Bently Nevada 330709-000-050-10-12-05

01 Function and selected configuration

Product function

The fully threaded metric case of Bently Nevada 330709-000-050-10-12-05 places an 11 mm sensing tip at the shaft or thrust target, while its FluidLoc lead helps restrict oil migration along the cable.

Selected configuration

M16 x 1.5 unarmored probe, 0 mm unthreaded length, 50 mm case, 1.0 m FluidLoc lead, ClickLoc connector and multiple-approvals option. The 000 and 050 options define zero unthreaded length and a 50 mm overall case. Connector option 12 selects FluidLoc cable with a miniature coaxial ClickLoc connection, without the separate connector-protector option.

Functional path

Shaft target	11 mm probe	Matched extension	Proximitor / monitor

Mounting	M16 x 1.5 thread; fully threaded 50 mm case
Lead	1.0 m FluidLoc cable with miniature ClickLoc connector
Measurement system	3300 XL 11 mm; 4.0 mm nominal linear span

Electrical performance belongs to the matched probe, extension cable and Proximitor Sensor. With the specified AISI 4140 target and calibration conditions, the nominal scale factor is 3.94 V/mm and the recommended gap is 2.5 mm.

330709-000-050-10-12-05 / Technical operating envelope

02 Technical operating envelope

Probe family	3300 XL 11 mm
Mounting thread	M16 x 1.5
Unthreaded length	0 mm
Overall case length	50 mm
Total probe length	1.0 m
Cable construction	FluidLoc; without armor
Connector	Miniature coaxial ClickLoc
Connector protector	Not included by option 12

1.0 m probe DC resistance	5.9 +/- 0.5 ohms
Matched-system linear span	4.0 mm (160 mils)
Matched-system scale factor	3.94 V/mm (100 mV/mil), +/-10%
Recommended operating gap	2.5 mm (100 mils)
Matched-system response	0-8 kHz, +0/-3 dB typical
Maximum M16 thread engagement	24 mm
Probe operating temperature	-52 to +177 deg C; pressure-seal caveat below -34 deg C

Nominal measuring performance applies to a complete 3300 XL 11 mm system, not the probe alone. The reference uses -24 V DC, a 10 kilohm load, an AISI 4140 target and a 2.5 mm gap.

330709-000-050-10-12-05 / System integration and applications

03 System integration and applications

Radial shaft vibration

Measure shaft-relative motion at a compatible bearing location with a calibrated 11 mm channel.

Thrust target position

Use the wider 4 mm system span where an appropriate axial target and installation geometry are available.

Metric machine mounting

Fit the M16 x 1.5 case to an approved metric mounting point with controlled engagement.

Oil-exposed cable paths

Use FluidLoc construction where limiting liquid migration inside the lead is part of the installation design.

System and supply context

The probe requires a compatible 3300 XL 11 mm extension cable and Proximitor Sensor. Its 1.0 m lead is part of the calibrated electrical length rather than an ordinary replaceable wire.

Application boundary

Use the matched system for non-contact shaft motion or position measurements. Target geometry, temperature and surrounding metal affect the measurement boundary.

What does FluidLoc cable change on 330709-000-050-10-12-05?

FluidLoc construction helps prevent oil and other liquids from migrating through the cable interior. It does not replace the machine seal, connector protection or process-containment design.

330709-000-050-10-12-05 / Engineering selection decisions

04 Engineering selection decisions

How much of the case on 330709-000-050-10-12-05 is unthreaded?

The 000 option specifies zero unthreaded length. The 050 option specifies a 50 mm overall case; installation clearance must also allow the sensing tip to face the target correctly.

Does the 12 connection option on 330709-000-050-10-12-05 include a connector protector?

No. Option 12 uses a miniature coaxial ClickLoc connector and FluidLoc cable. Option 11 is the FluidLoc version with a connector protector.

What resistance is expected across the lead of 330709-000-050-10-12-05?

For a 1.0 m 3300 XL 11 mm probe, the center-to-outer conductor DC resistance is 5.9 +/- 0.5 ohms. Check the disconnected probe with suitable equipment; a resistance check alone does not prove calibration.

How does low temperature affect the pressure seal of 330709-000-050-10-12-05?

The probe operating range is -52 to +177 deg C, but exposure below -34 deg C may cause premature pressure-seal failure. Evaluate containment separately from electrical operation.

Set the operating gap	Establish the gap using the approved target and measured output, not thread turns alone.
Control connector exposure	Insulate and protect ClickLoc joints according to the installation environment.

330709-000-050-10-12-05 / Configuration boundary and references

05 Configuration boundary and references

Lifecycle and support

The current manufacturing and OEM support stages for 330709-000-050-10-12-05 require confirmation from Bently Nevada. Apter Power availability is confirmed separately.

Replacement assessment

Match the full metric case, FluidLoc connection, approval markings and calibrated system length; an ordinary cable version is not automatically equivalent.

Document roles

Use the original manufacturer excerpt for its preserved technical tables and drawings. This product brief explains configuration and selection boundaries. The independent installation guide organizes preparation, connection, testing and handover. It does not replace the applicable manufacturer installation instructions.

Technical basis

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

Related product navigation

- Bently Nevada 330730-080-02-00
- Bently Nevada 330730-080-00-05
- Bently Nevada 330780-50-00

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

Product enquiries