

SECTION G — PHYSICS

G04 HOROLOGY

G04F TIME-INTERVAL MEASURING (measuring pulse characteristics G01R, e.g. G01R 29/02; in radar or like systems G01S) [2]

Note(s) [2]

This subclass covers:

- apparatus for measuring-off predetermined time intervals;
- apparatus for producing such intervals as timing standards, e.g. metronomes;
- apparatus for measuring unknown intervals, e.g. precision systems for short-time-interval measurement.

Subclass index

MEASURING PREDETERMINED TIME INTERVALS

Producing time standards.....5/00

Apparatus: without driving mechanisms; with driving mechanisms.....1/00, 3/00

MEASURING UNKNOWN TIME INTERVALS

Mechanically; electromechanically; electrically; otherwise.....7/00, 8/00, 10/00, 13/00

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|------|--|-------|--|
| 1/00 | Apparatus which can be set and started to measure-off predetermined or adjustably-fixed time intervals without driving mechanisms, e.g. egg timers [1, 2006.01] | 5/12 | • using fluidic devices [2, 2006.01] |
| | | 5/14 | • using atomic clocks [2, 2006.01] |
| | | 5/16 | • using pulses produced by radio-isotopes [2, 2006.01] |
| 1/02 | • by consuming prefixed quantities of materials, e.g. by burning candle [1, 2006.01] | 7/00 | Apparatus for measuring unknown time intervals by non-electric means (using fluidic means G04F 13/06) [1, 2, 2006.01] |
| 1/04 | • by movement or acceleration due to gravity [1, 2006.01] | 7/02 | • by measuring the distance of fall or the final velocity of a falling body [1, 2006.01] |
| 1/06 | • • by flowing-away of a prefixed quantity of fine-granular or liquid materials, e.g. sand-glass, water-clock [1, 2006.01] | 7/04 | • using a mechanical oscillator [1, 2, 2006.01] |
| 1/08 | • • by a body falling a prefixed distance in air or in a viscous material [1, 2006.01] | 7/06 | • • running only during the time interval to be measured, e.g. stop-watch [1, 2006.01] |
| | | 7/08 | • • Watches or clocks with stop devices, e.g. chronograph [1, 2006.01] |
| 3/00 | Apparatus which can be set and started to measure-off predetermined or adjustably-fixed time intervals with driving mechanisms, e.g. dosimeters with clockwork [1, 2006.01] | 7/10 | • Means used apart from the time-piece for starting or stopping same [1, 2, 2006.01] |
| 3/02 | • with mechanical driving mechanisms [1, 2006.01] | 8/00 | Apparatus for measuring unknown time intervals by electromechanical means [2, 2006.01] |
| 3/04 | • • Additional arrangements in connection with ordinary non-electric clocks for this purpose [1, 2006.01] | 8/02 | • using an electromechanical oscillator [2, 2006.01] |
| 3/06 | • with electric driving mechanisms [1, 2006.01] | 8/04 | • • using a piezoelectric oscillator [2, 2006.01] |
| 3/08 | • • Additional arrangements in connection with ordinary electric clocks for this purpose [1, 2006.01] | 8/06 | • • using a magnetostrictive oscillator [2, 2006.01] |
| | | 8/08 | • Means used apart from the time-piece for starting or stopping same [2, 2006.01] |
| 5/00 | Apparatus for producing preselected time intervals for use as timing standards (generating clock signals for electric digital computers G06F 1/04) [1, 2006.01] | 10/00 | Apparatus for measuring unknown time intervals by electric means [2, 2006.01] |
| 5/02 | • Metronomes [1, 2006.01] | 10/02 | • using oscillators with passive electric resonator, e.g. lumped LC [2, 2006.01] |
| 5/04 | • using oscillators with electromechanical resonators [2, 2006.01] | 10/04 | • by counting pulses or half-cycles of an AC [2, 2006.01] |
| 5/06 | • • using piezoelectric resonators [2, 2006.01] | 10/06 | • by measuring phase [2, 2006.01] |
| 5/08 | • • using magnetostrictive resonators [2, 2006.01] | 10/08 | • using pulses produced by radio-isotopes [2, 2006.01] |
| 5/10 | • using electric or electronic resonators (G04F 5/14 takes precedence) [2, 2006.01] | 10/10 | • by measuring electric or magnetic quantities changing in proportion to time [2, 2006.01] |

G04F

13/00 Apparatus for measuring unknown time intervals by means not provided for in groups G04F 5/00-G04F 10/00 [2, 2006.01]

13/02 • using optical means [2, 2006.01]

13/04 • using electrochemical means [2, 2006.01]

13/06 • using fluidic means [2, 2006.01]