

MANUFACTURER DOCUMENT PACKAGE

# Manufacturer's Manual

Reference package for procurement and maintenance review

BENTLY NEVADA

## 330102-00-70-10-02-00

3/8-24 UNF ARMORED PROXIMITY PROBE

Used with the applicable 3300 XL 8 mm Proximity Transducer System system configuration.

REFERENCE PACKAGE

OFFICIAL DOCUMENT

Selected official pages follow this cover with source pagination retained.

141194 Rev. AM

# 3300 XL 8 mm Proximity Transducer System

## Datasheet

**Cordant™**

141194 Rev. AM



## Description

The 3300 XL 8 mm Proximity Transducer System consists of:

- One 3300 XL 8 mm probe,
- One 3300 XL extension cable<sup>1</sup>, and
- One 3300 XL Proximitron Sensor<sup>2</sup>.

The system provides an output voltage that is directly proportional to the distance between the probe tip and the observed conductive surface and can measure both static (position) and dynamic (vibration) values. The system's primary applications are vibration and position measurements on fluid-film bearing machines, as well as Keyphasor reference and speed measurements<sup>3</sup>.

The 3300 XL 8 mm system delivers the most advanced performance in our eddy current proximity transducer systems. The standard 3300 XL 8 mm 5-meter system also fully complies with the American Petroleum Institute's (API) 670 Standard for mechanical configuration, linear range, accuracy, and temperature stability. All 3300 XL 8 mm proximity transducer systems provide this level of performance and support complete interchangeability of probes, extension cables, and Proximitron sensors, eliminating the need to match or bench calibrate individual components.

Each 3300 XL 8 mm Transducer System component is backward compatible and interchangeable<sup>4</sup> with other non-XL 3300 series 5 mm and 8 mm transducer system components<sup>5</sup>. This compatibility includes the 3300 5 mm probe, for applications in which an 8 mm probe is too large for the available mounting space<sup>6,7</sup>.



## Ordering Information



For the detailed listing of country and product-specific approvals, refer to the [Approvals Quick Reference Guide \(108M1756\)](#).

For additional technical documentation, please log in to [bntechsupport.com](http://bntechsupport.com) and access the Bently Nevada Media Library.

## Ordering Information for Probes

### 3300 XL 8 mm Proximity Probes:

**330101** 3300 XL 8 mm Probe, 3/8-24 UNF thread, without armor(2)

**330102** 3300 XL 8 mm Probe, 3/8-24 UNF thread, with armor(2)

#### Part Number-AA-BB-CC-DD-EE

##### A: Unthreaded Length Option



Unthreaded length must be at least 0.8 in. less than the case length.

Order in increments of 0.1 in.

##### Length configurations:

Maximum unthreaded length: 8.8 in.

Minimum unthreaded length: 0.0 in.

Example: **0 4** = 0.4 in.

##### B: Overall Case Length Option

Order in increments of 0.1 in.

##### Standard thread configurations:

Maximum case length: 9.6 in.

Minimum case length: 0.8 in.

Example: **2 4** = 2.4 in.

##### C: Total Length Option

|           |                      |
|-----------|----------------------|
| <b>05</b> | 0.5 meter (1.6 feet) |
| <b>10</b> | 1.0 meter (3.3 feet) |
| <b>15</b> | 1.5 meter (4.9 feet) |

|           |                        |
|-----------|------------------------|
| <b>20</b> | 2.0 meters (6.6 feet)  |
| <b>30</b> | 3.0 meters (9.8 feet)  |
| <b>50</b> | 5.0 meters (16.4 feet) |
| <b>90</b> | 9.0 meters (29.5 feet) |



3-meter length option is only available on 330101 probes, and is designed for use with the 9 meter Proximitor sensor only.



5-meter probes are designed for use with the 5 meter Proximitor sensor only.

