

Bently Nevada 330907-05-30-10-02-00

COMPLETE PRODUCT INFORMATION

01 / PRODUCT AND APPLICATION MAP

Bently Nevada 330907-05-30-10-02-00 is an M10 x 1 reverse-mount NSv probe with a 1 m standard ClickLoc lead. Its matched 3300 XL NSv system measures shaft-relative vibration and position in restricted installations.

Selected identity

Base 330907	NSv reverse-mount probe; M10 x 1
Fixed code 05-30	Reverse-mount case configuration; preserve the code
CC = 10	1.0 m total electrical probe length
DD = 02	Standard cable and miniature ClickLoc
EE = 00	Agency approval not required

Signal path

Target Shaft position or motion	330907 NSv proximity probe	Conditioner Signal to monitor
---	--------------------------------------	---

Confined compressor bearings

Measure radial shaft vibration and position on fluid-film bearing machines with restricted probe access.

Thrust position monitoring

Use the conditioned DC signal for axial target position after checking the target surface and usable linear span.

Speed and zero-speed channels

Sense suitable rotating target features through an NSv channel configured for tachometer or zero-speed monitoring.

Phase-reference signals

Provide the non-contact probe element for a Keyphasor reference channel with the correct target and monitor configuration.

Why restricted installations use NSv

The family improves side-view and small-target behavior where larger 3300 and 3300 XL probes face counterbore, side-view or rear-view restrictions. Evaluate the actual target and sensor-chain calibration before accepting a measurement.

Exact-model scope

The final -00 selection does not request agency approval. Reverse-mount probes are unavailable with armor or connector-protector options; assess the actual junction protection and independent process containment.

Choose the electrical length

5 m NSv system	1 m probe + 4 m NSv extension
7 m NSv system	1 m probe + 6 m NSv extension

Connect with ApterPower

Phone: +86 180 3023 5313

Email: sales13@apterpower.com

www.apterpower.com



330907-05-30-10-02-00

Probe and conditioner

Isolated 1 m probe resistance	4.2 +/- 0.5 ohm, center to outer conductor
Probe / extension impedance	75 ohm coaxial
Conditioner output resistance	50 ohm
Conditioner maximum demand	12 mA
Supply without barriers	-17.5 to -26 VDC
Supply with barriers	-23 to -26 VDC

NSv measurement transfer

Matched-system linear span	1.5 mm; target distance approximately 0.25 to 1.75 mm
Voltage across stated span	Approximately -1 to -13 VDC
Recommended probe gap	1.0 mm
Nominal scale factor	7.87 V/mm (200 mV/mil)

Component materials

Probe tip	Polyphenylene sulfide (PPS)
Probe case	AISI 304 stainless steel
Probe / extension insulation	FEP
Connector	Gold-plated brass ClickLoc

Ambient performance and response

Incremental scale factor tolerance	+12.5% / -20%, including interchangeability error
Deviation from best-fit straight line	Less than +/-0.06 mm
Frequency response	DC to 10 kHz: +0 / -3 dB typical

Reference conditions

Accuracy is stated for a matched NSv chain at 0 to +45 deg C with -24 VDC supply, 10 kohm load, AISI 4140 target and 1.0 mm gap. Refer to the technical reference for the full basis.

Separate monitor wiring

Use the recommended shielded triad and verify the field circuit against NSv magnitude and phase-response curves. Probe electrical length and monitor field-wiring length describe different circuits.

Connect with ApterPower

Phone: +86 180 3023 5313

Email: sales13@apterpower.com

www.apterpower.com



01 / Installation check

Use the M10 x 1 reverse-mount instruction: 7.5 N m recommended case torque and 22.6 N m maximum.

02 / Installation check

Match the 1 m probe with a 4 m or 6 m NSv extension for the selected 5 m or 7 m system.

03 / Installation check

Keep ClickLoc contacts clean and electrically protected; this reverse-mount execution has no protector option.

04 / Installation check

Observe the 25.4 mm minimum cable bend radius and support the unarmored lead without tension.

05 / Installation check

Check target geometry and probe separation; small shafts and closely placed probes can change calibration or create cross-talk.

06 / Installation check

Set the recommended 1.0 mm gap and keep intended target movement inside the applicable 1.5 mm linear region.

07 / Installation check

Check the negative DC conditioner supply, monitor triad wiring and the actual field-cable response.

08 / Installation check

Assess the pressure seal independently; prolonged exposure below -34 deg C can cause premature seal failure.

Reverse-mount handling limits

Reverse-mount case torque	7.5 N m recommended; 22.6 N m maximum
ClickLoc joint	Finger tight recommended; 0.56 N m maximum
Minimum cable bend radius	25.4 mm

Component temperature context

Probe operation and storage	-52 to +177 deg C
Extension operation and storage	-52 to +177 deg C
Conditioner operation	-52 to +100 deg C
Conditioner storage	-52 to +105 deg C

Process containment

An NSv probe uses a Viton O-ring to seal differential pressure between tip and case. Probes are not pressure-tested before shipment. Establish any application-specific seal test and independent containment of liquids or gases if leakage occurs. High- or low-pH solutions can erode the tip assembly.

