

# 3300XL Underwater Probes

## Product Datasheet

Bently Nevada\* Asset Condition Monitoring



## Description

3300 XL underwater probes are designed specifically for applications involving constant exposure to liquids, such as those in hydroelectric plants or sewage treatment facilities. These designs also seal the probes against gases. All our underwater probes are rated to 500 psi (34 Bar). Contact a sales representative for applications that require higher pressure ratings.

All of the underwater probes are compatible with standard 3300 XL Proximitor\* Sensors and extension cables. Note that these probes each belong to a different family (8mm, 11mm, or 25mm) and consequently require different Proximitor Sensors and extension cables. Refer to the standard data product sheets to obtain ordering information for the 8mm, 11mm, and 25mm transducer systems.

The 100630, 148239, and 174985 probes were developed for applications in which the entire probe is submerged or exposed to fluids. Tubing attached to the probe case protects the probe cable, but the connector end of the probe is not sealed against liquids and must



imagination at work

Part Number 175852

Rev. C (05/16)

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not be submerged. In addition, the probe case is made of 304 Stainless Steel and is not suitable for salt-water applications. Contact a sales representative if you have an application involving salt water.

## Specifications

### Electrical & Mechanical

The electrical and mechanical specifications for each of these probes are the same as standard product for the 8mm, 11mm, and 25mm systems.

Reference data sheets as follows for complete specifications

Probe 100630	3300 8mm System data sheet document 141194-01
Probe 148239	3300 11mm System data sheet document 146256-01
Probe 174985	3300 25mm System data sheet document 163236

### Environmental Limits


#### Probe Temperature Range

Operating and Storage Temperature	-51 °C to +177 °C (-60 °F to +351 °F)
Probe Pressure	Rated to seal 34 Bar (500 psi) Nitrogen. Modifications are available for applications involving higher pressures. Contact a Sales Representative if your application requires a test of the pressure seal. <sup>1</sup>

#### <sup>1</sup>Note

It is the responsibility of the customer or user to ensure that all liquids and gases are contained and safely controlled should leakage occur from a proximity probe. Bently Nevada, Inc. will not be held responsible for any damages resulting from leaking proximity probes.

### Hazardous Area Approvals

CSA/NRTL/C	<p>Ex ia IIC Class I, Div. 1 Groups A, B, C &amp; D T5 @ Ta = -51°C to +40°C</p> <p>Per drawings 141092, 140979, CA22000</p> <hr/> <p>Ex nA IIC Class I, Div. 2 Groups A, B, C &amp; D T5 @ Ta = -51°C to +40°C</p> <p>Per drawings 141092, 140979, CA22000</p>
ATEX	<p> II I G EEx ia IIC</p> <hr/> <p>II 3 G EEx nA II</p> <p>T1...T5 @ T<sub>a</sub> as listed in the following table.</p>

Temperature Class	Ambient Temperature
T1	-51°C to +232°C
T2	-51°C to +177°C
T3	-51°C to +120°C
T4	-51°C to +80°C
T5	-51°C to +40°C

When installed per drawing #142491.

IEC	
Ex ia IIC T4	
Electrical parameters	$U_i = -28V$ $C_i = 1.5nF$ $I_i = 140mA$ $L_i = 200\mu H$ $P_i = 0.84W$
Ex nA II	
Electrical parameters	$U_i = -28V$

## Ordering Information

For a detailed listing of country and product specific approvals, refer to the Approvals Quick Reference Guide (document 108M1756) located at the following website: [www.GEmeasurement.com](http://www.GEmeasurement.com).

