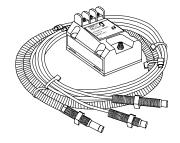
# Specifications and Ordering Information 3300 Proximity Transducer System

Patents: 5,016,343; 5,126,664; 5,351,388; and 5,685,884





# Description

## Transducer System

The 3300 Proximity Transducer System consists of:

- a 3300 XL 8 mm probe or 3300 5 mm probe <sup>1, 2</sup>
- a 3300 XL extension cable
- a 3300 Proximitor<sup>®</sup> Sensor <sup>3, 4, 5</sup>

The system provides an output voltage directly proportional to the distance between the probe tip and the observed conductive surface. It is capable of both static (position) and dynamic (vibration) measurements, and is primarily used for vibration and position measurement applications on fluid-film bearing machines, as well as Keyphasor<sup>®</sup> and speed measurement applications <sup>6</sup>.

The system provides an accurate, stable signal output over a wide temperature range. All 3300 Proximity Transducer Systems achieve this level of performance while allowing complete interchangeability of probe, extension cable, and Proximitor<sup>®</sup> Sensor without the need for individual component matching or bench calibration.

#### Proximitor® Sensor

The 3300 Proximitor<sup>®</sup> Sensor offers many improvements over previous Bently Nevada eddy current transducers with better linearity and temperature stability. It also uses an integral isolation plate as its base, eliminating the need for separate isolator plates.

#### **Proximity Probes and Extension Cable**

The 3300 XL 8 mm probe, 3300 5 mm probe, and 3300 XL extension cable also reflect improvements over previous designs. A patented TipLoc<sup>TM</sup> molding method provides a more robust bond between the probe tip and the probe body. The probe's cable is more securely attached as well, incorporating a patented CableLoc<sup>TM</sup> design that provides 330 N (75 lb) pull strength for 8 mm probe where the probe cable attaches to the probe tip.

Probes (8 mm only) and Extension Cables can also be ordered with an optional FluidLoc<sup>®</sup> cable option. This option prevents oil and other liquids from leaking out of the machine through the cable's interior.

#### Connectors

The 3300 and 3300XL probes and extension cable have corrosion-resistant, gold-plated brass ClickLoc<sup>™</sup> connectors. These connectors require only finger-tight torque (connectors will "click"), and the specially engineered locking mechanism prevents the connectors from loosening. They do not require any special tools for installation or removal.

3300 Probes and Extension Cables can also be ordered with connector protectors already installed, or supplied separately for installation in the field (such as when the cable must be run through restrictive conduit). Connector protectors are recommended for all installations and provide increased environmental protection<sup>7</sup>.

#### Notes:

- A 5 mm probe uses smaller physical packaging while providing the same linear range as an 8 mm probe; however, it does not permit reduced sideview clearances or tip-to-tip spacing requirements compared to an 8 mm probe. It is used when physical (not electrical) constraints preclude the use of an 8 mm probe, such as mounting between thrust bearing pads or other constrained spaces. When narrow sideview probes are required, consult your Bently Nevada Sales and Service Professional.
- 8 mm probes provide a thicker encapsulation of the probe coil in the molded PPS plastic probe tip. This results in a more rugged probe. The larger diameter of the probe body also provides a stronger, more robust case. Bently Nevada recommends the use of 8 mm probes when possible to provide optimal robustness against physical abuse.
- 3. A 3300 XL Proximitor Sensor is available and provides numerous improvements over the non-XL version. It is electrically and mechanically interchangeable with the non-XL version, and is recommended as best available technology for most applications. Although the packaging of the 3300 XL Proximitor sensor differs from its predecessor, it is designed to fit in the same 4-hole mounting pattern when used with the 4-hole mounting base, and will fit within the same mounting space specifications (when minimum permissible cable bend radius is observed). Consult Specifications and Ordering Information (p/n 141194-01) or our Bently Nevada Sales and Service Professional for more information.
- 4. When XL and non-XL components are mixed, system performance is limited to the specifications for the non-XL 3300 system.
- Proximitor<sup>®</sup> Sensors are supplied by default from the factory calibrated to AISI 4140 steel. Calibration to other target materials is available upon request.
- Consult Bently Nevada Applications Note AN085 when considering this transducer system for tachometer or overspeed measurements.
- Silicone tape is also provided with each 3300 XL extension cable and can be used instead of connector protectors. Silicone tape is not recommended in applications where the probe-to-extension cable connection will be exposed to turbine oil.

