

APTER POWER

COMPLETE PRODUCT INFORMATION

330104-03-06-10-02-00

3300 XL 8 mm Armored Metric Proximity Probe

330104-03-06-10-02-00 senses shaft-to-bearing relative displacement without mechanical contact and passes the probe signal to a matched Proximitor Sensor for machinery-monitoring measurement.

PRODUCT SNAPSHOT

BRAND

Bently Nevada

FAMILY

Bently Nevada 3300 XL 8 mm Proximity Trans

PART

330104-03-06-10-02-00

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PRODUCT OVERVIEW

330104-03-06-10-02-00 senses shaft-to-bearing relative displacement without mechanical contact and passes the probe signal to a matched Proximitor Sensor for machinery-monitoring measurement.

1

Detects shaft-to-bearing relative position without mechanical contact

2

Forms the sensing input of a matched eddy-current transducer loop

3

Supports radial-vibration, axial-position and shaft-centerline measurements

4

Protects the integral probe lead along exposed machinery routing

SYSTEM COMPONENTS

Matched 3300 XL 8 mm Proximitor Sensor

Compatible machinery-protection monitor channel

AISI 4140 steel target or manufacturer-approved calibration target

Metric probe bracket with supported armored-lead routing

TECHNICAL NOTE

Install 330104-03-06-10-02-00 at the documented 30 mm unthreaded reach and 60 mm case depth while supporting the armored lead. After connection, establish the static gap in the linear region and prove polarity and dynamic response before enabling protection logic.

TECHNICAL DATA

PARAMETER	VALUE
Complete order number	330104-03-06-10-02-00
Probe construction	With armor
Thread	M10 x 1
Unthreaded length	30 mm
Case length	60 mm
Total probe length	1.0 m
Connector option	Miniature coaxial ClickLoc
Probe-cable type	Standard cable
Approval option	Not required
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
Proximator Sensor supply	-17.5 to -26 V DC
Proximator Sensor current	12 mA maximum
Proximator 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

RELATED PRODUCTS ON APTER POWER

MODEL	SYSTEM ROLE	APTER POWER 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 Proximator Sensor	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
330171-00-33-50-01-05	3300 XL 5/8 mm proximity probe	View 330171-00-33-50-01-05 page

APPLICATIONS & PRECAUTIONS

COMMON APPLICATIONS

Steam-turbine radial shaft-vibration measurement

Detects shaft-to-bearing relative position without mechanical contact

Compressor thrust and axial-position monitoring

Forms the sensing input of a matched eddy-current transducer loop

Machine shaft centerline observation during run-up

Supports radial-vibration, axial-position and shaft-centerline measurements

Armored metric probe renewal in a matched 3300 XL loop

Protects the integral probe lead along exposed machinery routing

PRODUCT PRECAUTIONS

- 1 Verify the full 330104-03-06-10-02-00 marking and the 60 mm 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 M10 x 1 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.
- 6 Confirm the installed Proximitar Sensor and total system length match the probe configuration.
- 7 Set the static gap within the documented linear region before enabling dynamic measurements.
- 8 Prove polarity, vibration response and alarm action before returning the protection channel to service.

ENGINEER FAQ

Q1 Does 330104-03-06-10-02-00 match Matched 3300 XL 8 mm Proximity Sensor in a Steam-turbine radial shaft-vibration measurement installation?

Verify the complete 330104-03-06-10-02-00 marking, the documented Bently Nevada 3300 XL 8 mm Proximity Transducer System position and the installed Matched 3300 XL 8 mm Proximity Sensor before fitting the assembly.

Q3 Which Bently Nevada 3300 XL 8 mm Proximity Transducer System records should be captured before removing 330104-03-06-10-02-00?

Record the as-found wiring, installed position, active configuration and diagnostic state associated with 330104-03-06-10-02-00 before disconnection.

Q5 Which Compatible machinery-protection monitor channel condition should be checked when 330104-03-06-10-02-00 reports an abnormal state?

Check the Compatible machinery-protection monitor channel supply, seating and connection first, then compare channel diagnostics with the recorded 330104-03-06-10-02-00 baseline.

Q7 What maintenance evidence is required after 330104-03-06-10-02-00 is used for Machine shaft centerline observation during run-up?

Retain the nameplate record, corrective action, final diagnostics and a controlled machine shaft centerline observation during run-up functional-test result for 330104-03-06-10-02-00.

Q2 How should 330104-03-06-10-02-00 be wired when it must detects shaft-to-bearing relative position without mechanical contact?

Isolate the circuit, identify every terminal and reproduce the approved polarity, shield and channel assignment for 330104-03-06-10-02-00; then continuity-test the affected path.

Q4 What controlled test confirms that 330104-03-06-10-02-00 can forms the sensing input of a matched eddy-current transducer loop?

Apply the approved field or simulated stimulus, observe the Bently Nevada 3300 XL 8 mm Proximity Transducer System indication and confirm the intended response without bypassing the normal interlocks.

Q6 Can 330104-03-06-10-02-00 be moved directly into Compressor thrust and axial-position monitoring without validating Metric probe bracket with supported armored-lead routing?

No. Confirm the Metric probe bracket with supported armored-lead routing, revision, connection scheme and Bently Nevada 3300 XL 8 mm Proximity Transducer System configuration before transferring 330104-03-06-10-02-00 to that duty.

Q8 How should 330104-03-06-10-02-00 be returned to service in Armored metric probe renewal in a matched 3300 XL loop?

Restore power under control, verify supports radial-vibration, axial-position and shaft-centerline measurements, exercise the intended signal path and release 330104-03-06-10-02-00 only after the Bently Nevada 3300 XL 8 mm Proximity Transducer System remains in its approved operating state.

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

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