G08B

SIGNALLING OR CALLING SYSTEMS; ORDER TELEGRAPHS; ALARM SYSTEMS {(signalling arrangements on vehicles B60Q, B62D 41/00; railway signalling systems or devices B61L; on cycles B62J 3/00, B62J 6/00; signalling or alarm devices in mines E21F 17/18; lamps or shutters therefor F21; sensitive measuring elements, see the appropriate subclasses of G01; traffic control systems G08G; visual indicating means G09; sound-producing devices G10; radio or near-field calling systems H04B 5/00, H04B 7/00; selecting arrangements H04Q 5/00, H04Q 9/00; loudspeakers, microphones, gramophone pick-ups or like acoustic electromechanical transducers H04R)}

Definition statement

This place covers:

Visual, audible, tactile signalling systems (or combinations thereof) and arrangements of signalling in devices if not provided for elsewhere.

Burglar, theft, or intruder alarms. Identifying, scaring or incapacitating burglars, thieves, or intruders.

Fire alarms; Alarms responsive to explosion.

Alarms responsive to unspecified undesired or abnormal operating condition if not elsewhere provided for.

Alarm systems in which the location of the alarm condition is signalled to a central station, either spontaneously or upon interrogation from the central station.

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

Checking or monitoring of signalling or alarm systems; Prevention or correction of operating errors, e.g. preventing unauthorised operation Predictive alarm systems characterised by extrapolation or other computation using updated historic data.

Relationships with other classification places

The mere provision of an audible or visible signalling device on a measuring or switching apparatus;

Alarm systems for indicating that a specific variable has reached a predetermined value, these are classified in subclasses of G01 specifying the particular variable concerned;

Alarms relating to specific processes or types of machines or apparatus, which are covered by the relevant subclasses for the processes, machines, or apparatus.

Note:

G08B is principally defined in terms of fields of application, rather than fields of technology. For example G08B 13/00 is defined in terms of burglar, theft or intruder alarms but not limited to a particular technology, such as camera systems, tag systems etc. The systems and devices classified in G08B consequently involve many different technologies and the sub class has a high number of neighbouring technical fields. Neighbouring technical fields are typically either those areas dealing with the sensing devices per se (typically G01) or other application fields which use the same technologies (usually in G06, G07 or H04N).

For example:

G08B 13/2402 deals with electronic article surveillance using tags attached to valuables. Often these tags are radio frequency identification tags (RFID). However, RFID techniques and devices per se are not classified in G08B, but in G06K. Likewise many other specific applications using RFID tags should not be classified in G08B, e.g. entrance control using tags (G07C), inventory systems using tags (G06Q).

Example 2:

Theft detection using cameras belongs to G08B, Close-circuit television (CCTV) systems per se are classified in the video fields (H04N 7/00). Other systems employ similar camera systems, but for a different purpose. E.g. entrance systems using cameras (G07C), traffic control using cameras (G08G). The mere mentioning of surveillance in a video system does not qualify the document for classification in G08B. In G08B the object of surveillance is always to detect theft or intrusion.

References

Limiting references

This place does not cover:

Signalling arrangements on vehicles	B60Q, B62D 41/00
Railway signalling systems or devices	B61L
Signalling systems on cycles	B62J 3/00 , B62J 6/00
Signalling or alarm devices in mines	E21F 17/18
Lamps or shutters for lamps	F21
Sensitive measuring elements	G01
Traffic control systems	G08G
Visual indicating means	G09
Sound-producing devices	G10
Radio or near-field calling systems	H04B 5/00 , H04B 7/00
Selecting arrangements	H04Q 5/00, , H04Q 9/00
Loudspeakers, microphones, gramophone pick-ups or like acoustic electromechanical transducers	H04R

Special rules of classification

G08B has a high number of neighbouring fields. This has consequences for limiting references, for deciding which classification entries are relevant to the search and for deciding where to classify documents outside G08B. The most relevant neighbouring fields specific to particular sub-groups of G08B are presented in the detailed analysis of each of the subgroups.

Generally documents are only classified in classes to which the invention specifically relates. However In specific cases, details should be classified elsewhere as additional information. E.g. details of devices where the invention is in G08B 13/1427 - theft control using a transmitter-receiver system, should have details classified in the subgroups of G08B 21/0202, parent-child transmitter-receiver systems, which use the same technology.

G08B 1/00

Systems for signalling characterised solely by the form of transmission of the signal

Definition statement

This place covers:

Signalling systems where the emphasis is put in the transmission or relaying of the signal, not on the way of perceiving the signal.

Further details of subgroups

G08B 1/08

This subgroup contains diverse alarm systems, where the alarm signalling of a sub-element (e.g. a detector within the system) is transformed to electrical signals from a different medium, e.g. transmission of an electric alarm signal upon detection of an audible alarm signal.

G08B 3/00

Audible signalling systems; Audible personal calling systems {(signalling devices actuated by tyre pressure B60C 23/02; alarm locks E05B 45/00, e.g. with mechanically-operated bells E05B 45/02, electric E05B 45/06; sound producing devices, e.g. hooter, buzzer, G10K; telephonic systems provided with personal calling arrangements H04M 11/022)}

Definition statement

This place covers:

Audible signalling systems. Pager receivers signalling only audibly.

References

Limiting references

This place does not cover:

Signalling devices actuated by tyre pressure	B60C 23/02
Alarm locks	E05B 45/00
Alarm locks e.g. with mechanically-operated bells	E05B 45/02
Alarm locks e.g. with electric	E05B 45/06
Sound producing devices, e.g. hooter, buzzer,	G10K
Telephonic systems with personal calling arrangements	H04M 11/022

Informative references

Attention is drawn to the following places, which may be of interest for search:

Filling tank whistles	G01F 23/0015
Audible indication of time signals	G04B 21/00, G04C 21/00
Horns for cars	G10K 9/15
Intercoms	H04M 11/02
Loudspeakers	H04R 3/12

Distributing signals to two or more loudspeakers for public address systems	H04R 27/00
Selective calling systems and call receivers	H04W 68/00

Special rules of classification

Audible signalling systems with a specific application classified elsewhere (e.g. a particular machine comprising an audible signalling device where the classification related to this machine already contains signalling related entries). Paging systems.