# **Specifications**

Unless otherwise noted, the following specifications are for a proximity transducer system between 18°C and 27°C (64°F to 80°F) with a -24 Vdc power supply, a 10 k  $\Omega$  load, an AISI 4140 steel target, and a probe gapped at 1.27 mm (50 mils).

## Electrical

Proximitor® Sensor Input: Accepts one noncontacting 3300 5 mm, 3300 8 mm or 3300 XL 8 mm Proximity Probe and Extension Cable.

Power:	Requires -17.5 Vdc to -26 Vdc at 12 mA maximum consumption. Operation at a more positive voltage than -23.5 Vdc can result in reduced linear range.
Supply Sensitivity:	Less than 2 mV change in output voltage per volt change in input voltage.
Output resistance:	50 Ω

Probe dc resistance	(R probe)
Probe Length (m)	Resistance from the Center Conductor
	to the Outer Conductor ( $\Omega$ )
0.5	$7.45 \pm 0.50$
1.0	$7.59 \pm 0.50$
1.5	$7.73 \pm 0.50$
2.0	$7.88 \pm 0.50$
5.0	$8.73 \pm 0.70$
9.0	9.87 ± 0.90

Extension ca	able dc resistance	
Length of	Resistance from	Resistance from
Extension	Center Conductor to	Outer Conductor to
Cable	Center Conductor	Outer Conductor
	(Rcore) ( $\Omega$ )	(Rjacket) ( $\Omega$ )
3.0	$0.66 \pm 0.10$	$0.20 \pm 0.04$
3.5	$0.77 \pm 0.12$	$0.23\pm0.05$
4.0	$0.88 \pm 0.13$	$0.26\pm0.05$
4.5	0.99 ± 0.15	$0.30\pm0.06$
7.0	$1.54 \pm 0.23$	$0.46 \pm 0.09$
7.5	$1.65 \pm 0.25$	$0.49\pm0.10$
8.0	$1.76 \pm 0.26$	$0.53 \pm 0.11$
8.5	$1.87 \pm 0.28$	$0.56 \pm 0.11$

**Note:** Outer conductor refers to the shielded conductor which is attached to the connector, not the armor braid.

Extension cable capacitance:

69.9 pF/m (21.3 pF/ft) typical.

Field Wiring Length:

Recommend using three-conductor shielded triad cable. 305 metres (1,000 feet) maximum length between 3300 Proximity Transducer and monitor. Consult Performance Specification 155687 for signal rolloff at high frequencies when using longer field wiring lengths or external safety barriers located some distance from the monitoring system.

Linear Range:	2 mm (80 mils). Linear range begins at approximately 0.25 mm (10 mils) from target and is from 0.25 to	Hazardous Area Appr	rovals
	2.3 mm (10 to 90 mils).	CSA/NRTL/C:	Exia for Class I, Division 1, Groups
Recommended Gap Setting:	1.27 mm (50 mils).		A, B, C, and D, when installed with intrinsically safe zener barriers per drawing CA22000, or galvanic isolators. Class I, Division 2,
Incremental Scale Factor:	7.87 mV/µm (200 mV/mil) ±6.5% typical, including interchangeability error when measured in increments of 0.25 mm (10 mils) over the linear		Groups A, B, C, and D without barriers. T4A @ Ta=100°C; T5 @ Ta=65°C
	range.	BASEEFA / CENELEC:	EExia for Zones 0, 1, and 2, Groups I, IIA, IIB, & IIC, BASEEFA
Deviation from best fit straight line (DSL):	Less than $\pm 38 \ \mu m$ ( $\pm 1.5 \ m i$ ) typical deviation from best fit straight line.		certificate number Ex90C2300X, when installed with intrinsically safe zener barriers or galvanic isolators.
Probe Temperature Stability (typical):	Over probe temperature range of $-35^{\circ}$ C to $+177^{\circ}$ C (-31°F to $+350^{\circ}$ F), the incremental scale factor remains within $\pm 10\%$ of 7.87 mV/µm		ExN for Zone 2, Groups IIA, IIB, and IIC, BASEEFA certificate number Ex90Y4301U. T4 @ Ta=100°C
	(200 mV/mil) and the deviation from the best fit straight line remains	Mechanical	
	within ±276 $\mu m$ (±3 mils).	Probe Tip Material:	Polyphenylene sulfide (PPS).
Frequency Response:	0 to 6.5 kHz: +0, -3 dB, with up to 305 metres (1000 feet) of field wiring.	Probe Case Material:	AISI 304 stainless steel (SST).
Minimum Target Size:	15.2 mm (0.6 in) diameter (flat target).	Probe Cable:	0.5, 1, 2, 5, or 9 m lengths for 5 mm probes; 0.5, 1, 1.5, 2, 5, or 9 m lengths for 8 mm probes.
Shaft Diameter		Proximitor® Sensor Material:	A383 aluminum.
Minimum:	50.8 mm (2 in)	System Length:	5 or 9 metres including extension
Recommended minimum:	76.2 mm (3 in)		cable.
		Extension Cable:	75 $\mathbf{\Omega}$ triaxial, fluoroethylene propylene (FEP) insulated.
	t diameters smaller than 50 mm (2 in)		propyrene (i Er) insulated.
position transducers wi electromagnetic emitter	bacing of radial vibration or axial th the potential for their d fields to interact with one another	Extension Cable Armor (optional):	Flexible AISI 302 SST with FEP outer jacket.
taken to maintain minin	erroneous readings. Care should be num separation of transducer tips,	Tensile Strength	
measurements or 74 m measurements. Radial on shaft diameters sma	m (1.6 in) for axial position m (2.9 in) for radial vibration l vibration or position measurements iller than 76.2 mm (3 in) will generally	8 mm probes:	330 N (75 lb) probe case to probe lead. 270 N (60 lb) probe lead to extension cable connectors.
	ale factor. Consult Performance or additional information.	5 mm probes:	220 N (50 lb) probe case to probe lead. 220 N (50 lb) probe lead to extension cable connectors.
Electrical Certification:	Complies with the European CE mark.	Connector Material:	Gold-plated brass.
		Total System Weight:	0.59 kg (1.3 lb) typical.

