SECTION G — PHYSICS

G08 SIGNALLING

G08B SIGNALLING OR CALLING SYSTEMS; ORDER TELEGRAPHS; ALARM SYSTEMS

Note(s)

1. This subclass covers also means for identifying or incapacitating burglars or the like.
2. This subclass does not cover:
   - the mere provision of an audible or visible signalling device on measuring or switching apparatus;
   - alarm systems for indicating that a specific variable has exceeded, or fallen below, a predetermined value, which are covered by the relevant subclasses of class G01 for the measurement of that variable.
   - alarms for specific processes or types of machines or apparatus, which are covered by the relevant subclasses for the processes, machines, or apparatus.
3. In this subclass, the following term is used with the meaning indicated:
   - "systems" may cover also devices peculiar thereto.

Subclass index

1/00 Systems for signalling characterised solely by the form of transmission of the signal

1/02 • using only mechanical transmission
1/04 • using hydraulic transmission; using pneumatic transmission
1/06 • • hydraulic only
1/08 • using electric transmission

3/00 Audible signalling systems; Audible personal calling systems

3/02 • using only mechanical transmission
3/06 • using hydraulic transmission; using pneumatic transmission
3/10 • using electric transmission; using electromagnetic transmission
3/14 • using explosives

5/00 Visible signalling systems, e.g. personal calling systems, remote indication of seats occupied

5/02 • using only mechanical transmission
5/06 • using hydraulic transmission; using pneumatic transmission
5/14 • • with indicator element moving about a pivot, e.g. hinged flap or rotating vane
5/16 • • • with reset means necessitating a separate operation to return the indicator element
5/18 • • with indicator element moving rectilinearly
5/20 • • • with reset means necessitating a separate operation to return the indicator element
5/22 • using electric transmission; using electromagnetic transmission
5/24 • • with indicator element moving about a pivot, e.g. hinged flap or rotating vane
5/26 • • • with reset means necessitating a separate operation to return the indicator element
5/28 • • • with hinged flap or arm
5/30 • • • with rotating or oscillating members, e.g. vanes
5/32 • • with indicator element moving rectilinearly
5/34 • • • with reset means necessitating a separate operation to return the indicator element
5/36 • • using visible light sources
5/38 • • • using flashing light
5/40 • using smoke, fire or coloured gases

6/00 Tactile signalling systems, e.g. personal calling systems [6]

7/00 Signalling systems according to more than one of groups G08B 3/00-G08B 6/00; Personal calling systems according to more than one of groups G08B 3/00-G08B 6/00

7/02 • using mechanical transmission
7/04 • using hydraulic transmission; using pneumatic transmission

7/06 • using electric transmission
7/08 • using explosives

9/00 Order telegraph apparatus, i.e. means for transmitting one of a finite number of different orders at the discretion of the user, e.g. bridge to engine room orders in ships

9/02 • Details
9/04 • • Means for recording operation of the apparatus
9/06 • • Means for indicating disagreement between orders given and those carried out
9/08 • mechanical
9/10 • • using ratchet
9/12 • • using rotary shaft
9/14 • hydraulic; pneumatic
9/16 • • using ratchet
9/18 • • by varying displacement of the fluid
9/20 • • by varying pressure of the fluid

13/00 Burglar, theft or intruder alarms

13/02 • Mechanical actuation
13/04 • • by breaking of glass
13/06 • • by tampering with fastening
13/08 • • by opening, e.g. of door, of window, of drawer, of shutter, of curtain, of blind
13/10 • • by pressure on floors, floor coverings, stair treads, counters, or tills
13/12 • • by the breaking or disturbance of stretched cords or wires
13/14 • • by lifting or attempted removal of hand-portable articles
13/16 • Actuation by interference with mechanical vibrations in air or other fluid
13/18 • Actuation by interference with heat, light, or radiation of shorter wavelength; Actuation by intruding sources of heat, light, or radiation of shorter wavelength
13/181 • • using active radiation detection systems **[5]**
13/183 • • • by interruption of a radiation beam or barrier **[5]**
13/184 • • • • using radiation reflectors **[5]**
13/186 • • • • using light guides, e.g. optical fibres **[5]**
13/187 • • • by interference of a radiation field **[5]**
13/189 • • using passive radiation detection systems **[5]**
13/19 • • • using infra-red-radiation detection systems **[5]**
13/191 • • • • using pyroelectric sensor means **[5]**
13/193 • • • • using focusing means **[5]**
13/194 • • • using image scanning and comparing systems **[5]**
13/196 • • • • using television cameras **[5]**
13/20 • Actuation by change of fluid pressure
13/22 • Electrical actuation
13/24 • • by interference with electromagnetic field distribution
13/26 • • by proximity of an intruder causing variation in capacitance or inductance of a circuit

