FIELD INSTALLATION QUICK GUIDE

Installation Instructions

Bently Nevada 21508-02-12-05-02

7200 Series 8 mm Reverse-Mount Probe


Technical/Ordering Information Transducer System

7200 Proximity Transducer Systems
5 mm and 8 mm

7200 Proximity Transducer System

PRODUCT	21508-02-12-05-02
FAMILY	7200 Proximity Transducer Systems
FUNCTION	7200 Series 8 mm Reverse-Mount Probe
STATUS	Verify exact configuration

Prepared by Amikon Limited from Bently Nevada 7200 Proximity Transducer Systems 5 mm and 8 mm technical and ordering information. This guide does not replace the complete manufacturer manual, site procedure, hazardous-area drawing, or approval document.

01 CONFIRM THE ORDERED CONFIGURATION

Probe family	7200 Series
Probe configuration	Reverse mount
Probe tip diameter	8 mm
Case thread	3/8-24
Base probe code	21508-02-12
Cable length option	05: 0.5 metre (20 inches)
Connector option	02: Miniature male coaxial connector

02 MOUNTING AND CONNECTION

- Confirm the complete order code.
- Verify reverse-mount geometry and 3/8-24 thread.
- Protect the 8 mm probe tip.
- Protect the 0.5-metre cable and coaxial connector.
- Match the correct 7200 Proximitor Sensor.

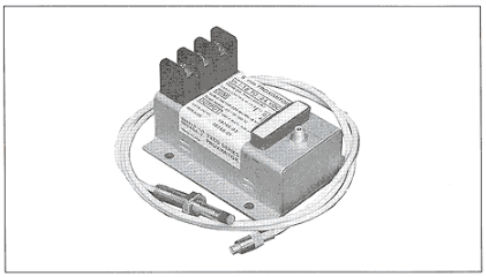
03 OFFICIAL INSTALLATION REFERENCE

7200 Proximity Transducer Systems
5 mm and 8 mm

Accurate, reliable measurements

The 7200 5 mm and 8 mm Proximity Transducer Systems are noncontacting, gap-to-voltage transducer systems that measure static as well as dynamic distances between the probe tip and the observed target. The general application is any requirement for an accurate, noncontacting displacement measurement. However, the most common use is for shaft position and vibration measurements on rotating and reciprocating machinery. They are designed for use with virtually any machine type including gas and steam turbines, compressors, pumps, centrifuges, electric motors and generators. The systems offer 80 mils (2 mm) of linear measuring range and are compatible with API 670 requirements.

A system consists of a probe with integral coaxial cable, an extension cable, and Proximitor®. All 7200 proximity transducer systems are compatible with 3300 and 9000 Monitoring Systems.



7200 Proximity Transducer System

Applications

The 7200 5 and 8 mm Systems have a frequency response of 0 Hz (DC) to 10 kHz and can be used to make the following types of measurements:

- Radial vibration for indicating bearing condition and such machine malfunctions as rotor imbalance and misalignment.
- Axial thrust position for determining thrust bearing wear or potential bearing failure.
- Shaft average radial position, for determining attitude angle, an indicator of rotor stability.
- Vibration amplitude and phase angle for plotting diagnostic information in Polar and Bodé formats.
- Eccentricity to measure the amount of rotor bow.

How a proximity transducer system works

Operating on the eddy current principle, the proximity probe senses the distance between the probe tip and the observed surface. The Proximitor generates a radio frequency signal, which is radiated through the probe tip into the observed surface. Eddy currents are generated in the surface, and the loss of strength in the return signal is detected by the Proximitor, which conditions the signal for linear display on a monitor.

Improved proximity probes

An improved 8 mm version of the 7200 System is now standard which includes Bently Nevada's Cable Loc™ feature. This new technique of securing the coaxial cable to the probe tip provides the strongest junction yet offered by Bently Nevada and increases the durability of the probe during installation and usage.

Two new cable length options are now available on 8 mm probes. They are 5 metres and 9 metres of integral cable. Since the entire lead-length is built into the probe, an extension cable is not used with these length options.

Nine probe configurations are available to accommodate English and metric thread requirements (See Table 1). The 5 mm probes are constructed of fiberglass. The 8 mm probes are constructed of polyphenylene sulfide, (PPS), a high performance plastic capable of withstanding unusually harsh, wet and/or chemical environments.

Both transducers are suitable for use in a confined space and offer 80 mils (2 mm) of linear range with a scale factor of 200 mV/mil (8 V/mm).

Extension cables

The combination of probe with integral lead and extension cable is designed to achieve a system length of either five or nine metres from probe tip to Proximitor. Probes are available with integral leads of various lengths to match the average extension cable lengths. Probes and cables of the same length, and Proximitors with the same part number, are completely interchangeable.

For added protection, stainless steel armor is available. It provides improved resistance to physical abuse.

Proximitors

The 5 mm and 8 mm systems use the same type of Proximitor. Both 5 and 9 metre Proximitors are available. A three-conductor, shielded cable provides the signal output and power source input between 7200 Proximitors and Bently Nevada monitors. Proximitors can be located up to 1,000 feet from standard Bently Nevada monitors without degradation of performance.

Hazardous locations

Most Bently Nevada 7200 Transducers are certified by CSA, BASEEFA and FM for use in specific hazardous locations. Refer to Data Sheet L1035 "Bently Nevada Systems for Hazardous Locations" for more details.

Official manufacturer reference reproduced from Bently Nevada 7200 Proximity Transducer Systems 5 mm and 8 mm technical and ordering information. Use the current source document and all referenced drawings and notes for installation.

04 CABLE ROUTING AND CONNECTION

- Verify reverse-mount geometry and 3/8-24 thread.
- Protect the 8 mm probe tip.
- Protect the 0.5-metre cable and coaxial connector.
- Match the correct 7200 Proximitor Sensor.
- Set gap and verify channel response.

05 INITIAL SYSTEM CHECKS

- Confirm model identity and compatible system components before energizing.
- Verify wiring, grounding, enclosure, and applicable hazardous-area requirements.
- Confirm normal indications and fault-contact state after commissioning.
- Record the installed order number and baseline operating condition.

06 CONTROLLED DOCUMENTS

Official source	Bently Nevada 7200 Proximity Transducer Systems 5 mm and 8 mm technical and ordering information
Product record	21508-02-12-05-02
Manufacturer	Bently Nevada
Support	INFO@AMIKON.CN