Probe case torque		
	Maximum Rated	Recommended
M10X1 or 3/8-24	33.9 N∙m	11.2 N∙m
forward-mount	(300 in●lb)	(100 in●ft)
probes		
M10X1 or 3/8-24	22.6 N∙m	7.5 N∙m
forward-mount	(200 in●lb)	(66 in●lb)
probes, first three		. ,
threads		
M8X1 or 1/4-28	7.3 N∙m	5.1 N∙m
forward mount	(65 in●lb)	(45 in●lb)
probes		. ,
Reverse mount	22.6 N∙m	7.5 N∙m
probes	(200 in∙lb)	(66 in●lb)

Connector-to-connector torque

Recommended	See table below.
torque:	

Maximum torque:

0.565 N•m (5 in•ft)

Connector Type	Tightening Instructions
Two 3300 XL gold "click"	Finger tight
type connectors	
One non-XL stainless steel	Finger tight plus 1/8 turn
connector and one	using pliers
3300 XL connector	

Minimum Cable Bend Radius:	25.4 mm (1.0 in).
Total System Weight:	0.71 kg (1.6 lb), typical.
Probe:	323 g (11.38 oz).
Extension Cable:	34 g/m (1.5 oz/lb).
Armored Extension Cable:	103 g/m (1.5 oz/ft).
Proximitor® Sensor:	255 g (9.0 oz).

#### **Environmental Limits**

Probe Temperature Range:	-51°C to +177°C (-60°F to +351°F) for 3300 XL probes; -35°C to +177° (-31°F to +351°F) for non-XL probes. <b>Note:</b> Exposing the probe to temperatures below -34°C (-30°F) may cause premature failure of the pressure seal.
Eutoncian Cabla	

Extension Cable *Temperature Range:*  -51°C to +177°C (-60°F to +351°F)

Proximitor<sup>®</sup> Sensor Temperature Range

<i>Operating Temperature:</i>	-51°C to +100°C (-60°F to +212°F)
Storage Temperature:	-51°C to +100°C (-60°F to +212°F)
Relative Humidity:	100% condensing, non-submersible when connectors are protected.
Probe Pressure:	3300 5 mm and 3300 XL 8 mm probes are designed to seal differential pressure between the probe tip and case. The probe sealing material consists of a Viton® O-ring. Probes are not pressure- tested prior to shipment. Contact our custom design department if you require a test of the pressure seal for your application.

**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. In addition, solutions with high or low pH values may erode the tip assembly of the probe causing media leakage into surrounding areas. Bently Nevada Corporation will not be held responsible for any damages resulting from leaking proximity probes. In addition, 3300 5 mm and 3300 XL 8 mm proximity probes will not be replaced under the service plan due to proceeding. probe leakage.

