

SECTION G — PHYSICS

G04 HOROLOGY

G04G ELECTRONIC TIME-PIECES [3]

Note(s)

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

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

- 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]
- 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]
- 3/04 • Temperature-compensating arrangements [7]
- 5/00 Setting, i.e. correcting or changing, the time-indication (radio-controlled time-pieces G04R) [3, 2013.01]**
- 5/02 • by temporarily changing the number of pulses per unit time, e.g. quick-feed method [3]
- 5/04 • by setting each of the displayed values, e.g. date, hour, independently [3]
- 7/00 Synchronisation** (radio-controlled time-pieces G04R) [3]
- 9/00 Visual time or date indication means [3]**
- 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]
- 9/04 • • by controlling light sources, e.g. electroluminescent diodes [3]
- 9/06 • • using light valves, e.g. liquid crystals [3]
- 9/08 • by building-up characters using a combination of indicating elements, e.g. by using multiplexing techniques [3]
- 9/10 • • by controlling light sources, e.g. electroluminescent diodes [3]
- 9/12 • • using light valves, e.g. liquid crystals [3]

- 11/00 Producing optical signals at preselected times [3]**
- 13/00 Producing acoustic time signals [3]**
- 13/02 • at preselected times, e.g. alarm clocks [3]
- 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]
- 17/00 Structural details; Housings** (constructional details of radio-controlled time-pieces, e.g. antennas G04R 60/00) [7, 2013.01]
- 17/02 • Component assemblies [7]
- 17/04 • • Mounting of electronic components [7]
- 17/06 • • Electric connectors, e.g. conductive elastomers [7]
- 17/08 • Housings [7]
- 19/00 Electric power supply circuits specially adapted for use in electronic time-pieces [7]**
- 19/02 • Conversion or regulation of current or voltage [7]
- 19/04 • • Capacitive voltage division or multiplication [7]
- 19/06 • • Regulation [7]
- 19/08 • Arrangements for preventing voltage drop due to overloading the power supply [7]
- 19/10 • Arrangements for supplying back-up power [7]
- 19/12 • Arrangements for reducing power consumption during storage [7]

G04G

21/00	Input or output devices integrated in time-pieces [2010.01]	21/06	• using voice [2010.01]
21/02	• Detectors of external physical values, e.g. temperature [2010.01]	21/08	• Touch switches specially adapted for time-pieces [2010.01]
21/04	• <i>using radio waves (radio-controlled time-pieces G04R) [2010.01, 2013.01]</i>	99/00	Subject matter not provided for in other groups of this subclass [2010.01]