The 3300 XL 50 mm Transducer System consists of a separate 50 mm probe, an extension cable, and a 3300 XL 50 mm Proximitor Sensor. The large diameter coil gives this system a maximum linear range of 27.9 mm (1100 mils), the longest linear range of our eddy current transducer line. This linear range makes the 3300 XL 50 mm Transducer System ideal for measuring the differential expansion (DE) or rotor expansion (RX) of large steam turbine generators that results from the difference in growth rates between the turbine rotor and the machine stator (casing).

Measuring Differential Expansion

The Differential Expansion measurement is made by using two proximity transducers that observe a collar or ramp some distance from the thrust bearing. Typical transducer mounting arrangements that require the 3300 XL 50 mm Transducer’s long linear range include:

- Two transducers observing the same side of a collar.
- Two complementary input transducers observing opposite sides of a collar, effectively doubling the measurable DE range.

The criteria for selecting a mounting method are the size of the available target, the expected amount of rotor axial movement, and the type of DE target that exists in the machine. If the collar height is sufficient and the required total measurement range is less than 27.9 mm 1.1 inches, the preferred configuration for redundant measurements is to use two transducers observing the same side of a collar. When total range are required, install the transducers in a complementary fashion on opposite sides of the differential expansion collar or other target material.
System Compatibility

The 3300 XL 50 mm probe comes in three case & thread configurations to physically replace all standard 7200 50 mm systems (including side and rear exit probes). The standard 7200 style mounting brackets are still available as accessories. In addition, a new bracket to adapt the probe to the 50 mm DE Integral transducer sliding mount base is also available. The Proximitor Sensor has a 0.394 V/mm (10 mV/mil) output that is identical to that of the 7200 and 50 mm DE Integral systems, which allows customers to upgrade without requiring any changes in the monitor configuration. When upgrading from previous systems, every transducer system component (probe, extension cable, and Proximitor Sensor) must be replaced with 3300 XL 50 mm components.

Proximity Probe and Extension Cable

The 3300 XL 50 mm probe is designed to survive the harshest steam turbine DE environments. It can continually operate and maintain its accuracy in high temperatures up to 200 °C (392 °F), and can withstand intermittent high temperatures up to 250 °C (482 °F). The 50 mm probe has both a front and rear seal which, combined with the High Temperature FluidLoc cable (standard on all 50 mm probes), prevent moisture from entering the probe tip. Special high-temperature ClickLoc connectors are also standard on the probe and extension cable. Each probe and cable comes with connector protectors and a disposable connector protector installation tool to ensure that the connectors remain free of contamination. The ClickLoc connector on the probe lead features a removable collar that facilitates routing the cable through tight clearances.

The 3300 XL 50 mm probe is available in straight exit case styles with ½-20 English threads or M4x4x1.5 metric threads, including a locknut with predrilled safety wire holes. The side exit probe has two ⅜-20 mounting holes in the rear of the probe case. For both straight exit and side exit probes the overall case diameter is 1.99 inches.

Proximitor Sensor

The 3300 XL 50 mm Proximitor Sensor has the same advanced features as all 3300 XL Proximitor Sensors. Its thin design allows it to be mounted in either a high-density DIN-rail installation or a more traditional panel mount configuration. Improved RFI/EMI immunity allows the 3300 XL Proximitor Sensor to achieve European CE mark approvals without any special mounting considerations. This RFI immunity prevents the transducer system from being adversely affected by nearby high frequency radio signals. SpringLoc terminal strips on the Proximitor Sensor require no special installation tools and facilitate faster, highly robust field wiring connections.

Mounting Accessories

The correct operation of the transducer system must be initially verified during installation and periodically thereafter. This is done by physically moving the transducer to simulate the motion of the shaft collar. This requires a mounting bracket that allows the transducer system to slide relative to the shaft rotor and collar.

An optional Sliding Bracket can be ordered for the 50 mm Transducer for both single transducer and complementary input applications. This mounting bracket allows you to verify the transducer system and gap the probes by sliding the transducer system through its linear range. The base plate of the sliding bracket is installed on the inner surface of the turbine case near the differential expansion collar. Probes are installed in the probe clamp that attaches to the sliding carriage. The sliding carriage slides onto and is secured to the base plate with bolts and safety
wire. To verify and install the transducer, loosen the bolts securing the sliding carriage to the base plate and move the sliding carriage and probes. A verification kit with spindle micrometer can be temporarily secured to the base plate to provide a reference for axial verification measurements. The spindle micrometer measures the movement of the transducer system relative to the collar during these verification tests.

