Bently Nevada 330102&330103&104 Series Service Manual

330102-00-43-05-02-05

1. Description

Manufacturer : Bently Nevada

3. Product Information

Manufacturer : Bently Nevada

Product No. : 330102-00-43-05-02-05

Product type : 3300 XL 8 mm Proximity Probes

330102 3300 XL 8 mm Probe, 3/8-24 UNF thread, with armor

Unthreaded Length Option : 00 = 0.0 in

Overall Case Length Option : 43= 4.3 in

Total Length Option : 05= 0.5 meter (1.6 feet)

3-meter length option is only
available on 330101 probes, and is
designed for use with the 9 meter
Proximitor sensor only.
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

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)	RPROBE(Ω)
0.5	7.45 ± 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).
Thread Engagement Limits
Probe Case Thread 3/8-24
Maximum Length of Thread Engagement
0.563 in
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;