Bently Nevada 330706-005-046-10-02-00

01 Plan the metric reverse installation

1 Verify the mechanical arrangement

Confirm an M10 x 1 reverse-mount installation for the complete 330706-005-046-10-02-00 code. Its fixed unthreaded and case lengths are 5 mm and 46 mm. An imperial reverse probe requires a different threaded interface and must not be forced into the metric arrangement.

2 Define the complete transducer chain

The probe requires a matching extension and 3300 XL 11 mm Proximitor. A 1 m integral lead with 4 m extension forms a 5 m system; an 8 m extension forms a 9 m system. Confirm the conditioner calibration before selecting the cable route.

3 Review the actual target

Identify the shaft or target material and geometry. The stated calibration uses AISI 4140 steel, and smaller targets can affect performance. Establish sufficient target area and nearby-metal clearance before using the nominal scale factor as an installed-channel assumption.

Mounting	M10 x 1 reverse case
Electrical length	1 m probe plus matched 4 m or 8 m extension
Target	Material, diameter and surrounding metal assessed

330706-005-046-10-02-00 / Prepare the case and calibrated lead

02 Prepare the case and calibrated lead

1 Protect the probe tip

Inspect the PPS tip and stainless-steel case before fitting. Avoid damage or contamination that could disturb the target relationship. Position the probe without allowing machine motion to strike the sensing tip, and retain adequate mechanical clearance throughout the expected travel.

2 Apply case torque correctly

The reverse-mount recommendation is 7.5 N·m with a maximum of 22.6 N·m. Use the case tightening limit only for the correct mechanical joint. The coaxial connector has a separate, much lower tightening limit and must not receive the case torque.

3 Route without changing cable length

Keep the integral 1 m lead intact and maintain a minimum bend radius of 25.4 mm. Route spare cable without cutting or splicing it. Changes to the calibrated cable arrangement can invalidate the intended electrical-length match even when continuity still appears normal.

Case torque	7.5 N·m recommended; 22.6 N·m maximum
Lead	Integral length retained without splices
Bend radius	At least 25.4 mm

330706-005-046-10-02-00 / Assemble and establish the gap

03 Assemble and establish the gap

1 Join compatible components

Connect the miniature ClickLoc termination to the appropriate extension and conditioner. Verify the 11 mm system identity of every component before energization. Physical connector engagement does not prove that an 8 mm or otherwise different transducer component is electrically compatible.

2 Set the operating point with measurement

Use the actual system output and target to establish the working gap. The recommended nominal gap is 2.5 mm, within the 0.5 to 4.5 mm linear region. Confirm the installed transfer response instead of relying on a mechanical distance estimate alone.

3 Keep temperature limits separate

Probe and extension temperature capability extends to +177 °C, but the Proximitor upper limit is +100 °C. Locate and protect each component according to its own limit. A high-temperature probe location does not authorize the same environment for the conditioner.

Connections	Complete matched 11 mm transducer chain
Nominal gap	2.5 mm, checked through actual response
Temperature	Probe / extension and conditioner limits separated

330706-005-046-10-02-00 / Verify position and dynamic response

04 Verify position and dynamic response

1 Confirm the transfer slope

Under suitable controlled conditions, compare measured movement with the complete-system output. The nominal scale is 3.94 V/mm. Retain target material, gap, power and loading conditions with the test record so the result can be interpreted against the calibration basis.

2 Check target geometry effects

The specified performance uses at least 30.5 mm flat target diameter or 152 mm shaft diameter. Evaluate smaller geometry and nearby probes for changed response or interaction. Do not assume that a good static reading proves full linearity over the working range.

3 Test the receiving monitor

Verify both static position indication and the required dynamic response through the final monitor channel. Record the scale, filters and configured alarm behavior. Clear test states only after the complete signal path has produced the expected result.

Static check	Gap and position response verified
Dynamic check	Scale and bandwidth checked at the monitor
Release	Required indications and alarms proven

330706-005-046-10-02-00 / Diagnose and hand over the channel

05 Diagnose and hand over the channel

1 Separate component and installation faults

For abnormal gap voltage or motion response, inspect the connector, electrical-length selection, target clearance and conditioner arrangement. Avoid replacing components with visually similar parts before confirming the complete chain identity.

2 Preserve the calibration context

Record the probe code, extension identity, conditioner calibration, target material and accepted gap. Include the mechanical orientation and cable route. The record must show the complete 11 mm system, not merely the probe marking.

3 Retain operational limits

Keep case torque, cable bend radius and separate component temperature limits with the service record. Review any later target or cable change as a potential measurement change. A restored channel requires both mechanical integrity and verified electrical response.

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

Related product navigation

- Bently Nevada 330780-90-CN
- Bently Nevada 330701-00-30-10-01-00
- Bently Nevada 330703-000-100-10-02-00

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