Bently Nevada 330173&330171 Series Service Manual

330173-00-18-10-02-05

1. Description

Manufacturer : Bently Nevada

3. Product Information

Manufacturer : Bently Nevada

Product No. : 330173-00-18-10-02-05

Product type : 3300 5mm Probe, M8 x 1 thread,

without armor

Made in U.S.A

330173 = 3300 5mm Probe, M8 x 1 thread,

without armor

Unthreaded Length Option : 00 = 00 mm

Overall Case Length Option : 18 = 180 mm

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

Connector Option : 0 2= Miniature coaxial ClickLoc connector, standard cable

Agency Approval Option : 0 5 = Multiple Approvals

Probe Tip Material: Polyphenylene sulfide (PPS).

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

Weight : 0.323 Kg

Specifications

Unless otherwise noted, the following

specifications are for a proximity transducer

system between +18°C and +27°C (+64°F to

+80°F) with a -24 Vdc power supply, a 10 kW

load, an AISI 4140 steel target, and a probe

gapped at 1.27 mm (50 mils).

Electrical

Power

Requires -17.5 Vdc to -26 Vdc at

12 mA maximum consumption.

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 W

Probe DC Resistance

Probe

Length

(m) 1.0

Resistance from the Center

Conductor to the Outer Conductor

(Ω)

7.59 ± 0.50

Probe Tip

Material Polyphenylene sulfide (PPS)

Probe Case

Material

AISI 303 or 304 stainless steel

(SST)

Probe Cable

75 Ω triaxial, fluoroethylene

propylene (FEP) insulated

probe cable in the following

lengths: 0.5, 1, 2, 5, or 9 meters

(1.6, 3.3, 16.4, or 29.5 feet)

5mm Probe

Tensile

Strength

222 N (50 lbf) probe case to
probe lead. 222 N (50 lbf)
probe lead to extension cable
connectors
Connector
material
Gold-plated brass or goldplated beryllium copper
Probe case
torque
5.1 N·m (45in·lb) recommended
7.3 N·m (65 in·lb) maximum
Connectortoconnector
torque
Refer to the table below:
Recommended Torque
Maximum
torque 0.565 N·m (0.42 ft•lbf)
Minimum
Cable Bend
Radius
25.4 mm (1.0in)
Probe Temperature
Range
-35°C to +177°C (-
31°F to +351°F)
Exposing the probe to temperatures
below –34°C (-30°F) may cause
premature failure of the pressure
seal.
Effects of 60 Hz Magnetic Fields Up to 300 Gauss (5 meter system)
Output voltage in mil pp/gauss
Gap 10 mil
XL Proximitor Sensor 0.0119
Probe 0.0004
XL Ext. Cable 0.0004
Gap 50 mil
XL Proximitor Sensor 0.0131
Probe 0.0014
XL Ext. Cable 0.0014
Gap 90 mil
XL Proximitor Sensor 0.0133
Probe 0.0045
XL Ext. Cable 0.0045
Thread Engagement Limits
Probe Case Thread M8x1
Maximum Length of Thread Engagement
12 mm
Temperature Schedule
(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