#### D: Connector and Cable-Type Option

|           |                                                                               |
|-----------|-------------------------------------------------------------------------------|
| <b>01</b> | Miniature coaxial ClickLoc connector with connector protector, standard cable |
| <b>02</b> | Miniature coaxial ClickLoc connector, standard cable                          |
| <b>11</b> | Miniature coaxial ClickLoc connector with connector protector, FluidLoc cable |
| <b>12</b> | Miniature coaxial ClickLoc connector, FluidLoc cable                          |

#### E: Agency Approval Option

|           |                            |
|-----------|----------------------------|
| <b>00</b> | Not required               |
| <b>05</b> | CSA, ATEX, IECEx Approvals |

### 3300 XL 8 mm Proximity Probes, Metric:

**330103** 3300 XL 8 mm Probe, M10 x 1 thread, without armor (2)

**330104** 3300 XL 8 mm Probe, M10 x 1 thread, with armor (2)

#### Part Number-AA-BB-CC-DD-EE

##### A: Unthreaded Length Option



Unthreaded length must be at least 20 mm less than the case length.

Order in increments of 10 mm

**Length configurations:**

Maximum unthreaded length: 230 mm

Minimum unthreaded length: 0 mm

Example: **0 6** = 60 mm

**B: Overall Case Length Option**

Order in increments of 10 mm

**Metric thread configurations:**

Maximum case length: 250 mm

Minimum case length: 20 mm

Example: **0 6** = 60 mm

**C: Total Length Option**

**05** 0.5 meter (1.6 feet)

**10** 1.0 meter (3.3 feet)

**15** 1.5 meter (4.9 feet)

**20** 2.0 meters (6.6 feet)

**50** 5.0 meters (16.4 feet)

**90** 9.0 meters (29.5 feet)



5-meter probes are designed for use with the 5 meter Proximitor sensor only.

**D: Connector and Cable-Type Option**

**01** Miniature coaxial ClickLoc connector with connector protector, standard cable

**02** Miniature coaxial ClickLoc connector, standard cable

**11** Miniature coaxial ClickLoc connector with connector protector, FluidLoc cable

**12** Miniature coaxial ClickLoc connector, FluidLoc cable

**E: Agency Approval Option**

**00** Not required

**05** CSA, ATEX, IECEx Approvals

**3300 XL 8 mm Reverse Mount Probes**

**330105-02-12-CC-DD-EE3/8-24 UNF threads(2)**

**330106-05-30-CC-DD-EE M10 x 1 threads(2)**

**Option Descriptions**

**C: Total Length Option**

**05** 0.5 meter (1.6 feet)

**10** 1.0 meter (3.3 feet)

**15** 1.5 meter (4.9 feet)

**20** 2.0 meters (6.6 feet)

**50** 5.0 meters (16.4 feet)

**90** 9.0 meters (29.5 feet)



5-meter probes are designed for use with the 5 meter Proximitor sensor only.

