

# Bently Nevada 330191&330195 Series Service Manual

330191-00-08-90-05

---

## 1. Description

Part Number:330191-00-08-90-05

---

## 3. Product Information

[www.AutoDCSTech.com](http://www.AutoDCSTech.com)

Part Number:330191-00-08-90-05

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: Minimum unthreaded length: 0.0 in.

Overall Case Length Option: Minimum case length: 0.8 in.

Total Length Option: 90 =9.0 meters (29.5 feet)

Agency Approval Option: 05 = CSA, ATEX, IECEx Approvals

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  $\Omega$

Nominal Probe DC Resistance

Resistance (RPROBE) from Center Conductor

to Outer Conductor

Probe

[www.AutoDCSTech.com](http://www.AutoDCSTech.com)

Website: [www.AutoDCSTech.com](http://www.AutoDCSTech.com) Email: [sales@AutoDCSTech.com](mailto:sales@AutoDCSTech.com)

Length (m) 9.0

RPROBE( $\Omega$ )

9.87  $\pm$  0.50

Probe Tip

Material Polyphenylene sulfide (PPS).

Probe Case

Material

AISI 303 or 304 stainless steel

(SST).

Standard

cable

75 $\Omega$  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

75 $\Omega$  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

[www.AutoDCSTech.com](http://www.AutoDCSTech.com)

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 -55°C 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

[www.AutoDCSTech.com](http://www.AutoDCSTech.com)