Bently Nevada 330140&330141 Series Service Manual

330141-08-10-02-05

1. Description

Manufacturer : Bently Nevada

3. Product Information

Manufacturer : Bently Nevada

Product No. :330141-08-10-02-05

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

02 Miniature coaxial ClickLoc
connector, standard cable

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.

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)

1.0 7.59 ± 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.