

# Bently Nevada 330140&330141 Series Service Manual

330140-10-20-11-CN

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## 1. Description

Manufacturer : Bently Nevada

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## 3. Product Information



Manufacturer : Bently Nevada  
Product No. :Manufacturer : Bently Nevada  
Product No. :330140-10-20-11-CN  
Product Type : 3300 XL 8 mm Probe without armor  
Made in U.S.A  
Overall Case Length 10=1.0in  
Total Length Option: 20 2.0 meters (6.6 feet)  
C: Connector and Cable-Type Option  
11

Miniature coaxial ClickLoc  
connector with connector  
protector, FluidLoc cable  
Agency Approval Option  
CN=Country Specific Approval  
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.

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.

Nominal Probe DC Resistance  
Resistance (RPROBE) from Center Conductor  
to Outer Conductor  
Probe

Length (m)  
RPROBE( $\Omega$ )  
2.0 7.88  $\pm$  0.50  
Incremental Scale Factor (ISF)  
Standard 5 or 1  
meter System  
7.87 V/mm (200 mV/mil)  $\pm$   
5% including  
interchangeability error  
when measured in  
increments of 0.25 mm (10  
mils) over the 80 mil linear  
range from 0°C to +45°C  
(+32°F to +113°F).  
Standard 9  
meter System



7.87 V/mm (200 mV/mil)  
± 6.5% including  
interchangeability error  
when measured in  
increments of 0.25 mm (10  
mils) over the 80 mil linear  
range from 0°C to +45°C  
(+32°F to +113°F).  
Extended  
Temperature  
Range (ETR) for 5  
and 9 Meter  
Systems  
7.87 V/mm (200 mV/mil) ±  
6.5% including  
interchangeability error  
when measured in  
increments of 0.25 mm (10  
mils) over the 80 mil linear  
range from 0°C to +45°C  
(+32°F to +113°F).  
Deviation from best fit straight line (DSL)  
Standard 5 or 1  
meter System  
Less than ±0.025 mm (±1  
mil) with components at  
0°C to +45°C (+32°F to  
+113°F).  
Standard 9  
meter System  
Less than ±0.038 mm (±1.5  
mil) with components at  
0°C to +45°C (+32°F to  
+113°F).  
Extended  
Temperature  
Range 5 and 9  
meter Systems  
Less than ±0.038 mm (±1.5  
mil) with components at  
0°C to +45°C (+32°F to  
+113°F).  
Probe Tip  
Material Polyphenylene sulfide (PPS).  
Probe Case  
Material  
AISI 303 or 304 stainless steel  
(SST).  
Probe 323 g/m (11.4 oz)  
Probe Temperature Range  
Operating and Storage Temperature  
Standard  
Probe  
-52°C to +177°C (-62°F to  
+350°F)  
Extended  
Temperature  
Range Probe  
-52°C to +218°C (-62°F to



+425°F) for the probe tip; -  
51°C to +260°C (-60°F to  
+500°F) for the probe cable  
and connector.

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

#### Probe Pressure

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 Relative Humidity

Less than a 3% change in Average Scale  
Factor (ASF) when tested in 93% humidity in  
accordance with IEC standard 68 2 3 for up to  
56 days.

Product Type : 330141 3300 XL 8 mm Probe with armor  
Made in U.S.A

Overall Case Length 08=0.8in

Total Length Option: 10 1.0 meter (3.3 feet)

C: Connector and Cable-Type Option

11

Miniature coaxial ClickLoc

connector with connector

protector, FluidLoc cable

Agency Approval Option

CN=Country Specific Approval

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  
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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.

8 mm probes provide

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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.

Nominal Probe DC Resistance

Resistance (RPROBE) from Center Conductor

to Outer Conductor

Probe



Length (m)

RPROBE( $\Omega$ )

1.0 7.59  $\pm$  0.50

Incremental Scale Factor (ISF)

Standard 5 or 1

meter System

7.87 V/mm (200 mV/mil)  $\pm$

5% including

interchangeability error

when measured in

increments of 0.25 mm (10

mils) over the 80 mil linear

range from 0°C to +45°C

(+32°F to +113°F).

Standard 9

meter System

7.87 V/mm (200 mV/mil)

$\pm$  6.5% including

interchangeability error

when measured in

increments of 0.25 mm (10

mils) over the 80 mil linear

range from 0°C to +45°C

(+32°F to +113°F).

Extended

Temperature

Range (ETR) for 5

and 9 Meter

Systems

7.87 V/mm (200 mV/mil)  $\pm$

6.5% including

interchangeability error

when measured in

increments of 0.25 mm (10

mils) over the 80 mil linear

range from 0°C to +45°C

(+32°F to +113°F).

Deviation from best fit straight line (DSL)

Standard 5 or 1

meter System

Less than  $\pm 0.025$  mm ( $\pm 1$

mil) with components at

0°C to +45°C (+32°F to

+113°F).

Standard 9

meter System

Less than  $\pm 0.038$  mm ( $\pm 1.5$

mil) with components at

0°C to +45°C (+32°F to

+113°F).

Extended

Temperature

Range 5 and 9

meter Systems

Less than  $\pm 0.038$  mm ( $\pm 1.5$

mil) with components at

0°C to +45°C (+32°F to

+113°F).

Probe Tip



Material Polyphenylene sulfide (PPS).

Probe Case

Material

AISI 303 or 304 stainless steel

(SST).

Probe 323 g/m (11.4 oz)

Probe Temperature Range

Operating and Storage Temperature

Standard

Probe

-52°C to +177°C (-62°F to

+350°F)

Extended

Temperature

Range Probe

-52°C to +218°C (-62°F to

+425°F) for the probe tip; -

51°C to +260°C (-60°F to

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and connector.

Exposing the probe to temperatures

below -34°C (-30°F) may cause

premature failure of the pressure

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