Title (en)

METHOD AND DEVICE FOR DETECTING GAS AND LIQUID VOLUMES USING VOLUMETERS

Title (de)

VERFAHREN UND VORRICHTUNG ZUM ERFASSEN VON GAS- UND FLÜSSIGKEITSVOLUMINA MIT VOLUMENZÄHLERN

Title (fr)

PROCEDE ET DISPOSITIF DE DETECTION DE VOLUMES DE GAZ ET DE LIQUIDE AVEC COMPTEURS DE VOLUME

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Application

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Abstract (en)

[origin: DE19714351A1] The invention relates to a method and a device for detecting gas and liquid volumes using volumeters, wherein voltage pulses are produced by magnetic reversal of stationary pulse wire sensors during contactless displacement thereon of a permanent magnet secured to the shaft of a measuring apparatus. Said pulses enable volumes determined by the measuring apparatus to be picked up by a pulse processing device and to be displayed by an electronic meter. Voltage pulses (S1; S2) acting as metering pulses moving in the same direction are generated in rapid succession by two pulse wire sensors (5; 6) having the same polarity. Said pulses are metered by forward-backward counters and are allocated a common voltage pulse (S3) acting as a directional pulse by a pulse wire sensor (17) having an opposite polarity in comparison with the other identical polarity pulse wire sensors. Said pulse is converted into a directional bit enabling the meters to recognize metering direction, and the indicated meter count is used to perform a redundancy check. Meters (35) such as up-down counters (23) or those used for microcontrollers (14) or hardware counters (26) are used as metering devices. Three or even two pulse wire sensors (5; 6; 17) are tightly grouped into a bundle which is arranged vertically in relation to the magnet axis. Said sensors supply voltage pulses which are processed by a corresponding logical unit.

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