Bently Nevada 330705-02-18-10-02-05

Engineering Installation, Diagnostic and Acceptance Guide

Bently Nevada 330705-02-18-10-02-05 is a 3/8-24 UNF reverse-mount 11 mm probe with a 1.0 m lead for long-range non-contact displacement measurement.

01 Job scope and identity

Complete model	330705-02-18-10-02-05
Product type	3300 XL 11 mm reverse-mount proximity probe
Manufacturer	Bently Nevada
Technical source	Bently Nevada 3300 XL 11 mm Proximity Transducer System Datasheet, 146256 Rev. T

Field decisions

1 Establish identity

Capture the full marking, installed companion components and baseline before disconnection.

2 Inspect interfaces

Verify mounting, cable, connector, armor, approval and environmental boundaries.

3 Fit the exact chain

Preserve the documented probe-cable-Proximitor or sensor-monitor relationship.

4 Prove response

Use the approved stopped-machine and operating acceptance procedure.

5 Record as left

Save markings, configuration, test values and operating observations.

Installation relationships

Reverse-mount datum	Verify the rear-access installation, 3/8-24 UNF thread and fixed 0.2/1.8 in geometry before disturbing the installed probe.
Electrical length	The 1.0 m probe lead must be paired with the extension cable and Proximitor option that completes the installed 11 mm chain.
Acceptance range	Use the 4.0 mm range, 3.94 V/mm scale and 2.5 mm gap only for the complete matched system.

Pre-work evidence

Installed drawing	Record the approved cabinet, rail, slot, terminal, cable and system references that govern 330705-02-18-10-02-05.
Complete marking	Capture the complete order identity and every revision or approval marking on the delivered item.
Mechanical reference	Record mounting position, fasteners, connector orientation, access clearance and support points.
Electrical interfaces	Confirm supply, signal, bus, terminal and protective-conductor assignments against the installed drawing.
Configuration state	Record jumpers, switches, addresses, firmware or project settings that apply to this hardware.

02 Pre-installation readiness

Model-specific installation decisions

Exact identity

330705-02-18-10-02-05 and every delivered revision or approval marking must be recorded before removal.

Installed system

3300 XL 11 mm proximity transducer system companion components, channel assignment and approved machine reference must remain traceable.

Mechanical baseline

Record the as-found mounting datum, reach, lock position, target clearance, routing and connector support.

Electrical baseline

Record the applicable stopped-machine gap, bias, continuity or channel value together with test conditions.

As-left configuration

Document the final mechanical position, cable protection, connector condition and complete companion-component identities.

Functional release

Compare the final monitor indication and controlled operating response with the approved baseline before handover.

Installation precautions

Protect the 11 mm tip

Keep the PPS sensing face free of impact, metal particles and process contamination.

Control reverse-mount torque

Use 7.5 N m recommended torque and do not exceed the 22.6 N m rating for the reverse-mount case.

Preserve lead radius

Maintain at least 25.4 mm bend radius and support the 1.0 m triaxial lead independently.

Protect ClickLoc contacts

Keep the gold-plated interface clean and dry and connect it finger-tight without twisting the probe lead.

Restore the operating gap

Re-establish the documented 2.5 mm gap or accepted bias using the approved stopped-machine method.

Prove long-range response

Compare the Proximitor output and monitor indication through the expected travel before release.

Companion and baseline records

Companion hardware	Record the connected drive, rack, motor, transducer, I/O base or control unit as applicable.
As-found baseline	Capture relevant voltages, currents, states, counts, fault history or channel response before removal.
Operating baseline	Record the controlled functional result after the complete system is returned to service.

Pre-installation release gates

Identity gate	The delivered marking is 330705-02-18-10-02-05 and all visible revision or approval details have been photographed.
Drawing gate	The installed asset, channel, mounting reference and companion-component assignments are identified on the approved record.
Mechanical gate	Mounting surface, thread or support points, access clearance and target relationship are suitable for the selected configuration.
Interface gate	Connector, conductor, shield, terminal and protective-conductor condition have been inspected before connection.
Route gate	Cable or lead routing preserves bend radius, strain relief, contamination protection and separation from damaging surfaces.
Baseline gate	The applicable stopped-machine reading and operating observation have been captured with units and test conditions.