Effects of 60 Hz Magnetic Fields Up to 420 Gauss (5 metre system):			
Output voltage in mil pp/gauss:			
Gap	Proximitor®	Probe	Ext. Cable
-	Sensor		
10 mil	0.0015	0.0004	0.0004
50 mil	0.0048	0.0014	0.0014
90 mil	0.0108	0.0045	0.0045

Patents:
5,016,343; 5,126,664;
5,351,388; and
5,685,884.

Components or procedures described in the patents apply to this product

# **Ordering Information**

3300 XL 8 mm Proximity Probes 330101 3300 XL 8 mm Probe, 3/8-24 UNF thread, without armor 330102 3300 XL 8 mm Probe, 3/8-24 UNF thread, with armor

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

A: Unthreaded Length Option	Note: 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 = 8 8. Minimum unthreaded length: 0.0 in = 0 0. Example: 0 4 = 0.4 in		
B: Overall Case Length Option	Order in increments of 0.1 in <b>Threaded length configurations:</b> Maximum case length: 9.6 in = 9 6. Minimum case length: 0.8 in = 0 8. <b>Example: 2 4</b> = 2.4 in		
C: Total Length Option	05 10 15 20 50 90	1.0 metre (3.3 feet) 1.5 metre (4.9 feet) 2.0 metres (6.6 feet) 5.0 metres (16.4 feet)	
D: Connector Option	00 01 02 10 11	Connector not installed, standard cable Miniature coaxial ClickLoc <sup>™</sup> connector with connector protector, standard cable Miniature coaxial ClickLoc <sup>™</sup> connector, standard cable Connector not installed, FluidLoc <sup>®</sup> cable Miniature coaxial ClickLoc <sup>™</sup> connector with connector protector, FluidLoc <sup>®</sup> cable Miniature coaxial ClickLoc <sup>™</sup> connector, FluidLoc <sup>®</sup> cable	
E: Agency Approval Option	0 0 0 5	Not required Multiple Approvals	

3300 5 mm Proximity Probes 330171 3300 5 mm Probe, 1/4-28 UNF thread, without armor 330172 3300 5 mm Probe, 1/4-28 UNF thread, with armor

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

A: Unthreaded Length Option	0.8 in Orde Len Max = 8 8 Mini = 0 0	mum unthreaded length: 0.0 in
B: Overall Case Length Option	Thre Max Mini	er in increments of 0.1 in eaded length configurations: imum case length: 9.6 in = 9 6. mum case length: 0.8 in = 0 8. mple: 2 4 = 2.4 in
C: Total Length Option	05 10 20 50 90	0.5 metre (1.6 feet) 1.0 metre (3.3 feet) 2.0 metres (6.6 feet) 5.0 metres (16.4 feet) 9.0 metres (29.5 feet)
D: Connector Option	0 0 0 1	No connector supplied, standard cable Miniature coaxial ClickLoc™ connector with connector
	0 2	protector, standard cable Miniature coaxial ClickLoc™ connector, standard cable
E: Agency Approval Option	0 0 0 5	Not required Multiple Approvals
3300 XL 8 mm Proximity Probes, Metric 330103 3300 XL 8 mm Probe, M10 x 1 thread, without armor 320104 3300 XL 8 mm Probe, M10 x 1 thread, with armor		
330104 3300 XL 8 mm Probe, M10 x 1 thread, with armor Part Number-AXX-BXX-CXX-DXX-EXX Option Descriptions		
A: Unthreaded		: Unthreaded length must be at least m less than the case length.

Unthreaded Length Option	<b>Note:</b> Unthreaded length must be at least 20 mm less than the case length.
	Order in increments of 10 mm.

Length configuration: Maximum unthreaded length: 230 mm = 2 3.

