

CTC AppNotes

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

DT901-08-S1 Proximity Probe Linear Field Calibration Unit

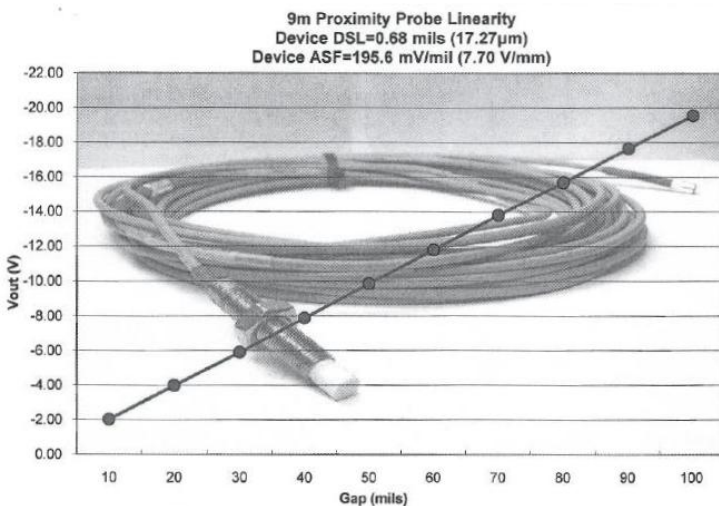
In order to maintain accurate data when collecting data from system critical machinery, it may become desirable for an analyst to have the ability to test or calibrate a proximity probe sensor in the field. In order to facilitate this, CTC's PRO division has designed a linear field calibration unit. This edition of AppNotes will help clarify reasons and methods for linear field calibration of the proximity probes.

Linear Field Calibration Unit



Reasons for field calibration:

1. System verification. While all proximity probes come with a calibration certification of some kind, verifying that the actual output of the probe is the same as the tested value noted on the calibration certificate can provide valuable data to the analyst.

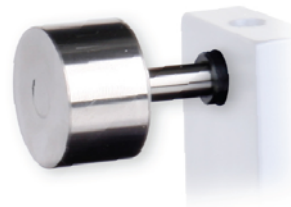


2. Temperature variability. While proximity probe are tested at more than one temperature, actual testing (when possible) in the ambient conditions (temperature/humidity) where the probes will actually be installed can provide the analyst with a more accurate baseline figure for dynamic measurements.

3. Probe comparisons. When replacing older or damaged proximity probe, having a linear field calibration unit can ensure the accuracy of trended observations. The ability to compare and compensate for natural variations from one probe to another probe used in the same location cannot be underestimated.

About the DT901-08-S1 Linear Field Calibration Unit

The DT901-08-S1 Linear Field Calibration Unit has been designed to provide as much flexibility as possible, and still maintain a large degree of portability. A standard 8mm probe mount (with 3/8-24 threaded hole) is included. Other available mounts are available either in place of the standard mount or as optional accessories (DT902 Series Accessories). The standard probe target is 4140 steel, however other materials are available, such as 420 stainless, brass, and aluminum. Other options can be manufactured as needed (DT903 Series Accessories).



For increased accuracy, PRO has chosen to use a digital micrometer for measuring linear position. Multiple positioning holes for the probe mounts enables the linear field calibrator to be used with a large variety of probes. Current offerings include 5 mm and 8 mm probe mounts in both metric and English threading. Future offerings will include mounts for other probe sizes.

Parts included in this discussion:

DT901-08-S1, DT902, & DT903 Linear field calibration unit and accessories.

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

If any PRO product should ever fail, we will repair or replace it at no charge, as long as the product was not subjected to misuse, natural disasters, improper installation or modification which caused the defect.