For many years, Bently Nevada™ proximity probes have been used to address machinery vibration and position measurements in harsh environments. While our standard probe construction is suitable for the pressures, temperatures, and chemical environments encountered in most applications, there are times when particularly high pressures or extreme pH environments dictate special probe materials. One example of such an environment is found in machinery handling anhydrous ammonia.

For such applications, we are pleased to offer an extremely robust proximity probe using an alumina cap protecting the transducer’s tip and a 304 stainless steel case. These materials have demonstrated superior performance in such environments. The ceramic tip is helium leak tested to ensure a hermetic seal – keeping the transducer’s inner workings safely protected from the corrosive environments in which the probe is immersed.

Two configurations are available. The first seals only the ceramic-to-metal interface on the front of the probe. It is suitable for applications where the probe is threaded through a bearing housing or other physical interface separating the harsh environment from the outside world. The second configuration seals both the front and back of the probe (where the cable exits the probe case), and is appropriate when the entire transducer and some or all of its integral cable will be subject to an environment where corrosive materials can enter the probe at either the front or rear. For ease of installation with the completely sealed version, the tubing protecting the transducer’s integral cable can be removed and slid out of the way when installing or gapping the probe, and then tightened to provide a complete seal.

The transducer provides a 1.52 mm (60 mil) linear range and electrical performance identical to our 3300 5mm transducer. The probe is compatible with standard 3300 XL Proximitor® sensors and extension cables. However, because the ceramic cap results in a shift in the probe’s linear range, special care needs to be exercised when gapping the probe to ensure that the probe tip does not contact the shaft. In some cases, a special modification to your monitor may be required to accommodate the differing OK limits of a ceramic capped probe when compared to those of a standard 3300 5mm probe.

You can learn more about this new probe by consulting your nearest sales professional, or by accessing the product’s datasheet on www.gepower.com/o&c/bently. For rapid navigation directly to the datasheet, simply enter the datasheet number (172932) in our site’s search engine.