Paging receivers using only audible signalling is largely an obsolete technology. However, patent applications are still filed in G08B 3/1008 and subgroups thereof.

G08B 5/00

visible signalling systems, e.g. personal calling systems, remote indication of seats occupied {(locks with visible signalling devices E05B 39/00; electro-, magneto- or acousto-optic display devices G02F; display tubes H01J 17/49, H01K 7/04; electro-luminescent devices H05B 33/00)}

Definition statement

This place covers:

Visible signalling systems. Paging receivers signalling visually

References

Limiting references

This place does not cover:

Locks with visible signalling devices	E05B 39/00
Electro-, magneto- or acousto-optic display devices	G02F
Display tubes	H01J 17/49 , H01K 7/04
Electro-luminescent devices	H05B 33/00

Informative references

Attention is drawn to the following places, which may be of interest for search:

Arrangements on vehicles	B60Q 1/34, B60Q 1/46
Display of alphanumeric information	G09F
Paging systems	H04Q, H04W
Circuit arrangements for flashing lamps	H05B 41/30, H05B 39/09

Special rules of classification

With a view to understanding the relevance of the term "visually" for classifiying paging receivers, the following information is of importance:

- Paging receivers which do signal visually are classified in this group. This implies:

a) That G08B hosts the paging receivers, which is not explicit from the main group titles.

b) That the paging receivers are classified in two different groups in G08B. If the paging receiver details the way it signals VISUALLY, it is to be classified under G08B 5/22. If the paging receiver presents details as to how it signals AUDIBLY, it shall be clasified under G08B 3/10+

c) If the paging receiver presents details as to how to signal both audibly and visually,since no appropriate entry exists for paging receivers under G08B 7/00, the document shall be classified in both G08B 5/00 and G08B 3/00 accordingly.

c) paging systems are NOT to be classified in G08B, rather H04W (formerly also H04Q).

All Visual indicators of the types specified in the subgroups of G08B 7/06 (e.g. indication of emergency exits or escape routes) are classified there and not in G08B 5/00, even if they comprise only visual signalling means.

G08B 5/24

with indicator element moving about a pivot, e.g. hinged flap or rotating vane {(signalling devices for telephones H04M 19/04; telecontrolling indicating devices, e.g. hinged flap, G08C 19/30; signalling systems for auctioneering devices H04L 12/1804)}

References

Limiting references

This place does not cover:

Telecontrolling indicating devices, e.g. hinged flap,	G08C 19/30
Signalling systems for auctioneering devices	H04L 12/1804
Signalling devices for telephones	H04M 19/04

G08B 5/40

using smoke, fire or coloured gases {(for personal calling arrangements G08B 3/1008, G08B 3/1016; smoke producers for aircraft B64D 1/16-B64D 1/20; chemical compositions C06B; missiles, e.g. of tracer, illuminating, signal or smoke producing type F42B)}

References

Limiting references

This place does not cover:

For personal calling arrangements	G08B 3/1008, G08B 3/1016
Smoke producers for aircraft	B64D 1/16 - B64D 1/20
Chemical compositions	C06B
Missiles, e.g. of tracer, illuminating, signal or smoke producing type	F42B

Informative references

Attention is drawn to the following places, which may be of interest for search:

Sky-writing	G09F 21/16

G08B 6/00

Tactile signalling systems, e.g. personal calling systems {(apparatus for generating mechanical vibrations B06B 1/045; motors converting reciprocating into rotary movement or vice-versa H02K 7/06; motors with reciprocating, oscillating, or vibrating magnet, armature, or coil system H02K 33/00; telephone hand set vibration alarms H04M 19/047)}

Definition statement

This place covers:

Tactile (e.g. vibratory) signalling systems.

References

Limiting references

This place does not cover:

Apparatus for generating mechanical vibrations	B06B 1/045
Motors converting reciprocating into rotary movement or vice-versa	H02K 7/06
Motors with reciprocating, oscillating, or vibrating magnet, armature, or coil system	H02K 33/00
Telephone hand set vibration alarms	H04M 19/047

Informative references

Attention is drawn to the following places, which may be of interest for search:

Indication of time by feeling	G04B 25/02
Deaf-aid sets	H04R 25/00

Special rules of classification

Tactile signalling systems with a specific application classified elsewhere (e.g. a vibratory signalling device comprised in a mobile telephone).

G08B 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 {(combinations of display devices with advertising G09F)}

Definition statement

This place covers:

Subject matter combining more than one of visual, audible and/or tactile signalling means.

References

Limiting references

This place does not cover:

Audible signaling systems and personal calling systems with more than one group	G08B 3/00 - G08B 6/00
Combinations of display devices with advertising	G09F

Informative references

Attention is drawn to the following places, which may be of interest for search:

Walking aids for blind persons	A61H 3/06
Devices for facilitating escape from buildings	A62B 3/00
Exit signs (e.g.) on doors	G09F 2013/0459
Combinations of display arrangements with audible advertising	G09F 27/00

Special rules of classification

The following special rules apply:

Signalling systems with a specific application classified elsewhere (e.g. a particular machine comprising a visual and an audible signalling device where the classification related to this machine already contains signalling related entries). G08B 7/00 takes precedence over any group in G08B 3/00, G08B 5/00, G08B 6/00.

G08B 7/06

Although the heading of this group specifies “more than one … signalling means”, systems and devices comprising only one single signalling means are classified in the following subgroups: G08B 7/064, G08B 7/062, G08B 7/068, G08B 7/066 (see also precedence note here above).

G08B 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 {(signaling devices in mines E21F 17/18)}

Definition statement

This place covers:

Order telegraph apparatus.

References

Informative references

Attention is drawn to the following places, which may be of interest for search:

Signalling devices in mines	E21F 17/18

G08B 13/00

Burglar, theft or intruder alarms {(fire or police telegraphic systems G08B 25/00, G08B 26/00, H04M 11/04; vehicle theft alarms B60R 25/10; cycle theft alarms B62H 5/00)}

Definition statement

This place covers:

Arrangements, devices and systems triggering an alarm in case of intrusion, theft or burglary.

