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

01 Define the standard-mount chain

1 Identify the probe and target

Record the complete 330701 marking and identify the shaft or thrust target being measured. This is a non-contact probe, not a case-mounted accelerometer. Its voltage response is produced by the complete 11 mm system. Preserve the target material, sensing location and monitor transducer selection when comparing a replacement with an established channel.

2 Check the two electrical-length choices

The ordered total probe length is 1.0 m. It can form a 5.0 m chain with a 4.0 m extension or a 9.0 m chain with an 8.0 m extension, using the corresponding Proximitor. Record the actual conditioner code and cable markings before disconnecting anything; do not choose extension length only from physical routing distance.

3 Review the installation opening

The standard body uses 1/2-20 UNF threads, a zero unthreaded section and a 1.0 in case. Check reach and available gap-adjustment travel at the real mounting location. Confirm that the bracket and internal thread allow proper seating without forcing excessive thread engagement or putting the cable under tension.

System option A	1.0 m probe + 4.0 m extension = 5.0 m
System option B	1.0 m probe + 8.0 m extension = 9.0 m
Conditioner family	3300 XL 11 mm Proximitor

330701-00-10-10-02-00 / Install the standard probe body

02 Install the standard probe body

1 Inspect the threaded interface

Check the mating thread class and cleanliness. The listed maximum engagement for the 1/2-20 case is 0.750 in. Excess engagement can cause binding during installation. Confirm the intended adjustment position before tightening; a physically reachable target is not sufficient if the mounting interface binds or prevents stable gap adjustment.

2 Distinguish torque limits

Use the standard 1/2-20 recommended case torque of 15.2 N·m. The maximum rated case torque is 45.2 N·m, not a normal tightening target. The coaxial connector has a separate 0.565 N·m maximum and is normally finger-tight. Applying case torque at the connector would exceed its limit.

3 Protect the sensing end and lead

Inspect the PPS tip and stainless case for damage. Route the unarmored FEP-insulated lead with at least a 25.4 mm bend radius and adequate support. Keep movement and abrasion away from the connector and probe exit. Do not interpret the rated tensile strength as an acceptable continuous cable load.

Case torque, recommended	15.2 N·m
Coaxial joint	Finger-tight; 0.565 N·m maximum
Cable routing	No sharp bends or unsupported pull

330701-00-10-10-02-00 / Connect and assess the target

03 Connect and assess the target

1 Check the isolated probe electrically

With the probe disconnected and using the applicable test method, compare center-to-outer conductor resistance with 5.9 ±0.5 ohm for the 1.0 m probe. A measurement across an assembled chain includes other components and is not the same check. A valid resistance does not establish a correct target calibration or dynamic response.

2 Make the ClickLoc connection

Inspect connector cleanliness and engage the matching 11 mm extension. The ordered 02 option has standard cable without the connector-protector option. Provide the required environmental protection at the joint. Silicone tape is not recommended where the probe-to-extension connection will be exposed to turbine oil.

3 Review target size and adjacent probes

The system is calibrated by default to AISI 4140 steel. Check target material and geometry, especially where multiple probes are close together. Recommended minimum flat-target and shaft diameters are 30.5 mm and 152 mm. Smaller arrangements need a specific cross-talk review rather than an assumption that the standard accuracy is retained.

Probe resistance	5.9 ±0.5 ohm; isolated 1.0 m probe
Target reference	AISI 4140 steel
Connector option	Miniature ClickLoc, standard cable

330701-00-10-10-02-00 / Set gap and prove transfer

04 Set gap and prove transfer

1 Verify the conditioner circuit

The electrical supply and voltage output belong to the Proximitor, not directly to the passive probe. Check its wiring, system-length selection and monitor input. Reference performance uses -24 V DC and a 10 kohm load. Barrier-equipped systems have additional supply and range conditions that must be included in the installation review.

2 Place the target in the usable range

The recommended nominal gap is 2.5 mm. Standard linear travel is approximately 0.5 to 4.5 mm, giving a 4.0 mm range. Preserve enough margin for the expected shaft or thrust motion. Use a controlled target displacement and verify output progression; a single gap reading cannot establish the full transfer characteristic.

3 Confirm the monitoring channel

The nominal system scale factor is 3.94 V/mm, or 100 mV/mil. Confirm the configured transducer selection and engineering units at the monitor. Record the observed change in indication for the applied displacement, then check the relevant alarm and fault behavior before releasing the channel from its approved maintenance state.

Nominal system scale	3.94 V/mm (100 mV/mil)
Recommended gap	2.5 mm
Typical response band	0 to 8 kHz, +0/-3 dB

330701-00-10-10-02-00 / Investigate deviations and close work

05 Investigate deviations and close work

1 Trace a biased or nonlinear result

Check total electrical length, target material, probe gap and conditioner type before changing the monitor scale. A mismatched extension or calibration target can produce a plausible voltage while invalidating the expected transfer response. Inspect mechanical stability and target runout as separate contributors to an unexpected indication.

2 Keep component limits separate

The probe and extension have different thermal limits from the conditioner. Published system accuracy is tied to defined reference temperatures and target conditions. Operating survival at the probe temperature limit does not guarantee the reference accuracy throughout the complete chain. Assess connector moisture protection and safe containment independently of the electrical test.

3 Record the assembled identity

Retain the probe, extension and Proximitor codes; mounting position; target material; gap setting; resistance check; and transfer-test results. A conversion from a legacy 7200 system requires all matching XL 11 mm components and a monitor-configuration review. Do not treat a replaced probe alone as completion of that system conversion.

Technical basis: Bently Nevada 3300 XL 11 mm Proximity Transducer System, 146256 Rev. T.

Related product navigation

- Bently Nevada 330780-90-00
- Bently Nevada 330730-040-12-00
- Bently Nevada 330730-080-10-00

These are related references, not confirmed substitutes or an automatically approved assembly.