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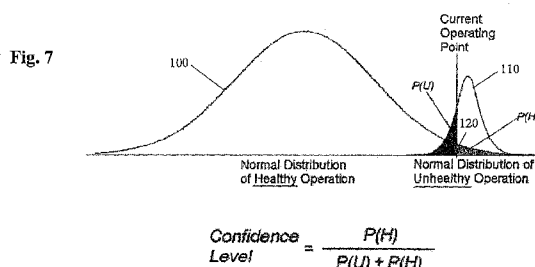
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(54) Title: METHOD AND APPARATUS FOR MONITORING PERFORMANCE AND ANTICIPATE FAILURES OF PLANT INSTRUMENTATION



(57) Abstract: A method of detecting an unhealthy/potentially/ failing instrument using apparatus is carried out by measuring a characteristic of the output of an instrument. The measurement of the characteristic is compared to an expected distribution of the instrument when healthy. The probability of the instrument producing such a characteristic measurement, or a value further from the mean of the expected distribution, if it was healthy is calculated. The measured characteristic to an expected distribution of the instrument when unhealthy is compared, and the probability of the instrument producing such a characteristic measurement, or a value further from the mean of the expected distribution, if it was unhealthy is calculated. The probability of the measured characteristic being produced by the instrument when healthy and when unhealthy is compared. A confidence value indicative of the likelihood of the instrument being unhealthy is then produced.

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