This group is mainly subdivided according to the technology used to detect the burglary, theft or intrusion. Each subgroup will typically have related fields in the areas where the corresponding sensors and systems per se are classified, and in many technical fields where the same type of detectors might be used.

Relationships with other classification places

If the invention lies in a central station control unit of a distributed system or in the way in which alarm signals are transmitted between the central station control unit and satellite detectors of the distributed system, classification is likely to be G08B 25/00, G08B 26/00 or G08B 27/00, rather than G08B 13/00. Similarly, if the invention lies in the checking of or testing for malfunctions of an alarm system, then classification is likely to be in G08B 29/00.

Exceptions to the above are those distributed systems in which the specific theft detection technology is relevant to the invention (e.g. video theft detection systems communicating with a central station and where the problem solved by the invention is particularly related to video).

G08B 13/00 only covers theft, burglary and intrusion alarms, it does not cover other alarms (e.g. personal safety alarms, machine fault warnings G08B 21/00).

Intrusion here means physical intrusion, not non-authorised (electronic) access to a system, e.g. hacking.

References

Limiting references

This place does not cover:

Fire or police telegraphic systems	G08B 25/00, G08B 26/00, H04M 11/04

Informative references

Attention is drawn to the following places, which may be of interest for search:

Devices to prevent theft or loss of purses, luggage or hand carried bags	A45C 13/18
Show stands, hangers or shelves with antitheft function.	A47F 5/0861
Layered products, e.g. glass panels	B32B 17/00
Vehicle theft alarms	B60R 25/10
Cycle theft alarms	B62H 5/00
Electronic seals for envelopes	B65D 27/30
Electronic seals for containers	B65D 55/02
Containers incorporating RFID tag.	B65D 2203/10
Anti-theft means in containers	B65D 2211/00

Floor coverings	D06N 7/00
Fences	E04H 17/00
Locks giving indication of unauthorized opening	E05B 39/00
Alarm locks. Alarm systems limited to lock systems	E05B 45/00, H01H 13/18, E05B 45/06
Mechanisms for attaching tags to goods	E05B 73/0017
Tags fixed to articles to be removed at check out	E05B 73/0023
Alarm devices on safes	E05G 1/10
Windows, doors against burglary	E06B 5/11
Mechanical details for pivoting arrangements, e.g. for cameras	F16M 11/12, F16M 11/18
Illumination activated by motion detection	F21V 23/0442, H05B 37/0227
Sensing per se	G01
Radiation pyrometry. Lens details	G01J 1/04
Infrared sensors. Radiation pyrometry.	G01J 5/08
Opening detection in general	G01R 11/24
Active positioning systems	G01S
Detecting using light barriers	G01V 8/10
Detecting using light barriers. single beams	G01V 8/16
Detecting using light barriers. multi beams	G01V 8/24
Opening or tampering of input/output devices, i.e. mouse, keyboards	G06F 21/83
Opening or tampering of casing of electronic components	G06F 21/86
RFID readers	G06K 7/00
Image content analysis	G06K 9/00
Recognition of humans or body parts in video images.	G06K 9/00362
Recognising scenes under surveillance, e.g. with Markovian modelling of scene activity	G06K 9/00771
Recognition of scenes under surveillance	G06K 9/00771
Tracking/inventory using tags	G06K 2017/0045
Loan/reuse applications using RFID tags	G06K 2017/0074
RFID transponders	G06K 19/07
Tracking of shipping containers	G06Q 10/0833
Camera calibration, e.g. determining intrinsic or extrinsic parameters	G06T 7/0018
Motion analysis in video images	G06T 7/20
Control access systems, sometimes combined with EAS systems.	G07C 9/00
Anti theft control in POS systems	G07G 3/003
Security seals	G09F 3/03
Fastening or securing to goods by means of strings, straps, chains, or wires	G09F 3/14
Antenna details, also for EAS interrogators	H01Q 7/04, H01Q 1/22
Network intrusion	H04L 29/00

Fire or burglar alarm telephonic systems	H04M 11/04
Closed circuit television systems	H04N 7/18

G08B 13/04

by breaking of glass

References

Informative references

Attention is drawn to the following places, which may be of interest for search:

Layered products, e.g. glass panels	B32B 17/00
Windows, doors against burglary	E06B 5/11

G08B 13/06

by tampering with fastening {(alarm locks E05B 45/00; alarm devices on safes E05G 1/10)}

References

Informative references

Attention is drawn to the following places, which may be of interest for search:

Electronic seals for envelopes	B65D 27/30
Electronic seals for containers	B65D 55/02
Anti-theft means in containers	B65D 2211/00
Locks giving indication of unauthorized opening	E05B 39/00
Alarm locks	E05B 45/00
Alarm devices on safes	E05G 1/10
Windows, doors against burglary	E06B 5/11
Opening detection in general	G01R 11/24
Opening or tampering of input/output devices, i.e. mouse, keyboards	G06F 21/83
Opening or tampering of casing of electronic components	G06F 21/86

G08B 13/08

by opening, e.g. of door, of window, of drawer, of shutter, of curtain, of blind {(alarm locks E05B 45/00; electrical switches operated by opening or closing of a door H01H 13/18)}

References

Informative references

Attention is drawn to the following places, which may be of interest for search:

Electronic seals for envelopes	B65D 27/30

Electronic seals for containers	B65D 55/02
Locks giving indication of unauthorized opening	E05B 39/00
Windows, doors against burglary	E06B 5/11
Opening detection in general	G01R 11/24
Opening or tampering of input/output devices, i.e. mouse, keyboards	G06F 21/83
Opening or tampering of casing of electronic components	G06F 21/86

G08B 13/10

by pressure on floors, floor coverings, stair treads, counters, or tills {(contact cables, contact carpets H01B 7/10; electrical switches operated by change of a non-electrical or thermal condition H01H 9/00; treadles for traffic control G08G 1/02)}

References

Informative references

Attention is drawn to the following places, which may be of interest for search:

Floor coverings	D06N 7/00

G08B 13/12

by the breaking or disturbance of stretched cords or wires

Definition statement

This place covers:

This group contains arrangements where an item is protected against theft or intrusion by some type of “fence” which encloses or surrounds the item and whereby the disruption of the fence is detected. Here the term “fence” includes not only a conventional fence, such as one surrounding a building, but also a grid surrounding an electronic circuit in an electronic package.

