Bently Nevada 330171-00-32-05-01-05

Complete Product Information

Bently Nevada 330171-00-32-05-01-05 is an unarmored 3300 5 mm proximity probe with 1/4-28 UNF-2A thread, a 3.2 in case and 0.5 m integral lead. It is the passive sensing element in a matched eddy-current transducer chain.

01 Product identity and verified data

Complete model	330171-00-32-05-01-05
Product type	Unarmored 3300 5 mm proximity probe
Manufacturer	Bently Nevada
Technical source	Bently Nevada 3300 5 mm Transducer System Datasheet, 172036 Rev. R
Product type	Unarmored 3300 5 mm proximity probe
Case thread	1/4-28 UNF-2A
Lead armor	No armor
Unthreaded length	0.0 in
Overall case length	3.2 in
Total probe length	0.5 m
Connector	Miniature coaxial ClickLoc with connector protector
Agency approval option	Multiple approvals

Engineering purpose

The complete 330171-00-32-05-01-05 code fixes the probe mechanics, lead, connector and approval selection; the installed response still depends on the matching extension cable, Proximitor, target and monitor.

02 Additional technical specifications

Probe tip diameter	5.2 mm
Cable impedance	75 ohm
Maximum cable outside diameter	2.8 mm, unarmored probe lead
Probe temperature range	-35 to +177 deg C
Maximum thread engagement	0.375 in for 1/4-28 mounting
Measurement principle	Eddy-current non-contact sensing
Electrical role	Passive probe in a matched transducer chain

Evidence boundary

Mechanical order fields apply to this exact probe identity. System performance values belong to a complete matched probe, extension cable and Proximitor chain.

03 Engineering overview

330171-00-32-05-01-05 uses a 1/4-28 UNF-2A unarmored body with no unthreaded section and a 3.2 in overall case. Record the locknut datum and verify the tapped-hole depth before removal because excessive thread engagement can bind the probe.

The 0.5 m 75-ohm lead terminates in a miniature ClickLoc connector with protector. Preserve the electrical-length relationship to the installed Proximitor, keep the coaxial interface clean and dry, and do not let the connector carry cable weight.

The probe operates by eddy-current coupling to a conductive target. Final acceptance should restore the approved stopped-machine gap, compare bias and monitor indication with the maintenance baseline, and confirm operating response before protection is returned to service.

Application map

Radial shaft vibration

Use a documented bearing location and matched transducer chain to observe shaft motion relative to the probe mounting.

Axial position

Orient the probe toward an approved conductive thrust target and keep expected travel inside the characterized working region.

Phase or speed reference

Use only where the installed target feature and monitoring channel are approved for once-per-turn reference measurement.

Legacy-channel maintenance

Preserve the exact mechanical identity, cable construction, system length and companion electronics recorded for the installed channel.

Installed-chain controls

Installed drawing	Record the drawing, machine location and channel designation that govern 330171-00-32-05-01-05.
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.

Interpretation boundaries

Probe-only limit	Do not present complete-system range, scale or linearity as a standalone output of 330171-00-32-05-01-05.
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.

04 Installation and product precautions

Confirm the complete marking

Match every field of 330171-00-32-05-01-05 with the installed record before removal or installation.

Protect the sensing face

Keep the tip, connector and cable free from impact, moisture, metal chips and unsupported loading.

Preserve the mechanical datum

Record reach, thread engagement, locknut 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 or crush the coaxial path.

Restore the operating point

Use the approved stopped-machine procedure and confirm expected target travel remains in the documented working region.

Prove the complete channel

Verify the as-left electrical reading, monitor indication and operating response before return to service.

Technical notes

Installation relationship	Use the 1/4-28 mounting, 3.2 in case and recorded locknut datum to establish the installed position.
System boundary	Treat gap, scale and linearity as complete-chain values, not standalone probe ratings.
Technical reference	Bently Nevada 3300 5 mm Transducer System Datasheet, 172036 Rev. R.

Controlled installation sequence

01 Isolate	Place the monitored machine and channel in the approved maintenance state; prove the required isolation.
02 Photograph	Capture 330171-00-32-05-01-05, 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

How is the extension cable selected for 330171-00-32-05-01-05?	The 0.5 m integral lead must be combined with the correct extension cable to equal the installed Proximitor system length. Confirm connector and approval identity as well as length.
How should the 3.2 in case of 330171-00-32-05-01-05 be checked in the mounting?	Compare the 1/4-28 port depth, thread engagement, locknut location and target travel with the approved machine drawing before setting the gap.
What can cause gap-voltage drift after fitting 330171-00-32-05-01-05?	Check mechanical locking, target thermal movement, connector contamination, cable insulation and Proximitor stability before changing monitor settings.
How should cross-talk be assessed around 330171-00-32-05-01-05?	Verify probe spacing and target geometry, then observe adjacent channels during a controlled target movement. Correct physical spacing or routing before applying software compensation.
How should the complete marking of 330171-00-32-05-01-05 be recorded before removal?	Photograph the full order identity, installed position, companion components and cable route. Save the stopped-machine baseline so the replacement can be returned to the same documented configuration.
Which companion-component check is required before installing 330171-00-32-05-01-05?	Confirm the probe, extension cable and Proximitor or signal conditioner identities as a documented chain. Connector fit alone does not establish electrical calibration.
How should cable and connector integrity be tested for 330171-00-32-05-01-05?	Isolate the channel, inspect contacts for moisture, contamination and damage, verify continuity and insulation with an approved method, and support the cable so the connector carries no tensile load.
What commissioning evidence should be retained for 330171-00-32-05-01-05?	Retain complete markings, mechanical datum, companion identities, wiring or chain-length checks, as-left measurements and the operating response accepted by the maintenance authority.

Acceptance and support

Retain the full marking, installed-chain identities, test readings and approved machine configuration. Confirm the exact offered item and included scope in the written quotation.

Discuss the exact marking and installed application with Apter Power.
sales13@apterpower.com | +86 18030235313

Verified related product references

Related product	330104-00-16-10-02-00
Related product	330500-00-01
Related product	330980-70-CN
Related product	330930-040-03-00

Commissioning record template

Installed asset	Machine, bearing, channel or cabinet reference
Companion identities	Probe, cable, sensor, interface or monitor markings
Mechanical datum	Mounting reference, reach, alignment or sealing condition
Electrical datum	Chain length, connector, shield, supply or input assignment
Before-work baseline	Gap, bias, vibration, continuity or channel observation
As-left result	Final measured value and functional proof
Approval basis	Applicable drawing, control requirement or site procedure
Handover	Technician, date, revision and maintenance-record location

Handover note

A replacement is complete only after the installed identity, physical interfaces, measured response and configuration record agree. Escalate any mismatch before the channel returns to protection or monitoring service.

Release checklist

Identity accepted	Complete marking agrees with the order, photographs and installed asset record.
Interfaces accepted	Mechanical fit, connector, wiring and companion components match the approved design.
Environment accepted	Temperature, contamination, vibration and route protection remain inside documented limits.
Configuration accepted	Hardware assignment, chain length or supply settings agree with the installed configuration.
Static proof accepted	Gap, bias, output voltage, channel state or continuity result is recorded as applicable.
Operating proof accepted	The returned channel response agrees with the approved machine or system baseline.

As-left verification worksheet

Exact delivered marking	330171-00-32-05-01-05; 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.