Bently Nevada 330703-000-060-50-12-00

Manufacturer Technical Reference

Bently Nevada 330703-000-060-50-12-00 is a unarmored 3300 XL 11 mm proximity probe with a M14 x 1.5 thread, 5.0 m integral lead and miniature clickloc coaxial connector with fluidloc cable. It forms the sensing end of a matched eddy-current transducer system.

PRODUCT ROLE AND VERIFIED FEATURES

Feature 1

Uses a M14 x 1.5 threaded case for the selected mounting interface.

Feature 2

Provides a unarmored lead with a total length of 5.0 m.

Feature 3

Terminates through miniature clickloc coaxial connector with fluidloc cable.

Feature 4

Operates as part of a matched probe, extension cable and Proximitor sensor chain.

VERIFIED DATA SNAPSHOT

Transducer family	3300 XL 11 mm
Measurement principle	Non-contact eddy current
Mounting thread	M14 x 1.5
Unthreaded section	0 mm

SYSTEM RELATIONSHIP

Machine target → **Sensing tip** → **Coaxial signal path** → **Receiving electronics**

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MANUFACTURER EXCERPT MAP

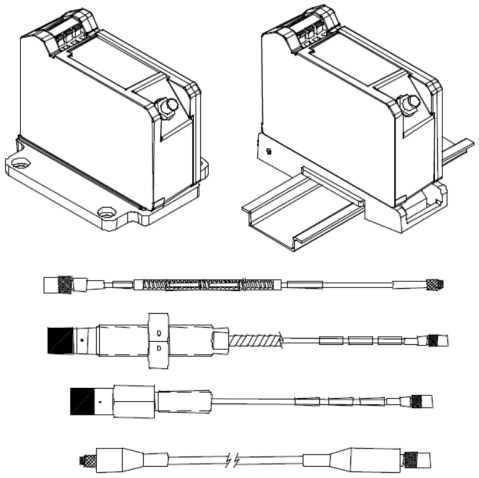
Source	3300 XL 11 mm Proximity Transducer System Datasheet 146256 Rev. T
Selection basis	The following selected pages contain applicable family and ordering information.
Use	Confirm the complete execution and installed system before applying any family-level value.

3300 XL 11 mm Proximity Transducer System

Datasheet

Cordant™

146256 Rev. T



Description

Transducer System

The Bently Nevada™ 3300 XL 11 mm Proximity Transducer System consists of:

- 3300 XL 11 mm probe
- 3300 XL 11 mm extension cable
- 3300 XL 11 mm Proximitor Sensor[1]

The 3300 XL 11 mm Proximity Transducer System has a 3.94 V/mm (100 mV/mil) output for non-contacting vibration and displacement measurements on fluid film bearing machines. The large 11 mm tip enables this transducer system to have a longer linear range compared to our standard 3300 XL 8 mm Transducer System. It is primarily used in the following applications where the longer linear range is necessary:

- Axial (thrust) position measurements
- Ramp differential expansion measurements on steam turbines
- Rod position or rod drop measurements on reciprocating compressors
- Tachometer and zero speed measurements
- Phase reference (Keyphasor) signals

The 3300 XL 11 mm Proximitor Sensor is designed to replace the 7200-series 11 mm and 14 mm Transducer Systems. When upgrading from the 7200-series system to the 3300 XL 11 mm system, every component must be replaced with 3300 XL 11 mm components. In addition, the monitoring system must be updated. If using a 3500 Monitoring System, an updated version of the configuration software that lists the 3300 XL 11 mm Transducer System as a compatible option is required.

Baker Hughes

Existing 3300 Monitoring Systems may need a modification. Contact your local sales and service representative for assistance.

The 3300 XL 11 mm Proximity Transducer is designed for measuring position or vibration within a frequency range of 0 to 8 kHz. Typical applications of this system include radial vibration and position, axial position and Keyphasor measurements.

Although the terminals and connector on the Proximitor sensor have protection against electrostatic discharge, take reasonable precautions to avoid electrostatic discharge during handling.

Proximitor Sensor

The 3300 XL 11 mm Proximitor Sensor has the same advanced features found in the 3300 XL 8 mm Proximitor Sensor. Its thin design allows it to be mounted in either a high-density DIN-rail installation or a more traditional panel mount configuration. Improved RFI/EMI immunity allows the 3300 XL Proximitor Sensor to achieve European CE mark approvals without any special mounting considerations. This RFI immunity also prevents the transducer system from being adversely affected by nearby high frequency radio signals. SpringLoc terminal strips on the Proximitor Sensor require no special installation tools and facilitate faster, highly robust field wiring connections.

