Bently Nevada 330103-00-05-90-02-05

Complete Product Information

Bently Nevada 330103-00-05-90-02-05 is a unarmored 3300 xl 8 mm proximity probe configured with M10 x 1, a 50 mm case and 9.0 m integral lead. It is the passive sensing element in a matched non-contact vibration and position measurement chain.

01 Product identity and verified data

Complete model	330103-00-05-90-02-05
Product type	Unarmored 3300 XL 8 mm proximity probe
Manufacturer	Bently Nevada
Supply condition	New, original product
Technical source	Bently Nevada 3300 XL 8 mm Proximity Transducer System Datasheet, 141194 Rev. AL
Product type	Unarmored 3300 XL 8 mm proximity probe
Case thread	M10 x 1
Armor	No armor
Unthreaded length	0 mm
Overall case length	50 mm
Integral lead length	9.0 m
Connector	Miniature ClickLoc coaxial connector
Approval selection	CSA, ATEX and IECEx selection

Engineering purpose

The complete 330103-00-05-90-02-05 identity fixes the probe geometry, cable construction, connector and approval selection; system performance depends on the matching extension cable, Proximitor Sensor, target and monitor.

02 Additional technical specifications

Matched-system linear range	2.0 mm under the stated target and calibration conditions
Matched-system scale factor	7.87 V/mm (200 mV/mil) under the stated conditions
Typical frequency response	0 to 10 kHz for the complete matched system
Reference target	AISI 4140 steel unless the installation is separately characterized
Probe tip material	Polyphenylene sulfide (PPS)
Probe case material	AISI 304 stainless steel
Integral cable	75 ohm triaxial cable with FEP insulation
System-length rule	Probe lead plus extension cable must match the selected Proximitor system length

Evidence boundary

Mechanical order fields apply to the exact probe identity; range, scale and frequency values apply to the complete matched chain under the stated calibration conditions.

03 Engineering overview

330103-00-05-90-02-05 forms the sensing end of a 3300 XL 8 mm eddy-current transducer chain. The selected M10 x 1 body and 0 mm / 50 mm geometry establish the installed reach and locknut relationship; record the mechanical datum before removal.

The 9.0 m integral lead and miniature clickloc coaxial connector carry the probe impedance to the remaining chain. Preserve total electrical length, keep coaxial interfaces clean and fully seated, and route the cable without twist, crushing or strain at the probe body.

The documented 2.0 mm range and 7.87 V/mm scale describe a calibrated matched system on the stated AISI 4140 target. Target alloy, geometry, cross-talk spacing and temperature can change the field result, so commissioning must restore the approved gap and machine baseline.

Application map

Radial shaft vibration

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

Axial position

Orient the probe toward a suitable conductive thrust target and keep expected travel inside the calibrated working region.

Speed or phase reference

Use an approved target feature and monitor configuration when the channel provides a once-per-turn reference.

Maintenance replacement

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

04 Installation and product precautions

Confirm the complete marking

Match every field of 330103-00-05-90-02-05 with the installed record before removal or installation.

Protect sensing and interfaces

Keep the sensing face, 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 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 M10 x 1 mounting and the documented 0 mm / 50 mm geometry to establish the installed position.
System boundary	Treat range, scale and frequency response as complete-chain values, not standalone probe ratings.
Technical reference	Bently Nevada 3300 XL 8 mm Proximity Transducer System Datasheet, 141194 Rev. AL.

Engineering questions

How is the correct extension cable selected for 330103-00-05-90-02-05?	Use the 9.0 m integral lead and the installed Proximitor total length to determine the required extension cable. Verify connector and approval identity as well as length.
How should the M10 x 1 mounting geometry of 330103-00-05-90-02-05 be checked?	Compare the 0 mm unthreaded section and 50 mm case with the approved port drawing so the probe reaches the target without bottoming or losing adequate thread engagement.
What can cause gap-voltage drift after fitting 330103-00-05-90-02-05?	Check mechanical locking, target thermal movement, connector contamination, cable insulation and Proximitor stability before changing monitor settings.
How should cross-talk be assessed around 330103-00-05-90-02-05?	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 330103-00-05-90-02-05 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 compatibility check is most important before installing 330103-00-05-90-02-05?	Confirm that every companion component belongs to the documented 3300 XL 8 mm proximity transducer system. Connector fit alone does not establish electrical calibration or mechanical compatibility.

How should cable and connector integrity be tested for 330103-00-05-90-02-05?	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 330103-00-05-90-02-05?	Retain full 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.
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Verified related product references

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

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.