# Bently Nevada 330102&330103&104 Series Service Manual

330104-03-09-50-02-00

## 1. Description

Manufacturer : Bently Nevada

## 3. Product Information

Manufacturer : Bently Nevada

Product No. :330104-03-09-50-02-00

Product type : 3300 XL 8 mm Proximity Probes, Metric

330104  3300 XL 8 mm Probe, M10 x 1 thread, with armor

Unthreaded Length Option  Minimum unthreaded length: 03=30 mm

Overall Case Length Option : 09=90mm

Total Length Option : 50 5.0 meters (16.4 feet)

5-meter probes are designed for use with the 5 meter Proximitor sensor only.

Connector and Cable-Type Option :02 Miniature coaxial ClickLoc connector, standard cable

Agency Approval Option :00 = Not required

Probe Tip Material: Polyphenylene sulfide (PPS)

Probe Case Material: AISI 303 or 304 stainless steel (SST).

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. Contact our custom design department if you require a test of the pressure seal for your application.

Nominal Probe DC Resistance

Resistance (RPROBE) from Center Conductor to Outer Conductor

| Probe Length (m) | 5.0m |
|---|---|
| RPROBE(Ω) | 8.73 ± 0.50 |

Field Wiring

0.2 to 1.5 mm2 (16 to 24 AWG). Recommend using 3 conductor shielded triad cable and tinned field wiring. Maximum length of 305 meters (1,000 feet) between the 3300 XL Proximitor Sensor and the monitor. See the frequency response graphs, Figures 10 and 12, for signal rolloff at high frequencies when using longer field wiring lengths.

Linear Range

2 mm (80 mils). Linear range begins at approximately 0.25 mm (10 mils) from target and is from 0.25 to 2.3 mm (10 to 90 mils) (approximately –1 to –17 Vdc).

Recommended Gap Setting for Radial Vibration

-9 Vdc [approximately 1.27 mm (50 mils)]

Mechanical

Probe Tip Material Polyphenylene sulfide (PPS).

Probe Case Material

AISI 303 or 304 stainless steel (SST).

Probe Case Thread M10x1

Maximum Length of Thread Engagement 15 mm

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 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.
3300 XL Probe
ia
When installed
with
intrinsically
safe zener
barriers per
drawing 141092
or when
installed with
galvanic
isolators.
Class I, Zone 0: AEx/Ex ia IIC T5...T1 Ga;
Class 1, Groups A, B. C, and D,
Class II, Groups E, F, and G,
Class III;
nA, ec
When installed
with nonincendive
circuit
connected per
drawing
140979.
Class I, Zone 2: AEx/Ex nA IIC T5...T1 Gc;
Class 1, Division 2, Groups A, B, C, D;
Class 1, Zone 2: AEx/Ex ec IIC T5...T1 Gc;
Class I, Division 2, Groups A, B, C, and
D;