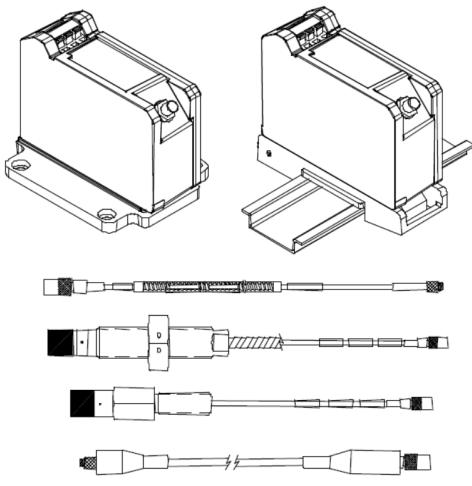


3300 XL 11 mm Proximity Transducer System

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 Proximitator Sensor¹

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 Proximitator 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 Proximititor sensor have protection against electrostatic discharge, take reasonable precautions to avoid electrostatic discharge during handling.

Proximititor Sensor

The 3300 XL 11 mm Proximititor Sensor has the same advanced features found in the 3300 XL 8 mm Proximititor 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 Proximititor 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 Proximititor 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 $\frac{1}{2}$ -20, $\frac{5}{8}$ -18, M14 X 1.5 and M16 X 1.5 probe threads. The reverse mount 3300 XL 11 mm probe comes standard with either $\frac{3}{8}$ -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 protection². Additionally, the 3300 XL 11 mm probe comes standard with a locknut with pre-drilled safety wire holes.

Notes:

1. Proximititor 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.

3300 XL 11 mm Proximity Sensor

330780-AA-BB

A: Total Length and Mounting Option

50	5.0 meter (16.4 feet) system length, panel mount
51	5.0 meter (16.4 feet) system length, DIN mount
52	5.0 meter (16.4 feet) system length, no mounting hardware
90	9.0 meters (29.5 feet) system length, panel mount
91	9.0 meters (29.5 feet) system length, DIN mount
92	9.0 meters (29.5 feet) system length, no mounting hardware

B: Agency Approval Option

00	Not required
05	Multiple approvals



Country specific approvals may be available, consult your local Customer Care Representative for more information.

3300 XL 11 mm Extension Cable

330730-AAA-BB-CC

Make sure that the extension cable length and the probe length, when added together, **equal the Proximity Sensor Total length**.

A: Cable Length Option

040	4.0 meters (13.1 feet)
080	8.0 meters (26.2 feet)

B: Connector and Cable Option

00	Standard cable
01	Armored cable
02	Standard cable with connector protector
03	Armored cable with connector protector
10	FluidLoc cable
11	Armored FluidLoc cable
12	FluidLoc cable with connector protector
13	Armored FluidLoc cable with connector protector

C: Agency Approval Option

00	Not required
05	Multiple Approvals

Accessories

146255	3300XL 11 mm User Guide
144979	Performance Specification
02120015	Bulk field wire. 1.0 mm ² (18 AWG), 3 conductor, twisted, shielded cable with drain wire. Specify length in feet.
02173009	Bulk field wire. 1.0 mm ² (18 AWG), 3 conductor, twisted, shielded cable. Specify length in feet.
138492-01	Replacement panel-mount mounting pad
138493-01	Replacement DIN-mount mounting pad
01609137	BNC (F) to banana plugs
01609138	Proximity Connector Test Pin wiring (two test pins to a BNC (F) connector)

40971-04	50 Ω cable with two BNC (M) connectors. Use this cable in combination with adapter 01609137 and adapter 01609138 when checking performance of the transducer system from the Proximitor Sensor test pin holes.	03839420	Female Connector Protector. Placed on the probe lead to connect to the male connector protector on the extension cable and provide environmental protection of connectors. Also placed on the extension cable to slide over the Proximitor Sensor connection and protect it from the environment.
04310310	3300XL Proximitor Sensor Panel-mount Screws. Package includes four 6-32 UNC thread forming mounting screws (Supplied standard with 3300 XL Proximitor Housings [3300 XL option]).	330153-01	3300 XL Connector Kit. Used on 3300 XL probes and extension cables. Contains one set of male and female ClickLoc connectors, sleeves and one strip of silicone tape.
03200006	Silicone Self-fusing tape. A 9.1 meter (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.	163356	Connector Crimp Tool Kit. Includes one set of 75 Ω 3300 XL ClickLoc inserts and connector installation instructions. Supplied with carrying case.
40113-02	Connector Protector Kit. Connector Protector Kit for 3300 XL probes and extension cables, including connector protectors and installation tools.		
136536-01	Connector Protector Adapter. Makes our previous 3300 connector protector kits compatible with 3300 XL probes and extension cable connectors.		
40180-02	Connector Protectors. Package contains 10 pairs of connector protectors.		
03839410	Male Connector Protector. Placed on the extension cable to connect to the female connector protector on the probe and provide environmental protection of connectors.		