References

Informative references

Attention is drawn to the following places, which may be of interest for search:

Fences	E04H 17/00
Opening or tampering of input/output devices, i.e. mouse, keyboards	G06F 21/83
Opening or tampering of casing of electronic components	G06F 21/86

G08B 13/14

by lifting or attempted removal of hand-portable articles {(devices to prevent theft or loss of purses, luggage or hand carried bags A45C 13/18)}

Definition statement

This place covers:

This group relates to inventions in which the (attempted) physical removal of an object is detected, rather than the mere approach to an object, as is the case in G08B 13/12. E.g. Whilst cutting a cable in a fence in G08B 13/12 would indicate someone attempting to approach an object, cutting a cable in G08B 13/1445 would indicate that a cable by which an object was tethered has been cut, making the object removable.

Important: Electronic article surveillance (EAS) tags are not classified in G08B 13/14. They are classified in G08B 13/2402 and the subgroups thereof.

References

Informative references

Attention is drawn to the following places, which may be of interest for search:

Devices to prevent theft or loss of purses, luggage or hand carried bags	A45C 13/18
Show stands, hangers or shelves with antitheft function.	A47F 5/0861

G08B 13/1427

{with transmitter-receiver for distance detection}

Definition statement

This place covers:

This group relates to transmitter receiver alarm systems where part of the system, e.g. the transmitter, is physically associated with an article to be protected. The technology employed is the same as that of transmitter receiver systems according to G08B 21/0202 where a part of the system, e.g. the transmitter, is physically associated with a child to be protected. Transmitter receiver article theft systems must be classified in G08B 13/1427, and additionally in the appropriate subgroups of the personal safety alarms under G08B 21/0202 as additional information.

G08B 13/1436

{with motion detection}

Definition statement

This place covers:

The motion of a mechanism attached to a portable object is detected, not the motion of an intruder.

G08B 13/1445

{with detection of interference with a cable tethering an article, e.g. alarm activated by detecting detachment of article, breaking or stretching of cable (furniture, e.g. shelves for displaying merchandise, incorporating tethers to prevent theft A47F 7/024, A47F 5/0861)}

Definition statement

This place covers:

see comments to G08B 13/14.

G08B 13/16

Actuation by interference with mechanical vibrations in air or other fluid

References

Informative references

Attention is drawn to the following places, which may be of interest for search:

Vehicle theft alarms	B60R 25/10
Active positioning systems	G01S

G08B 13/183

by interruption of a radiation beam or barrier {(industrial safety devices with photocells F16P 3/14)}

Definition statement

This place covers:

This group relates to interruption of a radiation beam. The groups under G01V 8/10 have the same structure and are useful for the search.

References

Limiting references

This place does not cover:

Industrial safety devices with photocells	F16P 3/14

Informative references

Attention is drawn to the following places, which may be of interest for search:

Detecting using light barriers	G01V 8/10

G08B 13/184

using radiation reflectors

Definition statement

This place covers:

In G08B 13/184 systems incorporate reflectors for reflecting a beam from the emitter to the receiver. The groups under G01V 8/10 have the same structure and are useful for the search.

References

Informative references

Attention is drawn to the following places, which may be of interest for search:

Detecting using light barriers	G01V 8/10

G08B 13/186

using light guides, e.g. optical fibres

Definition statement

This place covers:

This group relates to protection using light guides such as optical fibres. Where the invention relates to a light guide, such as an optical fibre, incorporated into the structure of a fence for protecting an object, the classification is G08B 13/124, which takes precedence over G08B 13/186.

If the light guide, e.g. optical fibre, is used for the tethering an object, the correct classification is both G08B 13/1445 and G08B 13/186 (as additional information is appropriate).

References

Informative references

Attention is drawn to the following places, which may be of interest for search:

Detecting using light barriers. single beams	G01V 8/16
Detecting using light barriers. multi beams	G01V 8/24

G08B 13/19

using infra-red radiation detection systems {(G08B 13/194 takes precedence; lighting devices activated by motion detection F21V 23/0442; radiation pyrometry per se G01J 5/00; controlling circuits for electric light sources activated by motion detection H05B 37/0227)}

References

Informative references

Attention is drawn to the following places, which may be of interest for search:

Illumination activated by motion detection	F21V 23/0442, H05B 37/0227
Infrared sensors. Radiation pyrometry.	G01J 5/08

G08B 13/193

using focusing means

References

Informative references

Attention is drawn to the following places, which may be of interest for search:

Radiation pyrometry. Lens details	G01J 1/04

G08B 13/196

using television cameras {(recognition of scenes under surveillance G06K 9/00771; image analysis per se G06T 7/00; television cameras H04N 5/225; CCTV systems H04N 7/18)}

Definition statement

This place covers:

This group relates to theft or intrusion detection using video cameras. Personal safety, industrial process control, traffic surveillance, entry-exit systems, tele-presence or video conferencing systems are not classified in G08B (see the neighbouring fields of G08B 13/00 above).

Many details are contemplated by the classification scheme, and they should be allocated as completely as possible. They are grouped within the following structure:

- Movement detection and image analysis
- Camera casing
- Details of the system layout
- Electrical details.
- Camera communication details
- Data storage details
- User interface details

Several specific subgroups serve as headers to help the reader separate these topics above. These header subgroups and should not be used for classification. This is indicated in the group references (“contains no documents”).

In general, a document which discloses generally known subject matter pertaining to one or more of the detailed subgroups but where the invention does not lie in the aspects covered by these subgroups should not be allocated that particular classification. If no subgroup can be appropriately allocated, then the document should be classified in G08B 13/196 as invention information, and the details present in the document should be classified in the corresponding subgroups as additional information. A document where the invention clearly focuses on the topic of an existing subgroup should be given only this subgroup as invention information, further details being classified as additional information where appropriate.

