Transducer Accessories
Bently Nevada™ Asset Condition Monitoring

Description
Accessories contribute to a reliable transducer system. Installing proximity probes during outages usually requires one or more mounting accessories to help simplify the task. These accessories allow you to quickly and efficiently install proximity probes and route the associated cables out of the machine case. These parts also help shield the cables from electrical noise and adverse environmental conditions. Having the proper mounting hardware on-site during the probe installation saves time and money for those responsible for the project.

Junction boxes
Junction boxes are normally mounted on or near the exterior of a machine case and enclose electrical connections in weatherproof or explosion-proof environments.

Sealtite™ flexible conduit
Flexible conduit routes probe cables safely to the sensor housing and then back to the monitors. The conduit protects transducer wiring from damage that splashing liquids or accidental contact with other equipment can cause.
Sealtite™ flexible conduit consists of a galvanized steel core with an extruded thermoplastic cover. Pipe fittings are made of steel with a zinc-plated, chromate finish and are compatible with fittings found on our watertight equipment enclosures.

Probe mounting brackets
Probe mounting brackets attach internally mounted proximity probes to the machine case. Supplied mounting bolts attach the bracket to the bearing or other location inside the machine casing. The bracket holds the probe and allows for adjustment of the probe tip relative to the observed surface.
For most installations, use the standard 137492 non-clamping aluminum probe bracket. When using the 137491 brackets for 3/8-inch diameter smooth case probes, tightening the bolts will compress the probe hole around the probe and lock the probe into its preset gapped position. If your application requires additional electrical isolation from the mounting location (as in some generator and electric motor bearing locations), use the 27474 phenolic probe bracket. These mounting brackets are compatible with our 3300 and 3300 XL proximity probe systems, including 5 mm, 8 mm and NSv™ probes.
To ensure that the brackets screws remain fastened within the machine, secure the screws with safety wire. Each mounting bracket includes special screws with holes drilled for safety wire.
Cable Seal

The optional 10076 Cable Seal is mainly for use in cable routing applications. It restrains the coaxial cable from movement, prevents abrasion, and provides splash protection. One end of the cable seal has a 1/4-18 NPT thread that allows you to thread it into a 4190-36 Adapter.

The cable seal has an aluminum body and an oil-resistant, slit grommet so that you can install it over armored or non-armored cable without removing the connectors.

Adapter

The optional 4190 Adapter attaches a junction box to the machine case. It also allows mounting of the proximity probe in some instances.

The adapter offers a variety of threads and configurations. Adapter threads and configurations that are not listed in this data sheet may be available. Please contact your sales representative for more information.

Explosion-proof fittings

Explosion-proof fittings provide seals for housings in Division 1 and in Zone 0 and 1 hazardous areas. The fittings include sealing compound, packing fiber, and the appropriate adapter.

Low-pressure cable seal

The 43501 Low-Pressure Cable Seal provides egress for up to 4 75Ω and/or 95Ω 3300XL, 3300 and 7200 cables, or up to 2 25mm DE or 50mm DE transducer cables, through a single hole in a machine case or other barrier.

The cable seal is constructed of 303 stainless steel and a molded silicon rubber grommet and prevents leakage of fluids along the outer jacket of the cable. The seal has threads on both ends and fits into a tapped hole on the machine case or barrier. External pipe threads enable the seal to mate to conduit or housings.

You can use the low-pressure cable seal only with non-armored cables. Its design seals pressures up to 345 kPa (50 psi) when properly installed.

High-Temperature Cable Ties

The 173873 high-temperature cable tie is an economical alternative to metal brackets in high-temperature applications. These cable ties are molded from VICTREX® PEEK™ polymer for multiple uses in extreme environments up to +180°C (+356°F).
### Specifications

**Junction Boxes**

**Cylindrical Junction Box (P/N 03818016)**

**Components**
- Main body and blank cover (Refer to Figure 2)

**Dimensions**
- **Overall Height**: 76 mm (3.0 in)
- **Body Diameter**: 89 mm (3.5 in)
- **Hub-to-Hub**: 121 mm (4.75 in)
- **Base to Hub Center**: 16 mm (0.64 in)

