

H01H

ELECTRIC SWITCHES; RELAYS; SELECTORS; EMERGENCY PROTECTIVE DEVICES (contact cables [H01B 7/10](#); electrolytic self-interrupters [H01G 9/18](#); emergency protective circuit arrangements [H02H](#); switching by electronic means without contact-making [H03K 17/00](#))

Definition statement

This place covers:

Electric switches, i.e. single points of mechanically operable electrical connection (or interruption). Types, details and manufacture thereof, as detailed below .

Relays, i.e. switching devices having contacts which are operated from electric inputs which supply, directly or indirectly, all the mechanical energy necessary to cause both the closure and the opening of the contacts. Types, details and manufacture thereof. Circuit arrangements not adapted to a particular application of the relay and designed to obtain desired operating characteristics or to provide energising current.

Selectors, i.e. arrays of electric switches which selectively connect some inputs out of a plurality of inputs to some outputs out of a plurality of outputs. Types, details, and manufacture thereof in groups [H01H 63/00](#), [H01H 65/00](#) and [H01H 67/00](#).

Protective devices like: circuit-breaking switches, protective switches, fuses, evaporation devices, details and manufacture thereof. This subclass also covers (in groups [H01H 69/00](#) - [H01H 87/00](#)) devices for the protection of electric lines or electric machines or apparatus in the event of undesired change from normal electric working conditions, the electrical condition serving directly as the input to the device.

Mechanical structural details of control members of switches or of keyboards such as keys, push-buttons, levers or other mechanisms for transferring the force to the activated elements, even when they are used for controlling electronic switches.

Circuit arrangements not adapted to a particular application of the switch and not otherwise provided for, e.g. for ensuring operation of the switch at a predetermined point in the ac cycle.

Relationships with other classification places

Circuit arrangements for the automatic protection of electric lines or electric machines or apparatus in the event of an undesired change from normal working conditions: [H02H](#)

References

Limiting references

This place does not cover:

Contact cables	H01B 7/10
Electrolytic self-interrupters	H01G 9/18
Emergency protective circuit arrangements	H02H
Switching by electronic means without contact-making	H03K 17/00
Mechanical details directly producing electronic effects	H03K 17/94

Application-oriented references

Examples of places where the subject matter of this place is covered when specially adapted, used for a particular purpose, or incorporated in a larger system:

Keyboards for special applications, see the relevant subclasses or groups, e.g.	B41J , G06F 3/023 , H04L 15/00 , H04L 17/00 , H04M 1/00
Switches mounted on the steering wheel	B60Q 1/0082
Lever attached to steering wheel for controlling the lights of a car, e.g. steering column stalk switches	B60Q 1/1469
Manually-actuated control mechanisms provided with one single controlling member co-operating with two or more controlled members, the controlling member being movable by hand about orthogonal axes, e.g. joysticks	G05G 9/047
Switching arrangements for the supply or distribution of electric power	H02B
Mounting switch and fuse separately on, or in, common support	H02B
Frameworks for mounting two or more relays or for mounting a relay and another electrical component	H02B 1/01 , H04Q 1/08
Arrangements of switchgear in which switches are enclosed in, or structurally associated with, a casing; Gas-insulated switchgear	H02B 13/035
Switches for telephonic communication	H04M 1/26

Informative references

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

Micromechanical devices, comprising flexible or deformable elements	B81B 3/00
Processes or apparatus specially adapted for the manufacture or treatment of microstructural devices or systems, e.g. in combination with electrical devices	B81C
Sensing elements for providing continuous conversion of a variable into mechanical displacement	G01
Measuring distances, levels or bearings	G01C
Measuring liquid level	G01F
Temperature-responsive elements in general	G01K
Measuring electric values	G01R
Arrangements for locating electric faults; Testing of relays	G01R 31/00
Clocks with attached or built-in means operating any device at preselected times or after preselected time intervals	G04C 23/00
Controlling members for hand actuation by rotary movement, e.g. hand wheels	G05G 1/08
Input arrangements for converting discrete items of information into a coded form; Programmable keyboards	G06F 3/023
Overvoltage protection resistors, resistive arresters	H01C 7/12 , H01C 8/04
Cores, Yokes, or armatures in general	H01F 3/00
Magnetic coils or windings in general	H01F 5/00
Magnets in general	H01F 7/00