B: Overall Case	Minimum unthreaded length: 0.0 mm = 0 0. Example: 0 6 = 60 mm. Order in increments of 10 mm.	B: Overall Case Length Option	Order in increments of 10 mm. <b>Metric thread configurations:</b> Maximum length: 250 mm = <b>2</b> 5. Minimum length: 20 mm = <b>0</b> 2. <b>Examples: 0 6</b> = 60 mm.
Length Option	Metric thread configurations: Maximum length: 250 mm Minimum length: 20 mm Examples: 0 6 = 60 mm	C: Total Length Option	<ul> <li>0.5 metre (1.6 feet)</li> <li>1.0 metre (3.3 feet)</li> <li>2.0 metres (6.6 feet)</li> <li>5.0 metres (16.4 feet)</li> </ul>
C: Total Length Option	<b>05</b> 0.5 metre (1.6 feet) <b>10</b> 1.0 metre (3.3 feet)		<b>90</b> 9.0 metres (29.5 feet)
	<b>15</b> 1.5 metres (4.9 feet) <b>20</b> 2.0 metres (6.6 feet) <b>50</b> 5.0 metres (16.4 feet)	D: Connector Option	00 No connector supplied, standard cables
	<ul><li>50 5.0 metres (16.4 feet)</li><li>90 9.0 metres (29.5 feet)</li></ul>		0 1 Miniature coaxial ClickLoc™ connector with connector protector, standard cable
D: Connector Option	<ul> <li>0 0 Connector not installed, standard cable</li> <li>0 1 Miniature coaxial ClickLoc<sup>™</sup></li> </ul>		0 2 Miniature coaxial ClickLoc™ connector, standard cable
	connector with connector protector, standard cable	E: Agency Approval Option	<ul><li>0 0 Not required</li><li>0 5 Multiple Approvals</li></ul>
	<b>02</b> Miniature coaxial ClickLoc <sup>™</sup> connector, standard cable	3300 XL 8 mm Revers	e Mount probe, 3/8-24 UNF threads
	10 Connector not installed, FluidLoc <sup>®</sup> cable	330105-A02-B12-CXX-	
	1 1 Miniature coaxial ClickLoc™ connector with connector protector, FluidLoc <sup>®</sup> cable	3300 XL 8 mm Revers 330106-A05-B30-CXX- Option Descriptions	e Mount probe, M10 x 1 threads DXX-EXX
	12 Miniature coaxial ClickLoc™ connector, FluidLoc® cable	C: Total Length Option	<ul><li>0 5 0.5 metre (1.6 feet)</li><li>1 0 1.0 metre (3.3 feet)</li></ul>
E: Agency Approval Option	<ul><li>0 0 Not required</li><li>0 5 Multiple Approvals</li></ul>		<ol> <li>15 1.5 metres (4.9 feet)</li> <li>20 2.0 metres (6.6 feet)</li> <li>50 5.0 metres (16.4 feet)</li> </ol>
3300 5 mm Proximity I			<b>90</b> 9.0 metres (29.5 feet)
	be, M8 x 1 thread, without armor be, M8 x 1 thread, with armor	D: Connector Option	<b>00</b> Connector not installed, standard cable
Part Number-AXX-BXX Option Descriptions	K-CXX-DXX-EXX		0 2 Miniature ClickLoc™ coaxial connector, standard cable
A: Unthreaded Length Option	<b>Note:</b> Unthreaded length must be at least 20 mm less than the case length.	E: Agency Approval Option	<ul><li>0 0 Not required</li><li>0 5 Multiple Approvals</li></ul>
	Order in increments of 10 mm. Length configuration: Maximum unthreaded length: 230 mm = 2 3.	3300 XL 8 mm Proxim 330140 3300 XL 8 mm 330141 3300 XL 8 mm	
	Minimum unthreaded length: 0.0 mm = <b>0 0</b> .	Part Number-AXX-BXX Option Descriptions	X-CXX-DXX
	<b>Example: 0 6</b> = 60 mm.	A: Overall Case	Order in increments of 0.1 in

Order in increments of 0.1 in **Threaded length configurations:** Maximum length: 9.6 in = **9** 6. Minimum length: 0.8 in = **0** 8. **Example: 2 4** = 2.4 in

Length Option

B: Total Length Option	10 15 20	0.5 metre (1.6 feet) 1.0 metre (3.3 feet) 1.5 metre (4.9 feet) 2.0 metres (6.6 feet) 5.0 metres (16.4 feet) 9.0 metres (29.5 feet)
C: Connector Option	00	Connector not installed, standard cable
	01	
	0 2	•
	10	Connector not installed, FluidLoc <sup>®</sup> cable
	11	Miniature coaxial ClickLoc™ connector with connector protector, FluidLoc® cable
	12	•
D: Agency Approval	00	Not required

- D: Option
- 05 Multiple Approvals

#### Notes:

- Mounting clamps must be ordered separately for 330140 and 330141. 1.
- For a shorter delivery time, order commonly stocked probes. Currently, 2. stocked probes consist of the following part numbers: 330101-00-08-05-02-00, 330101-00-08-10-02-00, 330101-00-12-10-02-00, 330101-00-12-10-02-05, 330101-00-20-05-02-00, 330101-00-20-10-02-00, 330101-00-20-10-02-05, 330101-00-30-10-02-00, 330101-00-40-10-02-00, 330103-00-02-10-02-05, 330103-00-04-10-02-00, 330105-02-12-05-02-00, 330105-02-12-05-02-05, 330105-02-12-10-02-00, 330105-02-12-10-02-05, 330106-05-30-05-02-00, 330106-05-30-05-02-05, 330106-05-30-10-02-00, 330106-05-30-10-02-05, 330171-00-08-05-02-00, 330171-00-08-10-02-00, 330171-00-20-10-02-00, and 330171-00-40-10-02-00.