03 Installation and commissioning

Controlled installation sequence

01 Isolate	Place the monitored machine and channel in the approved maintenance state; prove the required isolation.
02 Photograph	Capture 330705-02-18-10-02-05, 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.

Commissioning acceptance criteria

Mechanical fit	3/8-24 UNF; fixed 0.2 in unthreaded and 1.8 in case options. Confirm the installed datum and available target travel before final tightening.
Lead or interface fit	1.0 m lead with miniature ClickLoc coaxial connector. Inspect the mating interface and provide independent route support.
System position	This reverse-mount probe belongs to a matched 3300 XL 11 mm chain; rear-access geometry, target travel, electrical length and monitor assignment must be reviewed together.
As-found reference	Record the applicable stopped-machine reading and the exact companion-component identities before disconnection.
Static acceptance	Restore the documented gap, bias, continuity or channel value with the machine in the approved test state.
Functional acceptance	Compare local indication, monitor response and the controlled operating observation with the accepted machine baseline.

Deviation control	Withhold release when the delivered marking, mounting datum, interface, system length or response differs from the approved record.
Release evidence	Retain the complete marking, test conditions, measured results, photographs, reviewer and maintenance-record reference.

Acceptance test points

After mechanical fit	Record final mounting datum, engagement, lock position, target clearance and route support.
After interface connection	Confirm contact seating, conductor or shield assignment and continuity or bias as applicable.
Before energization	Reconcile companion identities, total chain configuration and monitor or collector channel assignment.
Initial energized state	Observe the local channel value and status without declaring acceptance from open-circuit voltage alone.
Controlled functional proof	Compare the returned indication and machine response with the approved operating baseline.
Final record	Attach photographs, measured values, deviations, approvals and the maintenance-record location.

04 Diagnostics and escalation

Which fixed geometry identifies 330705-02-18-10-02-05?	It is the 3/8-24 UNF reverse-mount probe with the fixed 0.2 in unthreaded and 1.8 in case selections.
Which total lead length is selected for 330705-02-18-10-02-05?	The selected probe lead is 1.0 m; combine it only with the extension cable and Proximitor recorded for the installed 11 mm chain.
What connector inspection is required for 330705-02-18-10-02-05?	Inspect the miniature ClickLoc interface for moisture, debris, contact damage and unsupported cable load before mating.
Which response values apply to 330705-02-18-10-02-05?	Use the 4.0 mm range, 3.94 V/mm scale and 0 to 8 kHz response only for the complete matched 11 mm system.

Additional diagnostic decisions

How should 330705-02-18-10-02-05 be torqued?	For the reverse-mount body use 7.5 N m recommended torque and never exceed 22.6 N m.
What target check is required for 330705-02-18-10-02-05?	Confirm the AISI 4140 reference basis, target diameter of at least 30.5 mm, alignment and expected travel.
When must 330705-02-18-10-02-05 be withheld from service?	Withhold release if fixed geometry, chain length, connector, gap or controlled response differs from the approved record.
What handover evidence is required for 330705-02-18-10-02-05?	Retain the full marking, reverse-mount datum, companion identities, as-left gap or bias and monitor response.

Escalation triggers

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 330705-02-18-10-02-05.
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.

05 Handover and evidence package

As-left verification worksheet

Exact delivered marking	330705-02-18-10-02-05; 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.

Evidence quality controls

Traceability	Each value is tied to 330705-02-18-10-02-05, 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.

Model-specific application limits

Reverse-mount thread	3/8-24 UNF
Probe lead	1.0 m
System range	4.0 mm
Scale factor	3.94 V/mm
Recommended gap	2.5 mm

Verified related product references

Related product	Bently Nevada 330500-00-01
Related product	Bently Nevada 330980-70-CN
Related product	Bently Nevada 330930-040-03-00
Related product	Bently Nevada 84661-96

Engineering contact

Discuss the exact marking and installed application with Apter Power.
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