

APTER POWER PRODUCT MANUAL

330171-00-30-10-02-BR

Bently Nevada 3300 5 mm unarmored proximity probe

The 330171-00-30-10-02-BR is a Bently Nevada 3300 5 mm non-contacting eddy-current proximity probe with 1/4-28 UNF mounting threads, no armor, 0.0 in unthreaded length, a 3.0 in overall case, a 1.0 m (3.3 ft) standard cable, and a ClickLoc connector without protector. The final BR code selects the Brazil country-specific hazardous-area approval option.

Used with a correctly matched 3300 XL extension cable and 3300 XL Proximito Sensor, it converts distance from the compact 5.2 mm probe tip to a conductive shaft or target into a proportional voltage. The complete system measures dynamic radial vibration, static or axial position, Keyphasor phase reference, and rotational speed on fluid-film-bearing machinery.

Manufacturer	Bently Nevada
Prepared by	Apter Power
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APTER POWER SALES TEAM

INDUSTRIAL AUTOMATION PRODUCT SUPPORT

Compact five-millimetre sensing. Brazil approval traceability.

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SCAN FOR PRODUCT & QUOTE
330171-00-30-10-02-BR

1. Product Overview and Identity

The 330171-00-30-10-02-BR is a Bently Nevada 3300 5 mm non-contacting eddy-current proximity probe with 1/4-28 UNF mounting threads, no armor, 0.0 in unthreaded length, a 3.0 in overall case, a 1.0 m (3.3 ft) standard cable, and a ClickLoc connector without protector. The final BR code selects the Brazil country-specific hazardous-area approval option.

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Model Configuration

Code	Official configuration
330171	1/4-28 UNF 3300 5 mm probe without armor.
00	0.0 in unthreaded length.
30	3.0 in overall case length.
10	1.0 m (3.3 ft) total probe length.
02	ClickLoc connector without protector; standard cable.
BR	Brazil country-specific approval option supported in Guide 108M1756.

Key Features

- 3.0 in case provides the exact reach encoded in this complete model.
- 1.0 m (3.3 ft) lead supports either a 5 m or 9 m matched electrical system with the correct extension cable.
- The 5.2 mm tip fits physical spaces where an 8 mm probe body is too large.
- The BR suffix is a manufacturer-listed country-specific approval option for the 330171 family.

2. Technical Specifications

Only manufacturer-published information is stated. A value absent for the exact complete suffix is identified rather than inferred.

Parameter	Verified value
Product Type	3300 5 mm unarmored proximity probe
Mounting Thread	1/4-28 UNF
Unthreaded Length	0.0 in
Overall Case Length	3.0 in
Total Probe Length	1.0 m (3.3 ft)
Connector and Cable	ClickLoc without protector; standard 75 ohm triaxial FEP cable
Approval Option	BR - Brazil country-specific option
Probe Tip Diameter	5.2 mm (0.21 in)
Matched-System Linear Range	2.0 mm (80 mil)
Recommended Gap	1.27 mm (50 mil)
Nominal Scale Factor	7.87 V/mm (200 mV/mil), +/-6.5% typical
Frequency Response	0 to 10 kHz, +0/-3 dB
Probe Operating Temperature	-35 C to +177 C (-31 F to +350 F)
Recommended Probe Case Torque	5.1 N m (45 in-lb)
Maximum 1/4-28 Thread Engagement	0.375 in
Minimum Cable Bend Radius	25.4 mm (1.0 in)
Published Probe Weight Reference	323 g (11.39 oz) family reference; packed shipping mass is not published

Verification Note

Verify 1/4-28 engagement, 3.0 in reach, 1.0 m (3.3 ft) matched-system cabling, final gap, target geometry, and the BR approval evidence before commissioning.

3. Functions, Applications and Components

Core Functions

- Detects probe-to-target gap without contact.
- Provides shaft-relative radial-vibration data through the matched system.
- Supports static and axial-position measurement.
- Supports Keyphasor phase reference and speed measurement with suitable targets and channels.

Application Areas

Application	System role
Thrust Bearing Pads	The compact 5.2 mm tip supports constrained mounting between bearing pads.
Fluid-Film Bearings	Measures radial shaft vibration relative to the probe location.
Axial Position	Measures thrust movement against a conductive target.
Keyphasor Reference	Provides a phase-reference signal from suitable target geometry.
Speed Measurement	Supports rotational-speed channels within manufacturer application limits.
Brazil Hazardous-Area Projects	Uses the BR ordering option only when the exact certificate and installation drawing apply.

Compatible Components

- Match the 1.0 m probe with a 4.0 m 330130 extension cable and 5.0 m 330180 Proximitor Sensor, or with an 8.0 m extension cable and 9.0 m sensor.
- A 330180 5 m or 9 m Proximitor Sensor matched to the total probe-plus-extension length.
- 1/4-28 UNF mounting hardware with no more than 0.375 in engagement.
- Bently Nevada monitoring channels configured for the 3300 5 mm / 3300 XL electrical system.

Lifecycle Status

Baker Hughes currently publishes Datasheet 172036 Rev. T and the approval guide used for 330171-00-30-10-02-BR. No separate lifecycle statement is published for this complete suffix.

4. Installation Precautions

- Match the 1.0 m probe with a 4.0 m 330130 extension cable and 5.0 m 330180 Proximitor Sensor, or with an 8.0 m extension cable and 9.0 m sensor.
- Limit 1/4-28 engagement to 0.375 in and follow the 5.1 N m recommended case torque.
- Maintain the 25.4 mm minimum bend radius and protect the ClickLoc connection from oil, moisture, crushing, and sharp edges.
- Set the final gap against the actual target and verify target size, shaft diameter, probe spacing, and monitoring scale.
- Confirm the BR nameplate, INMETRO applicability, current certificate, barriers, and installation drawing before hazardous-area service.

STOP - Verify before installation

Verify 1/4-28 engagement, 3.0 in reach, 1.0 m (3.3 ft) matched-system cabling, final gap, target geometry, and the BR approval evidence before commissioning.

Use the physical nameplate and current Bently Nevada documents as the controlling records.

5. Official Source and Use Notice

Official source

Baker Hughes / Bently Nevada 3300 5 mm Transducer System Datasheet 172036 Rev. T - <https://dam.bakerhughes.com/m/3048672186f80f8/original/3300-5-mm-Transducer-System-Datasheet-172036-pdf.pdf>; Baker Hughes / Bently Nevada Approvals Quick Reference Guide 108M1756 Rev. AV - <https://dam.bakerhughes.com/asset/39aafea9-7f77-4a1e-aae3-04783ae5aca9/Approvals-Quick-Reference-Guide-Country-Specific-Ordering-Options-108M1756-pdf.pdf>

Apter Power product page

<https://www.apterpower.com/Bently-Nevada/330171-00-30-10-02-br>

Use Notice

This original Apter Power product-specific reference is prepared from the named Bently Nevada source. It is not a Bently Nevada publication and does not replace the original datasheet, nameplate, certificate, installation drawing, safety instructions, or machine-builder documentation.

ASK FOR QUOTE

For availability and quotation details, visit www.apterpower.com or contact sales13@apterpower.com.