15/00 Identifying, scaring or incapacitating burglars, thieves or intruders, e.g. by explosives

15/02 • with smoke, gas, or coloured or odorous powder or liquid

17/00 Fire alarms; Alarms responsive to explosion

17/02 • Mechanical actuation of the alarm, e.g. by the breaking of a wire
17/04 • Hydraulic or pneumatic actuation of the alarm, e.g. by change of fluid pressure
17/06 • Electric actuation of the alarm, e.g. using a thermally-operated switch
17/08 • Actuation involving the use of explosive means
17/10 • Actuation by presence of smoke or gases
17/103 • • using a light emitting and receiving device **[5]**
17/107 • • • for detecting light-scattering due to smoke **[5]**
17/11 • • using an ionisation chamber for detecting smoke or gas **[5]**
17/113 • • • Constructional details **[5]**
17/117 • • by using a detection device for specific gases, e.g. combustion products, produced by the fire (G08B 17/103, G08B 17/11 take precedence) **[5]**
17/12 • Actuation by presence of radiation or particles, e.g. of infra-red radiation or of ions

19/00 Alarms responsive to two or more different undesired or abnormal conditions, e.g. burglary and fire, abnormal temperature and abnormal rate of flow

19/02 • Alarm responsive to formation or anticipated formation of ice

21/00 Alarms responsive to a single specified undesired or abnormal condition and not otherwise provided for

21/02 • Alarms for ensuring the safety of persons **[7]**
21/04 • • responsive to non-activity, e.g. of elderly persons (G08B 21/06 takes precedence) **[7]**
21/06 • • indicating a condition of sleep, e.g. anti-dozing alarms **[7]**
21/08 • • responsive to the presence of persons in a body of water, e.g. a swimming pool; responsive to an abnormal condition of a body of water **[7]**
21/10 • • responsive to calamitous events, e.g. tornados or earthquakes **[7]**
21/12 • • responsive to undesired emission of substances, e.g. pollution alarms **[7]**
21/14 • • • Toxic gas alarms (G08B 21/16 takes precedence) **[7]**
21/16 • • • Combustible gas alarms **[7]**
21/18 • Status alarms (G08B 21/02 takes precedence) **[7]**
21/20 • • responsive to moisture **[7]**
21/22 • • responsive to presence or absence of persons **[7]**
21/24 • • Reminder alarms, e.g. anti-loss alarms **[7]**

23/00 Alarms responsive to unspecified undesired or abnormal conditions

25/00 Alarm systems in which the location of the alarm condition is signalled to a central station, e.g. fire or police telegraphic systems

25/01 • characterised by the transmission medium **[5]**
25/04 • • using a single signalling line, e.g. in a closed loop **[5]**
25/06 • • using power transmission lines **[5]**
25/08 • • using communication transmission lines **[5]**
25/10 • • using wireless transmission systems **[5]**
25/12 • Manually actuated calamity alarm transmitting arrangements **[5]**
25/14 • Central alarm receiver or annunciator arrangements **[5]**

26/00 Alarm systems in which substations are interrogated in succession by a central station

27/00 Alarm systems in which the alarm condition is signalled from a central station to a plurality of substations

29/00 Checking or monitoring of signalling or alarm systems; Prevention or correction of operating errors, e.g. preventing unauthorised operation

