

Bently Nevada 330140&330141 Series Service Manual

330140-08-20-02-00

1. Description

Manufacturer : Bently Nevada

3. Product Information

Manufacturer : Bently Nevada
Product No. :330140-08-20-02-00
Product Type : 3300 XL 8 mm Probe without armor
Made in U.S.A
Overall Case Length 08=0.8in
Total Length Option: 20 2.0 meters (6.6 feet)
C: Connector and Cable-Type Option
02 Miniature coaxial ClickLoc
connector, standard 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)
2.0 7.88 ± 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.

