Bently Nevada 330106-05-30-05-02-05

01 Reverse-mount reference and signal path

Bently Nevada 330106-05-30-05-02-05 is a metric reverse-mount 3300 XL 8 mm proximity probe. It has an M10 × 1 case, 5 mm unthreaded length, 30 mm case length and a 0.5 m standard lead ending in a miniature ClickLoc connector.

Reverse-mount sleeve	Probe and short lead	Matched extension	Proximitor / monitor

Reverse-mount drawing

The reverse-mount drawing defines a 5 mm unthreaded section and a 30 mm case. These dimensions must be taken from the reverse-mount format rather than decoded with the forward-mount increment rule. Compare the sleeve, case thread and actual sensing-tip location before treating a visually similar probe as a replacement.

Lead and torque boundaries

Reverse-mount probes are not offered with armor or a connector-protector option. The short standard lead therefore needs a route that protects the junction without transferring cable loads to the case. Use the tightening recommendation for reverse mounting; a forward-mount torque value is not interchangeable merely because both cases have metric threads.

Installed response

The probe functions within a matched transducer system. A compatible extension and Proximitor must agree with its 0.5 m electrical contribution, while target material and operating gap determine the installed response. Verify the final gap and a controlled physical response after the sleeve, cable support and connector are in their service positions.

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02 Probe geometry and connection values

Mounting arrangement	Reverse mount
Case thread	M10 × 1
Tip diameter	8 mm
Unthreaded length	5 mm
Case length	30 mm
Total probe length	0.5 m
Lead impedance	75 Ω
Lead construction	Standard FEP-insulated triaxial
Connector	Miniature male ClickLoc coaxial
Probe tip material	Polyphenylene sulfide

Two mounting standards

Reverse-mount and forward-mount cases may share a thread family while requiring different geometry and tightening rules. Use the intended drawing and service procedure for the actual sleeve.

Short-probe electrical allocation

For a nominal 9 m chain, a 0.5 m probe leaves 8.5 m for a compatible extension. For a nominal 5 m chain, it leaves 4.5 m. The selected Proximitor must match the complete arrangement.

Can the low-temperature operating rating of 330106-05-30-05-02-05 be used as proof of pressure sealing?

No. Pressure-seal performance has a separate caution below −34 °C, and probes are not pressure-tested before shipment. Establish containment requirements for the actual application independently of electrical operation.

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03 Mechanical limits and diagnostic interpretation

Case material	AISI 303 or 304 stainless steel
Recommended reverse-mount torque	7.5 N·m
Maximum rated reverse-mount torque	22.6 N·m
Case-to-lead tensile limit	330 N maximum rated
Probe-to-extension junction tensile limit	270 N maximum rated
Nominal probe resistance	7.45 Ω ±0.50 Ω; centre to outer conductor
Operating and storage temperature	−52 to +177 °C
Cold pressure-seal caution	Possible premature failure below −34 °C
XL-to-XL connection method	Finger tight
Default system target calibration	AISI 4140 steel

Maximum versus recommended torque

The 22.6 N·m maximum rated value is not the normal 7.5 N·m tightening recommendation. Treat the two values as different limits in the installation record.

Reference-position diagnosis

A changed sleeve position changes the physical gap. Review the mounted reference and machine state before assigning a changed reading to an electrical fault or actual shaft displacement.

Why should the final test of 330106-05-30-05-02-05 include the installed sleeve and cable supports?

Those parts define probe position and mechanical loading. A loose bench test does not reproduce the finished reference. Verify gap and response after the sleeve and short-lead junction are secured.

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04 System fit and service boundaries

Reverse-mount measurement positions

Locate the sensing element through a sleeve designed for the metric reverse-mount probe.

Short-lead transducer junctions

Join a compatible extension near the probe while preserving supported connector access.

Shaft-relative vibration channels

Measure conductive-target motion through a compatible conditioned eddy-current path.

Installed position-channel restoration

Restore the existing mechanical reference and calibrated response after probe or sleeve service.

Order-format distinction

The fixed reverse-mount geometry must not be interpreted using the forward-mount case-length increments.

Mechanical reference

Changing sleeve position can change the observed gap even if the probe and monitor remain electrically healthy.

Continuity boundary

Probe resistance is a diagnostic check; it does not establish the target calibration or final monitor scale.

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05 Replacement decisions at the sleeve

Lifecycle and replacement scope

The current manufacturing and support phase of 330106-05-30-05-02-05 is unconfirmed. Replacement suitability depends on the installed reverse-mount arrangement and compatible transducer path. Preserve the metric reverse-mount geometry, lead execution and matching electrical chain. Treat changes to the sleeve, probe family or target calibration as installation changes requiring review.

Why must the geometry of 330106-05-30-05-02-05 be checked differently from a forward-mount probe?

The reverse-mount format has fixed geometry shown in its drawing. Use that drawing and the sleeve interface; applying the forward-mount increment rule can produce a mechanically incorrect selection.

Can the normal forward-mount tightening value be applied to 330106-05-30-05-02-05?

No. Reverse mounting has its own recommendation and maximum rated limit. Use the reverse-mount requirement, then recheck final tip position and conditioned gap after securing the assembly.

Technical basis

Bently Nevada 3300 XL 8 mm Proximity Transducer System, 141194 Rev. AN. Reverse-mount geometry follows the 330106 drawing and ordering format. Probe limits and matched-system measurement performance are distinct; the 30 mm case length does not define sensing range.

Other Bently Nevada product references

Bently Nevada 330101-00-30-90-02-05

Bently Nevada 330101-00-55-05-11-00

Bently Nevada 330101-10-44-05-02-05

Separate product references; no substitution or compatibility is implied.