

INDUSTRIAL AUTOMATION PRODUCT

330103-03-12-05-02-00

3300 XL 8 mm Proximity Probe

The probe senses shaft-to-bearing relative displacement without mechanical contact and carries the eddy-current signal through its integral coaxial lead.

| IDENTITY      | VERIFIED VALUE                           |
|---------------|------------------------------------------|
| Manufacturer  | Bently Nevada                            |
| System family | 3300 XL 8 mm Proximity Transducer System |
| Part number   | 330103-03-12-05-02-00                    |
| 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                      |
|-------------------------|----------------------------|
| Complete catalog number | 330103-03-12-05-02-00      |
| Probe construction      | Without armor              |
| Mounting thread         | M10 x 1                    |
| Unthreaded length       | 30 mm                      |
| Case length             | 120 mm                     |
| Total probe length      | 0.5 m                      |
| Connector               | Miniature coaxial ClickLoc |
| Probe-cable type        | Standard cable             |
| Approval order code     | 00                         |
| Probe-tip diameter      | 8.0 mm                     |
| System linear range     | 2.0 mm (80 mils)           |

| PARAMETER                          | VALUE                  |
|------------------------------------|------------------------|
| 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)      |
| 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                |
| Recommended minimum shaft diameter | 76.2 mm                |
| Probe cable impedance              | 75 Ohm                 |
| Probe cable temperature            | -52 to +177 degC       |

PUBLISHED REFERENCE CONDITIONS

| CONDITION | VALUE |
|-----------|-------|
|-----------|-------|

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## System Role and Architecture

The probe senses shaft-to-bearing relative displacement without mechanical contact and carries the eddy-current signal through its integral coaxial lead.

**FUNCTION 1**  
Detects shaft-to-bearing relative position without contact

**FUNCTION 2**  
Forms the sensing element of a matched 3300 XL 8 mm loop

**FUNCTION 3**  
Carries the eddy-current signal through a 75 Ohm coaxial lead

**FUNCTION 4**  
Supports radial vibration, axial position and shaft centerline observation

### Matched system components

- Matched 3300 XL 8 mm Proximator Sensor
- Compatible Bently Nevada monitor channel
- AISI 4140 steel target or approved equivalent
- Supported probe bracket and coaxial routing

### SYSTEM INTEGRATION RECORD

| INTEGRATION ITEM           | DOCUMENTED ROLE                                                 |
|----------------------------|-----------------------------------------------------------------|
| Installed host / carrier   | Matched 3300 XL 8 mm Proximator Sensor                          |
| Companion hardware         | Compatible Bently Nevada monitor channel                        |
| Field connection           | AISI 4140 steel target or approved equivalent                   |
| Primary system function    | Detects shaft-to-bearing relative position without contact      |
| Controlled acceptance duty | 3300 XL 8 mm Proximity Transducer System installed-base service |

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## Applications and Engineering Context

**3300 XL 8 mm Proximity Transducer System  
installed-base service**

Detects shaft-to-bearing relative position without contact

**3300 XL 8 mm Proximity Transducer System  
compatibility review**

Forms the sensing element of a matched 3300 XL 8 mm loop

**3300 XL 8 mm Proximity Transducer System  
installation planning**

Carries the eddy-current signal through a 75 Ohm coaxial lead

**3300 XL 8 mm Proximity Transducer System  
controlled commissioning**

Supports radial vibration, axial position and shaft centerline observation

### TECHNICAL NOTE

Install 330103-03-12-05-02-00 only in the documented 3300 XL 8 mm Proximity Transducer System position and preserve the recorded connections. After installation, restore the approved configuration and complete controlled diagnostic and functional checks.

### MODEL-SPECIFIC ACCEPTANCE EVIDENCE

| CHECK              | ACCEPTANCE CONDITION                                            |
|--------------------|-----------------------------------------------------------------|
| Identity           | 330103-03-12-05-02-00 / 330103-03-12-05-02-00 recorded          |
| Physical interface | Matched 3300 XL 8 mm Proximitor Sensor                          |
| Companion check    | Compatible Bently Nevada monitor channel                        |
| Functional proof   | Detects shaft-to-bearing relative position without contact      |
| Application test   | 3300 XL 8 mm Proximity Transducer System installed-base service |

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## Engineering Precautions

1

Verify the complete 330103-03-12-05-02-00 marking and installed position before work.

2

Place the connected equipment in the approved maintenance state.

3

Isolate applicable power and signal energy before disconnecting wiring.

4

Use ESD controls and protect connectors from contamination or damage.

5

Record as-found cable, terminal, shield and grounding identity.

### RELATED PRODUCTS ON APTER POWER

| MODEL                 | SYSTEM ROLE                         | APTER POWER PAGE                                |
|-----------------------|-------------------------------------|-------------------------------------------------|
| 330103-00-04-10-02-00 | 3300 XL 8 mm metric proximity probe | <a href="#">View 330103-00-04-10-02-00 page</a> |
| 330103-00-12-10-02-00 | 3300 XL 8 mm metric proximity probe | <a href="#">View 330103-00-12-10-02-00 page</a> |
| 330103-00-16-10-02-05 | 3300 XL 8 mm metric proximity probe | <a href="#">View 330103-00-16-10-02-05 page</a> |
| 330106-05-30-05-02-00 | 3300 XL 8 mm reverse-mount probe    | <a href="#">View 330106-05-30-05-02-00 page</a> |
| 330130-045-00-00      | 3300 XL standard extension cable    | <a href="#">View 330130-045-00-00 page</a>      |
| 330130-080-02-05      | 3300 XL extension cable             | <a href="#">View 330130-080-02-05 page</a>      |
| 330850-50-00          | 3300 XL NSv Proximitior Sensor      | <a href="#">View 330850-50-00 page</a>          |
| 330171-00-12-50-01-05 | 3300 XL 5/8 mm proximity probe      | <a href="#">View 330171-00-12-50-01-05 page</a> |

### MANUFACTURER SOURCE RECORD

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

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