Bently Nevada 330903-00-06-05-02-05

COMPLETE PRODUCT INFORMATION

Bently Nevada 330903-00-06-05-02-05 is an unarmored M8 x 1 proximity probe with a 0.5 m standard lead for the 3300 XL NSv system. Its ClickLoc connection and selected NSv extension feed a matching 5 m or 7 m Proximitor for shaft vibration and position measurements.

Selected execution

330903	NSv probe; M8 x 1; without armor
AA00 / BB06	Retained fully threaded mechanical execution
CC05	0.5 m total probe length
DD02	Standard cable and ClickLoc; no included protector
EE05	Multiple Approvals; inspect actual marking

Electrical-length selection

Probe	Extension	Proximitor
0.5 m M8 NSv lead	4.5 m or 6.5 m NSv cable	Matching 5 m or 7 m NSv system

M8 machine interfaces

Install where the machine provides the corresponding M8 x 1 mounting fit and reviewed engagement.

Compact target geometry

Use the NSv response data when evaluating restricted targets and counterbores in small-machine installations.

Shaft motion channels

Connect the selected probe, NSv extension and matching conditioner for a calibrated vibration channel.

Static gap monitoring

Supply a non-contact position signal to the configured monitor after target and gap verification.

Measurement role

The probe responds to the conductive target without physical contact, while the NSv Proximitor produces the conditioned gap signal. This execution combines a compact M8 interface, a short standard lead and the Multiple Approvals ordering selection. The selected extension, target geometry and supplied approval marking must be reviewed for the application.

Important Notice

Retain AA00 / BB06 and the full EE05 suffix. Do not apply M10 case-torque limits to the M8 thread, or assume that Multiple Approvals authorizes every hazardous-area circuit.

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330903-00-06-05-02-05

Lead and component checks

Probe length	CC05 = 0.5 m
Connector	DD02 = miniature coaxial ClickLoc, standard cable
Protector	Not included by DD02
Approval	EE05 = Multiple Approvals; verify supplied marking
Probe resistance	4.0 +/-0.5 ohm; center to outer conductor
Cable	75 ohm coaxial; FEP insulated

Construction and support

Tip material	Polyphenylene sulfide (PPS)
Case material	AISI 304 stainless steel
Case torque, nominal	5.1 N m; M8 forward mounting
Case torque, maximum	7.3 N m; M8 forward mounting
NSv system length	5 m or 7 m; including selected extension

Connections and environment

Thread engagement	12 mm; matching internal fit class
Bend radius	25.4 mm
Connector limit	0.56 N m
Connector practice	Finger tight
Probe temperature	-52 to +177 deg C; operating and storage

Complete channel and conditioner

Linear range	1.5 mm; approximately 0.25 to 1.75 mm
Recommended gap	1.0 mm; recommended gap
Scale factor	7.87 V/mm (200 mV/mil)
Frequency response	0 to 10 kHz; +0 / -3 dB typical
Output resistance	50 ohm
Maximum current	12 mA
Sensor operation	-52 to +100 deg C
Sensor storage	-52 to +105 deg C

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01. Verify the M8 x 1 internal fit and keep engagement within 12 mm; investigate binding without forcing the probe.

02. Use the M8 case limits of 5.1 N m recommended and 7.3 N m maximum; do not substitute M10 torque values.

03. Select a 4.5 m NSv extension for a 5 m system or a 6.5 m extension for a 7 m system with this 0.5 m probe.

04. Support the unarmored lead away from sharp edges and crushing; maintain the minimum 25.4 mm bend radius.

05. Use finger-tight ClickLoc joints within the 0.56 N m maximum and protect the connector because DD02 supplies no protector.

06. Review the EE05 component marking and installed circuit requirements before approving the application.

07. Check shaft diameter, target calibration and adjacent-probe spacing; use the NSv recommended 1.0 mm gap under applicable conditions.

08. Separate the isolated 4.0 +/-0.5 ohm probe check from channel testing; evaluate probe and conditioner temperatures individually.

