Bently Nevada 330191&330195 Series Service Manual

330194-05-13-50-05

1. Description

Part Number:330194-05-13-50-05

3. Product Information

Part Number:330194-05-13-50-05

Model: Proximity Probes

Manufacturer: Bently Nevada

Condition: New & Original in Factory Packing

Factory Warranty: 12 Months

Ordering Number

Model: 330194 = 3300 XL 8 mm Probe, M10 x 1 thread, with armor

Unthreaded Length Option:

Length configurations:

Maximum unthreaded length: 230 mm

Minimum unthreaded length: 0 mm

0 5 =5 0 mm

Overall Case Length Option:

Maximum case length: 250 mm

Minimum case length: 20 mm

13= 130 mm

Total Length Option:50 = 5.0 meters (16.4 feet)

5-meter probes are designed for

use with the 5 meter Proximitor sensor only.

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 Ω
Nominal Probe DC Resistance
Resistance (RPROBE) from Center Conductor
to Outer Conductor
Probe
Length (m) 5.0
RPROBE(Ω)
8.73 ± 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: M10x1
Maximum Length of Thread
Engagement: 15 mm

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

Effects of 60 Hz Magnetic Fields Up to 300 Gauss

Output Voltage in Mil pp/Gauss

Gap:10

5 or 1-meter Proximitor Sensor: 0.0119

9 meter Proximitor Sensor: 0.0247

Probe : 0.0004

Ext.Cable: 0.0004

Gap:50

5 or 1-meter Proximitor Sensor: 0.0131

9 meter Proximitor Sensor: 0.0323

Probe : 0.0014

Ext.Cable: 0.0014

Gap:90

5 or 1-meter Proximitor Sensor: 0.0133

9 meter Proximitor Sensor: 0.0348

Probe : 0.0045

Ext.Cable: 0.0045