

Calibration Methods of Direct and Indirect Reading Pressure Sensor and Uncertainty Determination

Authors : Sinem O. Aktan, Musa Y. Akkurt

Abstract : Experimental pressure calibration methods can be classified into three areas: (1) measurements in liquid or gas systems, (2) measurements in static-solid media systems, and (3) measurements in dynamic shock systems. Fluid (liquid and gas) systems high accuracies can be obtainable and commonly used for the calibration method of a pressure sensor. Pressure calibrations can be performed for metrological traceability in two ways, which are on-site (field) and in the laboratory. Laboratory and on-site calibration procedures and the requirements of the DKD-R-6-1 and Euramet cg-17 guidelines will also be addressed. In this study, calibration methods of direct and indirect reading pressure sensor and measurement uncertainty contributions will be explained.

Keywords : pressure metrology, pressure calibration, dead-weight tester, pressure uncertainty

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