#### 3300 Proximitor® Sensor 330100-AXX-BXX **Option Descriptions**

A: Total Length Option	5.0 metres (16.4 feet) 9.0 metres (29.5 feet)
B: Agency Approval Option	Not required Multiple Approvals

#### 3300 XL Extension Cable 330130-AXXX-BXX-CXX

Make sure that the extension cable length and the probe length, when added together, equal the Proximitor® Sensor total length.

## **Option Descriptions**

A: Cable Length	030	3.0 metres (9.8 feet)
Option	035	3.5 metres (11.5 feet)
	040	4.0 metres (13.1 feet)

B: Connector and Cable Option	0 0 0 1 0 2	
	03	protectors Armored cable with connector protectors
		FluidLoc <sup>®</sup> cable
		Armored FluidLoc® cable
	12	FluidLoc <sup>®</sup> cable with connector protectors
	13	Armored FluidLoc® cable with connector protectors
C: Agency Approval Option	00 05	Not required Multiple Approvals

**045** 4.5 metres (14.8 feet)

## **Accessories**

86130-01	Manual
155687	Performance Specification
Field Wiring Cable 132501-AXX	1.0 mm <sup>2</sup> (18 AWG), 3-conductor, twisted, shielded cable for connections between Proximitor® Sensor and monitor. Terminal ring lugs are installed at each end including an extra shield ring lug at the monitor end.
A: Cable length option in feet.	Order in increments of 1.0 foot (0.3 metres) Minimum length: 2 feet (0.6 metres) = 0 2 Maximum length: 99 feet (30 metres) = 99
	Examples: 1 5 = 15 feet (4.6 metres) 2 0 = 20 feet (6.1 metres)
<b>02120015</b> Bulk field wire	1.0 mm <sup>2</sup> (18 AWG), 3-conductor, twisted, shielded cable with drain wire. Specify length in feet.
<b>02173009</b> Bulk field wire	1.0 mm <sup>2</sup> (18 AWG), 3-conductor, twisted, shielded cable. Specify

length in feet.

#### Aluminum probe clamp bracket 137491-AXX Option Descriptions

A: Thread size

0 1 10-24 UNC-2A mounting screws
0 2 M5 x 0.8-6g Mounting screws The aluminum clamp bracket is an unthreaded mounting bracket designed for use with the smooth case probes (330140 and 330141). After gapping the probe, tighten the clamp bracket by tightening the

screws. The mounting screws have

pre-drilled holes for safety wire.

## Aluminum probe mounting bracket 137492 -AXX Option Descriptions

A: Thread size

01 3/8-24 02 1/4-28 03 M8 x 1 04 M10 x 1 The aluminum probe mounting bracket is the standard mounting bracket for most 3300 and 3300 XL probe installations. The -01 and -02 options are supplied with two 10-24 UNC-2A mounting screws. The -03 and -04 options are supplied with two M5 x 0.8-6g mounting screws. The mounting screws have predrilled holes for safety wire.

#### Phenolic probe mounting bracket 27474 -AXX Option Descriptions

A: Thread size

01 3/8-24 02 1/4-28 03 M8 x 1 04 M10 x 1 The phenolic mounting bracket is recommended if additional electric isolation from the mounting location is required (as in some generator and electrical motor bearing locations). The -01 and -02 options are supplied with two 10-24 UNC-2A mounting screws. The -03 and -04 options are supplied with two M5 x 0.8-6g mounting screws. The mounting screws have predrilled holes for safety wire.

**330951-01** Proximitor® Sensor Mounting Screws

03200006 Silicone self-fusing

tape

#### 40113-02 Connector Protector

Kit

**136536-01** Connector Protector Adapter

40180-02 Connector Protectors

03839410 Male Connector Protector

## 03839420

04301007

04301008

holes

holes

3/8-24 Probe Lock

Nut with safety wire

M10 x 1 Probe Lock

Nut with safety wire

Female Connector Protector Package includes 4 mounting screws. (Not needed if Bently Nevada Proximitor<sup>®</sup> Housings are used.)

