

CTC AppNotes

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

Improved Proximity Probe Driver Systems



Figure 1– Original design (right) of the PRO series driver side by side with redesigned driver (left).

PRO and CTC are pleased to release our completely redesigned proximity probe Driver system. With a complete rethinking of the driver design from the physical casing design to the internal electronics we have taken the information learned from the past 8 years of design and validation work, along with the inputs from our many distributor and feedback sessions to design a superior driver system for PRO proximity probes.

The new PRO series and Bently compatible drivers incorporate a long list of improvements. Physical improvements include the more compact footprint, incorporating an integral DIN rail clip into the case design itself, creating a snap-in panel mount feature (See Figure 2) and including a heavy duty aluminum case structure to improve durability. Output terminals are now located in convenient locations, with the dynamic output BNC connection located directly facing the user when the driver is mounted on DIN rail. The coaxial jack connector is now positioned at a

45 degree angle at the bottom of the driver to better relieve cable strain when the driver is mounted inside an enclosure.

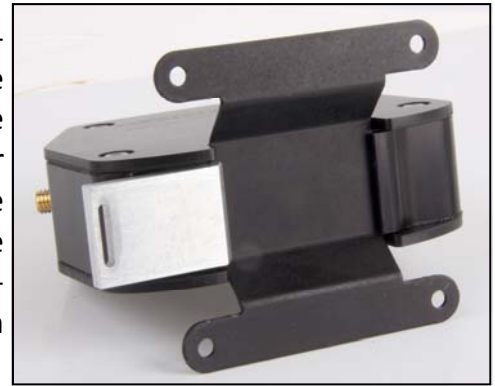


Figure 2– PRO series driver demonstrating the integral DIN rail clip and robust aluminum casing, shown here with the optional panel mount adapter.

Internally, by now encapsulating the driver's

electronics in epoxy, the design provides better temperature regulation and more consistent data output and performance over time.

Electronically, the improved design allows for more direct repeatability of results from driver to driver, allowing greater freedom of interchangeability between PRO series probes, extension cables and drivers. The new design has improved the linear range to 10 to 90 mils (.25 to 2.30 mm)@ approximately -1 to -17 VDC. The new design also separates the negative voltage power input terminals to be separated from the output cables, eliminating the need to share the common terminal between the power and output common leads. The internal architecture of the hardware/software interface allows the same basic driver design to be used either for standard voltage outputs or for 4-20 mA outputs for continuous monitoring.

If you have any questions or for further information please feel free to contact CTC via email techsupport@ctconline.com or call 1-800-999-5290 in the US and Canada or +1-585-924-5900 internationally.