Electromagnets; Actuators including electromagnets	H01F 7/06
Circuit arrangements for obtaining desired operating characteristics	H01F 7/18
Variable transformers or inductances having provision for tap-changing without interrupting the load current	H01F 29/04
Capacitors in which the capacitance is varied by using variation of distance between electrodes	H01G 5/16
Switching devices of the waveguide type	H01P
Electric connections in general	H01R
Switches combined with plug-and-socket connectors	H01R 13/70
Devices for interrupted current collection; Rotary current collectors, distributors, or interrupters	H01R 39/00
Overvoltage arresters using spark gaps	H01T 4/00
Arcing horns per se	H01T 4/14
Disposition or arrangement of fuses on boards	H02B 1/18
Bases, casings, or covers accommodating two or more switching devices or for accommodating a switching device as well as another electric component, e.g. busbar, line connector	H02B 1/26
Installations of electric cables or lines in or on buildings, equivalent structures or vehicles	H02G 3/00
Distribution boxes; Connection or junction boxes	H02G 3/08
Circuit arrangements for providing remote indication of network conditions, e.g. an instantaneous record of the open or closed condition of each circuit-breaker in the network	H02J 13/00
Constructional features of telephone sets; Construction or mounting of dials or of equivalent devices	H04M 1/23
Selecting apparatus or arrangements in general	H04Q
Casings for electrical apparatus in general	H05K 5/00

Special rules of classification

The use of the Indexing Code scheme [H01H 1/00](#) - [H01H 89/10](#) is mandatory to classify additional (non-invention) information.

The use of the deep indexing scheme [H01H 2201/00](#) - [H01H 2239/078](#) is mandatory whenever appropriate.

Further information:

- Details only described with reference to, or clearly only applicable to, switching devices of a single basic type, are classified in the group appropriate to switching devices of that basic type, e.g. [H01H 19/02](#) or [H01H 75/04](#).

Details of an unspecified type of switching device, or disclosed as applicable to two or more kinds of switching devices designated by the terms or expressions "switches", "relays", "selector switches", and "emergency protective devices", are classified in groups [H01H 1/00](#) - [H01H 9/00](#).

Details of an unspecified type of switch, or disclosed as applicable to two or more types of switches as defined by groups [H01H 13/00](#) - [H01H 43/00](#) and subgroups [H01H 35/02](#), [H01H 35/06](#), [H01H 35/14](#), [H01H 35/18](#), [H01H 35/24](#) and [H01H 35/42](#), all hereinafter called basic types, are classified in groups [H01H 1/00](#) - [H01H 9/00](#).

Special rules of classification

Apparatus or processes specially adapted for manufacturing of electric switches of an unspecified type are classified in group [H01H 11/00](#).

Details of contact arrangements or operating mechanisms for tap changer devices are classified in the subgroup [H01H 9/0005](#).

- Mechanical structural details of control members specially adapted for rectilinearly movable switches such as keys or push-buttons having a plurality of operating members associated with different sets of contacts, e.g. keyboards, are classified in the subgroup [H01H 13/70](#).

Processes specially adapted for manufacturing of rectilinearly movable switches such as keys or push-buttons having a plurality of operating members associated with different sets of contacts, e.g. keyboards, are classified in the subgroup [H01H 13/88](#).

Earthing or grounding switching devices are classified in the subgroup [H01H 31/003](#).

Vacuum switches are classified in the subgroup [H01H 33/66](#). Combinations of vacuum switches with other type of switch, e.g. for load break switches are classified in the subgroup [H01H 33/6661](#).

- Switches actuated by change of magnetic field or of electric field are classified in the group [H01H 36/00](#).
- Thermally-actuated switches are classified in the group [H01H 37/00](#).

Details of an unspecified type of relay, or disclosed as applicable to two or more types of relays as defined by groups [H01H 51/00](#) - [H01H 61/00](#), hereinafter called basic types, are classified in group [H01H 45/00](#). Circuit arrangements not adapted to a particular application of the relay and designed to obtain desired operating characteristics or to provide energising current, are classified in group [H01H 47/00](#).

