Bently Nevada 330101-00-08-20-02-05

COMPLETE PRODUCT INFORMATION

Bently Nevada 330101-00-08-20-02-05 is an unarmored 3/8-24 UNF proximity probe with a 2 m standard ClickLoc lead. The 3300 XL 8 mm execution uses the CSA, ATEX and IECEx approval selection.

Selected identity

Base 330101	3/8-24 UNF standard forward mount; no armor
AA00 / BB08	Imperial mounting-case selections retained
CC20	2 m electrical probe length
DD02	Standard ClickLoc; no connector protector
EE05	CSA, ATEX and IECEx approval selection

Signal route

Shaft target	**330101 probe**	**Proximitor / monitor**
Position and motion	Eddy-current sensing	Condition and interpret

Imperial bearing interfaces

Position the standard forward-mount probe at a compatible 3/8-24 UNF receiving thread.

Extended shaft sensing routes

Use the 2 m lead with the correct 3 m or 7 m extension to reach the selected conditioner.

Approved installation circuits

Apply the supplied CSA, ATEX or IECEx markings within the documented area and circuit conditions.

Vibration and shaft position

Feed the matched XL 8 mm conditioner and monitor with static displacement and dynamic shaft-motion information.

Connection identity

The -02 option provides standard FEP-insulated cable without an included connector protector. The 330101 base identifies the forward-mounted unarmored execution; it is separate from armored 330102 variants.

Channel interpretation

The probe senses target movement; the Proximitor conditions that connection into a voltage used by the monitor. Evaluate the complete chain when interpreting a DC position or AC shaft-vibration value.

Application boundary

Position, vibration and reference measurements use the completed transducer chain. Confirm the actual machine channel assignment and target arrangement before transferring an installed configuration.

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Probe identity and interfaces

Probe Family	3300 XL 8 mm
Mounting Thread	3/8-24 UNF
Construction	Standard mount; without armor
Total Probe Length	20 = 2.0 m
Connector	02 = miniature coaxial ClickLoc; no protector
Cable Type	Standard; 75 ohm triaxial; FEP insulation
Agency Approval Option	05 = CSA, ATEX and IECEx
Probe Tip Material	Polyphenylene sulfide (PPS)
Probe Case Material	AISI 303 or 304 stainless steel
Connector Material	Gold-plated brass or beryllium copper

Calibration basis

Reference conditions use an AISI 4140 steel target, -24 VDC supply and 10 kohm load. Match the electrical system length before applying its accuracy row.

Measurement and signal data

Nominal Probe DC Resistance	7.88 +/- 0.50 ohm
Maximum Connector Torque	0.565 N m
Standard Mount Recommended Case Torque	11.2 N m
Probe Operating / Storage Temperature	-52 to +177 deg C
Matched System Linear Range	2 mm; approximately 0.25 to 2.3 mm
Matched System Scale Factor	7.87 V/mm (200 mV/mil) nominal
Radial Vibration Gap Setting	-9 VDC nominal
Matched System Frequency Response	0 to 10 kHz; +0 / -3 dB
Calibration Target	AISI 4140 steel
Supported Electrical System Lengths	5 m or 9 m with matching extension; not a 1 m probe-only system

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Conditioner and service limits

Proximitor Maximum Current	12 mA
Proximitor Supply, Non-incendive Circuit	-17.5 to -26 VDC; per drawing 140979
Proximitor Supply with Barriers	-23 to -26 VDC
Proximitor Output Resistance	50 ohm
Proximitor Housing Material	A308 aluminum
Proximitor Operating Temperature	-52 to +100 deg C
Proximitor Storage Temperature	-52 to +105 deg C

01. Verify the fully threaded 3/8-24 UNF receiving thread and support condition before mounting.

02. Use the 2 m probe with a 3 m extension for 5 m or a 7 m extension for 9 m; do not select a 1 m conditioner.

03. Inspect the supplied -05 approval markings and the required installed circuit before energizing.

Companion component data

Maximum Standard-Mount Case Torque	33.9 N m
Extension Cable Minimum Bend Radius	25.4 mm
Extension Cable Capacitance	69.9 pF/m typical
Electrical Length Pairing	2 m probe + 3 m extension = 5 m; + 7 m extension = 9 m

04. Protect the option-02 junction and insulate it from ground; its order code does not include a protector.

05. Join two XL ClickLoc connectors finger tight, keeping connector and mounting-case torque instructions separate.

06. Support the unarmored lead and follow the minimum bend-radius requirement of any extension.

07. Set the radial-vibration DC gap and test the intended dynamic response under actual target conditions.

08. Review probe, extension and conditioner temperature limits separately and provide independent process containment.

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Can the 2 m lead of 330101-00-08-20-02-05 be used with a 1 m Proximitor?

