Bently Nevada 330173-00-06-10-02-00

01 Function and selected configuration

Product function

The narrow probe construction of Bently Nevada 330173-00-06-10-02-00 suits metric mounting locations where the sensing tip must reach a shaft target through an M8 x 1 fitting.

Selected configuration

M8 x 1 unarmored case, 0 mm unthreaded section, 60 mm case, 1.0 m standard lead and ClickLoc connector. The 00/06 case options define a fully threaded 60 mm body. Connection option 02 uses standard cable and a miniature coaxial ClickLoc connector without the connector-protector option.

Functional path

Shaft / position target	M8 5 mm probe	Matched XL cable	Proximitor / monitor

Case	M8 x 1 thread; zero unthreaded section; 60 mm overall length
Lead	1.0 m standard cable; unarmored construction
Matched system	2 mm linear span and nominal 7.87 V/mm scale factor

The 5 mm probe operates as part of a complete calibrated proximity system. Under the specified reference conditions, the recommended gap is 1.27 mm and the typical scale factor is 7.87 V/mm; target material and surrounding metal remain part of the installation assessment.

330173-00-06-10-02-00 / Technical operating envelope

02 Technical operating envelope

Probe family	3300 5 mm
Mounting thread	M8 x 1
Unthreaded length	0 mm
Overall case length	60 mm
Total probe length	1.0 m
Cable construction	Standard; without armor
Connector	Miniature coaxial ClickLoc
1.0 m probe DC resistance	7.59 +/- 0.50 ohms

Matched-system linear span	2 mm (80 mils)
Recommended gap	1.27 mm (50 mils)
Typical scale factor	7.87 V/mm (200 mV/mil), +/-6.5%
Matched-system frequency response	0-10 kHz; +0/-3 dB
Maximum M8 thread engagement	12 mm
Minimum cable bend radius	25.4 mm
Probe operating temperature	-35 to +177 deg C; pressure-seal caveat below -34 deg C

The 2 mm span and 7.87 V/mm scale factor describe the assembled 5 mm system under reference conditions. They must not be confused with the 4 mm and 3.94 V/mm characteristics of an 11 mm system.

330173-00-06-10-02-00 / System integration and applications

03 System integration and applications

Compact metric access

Reach a suitable shaft target through an M8 x 1 mounting arrangement using the narrow 5 mm family.

Shaft-relative motion

Feed a matched monitoring channel for radial displacement measurements within the calibrated span.

Position measurement

Observe controlled target displacement with a verified DC gap and the appropriate conditioner scaling.

Existing 5 mm channel repair

Retain the 1 m lead and compatible electrical-length combination during a like-for-like probe replacement.

System and supply context

The probe must be combined with the applicable XL extension cable and Proximitor Sensor. The lead length, connector and system calibration determine the usable measurement chain.

Application boundary

Use the assembled system for non-contact shaft-relative vibration or position channels. Probe-family performance does not establish compatibility with every monitor or target geometry.

Can 330173-00-06-10-02-00 use the same 4 mm measuring span as an 11 mm XL probe?

No. The stated linear span for the matched 3300 5 mm system is 2 mm. An 11 mm XL system has different calibration and must not be substituted solely because connectors appear similar.

330173-00-06-10-02-00 / Engineering selection decisions

04 Engineering selection decisions

What mounting geometry does the 00-06 selection give 330173-00-06-10-02-00?

It specifies zero unthreaded length and a 60 mm overall case, using the 330173 M8 x 1 unarmored construction. The mating hardware must provide the correct thread fit and sensing-tip clearance.

What is the recommended starting gap for 330173-00-06-10-02-00?

The reference gap is 1.27 mm, or 50 mils. Set and verify the gap through the complete calibrated system and actual target material rather than by mechanical position alone.

How deep can 330173-00-06-10-02-00 engage a matching M8 threaded hole?

The specified maximum engagement for M8 x 1 is 12 mm. Longer engagement can bind, so check the mating thread and installation drawing before fitting the probe.

Which conditions underpin the quoted accuracy of 330173-00-06-10-02-00?

The reference system uses an AISI 4140 steel target, -24 V DC, a 10 kilohm load, a 1.27 mm gap and a temperature of +18 to +27 deg C. Actual materials and operating conditions require verification.

Assess target geometry	Check shaft material, diameter and adjacent-probe separation before applying nominal performance.
Secure connector joints	Use the correct ClickLoc connection and protect the joint against contamination.

330173-00-06-10-02-00 / Configuration boundary and references

05 Configuration boundary and references

Lifecycle and support

The current manufacturing and OEM support stages for 330173-00-06-10-02-00 require confirmation from Bently Nevada. Apter Power availability is confirmed separately.

Replacement assessment

Confirm the M8 x 1 case, 60 mm body, standard 1.0 m lead and matched 5 mm system calibration before accepting a substitute.

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 5 mm Transducer System, 172036 Rev. T.

Related product navigation

- Bently Nevada 330173-07-11-10-02-00
- Bently Nevada 330173-00-04-10-02-00
- Bently Nevada 330173-00-03-10-02-00

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

Product enquiries