Apparatus or processes specially adapted for manufacturing of relays are classified in group [H01H 49/00](#).

- Details of an unspecified protective switch or protective relay, or applicable to two or more types of protective devices as defined by groups [H01H 73/00](#) - [H01H 83/00](#), hereinafter called basic types, are classified in group [H01H 71/00](#).

Apparatus or processes specially adapted for manufacturing of protective devices are classified in group [H01H 69/00](#).

Protective devices in which the current flows through a part of fusible material and this current is interrupted by displacement of the fusible material when this current becomes excessive are classified in group [H01H 85/00](#).

- The subgroup [H01H 9/54](#) covers circuit arrangements not adapted to a particular application of an unspecified type of switching device and for which no provision exists elsewhere, e.g. combinations of mechanical switches and static switches or for ensuring operation of the switch at a predetermined point in the AC cycle, and is residual with respect to the groups [H01H 1/00](#) - [H01H 9/00](#) and [H01H 69/00](#) - [H01H 87/00](#).
- The subgroup [H01H 33/59](#) covers circuit arrangements not adapted to a particular application of a high-tension or heavy-current switch and not otherwise provided for, e.g. for ensuring operation of the switch at a predetermined point in the AC cycle, and is residual with respect to the groups [H01H 31/00](#) - [H01H 33/00](#).
- Details only described with reference to, or clearly only applicable to, rectilinearly movable switches having operating members associated with different sets of contacts, e.g. keyboards, are classified in the deep indexing scheme for multilayer keyboard switches [H01H 2201/00](#) - [H01H 2239/078](#).
- Details of an unspecified type of switching device, or disclosed as applicable to several kinds of switching devices or relating to the application field of the switching device are classified in a separate orthogonal indexing scheme (pending).

Glossary of terms

In this place, the following terms or expressions are used with the meaning indicated:

Acting, actuating or action	self-induced, e.g. not manually caused, movement of parts at one stage of the switching. Apply to all parts of the verbs "to operate"; "to actuate", and "to act", and to words derived therefrom, e.g. to "actuation" or "actuating"
Contacts	necessary elementary components of a switch that ensure the electrical connection, each switch comprising at least two contacts, and possibly more than two
Driving mechanism	means by which an operating force applied to the switch is transmitted to the moving contact or contacts
Key	push button
Operating	broader sense than "actuating", including the manually caused movement of parts at one stage of the switching.
Push button	knob or button that allows the manual operation of a switch in order to e.g. close an electric circuit
Relay	switching device having contacts which are operated from electric inputs which supply, directly or indirectly, all the mechanical energy necessary to cause both the closure and the opening of the contacts
Selector	array of electric switches which selectively connect some inputs out of a plurality of inputs to some outputs out of a plurality of outputs
Switch	single point of mechanically operable electrical connection (or interruption)
Switch site	physical location where the contacts can touch each other

H01H 1/00

Contacts (liquid contacts [H01H 29/04](#))

References

Limiting references

This place does not cover:

Liquid contacts	H01H 29/04
-----------------	----------------------------

Special rules of classification

Subject matter classifiable in more than one of the groups [H01H 1/023](#) - [H01H 1/029](#) should be classified in all relevant groups.

H01H 1/021**Composite material****Glossary of terms**

In this place, the following terms or expressions are used with the meaning indicated:

Composite material	a material made of two or more different materials, e.g. coated material, layered materials or carbon fibres in a copper base or matrix
--------------------	---

H01H 1/20**Bridging contacts {(for circuit breakers [H01H 73/045](#))}****References****Limiting references**

This place does not cover:

Bridging contacts for circuit breakers	H01H 73/045
--	-----------------------------

H01H 1/2058

{Rotating bridge being assembled in a cassette, which can be placed as a complete unit into a circuit breaker}

References**Informative references**

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

Non-rotating bridges	H01H 71/0235
----------------------	------------------------------

