# Bently Nevada 330906-02-12-05-02-05

Complete Product Information

Bently Nevada 330906-02-12-05-02-05 is a 3/8-24 UNF reverse-mount NSv probe with a 0.5 m lead. It operates only inside a documented matched NSv measurement chain.

## 01 Product identity and verified data

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| **Complete model** | 330906-02-12-05-02-05 |
| **Product type** | 3300 XL NSv reverse-mount proximity probe |
| **Manufacturer** | Bently Nevada |
| **Technical source** | Bently Nevada 3300 XL NSv Proximity Transducer System Datasheet, 147385 Rev. R |
| **Probe family** | 3300 XL NSv |
| **Mounting configuration** | Reverse mount |
| **Mounting thread** | 3/8-24 UNF |
| **Fixed mounting geometry** | 02-12 |
| **Total probe length** | 0.5 m |
| **Connector** | Miniature coaxial ClickLoc, standard cable |
| **Approval selection** | Multiple approvals |
| **Nominal probe DC resistance** | 4.0 +/- 0.5 ohm |

## Engineering purpose

The complete 330906-02-12-05-02-05 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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| **Mounting selection** | 3/8-24 UNF reverse mount; fixed geometry 02-12. |
| **Lead selection** | 0.5 m; Miniature coaxial ClickLoc, standard cable. |
| **System boundary** | Scale, gap and linearity belong to the complete matched NSv chain. |

## 02 Technical capability and engineering overview

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| **Matched-system linear range** | 1.5 mm (60 mil) |
| **Matched-system scale factor** | 7.87 V/mm (200 mV/mil) |
| **Recommended gap** | 1.0 mm (40 mil) |
| **Matched-system frequency response** | 0 to 10 kHz, +0/-3 dB typical |
| **Proximitor supply** | -17.5 to -26 V DC; 12 mA maximum without barriers |
| **Reference target** | AISI 4140 steel, 31 mm diameter or larger for stated system data |
| **Minimum flat target** | 8.9 mm; 13 mm recommended |

## 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

330906-02-12-05-02-05 is a reverse-mount sensing element for restricted-clearance NSv applications. Its 3/8-24 UNF sleeve and fixed 02-12 geometry must agree with the installed rear-access arrangement and target travel.

The 0.5 m lead terminates in a miniature coaxial clickloc, standard cable. Preserve the documented NSv total length, keep the coaxial joint clean and dry, and support the cable independently of the probe body.

NSv scale, linear range and frequency response are matched-system properties. Commissioning must verify target size, adjacent-probe clearance, restored gap or bias and the accepted monitor response.

## 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 330906-02-12-05-02-05. |
| **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 330906-02-12-05-02-05. |
| **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 330906-02-12-05-02-05 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 330906-02-12-05-02-05, 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 reverse-mount sleeve and access arrangement are required for 330906-02-12-05-02-05?** | Use the machine drawing to confirm the 3/8-24 UNF sleeve, rear access, lock position and target clearance before disturbing 330906-02-12-05-02-05. |
| **How should the 0.5 m lead on 330906-02-12-05-02-05 be matched electrically?** | Add only the documented NSv extension cable and require the combined length to equal the selected 5 m or 7 m NSv Proximitor system length. |
| **What target checks are required before setting the gap for 330906-02-12-05-02-05?** | Confirm target material, shaft or flat-target size, side-view clearance and adjacent-probe spacing before restoring the documented gap or bias. |
| **How is the ClickLoc interface of 330906-02-12-05-02-05 accepted after reconnection?** | Inspect the miniature coaxial contacts, seat them finger-tight, provide strain relief and verify the stopped-machine bias plus the operating monitor response. |
| **What evidence should be captured before removing 330906-02-12-05-02-05?** | Photograph the complete 330906-02-12-05-02-05 marking, installed datum, connector, cable route and companion electronics. Record the stopped-machine baseline for the 3300 XL NSv reverse-mount proximity probe. |
| **How should connector integrity be checked on 330906-02-12-05-02-05?** | 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 330906-02-12-05-02-05?** | Retain the exact markings, mechanical datum, companion-component identities, as-left gap or bias, monitor indication and the accepted operating response. |
| **When should 330906-02-12-05-02-05 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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| **Installation relationship** | Confirm the 3/8-24 UNF reverse-mount sleeve, rear access, fixed 02-12 geometry and target travel. |
| **Electrical boundary** | Use the 0.5 m lead only inside the documented 5 m or 7 m NSv chain. |
| **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 330906-02-12-05-02-05. |
| **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** | 330906-02-12-05-02-05; 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 330906-02-12-05-02-05, 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** | 330906-02-12-05-02-05 is a configured 3/8-24 UNF reverse-mount NSv probe; the reviewed manufacturer data does not assign a separate lifecycle phase to this complete option string. |
| **Installed-base support** | Support planning must preserve the 3300 XL NSv proximity transducer system probe, cable, Proximitor and monitor relationship recorded for the installed channel. |
| **Replacement boundary** | A newer or adjacent probe code is not a like-for-like replacement unless thread, reach, cable length, connector, approvals and calibrated chain are all documented. |

## Available unit details

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| **Offered probe** | One 330906-02-12-05-02-05, configured as a 3/8-24 UNF reverse-mount NSv probe. |
| **Selected interface** | 3/8-24 UNF reverse mount; 0.5 m lead; Miniature coaxial ClickLoc, standard cable. |
| **Separate components** | NSv extension cable, NSv Proximitor, monitor, sleeve and mounting hardware are separate unless itemized in the quotation. |

## Product-specific technical notes

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|---|---|
| **Installation relationship** | Confirm the 3/8-24 UNF reverse-mount sleeve, rear access, fixed 02-12 geometry and target travel. |
| **Electrical boundary** | Use the 0.5 m lead only inside the documented 5 m or 7 m NSv chain. |
| **Technical reference** | Bently Nevada 3300 XL NSv Proximity Transducer System Datasheet, 147385 Rev. R. |

# 07 Release and engineering support

## Evidence quality controls

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|---|---|
| **Traceability** | Each value is tied to 330906-02-12-05-02-05, 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** | Bently Nevada 330930-040-03-00 |
| **Related product** | Bently Nevada 84661-96 |
| **Related product** | Bently Nevada 330102-00-28-10-02-05 |
| **Related product** | Bently Nevada 330104-00-16-10-02-00 |

## Maintenance record fields

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| **Installed chain** | Record the machine point, channel, 330906-02-12-05-02-05 marking and all matched companion-component identities. |
| **As-left result** | Record mechanical position, cable support, applicable electrical reading and controlled functional response. |
| **Closeout evidence** | Record baseline, technician, reviewer, date, work order and the location of photographs and test evidence. |

## Engineering contact

Discuss the exact marking and installed application with Apter Power.
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