No. The probe already exceeds the 1 m probe-only system length. Select a 5 m chain with a 3 m extension or a 9 m chain with a 7 m extension and the corresponding conditioner.

What does the final -05 code specify on 330101-00-08-20-02-05?

It selects CSA, ATEX and IECEx agency approvals. Determine the usable installation conditions from the supplied component markings and the required installation drawing; the ordering code alone is not a universal hazardous-area permission.

How can the isolated 2 m probe of 330101-00-08-20-02-05 be checked electrically?

Its nominal center-to-outer-conductor resistance is 7.88 +/-0.50 ohm. Measure the disconnected probe; including an extension changes the resistance being assessed.

How is the imperial mounting code of 330101-00-08-20-02-05 interpreted?

330101 specifies a 3/8-24 UNF standard-mount probe without armor. AA00 and BB08 retain the imperial case selections; use that ordering table rather than decoding them with the metric 330103 rules.

Is FluidLoc included with the standard -02 lead of 330101-00-08-20-02-05?

No. DD02 is the standard miniature coaxial ClickLoc connector without a protector. FluidLoc uses separate connector-option codes; do not attribute oil-blocking performance to this standard execution.

Interpreting the two outputs

DC gap indicates the static position relative to the operating point; the dynamic component carries vibration or reference-target information. A correct DC value does not remove the need for an application-specific dynamic acceptance check.

Document guide

Technical Reference	Configuration, signal data, construction and performance conditions
Installation & Commissioning Guide	Pairing, connection, electrical checks and channel acceptance
Complete Product Information	Public product facts, applications, precautions and questions

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Which accuracy row is relevant to a 9 m chain containing 330101-00-08-20-02-05?

For a standard complete XL 8 mm system at 0 to +45 deg C, the 9 m row gives ISF within +/-6.5% and DSL below +/-0.038 mm. This is a system specification under stated conditions, not a separate probe-only accuracy.

What happens when non-XL components are mixed into the channel of 330101-00-08-20-02-05?

Mixing XL and non-XL 3300-series 5 mm or 8 mm components limits performance to the non-XL system specifications. The XL-only accuracy claim cannot be retained for that mixed chain.

Does the approval selection of 330101-00-08-20-02-05 change its pressure-containment duty?

The probe tip-to-case seal does not replace independent containment. Probes are not pressure-tested before shipment, so assess any required pressure test and safe containment of liquids or gases separately.

Related proximity portfolio

Bently Nevada 330101-00-10-10-02-00	Related 3300 XL probe; compare complete execution
Bently Nevada 330101-00-12-10-11-00	Related 3300 XL probe; compare complete execution
Bently Nevada 330101-00-16-10-11-05	Related 3300 XL probe; compare complete execution
Bently Nevada 330101-00-35-10-01-05	Related 3300 XL probe; compare complete execution

Model selection

Preserve the complete identifier in every request and installation record. A matching base number is only one part of selection; compare the connector/protector execution, electrical length, mounting interface, target and required approval.

Component temperature context

Standard probe	-52 to +177 deg C, operating and storage
Standard extension cable	-52 to +177 deg C, operating and storage
Proximitor operation	-52 to +100 deg C

Practical return-to-service checks

Keep the connector insulated, verify the selected system length and repeat the relevant static and dynamic tests after service. Assess any process containment independently of the probe O-ring. Release the channel under the equipment-specific procedure.

Manufacturer reference

3300 XL 8 mm Proximity Transducer System | Datasheet 141194 Rev. AN. Imperial identity and ordering: p. 13; extension ordering: p. 18; electrical and measurement data: pp. 4-6; materials and installation interfaces: pp. 7-8; environmental and pressure conditions: p. 9. This ApterPower document organizes selected technical facts and field checks; it does not replace the equipment installation instructions.

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