

SECTION G — PHYSICS

G04 HOROLOGY

G04G ELECTRONIC TIME-PIECES [3]

Note(s) [3]

1. This subclass covers:
 - electronic time-pieces with no moving parts;
 - electronic circuitry for producing timing pulses irrespective of the nature of the time-indicating means utilised.
2. This subclass does not cover electronic time-pieces with moving parts, which are covered by subclass G04C.

Subclass index

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| PRODUCING TIMING PULSES..... | 3/00 |
| TIME-SETTING; SYNCHRONISING..... | 5/00, 7/00 |
| TIME- OR DATE-INDICATING | |
| Visual; optical signals; acoustic signals..... | 9/00, 11/00, 13/00 |
| OPERATING A DEVICE AT PRESELECTED TIMES..... | 15/00 |
| STRUCTURAL DETAILS; HOUSINGS..... | 17/00 |
| ELECTRIC POWER SUPPLY CIRCUITS..... | 19/00 |
| INPUT OR OUTPUT DEVICES INTEGRATED IN TIME-PIECES..... | 21/00 |
| OTHER SUBJECTS..... | 99/00 |

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| 3/00 | Producing timing pulses (driving circuits for stepping motors G04C 3/14; producing preselected time intervals for use as timing standards G04F 5/00; pulse technique in general H03K; control, synchronisation, or stabilisation of generators in general H03L) [3, 2006.01] | 9/10 | • • by controlling light sources, e.g. electroluminescent diodes [3, 2006.01] |
| 3/02 | • Circuits for deriving low frequency timing pulses from pulses of higher frequency (pulse frequency dividers in general H03K 23/00-H03K 29/00) [3, 2006.01] | 9/12 | • • using light valves, e.g. liquid crystals [3, 2006.01] |
| 3/04 | • Temperature-compensating arrangements [7, 2006.01] | 11/00 | Producing optical signals at preselected times [3, 2006.01] |
| 5/00 | Setting, i.e. correcting or changing, the time-indication (radio-controlled time-pieces G04R) [3, 2006.01, 2013.01] | 13/00 | Producing acoustic time signals [3, 2006.01] |
| 5/02 | • by temporarily changing the number of pulses per unit time, e.g. quick-feed method [3, 2006.01] | 13/02 | • at preselected times, e.g. alarm clocks [3, 2006.01] |
| 5/04 | • by setting each of the displayed values, e.g. date, hour, independently [3, 2006.01] | 15/00 | Time-pieces comprising means to be operated at preselected times or after preselected time intervals (G04G 11/00, G04G 13/00 take precedence; pulse delay circuits H03K 5/13; electronic time-delay switches H03K 17/28; electronic time-programme switches which automatically terminate their operation after the programme is completed H03K 17/296; time programming for television signal recording H04N 5/761) [3, 2006.01] |
| 7/00 | Synchronisation (radio-controlled time-pieces G04R) [3, 2006.01] | 17/00 | Structural details; Housings (constructional details of radio-controlled time-pieces, e.g. antennas G04R 60/00) [7, 2006.01, 2013.01] |
| 9/00 | Visual time or date indication means [3, 2006.01] | 17/02 | • Component assemblies [7, 2006.01] |
| 9/02 | • by selecting desired characters out of a number of characters or by selecting indicating elements the position of which represent the time, e.g. by using multiplexing techniques [3, 2006.01] | 17/04 | • • Mounting of electronic components [7, 2006.01] |
| 9/04 | • • by controlling light sources, e.g. electroluminescent diodes [3, 2006.01] | 17/06 | • • Electric connectors, e.g. conductive elastomers [7, 2006.01] |
| 9/06 | • • using light valves, e.g. liquid crystals [3, 2006.01] | 17/08 | • Housings [7, 2006.01] |
| 9/08 | • by building-up characters using a combination of indicating elements, e.g. by using multiplexing techniques [3, 2006.01] | 19/00 | Electric power supply circuits specially adapted for use in electronic time-pieces [7, 2006.01] |
| | | 19/02 | • Conversion or regulation of current or voltage [7, 2006.01] |
| | | 19/04 | • • Capacitive voltage division or multiplication [7, 2006.01] |

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| 19/06 | • • Regulation [7, 2006.01] | 21/02 | • Detectors of external physical values, e.g. temperature [2010.01] |
| 19/08 | • Arrangements for preventing voltage drop due to overloading the power supply [7, 2006.01] | 21/04 | • using radio waves (radio-controlled time-pieces G04R) [2010.01, 2013.01] |
| 19/10 | • Arrangements for supplying back-up power [7, 2006.01] | 21/06 | • using voice [2010.01] |
| 19/12 | • Arrangements for reducing power consumption during storage [7, 2006.01] | 21/08 | • Touch switches specially adapted for time-pieces [2010.01] |
| 21/00 | Input or output devices integrated in time-pieces [2010.01] | 99/00 | Subject matter not provided for in other groups of this subclass [2010.01] |