**Specifications**

Unless otherwise noted, the following specifications are for a 3300 XL 50 mm Proximitor Sensor, extension cable and probe between 0°C and +45°C (+32°F to +113°F), with a -24 Vdc power supply, a 10 kW load, a Bently Nevada supplied AISI 4140 steel target that is 102 mm (4.0 in) diameter or larger. The system accuracy and interchangeability do not apply when using a transducer system calibrated to any target other than a Bently Nevada AISI 4140 steel target.

**Electrical**

| Proximitor Sensor Input | Accepts one non-contacting 3300 XL 50 mm Proximity Probe and Extension Cable. |
|-------------------------|---------------------------------------------------------------------------------
| Power                   | Requires -17.5 Vdc to -26 Vdc without barriers at 12 mA maximum consumption, -23 Vdc to -26 Vdc with barriers. Operation at a more positive voltage than -23.5 Vdc can result in reduced linear range. |
| Output resistance       | 50 Ω                                                                            |
| Extension cable capacitance | 69.9 pF/m (21.3 pF/ft) typical                                                  |
| Field wiring            | 0.2 to 1.5 mm² (16 to 24 AWG) Recommend using three-conductor shielded triad cable. |
| Linear Range            | 27.9 mm (1100 mils). Linear range begins at approximately 1.3 mm (50 mils) from target and is from 1.3 to 29.2 mm (50 to 1150 mils) (approximately -1.5 to −12.5 Vdc). |
| Average Scale Factor (ASF) | 394 mV/mm (10 mV/mil) nominal                                                 |

**Mechanical**

<table>
<thead>
<tr>
<th>Probe Tip Material</th>
<th>Polyphenylene Sulfide (PPS).</th>
</tr>
</thead>
<tbody>
<tr>
<td>Probe Case Material</td>
<td>AISI 304 stainless steel (SST).</td>
</tr>
<tr>
<td>Probe Cable Specifications</td>
<td>75 Ω triaxial, perfluoroalkoxyethylene (PFA) insulated FluidLoc probe cable in the following total probe lengths: 1, 5 or 9 metres.</td>
</tr>
<tr>
<td>Extension Cable Material</td>
<td>75 Ω triaxial, perfluoroalkoxyethylene (PFA) insulated FluidLoc cable.</td>
</tr>
<tr>
<td>Proximitor Sensor Material</td>
<td>A380 aluminum</td>
</tr>
<tr>
<td>Sliding Bracket Material</td>
<td>Anodized aluminum and stainless steel</td>
</tr>
<tr>
<td>System Length</td>
<td>5 or 9 metres including extension cable</td>
</tr>
<tr>
<td>Probe and Extension Cable Armor (optional)</td>
<td>Flexible SST with PFA outer jacket.</td>
</tr>
<tr>
<td>Tensile Strength (maximum rated)</td>
<td>330 N (75 pounds) probe case to probe lead. 270 N (60 pounds) at probe lead to extension cable connectors.</td>
</tr>
<tr>
<td>Connector material</td>
<td>Gold-plated brass and gold-plated beryllium copper</td>
</tr>
</tbody>
</table>
### Torque Specifications

<table>
<thead>
<tr>
<th>Description</th>
<th>Maximum Rated</th>
</tr>
</thead>
<tbody>
<tr>
<td>All threaded probe cases</td>
<td>45 N•m&lt;br&gt;(400 in•lbf)</td>
</tr>
<tr>
<td>M5x.8 sliding bracket cap screws</td>
<td>9.6 N•m&lt;br&gt;(85 in•lbf)</td>
</tr>
</tbody>
</table>

### Connector-to-connector Torque

<table>
<thead>
<tr>
<th>Recommended torque</th>
<th>Finger tight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum torque</td>
<td>0.565 N•m (5 in•lb)</td>
</tr>
<tr>
<td>Minimum Bend Radius (with or without SST Armor)</td>
<td>25.4 mm (1.0 in)</td>
</tr>
</tbody>
</table>

### Environmental Limits

#### Probe Temperature Range

<table>
<thead>
<tr>
<th>Operating and Storage Temperature</th>
<th>-35°C to +200°C (~-3°F to +392°F)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Short-term Operating and Storage Temperature</td>
<td>+250°C (~482°F) for less than 24 hours.</td>
</tr>
</tbody>
</table>

