

Abstract

VERIFICATION OF A METER SENSOR FOR A VIBRATORY METER

A vibratory meter and method for verification of a vibratory sensor is provided. The method includes measuring a plurality of temperatures using a temperature sensor and measuring a plurality of sensor time periods using the sensor assembly. An average temperature and an average sensor time period are determined. The average sensor time period is compensated using the average temperature, generating a compensated sensor time period. The compensated sensor time period is compared to a reference sensor time period. The results are indicated. In further embodiments, a standard deviation of the plurality of temperatures or the plurality of sensor time periods are compared to a limit and sensor stability is indicated. In further embodiments, a difference between a measured density and a reference density of a fluid is compensated using the altitude and the average temperature.

Figure 3.