

Differential Pressure Deadweight Tester

SERIES: 1400

Accurate Calibration of Differential Pressure Instruments

Problem of calibrating differential pressure equipments with high static pressures is solved with new Indumart 1400 Series Differential Pressure Deadweight Testers. The main challenge of defining ΔP at high line pressures comes from the very high ratio of the line pressure to the differential pressure, and the fact that relative small errors/instabilities in the magnitude of line pressure are very large in comparison to the small magnitude of the differential pressure.

The principle of high line differential measurement with 2 oil lubricated / gas operated pistons allows setting and maintaining the line pressure with an uncertainty much lower than the overall measurement uncertainty on either piston. The master and slave pistons are cross-floated at the line pressure prior to making differential measurement to minimize the contribution of line pressure errors to differential pressure. High line differential mode relies upon the very high sensitivity of oil lubricated / gas operated piston cylinder to set and stabilize low differential pressure relative to high line pressures.