**Fittings**
- 3/4-14 NPT
- 5 places

**Material**
- Aluminum

**Optional Extension for 03818016 (P/N 03818022)**

**Components**
- Main body (Refer to Figure 2)

**Dimensions**
- **Overall Height**: 93 mm (3.7 in)
- **Body Diameter**: 90 mm (3.6 in)
- **Hub-to-Hub (flats)**: 91 mm (3.6 in)

**Total Extended Height**: 150 mm (5.90 in)

**Material**
- Aluminum

**Rectangular Junction Box (P/N 03818065)**

**Components**
- Main body and cover (Refer to Figure 3)

**Dimensions**
- **Overall Height**: 27.9 mm (1.10 in)
- **Width of Body**: 38.1 mm (1.50 in)
- **Length of Body**: 95.3 mm (3.75 in)

**Fittings**
- 1/2-14 NPT
- 2 places

**Material**
- Aluminum

**Rectangular Junction Box (P/N 03818066)**

**Components**
- Main body and cover (Refer to Figure 3)

**Dimensions**
- **Overall Height**: 61.0 mm (2.40 in)
- **Width of Body**: 44.5 mm (1.75 in)
- **Length of Body**: 102 mm (4.00 in)

**Fittings**
- 3/4-14 NPT
- 2 places

**Material**
- Aluminum
### Sealtite Flexible Conduit

#### Components
Refer to Figure 4.

#### Fitting Options
- 1/2-14 NPT
- 3/4-14 NPT

#### Length
As ordered

#### Brackets
**Clamp Mounting Bracket for 3/8-inch diameter smooth body probes.**

#### Dimensions
Refer to Figure 5.

**Mounting Screw**

**Thread Size Options**
- 10-24 UNC-2A
- M5 x 0.8-6g

**Material**
Aluminum

**Non-Clamping Mounting Bracket for threaded case probes.**

**Dimensions**
Refer to Figure 6.

**Mounting Screw**

**Thread Size**
- 10-24 UNC-2A
- or M5 x 0.8-6g

**Material**
Aluminum

**Probe Lock Nut**

**Thread Sizes**
- 3/8-24 UNF-2B
- M10 x 1-6H

**Features**
Lock nut with holes to attach safety wire.

### Cable Seal (P/N 10076)

#### Components
Refer to Figure 7.

#### Overall length (assembled)
35mm (1.4 inches) in tightened condition

#### Adapters

#### Features
Refer to Figure 8.

#### Dimensions

**4190-01**

**Internal Diameter**
9.53 mm (0.375 in)

**Internal thread type**
1/4-18 NPT

**External thread type**
1/2-14 NPT

**Overall Length**
38.1 mm (1.50 in)

**4190-03**

**Internal Diameter**
11.1 mm (0.437 in)

**Internal thread type**
1/4-18 NPT

**External thread type**
3/4-14 NPT

**Overall Length**
46.0 mm (1.81 in)

**4190-04**

**Internal Diameter**
<table>
<thead>
<tr>
<th>Part Number</th>
<th>Internal Diameter</th>
<th>Internal Thread Type</th>
<th>External Thread Type</th>
<th>Overall Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>4190-06</td>
<td>10.3 mm (0.406 in)</td>
<td>3/8-24 UNF-2B</td>
<td>1/2-14 NPT</td>
<td>38.1 mm (1.50 in)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4190-16</td>
<td>10.3 mm (0.406 in)</td>
<td>3/8-24 UNF-2B</td>
<td>3/4-14 NPT</td>
<td>46.0 mm (1.81 in)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4190-20</td>
<td>16.7 mm (0.656 in)</td>
<td>5/8-18 UNF-2B</td>
<td>3/4-14 NPT</td>
<td>56.1 mm (2.21 in)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4190-34</td>
<td>7.14 mm (0.281 in)</td>
<td>1/4-28 UNF-2B</td>
<td>3/4-14 NPT</td>
<td>46.0 mm (1.81 in)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4190-36</td>
<td>10.3 mm (0.406 in)</td>
<td>1/4-18 NPT</td>
<td>3/4-14 NPT</td>
<td>56.1 mm (2.21 in)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>304 Stainless Steel</td>
</tr>
</tbody>
</table>
## Explosion-Proof Fittings