### 3300 XL 8mm Underwater Proximity Probe

100630 3300 XL 8mm Underwater Probe, 3/8-24 UNF thread, sealed case with Tefzel® Tubing

#### Part Number-AXX-BXX-CXX-DXX-EXX

##### A: Unthreaded Length Option

**Note:** Unthreaded length must be at least 0.7 in. less than the case length.

Order in increments of 0.1 in  
**Length configurations:**

**Maximum unthreaded length:**  
**8 9 = 8.9 in**

**Minimum unthreaded length:**  
**0 0 = 0.0 in**

**Example: 0 4 = 0.4 in**

##### B: Overall Case Length Option

Order in increments of 0.1 in  
**Threaded Length configurations:**

**Maximum case length:**  
**9 6 = 9.6 in**

**Minimum case length:**  
**0 8 = 0.8 in**

**Example: 2 4 = 2.4 in**

##### C: Total Length Option

- 05** 0.5 metre (1.6 feet)
- 10** 1.0 metre (3.3 feet)
- 15** 1.5 metre (4.9 feet)
- 20** 2.0 metres (6.6 feet)
- 50** 5.0 metres (16.4 feet)
- 90** 9.0 metres (29.5 feet)

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

- 01** Miniature coaxial ClickLoc™ connector with connector protector, standard cable
- 02** Miniature coaxial ClickLoc connector, standard cable

### 3300 XL 11mm Underwater Proximity Probe

148239 3300 XL 11mm Underwater Probe, 5/8-18 UNF thread, sealed case with Tefzel® Tubing

#### Part Number-AXX-BXX-CXX-DXX

##### A: Unthreaded Length Option

**Note:** Unthreaded length must be at least 1.0 in. less than the case length.

Order in increments of 0.1 in  
**Length configurations:**

**Maximum unthreaded length:** 11.0 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  
**Threaded Length configurations:**

**Maximum case length:** 12.0 in

**Minimum case length:** 1.8 in

**Example:** 2 4 = 2.4 in

**C: Total Length Option**

- 10** 1.0 metre (3.3 feet)
- 50** 5.0 metres (16.4 feet)
- 90** 9.0 metres (29.5 feet)

**D: Connector and Cable Type Option**

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

**B: Overall Case Length Option**

Order in increments of 0.1 in  
**Threaded Length configurations:**

**Maximum case length:** 9.9 in

**Minimum case length:** 1.2 in

**Example:** 2 4 = 2.4 in

**C: Total Length Option**

- 10** 1.0 metre (3.3 feet)
- 50** 5.0 metres (16.4 feet)
- 90** 9.0 metres (29.5 feet)

## 3300 XL 25mm Underwater Proximity Probe

174985 3300 XL 25mm Underwater Probe, 1.25-12 UNF thread, sealed case with Tefzel® Tubing

