

CPC COOPERATIVE PATENT CLASSIFICATION

G PHYSICS (NOTES omitted)

INSTRUMENTS

G06 COMPUTING; CALCULATING OR COUNTING (NOTES omitted)

G06M COUNTING MECHANISMS; COUNTING OF OBJECTS NOT OTHERWISE PROVIDED FOR (counting by measuring volume or weight of articles to be counted [G01F](#), [G01G](#); computers [G06C](#) - [G06J](#); counting electric pulses [H03K](#); counting characters, words or messages in switching networks for transmission of digital information [H04L 12/08](#))

NOTE

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.

WARNING

{In this subclass non-limiting references (in the sense of paragraph 39 of the Guide to the IPC) may still be displayed in the scheme.}

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|-------------|---|-------|--|
| 1/00 | Design features of general application | 1/101 | . . . {by electro-optical means} |
| 1/02 | . Housing (for measuring instruments in general G01D) | 1/102 | . . . {by magnetic or electromagnetic means} |
| 1/022 | . . {Plates} | 1/104 | {electromagnets, clicks} |
| 1/024 | . . . {Bearings} | 1/105 | {electronic circuits for actuating the electromagnets} |
| 1/026 | . . {Connecting or supporting parts} | 1/107 | {electromotors} |
| 1/028 | . . {Arbors, drum fixing and adjusting means (arbor-fixing means F16C 17/08)} | 1/108 | . . . {by electronic means} |
| 1/04 | . for driving the stage of lowest order (with variable ratio of drive G06M 1/38) | 1/12 | . . by fluid means |
| 1/041 | . . {for drum-type indicating means} | 1/123 | . . . {by pneumatic means} |
| 1/042 | . . . {with click devices (electromagnetic driving means G06M 1/102)} | 1/126 | . . . {by hydraulic means} |
| 1/044 | . . . {with escapements (electromagnetic driving means G06M 1/102)} | 1/14 | . for transferring a condition from one stage to a higher stage (with variable ratio of transfer G06M 1/38) |
| 1/045 | . . {for dial, pointer, or similar type indicating means} | 1/143 | . . {with drums} |
| 1/047 | . . {for arithmetical operations} | 1/146 | . . {with dials, pointers, or similar type indicating means} |
| 1/048 | . . {with switching means between two or more counting devices} | 1/16 | . . self-operating, e.g. by Geneva mechanism |
| 1/06 | . . producing continuous revolution of the stage, e.g. with gear train | 1/163 | . . . {with drums} |
| 1/062 | . . . {for drum type indicating means} | 1/166 | . . . {with dials, pointers or similar type indicating means} |
| 1/064 | . . . {for dial, pointer, or similar type indicating means} | 1/18 | . . requiring external operation, e.g. by electromagnetic force |
| 1/066 | . . . {for arithmetical operations} | 1/183 | . . . {with drums} |
| 1/068 | . . . {with switching means between two or more counting devices} | 1/186 | . . . {with dials, pointers, or similar type indicating means} |
| 1/08 | . for actuating the drive | 1/20 | . . specially adapted for denominations with unequal numbers in each stage, e.g. degrees and minutes of angle |
| 1/083 | . . {by mechanical means (counting of stacked objects G06M 9/00)} | 1/22 | . for visual indication of the result of count on counting mechanisms, e.g. by window with magnifying lens |
| 1/086 | . . . {including barriers (counting of conveyed objects G06M 7/00)} | | |
| 1/10 | . . by electric or magnetic means | | |

- 1/24 . . Drums; Dials; Pointers (for measuring instruments in general [G01D](#); {for time measuring instruments [G04B 19/00](#), including drums [G04B 19/21](#), [G04C 19/04](#); date indicating [G04B 19/24](#)})
- 1/241 . . . {Drums}
- 1/243 {Drums with presetting means}
- 1/245 . . . {Dials; Pointers}
- 1/246 . . . {Bands; Sheets}
- 1/248 . . . {Discs}
- 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
- 1/283 . . {with drums}
- 1/286 . . {with dials, pointers, or similar type indicating means}
- 1/30 . . using heart-shaped or similar cams; using levers
- 1/303 . . . {with drums}
- 1/306 . . . {with dials, pointers, or similar type indicating means}
- 1/32 . . . Actuating means, e.g. magnet, spring, weight
- 1/323 {with drums}
- 1/326 {with dials, pointers, or similar type indicating means}
- 1/34 . . using reset shafts
- 1/343 . . . {with drums}
- 1/346 . . . {with dials, pointers, or similar type indicating means}
- 1/36 . . . Actuating means, e.g. magnet, spring, weight
- 1/363 {with drums}
- 1/366 {with dials, pointers, or similar type indicating means}
- 1/38 . for varying ratio of drive or transfer mechanism, e.g. by using alternative counting trains
- 1/385 . . {differentials}
- 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 {([G06M 3/04](#) takes precedence)}
- 3/021 . . {with drums type indicating means}
- 3/022 . . . {by subtracting}
- 3/024 . . . {by adding}
- 3/025 . . {with dial, pointer, or similar type indicating means}
- 3/027 . . . {by subtracting}
- 3/028 . . . {by adding}
- 3/04 . . with an additional counter train operating in the reverse direction
- 3/043 . . . {with drums}
- 3/046 . . . {with dials, pointers, or similar type indicating means}
- 3/06 . for printing or separately displaying result of count (display systems [G09](#))
- 3/062 . . {for printing}
- 3/065 . . . {with drums}

- 3/067 . . . {with dials, pointers, or similar type indicating means}
- 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 (in machines for shaping metal without removing material [B21C 51/00](#); in printing machines or presses [B41F 33/02](#); in office copying machines [B41L 39/02](#); of axles of rail vehicles [B61L 1/16](#); in packaging machines [B65B 65/08](#); of objects conveyed through a pipe or tube [B65G 51/36](#); entry or exit registers [G07C 9/00](#))

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
- 9/025 . . {the rotation axis being substantially parallel to the stacking direction}

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

2207/00 Indexing scheme relating to counting of objects carried by a conveyor

- 2207/02 . Counting of generally flat and overlapped articles, e.g. cards, newspapers