H01H 1/36**by sliding****References****Informative references**

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

Rolling or wrapping	H01H 1/16
---------------------	---------------------------

H01H 1/403

{Contacts forming part of a printed circuit (multilayer keyboard switches [H01H 13/702](#); thumbwheel switches [H01H 19/001](#); for rotary switches with axial contact pressure [H01H 19/585](#))}

References**Informative references**

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

Printed contacts per se	H05K
-------------------------	----------------------

H01H 1/54

by magnetic force {(combined with electrodynamic opening [H01H 77/101](#))}

References**Limiting references**

This place does not cover:

Magnetic force combined with electrodynamic opening	H01H 77/101
---	-----------------------------

H01H 1/56

Contact arrangements for providing make-before-break operation, e.g. for on-load tap-changing

References**Informative references**

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

Contact arrangements for tap changers	H01H 9/0016
---------------------------------------	-----------------------------

H01H 1/58

Electric connections to or between contacts; Terminals {(for high tension switches [H01H 33/025](#); for electromagnetic relays [H01H 50/14](#); for circuit breakers [H01H 71/08](#))}

References**Limiting references**

This place does not cover:

Terminals for high tension switches	H01H 33/025
Terminals for electromagnetic relays	H01H 50/14
Terminals for circuit breakers	H01H 71/08

Informative references

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

Electric connections in general	H01R
---------------------------------	----------------------

H01H 1/60

Auxiliary means structurally associated with the switch for cleaning or lubricating contact-making surfaces (cleaning by normal sliding of contacts [H01H 1/18](#), [H01H 1/36](#))

References**Informative references**

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

Cleaning by normal sliding of contacts	H01H 1/18 , H01H 1/36
--	---

H01H 1/64

Protective enclosures, baffle plates, or screens for contacts

References**Informative references**

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

Protective enclosures, baffle plates, or screens for arc-extinguishing	H01H 9/30
Protective enclosures, baffle plates, or screens for mercury contacts	H01H 29/04

H01H 3/00

Mechanisms for operating contacts ({for tap changers [H01H 9/0027](#);} thermal actuating or release means [H01H 37/02](#))

References**Limiting references**

This place does not cover:

Devices for tap changers	H01H 9/0027
Thermal actuating or release means	H01H 37/02

Informative references

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

Snap-action arrangements	H01H 5/00
Devices for introducing a predetermined time delay	H01H 7/00

H01H 3/161

{for actuation by moving a closing member, e.g. door, cover or lid (the switch controlling enclosed equipment [H01H 9/226](#); switches operated by a removable member, wherein one single insertion movement of a key comprises an unlocking stroke and a switch actuating stroke, e.g. security switch for safety guards [H01H 27/002](#))}

References**Limiting references**

This place does not cover:

The switch controlling enclosed equipment	H01H 9/226
Switches operated by a removable member	H01H 27/002

Informative references

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

Safety arrangements on doors of dishwashers	A47L
Of laundry washing machines	D06F 37/42
Locks with means for operating switches	E05B 17/22
Alarm locks	E05B 45/06
Safety edges for power-operated wings	E05F 15/40
Safety devices in connection with the locking of doors, covers, guards, or like members giving access to movable machine parts	F16P 3/08
Of ovens	F24C 14/00 , F24C 15/022
Of microwave ovens	H05B 6/76

H01H 3/24

using pneumatic or hydraulic actuator {(for storing energy in a spring motor [H01H 3/301](#))}

References**Informative references**

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

Storing energy in a spring motor	H01H 3/301
----------------------------------	----------------------------

H01H 3/26

using dynamo-electric motor (for storing energy in a spring motor [H01H 3/30](#))

References**Informative references**

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

Storing energy in a spring motor	H01H 3/301
----------------------------------	----------------------------

H01H 3/28

using electromagnet (for storing energy in a spring motor [H01H 3/30](#); for operating relays [H01H 45/00](#))

References**Informative references**

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

Storing energy in a spring motor	H01H 3/301
Operating relays	H01H 45/00

H01H 3/32

Driving mechanisms, i.e. for transmitting driving force to the contacts (snap-action arrangements [H01H 5/00](#); introducing a predetermined time delay [H01H 7/00](#))

References**Limiting references**

This place does not cover:

Snap-action arrangements	H01H 5/00
Introducing a predetermined time delay	H01H 7/00