9.1 metre (10 yard) roll of silicone tape to protect connectors. It is easy to install and provides excellent electrical isolation and protection from the environment. It is not recommended for use inside the casing of the machine.

Connector Protector Kit for 3300 XL 8 mm probes and extension cables, including connector protectors and installation tools.

Makes our previous 3300 connector protector kits compatible with 3300 XL extension cable connectors.

Package containing 10 pairs of connector protectors.

Placed onto the extension cable to connect to the female connector protector on 8 mm probes and provide environmental protection of connectors.

Placed onto 8 mm probe leads to connect to the male connector protector on the extension cable and provide environmental protection of connectors. Also placed onto the extension cable to slide over the Proximitor<sup>®</sup> Sensor connection and protect it from the environment.

Single probe lock-nut with two holes drilled through the nut in order to secure the lock-nut in place with safety wire.

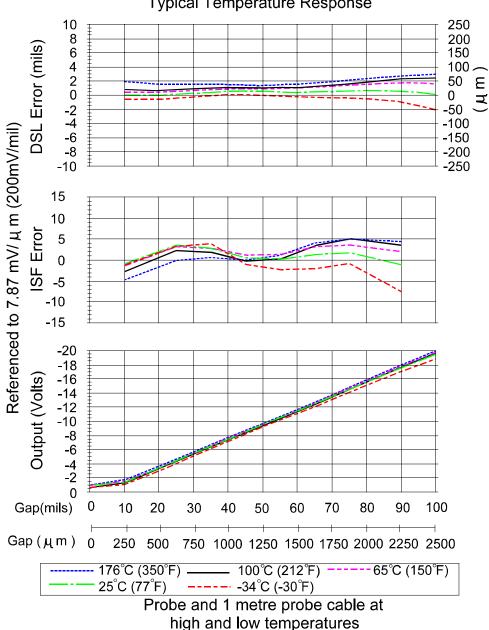
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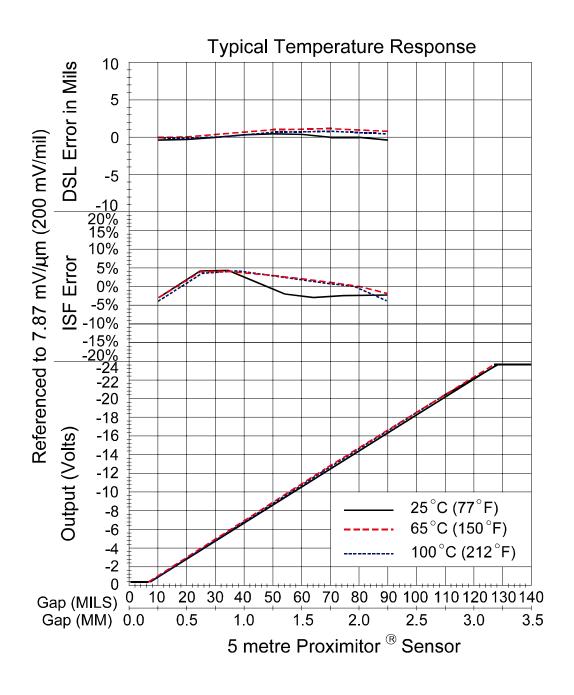
330152-01 3300 XL Connector Kit	Used on 3300 XL 8 mm probes, 3300 5 mm probes, and 3300 XL extension cables. Contains one set of male and female ClickLoc <sup>™</sup> connectors, sleeves, and one strip of silicone tape.
<b>136540-01</b>	Includes one set of 75 $\Omega$ 3300 XL
Connector Crimp	ClickLoc <sup>TM</sup> inserts and connector
Tool Kit	installation instructions.