References

Informative references

Attention is drawn to the following places, which may be of interest for search:

Mechanical details for pivoting arrangements, e.g. for cameras	F16M 11/12, F16M 11/18
Image content analysis	G06K 9/00

Recognition of humans or body parts in video images.	G06K 9/00362
Recognition of scenes under surveillance	G06K 9/00771
Camera calibration, e.g. determining intrinsic or extrinsic parameters	G06T 7/0018
Motion analysis in video images	G06T 7/20
Closed circuit television systems	H04N 7/18

G08B 13/2402

{Electronic Article Surveillance [EAS], i.e. systems using tags for detecting removal of a tagged item from a secure area, e.g. tags for detecting shoplifting (mechanical aspects of the tags, e.g. related to locking E05B 73/0017; RFID readers G06K 7/00; RFID tags G06K 19/00; access control systems G07C 9/00; anti-theft control in point of sale systems G07G 3/003; security seals G09F 3/03)}

Definition statement

This place covers:

Electronic Article Surveillance (EAS) tags are classified in G08B 13/2402 and its subgroups.

A tag in accordance with this group is an electromagnetic, non-contact marker detected by an antennae (typically a loop antenna arranged at the entrance of a shop or other building). Systems employed for the detection of theft of portable articles comprising an RF transponder communicating with a central station by a radio link are generally classified in the subgroups of G08B 13/14, even though the transponder may be referred to in the document as a tag.

Systems comprising a transponder and a tag is, at the time of writing in 2011 , an active topic (e.g. a tag detected by loop antennae at exit points of a shop but also communicating with the WLAN of a shop via Wi-fi access points). These documents should be classified both in G08B 13/1427 and G08B 13/2402.

The classification scheme hierarchically under G08B 13/2402 is detailed, and the relevant aspects of a document should be rigorously classified. Similar criteria as for G08B 13/196 applies:

In general, a document which discloses generally known subject matter pertaining to one or more of the detailed subgroups of G08B 13/2402, where the invention does not lie in the solution to a problem therein should not be allocated that particular classification. If no subgroup can be appropriately allocated, then the document should be classified in the header G08B 13/2402 as invention information, and the details present in the document should be classified in the corresponding subgroups as additional information.

A document where the invention clearly focuses on the topic of an existing subgroup should be given only this subgroup as invention information, further details being classified as additional information where appropriate.

Further details of subgroups

The group is structured in four main topics. The header groups for each main topic (discussed in bold here below) should NOT be used for classification, They exist rather for distinguishing the matter classified underneath. These topics are:

- G08B 13/2405

Classification is according to the tag technology used. Documents in which the specific technology is of relevance to the problem solved should be classified here. It is noted that documents specifically disclosing RFID tags solving problems in the field of theft detection should be classified in

G08B 13/2417. RFID tags per se are not classified in G08B. Furthermore, merely mentioning security control or surveillance as possible fields of application for an RFID tag in a document is not sufficient to warrant classifying the document in G08B.

- G08B 13/2428

The classification defines technical aspects of the tag itself.

- G08B 13/2451

The classification defines specific applications of the tag which should only be considered if the system includes theft or intrusion detection (e.g. a system using tags storing check-out information and used for theft detection. Documents disclosing only tags used for check-out should not be classified here.

G08B 13/2465

The classification defines systems or elements of systems other than the tag e.g. antennae for detecting tags, devices for deactivating tags, or transmission or communication arrangements employed within the system.

References

Informative references

Attention is drawn to the following places, which may be of interest for search:

Containers incorporating RFID tag.	B65D 2203/10
Anti-theft means in containers	B65D 2211/00
Mechanisms for attaching tags to goods	E05B 73/0017
RFID readers	G06K 7/00
Tracking/inventory using tags	G06K 2017/0045
Loan/reuse applications using RFID tags	G06K 2017/0074
RFID transponders	G06K 19/07
Tracking of shipping containers	G06Q 10/0833
Control access systems, sometimes combined with EAS systems.	G07C 9/00
Anti theft control in POS systems	G07G 3/003
Security seals	G09F 3/03
Fastening or securing to goods by means of strings, straps, chains, or wires	G09F 3/14
Antenna details, also for EAS interrogators	H01Q 7/04, H01Q 1/22
Closed circuit television systems	H04N 7/18

G08B 13/2491

{Intrusion detection systems, i.e. where the body of an intruder causes the interference with the electromagnetic field}

Definition statement

This place covers:

Microwave detectors for detecting intrusion.

Special rules of classification

If the microwave detector is combined with a further sensing technology, documents are classified in G08B 13/2494.

G08B 15/00

Identifying, scaring or incapacitating burglars, thieves or intruders, e.g. by explosives {(devices to prevent loss of bags, trunks or travelling baskets by producing sound, piercing, gas-discharging or the like A45C 13/24; alarm locks E05B 45/00, e.g. with detonating alarm E05B 45/04)}

Definition statement

This place covers:

Means or measures to stop thieves, trap them or deter them from their planned activity.

Relationships with other classification places

Personal portable devices transmitting an alarm signal to a remote security centre should be classified in G08B 25/016, not G08B 15/004.

References

Limiting references

This place does not cover:

Devices to prevent loss of bags, trunks or travelling baskets by producing sound, piercing, gas-discharging or the like	A45C 13/24
Alarm locks	E05B 45/00
Detonating alarm	E05B 45/04

Informative references

Attention is drawn to the following places, which may be of interest for search:

Burglar traps or the like on safes	E05G 5/02
Hand-held or body-worn self-defence devices using repellent gases or chemical	F41H 9/10

G08B 17/00

Fire alarms; Alarms responsive to explosion {(automatic fire-extinguishing and alarm devices A62C 35/00, A62C 37/00; structural combination of lighting devices with smoke detectors F21V 33/0076; arrangement of safety devices on stoves F24C 7/08)}

Definition statement

This place covers:

The generation of an alarm based on the detection of fire, smoke or particles indicating fire.