Proximity Probe and Extension Cable

The 3300 XL 11 mm probe comes in varying probe case configurations, including armored and unarmored ½-20, $^{5}/_{8}$ -18, M14 X 1.5 and M16 X 1.5 probe threads. The reverse mount 3300 XL 11 mm probe comes standard with either $^{3}/_{8}$-24 or M10 X 1 threads. All components of the transducer system have gold-plated brass ClickLoc connectors. ClickLoc connectors lock into place, preventing the connection from becoming loose. The patented TipLoc molding method provides a robust bond between the probe tip and the probe body. The probe cable is securely attached to the probe tip utilizing our patented CableLoc design that provides 330 N (75 lb) pull strength.

3300 XL Probes and Extension Cables can also be ordered with a FluidLoc cable option. This option prevents oil and other liquids from leaking out of the machine through the cable's interior. The connector protector option provides additional protection of the connectors in a humid or moist environment. Connector protectors are recommended for all installations and provide increased environmental protection[2]. Additionally, the 3300 XL 11 mm probe comes standard with a locknut with pre-drilled safety wire holes.

Notes:

1. Proximitor Sensors are supplied by default from the factory calibrated to AISI 4140 steel. Calibration to other target materials is available upon request.
2. 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.

A:Unthreaded Length Option	
	Unthreaded length must be at least 26 mm less than the case length. Order in increments of 2 mm. Length configuration: **Maximum unthreaded length**: 224 mm **Minimum unthreaded length**: 0 mm Example: **0 6 0** = 60 mm
B: Overall Case Length Option	
	Order in increments of 2 mm. Metric thread configurations: **Maximum length:**250 mm **Minimum length:**26 mm Example: **0 6 0** = 60 mm
C: Total Length Option	
10	1.0 meter (3.3 feet)
50	5.0 meters (16.4 feet)
90	9.0 meters (29.5 feet) Five meter probes are designed for use with the five 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	Multiple Approvals

3300 XL 11 mm Reverse Mount Probe

330705-02-18- CC-DD-EE 3/8-24 UNF threads	
330706-005-046- CC-DD-EE M10 x 1 threads	
C: Total Length Option	
10	1.0 meter (3.3 feet)
50	5.0 meters (16.4 feet)
90	9.0 meters (29.5 feet) Five meter probes are designed for use with the five meter Proximitor Sensor only.
D: Connector Option	
02	Miniature ClickLoc coaxial connector
E: Agency Approval Option	
00	Not required
05	Multiple Approvals

For a shorter delivery time, order commonly stocked probes. Currently, stocked probes consist of the following part numbers: 330701-00-10-10-02-00, 330701-00-20-10-02-00, 330703-000-050-10-02-00, 330705-02-18-10-02-00, 330706-005-046-10-02-00.

