

## SECTION G — PHYSICS

### G06 COMPUTING; CALCULATING; COUNTING

**G06M COUNTING MECHANISMS; COUNTING OF OBJECTS NOT OTHERWISE PROVIDED FOR** (counting by measuring volume or weight of articles to be counted G01F, G01G; adaptation of counters to electricity meters in electromechanical arrangements for measuring time integral of electric power or current G01R 11/16; computers G06C-G06J; counting electric pulses H03K; counting characters, words or messages in switching networks for transmission of digital information H04L 12/08; metering arrangements in telephonic systems H04M 15/00)

#### Note(s)

This subclass covers:

- stepping or continuously-moving mechanical counters operated through one or more inputs applied to the lowest order mechanically or electrically;
- counting systems involving applications of either mechanical, electrical, or electronic counters.

#### **1/00 Design features of general application**

- 1/02 • Housing (for measuring instruments in general G01D)
- 1/04 • for driving the stage of lowest order (with variable ratio of drive G06M 1/38)
- 1/06 • • producing continuous revolution of the stage, e.g. with gear train
- 1/08 • for actuating the drive
- 1/10 • • by electric or magnetic means
- 1/12 • • by fluid means
- 1/14 • for transferring a condition from one stage to a higher stage (with variable ratio of transfer G06M 1/38)
- 1/16 • • self-operating, e.g. by Geneva mechanism
- 1/18 • • requiring external operation, e.g. by electromagnetic force
- 1/20 • • specially adapted for denominations with unequal numbers in each stage, e.g. degrees and minutes of angle
- 1/22 • for visual indication of the result of count on counting mechanisms, e.g. by window with magnifying lens
- 1/24 • • Drums; Dials; Pointers
- 1/26 • • Aligning means
- 1/27 • for representing the result of count in the form of electric signals, e.g. by sensing markings on the counter drum
- 1/272 • • using photoelectric means
- 1/274 • • using magnetic means; using Hall-effect devices
- 1/276 • • using mechanically-actuated contacts
- 1/28 • for zeroising or setting to a particular value
- 1/30 • • using heart-shaped or similar cams; using levers
- 1/32 • • • Actuating means, e.g. magnet, spring, weight
- 1/34 • • using reset shafts
- 1/36 • • • Actuating means, e.g. magnet, spring, weight
- 1/38 • for varying ratio of drive or transfer mechanism, e.g. by using alternative counting trains

#### **3/00 Counters with additional facilities** (generating electric pulses at random intervals H03K 3/84)

- 3/02 • for performing an operation at a predetermined value of the count, e.g. arresting a machine

- 3/04 • • with an additional counter train operating in the reverse direction
- 3/06 • for printing or separately displaying result of count (display systems G09)
- 3/08 • for counting the input from several sources; for counting inputs of different amounts
- 3/10 • for counting denominations with unequal numbers in each stage, e.g. degrees and minutes of angle (transfer mechanism therefor G06M 1/20)
- 3/12 • for preventing incorrect actuation, e.g. for preventing falsification
- 3/14 • for registering difference of positive and negative actuations

#### Counting of objects

##### **7/00 Counting of objects carried by a conveyor**

- 7/02 • wherein objects ahead of the sensing element are separated to produce a distinct gap between successive objects
- 7/04 • • Counting of piece goods, e.g. of boxes
- 7/06 • • Counting of flat articles, e.g. of sheets of paper
- 7/08 • wherein the direction of movement of the objects is changed at the station where they are sensed
- 7/10 • • Counting of flat overlapped articles, e.g. of cards

##### **9/00 Counting of objects in a stack thereof**

- 9/02 • by using a rotating separator incorporating pneumatic suction nozzles

##### **11/00 Counting of objects distributed at random, e.g. on a surface**

- 11/02 • using an electron beam scanning a surface line by line, e.g. of blood cells on a substrate
- 11/04 • • with provision for distinguishing between different sizes of objects (investigating particle size in general G01N 15/00)

##### **15/00 Counting of objects, not otherwise provided for [2011.01]**