Relationships with other classification places

Flame detection or analysis to solve the problem of monitoring a controlled combustion process, e.g. in order to optimise burners in a kiln (F23N). Sensing elements per se, particle detectors air pollution detectors (G01N). Fire fighting arrangements; e.g. extinguishers, sprinklers, safety doors (A62C).

References

Limiting references

This place does not cover:

Automatic fire-extinguishing and alarm devices	A62C 35/00, A62C 37/00
Structural combination of lighting devices with smoke detectors	F21V 33/0076
Arrangement of safety devices on stoves	F24C 7/08

Informative references

Attention is drawn to the following places, which may be of interest for search:

Fire fighting in general	A62C
Fire fighting area fires or forest fires,	A62C 3/02
Safety devices on stoves, cooking apparatus	F24C 7/087
Radiation pyrometry	G01J 5/00
Temperature-responsive elements	G01K
Light scattering per se	G01N 21/53
Temperature responsive switches	H01H 37/00

Special rules of classification

Where the invention disclosed in a document relates to the structure of a fire alarm system including a central station, without specifying what kind of detectors are used, the document should be classified under G08B 25/00, G08B 26/00, G08B 27/00 or G08B 29/00 as appropriate. In this case, the document should also be classified in the head group G08B 17/00 as additional information, so that the document can be retrieved when searching for fire alarm systems.

Devices generating an alarm upon the detection of a combustible gas (i.e. before an explosion has actually taken place) and thus endangering the safety of persons, are not classified in G08B 17/00 but in G08B 21/16.

G08B 17/10

The classification is used for smoke detectors other than those defined in any of the specific subgroups thereof. E.g. systems comprising aspiration ducts used for the analysis and detection of smoke or other combustion products.

G08B 17/103

The classification is used for photoelectric smoke detectors responsive to the obscuration (reduced transmission) of light in the presence of smoke, the detector having a light detector arranged to receive light from a light source when no smoke is present.

G08B 17/107

The classification is used exclusively for photoelectric smoke detectors responsive to the scattering of light in the presence of smoke, the detector having a light receiver arranged to receive light from a light source which has been scattered by smoke.

G08B 17/06

Electric actuation of the alarm, e.g. using a thermally-operated switch {(thermally-operated electric switches per se H01H 37/00)}

References

Informative references

Attention is drawn to the following places, which may be of interest for search:

Thermally-operated electric switches per se	H01H 37/00

G08B 17/11

using an ionisation chamber for detecting smoke or gas {(gas analysis by investigating the ionisation G01N 27/62)}

References

Informative references

Attention is drawn to the following places, which may be of interest for search:

Vacuum gauges making use of ionisation effects	G01L 21/30
Gas analysis by investigating the ionisation	G01N 27/62

G08B 17/113

Constructional details

References

Informative references

Attention is drawn to the following places, which may be of interest for search:

Discharge tubes for measuring pressure of introduced gas, or for detecting presence of gas, in general	H01J 41/02

G08B 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 {; investigating or analysing gases in general G01N, e.g. by using electric means G01N 27/00; particle spectrometers per se H01J 49/00})

References

Limiting references

This place does not cover:

For detecting light-scattering due to smoke	G08B 17/103
Using an ionisation chamber for detecting smoke or gas	G08B 17/11
Particle spectrometers per se	H01J 49/00

Informative references

Attention is drawn to the following places, which may be of interest for search:

Investigating or analysing gases in general	G01N
Investigating or analysing materials by the use of electric, electro-chemical, or magnetic means	G01N 27/00

G08B 17/12

Actuation by presence of radiation or particles, e.g. of infra-red radiation or of ions {(flame detection in burners F23N 5/00; alarm or controlling circuits using ionisation chamber, proportional counters or Geiger-Müller tubes also functioning as u-v detectors G01T 7/125)}

References

Limiting references

This place does not cover:

Flame detection in burners	F23N 5/00
Alarm or controlling circuits using ionisation chamber, proportional counters or Geiger-Müller tubes also functioning as u-v detectors	G01T 7/125

G08B 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

Definition statement

This place covers:

Combinations of the subject matter of G08B 13/00 and G08B 17/00.

Relationships with other classification places

Weather alarms (G01W 1/00). Indications of formation of ice on aircraft (B64D 15/20).

Special rules of classification

Specific details covered by subgroups of G08B 13/00 or G08B 17/00 should also be classified in those subgroups.

Fire and burglary alarms where the invention lies in G08B 25/00 - G08B 27/00 should not be classified here. G08B 19/005 deals with a detecting unit, not a system, intended both for the detection of fire and intrusion,

Example: a video camera detecting both fire and intrusion whereby, the details of the video camera system relating to intrusion detection should also be classified in the appropriate subgroups of G08B 13/196.

G08B 19/02

Alarm responsive to formation or anticipated formation of ice {(indicating weather conditions G01W 1/00)}

References

Limiting references

This place does not cover:

Indicating weather conditions	G01W 1/00

G08B 21/00

Alarms responsive to a single specified undesired or abnormal operating condition and not elsewhere provided for {(alarms on gas pipes F17D 3/01)}

Definition statement

This place covers:

Alarms of various kinds, always exclusively in case they are not provided for elsewhere in the entire classification scheme. This group mainly covers alarms systems responsive to situations compromising the safety of persons. Additionally the group covers some alarms indicating faults in systems or devices and for which the entire classification scheme does not provide a more specific entry. It is important that classification under G08B 21/00 is carried out in accordance with the following rules in order to maintain the usefulness of the group for search purposes.