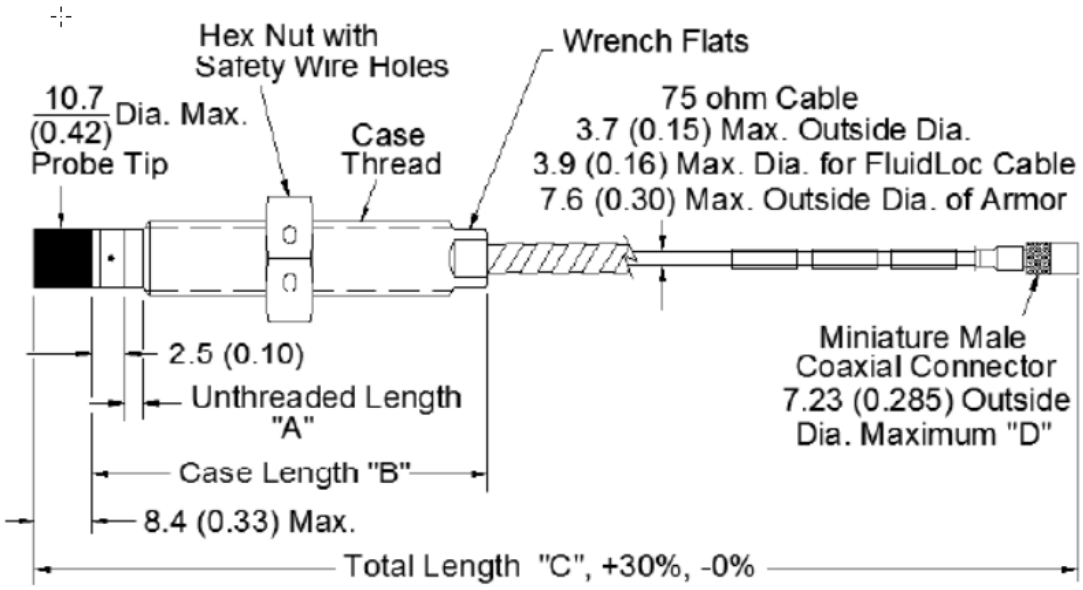
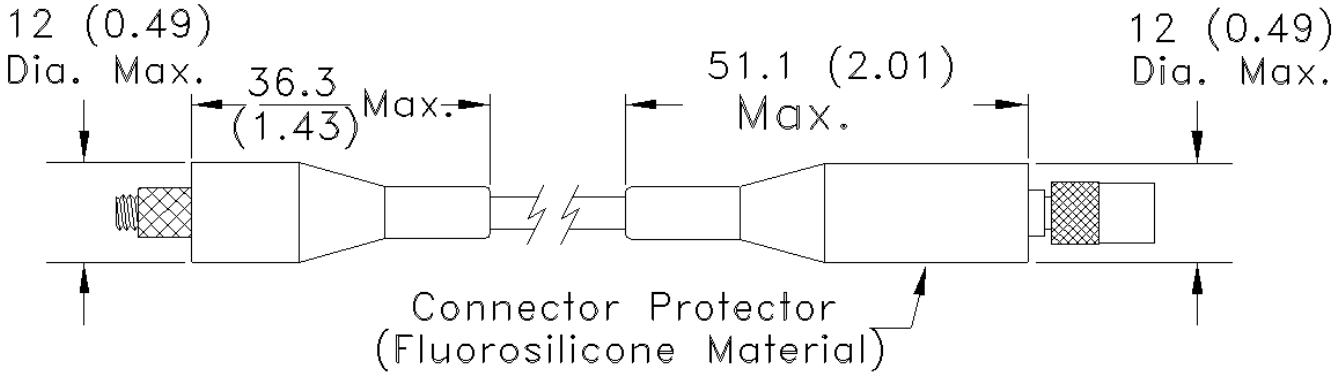


Figure 11: 3300 XL 11 mm Proximity probes, Standard Mount

330701, ½-20 UNF-2A, without armor
330702, ½-20 UNF-2A, with armor
330703, M14X1.5 thread, without armor
330704, M14X1.5 thread, with armor
330707, 5/8-18 UNF-2A, without armor
330708, 5/8-18 UNF-2A, with armor
330709, M16X1.5 thread, without armor
330710, M16X1.5 thread, with armor



Note: Connector Protector only installed on female end when optioned. Both ends available as accessories.

Figure 12: Installed Connector Protectors

Related product reference set

The linked ApterPower pages support further comparison. Each complete ordering string must be reviewed on its own evidence.

TECHNICAL-REFERENCE GROUP

Bently Nevada 330103-04-10-10-02-05	Technical-reference companion. Review the complete ordering string before selection.
Bently Nevada 330103-05-12-10-01-00	Technical-reference companion. Compare the required interface and system position.
Bently Nevada 330103-07-16-05-02-00	Technical-reference companion. Confirm the execution independently for the intended task.

INSTALLATION-PLANNING GROUP

Bently Nevada 330103-08-15-10-02-00	Installation-planning reference. Review the complete ordering string before selection.
Bently Nevada 330103-10-14-10-02-05	Installation-planning reference. Compare the required interface and system position.
Bently Nevada 330103-12-25-10-01-00	Installation-planning reference. Confirm the execution independently for the intended task.

ADDITIONAL PRODUCT-REFERENCE GROUP

Bently Nevada 330104-00-03-05-02-00	Related product reference. Review the complete ordering string before selection.
Bently Nevada 330104-00-05-05-02-CN	Related product reference. Compare the required interface and system position.
Bently Nevada 330104-00-05-50-02-00	Related product reference. Confirm the execution independently for the intended task.

SOURCE AND SELECTION RECORD

Manufacturer source	3300 XL 11 mm Proximity Transducer System Datasheet 146256 Rev. T
Evidence boundary	Technical statements are limited to the identified product or applicable manufacturer family.
Selection control	Use the complete ordering string and verify the installed system before purchase or installation.

IMPORTANT NOTICE	A related listing is a comparison reference only. Confirm interfaces and the complete execution before selection.

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