#### Extension Cable Temperature Range

| Operating and Storage Temperature | -51°C to +200°C (~-60°F to +392°F) |

#### Proximitor Sensor Temperature Range

| Operating Temperature               | -51°C to +100°C (~-60°F to +212°F) |
| Storage Temperature                 | -51°C to +105°C (~-60°F to +221°F) |

#### Sliding Bracket Temperature Range

<table>
<thead>
<tr>
<th>Operating and Storage Temperature</th>
<th>-35°C to +200°C (~-3°F to +392°F)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Relative Humidity</td>
<td>Less than a 3% change in Average Scale Factor (ASF) when tested in accordance with IEC standard 68-2-66.</td>
</tr>
</tbody>
</table>

3300 XL probes are designed to seal differential pressure between the probe tip and case. The probe is sealed with Viton O-rings. Probes are not pressure tested prior to shipment. Contact our custom design department if you require a test of the pressure seal for your application.

---

It is the responsibility of the customer or user to ensure that all liquids and gases are contained and safely controlled should leakage occur from a proximity probe. In addition, solutions with high or low pH values may erode the tip assembly of the probe causing media leakage into surrounding areas. Bently Nevada will not be held responsible for any damages resulting from leaking 3300 XL proximity probes. In addition, 3300 XL proximity probes will not be replaced under the service plan due to probe leakage.
Compliance and Certifications

FCC
This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

- This device may not cause harmful interference.
- This device must accept any interference received, including interference that may cause undesired operation.

EMC
EN 61000-6-2
EN 61000-6-4
EMC Directive 2014/30/EU

RoHS
RoHS Directive 2011/65/EU

Maritime
ABS 2009 Steel Vessels Rules
1-1-4/7.7.4-8-3/1.11.1,4-9-7/13
## Hazardous Area Approvals


### CSA/NRTL/C

#### 3300 XL Proximitor Sensor

<table>
<thead>
<tr>
<th><strong>ia</strong></th>
<th>When installed with intrinsically safe zener barriers per drawing 141092 or when installed with galvanic isolators.</th>
<th>Class I, Zone 0: AEx/Ex ia IIC T4/T5 Ga; Class I, Groups A, B, C, and D; Class II, Groups E, F and G; Class III; T5 @ Ta= -55°C to +40°C. T4 @ Ta= -55°C to +80°C.</th>
</tr>
</thead>
</table>

| **nA, ec** | When installed without barriers per drawing 140979. | Class I, Zone 2: AEx/Ex nA IIC T4/T5 Gc; Class I, Division 2, Groups A, B, C, and D; Class I, Zone 2: AEx/Ex ec IIC T4/T5 Gc; Class I, Division 2, Groups A, B, C, and D; T5 @ Ta= -55°C to +40°C T4 @ Ta= -55°C to +80°C |

#### 3300 XL Probe

<table>
<thead>
<tr>
<th><strong>ia</strong></th>
<th>When installed with intrinsically safe zener barriers per drawing 141092 or when installed with galvanic isolators.</th>
<th>Class I, Zone 0: AEx/Ex ia IIC T5…T1 Ga; Class I, Groups A, B, C, and D; Class II, Groups E, F, and G; Class III; (see Temperature Schedule table to follow)</th>
</tr>
</thead>
</table>

| **nA, ec** | When installed without barriers per drawing | Class I, Zone 2: AEx/Ex nA IIC T5…T1 Gc; Class I, Division 2, Groups A, B, C, D; Class I, Zone 2: AEx/Ex ec IIC T5…T1 Gc; Class I, Division 2, Groups A, B, C, and D; |
ATEX/IEEx

3300 XL Proximitior Sensor

### ia

**Ex I 1 G**  
Ex ia IIC T4/T5 Ga  
Ex ia IIIC T90C/T105C Dc  
For EPL Dc:

<table>
<thead>
<tr>
<th>Temperature Classification</th>
<th>Ambient Temperature (Probe Only)</th>
</tr>
</thead>
<tbody>
<tr>
<td>T1</td>
<td>-55°C to +232°C</td>
</tr>
<tr>
<td>T2</td>
<td>-55°C to +177°C</td>
</tr>
<tr>
<td>T3</td>
<td>-55°C to +120°C</td>
</tr>
<tr>
<td>T4</td>
<td>-55°C to +80°C</td>
</tr>
<tr>
<td>T5</td>
<td>-55°C to +40°C</td>
</tr>
</tbody>
</table>

Ui = -28V  
li = 140mA  
Ui = -28V  
li = 140mA  
Pi = 0.91W  
Ci = 47nF  
Li = 1460µH  
Lo = 610µH

### nA, ec

**Ex II 3 G**  
Ex nA IIC T4/T5 Gc  
Ex ec IIC T4/T5 Gc  
For EPL Dc:

Ui = -28V  
li = 140mA  
ui = 140mA  
Ui = -28V  
li = 140mA  
Pi = 0.91W

3300 XL Probe

Probes entity parameters are met when used with BN extension cables and connected to BN Prox.

