3300XL Transducer Accessories

Datasheet

Cordant™

145668 Rev. L



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

Baker Hughes

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. Fitting kits are available. Refer to Explosion-Proof Fittings on page 6 for details and part numbers.

Low-pressure Cable Seal

The 43501 Low Pressure Cable Seal provides a means to pass through a single hole in a machine case or other barrier one to four 95-ohm transducer cables or one to two 25mm DE and 50mm DE transducer cables. A molded silicone rubber grommet provides a seal to prevent leakage of fluids along the outer jacket of the cable(s). The seal mounts in a hole tapped with either ½-NPT or ¾-NPT pipe threads in the machine and has external pipe threads on both ends to mate to the tapped hole and to mating conduit or housings.

The seal is rated to 345 kPa (50 psi) across grommet high pressure to low pressure. The seal is rated only on the cable outer jacket and seal body itself. It does not seal leaks through the cable braid or center conductor due to pinholes or cuts in the cable jacket or through the probe or connector. The primary intended usage is to seal lube oil to exit bearing housings and machine cases.

The seal is rated to 1.0 psi absolute, but is limited in practice by the cable, probe, and connector as with pressure.

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	Description
Main body and blank cover	**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	Description
Main body and blank cover	**Dimensions**
Overall Height	93mm (3.7 in)
Body Diameter	90mm (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	Description
Main body and blank cover	**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

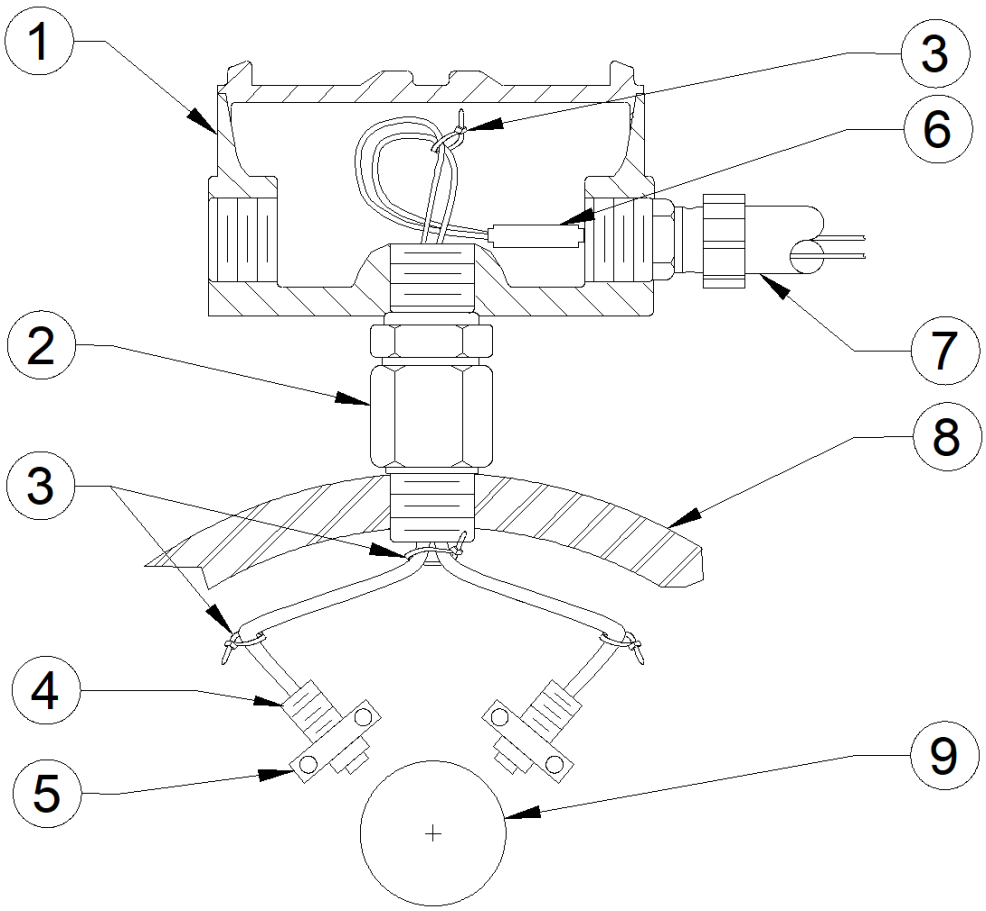
Components	Description
Main body and blank cover	**Dimensions**
Overall Height	61.0 mm (2.40 in)
Width of Body	44.5 mm (1.75 in)
Length of Body	102 mm (4.00 in)
Fittings	3/4-14 NPT 2 places
Material	Aluminum

