

# 3300 XL 8mm Proximity Transducer System

## Datasheet

Bently Nevada Machinery Condition Monitoring

141194 Rev. AJ



## 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 ProximitoR 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 ProximitoR 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>.



One non-XL stainless steel connector and one 3300 XL connector	Finger tight plus 1/8 turn using pliers	
Proximator Sensor Material	A308 aluminum	
Connector Material	Gold-plated brass or gold-plated beryllium copper.	
System Length	5 or 9 meters (including extension cable) or 1 meter (probe only).	
Total System Weight (Typical)	0.7 kg (1.5 lb m)	
	Probe	323 g/m (11.4 oz.)
	Extension Cable	34 g/m (0.4 oz/ft)
	Armored Extension Cable	103 g/m (1.5 oz/ft)
	Proximator Sensor	246 g (8.67 oz)

## Environmental Limits

Probe Temperature Range	
Standard Probe	-52 °C to +177 °C (-62 °F to +350 °F)

Extended Temperature Range Probe	-52°C to +218°C (-62°F to +425°F) for the probe tip; -51°C to +260°C (-60°F to +500°F) for the probe cable and connector.
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Exposing the probe to temperatures below -34 °C (-30 °F) may cause premature failure of the pressure seal.

### Probe Pressure

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.

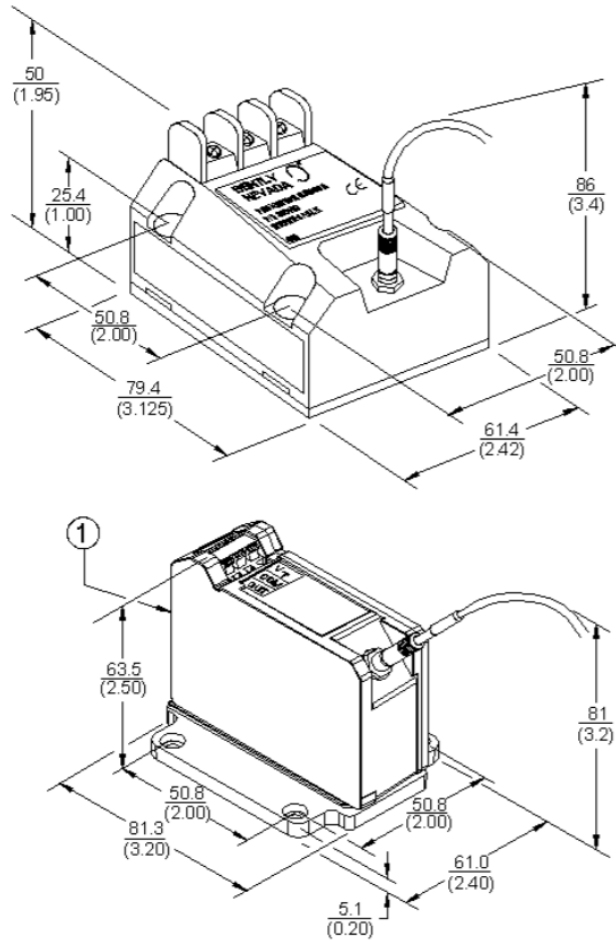


It is the responsibility of the customer or user to ensure that all liquids and gases are contained and safely controlled should leakage occur from a proximity probe. In addition, solutions with high or low pH values may erode the tip assembly of the probe causing media leakage into surrounding areas. Bently Nevada does not be held responsible for any damages resulting from leaking 3300 XL 8 mm proximity probes. In addition, 3300 XL 8 mm proximity probes does not be replaced under the service plan due to probe leakage.

### Extension Cable Temperature Range

#### Operating and Storage Temperature

Standard Cable	-52°C to +177°C (-62°F to +350 °F)
Extended Temperature Range Cable	-52°C to +260 °C (-62 °F to +500 °F)



1. Mounting option "A", Options -50 or -90

**Figure 21: Physical Mounting Characteristics Showing Interchangeability of 3300 and 3300 XL Proximitor Sensors when 4-hole Mounting Option Is Used<sup>8</sup>**

Figure Notes:

1. All dimensions on figures are in millimeters (inches) unless otherwise noted.
2. Standard mount 8 mm probes supplied with M17 or 9/16 inch lock nut.
3. Probes ordered with 5 or 9 meter integral cables have a length tolerance of +20%, -0%.
4. Reverse mount probes not available with armor or connector protector options.
5. Letters inside quotation marks on figures refer to probe ordering options.
6. Stainless steel armor is supplied with FEP outer jacket for standard probes, PFA outer jacket for ETR probes.
7. FEP jacket is standard non-armored portion of the cable for standard probes, PFA jacket on non-armored portion for ETR probes.
8. Use M3.5 or #6 screws for panel-mount Proximitor Sensors (screws provided when purchasing Bently Nevada housings).