

3300 5 mm Transducer System

Datasheet

Cordant™

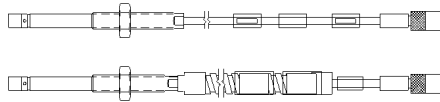
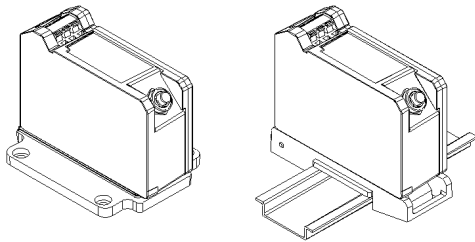
172036 Rev. T

Description

Transducer System

The 3300 5 mm Proximity Transducer System consists of:

- a 3300 5 mm probe ^{1,2}
- a 3300 XL extension cable (ref 141194-01)
- a 3300 XL Proximitor Sensor ^{3, 4, 5} (ref 141194-01)



When combined with a 3300 XL Proximitor Sensor and XL extension cable, the system provides an output voltage that is directly proportional to the distance between the probe tip and the observed conductive surface. The system can measure both static (position) and dynamic (vibration) data. Its primary use is in vibration and position measurement applications on fluid-film bearing machines, as well as Keyphasor measurement and speed measurement applications⁶.

The system provides an accurate, stable signal output over a wide temperature range. All 3300 XL Proximity Transducer Systems achieve this level of performance with complete interchangeability of probe, extension cable, and Proximitor sensor, eliminating the need for individual component matching or bench calibration.

Proximity Probe

The 3300 5 mm probe improves upon previous designs. A patented TipLoc molding method provides a more robust bond between the probe tip and the probe body. The 3300 5 mm system is orderable with Fluidloc cable options for preventing oil and other liquids from leaking out of the machine through the cable's interior.



Baker Hughes 

Ordering Information



For the detailed listing of country and product-specific approvals, refer to the [Approvals Quick Reference Guide \(108M1756\)](#).

For additional technical documentation, please log in to bntechsupport.com and access the Bently Nevada Media Library.

3300 5mm Proximity Probes

330171 3300 5mm Probe, 1/4-28 UNF thread, without armor

330172 3300 5mm Probe, 1/4-28 UNF thread, with armor

Part Number-AA-BB-CC-DD-EE

A: Unthreaded Length Option



Unthreaded length must be at least 0.8 in. less than the case length. Order in increments of 0.1 in.

Length configurations: Maximum unthreaded length:
8 8 = 8.8 in. Minimum unthreaded length:
0 0 = 0.0 in.
Example: 0 4 = 0.4 in.

B: Overall Case Length Option

Order in increments of 0.1 in. **Threaded Length configurations:**
 Maximum unthreaded length: **9 6** = 9.6 in.
 Minimum unthreaded length: **0 8** = 0.8 in.
Example: 2 4 = 2.4 in.

C: Total Length Option

0 5	0.5 meter (1.6 feet)
1 0	1.0 metre (3.3 feet)

2 0	2.0 metres (6.6 feet)
5 0	5.0 metres (16.4 feet) ¹
9 0	9.0 metres (29.5 feet)

D: Connector Option

0 1	Miniature coaxial ClickLoc connector with connector protector, standard cable
0 2	Miniature coaxial ClickLoc connector, standard cable
1 1	Miniature coaxial ClickLoc connector with connector protector, FluidLoc cable
1 2	Miniature coaxial ClickLoc connector, FluidLoc cable

E: Agency Approval Option

0 0	Agency Approval Option
0 5	Multiple Approvals

3300 5mm Proximity Probes, Metric

330173 3300 5mm Probe, M8 x 1 thread, without armor

330174 3300 5mm Probe, M8 x 1 thread, with armor

Part Number-AA-BB-CC-DD-EE

A: Unthreaded Length Option



Unthreaded length must be at least 20mm less than the case length. Order in increments of 10mm.

