Bently Nevada 330103-17-23-05-02-05

INSTALLATION AND COMMISSIONING GUIDE

Bently Nevada 330103-17-23-05-02-05 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 0.5 m lead. Confirm extension cable, 3300 XL 8 mm Proximitor Sensor and mounting accessories separately in the quotation.

Match the complete marking	Compare every order group of 330103-17-23-05-02-05 with the installed item and the applicable Bently Nevada system documentation.
Check the offered item before ordering	Request photos of the offered 330103-17-23-05-02-05 and included items. Have the maintenance team compare them with the installed equipment and applicable Bently Nevada documentation.

Before work starts

Identity baseline	Read 330103-17-23-05-02-05 as 330103 plus order groups 17 / 23 / 05 / 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 330103-17-23-05-02-05 marking and installed-system identifiers for technical review.
Stop condition	Stop if the complete marking, interface or approved chain cannot be matched.

Readiness data

Probe system	3300 XL 8 mm
Probe tip family	8 mm
Case thread	M10 x 1
Cable armor	without armor
Unthreaded length	170 mm
Overall case length	230 mm
Integral probe length	0.5 m
Cable construction	standard

02 Pre-installation readiness

Read all code groups	Compare every group of 330103-17-23-05-02-05 with the removed part; a shared base number does not establish equal cable or case length.
Check mounting geometry	Confirm M10 x 1, 170 mm unthreaded section and 230 mm case against the bracket and target.
Match electrical length	Combine the 0.5 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

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

How should the installed measurement chain be matched when replacing 330103-17-23-05-02-05?	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 330103-17-23-05-02-05 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 330103-17-23-05-02-05?	Confirm the 230 mm case reaches the intended target without collision, then use the site-approved static target position and monitor procedure.

Readiness decision

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

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

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, 230 mm case, 0.5 m lead, ClickLoc option and full approval marking.

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

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

Identity and fit	Compare every order group of 330103-17-23-05-02-05 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

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 is the ClickLoc joint on 330103-17-23-05-02-05 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 330103-17-23-05-02-05?	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 330103-17-23-05-02-05?	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

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 evidence is useful when accepting 330103-17-23-05-02-05 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 330103-17-23-05-02-05?	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

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 330103-17-23-05-02-05; 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

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	330103-17-23-05-02-05
Configuration	Read 330103-17-23-05-02-05 as 330103 plus order groups 17 / 23 / 05 / 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