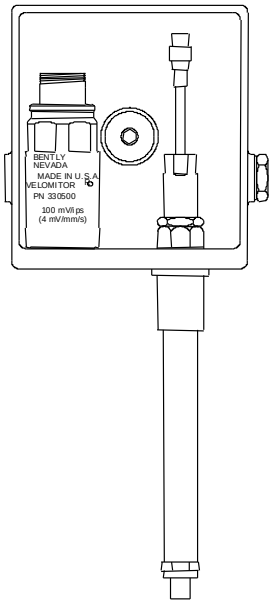
26530 Dual Probe Transducer System

Bently Nevada* Asset Condition Monitoring



Description

The Dual Probe Transducer System consists of a proximity probe and a seismic or Velomitor* transducer installed at approximately the same point in a common transducer housing. This transducer system is capable of making four separate measurements:

Shaft relative radial position (displacement) relative to the probe mounting location, measured by the proximity probe;
Shaft relative radial dynamic motion (vibration) relative to the probe mounting location, measured by the proximity probe;
Machine casing absolute vibration measured by the seismic vibration; and
Shaft absolute motion represented by the summation of the seismic signal (after integration to displacement) and the shaft relative displacement.

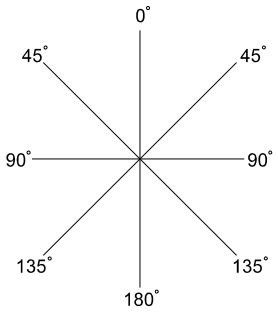
The Dual Probe Transducer System provides the best measurement data when transducer housing is mounted on a portion of the bearing housing or cover that is mechanically referenced to the bearing.

For complete machinery monitoring diagnostics using orbit analysis and shaft centerline position information, two Dual Probe assemblies in an X-Y configuration are required per radial bearing.

A probe support/oil sleeve is available as an option. It protects the transducer system from oil and provides additional support for the probe sleeve.

Specifications

Seismoprobe* Orientation:
All Seismoprobe velocity transducers are specified for mounting orientations as shown above: 0° is vertical, as viewed from driver end.



Temperature Range

3300 XL 8 mm Probe:

-51°C to +177°C (-60°F to +351°F)

Note: Exposing the 3300 XL probe to temperatures below -34°C (-30°F) may cause premature failure of the probe pressure seal.

70000-series Radiation Resistant 300 Probe

-29°C to +150°C (-20°F to +302°F)

Standard 2-wire Seismoprobe:

-29°C to +121°C (-20°F to +250°F)

High temperature 2-wire Seismoprobe:

-29°C to +204°C (-20°F to +400°F)

Velomitor transducer:

-55°C to +121°C (-67°F to +250°F)

Ordering Information

26530-AXX-BXX-CXX-DXXX-EXXX-FXX-GXX-HXX

A: Proximity Probe Option
- **0 0** Probe not required
- **1 2** 3300 XL 8 mm Probe
- **1 3** 70000-series Radiation Resistant 300 Probe
- **1 8** 3300 XL 8 mm Probe, Multiple Approvals
- **2 6** 3300 NSv Probe
- **2 7** 3300 NSv Probe, Multiple Approvals
- **2 9** 3300 XL 11 mm Probe
- **3 0** 3300 XL 11 mm Probe, Multiple Approvals

B: Probe Lead Length Option
- **0 0** Probe not required
- **0 5** 0.5 metre
- **1 0** 1.0 metre

C: Adapter Thread Option
- **0 0** Adapter not required
- **0 1** 7/8-14 UNF
- **0 2** 1-11 1/2 NPT
- **0 3** 3/4-14 NPT

D: Adapter Length Option

Order in increments of 0.1 in (2.5 mm).

Minimum length: 1.7 in = **0 1 7** (43 mm) [1.8 in if adapter thread option is C: -03]

Maximum length: 2.0 in = **0 2 0** (51 mm)

If you do not require an adapter, please enter **0 0 0**.

E: Probe Penetration Option

Order in increments of 0.1 in (2.5 mm).

