Troubleshooting

Problem	Recommended Action
-05 to -0.6 VDC signal output	Check probe cable/extension cable connection to driver
No signal output	Check power supply

Probe Drivers and System Length

Each proximity driver is calibrated to a specific system length, which is comprised of both the probe and the overall length of cable that connects it to the driver. The standard lengths are 5 m and 9 m. Issues will arise when using a driver with a mismatched probe length. The example below demonstrates a proper 5 m probe system tested against a 9M probe set with a driver that was programmed to a 5 m system length.

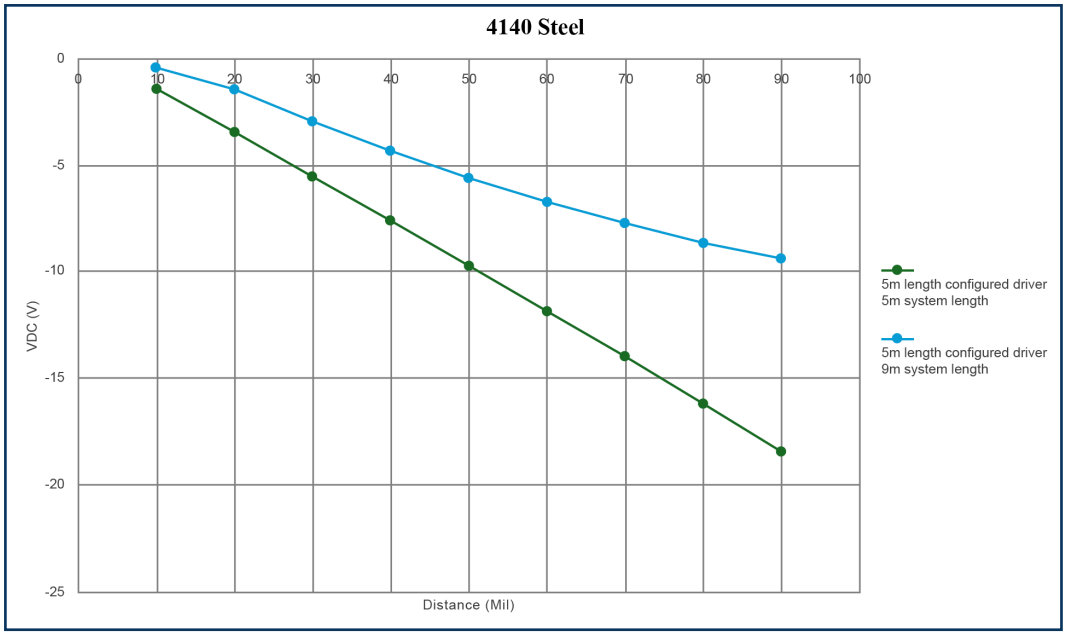

Figure 1. 5 Meter Matched and Mismatched Systems

The green line is the typical response of a 5 m prox driver system. But the blue line, which is a 9 m probe set plugged into 5 m driver, is showing a very low ASF. Figure 2 demonstrates the same circumstance on a 9 m calibrated driver, where the orange line is an intended 9 m system length, and the blue line is a mismatched 5 m probe.

This happens because the probe set is an RLC circuit. The capacitance for the circuit is specified per foot for the probe cable, and so adding length to the probe system beyond what the driver is calibrated for will cause the final ASF result to drop. Inversely, removing cable capacitance will spike the ASF of the system.

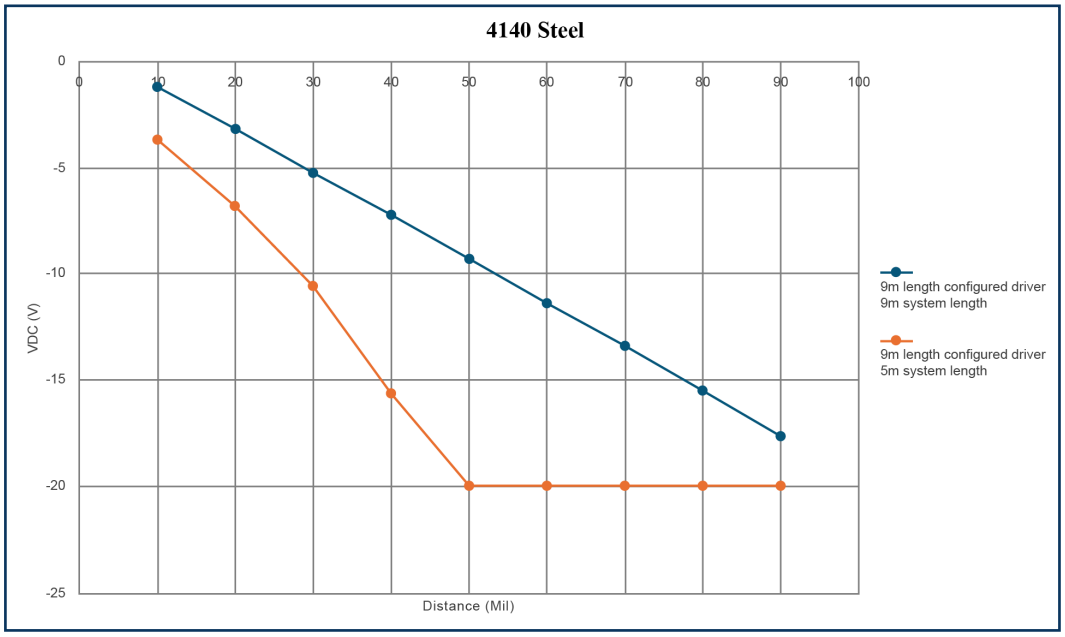

Figure 2. 9 Meter Matched and Mismatched Systems