

INDUSTRIAL AUTOMATION PRODUCT

330102-03-20-10-02-05

3300 XL 8 mm Armored Proximity Probe

330102-03-20-10-02-05 senses shaft-to-bearing relative displacement without mechanical contact and passes the probe signal to a matched Proximity Sensor for machinery-monitoring measurement.

IDENTITY	VERIFIED VALUE
Manufacturer	Bently Nevada
System family	Bently Nevada 3300 XL 8 mm Proximity Transducer System
Part number	330102-03-20-10-02-05
Country	USA
HS code	8537101190

APTER POWER SALES TEAM

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Technical Specifications

Technical values below are limited to the named Bently Nevada product record.

PARAMETER	VALUE
Complete order number	330102-03-20-10-02-05
Probe construction	With armor
Thread	3/8-24 UNF
Unthreaded length	0.3 in
Case length	2.0 in
Total probe length	1.0 m
Connector option	Miniature coaxial ClickLoc
Probe-cable type	Standard cable
Approval option	CSA, ATEX and IECEx
Probe-tip diameter	8.0 mm
System linear range	2.0 mm (80 mils)
Approximate linear-range limits	0.25 to 2.3 mm
Approximate output span	-1 to -17 V DC
Recommended gap	1.27 mm (50 mils)

PARAMETER	VALUE
Nominal output at recommended gap	-9 V DC
Incremental scale factor	7.87 V/mm (200 mV/mil)
Frequency response	0 to 10 kHz, +0/-3 dB
Minimum flat-target diameter	15.2 mm
Minimum shaft diameter	50.8 mm
Recommended shaft diameter	76.2 mm
Probe-cable impedance	75 ohm
Standard probe-cable temperature	-52 to +177 degC
Proximito Sensor supply	-17.5 to -26 V DC
Proximito Sensor current	12 mA maximum
Proximito Sensor output resistance	50 ohm
Field-wiring conductor range	0.2 to 1.5 mm ² (16 to 24 AWG)
Maximum field-wiring length	305 m

VERIFIED PRODUCT RECORD

DATA GROUP	VERIFIED VALUE
Installed host / carrier	3300 XL 8 mm Proximito Sensor
Companion hardware	Matched 3300 XL extension cable when required
Field connection	AISI 4140 steel target or validated equivalent
Primary system function	Uses the with armor probe construction selected by 330102-03-20-10-02-05
Controlled acceptance duty	Radial shaft-vibration measurement

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System Role and Architecture

330102-03-20-10-02-05 senses shaft-to-bearing relative displacement without mechanical contact and passes the probe signal to a matched Proximitor Sensor for machinery-monitoring measurement.

FUNCTION 1
Uses the with armor probe construction selected by 330102-03-20-10-02-05

FUNCTION 2
Fits the documented 3/8-24 UNF mounting thread

FUNCTION 3
Carries the eddy-current signal through the selected standard cable lead

FUNCTION 4
Forms the sensing element of a matched 3300 XL 8 mm transducer system

Matched system components

- 3300 XL 8 mm Proximitor Sensor
- Matched 3300 XL extension cable when required
- AISI 4140 steel target or validated equivalent
- Compatible Bently Nevada monitor channel

SYSTEM INTEGRATION RECORD

INTEGRATION ITEM	DOCUMENTED ROLE
Installed host / carrier	3300 XL 8 mm Proximitor Sensor
Companion hardware	Matched 3300 XL extension cable when required
Field connection	AISI 4140 steel target or validated equivalent
Primary system function	Uses the with armor probe construction selected by 330102-03-20-10-02-05
Controlled acceptance duty	Radial shaft-vibration measurement

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Applications and Engineering Context

Radial shaft-vibration measurement

Uses the with armor probe construction selected by 330102-03-20-10-02-05

Axial position and thrust monitoring

Fits the documented 3/8-24 UNF mounting thread

Machine shaft centerline observation

Carries the eddy-current signal through the selected standard cable lead

Probe replacement in a matched 3300 XL 8 mm loop

Forms the sensing element of a matched 3300 XL 8 mm transducer system

TECHNICAL NOTE

Match 330102-03-20-10-02-05 to a 3300 XL 8 mm Proximitior Sensor and the approved total system length. Set the static gap in the linear region, route the probe lead without tensile loading, and verify polarity and response before enabling protection logic.

MODEL-SPECIFIC ACCEPTANCE EVIDENCE

CHECK	ACCEPTANCE CONDITION
Identity	330102-03-20-10-02-05 / 330102-03-20-10-02-05 recorded
Physical interface	3300 XL 8 mm Proximitior Sensor
Companion check	Matched 3300 XL extension cable when required
Functional proof	Uses the with armor probe construction selected by 330102-03-20-10-02-05
Application test	Radial shaft-vibration measurement

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Engineering Precautions

- 1
- Verify the full 330102-03-20-10-02-05 marking and the 2.0 in case length before disturbing the bracket.
- 2
- Place the monitored machine and associated protection channel in the approved maintenance state.
- 3
- Protect the 8 mm PPS probe tip and keep the 3/8-24 UNF thread free from burrs and contamination.
- 4
- Route the 1.0 m standard cable probe lead without sharp bends, crushing or tensile loading.
- 5
- Secure the miniature coaxial clickloc connection and keep exposed coaxial interfaces clean and dry.

RELATED PRODUCTS ON APTER POWER

MODEL	SYSTEM ROLE	APTER POWER PAGE
330103-00-12-10-02-00	3300 XL 8 mm metric proximity probe	View 330103-00-12-10-02-00 page
330103-00-16-10-02-05	3300 XL 8 mm metric proximity probe	View 330103-00-16-10-02-05 page
330106-05-30-05-02-00	3300 XL 8 mm reverse-mount probe	View 330106-05-30-05-02-00 page
330130-045-00-00	3300 XL standard extension cable	View 330130-045-00-00 page
330130-080-02-05	3300 XL extension cable	View 330130-080-02-05 page
330850-50-00	3300 XL NSv extension cable	View 330850-50-00 page
330171-00-12-50-01-05	3300 XL 5/8 mm proximity probe	View 330171-00-12-50-01-05 page
330171-00-12-05-01-05	3300 XL 5/8 mm proximity probe	View 330171-00-12-05-01-05 page

MANUFACTURER SOURCE RECORD

Bently Nevada 3300 XL 8 mm Proximity Transducer System Datasheet
141194 Rev. AM

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