References

Limiting references

This place does not cover:

Detecting, measuring or recording for diagnostic purposes	A61B 5/00
Devices signalling that patients are leaving their beds	A61B 5/1115
Diapers with wetness sensors and indicators	A61F 13/42
Reminders for taking medicines	A61J 7/04
Anti-dozing alarms for vehicle drivers	B60K 28/06, A61B 5/18
Passenger detection in vehicles	B60N 2/00
Absence or presence of persons in vehicles.	B60N 2/002
Alarm devices for indicating persons falling over board	B63C 9/0005

Elevator stopping systems in case of earthquake or other calamity.	B66B 5/027
Industrial safety in conjunction with the operation of a machine	F16P 3/00
Measuring and indicating liquid levels in container	G01F 23/00
Detection of biological contaminants	G01N 2015/0088
Seismology	G01V 1/00
Alarm clocks	G04G
Measuring quality of medical staff	G06F 19/327
Telemedicine, also with devices carried by patients	G06F 19/3418
Recognising scenes under surveillance, e.g. with Markovian modelling of the scene activity)	G06K 9/00771
Checking timed patrols	G07C 1/20
Checking timed patrols e.g. of night security personnel	G07C 1/20
House arrest systems	G07C 9/00111
House arrest systems	G07C 9/00111
Electrical disconnection protective circuits for electric machines, also with operator alerts.	H02H 3/00, H02H 3/24

Special rules of classification

Alarm systems related to a specific device or system which is found elsewhere in the classification.

An exhaustive list of examples cannot be given here, since so many specific devices, installations or systems have provisions for indicating malfunctions.

The following are not classified here e.g.: Theft, burglary or intrusion alarms (G08B 13/00), battery charge indicators (H01M 10/00, H02J 7/00), over-voltage indicators (G01R 19/00), an alarm for a crane (B66C 23/90) , an indicator of a fault on a fridge (F25D 29/008), or an alarm on a gas pipe (F17D 3/01).

G08B 21/02

Personal safety alarm systems not covered by the definition of G08B 21/0202 are classified here. e.g. fireman in-field safety alarm. Stopping a machine on safety grounds is not here (F16P 3/14, Industrial safety). Personal alarm systems (panic button) also not classified here (G08B 25/016)

G08B 21/0202

This subgroup contains transmitter-receiver alarm systems e.g. where a parent carries a transceiver for monitoring a child carrying another transceiver. This subgroup uses the same technology as that of G08B 13/1427. If the invention relates to a specific subgroup of G08B 21/0202, the document should be classified in that specific subgroup as invention information. Otherwise the class G08B 21/0202 should be allocated as invention information. In both cases, the details disclosed in the document should, where possible, be classified also as additional information in the appropriate subgroups.

Details of documents classified in G08B 13/1427 should be classified also as additional information in the appropriate subgroups of G08B 21/0202.

G08B 21/04

Surveillance of elderly or infirm people. G08B 21/0407, the (sensor) means used for detecting an emergency and G08B 21/0438, the criteria for judging an emergency, constitute header groups defining the two main topics covered by this group. These should not be used for classification. Documents disclosing details of both topics should be classified under both topics.

G08B 21/04 itself is only to be used if the invention does not correspond to subject-matter covered by a subgroups.

G08B 21/06

There is considerable overlap of documents classified in G08B 21/06 and those classified in B60K 28/066 and A61B 5/18. A complete search should therefore include all three groups.

G08B 21/18 - G08B 21/20

The literal wording of the definitions of these groups is so general that it could apply to almost any technology. In order for these groups to be useful for search, and to avoid loosing access to documents elsewhere, a document should only be classified in these groups if in the entire classification scheme a more appropriate classification entry cannot be found at all.

G08B 21/22

Where security or safety is compromised in dependence of the presence or absence of a person in a given area (e.g. alarm systems responsive to: the absence of a patient from a hospital bed; the absence of a parolee under house arrest from their house; the presence of a in an area in which they are not authorized to be). Documents detecting presence or absence of persons for specific applications elsewhere provided for are not to be classified here, for example detecting presence of a child in a hot car (B60N 2/002).

G08B 21/06

indicating a condition of sleep, e.g. anti-dozing alarms {(psychotechnic analysis of vehicle drivers A61B 5/18; safety devices for propulsion-unit control of vehicles responsive to incapacity of driver B60K 28/06)}

References

Limiting references

This place does not cover:

Psychotechnic analysis of vehicle drivers	A61B 5/18

Informative references

Attention is drawn to the following places, which may be of interest for search:

Safety devices for propulsion-unit control of vehicles responsive to incapacity of driver	B60K 28/06

G08B 21/10

responsive to calamitous events, e.g. tornados or earthquakes

References

Informative references

Attention is drawn to the following places, which may be of interest for search:

Seismology	G01V 1/00
Indicating weather conditions	G01W 1/00

G08B 21/12

responsive to undesired emission of substances, e.g. pollution alarms

References

Informative references

Attention is drawn to the following places, which may be of interest for search:

Alarms on pipe lines	F17D 3/01

G08B 21/24

Reminder alarms, e.g. anti-loss alarms

References

Informative references

Attention is drawn to the following places, which may be of interest for search:

Devices to prevent loss of bags or the like	A45C 13/24

G08B 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 {(signalling systems in general G08C)}

Definition statement

This place covers:

Alarm systems where a central station receives alarm information from satellite detectors or subsystems.

These groups focus on alarm systems as a whole, not merely on the point where an alarm condition is detected.

Relationships with other classification places

Polled alarm systems (G08B 26/00). With the exception of groups G08B 25/001 - G08B 25/009 (see special rules for classification below).

References

Limiting references

This place does not cover:

Domotic systems	G05B 19/00
Emergency calls from traffic accidents	G08G 1/205
Portable communication terminals supporting an emergency service	H04M 1/72536
Telephonic communication systems adapted for combination with fire or burglar alarm system	H04M 11/04
Services facilitating emergency connection	H04W 4/22

Informative references

Attention is drawn to the following places, which may be of interest for search:

WLANs	H04L 12/189
Home automation networks	H04L 12/2803

Special rules of classification

Groups G08B 25/001 - G08B 25/009 relate to typical problems solved in the context of distributed alarm systems. They are relevant both to systems where the remote detector sends an alarm signal spontaneously and to systems having detectors which are polled by a central station. Documents classified in G08B 26/00, but which deal with any of the problems contemplated in these groups should additionally be classified in G08B 25/001 - G08B 25/009 as appropriate.

G08B 25/001

Procedures for cancelling an initiated alarm routine, e.g. cancelling an alarm routine after initiation due to: a user carrying out a cancelling action within a given time; a user failing to carry out an alarm acknowledgement or confirmation action within a given time.

