# Bently Nevada 330930-065-04-05

Complete Product Information

Bently Nevada 330930-065-04-05 is a 6.5 m armored NSv extension cable with FEP jacket and connector protector. It connects an NSv probe to the matching Proximitor Sensor inside a documented 5 m or 7 m chain.

## 01 Product identity and verified data

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| **Complete model** | 330930-065-04-05 |
| **Product type** | 3300 XL NSv extension cable |
| **Manufacturer** | Bently Nevada |
| **Technical source** | Bently Nevada 3300 XL NSv Proximity Transducer System Datasheet, 147385 Rev. R |
| **Cable family** | 3300 XL NSv |
| **Cable length** | 6.5 m |
| **Cable armor** | AISI 302 stainless-steel armor |
| **Armor jacket** | FEP outer jacket |
| **Connector protection** | Selected at the cable joints |
| **Agency approval option** | Multiple approvals |
| **Cable DC resistance - center** | 0.220 ohm/m |
| **Cable DC resistance - shield** | 0.066 ohm/m |

## Engineering purpose

The complete 330930-065-04-05 identity fixes the offered mechanical and cable configuration; installed performance still depends on the documented companion components, target and monitoring channel.

## Selected order-code snapshot

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| **Selected cable** | 6.5 m NSv extension cable with AISI 302 stainless-steel armor. |
| **Protection package** | FEP armor jacket and connector protector selected. |
| **Electrical construction** | 69.9 pF/m typical capacitance; 0.220 ohm/m center-conductor resistance. |

## 02 Technical capability and engineering overview

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| **Cable capacitance** | 69.9 pF/m typical |
| **Connector material** | Gold-plated brass |
| **Minimum bend radius** | 25.4 mm |
| **Maximum connector torque** | 0.56 N m; finger-tight recommended |
| **Cable temperature range** | -52 to +177 deg C, operating and storage |
| **Supported matched-system lengths** | 5 m or 7 m |
| **Matched-system linear range** | 1.5 mm under stated reference conditions |
| **Matched-system scale factor** | 7.87 V/mm (200 mV/mil) |

## Evidence boundary

Exact order fields are decoded only where the cited manufacturer ordering table supports them. System performance values apply to the complete matched transducer chain under the stated reference conditions.

## Engineering overview

330930-065-04-05 extends the impedance of an NSv proximity probe over 6.5 m to the matching Proximitor Sensor. The probe lead and cable must add to the total length selected on the Proximitor; cable length is therefore an electrical configuration field as well as a routing dimension.

This option uses stainless-steel armor with an FEP outer jacket and connector protection. Route the armor without crushing or unsupported pull, keep bends at or above 25.4 mm radius, and keep both gold-plated ClickLoc interfaces clean, dry and fully seated.

Linear range, scale factor and frequency response are properties of the complete matched NSv chain, not of the cable alone. Final acceptance must restore the documented gap or bias and prove the monitor response against the established machine baseline.

## Application map

### 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.

# 03 Installed-chain controls and precautions

## Interpretation boundaries

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| **Probe-only limit** | Do not present complete-system range, scale or linearity as a standalone output of 330930-065-04-05. |
| **Target influence** | Material, geometry, finish and nearby conductive surfaces can change the installed response. |
| **Length influence** | Probe lead and extension cable form part of the calibrated electrical relationship. |
| **Temperature influence** | Apply component temperature limits at their actual locations and compare with process transients. |
| **Mechanical influence** | Thread engagement, rigidity, target travel and cable support affect repeatability and service life. |
| **Acceptance rule** | Use the approved machine baseline and maintenance procedure for the final as-left decision. |

## Installed-chain controls

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| **Installed drawing** | Record the drawing, machine location and channel designation that govern 330930-065-04-05. |
| **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. |
| **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. |

## Product precautions

### Confirm the complete marking

Match every field of 330930-065-04-05 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.