Sealtite Flexible Conduit

Item	Description
Components	Refer to Figure 6: Non-Clamping Aluminum Probe Bracket.
Fitting Options	1/2-14 NPT 3/4-14 NPT
Length	As ordered

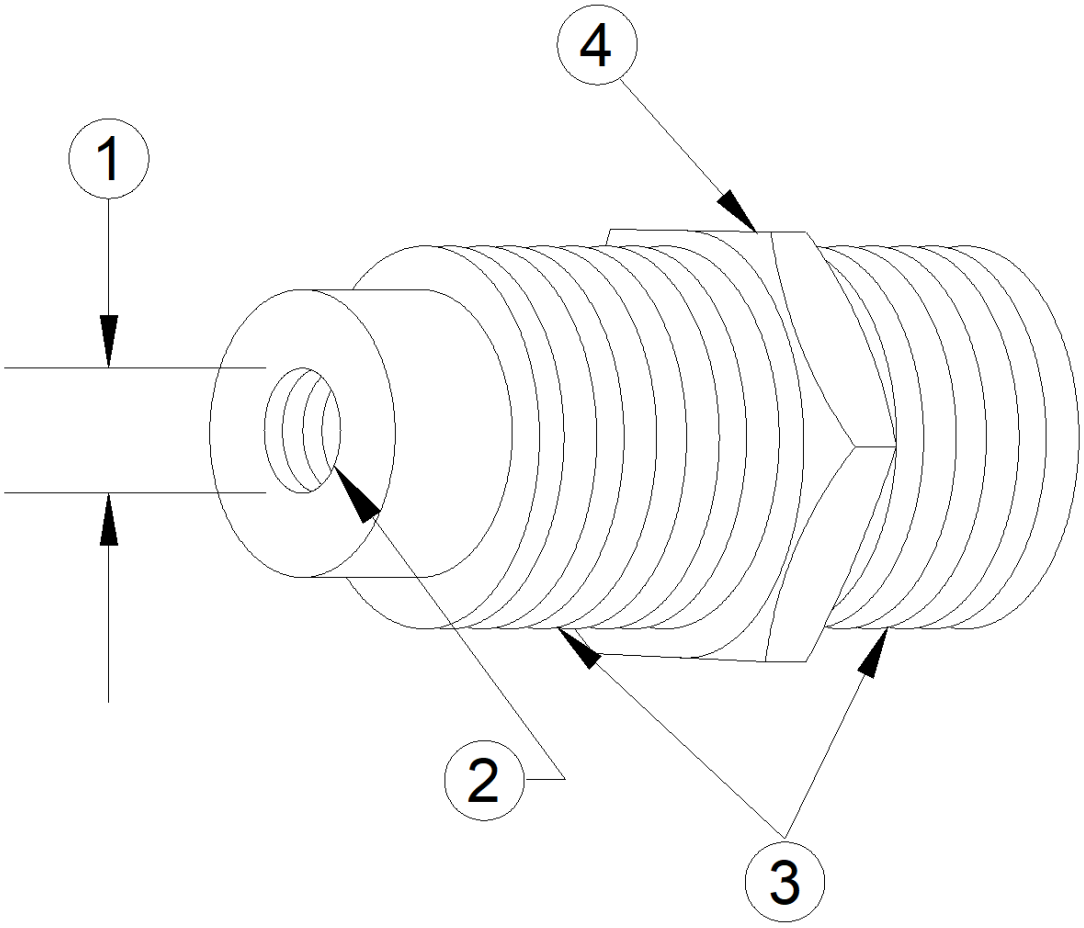
Graphs and Figures

All dimensions shown in millimeters (inches).



1. Junction Box (03818016)
2. Low Pressure Cable Seal (43501-02-04-02)
3. High Temperature Cable Ties (173873)
4. 3300 XL 8mm Probe (330101)
5. Probe Mounting Brackets (137492-01)
6. Connector Protectors (40113-02)
7. Flexible Conduit (14848)
8. Machine Case
9. Machine Shaft

Figure 1: Typical Internal Mounting Arrangement for an XY Proximity Probe Application



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

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