G08B 25/002

Intermediate, pre-alarm state in the system.

G08B 25/003

Enrolment procedures for addressable elements of the alarm system.

G08B 25/007

Documents where the content or structure of the message exchanged between the central station (control unit) and the detectors is described in detailed or relevant for solving the problem posed.

G08B 25/008

Enrolment procedures for addressable elements of the alarm system.

G08B 25/009

An intermediate unit is used as a relay or extender of the system for communicating with the central station. Typically, nodes of the system can act both as a detector and as a repeater. The mere provision of an alarm panel that receives information from a detector and sends an alarm signal to a remote central station (e.g. the police) by telephone should not be classified here (rather on G08B 25/08), since this is typical of the way any alarm system transmits information using communication lines. G08B 25/009 is rather directed to systems where sub-units transmit to other sub-units, typically using the same transmission medium that will eventually be used for communicating with the central station. (alternative: G08B 25/009 is rather directed to systems where a sub-unit relays an alarm to another sub-unit, and the invention lies in the particular arrangement or way in which this is done.) As most of the documents in this group are wireless systems, this group takes precedence over G08B 25/10, i.e. a document classified here should not also be classified in G08B 25/10.

G08B 25/016

Personal alarm systems. This group differs from G08B 15/004 in that I requires the alarm to be transmitted to a central station, whereas in G08B 15/00 the aim is to deter the attacker by scaring them (e.g. by generating a sound or spraying an irritating gas).

G08B 25/018

These are typically, wired alarm networks where each detector has a characteristic electric element (e.g. a resistor having a particular resistance value which is switched into the circuit when the detector is in an alarm state). The central station typically monitors one or more circuit parameters of the line (e.g. line resistance) to detect an alarm and to identify which detector has triggered the alarm.

G08B 25/08

This classification includes both land line telephone networks (PSTN or POTS) and mobile (cell-phone) telephone networks (the latter are not classified in G08B 25/10).

G08B 25/06

using power transmission lines {(systems in general for transmission of information via power distribution lines H04B 3/54)}

References

Informative references

Attention is drawn to the following places, which may be of interest for search:

Systems in general for transmission of information via power distribution lines	H04B 3/54

G08B 25/08

using communication transmission lines {(G08B 13/19658, G08B 21/0286, G08B 25/016 take precedence; specific aspects of telephone communication systems adapted for combination with alarm systems H04M 11/04)}

References

Limiting references

This place does not cover:

Telephone systems used to communicate with a camera, e.g. PSTN, GSM, POTS	G08B 13/19658
Tampering or removal detection of the child unit from child or article.	G08B 21/0286
Personal emergency signalling and security systems	G08B 25/016

Informative references

Attention is drawn to the following places, which may be of interest for search:

Telephone communication systems combined with alarm systems	H04M 11/04

G08B 26/00

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

Definition statement

This place covers:

Alarm systems where a central station polls satellite detectors or subsystems.

This group focuses on the alarm system as a whole, not merely on the point where an alarm condition is detected.

References

Informative references

Attention is drawn to the following places, which may be of interest for search:

Polling in data switching networks	H04L 12/403

Special rules of classification

Documents classified in G08B 26/00, disclosing a polling system, but dealing with any of the problems considered in groups G08B 25/001 - G08B 25/009 should also be classified in those groups.

G08B 27/00

Alarm systems in which the alarm condition is signalled from a central station to a plurality of substations {(signalling systems in general G08C)}

Definition statement

This place covers:

Alarms signalled from a central station to a plurality of remote users or subscribers, e.g. on the basis of their being in a particular geographic area for which the alarm is relevant, or on the basis of their belonging to a particular group such as a fire fighting team or parents of a particular school.

Special rules of classification

Alarms where the invention lies in transmission of alarms from a plurality of satellites to a single central station. Transmission related aspects of emergency broadcasting (H04W).

G08B 29/00

Checking or monitoring of signalling or alarm systems; Prevention or correction of operating errors, e.g. preventing unauthorised operation {(arrangements for testing electric properties, arrangements for locating electric faults G01R 31/00)}

Definition statement

This place covers:

The continuous testing and supervision of signalling and alarm systems falling under the previous subgroups of the subclass G08B. This testing and supervision is conducted for the purpose of detecting malfunctions as well as (attempted) tampering or sabotage (G08B 29/02). The periodic testing of said systems, may be manual or automated (G08B 29/12). Detecting and correcting deviations from correct functioning (e.g. due to age related drift of component characteristics, environment variations, noise or interference) may be achieved by: monitoring temporal variations in signals; evaluating signals per se; and by the provision of other checking measures (e.g. dual detectors, data fusion from two detectors).

Special rules of classification

A document disclosing an invention falling under the subgroup G08B 29/00 does not need to be classified elsewhere according to the specific type of alarm system disclosed. In other words G08B 29/00 takes precedence over other subgroups. However, where there are also details disclosed pertaining to the specific alarm system, and which would be of relevance for search, then the

document should also be classified in the corresponding subgroup. E.g. a document disclosing an invention relating to detecting tampering with a smoke detector in a fire alarm system should be classified under G08B 29/046 and need not be further classified under G08B 17/00. However if there are particular details of the smoke detector which could be useful for search, then the document should also be classified under G08B 17/00.

G08B 29/06

Monitoring of the line circuits, e.g. signalling of line faults {(testing or locating faults in cables or lines in general G01R 31/02, G01R 31/08)}

References

Informative references

Attention is drawn to the following places, which may be of interest for search:

Testing or locating faults in cables or lines in general	G01R 31/02, G01R 31/08

G08B 31/00

Predictive alarm systems characterised by extrapolation or other computation using updated historic data

Definition statement

This place covers:

Alarm systems in which the alarm is triggered as a result of analysing data to warn of a potential threat before a dangerous situation has actually developed. E.g. an alarm system making a video analysis of a crowd of people, the analysis comparing the behaviour of individuals in the crowd against a set of “normal” behaviour parameters, (walking speed, appropriateness of clothing for the weather etc.) in order to decide whether a particular individual poses a potential threat.