## 04 Installation, diagnostics and engineering decisions

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| **01 Isolate** | Place the monitored machine and channel in the approved maintenance state; prove the required isolation. |
| **02 Photograph** | Capture 330930-065-04-05, 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. |

## Engineering questions

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| **Which probe lead completes the intended chain with 330930-065-04-05?** | Add the installed NSv probe lead to the 6.5 m cable and require the total to equal the 5 m or 7 m Proximitor selection. Preserve every component marking in the channel record. |
| **How should the armored route of 330930-065-04-05 be installed?** | Support the stainless-steel armor independently, keep bends at or above 25.4 mm radius, and prevent abrasion, crushing or tensile loading at either connector. |
| **What connector checks apply before mating 330930-065-04-05?** | Inspect the gold-plated ClickLoc contacts for moisture, debris and damage, align them fully, connect finger-tight and do not exceed 0.56 N m. |
| **How is 330930-065-04-05 accepted after replacement?** | Confirm the total chain length, restore the documented gap or bias, compare the monitor response with the accepted baseline, and record the final cable route and connector protection. |
| **What evidence should be captured before removing 330930-065-04-05?** | Photograph the complete 330930-065-04-05 marking, installed datum, connector, cable route and companion electronics. Record the stopped-machine baseline for the 3300 XL NSv extension cable. |
| **How should connector integrity be checked on 330930-065-04-05?** | 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 330930-065-04-05?** | Retain the exact markings, mechanical datum, companion-component identities, as-left gap or bias, monitor indication and the accepted operating response. |
| **When should 330930-065-04-05 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. |

# 05 Escalation and as-left record

## Technical notes

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| **Electrical relationship** | Use the 6.5 m cable only where probe lead plus extension cable equals the installed Proximitor system length. |
| **Mechanical relationship** | Maintain the 25.4 mm minimum bend radius and protect both ClickLoc joints from contamination and unsupported load. |
| **Technical reference** | Bently Nevada 3300 XL NSv Proximity Transducer System Datasheet, 147385 Rev. R. |

## Escalation triggers

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| **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 330930-065-04-05. |
| **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. |

## As-left verification worksheet

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| **Exact delivered marking** | 330930-065-04-05; photograph and record any additional label detail. |
| **Installed asset reference** | Machine, bearing, train, channel and drawing identifiers. |
| **Mechanical as found** | Reach, lock position, gap reference, cable route and connector support. |
| **Static reading as found** | Gap, bias, continuity or channel value appropriate to the installed system. |
| **Companion identities** | Extension cable, Proximitor or conditioner and monitor channel markings. |
| **Mechanical as left** | Final reach, lock position, target clearance and route protection. |
| **Static reading as left** | Final gap, bias, continuity or channel value with test conditions. |
| **Operating proof** | Monitor response and machine observation accepted by the responsible authority. |
| **Deviation record** | Any difference from drawing or baseline, disposition and approval reference. |
| **Release signatures** | Technician, reviewer, operations owner and date. |

# 06 Evidence, lifecycle and offered scope

## Evidence package

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| **Nameplate evidence** | Overall and close photographs showing 330930-065-04-05, 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. |

## Lifecycle status

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| **Exact order identity** | 330930-065-04-05 is the 6.5 m armored NSv extension cable with FEP jacket and connector protector; the reviewed manufacturer data identifies it within the current 3300 XL NSv cable ordering family. |
| **Installed-base support** | Replacement planning must preserve the 6.5 m length selection, armored FEP construction, connector protection and multiple-approval boundary. |
| **Replacement boundary** | A different cable length or protection code changes the ordered NSv chain and requires a fresh total-length and installation review. |

## Available unit details

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| **Offered cable** | One 330930-065-04-05, configured as a 6.5 m armored NSv extension cable with FEP jacket and connector protector. |
| **Selected construction** | 6.5 m; AISI 302 stainless-steel armor; FEP outer jacket; connector protector. |
| **Separate components** | NSv probe, NSv Proximitor Sensor, monitor and mounting hardware are separate unless itemized in the quotation. |

# 07 Release and engineering support

## Evidence quality controls

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| **Traceability** | Each value is tied to 330930-065-04-05, 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. |

## Release checklist

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| **Identity accepted** | Complete marking agrees with the approved order and installed record. |
| **Interfaces accepted** | Mechanical fit, connector, cable and companion electronics match the documented chain. |
| **Static proof accepted** | Gap, bias and monitor indication have been recorded under the approved stopped-machine method. |
| **Operating proof accepted** | The returned channel response agrees with the accepted machine baseline. |

## Verified related product references

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| **Related product** | 84661-96 |
| **Related product** | 330102-00-28-10-02-05 |
| **Related product** | 330104-00-16-10-02-00 |
| **Related product** | 330500-00-01 |

## Engineering contact

Discuss the exact marking and installed application with Apter Power.
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