### Part Number-AXX-BXX-CXX

**A: Unthreaded Length Option**

**Note:** Unthreaded length must be at least 1.0 in. less than the case length.

Order in increments of 0.1 in  
**Length configurations:**

**Maximum unthreaded length:** 8.9 in

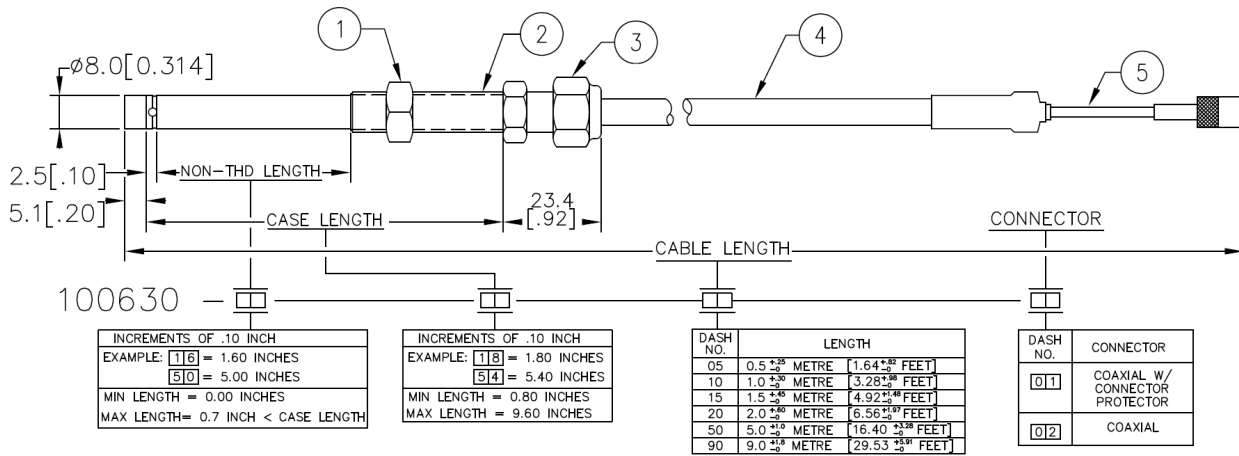
**Minimum unthreaded length:** 0.0 in

**Example:** 0 4 = 0.4 in

## Accessories

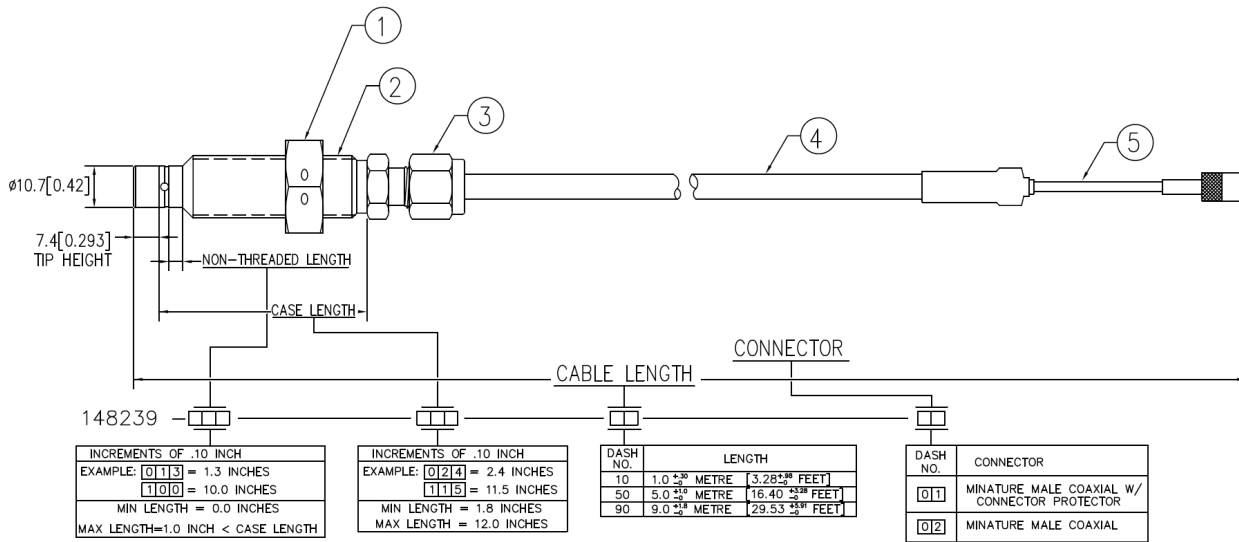
40113-02	<b>Connector Protector Kit</b> Connector Protector Kit for probes and extension cables, including installation tools. The 03800001 connector protector must be ordered separately.
136536-01	<b>Connector Protector Adapter</b> Allows connector protector installation tools manufactured prior to 1998 to be used with 75 W ClickLoc connectors.
03839410	<b>75 ohm Triaxial Male Connector Protector</b> Male connector protectors are installed onto the extension cable and attach to the female connector protector on the probe, providing environmental protection of connectors.
03800001	<b>75 ohm Coaxial Female Connector Protector</b> Female connector protectors are installed onto the probe lead and attach to the male connector protector on the extension cable, providing environmental protection of connectors. Also placed on the extension cable to slide over the connection to the Proximitor Sensor and protect it from the environment.
04301007	<b>3/8-24 Probe Lock Nut with safety wire holes</b> Single probe lock nut with two holes drilled through the nut to allow safety wire to secure the lock nut in place.
173873	<b>High Temperature Cable Ties</b> The 173873 high temperature cable tie is an economical alternative to metal brackets in high temperature applications. These cable ties are molded from PEEK polymer for multiple uses in extreme environments up to 180°C (356°F). 7-inch length, bag of 50.

