# Bently Nevada 330930-065-00-CN

COMPLETE PRODUCT INFORMATION



Bently Nevada 330930-065-00-CN is a 6.5 m unarmored NSv extension cable. It joins a 0.5 m NSv probe to a matched 7 m Proximitor measurement chain, with the CN approval selection retained.

## Selected extension identity

| | |
|---|---|
| **Base 330930** | NSv extension, separate from XL 8 mm cable |
| **AAA065** | 6.5 m electrical extension |
| **BB00** | Unarmored execution |
| **Matched chain** | 0.5 m NSv probe + 6.5 m extension = 7 m |
| **Suffix CN** | Country-specific approval execution |

## Signal-chain position

| Probe | Extension | Proximitor |
|---|---|---|
| 0.5 m NSv sensing lead | 6.5 m 330930 cable | Matched 7 m NSv system |

## Seven-metre NSv sensing paths

Join a short NSv probe to the selected conditioner when the documented probe-plus-extension length is 7 m.

## Restricted-clearance machinery

Route the extension from a compact NSv measurement point on a small compressor, pump or fluid-film-bearing machine.

## Remote conditioning locations

Place the Proximitor separately from the probe while keeping electrical length and the cable route under the channel design.

## Vibration and position maintenance

Replace the exact extension execution during service of a matched radial-vibration, thrust-position or phase-reference channel.

## Function

The cable carries the proximity-probe signal to the NSv Proximitor. In a complete 7 m channel, this 6.5 m extension is paired with a 0.5 m NSv probe. The coaxial sensing chain and the Proximitor-to-monitor shielded field circuit are different paths with different installation checks.

## Important Notice

Verify the complete 7 m NSv chain and actual CN marking before fitting. Do not substitute an XL 8 mm extension or assume armor or a protector from the 330930 base family alone; choose connection protection for the installed environment.

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## Extension selection and electrical data

| | |
|---|---|
| **Product Family** | 3300 NSv extension cable |
| **Cable Length Option** | 065 = 6.5 m |
| **Cable Construction** | 00 = without stainless steel armor |
| **Connector Protector Selection** | 00 = no included protector selection |
| **Approval Option** | CN = country-specific approval selection |
| **Matched Probe Length** | 0.5 m for the 7 m NSv electrical system |
| **Matched Proximitor Length** | 7.0 m system |
| **Center Conductor Resistance** | 0.220 ohm/m |
| **Shield Resistance** | 0.066 ohm/m |
| **Cable Capacitance** | 69.9 pF/m typical |

## Measurement context

NSv performance is specified for a complete NSv probe, extension and Proximitor, an AISI 4140 steel target, -24 VDC supply and a 10 kohm load. The normal reference temperature is +18 to +27 deg C unless a performance statement specifies otherwise. Target material, component temperatures and loading therefore belong to channel evaluation.

## Interfaces and matched measurement

| | |
|---|---|
| **Minimum Cable Bend Radius** | 25.4 mm; with or without armor |
| **Connector Material** | Gold-plated brass |
| **Recommended Connector Torque** | Finger tight |
| **Maximum Connector Torque** | 0.56 N m |
| **Extension Operating Temperature** | -52 to +177 deg C |
| **Extension Storage Temperature** | -52 to +177 deg C |
| **Matched System Linear Range** | 1.5 mm; approximately 0.25 to 1.75 mm |
| **Matched Output Range** | Approximately -1 to -13 VDC |
| **Recommended Probe Gap** | 1.0 mm |
| **Matched Nominal Scale Factor** | 7.87 V/mm (200 mV/mil) |
| **Matched Frequency Response** | 0 to 10 kHz; +0 / -3 dB typical |


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01. Read the complete 330930-065-00-CN identifier: 6.5 m extension, unarmored execution and the retained CN option.

02. Pair this extension with a 0.5 m NSv probe and a 7 m NSv Proximitor; keep monitor field wiring outside this sum.

03. Support the cable route and maintain the 25.4 mm minimum bend radius; avoid crushing or persistent pull on connectors.

04. Join clean mating connectors finger tight; the 0.56 N m maximum is a limit, not a tightening target.

## Conditioner supply and field-wire connection

| | |
|---|---|
| **Proximitor Supply without Barriers** | -17.5 to -26 VDC |
| **Proximitor Supply with Barriers** | -23 to -26 VDC |
| **Proximitor Maximum Current** | 12 mA |
| **Proximitor Output Resistance** | 50 ohm |
| **Field Wire, without Ferrules** | 0.2 to 1.5 mm2 |

05. Select suitable connector protection and insulate exposed probe-to-extension connections from ground under the installed circuit practice.