Minimum length: 1.0 in = **0 1 0** (25 mm)

For 0.5 metre probe cable on 3300 Probes:

Maximum length of "D" + "E" is 15.6 in = **1 5 6** (396 mm).

For 1.0 metre probe cable:

Maximum length of "D" + "E" is 31.0 in = **3 1 0** (787 mm).

Note: For penetration lengths between 1.0 and 2.0 inches, counter bore may be required in machine case to reduce probe side view and/or rear view effects. 1.0-1.9 inch penetration lengths not available with 3300 XL 11mm Probes.

F: Velocity Transducer Option

Probe Cable Length	Maximum D plus E with Visible P/N and S/N Label
0.5 metre	64 mm (2.5 in)
1.0 metre	483 mm (19.0 in)

Table 1: Maximum "D" Option plus "E" Option for different "B" Options (probe cable length) where P/N and S/N Label on Probe Cable is visible outside of probe sleeve

Orientation Range (Seismoprobes)

Velocity Transducer Type

- **0 0** No Velocity transducer
- **2 1** Standard, 2-wire (0° ± 100°)
- **2 2** High temperature, 2-wire (0° ± 100°)
- **2 4** Velomitor Sensor

Note: Minimum operating frequency of 600 cpm required for Velocity transducers.

G: Fittings Option

- **0 0** Not required
- **0 3** One ¾-14 NPT plug, one ¾-14 NPT to ½-14 NPT reducer, and one cable seal grip with grommet
- **0 4** One ¾-14 NPT plug

H: Probe Support/Oil Seal Option

- **0 0** Not required
- **0 1** Required

Individual Standoff Adapter

40468-AXX-BXXXX

A: Base Thread Option

- **0 1** 7/8-14 UNF
- **0 2** 1-11 1/2 NPT
- **0 3** 3/4-14 NPT

B: Length Option

Order in increments of 0.1 in.
Length for Base Thread Option:

- **0 1 7 0** 1.70 in
- **0 1 8 0** 1.80 in
- **0 1 9 0** 1.90 in
- **0 2 0 0** 2.00 in

37948-01

Individual Probe Support/Oil Seal made from Ertalon

Spare 3300 XL 8 mm Reverse Mount Probe, 3/8-24 UNF threads

330105-02-12-CXX-DXX-EXX

Spare 3300 XL 8 mm Reverse Mount Probe, M10 X 1 threads

330106-05-30-CXX-DXX-EXX

C: Total Length Option

- **0 5** 0.5 metre (1.6 feet)
- **1 0** 1.0 metre (3.3 feet)
- **1 5** 1.5 metre (4.9 feet)
- **2 0** 2.0 metres (6.6 feet)
- **5 0** 5.0 metres (16.4 feet)
- **9 0** 9.0 metres (29.5 feet)

D: Connector Option

- **0 0** Connector not installed
- **0 2** Miniature ClickLoc* coaxial connector

E: Agency Approval Option

- **0 0** Not required
- **0 5** Multiple Approvals

Spare 70000-series Radiation Resistant 300 Proximity probe, 3/8-24 UNF threads

27485-AXX

A: Total Length Option

- **1 8** 0.46 metre (18 inches)
- **3 6** 0.91 metre (36 inches)

Spare Probe Sleeve

40467-AXXXX-BXXXX

Options A and B represent the Extended Length and Probe penetration for the Probe sleeve, ordered in increments of 0.10 inches (3mm). The total measured length for the probe sleeve will be A+B+ 2.38 inches.

A: Extended Length Option

AXXXX: = 0 & Adapter Length Option from original housing (26530 Option D) & 0. Example: Original part number is 26530-12-10-01-17-239-24-04-00, AXXXX option is 0&17&0 = 0170.

Maximum Extended Length:

3062 30.62 Inches

B: Probe Penetration

BXXXX: = Probe Penetration Option from original housing. (26530 Option E + 0240). Example: Original part number is 26530-12-10-01-17-239-24-04-00, BXXXX option is 2390= 2390.

