Bently Nevada 330850&330854 Series Service Manual

330854-080-24-00

1. Description

Manufacturer : Bently Nevada

3. Product Information

Manufacturer : Bently Nevada

Part Number : 330854-080-24-00

3300 XL 25 mm Extension Cable

330854-AXXX-BXX-CXX

A: Cable Length Option : 0 8 0 = 8.0 metres (26.2 feet)

B: Armor and Cable Option : 24 = High Temperature FluidLoc cable

C: Agency Approval Option : 0 0 No Approvals

Weight : 45 g/m (0.5 oz/ft)

Make sure that the extension cable length and the probe length, when added together, equal the Proximitor Sensor total length.

Each probe and cable are provided with connector protectors and a disposable connector protector installation tool to ensure that the connectors remain free of contamination. The ClickLoc connector on the probe lead has a removable collar that facilitates routing the cable through tight clearances.

Extension Cable dc Resistance

Length of Extension Cable (m) 8.0

Resistance from Center Conductor to Center Conductor (RCORE) (ohms) 2.0 ± 0.5

Resistance from Coaxial Conductor to Coaxial Conductor (RJACKET) (ohms) 0.6 ± 0.2

Extension Cable Material

75 Ω triaxial, perfluoroalkoxyethylene (PFA) insulated FluidLoc cable.

Extension Cable 45 g/m (0.5 oz/ft)

Armored Extension Cable 140 g/m (1.5 oz/ft)

Extension Cable Temperature Range

Operating and Storage Temperature

-35°C to +200°C (-31°F to +392°F)

Extension cable capacitance

69.9 pF/m (21.3 pF/ft) typical

Field wiring

0.2 to 1.5 mm2 (16 to 24 AWG) [0.25 to 0.75 mm2 (18 to 23 AWG) with ferrules]. Recommend using three-conductor shielded triad cable.

Maximum length of 305 metres (1,000 feet) between the 3300 XL Proximitor Sensor and the monitor. See the frequency response graph for signal rolloff at high frequencies when using longer field wiring lengths.

Linear Range

12.7 mm (500 mils). Linear range begins at approximately 0.63 mm (25 mils) from target and is

from 0.63 to 13.33 mm (25
to 525 mils)
(approximately –1.5 to –11.5
Vdc).
Average Scale
Factor (ASF)
0.787 V/mm (20 mV/mil)
nominal
Deviation from
best fit straight
line (DSL)
Less than ±0.31 mm (±12
mils)
System
performance
over extended
temperatures
Over a probe temperature
range of -35°C to +120°C (-
31°F to +248°F) with the
Proximitor Sensor and
extension cable between
0°C to +45°C (+32°F to
+113°F), the DSL remains
within ±0.92 mm (±36
mils).
Over a Proximitor Sensor
and extension cable
temperature range of -
35°C to +65°C (-31°F to
+149°F) with the probe
between 0°C to +45°C
(+32°F to +113°F), the DSL
remains within ±0.92 mm
(±36 mils).
Frequency
Response
0 to 2.7 kHz: +0, -3 dB
typical, with up to 305
metres (1000 feet) of field
wiring.
Recommended
Minimum Target
Size
61 mm (2.4 in) diameter
(flat target)
Effects of 60 Hz Magnetic Fields Up to 300
Gauss (5 meter system)
Output voltage in mil pp/gauss
Gap 0.6 mm (25 mil) Proximitor Sensor 0.224 Probe 0.008 Ext. Cable 0.002
Gap 7.0 mm (275 mil) Proximitor Sensor 0.223 Probe 0.033 Ext. Cable 0.004
Gap 13.3 mm (525 mil) Proximitor Sensor 0.225 Probe 0.076 Ext. Cable 0.023
Extension
Cable Material
75 Ω triaxial,
perfluoroalkoxyethylene
(PFA) insulated FluidLoc
cable.
Extension Cable Temperature Range

Operating and
Storage
Temperature
-35°C to +200°C (-31°F to
+392°F)
Hazardous Area Approvals
cNRTLus
3300 XL Proximitor Sensor
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 T4/T5 Ga;
Class I, Groups A, B, C, and D,
Class II, Groups E, F and G,
Class III;
T5 @ Ta= -55°C to + 40°C.
T4 @ Ta= -55°C to + 80°C.
nA, ec
When installed
with nonincendive
circuit
connected per
drawing
140979.
Class I, Zone 2: AEx/Ex nA IIC T4/T5 Gc;
Class I, Division 2, Groups A, B, C, and
D;
Class I, Zone 2: AEx/Ex ec IIC T4/T5 Gc;
Class I, Division 2, Groups A, B, C, and
D;
T5 @ Ta= -55°C to + 40°C
T4 @ Ta= -55°C to + 80°C
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;
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