### Features
- Refer to Figure 9.

### Dimensions

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Conduit size</th>
<th>Overall Length</th>
<th>Width</th>
<th>Min. turn radius</th>
</tr>
</thead>
<tbody>
<tr>
<td>03818055</td>
<td>1/2-14 NPT</td>
<td>69.9 mm (2.75 in)</td>
<td>49.3 mm (1.94 in)</td>
<td>63.5 mm (2.50 in)</td>
</tr>
<tr>
<td>03818056</td>
<td>3/4-14 NPT</td>
<td>69.9 mm (2.75 in)</td>
<td>49.3 mm (1.94 in)</td>
<td>63.5 mm (2.50 in)</td>
</tr>
<tr>
<td>03818058</td>
<td>1-1/4 NPT</td>
<td>102 mm (4.00 in)</td>
<td>54.1 mm (2.13 in)</td>
<td>57.2 mm (2.25 in)</td>
</tr>
</tbody>
</table>

### Material
- Aluminum

---

## Low Pressure Cable Seal

### Dimensions
- Refer to Figure 10.

### Fitting Options
- 1/2-14 NPT
- 3/4-14 NPT

## High Temperature Cable Ties

### Temperature
- Up to +180°C (+356°F)

### Material
- VICTREX PEEK polymer

---

## Ordering Information

### Sealtite Flexible Conduit

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Conduit size</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/2-14 NPT Assembly</td>
<td>14847-AXX</td>
</tr>
<tr>
<td>3/4-14 NPT Assembly</td>
<td>14848-AXX</td>
</tr>
</tbody>
</table>

#### 3/4-14 NPT assembly

A: Length Option in feet
- Order in Increments of 1.0 ft (305mm)
- Minimum length: 1 foot
- Maximum length: 99 feet
- Example:
  - 0 1 = 1 foot
  - 9 9 = 99 feet

### Aluminum Clamp Mounting Bracket for 3/8-inch Diameter Smooth Body Probes

<table>
<thead>
<tr>
<th>Part Number</th>
<th>A: Mounting Screw Thread Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>137491-AXX</td>
<td>0 1 10-24 UNC-2A mounting screws</td>
</tr>
<tr>
<td></td>
<td>0 2 M5 x 0.8-6g mounting screws</td>
</tr>
</tbody>
</table>

### Aluminum Non-Clamping Mounting Bracket for Threaded Case Probes

<table>
<thead>
<tr>
<th>Part Number</th>
<th>A: Thread Size Option</th>
</tr>
</thead>
<tbody>
<tr>
<td>137492-AXX</td>
<td>0 1 3/8-24 UNF-2B</td>
</tr>
<tr>
<td></td>
<td>0 2 1/4-28 UNF-2B</td>
</tr>
<tr>
<td></td>
<td>0 3 M8 x 1-6H</td>
</tr>
<tr>
<td></td>
<td>0 4 M10 x 1-6H</td>
</tr>
</tbody>
</table>
Note: The -01 and -02 option are supplied with two 10-24 UNC-2A mounting screws with safety wire holes. The -03 and -04 options are supplied with two M5 x 0.8-6g mounting screws with safety wire holes.

**Phenolic Mounting Bracket**

27474-AXX

**A:** Thread Size Option

<table>
<thead>
<tr>
<th>Option</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>01</td>
<td>3/8-24 UNF-2B</td>
</tr>
<tr>
<td>02</td>
<td>1/4-28 UNF-2B</td>
</tr>
<tr>
<td>03</td>
<td>M8 x 1-6H</td>
</tr>
<tr>
<td>04</td>
<td>M10 x 1-6H</td>
</tr>
</tbody>
</table>

Note: The -01 and -02 options are supplied with two 10-24 UNC-2A mounting screws with safety wire holes. The -03 and -04 options are supplied with two M5 x 0.8-6g mounting screws with safety wire holes. The dimensions are identical to the aluminum mounting bracket 137492.