Minimum Probe Penetration

0100 1.0 Inch

Maximum Probe Penetration

3090 30.90 Inches

Relative Probe Adjustment:

Adapter Mounting Thread	Adjustment Range From Nominal Setting of Probe Penetration Option "E" on Drawing	
	Toward Target	**Away From Target**
Without Adapter	25.9 mm (1.02 in)	26.2 mm (1.03 in)
7/8-14 UNF	25.9 mm (1.02 in)	26.2 mm (1.03 in)
1-11 1/2 NPT	21.6 mm (0.85 in)	21.8 mm (0.86 in)
3/4-14 NPT	22.4 mm (0.88 in)	22.6 mm (0.89 in)

Table 2

Graphs and Figures

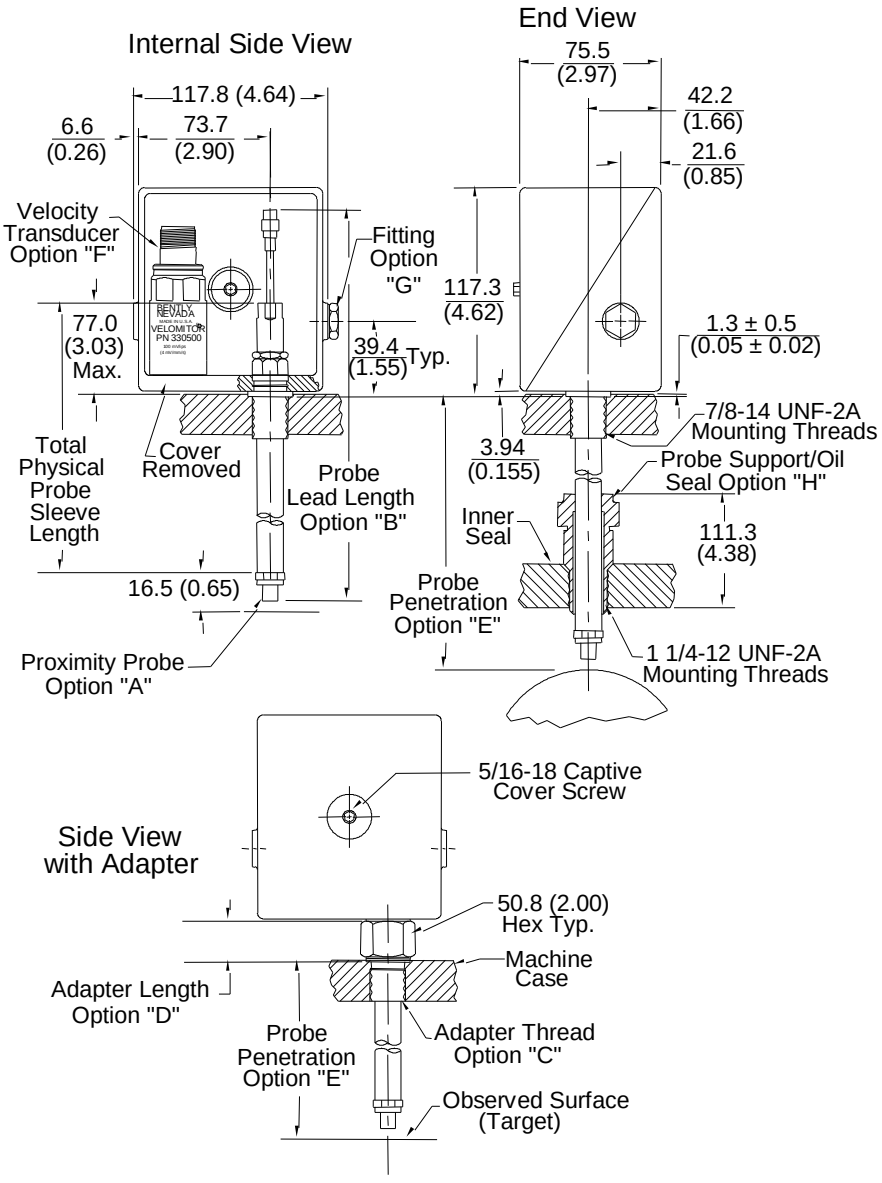


Figure 1: Dual Probe Transducer System Dimensions

Dimensions are in millimetres (inches)

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