# Bently Nevada 330140&330141 Series Service Manual

330140-08-30-11-00

## 1. Description

Manufacturer : Bently Nevada

## 3. Product Information

Manufacturer : Bently Nevada

Product No. :330140-08-30-11-00

Product Type : 3300 XL 8 mm Probe without armor

Made in U.S.A

Overall Case Length 08=0.8in

Total Length Option: 30 3.0 meters

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(Ω) |
|---|---|
| 3.0 | 8.17 ± 0.50 |

Incremental Scale Factor (ISF)

Standard 5 or 1 meter System

7.87 V/mm (200 mV/mil) ± 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.