Bently Nevada 21504-036-068-10-02

Complete Product Information

Bently Nevada 21504-036-068-10-02 is an unarmored 7200-series 8 mm standard-mount proximity probe with 3/8-24 thread, a 6.8 in case and 1.0 m total length. It operates only as part of a matched eddy-current transducer chain.

01 Product identity and verified data

Complete model	21504-036-068-10-02
Product type	7200 8 mm standard-mount proximity probe
Manufacturer	Bently Nevada
Technical source	Bently Nevada 7200 Proximity Transducer Systems 5 mm and 8 mm original datasheet
Product type	7200 8 mm standard-mount proximity probe
Probe diameter	8 mm
Mounting configuration	Standard mount
Case thread	3/8-24 UNF-2A
Lead armor	No armor
Unthreaded length	3.6 in
Overall case length	6.8 in
Total probe length	1.0 m

Engineering purpose

The complete 21504-036-068-10-02 identity establishes the 7200 probe geometry and coaxial lead; installation requires the matching 7200 extension cable, Proximitor, target and monitor channel.

02 Additional technical specifications

Connector	Miniature male coaxial connector
Probe cable impedance	95 ohm coaxial
Family calibrated range	2.0 mm for the matched 7200 5/8 mm system
Family scale factor	7.87 V/mm for a calibrated matched system
Family frequency response	0 to 10 kHz
Probe and cable temperature	-34 to +177 deg C
Reference target	AISI 4140 steel for published family data

Evidence boundary

Exact order fields identify this probe geometry and cable. Range, scale and frequency figures are family-level matched-system values under the stated reference conditions.

03 Engineering overview

21504-036-068-10-02 is the passive sensing element of a 7200 eddy-current system. Its 3/8-24 body, 3.6 in unthreaded reach and 6.8 in case define the installed mechanical relationship, so the sleeve or port datum and locknut position must be recorded before removal.

The 1.0 m 95-ohm coaxial lead terminates in a miniature male connector. Keep the connector clean, dry and mechanically supported, and verify that probe plus extension cable equals the electrical length required by the installed 7200 Proximitor.

Published 7200 range, scale and frequency figures belong to a calibrated complete system on the stated reference target. Restore gap using the approved stopped-machine procedure, then compare bias, monitor indication and operating response with the accepted machine baseline.

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 21504-036-068-10-02.
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 21504-036-068-10-02.
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 21504-036-068-10-02 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 3.6 in unthreaded reach, 6.8 in case and recorded locknut datum to rebuild the installed position.
Electrical boundary	Use only with the documented 7200 extension cable and Proximitor combination.
Technical reference	Bently Nevada 7200 Proximity Transducer Systems 5 mm and 8 mm original datasheet.

Controlled installation sequence

01 Isolate	Place the monitored machine and channel in the approved maintenance state; prove the required isolation.
02 Photograph	Capture 21504-036-068-10-02, 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 should the 3.6 in unthreaded reach of 21504-036-068-10-02 be verified?	Compare the port, sleeve and target drawing with the 3.6 in unthreaded section and 6.8 in case before the old probe is removed.
Which extension cable and Proximitor can be used with 21504-036-068-10-02?	Only the documented 7200 family components and total system length should be used. Confirm all three markings before disconnection.
How should the miniature coaxial connector of 21504-036-068-10-02 be protected?	Keep the interface clean and dry, fully seat the connector, provide strain relief and apply only the approved environmental protection method.
Can 21504-036-068-10-02 be mixed with a 3300 XL 8 mm component?	No cross-family substitution should be assumed. A conversion requires a documented complete-system review of probe, cable, Proximitor, monitor and target.
How should the complete marking of 21504-036-068-10-02 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 21504-036-068-10-02?	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 21504-036-068-10-02?	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 21504-036-068-10-02?	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	330102-00-28-10-02-05
Related product	330104-00-16-10-02-00
Related product	330500-00-01
Related product	330980-70-CN

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	21504-036-068-10-02; 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.