

INDUSTRIAL AUTOMATION PRODUCT

330103-00-05-05-02-00

3300 XL 8 mm Metric Proximity Probe

Bently Nevada 330103-00-05-05-02-00 is a metric 3300 XL 8 mm eddy-current proximity probe with an M10 x 1 case. It senses shaft displacement for a matched Proximitor Sensor and machinery-monitoring channel.

IDENTITY	VERIFIED VALUE
Manufacturer	Bently Nevada
System family	3300 XL 8 mm Proximity Transducer System
Part number	330103-00-05-05-02-00
Country	USA
HS code	8537101190

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Technical Specifications

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

PARAMETER	VALUE
Probe series	3300 XL 8 mm
Probe body thread	M10 x 1
Probe armor	Without armor
Unthreaded length	0 mm
Overall case length	50 mm
Total probe length	0.5 m
Connector	Miniature coaxial ClickLoc
Connector protector	Not included
Cable type	Standard 75 Ohm triaxial
Cable insulation	FEP
Agency approval option	Not required
Probe tip material	Polyphenylene sulfide (PPS)
Probe case material	AISI 303 or 304 stainless steel

PARAMETER	VALUE
Nominal probe DC resistance	7.45 +/- 0.50 Ohm
Probe case-to-lead tensile rating	330 N maximum
Lead-to-extension connector tensile rating	270 N maximum
Minimum cable bend radius	25.4 mm
Maximum forward-mount torque	33.9 N m
Recommended forward-mount torque	11.2 N m
Standard probe temperature	-52 to +177 degC
Matched-system linear range	2 mm
Matched-system incremental scale factor	7.87 V/mm nominal
Matched-system 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

PUBLISHED REFERENCE CONDITIONS

CONDITION	VALUE
Reference target material	AISI 4140 steel
Reference supply	-24 Vdc
Reference load	10 kOhm
Reference test temperature	+18 to +27 degC
Reference probe gap	1.27 mm
Reference maximum altitude	2000 m

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System Role and Architecture

Bently Nevada 330103-00-05-05-02-00 is a metric 3300 XL 8 mm eddy-current proximity probe with an M10 x 1 case. It senses shaft displacement for a matched Proximitor Sensor and machinery-monitoring channel.

FUNCTION 1

Detects shaft-to-bearing relative position without mechanical contact

FUNCTION 2

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

FUNCTION 3

Carries the eddy-current probe signal through a standard FEP-insulated triaxial lead

FUNCTION 4

Compact half-meter probe-lead installations near the monitored bearing

Matched system components

- 3300 XL 8 mm Proximitor Sensor
- matched 3300 XL extension cable when required
- AISI 4140 steel target
- 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
Primary system function	Detects shaft-to-bearing relative position without mechanical contact
Controlled acceptance duty	Radial shaft-vibration measurement

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Applications and Engineering Context

Radial shaft-vibration measurement

Detects shaft-to-bearing relative position without mechanical contact

Axial position and thrust monitoring

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

Machine shaft centerline observation

Carries the eddy-current probe signal through a standard FEP-insulated triaxial lead

Compact half-meter probe-lead installations near the monitored bearing

Compact half-meter probe-lead installations near the monitored bearing

TECHNICAL NOTE

Install the 50 mm case and 0.5 m standard lead only where the Proximity Sensor location preserves the cable bend radius and service access. Confirm the matched loop length and probe resistance before functional testing.

MODEL-SPECIFIC ACCEPTANCE EVIDENCE

CHECK	ACCEPTANCE CONDITION
Identity	330103-00-05-05-02-00 / 330103-00-05-05-02-00 recorded
Physical interface	3300 XL 8 mm Proximity Sensor
Companion check	matched 3300 XL extension cable when required
Functional proof	Detects shaft-to-bearing relative position without mechanical contact
Application test	Radial shaft-vibration measurement

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Engineering Precautions

1

Confirm 330103-00-05-05-02-00 and its 0.5 m lead length from the physical marking.

2

Verify the 50 mm case clears the shaft throughout the complete machine movement range.

3

Do not splice, shorten or sharply bend the integral triaxial probe cable.

4

Keep the ClickLoc mating faces free from oil and conductive debris before connection.

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Check the nominal 0.5 m probe resistance as part of the as-found loop record.

RELATED PRODUCTS ON APTER POWER

MODEL	SYSTEM ROLE	APTER POWER PAGE
3500/40M 176449-01	Four-channel Proximitor monitor	Open product page
125680-01	Internal-termination Proximitor I/O module	Open product page
3500/20 125744-02	3500 rack interface module	Open product page
3500/45 140072-04	Position-monitor channel hardware	Open product page
330130-045-00-00	3300 XL extension cable	Open product page

MANUFACTURER SOURCE RECORD

3300 XL 8 mm Proximity Transducer System Datasheet

141194 Rev. AM

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