe-and-cable electrical length.
Connector ownership	Label both ends and preserve the as-found route and protector arrangement.
Approval boundary	Use the actual offered label and site classification record.
Maintenance evidence	Retain clear before-and-after photos and measured baseline values.

Planning questions

How is the 5.0 m chain for 330980-50-CN assembled?	The integral probe lead plus the extension cable must equal the sensor 5.0 m system length.
Why can 330980-50-CN show a shifted gap after replacement?	An unmatched electrical length, target material, wiring or channel setting can change the indication.
What panel-mount checks are required for 330980-50-CN?	Compare the pad, fixing points, terminal access, enclosure grounding and cable route.

Readiness decision

Marking	Keep the complete model and every suffix group in the comparison.
Installed chain	Use a 5.0 m matched probe-and-cable electrical length.
Acceptance	Use measured gap or channel response and retain the as-left record.

03 Replacement sequence

01 Record baseline	Photograph complete labels, position, connectors, routing and current indication.
02 Isolate	Apply the approved site isolation and machinery-protection procedure.
03 Compare	Check offered identity, geometry, cable construction and included items.
04 Install	Restore routing and interfaces from the as-found record; do not force connectors.
05 Configure	Preserve the approved monitor channel, target and system-length settings.
06 Prove	Record static indication and a controlled response in an approved machine state.
07 Handover	Archive final identity, measurements and unresolved exceptions.

Product-specific installation focus

Panel-mounted sensor replacement	Match the pad, terminals, enclosure clearance and cable route.
Five-metre NSv chain	Confirm probe plus extension cable equals 5.0 m.
Monitor-channel interface	Verify supply, output wiring and channel configuration from the installed drawing.
Controlled return to service	Record static gap and dynamic response against the approved baseline.

Interface restoration controls

Position	Restore the documented host or machine position.
Orientation	Use the original probe, cable or sensor orientation and keying.
Cable route	Restore separation, support, bend clearance and connector protection.
Target / sensor	Keep the approved target, system length and monitor channel pairing.
Inspection	Complete visual, continuity and insulation checks before controlled energization.

Applicable technical values

Matched-system frequency response	0 to 10 kHz, +0/-3 dB typical; up to 305 m field wiring
Minimum flat target	8.9 mm (0.35 in); 13 mm (0.5 in) recommended
Minimum radial shaft diameter	20 mm (0.8 in); 30 mm (1.2 in) recommended
System supply	-17.5 to -26 Vdc without barriers; 12 mA maximum
Sensor output resistance	50 ohm
Probe cable impedance	75 ohm coaxial
Probe tip material	Polyphenylene sulfide (PPS)
Probe case material	AISI 304 stainless steel

04 Commissioning and acceptance

Identity and fit	Compare 330980-50-CN with the installed sensor, chain and applicable Bently Nevada NSv documentation.
Static baseline	Record supply and static indication before the controlled test.
Dynamic proof	Record supply, static output and controlled monitored response.
Comparison	Compare with the approved as-found or commissioning record.
Exception control	Keep every unresolved mismatch open in the maintenance record.

Fault-isolation decision path

Unexpected gap	Recheck target material, electrical length, connector engagement and channel configuration.
No channel response	Verify supply, terminal ownership and continuity before substituting another component.
Intermittent signal	Inspect connector protection, cable routing, armor transitions and vibration at the mounting point.
Scale differs	Confirm the complete matched family and sensor system length; physical fit is not calibration evidence.
Result accepted	Retain the exact model, measured baseline, test condition and as-left response.

Engineering questions

What supply range applies to the matched 330980-50-CN system?	The NSv family requires -17.5 to -26 Vdc without barriers at 12 mA maximum; confirm the installed barrier arrangement.
How should the static gap for 330980-50-CN be accepted?	Use the approved target position and verify the 1.0 mm recommended-gap reference together with the monitor record.
Can 330980-50-CN be mixed with an 8 mm XL probe family?	Do not assume cross-family compatibility; verify that every component is identified for the NSv system.

Acceptance evidence

Identity	Offered and removed markings plus installed position.
Interfaces	Connector, cable, target and channel ownership.
Measurements	Supply, gap, continuity and controlled response.
Handover	As-left state and unresolved exceptions.

05 Handover and field record

How should the CN suffix on 330980-50-CN be verified?	Use the actual nameplate and applicable approval record for the offered unit.
What handover evidence is needed for 330980-50-CN?	Retain full chain codes, mounting and terminal photos, supply, gap and controlled channel result.

Source and applicability

Evidence boundary	The source establishes the 330980 sensor family, 50 option and NSv system values.
System matching	Performance values apply to a complete matched NSv chain and stated target conditions.
Pre-purchase check	Confirm label, panel mount, terminals, calibration and CN marking.

Recommended Bently Nevada references

Bently Nevada 330101-04-36-05-02-05	Catalogue reference; verify the complete installed chain.
Bently Nevada 330102-00-32-10-02-00	Catalogue reference; verify the complete installed chain.
Bently Nevada 330909-00-30-10-02-00	Catalogue reference; verify the complete installed chain.
Bently Nevada 330180-50-CN	Catalogue reference; verify the complete installed chain.
Bently Nevada 330130-080-00-00	Catalogue reference; verify the complete installed chain.

Final record checklist

Complete identity	330980-50-CN
Configuration	The 50 option in 330980-50-CN selects a 5.0 m system length and panel mounting; verify the CN country-specific marking on the offered label.
Final proof	Record static and controlled dynamic results with test conditions.

Discuss the complete marking with Apter Power
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