**D: Connector and Cable-Type Option**

**02** Miniature ClickLoc coaxial connector

**12** Miniature ClickLoc coaxial connector , FluidLoc cable

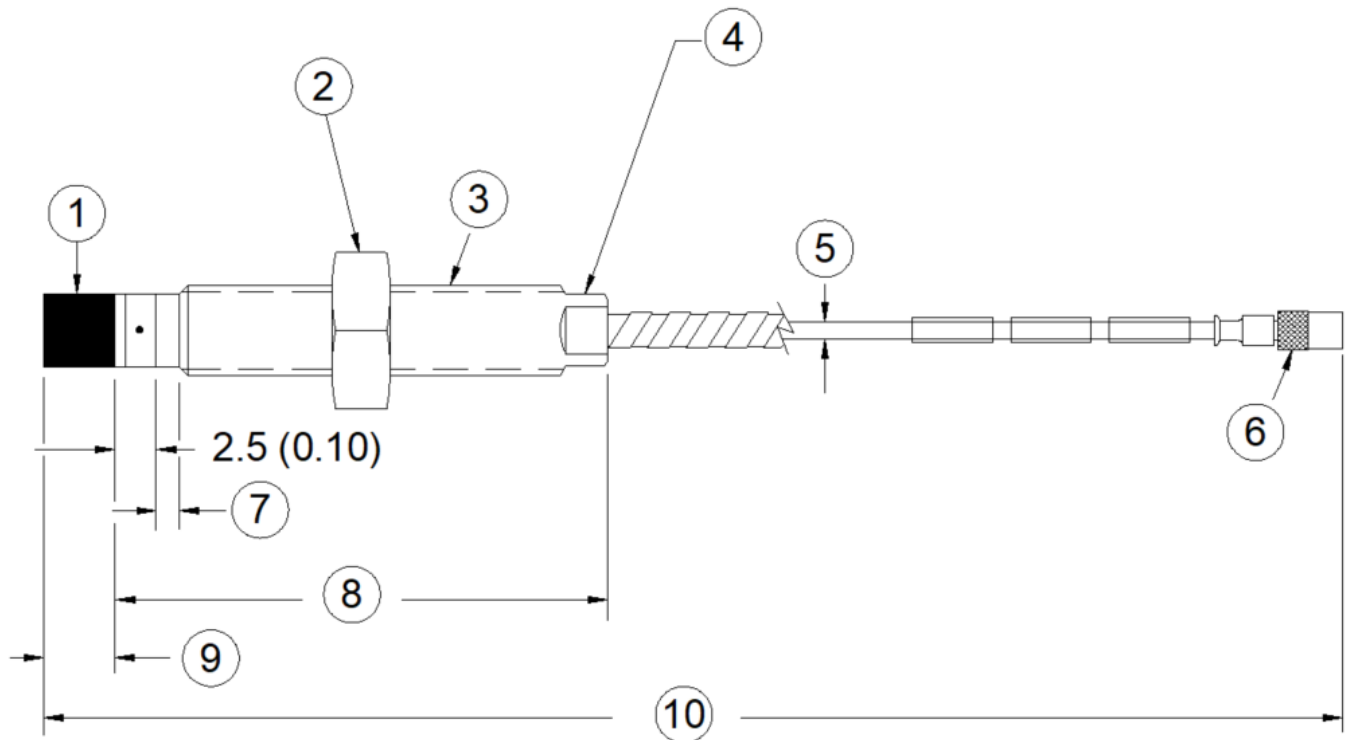


The FluidLoc cable option –12 is not necessary on the vast majority of 330105 and 330106 installations due to the presence of the probe sleeve. Consider carefully the application before ordering the FluidLoc cable option for these probes.

**E: Agency Approval Option**

**00** Not required

**05** CSA, ATEX, IECEx Approvals



1. Probe tip, 8.0 mm (0.31 in) diameter
2. 9/16 in for 3/8-24 threads, M17 for M10 threads (see Note 2)
3. Case thread
4. 5/16 in wrench flats for 3/8-24 threads; 8mm wrench flats for M10 threads.
5. 75  $\Omega$  cable, 3.68 mm (0.145 in) maximum outside diameter, 3.94 mm (0.155 in) maximum outside diameter for FluidLoc cable, 7.67 mm (0.302 in) outside diameter of armor, 9.5 mm (0.38 in) maximum diameter of armor ferrule
6. Miniature male coaxial connector, 7.24 mm (0.285 in) maximum outside diameter "D"
7. Unthreaded length "A"
8. Case length "B"
9. 6.0 mm (0.235 in) maximum
10. Total length "C", +30%, -0%<sup>3</sup>

**Figure 14: 3300 XL 8 mm Proximity Probes, Standard Mount**

330101 and 330191, 3/8-24 UNF-2A, without armor <sup>7</sup>

330102 and 330192, 3/8-24 UNF-2A, with armor <sup>6</sup>

330103 and 330193, M10X1 thread, without armor <sup>7</sup>

330104 and 330194, M10X1 thread, with armor <sup>6</sup>