29/02 • Monitoring continuously signalling or alarm systems **[5]**
29/04 • • Monitoring of the detection circuits **[5]**
29/06 • • Monitoring of the line circuits, e.g. signalling of line faults **[5]**
29/08 • • • Signalling of tampering with the line circuit **[5]**
29/10 • • Monitoring of the annunciator circuits **[5]**
29/12 • Checking intermittently signalling or alarm systems **[5]**
29/14 • • checking the detection circuits **[5]**
29/16 • Security signalling or alarm systems, e.g. redundant systems **[5]**
29/18 • Prevention or correction of operating errors (G08B 29/02, G08B 29/12 take precedence) **[5]**
29/20 • • Calibration, including self-calibrating arrangements **[5]**
29/22 • • • Provisions facilitating manual calibration, e.g. input or output provisions for testing; Holding of intermittent values to permit measurement **[5]**
29/24 • • • Self-calibration, e.g. compensating for environmental drift or ageing of components **[5]**
29/26 • • • • by updating and storing reference thresholds **[5]**
29/28 • • • • by changing the gain of an amplifier **[5]**

31/00 Predictive alarm systems characterised by extrapolation or other computation using updated historic data [5]

G08C TRANSMISSION SYSTEMS FOR MEASURED VALUES, CONTROL OR SIMILAR SIGNALS (fluid pressure transmission systems F15B; mechanical means for transferring the output of a sensing member into a different variable G01D 5/00; mechanical control systems G05G) **[4]**

Subclass index

13/00 Arrangements for influencing the relationship between signals at input and output, e.g. differentiating, delaying

13/02 • to yield a signal which is a function of two or more signals, e.g. sum, product

15/00 Arrangements characterised by the use of multiplexing for the transmission of a plurality of signals over a common path

15/02 • simultaneously, i.e. using frequency division
15/04 • • the signals being modulated on carrier frequencies
15/06 • successively, i.e. using time division
15/08 • • the signals being represented by amplitude of current or voltage in transmission link
15/10 • • the signals being represented by frequencies or phase of current or voltage in transmission link
15/12 • • the signals being represented by pulse characteristics in transmission link

17/00 Arrangements for transmitting signals characterised by the use of a wireless electrical link [6]

17/02 • using a radio link **[6]**
17/04 • using magnetically coupled devices **[6]**
17/06 • using capacity coupling **[6]**

19/00 Electric signal transmission systems (G08C 17/00 takes precedence)

19/02 • in which the signal transmitted is magnitude of current or voltage (G08C 19/36, G08C 19/38 take precedence)
19/04 • • using variable resistance
19/06 • • using variable inductance
19/08 • • • differentially influencing two coils
19/10 • • using variable capacitance
19/12 • in which the signal transmitted is frequency or phase of ac
19/14 • • using combination of fixed frequencies
19/16 • in which transmission is by pulses
19/18 • • using a variable number of pulses in a train
19/20 • • • operating on dynamo-electric devices, e.g. step motor
19/22 • • by varying the duration of individual pulses
19/24 • • using time shift of pulses
19/26 • • by varying pulse repetition frequency
19/28 • • using pulse code
19/30 • in which transmission is by selection of one or more conductors or channels from a plurality of conductors or channels (G08C 19/38 takes precedence)
19/32 • • of one conductor or channel
19/34 • • of a combination of conductors or channels
19/36 • using optical means to convert the input signal
19/38 • using dynamo-electric devices (operated by pulses G08C 19/20)
19/40 • • of which only the rotor or the stator carries a winding to which a signal is applied, e.g. using step motor
19/42 • • • having three stator poles
19/44 • • • having more than three stator poles

19/46 • • of which both rotor and stator carry windings (having squirrel-cage rotor G08C 19/40)

19/48 • • • being of the type with a three-phase stator and a rotor fed by constant-frequency ac, e.g. selsyn, magslip

21/00 Systems for transmitting the position of an object with respect to a predetermined reference system, e.g. tele-autographic system [5]

23/00 Non-electric signal transmission systems, e.g. optical systems

23/02 • using acoustic waves **[6]**

23/04 • using light waves, e.g. infra-red **[6]**

23/06 • • through light guides, e.g. optical fibres **[6]**

25/00 Arrangements for preventing or correcting errors; Monitoring arrangements

25/02 • by signalling back from receiving station to transmitting station

25/04 • by recording transmitted signals

G08G TRAFFIC CONTROL SYSTEMS (guiding railway traffic, ensuring the safety of railway traffic B61L; radar or analogous systems, sonar systems or lidar systems specially adapted for traffic control G01S 13/91, G01S 15/88, G01S 17/88; radar or analogous systems, sonar systems or lidar systems specially adapted for anti-collision purposes G01S 13/93, G01S 15/93, G01S 17/93; control of position, course, altitude or attitude of land, water, air or space vehicles, not being specific to a traffic environment G05D 1/00) **[2]**

Note(s)

This subclass covers:

- identification of traffic offenders;
- indicating the position of vehicles for traffic control purposes;
- navigation systems for traffic control purposes, i.e. systems in which the navigation is not performed autonomously by or in the vehicles, but where the vehicles are guided by instructions transmitted to them;
- indication of free spaces in parking areas.