Electrical-length combinations

5 m NSv system	0.5 m probe + 4.5 m extension + matching 5 m Proximitor
7 m NSv system	0.5 m probe + 6.5 m extension + matching 7 m Proximitor

Target and counterbore

For a flat target, minimum diameter is 8.9 mm and the recommended minimum is 13 mm. The counterbore minimum is 9.5 mm, with 13 mm recommended. Smaller targets or counterbores can alter scale factor and usable range; consult the geometry response curves before adopting a nominal calibration.

Temperature distinction

The probe and extension operate and store at -52 to +177 deg C. The conditioner operates at -52 to +100 deg C and stores at -52 to +105 deg C. Sustained probe exposure below -34 deg C may cause premature pressure-seal failure. Assess each installed location and containment requirement separately.

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Which torque limit applies to the M8 case of 330903-00-06-05-02-05?

Use 5.1 N m recommended and 7.3 N m maximum case torque. These are the M8 forward-mount values; the higher M10 limits do not apply to this execution.

How far may the thread of 330903-00-06-05-02-05 engage the mounting hole?

The maximum M8 x 1 thread engagement is 12 mm with a matching internal fit class. Greater engagement can cause binding and must be reviewed before installation.

What does EE05 mean on 330903-00-06-05-02-05?

EE05 is the Multiple Approvals ordering selection. Check the actual supplied marking, certificate conditions and installed circuit; the suffix alone is not a statement that every hazardous location is covered.

Which standard-lead connection is selected on 330903-00-06-05-02-05?

DD02 specifies standard cable with a miniature coaxial ClickLoc connector and no included protector. It does not select FluidLoc cable. Protect the joint according to the installed environment.

Related Bently Nevada monitoring portfolio

Bently Nevada 330103-00-02-10-02-05	Related component; verify full configuration
Bently Nevada 330105-02-12-10-02-00	Related component; verify full configuration
Bently Nevada 330104-00-05-05-02-CN	Related component; verify full configuration

Component and channel records

Retain separate results for the isolated probe resistance and complete measurement-channel test. Record the selected NSv extension and matching Proximitor length together.

Document purposes

Technical Reference	Model execution, construction and system response
Installation & Commissioning Guide	Mounting, circuit and functional-acceptance workflow
Complete Product Information	Facts, applications, precautions and questions

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How is the electrical length completed for 330903-00-06-05-02-05?

The 0.5 m probe requires a 4.5 m NSv extension for a 5 m channel or a 6.5 m extension for a 7 m channel. Match the sum to the Proximitor label.

How should resistance be checked on 330903-00-06-05-02-05?

Disconnect the probe under the machine procedure and measure center-to-outer resistance. The 0.5 m probe reference is 4.0 +/-0.5 ohm; then verify the assembled channel separately.

Why must nearby probes be considered when placing 330903-00-06-05-02-05?

Probe cross-talk depends on shaft size and spacing. For radial vibration, the documented minimum tip separation is 23 mm; the standard X-Y shaft minimum is 30 mm, or 20 mm with a 23 mm axial offset.

Does the probe temperature limit of 330903-00-06-05-02-05 also cover its conditioner?

The probe operates and stores at -52 to +177 deg C. The Proximitor operates to +100 deg C and stores to +105 deg C. These are separate component limits, and sustained probe exposure below -34 deg C also requires pressure-seal assessment.

Related Bently Nevada monitoring portfolio

Bently Nevada 330101-00-12-10-02-CN	Related component; verify full configuration
Bently Nevada 330104-00-24-50-02-00	Related component; verify full configuration
Bently Nevada 330104-00-13-10-01-CN	Related component; verify full configuration

Recommendation scope

The linked products are broader Bently Nevada monitoring portfolio references. Their family, thread, electrical length and approval choices must be checked independently. A recommendation link does not establish compatibility with an NSv channel or a replacement for this model.

Manufacturer references

3300 XL NSv Proximity Transducer System, 147385 Rev. R: component resistance and system performance p. 3; target geometry p. 4; materials and torque p. 5; engagement and temperature p. 6; probe and extension ordering pp. 11-13. Site checks organize these facts for the installed machine procedure.

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