

AUTOMATIC COUNTER OF HYDRAULIC EQUIPMENT LIQUID CONTAMINATION PARTICLES WITH DIGITAL SIGNAL PROCESSING

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The paper describes the principle of operation of an automatic particle counter with digital signal processes using the channel of particle detection. An analytical expression for choosing discretization frequency and the quantization step of an analogue-to-digital converter (ADC) are defined based on the predetermined error of pulse amplitude determination, the pulse being approximated by a part of a sinusoid.