

# Bently Nevada 330140&330141 Series Service Manual

330140-10-20-11-00

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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. :330140-10-20-11-00  
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  
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.

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.

