# Bently Nevada 330102&330103&104 Series Service Manual

330104-00-02-50-02-05

## 1. Description

Manufacturer : Bently Nevada

## 3. Product Information

Manufacturer : Bently Nevada

Product No.330104-00-02-50-02-05

Product type : 3300 XL 8 mm Proximity Probes

Made in U.S.A

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

Unthreaded Length Option :00=00 mm

Overall Case Length Option :02=20mm

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 05= CSA, ATEX, IECEx  Approvals

Nominal Probe DC Resistance

Resistance (RPROBE) from Center Conductor

to Outer Conductor

Probe

Length (m) 5.0

RPROBE(Ω)

8.73 ± 0.50

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.

Unless otherwise noted, the following

specifications are for a 3300 XL 8 mm

Proximitor Sensor, extension cable and 8 mm

probe between +18˚C and +27˚C (+64˚F to

+80˚F) at a maximum altitude of 2000 meters,

with a -24 Vdc power supply, a 10 kΩ load, an

AISI 4140 steel target, and a probe gapped at

1.27 mm (50 mils). Performance characteristics

apply to systems that consist solely of 3300 XL 8

mm components. The system accuracy and

interchangeability specifications do not apply

to transducer systems that are calibrated to

any target other than our AISI 4140 steel target.

Electrical

Proximitor

Sensor Input

Accepts one non-contacting

3300-series 5 mm, 3300 XL 8

mm Proximity Probe and

Extension Cable.

Power

Requires -17.5 Vdc to -26 Vdc

when installed with nonincendive circuit connected

per installation drawing 140979

at 12 mA maximum

consumption, -23 Vdc to -26

Vdc with barriers. Operation at

a more positive voltage than

-23.5 Vdc can result in reduced

linear range.

Supply

Sensitivity

Less than 2 mV change in

output voltage per volt change

in input voltage.

Output

Resistance 50 Ω

Mechanical

Probe Tip

Material Polyphenylene sulfide (PPS).

Probe Case

Material

AISI 303 or 304 stainless steel

(SST).

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;

Probe Case Thread M10x1

Maximum Length of Thread Engagement 15 mm

Temperature Schedule

For EPL Ga and Gc

Temperature Classification T1 Ambient Temperature (Probe Only) -55°C to +232°C

Temperature Classification T2 Ambient Temperature (Probe Only) -55°C to +177°C

Temperature Classification T3 Ambient Temperature (Probe Only) -55°C to +120°C

Temperature Classification T4 Ambient Temperature (Probe Only) -55°C to +80°C

Temperature Classification T5 Ambient Temperature (Probe Only) -55°C to +40°C

For EPL Dc

Temperature Classification T280°C @ Ta Ambient Temperature (Probe Only) -55°C to +232°C

Temperature Classification T225°C @ Ta Ambient Temperature (Probe Only) -55°C to +177°C

Temperature Classification T170°C @ Ta Ambient Temperature (Probe Only) -55C to +120°C

Temperature Classification T130°C @ Ta Ambient Temperature (Probe Only) -55°C to +80°C

Temperature Classification T105°C @ Ta Ambient Temperature (Probe Only) -55°C to +100°C

Temperature Classification T90°C @ Ta Ambient Temperature (Probe Only) -55°C to +40°C