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# Graphs



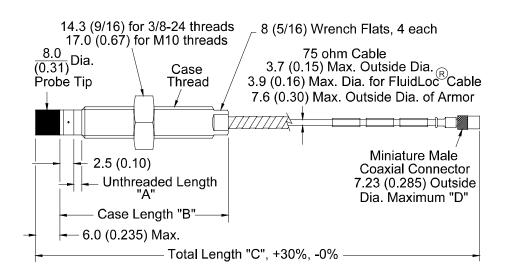
**Typical Temperature Response** 



## **Dimensional diagrams**

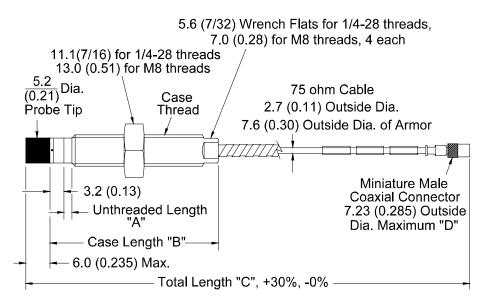
#### 3300 XL 8 mm Proximity Probes, Standard Mount

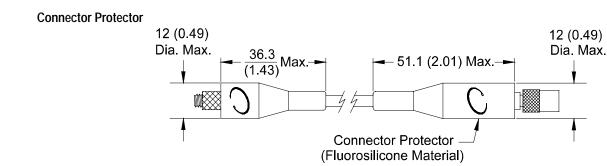
330101, 3/8-24 UNF-2A, without armor 330102, 3/8-24 UNF-2A, with armor 330103, M10X1 thread, without armor 330104, M10X1 thread, with armor



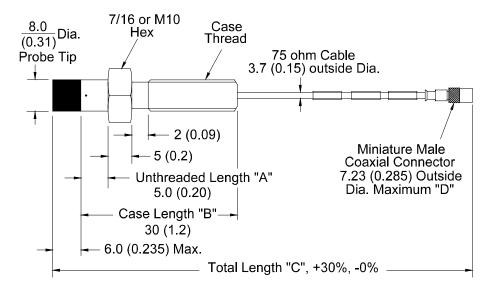
#### 3300 5 mm Proximity Probes, Standard Mount

330171, 1/4-28 UNF-2A, without armor 330172, 1/4-28 UNF-2A, with armor 330173, M8X1 thread, without armor 330174, M8X1 thread, with armor



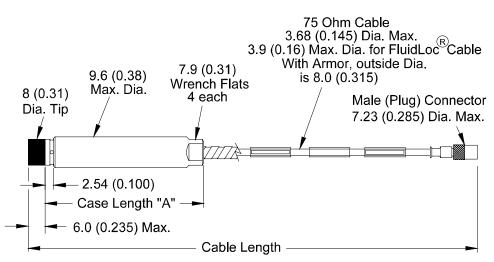


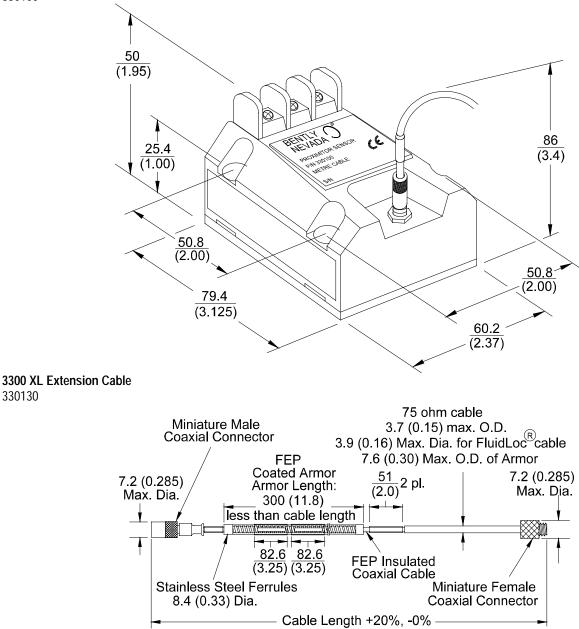
**3300 XL 8 mm Proximity Probes, Reverse Mount** 330105, 3/8-24 UNF-2A threads 330106, M10X1 threads



**3300 XL 8 mm Proximity Probes, Smooth Case** 330140, without armor

330141, with armor





#### Notes:

- 1. All dimensions are in millimetres (inches) unless otherwise noted.
- 2. Standard mount 8 mm probes supplied with 17 mm or 9/16-in lock nut.
- 3. Standard mount 5 mm probes supplied with 13 mm or 7/16-in lock nut.
- 4. Reverse mount probes not available with armor, connector protector or FluidLoc® options.
- 5. Minimum cable bend radius is 25.4 mm (1.0 in) with or without armor.
- 6. Letters inside guotation marks refer to probe ordering options.
- 7. Stainless steel armor is supplied with FEP outer jacket.
- 8. FEP jacket is standard on all non-armored probes.
- 9. Probes ordered with 5 or 9 metre integral cables have a length tolerance of +20%, -0%.