# APTER POWER

**PRODUCT REFERENCE MANUAL**

# 330103-00-03-10-02-02

Bently Nevada 3300 XL 8 mm Proximity Probe

This Apter Power reference manual explains product identification, system function, published specifications, compatible components and installation checks for the complete model shown above. It is based only on manufacturer-published technical information.

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| **Revision** | A |
| **Issue date** | 12 August 2026 |
| **Prepared by** | Apter Power |
| **Document type** | Product reference and selection guide |

# 1. Product Overview

330103-00-03-10-02-02 is a 3300 XL 8 mm non-contacting eddy-current proximity probe. It has an M10 x 1 threaded, unarmored case, 0 mm unthreaded length, 30 mm overall case length, a 1.0 m standard cable and a miniature coaxial ClickLoc connector without a connector protector.

The probe is one sensing component of a complete 3300 XL 8 mm Proximity Transducer System. With the correctly matched Proximitor Sensor, the system produces an output voltage proportional to the distance between the probe tip and a conductive target. The resulting signal supports static shaft-position and dynamic shaft-vibration measurement, as well as Keyphasor reference and speed applications when used according to Bently Nevada guidance.

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| 330103 probe<br>Detects target distance | -> | 3300 XL Proximitor Sensor<br>Conditions the eddy-current signal | -> | Compatible monitoring input<br>Uses vibration, position or reference signal |

# 2. Model Configuration

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| **330103** | 3300 XL 8 mm metric probe, M10 x 1 thread, without armor. |
| **00** | 0 mm unthreaded length. |
| **03** | 30 mm overall case length. |
| **10** | 1.0 m total probe length. |
| **First 02** | Miniature coaxial ClickLoc connector, standard cable, no connector protector. |
| **Final 02** | Not defined in the agency-approval option table of manufacturer datasheet 141194 Rev. AM. Verify the physical nameplate and current official approval record. |

Configuration control: do not infer the final approval code from a similar part number. The physical nameplate and current manufacturer approval documentation must govern selection for regulated or hazardous-area service.

# 3. Technical Specifications

Values below are manufacturer-published data. System performance values require a complete, correctly matched 3300 XL 8 mm system under the stated manufacturer test conditions.

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| **Product type** | Non-contacting eddy-current proximity probe; component of the 3300 XL 8 mm system. |
| **Mounting thread** | M10 x 1. |
| **Probe tip** | 8.0 mm PPS tip; AISI 303 or 304 stainless-steel case. |
| **Probe cable** | 1.0 m, 75 ohm triaxial, FEP insulated, standard cable. |
| **Connector** | Miniature coaxial ClickLoc connector; no connector protector in the first 02 option. |
| **Linear range** | 2.0 mm (80 mil); approximately 0.25 to 2.3 mm from the target for the complete system. |
| **Scale factor** | 7.87 V/mm (200 mV/mil) +/-5% for the standard 1 m system under published conditions. |
| **Recommended radial gap** | -9 Vdc, approximately 1.27 mm (50 mil). |
| **Frequency response** | 0 to 10 kHz, +0/-3 dB, for a standard 1 m system with up to 305 m of field wiring. |
| **Standard probe temperature** | -52 deg C to +177 deg C (-62 deg F to +350 deg F). |
| **Minimum bend radius** | 25.4 mm (1.0 in). |
| **Maximum thread engagement** | 15 mm for M10 x 1. |
| **Minimum flat target** | 15.2 mm (0.6 in) diameter. |
| **Shaft diameter** | 50.8 mm (2 in) minimum; 76.2 mm (3 in) recommended minimum. |
| **Reference target** | AISI 4140 steel unless another target material is specifically calibrated by the manufacturer. |

# 4. Compatible Components

A 1.0 m probe forms a 1.0 m system and does not use an extension cable. Use a 330180 Proximitor Sensor configured for a 1.0 m total system length. Published 1.0 m selections include:

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| **330180-10-00** | 1.0 m system length, panel mount, approval not required. |
| **330180-11-00** | 1.0 m system length, DIN mount, approval not required. |
| **330180-12-00** | 1.0 m system length, DIN mount with agency approvals. |

## 5. Core Functions and Applications

### Fluid-film-bearing machinery

Non-contacting measurement of shaft motion and position on rotating machinery using fluid-film bearings.

### Radial shaft vibration

Dynamic shaft motion relative to the probe mounting location.

### Static shaft position

Static distance between the probe tip and a conductive shaft or target.

### Keyphasor reference

Phase-reference measurement when installed and applied according to manufacturer instructions.

### Speed measurement

Rotational-speed applications when target geometry, Proximitor Sensor and monitoring input satisfy the published requirements.

