# Bently Nevada 330103-00-10-10-02-05

**INSTALLATION AND COMMISSIONING GUIDE**

Bently Nevada 330103-00-10-10-02-05 is a 3300 XL 8 mm proximity probe with M10 x 1 case thread and without armor. It is the probe segment of a matched noncontact shaft measurement chain.

## 01 Job scope and safe-work boundary

The offered item is the 3300 XL 8 mm probe with its integral 1.0 m lead. Confirm extension cable, 3300 XL 8 mm Proximitor Sensor and mounting accessories separately in the quotation.

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| **Match the complete marking** | Compare every order group of 330103-00-10-10-02-05 with the installed item and the applicable Bently Nevada system documentation. |
| **Check the offered item before ordering** | Request photos of the offered 330103-00-10-10-02-05 and included items. Have the maintenance team compare them with the installed equipment and applicable Bently Nevada documentation. |

## Before work starts

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| **Identity baseline** | Read 330103-00-10-10-02-05 as 330103 plus order groups 00 / 10 / 10 / 02 / 05; verify case, cable and approval groups against the installed marking. |
| **Installed context** | The 3300 XL 8 mm probe senses shaft-to-tip gap as one part of a probe, extension cable and 3300 XL 8 mm Proximitor Sensor chain. |
| **Required record** | Send the complete 330103-00-10-10-02-05 marking and installed-system identifiers for technical review. |
| **Stop condition** | Stop if the complete marking, interface or approved chain cannot be matched. |

## Readiness data

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| **Probe system** | 3300 XL 8 mm |
| **Probe tip family** | 8 mm |
| **Case thread** | M10 x 1 |
| **Cable armor** | without armor |
| **Unthreaded length** | 0 mm |
| **Overall case length** | 100 mm |
| **Integral probe length** | 1.0 m |
| **Cable construction** | standard |

## 02 Pre-installation readiness

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| **Read all code groups** | Compare every group of 330103-00-10-10-02-05 with the removed part; a shared base number does not establish equal cable or case length. |
| **Check mounting geometry** | Confirm M10 x 1, 0 mm unthreaded section and 100 mm case against the bracket and target. |
| **Match electrical length** | Combine the 1.0 m probe lead with the extension cable and check the 3300 XL 8 mm Proximitor Sensor system-length marking. |
| **Inspect ClickLoc** | Keep the connector clean and verify the specified connector-protector arrangement before closing the joint. |
| **Review site approval** | Treat the order-code approval group as CSA, ATEX and IECEx approvals option; compare the physical label with the site requirement. |
| **Prove the channel** | Record target condition, gap indication and a controlled dynamic or position response after fitting. |

## Why these checks matter

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| **Geometry** | The correct thread alone does not prove case reach, target clearance or sensor calibration. |
| **Electrical length** | Match probe, extension cable and Proximitor Sensor markings. |
| **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

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| **How should the installed measurement chain be matched when replacing 330103-00-10-10-02-05?** | Check the probe lead and extension cable lengths together against the 3300 XL 8 mm Proximitor Sensor marking, then compare the monitor channel configuration. |
| **Why might 330103-00-10-10-02-05 fit a bracket but still produce the wrong gap reading?** | M10 x 1 fit does not verify electrical length, target material, sensor calibration or gap. Compare the full chain and measure the baseline output before return to service. |
| **What should be checked before setting the gap on 330103-00-10-10-02-05?** | Confirm the 100 mm case reaches the intended target without collision, then use the site-approved static target position and monitor procedure. |

## Readiness decision

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| **Marking** | Keep the complete model and every suffix group in the comparison. |
| **Installed chain** | Match probe, extension cable and Proximitor Sensor markings. |
| **Acceptance** | Use measured gap or channel response and retain the as-left record. |

## 03 Replacement sequence

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| **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

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| **Radial vibration and position** | Confirm 3300 XL 8 mm target and monitor suitability; compare the original probe angle and bracket clearance. |
| **Axial position review** | Check target travel and the calibrated system range before setting the mechanical gap. |
| **Speed or phase reference** | Use a suitable target feature and compatible monitor channel; prove the event under controlled operation. |
| **Installed-chain replacement** | Match M10 x 1, 100 mm case, 1.0 m lead, ClickLoc option and full approval marking. |

## Interface restoration controls

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| **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

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| **Connector** | Miniature coaxial ClickLoc, without connector protector |
| **Approval option** | CSA, ATEX and IECEx approvals option |
| **Matching sensor** | 3300 XL 8 mm Proximitor Sensor |
| **Matched-system scale factor** | 7.87 V/mm (200 mV/mil); 1 m / 5 m system value |
| **Matched-system linear range** | 2.0 mm (80 mil); approximately 0.25 to 2.3 mm gap |
| **Recommended radial gap** | -9 Vdc; approximately 1.27 mm (50 mil) |
| **Matched-system frequency response** | 0 to 10 kHz, +0/-3 dB; up to 305 m field wiring |
| **Minimum flat target** | 15.2 mm (0.6 in) diameter |

## 04 Commissioning and acceptance

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| **Identity and fit** | Compare every order group of 330103-00-10-10-02-05 with the installed item and the applicable Bently Nevada system documentation. |
| **Static baseline** | Record supply and static indication before the controlled test. |
| **Dynamic proof** | Record target condition, gap indication and a controlled dynamic or position response after fitting. |
| **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

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| **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

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| **How is the ClickLoc joint on 330103-00-10-10-02-05 checked after assembly?** | Inspect contact cleanliness and full engagement, provide strain relief, and confirm the specified connector-protector arrangement matches the order group. |
| **Can a different approval suffix be assumed equivalent to 330103-00-10-10-02-05?** | No. Compare the physical approval marking, installation drawing and site classification before selecting a suffix for a controlled area. |
| **How should a noisy channel be isolated after installing 330103-00-10-10-02-05?** | Inspect target condition, ClickLoc joint, routing and shielding, then compare the probe-extension-sensor chain and monitor input under the approved diagnostic procedure. |

## Acceptance evidence

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| **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

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| **What evidence is useful when accepting 330103-00-10-10-02-05 as a replacement?** | Retain full component markings, installed geometry, target and baseline gap reading, plus a controlled response from the monitoring channel. |
| **When should the extension cable be changed along with 330103-00-10-10-02-05?** | Change or reselect it when the existing cable and offered probe do not provide the sensor-required electrical length, or when connector/cable condition fails inspection. |

## Source and applicability

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| **Code map** | The first two groups set case geometry; the next group sets probe lead length; the last two select cable/connector and approval. |
| **System applicability** | These option meanings apply to the offered 330103-00-10-10-02-05; system performance requires a matched 3300 XL 8 mm probe, extension cable and 3300 XL 8 mm Proximitor Sensor. |
| **Technical reference** | Bently Nevada 3300 XL 8 mm Proximity Transducer System Datasheet, 141194 Rev. AN. |

## Recommended Bently Nevada references

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| 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

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| **Complete identity** | 330103-00-10-10-02-05 |
| **Configuration** | Read 330103-00-10-10-02-05 as 330103 plus order groups 00 / 10 / 10 / 02 / 05; verify case, cable and approval groups against the installed marking. |
| **Final proof** | Record static and controlled dynamic results with test conditions. |

**Discuss the complete marking with Apter Power**
sales13@apterpower.com | +86 18030235313