Bently Nevada 330173&330171 Series Service Manual

330171-00-08-05-02-CN

1. Description

Manufacturer : Bently Nevada

3. Product Information

Manufacturer : Bently Nevada

Product No. : 330171-00-08-05-02-CN

Product type : 330171 3300 5mm Probe, 1/4-28 UNF thread, without armor

Made in U.S.A

Unthreaded Length Option : 00 = 0 in

Overall Case Length Option : 08 = 0.8 in

Total Length Option : 0 5 0.5 meter (1.6 feet)

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

Agency Approval Option : CN = Approvals country specific

Probe Tip Material: Polyphenylene sulfide (PPS).

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

Probe Case Thread 1/4-28

Maximum Length of Thread Engagement 0.375 in

When drilling and tapping a mounting hole for a 1/4-28 probe, a #3 or larger tap drill is recommended.

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) 0.5

Resistance from the Center Conductor to the Outer Conductor (Ω) 7.45 ± 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.

Thread Engagement Limits

Probe Case Thread 1/4-28

Maximum Length of Thread Engagement

0.375 in

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