Title (en)

TIME MEASURING CIRCUIT

Publication

EP 0122984 B1 19880817 (EN)

Application

EP 83302263 A 19830421

Priority

EP 83302263 A 19830421

Abstract (en)

[origin: EP0122984A1] A time measuring circuit for meters of the pulse reflection type includes a gate signal generator (3) for producing a gate pulse signal (D) the duration of which is proportional to a value of an object to be measured, an oscillator (1) for producing clock pulses at a predetermined frequency, a complementary-output element (2, 200) responsive to the gate pulse signal for producing first and second clock pulses (G, H) which are the same at their phase and relatively inverted, a pair of gates (4, 5) for passing therethrough the first and second clock pulses during appearance of the gate pulse signal, a flip-flop (6) for applying the first clock pulses to a counter (7) and for applying the first and second clock pulses to a pair of integration circuits (11, 12). The counter (7) counts the first clock pulses (G) to produce an output signal indicative of the counted value, and the integration circuits (11, 12) selectively integrate the first and second clock pulses (G, H) in response to the gate pulse signal. An analog-to-digital converter (13) is connected to the integration circuits to convert the finally integrated value into a digital value, and a computer (14) is arranged to calculate a sum of the counted value and the digital value.

IPC 1-7

G04F 10/00

IPC 8 full level

G04F 10/00 (2006.01)

CPC (source: EP)

G04F 10/00 (2013.01)

Citation (examination)

- IBM TECHNICAL DISCLOSURE BULLETIN, vol. 4, no. 5, October 1961, New York (US), J. DIAZ: "Radar pulse measuring", p. 27
- IEEE TRANSACTIONS ON INSTRUMENTATION AND MEASUREMENT, vol. IM-21, no. 4, November 1972, R.A. BENSON et al.: "The folded ramp: A new technique for computer-controlled time-interval measurement", p. 409-412

Cited by

US2016041529A1; US9964928B2; EP0578150A3; EP0277638A3

Designated contracting state (EPC)

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