Product role and integration

Bently Nevada / 330701-00-20-10-02-00

Bently Nevada 330701-00-20-10-02-00

Bently Nevada 330701-00-20-10-02-00 is an unarmored 3300 XL 11 mm proximity probe for displacement and vibration measurement with a matched 11 mm transducer system.

Installed-system role

Bently Nevada 330701-00-20-10-02-00 supports an 11 mm sensing channel where greater displacement range is needed. The complete channel may monitor thrust position, expansion or reciprocating-machine movement.

Supply boundary

Confirm the unarmored 11 mm probe and its 00 approval selection. Extension cable, 11 mm Proximitor Sensor and monitor are separate unless listed in the quotation.

Configuration context

A complete 11 mm transducer chain uses the probe, matching extension cable and 11 mm Proximitor Sensor. Select the extension cable so the combined length matches the 5 m or 9 m system.

Technical scope

Technical source: Bently Nevada 3300 XL 11 mm Proximity Transducer System, 146256 Rev. T - technical information excerpt. Performance values describe a matched transducer system under the specified calibration conditions.

Conductive target — 330701 / 11 mm extension cable — 3300 XL 11 mm Proximitor

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Technical capability map

Bently Nevada / 330701-00-20-10-02-00

Parameter	Value
Manufacturer	Bently Nevada
Product family	3300 XL 11 mm
Probe configuration	330701; standard mount without armor
Case thread	1/2-20 UNF
Unthreaded length option	00; 0.0 in
Overall case length option	20; 2.0 in
Total probe length option	10; 1.0 m
Connector and cable option	02; miniature coaxial ClickLoc, standard cable
Agency approval option	00; not required
Probe tip material	Polyphenylene sulfide (PPS)
Probe case material	AISI 304 stainless steel
Probe cable	75 ohm triaxial; FEP insulation

Parameter	Value
Connector material	Gold-plated brass
Nominal probe DC resistance	5.9 +/- 0.5 ohm; 1.0 m, center to outer conductor
Probe operating/storage temperature	-52 to +177 deg C; pressure-seal caution below -34 deg C
Recommended case torque	15.2 N m; 1/2-20 case
Maximum case torque	45.2 N m; 1/2-20 case
Maximum thread engagement	0.750 in for 1/2-20 thread
Matched-system linear range	4.0 mm; approximately 0.5 to 4.5 mm gap
Matched-system scale factor	3.94 V/mm (100 mV/mil), +/-10% under stated conditions
Recommended system gap	2.5 mm (100 mils)
Matched-system frequency response	0 to 8 kHz, +0/-3 dB typical
Supported system lengths	5 or 9 m including extension cable

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Applications and engineering precautions

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Thrust position

Measure axial movement over the 11 mm system range with an appropriate conductive target and verified operating gap.

Ramp differential expansion

Use the larger-range transducer in a steam-turbine ramp measurement arrangement designed for the expansion geometry.

Rod position and drop

Monitor reciprocating-compressor rod movement using a suitable target, mounting arrangement and configured monitoring channel.

Phase and speed reference

Use shaft target features for Keyphasor, tachometer or zero-speed functions with the required monitoring electronics and application checks.

Precaution	Engineering check
Use the 11 mm chain	Match the probe with the 11 mm extension cable and Proximitor Sensor; verify the combined cable length.
Confirm approval selection	The supplied code ends in 00. Confirm the installation permits this non-approved selection.
Check target dimensions	Verify the target surface and adjacent-probe spacing against the 11 mm system requirements.
Set the operating gap	Establish the recommended 2.5 mm reference gap only with the correct target and calibrated system.
Protect cable and threads	Respect the case torque, engagement and minimum bend radius. Keep the unarmored lead clear of mechanical damage.
Plan full-system conversions	For a 7200 conversion, update all sensing-chain components and the monitor configuration together.

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Exact-model engineering questions

Bently Nevada / 330701-00-20-10-02-00

Why select the 11 mm family used by 330701-00-20-10-02-00?

The matched 3300 XL 11 mm system provides a 4.0 mm linear range for applications requiring more displacement range than the 8 mm system. Selection still depends on target geometry and required measurement range.

What case configuration does 330701-00-20-10-02-00 specify?

The 330701 base is unarmored with a 1/2-20 UNF case. Options 00 and 20 select no unthreaded length and a 2.0 in overall case.

Which extension cable suits the 1.0 m lead of 330701-00-20-10-02-00?

Use the matching 3300 XL 11 mm extension-cable family and choose its length so probe plus extension equals the selected 5 m or 9 m Proximitor system length.

Does 330701-00-20-10-02-00 carry the multiple-approval option?

No. The final 00 code means agency approval is not required. Do not treat approvals shown for other order variants as certification of this probe.

What target and gap are used with 330701-00-20-10-02-00?

The system specification uses an AISI 4140 steel target and recommends a 2.5 mm gap. Confirm actual target material, geometry and required travel before applying those performance values.

What continuity value is expected for 330701-00-20-10-02-00?

The 1.0 m probe has nominal center-to-outer-conductor resistance of 5.9 +/- 0.5 ohm. Disconnect it from the energized measurement chain before applying the manufacturer test procedure.

How is the case of 330701-00-20-10-02-00 secured?

For its 1/2-20 case, recommended torque is 15.2 N m, maximum rated torque is 45.2 N m and maximum thread engagement is 0.750 in. Check internal thread fit and use the provided locknut appropriately.

Can 330701-00-20-10-02-00 alone replace a 7200 11 mm system?

No. The manufacturer requires all transducer components to be changed to 3300 XL 11 mm components and the monitoring system to be updated for that conversion.

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Lifecycle, verification and portfolio

Bently Nevada / 330701-00-20-10-02-00

Manufacturer lifecycle context

A current manufacturing or support phase for this complete order number has not been confirmed from a model-specific manufacturer lifecycle notice.

Support boundary

Request current written support and replacement guidance from Bently Nevada using the complete marking and installed transducer configuration. Apter Power availability is confirmed separately in the quotation.

Commissioning focus

Compare full marking, mounting and selected components. Verify the target surface and adjacent-probe spacing against the 11 mm system requirements.

Release criterion

Record stable channel indications and the final installed configuration. Site acceptance completed before returning to service.

Technical references

3300 XL 11 mm Proximity Transducer System Datasheet, 146256 Rev. T.

Related Bently Nevada portfolio references

Independent product references; these links do not establish compatibility, substitution or endorsement.

Complete product reference	Navigation
Bently Nevada 330780-50-00	View Bently Nevada 330780-50-00
Bently Nevada 330730-080-00-05	View Bently Nevada 330730-080-00-05
Bently Nevada 330880-01-20-058-03-02	View Bently Nevada 330880-01-20-058-03-02

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