# Bently Nevada 330191&330195 Series Service Manual

330191-00-40-10-00

## 1. Description

Part Number: 330191-00-40-10-00

## 3. Product Information

Part Number: 330191-00-40-10-00

Model: Proximity Probes

Manufacturer: Bently Nevada

Condition: New & Original in Factory Packing

Factory Warranty: 12 Months

Ordering Number

Model: 330191 - 3300 XL 8 mm ETR Probe, 3/8-24 UNF thread, without armor

Unthreaded Length Option: 00 - 0.0 in

Overall Case Length Option: 40 - 4.0 in

Total Length Option: 10 = 1.0 meter (3.3 feet)

Agency Approval Option: 00 = Not required

The 3300 XL probe and extension cable also reflect improvements over previous designs. A patented TipLoc molding method provides a more robust bond between the probe tip and the probe body. The probe's cable incorporates a patented CableLoc design that provides 330 N (75 lbf) pull strength to more securely attach the probe cable and probe tip.

You can also order 3300 XL 8 mm probes and extension cables with an optional FluidLoc cable option. This option prevents oil and other liquids from leaking out of the machine through the cable's interior.

One-meter systems do not use an extension cable.

8 mm probes provide a thicker encapsulation of the probe coil in the molded PPS plastic probe tip. This results in a more rugged probe.

The larger diameter of the probe body also provides a stronger, more robust case. We recommend that you use 8 mm probes when possible to provide optimal robustness against physical abuse.

Power

Requires -17.5 Vdc to -26 Vdc when installed with nonincendive circuit connected per installation drawing 140979 at 12 mA maximum consumption, -23 Vdc to -26 Vdc with barriers. Operation at a more positive voltage than -23.5 Vdc can result in reduced linear range.

Supply

Sensitivity

Less than 2 mV change in output voltage per volt change in input voltage.

Output

Resistance 50 Ω

Nominal Probe DC Resistance

Resistance (RPROBE) from Center Conductor to Outer Conductor

Probe

Length (m)

RPROBE(Ω)

1.0 7.59 ± 0.50

Probe Tip

Material Polyphenylene sulfide (PPS).

Probe Case

Material

AISI 303 or 304 stainless steel

(SST).

Standard

cable

75Ω triaxial, fluoroethylene

propylene (FEP) insulated

probe cable in the following

total probe lengths: 0.5, 1, 1.5, 2,

3, 5, or 9 meters.

Extended

Temperature

Range cable

75Ω triaxial, perfluoroalkoxy

(PFA) insulated probe cable in

the following total probe

lengths: 0.5, 1, 1.5, 2, 5, or 9

meters.

Armor

(optional on

both)

Flexible AISI 302 or 304 SST

with FEP outer jacket.

Tensile

Strength

(Maximum

Rated)

330 N (75 lbf) probe case to

probe lead.

270 N (60 lbf) at probe lead to

extension cable connectors.

Connector

Material

Gold-plated brass or goldplated beryllium copper.

Connector

Material

Gold-plated brass or goldplated beryllium copper.

Maximum

Connector

Torque

0.565 N•m (5 in•lbf)

Probe

Case

Thread

Maximum Length of Thread

Engagement

3/8-24 0.563 in

Probe 323 g/m (11.4 oz)

3300 XL 8 mm probes are designed to seal

differential pressure between the probe tip

and case. The probe sealing material consists

of a Viton® O ring. Probes are not pressure

tested prior to shipment

Probe entity parameters are met
when used with BN extension cables
and connected to BN Prox.
Temperature Schedule
Temperature
Classification
Ambient Temperature
(Probe Only)
For EPL Ga and Gc
T1 -55°C to +232°C
T2 -55°C to +177°C
T3 -55°C to +120°C
T4 -55°C to +80°C
T5 -55°C to +40°C
For EPL Dc
T280°C @ Ta -55°C to +232°C
T225°C @ Ta -55°C to +177°C
T170°C @ Ta -55C to +120°C
T130°C @ Ta -55°C to +80°C
T105°C @ Ta -55°C to +100°C
T90°C @ Ta -55°C to +40°C