06. Keep the extension within -52 to +177 deg C and assess the separate conditioner temperature at its actual mounting location.

07. After restoring the chain, verify target calibration, static gap and the intended monitor response through the machine commissioning procedure.

08. Check the actual CN marking, certificate and companion-component circuit conditions before assigning an approval to the completed channel.

## Monitor wiring and conditioner environment

| | |
|---|---|
| **Field Wire, with Ferrules** | 0.25 to 0.75 mm2 |
| **Recommended Monitor Field Cable** | Three-conductor shielded triad |
| **Maximum Monitor Field-Wire Length** | 305 m; use the frequency-response curves |
| **Companion Sensor Operating Temperature** | -52 to +100 deg C |
| **Companion Sensor Storage Temperature** | -52 to +105 deg C |


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## Which probe length completes the channel with 330930-065-00-CN?

A 0.5 m NSv probe plus this 6.5 m extension forms the 7 m electrical system. The Proximitor selection must also be 7 m.

## What does the middle 00 option mean in 330930-065-00-CN?

BB00 selects cable without stainless steel armor. A connector protector is separately selected under other BB options; it must not be assumed from the base number.

## Does the monitor field cable count toward 7 m when using 330930-065-00-CN?

No. The 7 m total is the probe plus extension. The Proximitor-to-monitor shielded field circuit is separate and has its own conductor and frequency-response requirements.

## Which resistance values apply to checks on 330930-065-00-CN?

The NSv extension rates are 0.220 ohm/m for the center conductor and 0.066 ohm/m for the shield. Measure the isolated conductor paths separately; do not use probe resistance as the extension reading.

## Related proximity products

| | |
|---|---|
| **Bently Nevada 330980-71-00** | Related proximity product; check system and options |
| **Bently Nevada 330930-040-02-00** | Related proximity product; check system and options |
| **Bently Nevada 330901-11-25-10-01-00** | Related proximity product; check system and options |

## Three documents, three purposes

| | |
|---|---|
| **Technical Reference** | Electrical data, interface boundaries and matched-system conditions |
| **Installation & Commissioning Guide** | Routing, connection, isolated checks and channel acceptance |
| **Complete Product Information** | Product facts, applications, precautions and questions |

## Field-check distinction

The inspection suggestions support the installed machine procedure. They do not define machine alarm settings or replace its protection and shutdown policy.


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## How tightly should the connectors on 330930-065-00-CN be joined?

The recommended connector-to-connector practice is finger tight, with 0.56 N m as the maximum. Inspect seating and clean contacts before reconnecting the chain.

## Can the conditioner share the upper cable temperature limit of 330930-065-00-CN?

The extension operates and stores from -52 to +177 deg C. The Proximitor operates to +100 deg C and stores to +105 deg C, so check their separate locations.

## How does the complete NSv channel using 330930-065-00-CN differ from an XL 8 mm channel?

The matched NSv system has a 1.5 mm linear range and a recommended 1.0 mm gap. It must use its documented NSv component chain rather than an XL 8 mm cable substitution.

## Does the CN suffix on 330930-065-00-CN certify every companion component?

It identifies the selected country-specific execution. Verify each installed component marking and the applicable circuit certificate before assigning an approval to the whole measurement channel.

## Related proximity products

| | |
|---|---|
| **Bently Nevada 330905-14-19-10-02-05** | Related proximity product; check system and options |
| **Bently Nevada 330905-00-07-10-02-05** | Related proximity product; check system and options |
| **Bently Nevada 330905-00-05-10-12-CN** | Related proximity product; check system and options |

## Related portfolio selection

Compare each complete NSv execution independently. Different probe lengths, extensions, conditioners and approval options are not automatic substitutes.

## Manufacturer references

3300 XL NSv Proximity Transducer System, Datasheet 147385 Rev. R: extension ordering p. 13; electrical data p. 3; connection practice p. 5; routing and temperatures p. 6. Approvals Quick Reference Guide, Country Specific Ordering Options, 108M1756 Rev. AV: CN selection pp. 10 and 28. These selected facts and field checks support the equipment-specific installation procedure.


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