

Bently Nevada 330102&330103&104 Series Service Manual

330104-16-21-10-01-05

1. Description

Manufacturer : Bently Nevada

3. Product Information

Manufacturer : Bently Nevada

Product No. :330104-16-21-10-01-05

Product type : 3300 XL 8 mm Proximity Probes, Metric

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

Unthreaded Length Option 16= 160mm

Overall Case Length Option : 21=210mm

Total Length Option : 10= 1.0 meter (3.3 feet)

Connector and Cable-Type Option :01= Miniature coaxial ClickLoc

connector with connector

protector, standard cable

Agency Approval Option : 05 = CSA, ATEX, IECEx Approvals

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) 1.0m

RPROBE(Ω) 7.59 ± 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

Proximito^r 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;

Temperature Schedule

Ambient Temperature

(Probe Only)

For EPL Ga and Gc

Temperature Classification T1 Ambient Temperature -55°C to +232°C

Temperature Classification T2 Ambient Temperature -55°C to +177°C

Temperature Classification T3 Ambient Temperature -55°C to +120°C

Temperature Classification T4 Ambient Temperature -55°C to +80°C

Temperature Classification T5 Ambient Temperature -55°C to +40°C

For EPL Dc

Temperature Classification T280°C @ Ta Ambient Temperature -55°C to +232°C

Temperature Classification T225°C @ Ta Ambient Temperature -55°C to +177°C

Temperature Classification T170°C @ Ta Ambient Temperature -55C to +120°C

Temperature Classification T130°C @ Ta Ambient Temperature -55°C to +80°C

Temperature Classification T105°C @ Ta Ambient Temperature -55°C to +100°C

Temperature Classification T90°C @ Ta Ambient Temperature -55°C to +40°C