# Dimensional Drawings



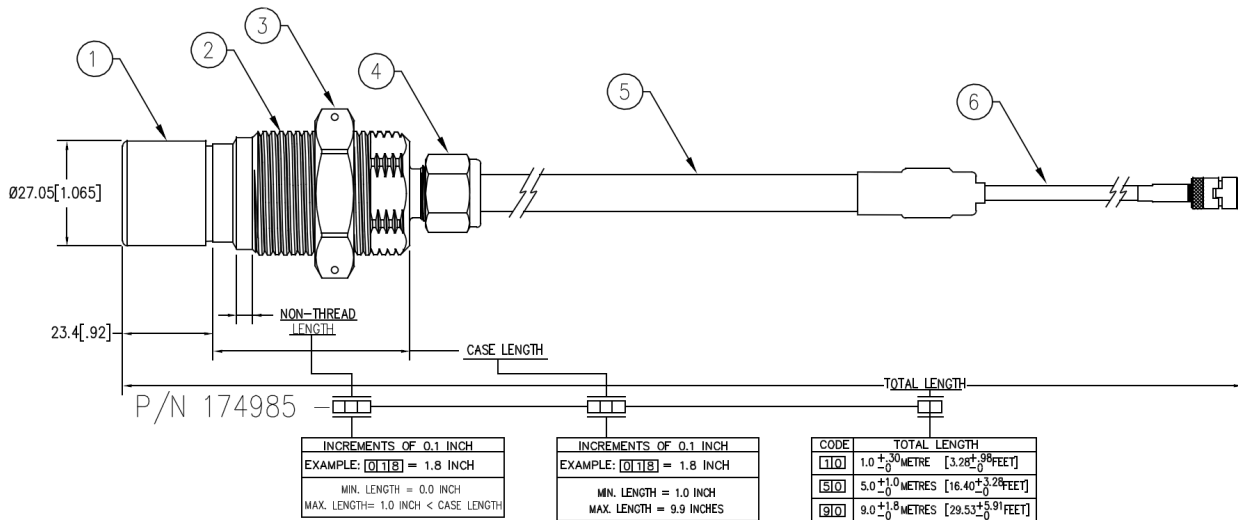
1. Jam nut 9/16 inch wrench flats
2. Probe threads, 3/8-24 UNF 2A
3. Swagelok<sup>tm</sup> fitting, used to secure tubing to probe case. Do not loosen this fitting.
4. Tefzel<sup>®</sup> tubing 0.25 inch outside diameter
5. Coaxial cable 0.145 inch maximum diameter

Figure 1: Probe 100630, 3300 XL 8mm 3/8-24 thread forward mount



1. Jam nut, 15/16 inch hex with safety wire holes
2. 5/8-18 UNF 2A Mounting threads
3. Swagelok fitting, used to secure tubing to probe case. Do not loosen this fitting.
4. Tefzel<sup>®</sup> tubing 0.25 inch outside diameter
5. Coaxial cable 0.145 inch maximum diameter

Figure 2: Probe 148239, 3300 XL 11mm 5/8-18 thread forward mount



1. PEEK polymer tip
2. 1.25-12 mounting threads with 1.125 inch integral wrench flats
3. Jam nut, 1.5 inch hex with safety wire holes
4. Swagelok™ fitting, used to secure tubing to probe case. Do not loosen this fitting.
5. Tefzel® tubing 0.375 inch outside diameter
6. Coaxial cable 0.145 inch maximum diameter

**Figure 3: Probe 174985, 1.25 - 12 thread, forward mount with Tefzel tubing protecting probe cable**

**Note**

All dimensions on figures are in millimetres [inches] unless otherwise noted.

\*Denotes a trademark of Bently Nevada, Inc., a wholly owned subsidiary of General Electric Company.

Tefzel® is a registered trademark of E.I. DuPont Company

Click-loc® is a registered trademark of Moeller Mfg. Co., Inc.

Swagelok™ is a trademark of Parker Hannifin Co.

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