Length configurations: |
 Maximum unthreaded length: **2 3** = 230mm
 Minimum unthreaded length: **0 0** = 0.0mm
Example: 0 6 = 60mm

B: Overall Case Length Option

Order in increments of 10mm

Metric thread configurations:

Maximum unthreaded length: **2 5** = 250mm

Minimum unthreaded length: **0 2** = 20mm

Example:0 6 = 60mm

C: Total Length Option

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

D: Connector Option

0 1	Miniature coaxial ClickLoc connector with connector protector, standard cable
0 2	Miniature coaxial ClickLoc connector, standard cable
1 1	Miniature coaxial ClickLoc connector with connector protector, FluidLoc cable
1 2	Miniature coaxial ClickLoc connector, FluidLoc cable

E: Agency Approval Option

0 0	Agency Approval Option
0 5	Multiple Approvals

Ordering Information for Proximator Sensor

3300 XL Proximator Sensor

330180-AA-BB

A: Total Length and Mounting Option

10	1.0 meter (3.3 feet) system length, panel mount
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11	1.0 meter (3.3 feet) system length, DIN mount
12	1.0 meter (3.3 feet) system length, no mounting hardware
50	5.0 meters (16.4 feet) system length, panel mount
51	5.0 meters (16.4 feet) system length, DIN mount
52	5.0 meters (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	CSA, ATEX, IECEx Approvals

Ordering Information for Extension Cables

3300 XL Standard Extension Cable

330130-AAA-BB-CC



Make sure that the extension cable length and the probe length, when added together, equal the Proximator Sensor total length.

A: Cable Length Option

030	3.0 meters (9.8 feet)
035	3.5 meters (13.1 feet)
040	4.0 meters (11.5 feet)
045	4.5 meters (14.8 feet)

060	6.0 meters (19.7 feet)
070	7.0 meters (22.9 feet)
075	7.5 meters (24.6 feet)
080	8.0 meters (26.2 feet)
085	8.5 meters (27.9 feet)

B: Connector Protector 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	CSA, ATEX, IECEx Approvals

Probe Accessories

Aluminum probe mounting bracket

The aluminum probe threaded mounting bracket is the standard mounting bracket for most 3300 5 mm probe installations. The -02 option is supplied with 2 10-24 UNC-2A mounting screws. The -03 option is supplied with 2 M5 x 0.8-6g mounting screws. The mounting screws have pre-drilled holes for safety wire.

137492 -AA

A: Thread Size

0 2	1/4-28
0 3	M8 x 1

Phenolic Probe Mounting Bracket

The phenolic mounting bracket is recommended if additional electric isolation from the mounting location is required (as in some generator and electrical motor bearing locations). The -02 option is supplied with 2 10-24 UNC-2A mounting screws. The -03 option is supplied with 2 M5 x 0.8-6g mounting screws. The mounting screws have pre-drilled holes for safety wire.

27474 -AA

A: Thread Size

0 2	1/4-28
0 3	M8 x 1

75Ω ClickLoc Connector Kit

330153-AA

75Ω ClickLoc Connector Kit for 3300 series probes and extension cables. Each kit contains 1 color-coded sleeve per connector.

A: Kit Type

0 2	1 ClickLoc male connector for 3300 XL 5mm and 8mm extension cable.
0 3	1 ClickLoc female connector for 3300 XL 5mm and 8mm extension cable.
0 4	1 ClickLoc male connector for 3300 5mm probe.

Accessories

02120015	<p>Bulk field wire</p> <p>1.0mm² (18 AWG), 3-conductor, twisted, shielded cable for connections between Proximitor Sensor and monitor.</p>	03800001	<p>75Ω Coaxial Female Connector Protector</p> <p>Placed onto 3300 5mm probe leads; attaches to the male connector protector on the extension cable to provide environmental protection of connectors.</p>
03200006	<p>Silicone self-fusing tape</p> <p>9.1-metre (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.</p>	163356	<p>Connector Crimp Tool Kit</p> <p>Includes 1 set of multi-connector inserts and connector installation instructions. Compatible only with 330153 connector kits or with probes shipped in 2003 or later with ClickLoc connectors uninstalled. Supplied with carrying case.</p>
40113-03	<p>Connector Protector Kit</p> <p>Connector Protector Kit for 3300 5mm probes, including connector protectors and installation tools.</p>		
136536-01	<p>Connector Protector Adapter</p> <p>Makes connector protector kits purchased prior to 1998 compatible with ClickLoc extension cable connectors.</p>		
40180-03	<p>Connector Protectors</p> <p>Package containing 10 pairs of 75Ω Coaxial Connector Protectors.</p>		
03839410	<p>75Ω Triaxial/95 ohm Coaxial Male Connector Protector</p> <p>Placed onto the extension cable; attaches to the female connector protector on the 5 mm probe to provide environmental protection of connectors.</p>		