Bently Nevada 330930-040-04-CN

INSTALLATION AND COMMISSIONING GUIDE

Bently Nevada 330930-040-04-CN is a 4.0 m armored extension cable for a matched 3300 XL NSv proximity transducer chain.

01 Job scope and safe-work boundary

The offered item is the extension cable. Probe, Proximitor Sensor, connector accessories and mounting hardware are separate unless listed in the quotation.

Match the complete marking	Compare 330930-040-04-CN with the installed cable and applicable Bently Nevada NSv documentation.
Check the offered item before ordering	Request photos of 330930-040-04-CN, both connectors, jacket and armor; compare them with the installed cable and Bently Nevada documentation.

Before work starts

Identity baseline	Read 330930-040-04-CN as the 330930 cable family plus 040 length, 04 construction and CN country-specific suffix; verify the physical label.
Installed context	This extension cable completes the electrical length between a 3300 NSv probe and its matching Proximitor Sensor.
Required record	Send the complete 330930-040-04-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

Cable family	330930 3300 NSv extension cable
Cable length	040: 4.0 m (13.1 ft)
Construction option	04: stainless-steel armor with FEP jacket and connector protector
Agency option	CN country-specific suffix; verify offered label
Cable impedance	75 ohm coaxial
Cable insulation	Fluoroethylene propylene (FEP)
Armor material	Flexible AISI 302 stainless steel
Center conductor resistance	0.220 ohm/m (0.067 ohm/ft)

02 Pre-installation readiness

Read the complete cable code	Compare every group of 330930-040-04-CN with the offered label.
Check electrical length	Add 4.0 m to the probe lead and match the total to the Proximitor Sensor.
Inspect both connectors	Keep contacts clean and confirm full engagement without forcing the joint.
Protect the route	Avoid sharp bends, hot surfaces and damaged FEP or armor.
Verify the CN marking	Use the actual approval label and site classification record.
Prove the channel	Record static gap and a controlled dynamic response after installation.

Why these checks matter

Geometry	The correct thread alone does not prove case reach, target clearance or sensor calibration.
Electrical length	Match total probe plus extension-cable length to the sensor.
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 should the 4.0 m length of 330930-040-04-CN be matched to the installed system?	Add the 4.0 m cable to the probe lead and compare the total with the 5 m or 7 m Proximitor Sensor marking.
What does construction option 04 specify for 330930-040-04-CN?	It selects stainless-steel armor with an FEP outer jacket and a connector protector.
Why can 330930-040-04-CN mate mechanically but still be unsuitable?	Connector fit does not confirm NSv family, total electrical length, cable condition or approval marking.

Readiness decision

Marking	Keep the complete model and every suffix group in the comparison.
Installed chain	Match total probe plus extension-cable length to the sensor.
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

NSv chain completion	Use the 4.0 m cable only with a compatible probe lead and matching sensor length.
Armored routing	Inspect armor, FEP jacket and bend points along the installed route.
Connector protection	Confirm full ClickLoc engagement and the protector arrangement at both interfaces.
Channel acceptance	Record gap indication and controlled dynamic response after reconnection.

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

Shield resistance	0.066 ohm/m (0.020 ohm/ft)
Cable capacitance	69.9 pF/m (21.3 pF/ft) typical
Maximum connector tensile rating	220 N (50 lb)
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)
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

04 Commissioning and acceptance

Identity and fit	Compare 330930-040-04-CN with the installed cable and applicable Bently Nevada NSv documentation.
Static baseline	Record supply and static indication before the controlled test.
Dynamic proof	Record static gap and a controlled dynamic response after installation.
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

How should the connectors on 330930-040-04-CN be inspected?	Check cleanliness, complete ClickLoc engagement, strain relief and the specified protector arrangement.
What resistance checks can support inspection of 330930-040-04-CN?	Use the published center-conductor and shield resistance-per-metre values only as family references and compare the complete installed path.
How should the CN suffix on 330930-040-04-CN be handled?	Verify the physical approval label and applicable site record; do not infer an approval solely from the suffix.

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

What routing damage matters for 330930-040-04-CN?	Inspect the FEP jacket, stainless armor, transitions, bend points and contact with hot or moving surfaces.
What should be retained after commissioning 330930-040-04-CN?	Keep full cable and chain markings, routing photos, connector condition, gap indication and controlled channel result.

Source and applicability

Evidence boundary	The source establishes the 330930 ordering groups and NSv cable construction.
System matching	Electrical performance depends on a complete matched NSv chain.
Pre-purchase check	Confirm the offered label, both connectors, armor, jacket and included protectors.

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	330930-040-04-CN
Configuration	Read 330930-040-04-CN as the 330930 cable family plus 040 length, 04 construction and CN country-specific suffix; verify the physical label.
Final proof	Record static and controlled dynamic results with test conditions.

Discuss the complete marking with Apter Power
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