**Cable Seal**

10076-AXX

**A:** Cable Size Option

<table>
<thead>
<tr>
<th>Option</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>01</td>
<td>50 Ω, without armor</td>
</tr>
<tr>
<td>02</td>
<td>75/95 Ω, without armor</td>
</tr>
<tr>
<td>03</td>
<td>75/95 Ω, with armor</td>
</tr>
<tr>
<td>04</td>
<td>50 Ω, with armor</td>
</tr>
</tbody>
</table>

**Adapter**

4190-AXX

XX  See Specifications section for dimension details.

Note: Additional sizes and configurations available in both standard product and special modifications. Contact your local sales representative for details.

**Low Pressure Cable Seal**

43501 – AX – BXX – CXX

**A:** High Pressure Side Thread Size

<table>
<thead>
<tr>
<th>Option</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>01</td>
<td>1/2-14 NPT</td>
</tr>
<tr>
<td>02</td>
<td>3/4-14 NPT</td>
</tr>
</tbody>
</table>

**B:** Cable Grommet and Washer

<table>
<thead>
<tr>
<th>Option</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>00</td>
<td>Solid grommet (no holes). Holes must be punched in grommet.</td>
</tr>
<tr>
<td>02</td>
<td>Grommet will accommodate up to two 25mm and 50mm DE cables. One hole is punched and one is partially pre-drilled.</td>
</tr>
<tr>
<td>04</td>
<td>Grommet will accommodate up to 4 cables. One hole is punched and three are partially pre-drilled.</td>
</tr>
</tbody>
</table>

**Junction Boxes**

03818016  Cylindrical Junction Box.

03818022  Optional Extension for Cylindrical Junction Box.

03818065  Rectangular Junction Box.

Dimensions (W x L x D) 38.1mm x 95.3mm x 29.7mm (1.10in x 1.50in x 3.75in x 1.10in).

03818066  Rectangular Junction Box.

Dimensions (W x L x D) 44.5mm x 102mm x 61.0mm (1.75in x 4.00in x 61.0in).

**Explosion-Proof Fittings**

03818055  1/2-14 NPT Fitting

03818056  3/4-14 NPT Fitting

03818057  1 to 11½ NPT Fitting

03818058  1¼ to 11½ NPT Fitting
Probe Lock Nuts
04301007
3/8-24 UNF-2B.
04301008
M10 x 1-6H.

Accessories for Low Pressure Cable Seal
04490104
Punch tool kit for solid grommet option.
43574-04
Replacement grommet. For up to 4 cables.
43575-04
Replacement washer.

Field Wiring
02173006
2-conductor, twisted, shielded 18 AWG (1.0 mm²).
02173008
3-conductor, twisted, shielded 22 AWG (0.5 mm²).

02173009
3-conductor, twisted, shielded 18 AWG (1.0 mm²).

Note: Use 2-conductor cable with velocity transducers. Use 3-conductor cable with Proximitior Sensors and interface modules. Specify number of feet when ordering.

High Temperature Cable Ties
173873
Bag of 50 Multiple-Use VICTREX PEEK Polymer Cable ties. For extreme environments up to +180°C (+356°F). One or more sizes/quantities available, including 7 inches long.

Electrical Isolator
19094-01
7200 Proximitior Sensor and Interface Module Isolator. Provides electrical isolation for the 7200 Proximitior Sensor, velocity to displacement converters, and accelerometer interface modules.
Figure 1: Typical Internal Mounting Arrangement For an XY Proximity Probe Application
1. 121 (4.75) Typ.
2. 89 (3.50) Dia.
3. 90 (3.55) Dia.

Figure 2: Cylindrical Junction Box and Optional Extension

Figure 3: Junction Box
Figure 4: Sealtite™ Flexible Conduit

Figure 5: Clamping Aluminum Probe Bracket

1. 5.11 (0.201) Dia.

Figure 6: Non-Clamping Aluminum Probe Bracket

1. 5.11 (0.201) Dia.
1. 3/4 Hex
2. 1/4 NPT

**Figure 7: Cable Seal**

1. Internal Diameter
2. Internal Thread
3. External Thread
4. 1-1/8 Hex

**Figure 8: 4190 Adapter - 304 stainless steel (-34 Shown)**

**Figure 9: Explosion-proof fitting**
1. 28.6 (1.125) Hex

**Figure 10: Low Pressure Cable Seal**

**Figure 11: Isolator**