

**CPC****COOPERATIVE PATENT CLASSIFICATION****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](#) to [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.

**G06M 1/00****Design features of general application**

- G06M 1/02 . Housing (for measuring instruments in general [G01D](#))
- G06M 1/022 .. {Plates}
- G06M 1/024 ... {Bearings}
- G06M 1/026 .. {Connecting or supporting parts}
- G06M 1/028 .. {Arbors, drum fixing and adjusting means (arbor-fixing means [F16C 17/08](#))}
- G06M 1/04 . for driving the stage of lowest order (with variable ratio of drive [G06M 1/38](#))
- G06M 1/041 .. {for drum-type indicating means}
- G06M 1/042 ... {with click devices (electromagnetic driving means [G06M 1/102](#))}
- G06M 1/044 ... {with escapements (electromagnetic driving means [G06M 1/102](#))}
- G06M 1/045 .. {for dial, pointer, or similar type indicating means}
- G06M 1/047 .. {for arithmetical operations}
- G06M 1/048 .. {with switching means between two or more counting devices}
- G06M 1/06 .. producing continuous revolution of the stage, e.g. with gear train
- G06M 1/062 ... {for drum type indicating means}
- G06M 1/064 ... {for dial, pointer, or similar type indicating means}
- G06M 1/066 ... {for arithmetical operations}
- G06M 1/068 ... {with switching means between two or more counting devices}
- G06M 1/08 . for actuating the drive
- G06M 1/083 .. {by mechanical means (counting of stacked objects [G06M 9/00](#))}
- G06M 1/086 ... {including barriers (counting of conveyed objects [G06M 7/00](#))}
- G06M 1/10 .. by electric or magnetic means
- G06M 1/101 ... {by electro-optical means}

G06M 1/102	... {by magnetic or electromagnetic means}
G06M 1/104	.... {electromagnets, clicks}
G06M 1/105	..... {electronic circuits for actuating the electromagnets}
G06M 1/107	.... {electromotors}
G06M 1/108	... {by electronic means}
G06M 1/12	.. by fluid means
G06M 1/123	... {by pneumatic means}
G06M 1/126	... {by hydraulic means}
G06M 1/14	. for transferring a condition from one stage to a higher stage (with variable ratio of transfer <a href="#">G06M 1/38</a> )
G06M 1/143	.. {with drums}
G06M 1/146	.. {with dials, pointers, or similar type indicating means}
G06M 1/16	.. self-operating, e.g. by Geneva mechanism
G06M 1/163	... {with drums}
G06M 1/166	... {with dials, pointers or similar type indicating means}
G06M 1/18	.. requiring external operation, e.g. by electromagnetic force
G06M 1/183	... {with drums}
G06M 1/186	... {with dials, pointers, or similar type indicating means}
G06M 1/20	.. specially adapted for denominations with unequal numbers in each stage, e.g. degrees and minutes of angle
G06M 1/22	. for visual indication of the result of count on counting mechanisms, e.g. by window with magnifying lens
G06M 1/24	.. Drums; Dials; Pointers (for measuring instruments in general <a href="#">G01D</a> ; {for time measuring instruments <a href="#">G04B 19/00</a> , including drums <a href="#">G04B 19/21</a> , <a href="#">G04C 19/04</a> ; date indicating <a href="#">G04B 19/24</a> })
G06M 1/241	... {Drums}
G06M 1/243	.... {Drums with presetting means}
G06M 1/245	... {Dials; Pointers}
G06M 1/246	... {Bands; Sheets}
G06M 1/248	... {Discs}
G06M 1/26	.. Aligning means
G06M 1/27	. for representing the result of count in the form of electric signals, e.g. by sensing markings on the counter drum
G06M 1/272	.. using photoelectric means
G06M 1/274	.. using magnetic means; using Hall-effect devices
G06M 1/276	.. using mechanically-actuated contacts
G06M 1/28	. for zeroising or setting to a particular value
G06M 1/283	.. {with drums}
G06M 1/286	.. {with dials, pointers, or similar type indicating means}
G06M 1/30	.. using heart-shaped or similar cams; using levers
G06M 1/303	... {with drums}
G06M 1/306	... {with dials, pointers, or similar type indicating means}