1/00 Traffic control systems for road vehicles (arrangement of road signs or traffic signals E01F 9/00)

1/005 • including pedestrian guidance indicator **[5]**

1/01 • Detecting movement of traffic to be counted or controlled (G08G 1/07-G08G 1/14 take precedence; road pricing or congestion charging of vehicles or vehicle users G07B 15/06)

1/015 • • with provision for distinguishing between motor cars and cycles

1/017 • • identifying vehicles (G08G 1/015, G08G 1/054 take precedence) **[5]**

1/02 • • using treadles built into the road

1/04 • • using optical or ultrasonic detectors

1/042 • • using inductive or magnetic detectors **[5]**

1/048 • • with provision for compensation of environmental or other condition, e.g. snow, vehicle stopped at detector **[5]**

1/052 • • with provision for determining speed or overspeed **[5]**

1/054 • • • photographing overspeeding vehicles **[5]**

1/056 • • with provision for distinguishing direction of travel **[5]**

1/065 • by counting the vehicles in a section of the road or in a parking area, i.e. comparing incoming count with outgoing count (road pricing or congestion charging of vehicles or vehicle users G07B 15/06)

1/07 • Controlling traffic signals

1/08 • • according to detected number or speed of vehicles

1/081 • • Plural intersections under common control **[5]**

1/082 • • • Controlling the time between beginning of the same phase of a cycle at adjacent intersections **[5]**

1/083 • • • Controlling the allocation of time between phases of a cycle **[5]**

1/085 • • using a free-running cyclic timer

1/087 • • Override of traffic control, e.g. by signal transmitted by an emergency vehicle **[5]**

1/09 • Arrangements for giving variable traffic instructions

1/095 • • Traffic lights

1/0955 • • • transportable **[5]**

1/096 • • provided with indicators in which a mark progresses showing the time elapsed, e.g. of green phase

1/0962 • • having an indicator mounted inside the vehicle, e.g. giving voice messages **[5]**

1/0965 • • • responding to signals from another vehicle, e.g. emergency vehicle **[5]**

1/0967 • • • Systems involving transmission of highway information, e.g. weather, speed limits (G08G 1/0968 takes precedence) **[5]**

1/0968 • • • Systems involving transmission of navigation instructions to the vehicle **[5]**

1/0969 • • • • having a display in the form of a map **[5]**

1/097 • Supervising of traffic control systems, e.g. by giving an alarm if two crossing streets have green light simultaneously

1/123 • indicating the position of vehicles, e.g. scheduled vehicles **[5]**

1/127 • • to a central station **[5]**

1/13 • • • the indicator being in the form of a map **[5]**

1/133 • • within the vehicle **[5]**

1/137 • • • the indicator being in the form of a map **[5]**

1/14 • indicating individual free spaces in parking areas

1/16 • Anti-collision systems **[2, 2006.01]**

3/00 Traffic control systems for marine craft (marking of navigational route B63B 51/00)

3/02 • Anti-collision systems

5/00 Traffic control systems for aircraft [2]

5/02 • Automatic landing aids, i.e. systems in which flight data of incoming planes are processed to provide landing data (landing aids fitted in or to aircraft, or safety measures fitted in or to aircraft to prevent collision with earth's surface B64D 45/04; visual or acoustic landing aids on the ground or on aircraft-carrier decks B64F 1/18)

5/04 • Anti-collision systems
5/06 • for control when on the ground **[2]**

7/00 Traffic control systems for simultaneous control of two or more different kinds of craft [2]
7/02 • Anti-collision systems **[2]**

9/00 Traffic control systems for craft where the kind of craft is irrelevant or unspecified [2]
9/02 • Anti-collision systems **[2]**

99/00 Subject matter not provided for in other groups of this subclass [2006.01]