**Ex I 1 G**  
Ex ia IIC T5...T1 Ga,  
(see Temperature Schedule table to follow)

### ia

Ui = -28V  
li = 140mA  
Pi = 0.91W  
Cl = 1.5 nF  
Li = 610 µH

### nA, ec

**Ex II 3 G**  
Ex nA IIC T5...T1 Gc,  
Ex ec IIC T5...T1 Gc,  
(see Temperature Schedule table to follow)
Hazardous Area Conditions of Safe Use

**CSA/NRTL/C:**

**ia**

Install per Bently Nevada drawing 141092.

**nA, ec**

Install per Bently Nevada drawing 140979.

**ATEX/IECEx:**

**ia**

Install per Bently Nevada drawing 141092.

**nA, ec**

The Prox must be installed so as to provide the terminals with a degree of protection of at least IP54.
Ordering Information


3300 XL 50 mm Proximity Probe

330876-AA-BB-CC-DD

A: Probe Case Type Option
0 1 ½-20 Thread
0 2 M14x1.5 Thread
0 3 Smooth 1.99 in dia - Side Exit

B: Total Length Option
1 0 1.0 metre (3.3 feet)
5 0 5.0 metres (16.4 feet)
9 0 9.0 metres (29.5 feet)

C: Armor Option
0 0 High Temperature FluidLoc Cable
0 1 High Temperature FluidLoc Cable with Armor

D: Agency Approval Option
0 0 No Approvals
0 5 Multiple Approvals

3300 XL 50 mm Proximitor Sensor

330878-AA-BB

A: Total Length and Mounting Option
5 0 5.0 metres (16.4 feet) system length, panel mount
5 1 5.0 metres (16.4 feet) system length, DIN mount
9 0 9.0 metres (29.5 feet) system length, panel mount
9 1 9.0 metres (29.5 feet) system length, DIN mount

B: Agency Approval Option
0 0 No Approvals

3300 XL 50 mm Extension Cable

330877-AAA-BB-CC

A: Cable Length Option
0 4 0 4.0 metres (13.1 feet)
0 8 0 8.0 metres (26.2 feet)

B: Armor and Cable Option
3 6 FluidLoc cable
3 7 FluidLoc ext. cable w/ armor

C: Agency Approval Option
0 0 No Approvals
0 5 Multiple Approvals

Mounting Brackets

Each Sliding Mounting Bracket comes with:
- One sliding plate
- One base plate
- Sliding plate securing bolts with safety wire holes
- Lock washers

The material used for the mounting brackets is T6061-T6 aluminum. Base plate securing bolts are not provided; recommended bolt size is 3/8in or M8 socket head bolts.

3300 XL 50 mm Sliding Probe Bracket and Clamp

330879-AA-BB

A: Probe Clamp Style
0 1 Left Exit
0 2 Right Exit
0 3 Two clamps (used for CIDE applications)

B: DE Mounting Bracket
0 0 No Mounting Bracket; Clamp Only (4)
This bracket is recommended for most installations. While any probe may be used, the smooth side exit probe is most often used with this bracket.

(1) When ordering two clamps, one right exit and one left exit clamp will be provided so that the cables exit from the same side of the CIDE bracket.

(2) The B01 probe mounting bracket option is only available with the A01 or A02 probe clamp style options.

(3) The B02 and B03 probe mounting bracket options are only available with the A03 probe clamp style options.

(4) When replacing 50 mm DE 130713, part number 330879-00 should be ordered. Ordering with BB=00 will prevent unnecessary parts from being ordered with the clamp.