### Protection and condition monitoring

Shaft-vibration or position signals supplied to compatible Bently Nevada monitoring systems.

## 6. Installation and Commissioning Checklist

- Verify the complete model code and physical nameplate before installation.
- Match the probe and Proximitor Sensor to the same 1.0 m total system length; do not add an extension cable to this 1.0 m probe configuration.
- Maintain a cable bend radius of at least 25.4 mm (1.0 in) and protect the connector from contamination and mechanical strain.
- Do not exceed 15 mm M10 x 1 thread engagement; follow the manufacturer torque and mounting instructions.
- For radial-vibration service, establish the recommended gap near -9 Vdc, approximately 1.27 mm (50 mil), using the intended target material.
- Confirm target diameter, shaft diameter, probe spacing and cross-talk limits for the installation geometry.
- Verify polarity, grounding, field wiring, monitor input compatibility and environmental limits before energizing the system.
- For hazardous-area service, use the current certification and applicable Bently Nevada installation drawing; the final 02 suffix remains unconfirmed in the cited ordering table.

> Safety boundary: this Apter Power document is a product reference and selection aid. It does not replace the manufacturer installation drawings, certification documents, site procedures or qualified engineering review.

# 7. Model-Specific FAQ

**1 What is the Bently Nevada 330103-00-03-10-02-02?**

It is an M10 x 1, unarmored 3300 XL 8 mm proximity probe with a 30 mm case, 0 mm unthreaded length, 1.0 m standard cable and miniature ClickLoc connector.

**2 What does the configuration code mean?**

330103 identifies the metric unarmored probe; 00 is 0 mm unthreaded length; 03 is a 30 mm case; 10 is 1.0 m total length; the first 02 identifies the standard cable and ClickLoc connector without protector. The final 02 requires nameplate verification.

**3 What signals can the system measure?**

With the correctly matched Proximitor Sensor, it measures dynamic shaft vibration and static shaft position and can support Keyphasor reference and speed measurements.

**4 Which Proximitor Sensor is compatible?**

Use a 330180 Proximitor Sensor configured for a 1.0 m total system length, subject to the required mounting and approval option.

**5 What installation limits are important?**

Maintain the 25.4 mm bend radius, 15 mm maximum thread engagement, recommended -9 Vdc radial gap, published target and shaft dimensions, and the applicable approval requirements.

**6 Is the final 02 approval suffix confirmed?**

No. Datasheet 141194 Rev. AM lists 00 and 05 for that position. Confirm the physical nameplate and the current manufacturer approval record.

**7 What cable and connector are supplied?**

The 10 code identifies a 1.0 m total probe length. The first 02 code identifies a miniature coaxial ClickLoc connector with standard 75 ohm FEP-insulated triaxial cable and no connector protector.

**8 What are the nominal range and scale factor?**

For a correctly matched standard 1.0 m system under published conditions, the linear range is 2.0 mm (80 mil) and the scale factor is 7.87 V/mm (200 mV/mil) +/-5%.

## 8. Lifecycle and Approval Status

Baker Hughes publishes the 3300 XL 8 mm Proximity Transducer System datasheet and lists the 330103 metric probe family in the ordering information. This manual does not state a manufacturer discontinuation notice for the 330103 family.

> Unconfirmed configuration item: the final 02 suffix in the supplied complete model is not defined in the agency-approval option table of datasheet 141194 Rev. AM. Apter Power recommends checking the physical nameplate, manufacturer serial-number record and current approval guide before quotation or installation.

## 9. Official Manufacturer Sources

### Bently Nevada 3300 XL 8 mm Proximity Transducer System Datasheet, document 141194 Rev. AM

https://dam.bakerhughes.com/m/23d2a1de24360b13/original/3300-XL-8mm-Proximity-Transducer-System-Datasheet-141194-pdf.pdf

### Bently Nevada Approvals Quick Reference Guide, document 108M1756

https://dam.bakerhughes.com/m/2bf5dd5f301c947a/original/Approvals-Quick-Reference-Guide-Country-Specific-Ordering-Options-108M1756-pdf.pdf

Source-access date: 12 August 2026. Manufacturer document revisions may change. Confirm the current revision before use.

## 10. Apter Power Support

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| **Seller** | Apter Power |
| **Website** | https://www.apterpower.com |
| **Product page** | https://www.apterpower.com/Bently-Nevada/330103-00-03-10-02-02 |
| **Email** | sales13@apterpower.com |
| **Phone / WhatsApp** | +86 180 3023 5313 |
| **Quotation note** | Confirm the physical nameplate, exact condition, included accessories and approval requirement in the quotation. |