Connect with ApterPower

Phone: +86 180 3023 5313

Email: sales13@apterpower.com

www.apterpower.com



Does 330907-05-30-10-02-00 use the standard forward-mount M10 case torque?

Use the reverse-mount row: 7.5 N m recommended and 22.6 N m maximum. The 11.3 N m recommendation for standard M10 cases is a different support condition.

Why is the usable span of 330907-05-30-10-02-00 shorter than an XL 8 mm system?

The NSv design improves side-view and small-target behavior. Its matched system has a 1.5 mm linear span, approximately 0.25 to 1.75 mm from the target, rather than the XL 8 mm system span.

Can armor or a connector-protector option be selected on 330907-05-30-10-02-00?

Reverse-mount NSv probes are not available with either option. The -02 connection is a miniature coaxial ClickLoc on standard cable; provide application-appropriate protection without implying an included factory protector.

What probe resistance identifies the 1 m lead on 330907-05-30-10-02-00?

The center-to-outer-conductor nominal resistance is 4.2 +/- 0.5 ohm. Measure the isolated probe; this value does not describe the extension or the complete connected monitor circuit.

How does a small shaft affect a measurement using 330907-05-30-10-02-00?

Radial measurements on shafts below 20 mm diameter generally change the average scale factor by more than 10%. Target geometry and probe separation need review against the NSv curves before using the nominal scale.

Small-target behavior

Target and mounting geometry are calibration inputs. Axial targets below 13 mm generally change scale factor; radial shafts below 20 mm generally change the average scale factor by more than 10%. Counterbores below 13 mm can affect far-gap scale factor. Review the appropriate NSv curves and reduced working range before accepting the installed reading.

Calibration and signal interpretation

The DC component represents static target position. The dynamic component supplies vibration or timing information according to the target and channel. A stable DC gap does not validate monitor scaling, probe cross-talk or high-frequency response.

Document roles

Technical Reference	Order code, electrical behavior, construction and target limits
Installation & Commissioning Guide	Configuration, fitting, wiring, gap and acceptance workflow
Complete Product Information	Product facts, applications, installation precautions and FAQ

Connect with ApterPower

Phone: +86 180 3023 5313

Email: sales13@apterpower.com

www.apterpower.com



Can silicone tape protect the junction of 330907-05-30-10-02-00 when turbine oil is present?

Silicone tape is not recommended where the probe-to-extension connection is exposed to turbine oil. Select a suitable environmental-protection arrangement for the installed connection.

Which historical-system upgrades can retain probes alongside 330907-05-30-10-02-00 in an NSv project?

A 3300 RAM-to-NSv upgrade may retain the existing RAM probe, extension and monitor with an NSv Proximator. Upgrades from a 3000-series or 7000-series 190 system require replacement of probe, extension and conditioner with NSv components.

How much conditioner-to-monitor field wiring is documented for 330907-05-30-10-02-00?

The NSv datasheet specifies up to 305 m and recommends a three-conductor shielded triad. Review the magnitude and phase response curves for the actual length before accepting high-frequency performance.

Related NSv models

Bently Nevada 330908-21-35-10-02-00	Compare full NSv code
Bently Nevada 330908-00-19-10-02-05	Compare full NSv code
Bently Nevada 330905-00-07-10-02-05	Compare full NSv code
Bently Nevada 330905-00-11-05-02-00	Compare full NSv code

Preserve the complete execution

Keep 330907-05-30-10-02-00 intact in service and purchasing records. Related NSv parts differ in mounting, cable, connection and approval selection; a related-model link is not proof of interchangeability.

Pressure and media check

An NSv probe uses a Viton O-ring to seal differential pressure between tip and case. Probes are not pressure-tested before shipment. Establish any application-specific seal test and independent containment of liquids or gases if leakage occurs. High- or low-pH solutions can erode the tip assembly.

Channel restoration

After service, compare the static gap and intended dynamic or reference response with the retained baseline. Review the target arrangement, conditioner supply and field-wiring response before releasing the equipment through its normal procedure.

Manufacturer reference

3300 XL NSv Proximity Transducer System | Datasheet 147385 Rev. R. Applications and migration: pp. 1-2; electrical and target behavior: pp. 3-4; materials and handling: pp. 5-6; pressure sealing: p. 7; exact reverse-mount ordering: p. 12; construction note: p. 33. These organized facts and field checks do not replace the machine installation procedure.

Connect with ApterPower

Phone: +86 180 3023 5313

Email: sales13@apterpower.com

www.apterpower.com