### Non-sliding Mounting Brackets

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Description</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>167285</td>
<td>Kit, 50 mm Clamp Mount (used with smooth-case side exit or threaded straight exit probes).</td>
<td></td>
</tr>
<tr>
<td>167286</td>
<td>Kit, 50 mm Bolt Mount (used only with smooth-case side exit probes).</td>
<td></td>
</tr>
</tbody>
</table>

### Verification Kits

Each verification kit comes with:

- a verification kit bracket
- a spindle micrometer with either a 0 to 2 in. or 0 to 50 mm range
- two set screws
- a bracket securing bolt

The material used for the verification kit bracket is T6061-T6 aluminum.

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>131036-01</td>
<td>Verification Kit, Spindle Micrometer with English Units</td>
</tr>
<tr>
<td>131036-02</td>
<td>Verification Kit, Spindle Micrometer with Metric Units</td>
</tr>
</tbody>
</table>

### Accessories

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>173959</td>
<td>3300 XL 50mm User Guide</td>
</tr>
<tr>
<td>148722-01</td>
<td>3300 XL Test Plug. The 3300 XL Test Plug has three self-contained test pins attached to three color-coded wires 1 metre in length, each terminated in a banana plug. The three-pin adapter plugs into the test pin holes on 3300 XL-style Proximitor Sensors. It is used to check the performance of the Proximitor Sensor from the test pin holes in the terminal strip without requiring the removal of the field wiring.</td>
</tr>
</tbody>
</table>
## Extended Range Micrometer Kit

The extended range micrometer kit contains a precision micrometer and a 100 mm (4 inch) AISI 4140 target and is intended for acceptance testing of Bently Nevada extended range transducers. Bracket options are available to hold 8mm – 50mm probes as well as the 50 mm Integral DE transducer.

### 330187–AA–BB

**A: Probe options**

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 1</td>
<td>8 mm to 50 mm probe threaded or smooth cases</td>
</tr>
<tr>
<td>0 3</td>
<td>8 mm to 50 mm probe threaded or smooth cases and an adapter for 50 mm Integral DE probes</td>
</tr>
</tbody>
</table>

**B: Micrometer Option**

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 1</td>
<td>Standard English 0–2 inch micrometer</td>
</tr>
<tr>
<td>0 2</td>
<td>Standard metric 0–50 mm micrometer</td>
</tr>
</tbody>
</table>

### Spares

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>02120015</td>
<td>Bulk field wire. 1.0 mm² (18 AWG), 3 conductor, twisted, shielded cable with drain wire. Specify length in feet.</td>
</tr>
<tr>
<td>02173009</td>
<td>Bulk field wire. 1.0 mm² (18 AWG), 3 conductor, twisted, shielded cable. Specify length in feet.</td>
</tr>
<tr>
<td>138492–01</td>
<td>Replacement panel–mount mounting pad</td>
</tr>
<tr>
<td>138493–01</td>
<td>Replacement DIN–mount mounting pad</td>
</tr>
<tr>
<td>04310310</td>
<td>3300 XL Proximitior Sensor Panel–mount screws. Package includes four 6–32 UNC thread forming mounting screws (Supplied standard with 3300 XL Proximitior Housings [3300 XL option]).</td>
</tr>
<tr>
<td>03200006</td>
<td>Silicone self–fusing tape. A 9.1 metre (10 yard) roll of silicone tape to protect connectors. It is easy to install and provides excellent electrical isolation and protection from the environment. It is not recommended for use inside the casing of the machine.</td>
</tr>
<tr>
<td>40180–02</td>
<td>Connector Protectors. Package</td>
</tr>
</tbody>
</table>

## |

contains 10 pairs of connector protectors.

03839410  Male Connector Protector. Placed on the extension cable to connect to the female connector protector on the probe and provide environmental protection of connectors.

03839420  Female Connector Protector. Placed on the probe lead to connect to the male connector protector on the extension cable and provide environmental protection of connectors. Also placed on the extension cable to slide over the Proximitior Sensor connection and protect it from the environment.

330153–10  3300 XL 50 mm Connector Kit. Used on 3300 XL 50 mm probes and extension cables. Contains one male (removable nut) and female ClickLoc connectors, color-coded sleeves and two pieces slit PFA tubing.

163356  Connector Crimp Tool Kit. Includes one set of multi–connector inserts and connector installation instructions. Supplied with carrying case.

173873  High Temperature Cable Zip–Ties. PEEK cable tie is rated for use up to 200 C continuous temperature. Available in bags of 50 zip ties.

