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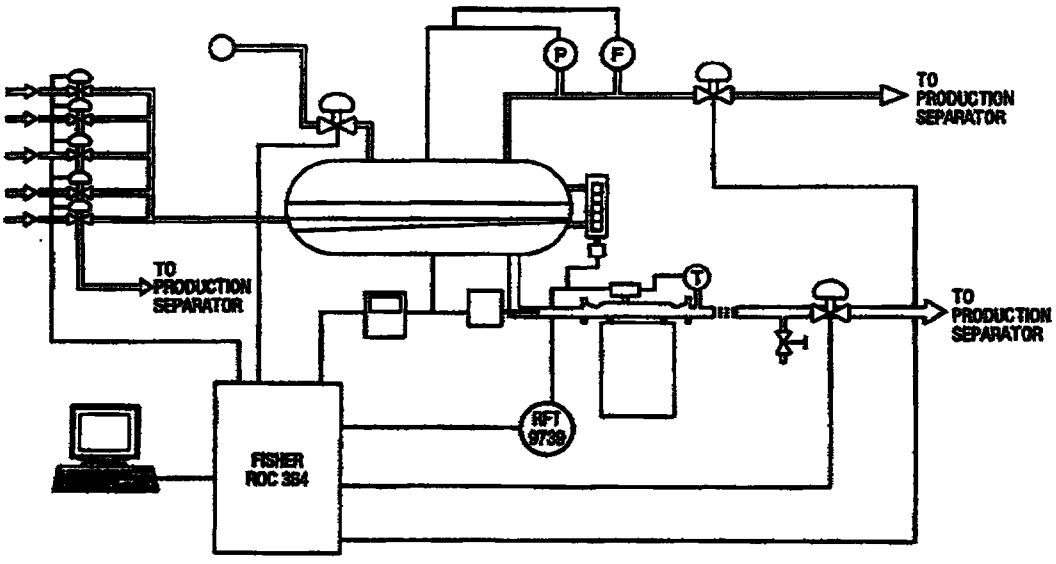
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(54) Title: AUTOMATIC WELL TEST SYSTEM AND METHOD OF OPERATING THE SAME



(57) Abstract

An automatic well test system (20) utilizes a Coriolis flowmeter (68) that functions as a mass flowmeter and densitometer in combination with a water-cut monitor (66) to calculate volumetric flow rates and densities of materials draining from a test separator (24) in a combined or two-phase production stream. An oil-phase density value is corrected to eliminate the effect of its water content, and divided into the mass flow rate reading to obtain a net oil flow rate. System operations are governed by an automated controller (86) that utilizes a gas blanket system (28) to prevent low pressures from liberating gas from the liquids within the test separator.

* (Referred to in PCT Gazette No. 43/1997, Section II)