



FREQUENCY PROCESSING AND TEMPERATURE- PRESSURE COMPENSATION OF THE VORTEX FLOWMETER BASED ON TWO-PHASE FLOW

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Abstract- Aiming at a new type and multi-functional intelligent vortex flowmeter integrating system, which implicates whether it is liquid, gas, steam or the mixture of oil and gas, or in special conditions such as high temperature, high pressure, the medium can be measured intelligently. Especially for mixed media by TPF (Two-phase Flow), such as oil and gas, water vapor, firstly separates the mixed fluid through the gas-liquid separation device, and then rolls up the vortex signal, temperature and pressure of separated fluid into one, and finally a stable and accurate result is obtained by inputting the mixed signal through the integrating system. Thus, the applicability and reliability of the flowmeter can be greatly enhanced, which ensures the authenticity and stability of the measurement data about the fluid.

Index terms: Frequency processing, temperature-pressure compensation, vortex flowmeter, TPF, the integrating system.