174804–01  Side Exit Probe Adapter Kit. Used to adapt side exit probes for the 330187 Extended Range Verification Kit.
Graphs and Figures

Note: All dimensions on figures are in millimeters (inches) unless otherwise specified.

Figure 1: Typical 3300 XL 50 mm 5 m System Over Ambient Testing Range
Figure 2: Typical 3300 XL 50 mm 9 m System Over Ambient Testing Range
Figure 3: Typical 3300 XL 50 mm Probe + 1m Cable @ Low Temperature (Proximitor Sensor + 8m of Extension Cable @ 25 °C)
Figure 4: Typical 3300 XL 50 mm Probe + 1m Cable @ High Temperature (Proximitior Sensor + 8m of Extension Cable @ 25 °C)
Figure 5: Typical 3300 XL 50 mm 5 m Proximitor Sensor with 4 m of Extension Cable @ Cold Temperature (Probe is at 25°C)
Figure 6: Typical 3300 XL 50 mm 5 m Proximitior Sensor with 4 m Extension Cable @ High Temperature (Probe is at 25°C)
Figure 7: Typical 3300 XL 50 mm 9 m Proximiton Sensor with 8 m of Extension Cable @ Low Temperature (Probe is at 25°C)
Figure 8: Typical 3300 XL 50 mm 9 m Proximitron with 8 m of Extension Cable @ High Temperature (Probe is at 25°C.)
1. Shaft to side of probe distance.
2. Collar Height.

Figure 9: Recommended Probe Position Based on Collar Height
1. 62.2 mm (2.45 in) maximum diameter
2. 3/4-in or 21 mm diameter jam nut with safety wire holes
3. Case thread
4. FluidLoc coaxial cable with PFA Jacket, 3.94 mm (0.155 in) maximum diameter.
5. Miniature male coaxial connector, 8.0 mm (0.32 in) maximum diameter.
6. Optional Stainless steel armor with PFA jacket, 9.58 mm (0.377 in) maximum diameter; 12.7 mm (0.50 in) maximum diameter of armored ferrule.

**Figure 10:** 330876, 3300 XL 50 mm Proximity Probe, Straight Exit

1. 50.5 mm (1.99 in) diameter
2. FluidLoc coaxial cable with PFA Jacket, 3.94 mm (0.155 in) maximum diameter.
3. Miniature male coaxial connector, 8.0 mm (0.32 in) maximum diameter.

**Figure 11:** 330876, 3300 XL 50 mm Proximity Probe, Smooth 1.99 Inch Dia. Side Exit Case
1. Cable length +20%, −0%
2. Miniature male coaxial connector, 7.2 mm (0.29 in) maximum diameter
3. Customer shrink tubing, 84 mm (3.3 in), 2 places
4. Optional stainless steel armor with PFA jacket, 7.65 mm (0.301 in) maximum diameter; 10.12 mm (0.0400 in) maximum diameter of armored ferrule.
5. FluidLoc coaxial cable with PFA Jacket, 3.94 mm (0.155 in) maximum diameter
6. Miniature female coaxial connector, 7.24 mm (0.285 in) maximum diameter
7. Armor Length = Cable Length − 300 mm (11.8 in)

Figure 12: 330877, 3300 XL 50 mm Extension Cable

Mounting Option “A” − 50 or −90

Figure 13: 330878 Panel Mount 3300 XL 50 mm Proximitior Sensor
1. Mounting option “A” –51 or –91
2. 35mm DIN rail (not included)
3. 89.4 mm (3.52 in) (additional 3.05 mm (0.120 in) required
   to remove DIN rail)

**Figure 14: 330878 DIN Mount 3300 XL 50 mm Proximiton Sensor**

1. 10(0.40) diameter through, 15 (0.61) counterbore typical

**Figure 15: 131071-01 Single Transducer Mounting Bracket**
1. 10 (0.40) diameter through, 15 (0.61) counterbore typical

**Figure 16:** 131030-01 Short Complementary Input Differential Expansion (CiDE) Mounting Bracket

1. 10 (0.40) diameter through, 15 (0.61) counterbore typical

**Figure 17:** 131031-01 Long Complementary Input Differential Expansion (CiDE) Mounting Bracket
1. 12.7 (0.5) diameter, 2 places
2. 9.5 (0.37) diameter

**Figure 18: 131036-01 and 131036-02 Verification Kit Spindle Micrometer**

1. Vertical adjustments in \( \frac{1}{4} \)" increments

**Figure 19: 330879 Probe Clamp (330879-01 Shown)**