- G06M 1/32 . . . Actuating means, e.g. magnet, spring, weight
- G06M 1/323 . . . {with drums}
- G06M 1/326 . . . {with dials, pointers, or similar type indicating means}
- G06M 1/34 . . using reset shafts
- G06M 1/343 . . . {with drums}
- G06M 1/346 . . . {with dials, pointers, or similar type indicating means}
- G06M 1/36 . . . Actuating means, e.g. magnet, spring, weight
- G06M 1/363 . . . {with drums}
- G06M 1/366 . . . {with dials, pointers, or similar type indicating means}
- G06M 1/38 . for varying ratio of drive or transfer mechanism, e.g. by using alternative counting trains
- G06M 1/385 . . {differentials}

### **G06M 3/00** **Counters with additional facilities** (generating electric pulses at random intervals [H03K 3/84](#))

- G06M 3/02 . for performing an operation at a predetermined value of the count, e.g. arresting a machine {([G06M 3/04](#) takes precedence)}
- G06M 3/021 . . {with drums type indicating means}
- G06M 3/022 . . . {by subtracting}
- G06M 3/024 . . . {by adding}
- G06M 3/025 . . {with dial, pointer, or similar type indicating means}
- G06M 3/027 . . . {by subtracting}
- G06M 3/028 . . . {by adding}
- G06M 3/04 . . with an additional counter train operating in the reverse direction
- G06M 3/043 . . . {with drums}
- G06M 3/046 . . . {with dials, pointers, or similar type indicating means}
- G06M 3/06 . for printing or separately displaying result of count (display systems [G09](#))
- G06M 3/062 . . {for printing}
- G06M 3/065 . . . {with drums}
- G06M 3/067 . . . {with dials, pointers, or similar type indicating means}
- G06M 3/08 . for counting the input from several sources; for counting inputs of different amounts
- G06M 3/10 . for counting denominations with unequal numbers in each stage, e.g. degrees and minutes of angle (transfer mechanism therefor [G06M 1/20](#))
- G06M 3/12 . for preventing incorrect actuation, e.g. for preventing falsification
- G06M 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](#))

### **G06M 7/00** **Counting of objects carried by a conveyer**

G06M 7/02	<ul style="list-style-type: none"> <li>wherein objects ahead of the sensing element are separated to produce a distinct gap between successive objects</li> </ul>
G06M 7/04	<ul style="list-style-type: none"> <li>Counting of piece goods, e.g. of boxes</li> </ul>
G06M 7/06	<ul style="list-style-type: none"> <li>Counting of flat articles, e.g. of sheets of paper</li> </ul>
G06M 7/08	<ul style="list-style-type: none"> <li>wherein the direction of movement of the objects is changed at the station where they are sensed</li> </ul>
G06M 7/10	<ul style="list-style-type: none"> <li>Counting of flat overlapped articles, e.g. of cards</li> </ul>
<b>G06M 9/00</b>	<b>Counting of objects in a stack thereof</b>
G06M 9/02	<ul style="list-style-type: none"> <li>by using a rotating separator incorporating pneumatic suction nozzles</li> </ul>
G06M 9/025	<ul style="list-style-type: none"> <li>{the rotation axis being substantially parallel to the stacking direction}</li> </ul>
<b>G06M 11/00</b>	<b>Counting of objects distributed at random, e.g. on a surface</b>
G06M 11/02	<ul style="list-style-type: none"> <li>using an electron beam scanning a surface line by line, e.g. of blood cells on a substrate</li> </ul>
G06M 11/04	<ul style="list-style-type: none"> <li>with provision for distinguishing between different sizes of objects (<a href="#">investigating particle size in general G01N 15/00</a>)</li> </ul>
<b>G06M 2207/00</b>	<b>Indexing scheme relating to counting of objects carried by a conveyer</b>
G06M 2207/02	<ul style="list-style-type: none"> <li>Counting of generally flat and overlapped articles, e.g. cards, newspapers</li> </ul>