

CTC AppNotes

A series of technical documents written by members of the CTC community

Proximity Probe Comparisons: Bently-Nevada Vs PRO Lines

Since releasing our PRO proximity probe lines we at CTC have received many questions as to why customers would want to buy PRO probes and cables. This month's AppNote will present a brief comparison of Bently probes vs. PRO probes in an effort to make the benefits of CTC probes clear.

Overall Product Comparison

There are several features common to all sections of a proximity probe system. Where PRO systems have the advantage over Bently-Nevada is as follows. First is warranty; CTC probes, cables and drivers all have a limited lifetime warranty on materials and workmanship; Bently's warranty is limited to one year from date of shipment. PRO pricing is less expensive than or comparable to Bently Nevada pricing. PRO probe systems are less across the board and the Bently compatible DX line is generally about ten percent lower than Bently Nevada. Expediting Fees are not charged on PRO series probes where Bently will often charge as much as fifty percent of the total material cost to have a proximity probe order expedited. PRO series probes measure their lead times in terms of Days rather than the weeks that are usually required to receive probes, cables, and drivers from Bently Nevada.

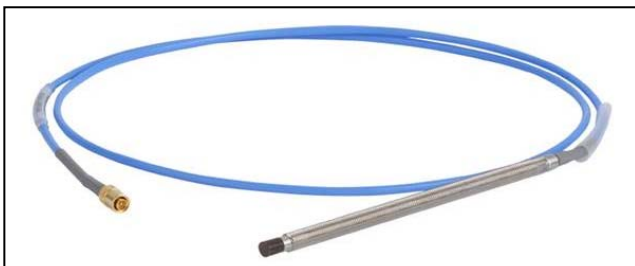


Fig. 1. PRO FFv proximity probe with integral cable

PROBES and CABLES

PRO probes and cables offer several advantages over Bently Nevada. PRO probes tips are made from 40% glass filled Polyphenylene Sulfide. Bently's are made from regular PPS; PRO probe cases are made of 316L stainless steel, making them more resistant to corrosion than Bently's 303/304 stainless standard probe tips. PRO's

probes are all pressure tested to 100 PSI prior to shipping, in general, Bently's are not tested prior to shipping. PROS cables also offer more benefits than Bently cables. Bently's cable has a thinner jacket than PRO series cables and their cable can be easily torn when being pulled through conduit, thereby exposing the conductors and possibly compromising the signal from the probe tip. Finally, the PRO line offers a greater selection for 5mm reverse mount probes than Bently does .

DRIVERS (Proximity Drivers)

Bently Nevada drivers only have signal outputs available from terminal blocks. Both PRO and Bently compatible Drivers have outputs available from both terminal blocks and the BNC located on the front of the driver. This is true even for hazardous rated probes. PRO drivers use screw terminal type inputs for added connection strength as compared to the spring cage type used by the competition. In terms of continuous monitoring outputs, PRO drivers are available with outputs proportional to gap, radial and axial vibration for all types of probe systems (FFv, 8mm, 11mm, and 25mm). Bently only offers the 4-20 output for their NSV probe systems. PRO offers a Speed sensing driver that is not available from Bently. PRO's driver mounts are made from heavy duty aluminum as compared to the plastic mounting available from the BN. PRO sensors also can be calibrated to an array of steel materials including 4140, 17-4, 420 , 360 and 7075 steels. Bently's standard offering is 4140 only. PRO probes radiated immunity to EMF provides a maximum current increase of 3.23 % of the 16 mA current range, where the Bently drivers potential current increase is as much as 54.38% of the 16 mA current range due to EMF interference.



Fig. 2. PRO FFv Driver

If you have any questions feel free to contact CTC directly. Call toll free 1-800-999-5290 in the US/Canada or +1-585-924-5900 internationally, or alternatively, email techsupport@ctconline.com.