H01H 3/62

Lubricating means structurally associated with the switch (for lubricating contact-making surfaces [H01H 1/60](#))

References**Limiting references**

This place does not cover:

Lubricating contact-making surfaces	H01H 1/60
-------------------------------------	---------------------------

H01H 5/04

Energy stored by deformation of elastic members (by deformation of bimetallic element in thermally-actuated switches [H01H 37/54](#))

References

Limiting references

This place does not cover:

Energy stored by deformation of bimetallic elements in thermally-actuated switches	H01H 37/54
--	----------------------------

H01H 7/00

Devices for introducing a predetermined time delay between the initiation of the switching operation and the opening or closing of the contacts (time or time-programme switches [H01H 43/00](#))

References

Informative references

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

Time or time-programme switches	H01H 43/00
---------------------------------	----------------------------

H01H 7/06

with thermal timing means

References

Informative references

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

Thermally actuated switches	H01H 37/00
-----------------------------	----------------------------

H01H 7/16

Devices for ensuring operation of the switch at a predetermined point in the AC cycle (circuit arrangements [H01H 9/56](#))

References

Informative references

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

Circuit arrangements	H01H 9/56
----------------------	---------------------------

H01H 9/00

Details of switching devices, not covered by groups [H01H 1/00](#) - [H01H 7/00](#)

References**Informative references**

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

Casings for switchgear	H02B 1/26
Casings for electrical apparatus in general	H05K 5/00

H01H 9/02

Bases, casings, or covers (accommodating more than one switch or a switch and another electrical component [H02B 1/26](#))

References**Limiting references**

This place does not cover:

Accommodating more than one switch or a switch and another electrical component	H02B 1/26
---	---------------------------

H01H 9/10

Adaptation for built-in fuses (mounting switch and fuse separately on, or in, common support [H02B 1/18](#))

References**Limiting references**

This place does not cover:

Mounting switch and fuse separately on, or in, common support	H02B 1/18
---	---------------------------

H01H 9/167

{Circuits for remote indication}

References**Informative references**

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

For protection circuits	H02H 3/04
For distribution networks	H02J 13/00

H01H 9/20**Interlocking, locking, or latching mechanisms****References****Informative references**

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

Contacts adapted to act as latches	H01H 1/52
Auxiliary movement of the operating part or of an attachment thereto	H01H 3/20
Withdrawable switchgear	H02B 11/00

H01H 9/22

for interlocking between casing, cover, or protective shutter and mechanism for operating contacts {(explosion-proof cases [H01H 9/045](#); built-in fuses and interlocking mechanisms [H01H 9/104](#); by automatic release of circuit breakers [H01H 71/126](#))}

References**Informative references**

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

Explosion-proof cases	H01H 9/045
Built-in fuses and interlocking mechanisms	H01H 9/104
By automatic release of circuit breakers	H01H 71/126

H01H 9/26

for interlocking two or more switches ({[H01H 13/568](#) takes precedence;} by a detachable member [H01H 9/28](#) {; for electromagnetic relays [H01H 50/323](#))}

References**Limiting references**

This place does not cover:

Detachable member	H01H 9/28
Contacts also returning by some external action, e.g. interlocking, protection, remote control	H01H 13/568
Electromagnetic relays	H01H 50/323

H01H 9/28

for locking switch parts by a key or equivalent removable member (switches operated by a key [H01H 27/00](#); locking by removable part of two-part coupling device [H01R](#))

References**Informative references**

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

Switches operated by a key	H01H 27/00
Locking by removable part of two-part coupling device	H01R

H01H 9/38

Auxiliary contacts on to which the arc is transferred from the main contacts (using arcing-horns [H01H 9/46](#))

References**Informative references**

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

Arising-horns	H01H 9/46
---------------	---------------------------

H01H 9/40

Multiple main contacts for the purpose of dividing the current through, or potential drop along, the arc

References**Informative references**

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

Multiple parallel contact bars	H01H 1/226
--------------------------------	----------------------------

H01H 9/46

using arcing horns (using blow-out magnet [H01H 9/44](#))

References**Limiting references**

This place does not cover:

Blow-out magnet	H01H 9/44
-----------------	---------------------------

Informative references

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

Arcing horns per se	H01T 4/14
---------------------	---------------------------

H01H 9/52

Cooling of switch parts (cooling of contacts [H01H 1/62](#))

References**Informative references**

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

Cooling of contacts	H01H 1/62
---------------------	---------------------------

H01H 11/00

Apparatus or processes specially adapted for the manufacture of electric switches (processes specially adapted for manufacture of rectilinearly movable switches having a plurality of operating members associated with different sets of contacts, e.g. keyboards, [H01H 13/88](#))

References**Limiting references**

This place does not cover:

Processes specially adapted for the manufacture of rectilinearly movable switches having a plurality of operating members associated with different sets of contacts, e.g. keyboards	H01H 13/88
--	----------------------------

Informative references

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

Process or apparatus specially adapted for the manufacture or treatment of microstructural devices or systems, e.g. in combination with electrical devices	B81C
--	----------------------

H01H 13/00

Switches having rectilinearly-movable operating part or parts adapted for pushing or pulling in one direction only, e.g. push-button switch (wherein the operating part is flexible [H01H 17/00](#))

References**Limiting references**

This place does not cover:

Switches wherein the operating part is flexible	H01H 17/00
---	----------------------------

H01H 13/02

Details

References

Informative references

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

Specially adapted for rectilinearly movable switches having operating members associated with different sets of contacts, e.g. keyboards	H01H 13/70
--	----------------------------

H01H 13/22

acting with snap action (depending upon deformation of elastic members [H01H 13/26](#))

References

Limiting references

This place does not cover:

Snap action depending upon deformation of elastic member	H01H 13/26
--	----------------------------

H01H 13/62

the contact returning to its original state upon manual release of a latch (latch released by second push-button [H01H 13/68](#))

References

Informative references

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

Latch released by second push-button	H01H 13/68
--------------------------------------	----------------------------

H01H 13/68

having two operating members, one for opening and one for closing the same set of contacts (single operating member protruding from different sides of switch casing for alternate pushing upon opposite ends [H01H 15/22](#))

References

Informative references

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

Single operating member protruding from different sides of switch casing for alternate pushing upon opposite ends	H01H 15/22
---	----------------------------

H01H 13/70

having a plurality of operating members associated with different sets of contacts, e.g. keyboard (mounting together a plurality of independent switches [H02B](#))

References

Limiting references

This place does not cover:

Mounting together a plurality of independent switches	H02B
---	----------------------

Informative references

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

Keyboards specially adapted for specific applications, see the relevant subclasses or groups	B41J , G06F 3/023 , H04L 17/00 , H04M 1/00
Multiple switches specially adapted for electromechanical clocks or watches	G04C 3/005

H01H 13/704

characterised by the layers, e.g. by their material or structure ([H01H 13/703](#) takes precedence)

References

Limiting references

This place does not cover:

Spacers between contact carrying layers	H01H 13/703
---	-----------------------------

H01H 13/84

characterised by ergonomic functions, e.g. for miniature keyboards;
characterised by operational sensory functions, e.g. sound feedback (legends [H01H 13/83](#))

References

Informative references

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

Legends	H01H 13/83
---------	----------------------------

H01H 15/005**{adapted for connection with printed circuit boards}****References****Informative references***Attention is drawn to the following places, which may be of interest for search:*

Connections to printed circuits in general	H01H 1/5805
--	-----------------------------

H01H 17/00**Switches having flexible operating part adapted only for pulling, e.g. cord, chain {(for emergency stop switches [H01H 3/0226](#))}****References****Informative references***Attention is drawn to the following places, which may be of interest for search:*

Flexible operating part adapted for emergency stop switches	H01H 3/0226
---	-----------------------------

H01H 17/04**Stationary parts (guides [H01H 17/14](#))****References****Informative references***Attention is drawn to the following places, which may be of interest for search:*

Guides	H01H 17/14
--------	----------------------------

H01H 17/06**Movable parts (guides [H01H 17/14](#))****References****Informative references***Attention is drawn to the following places, which may be of interest for search:*

Guides	H01H 17/14
--------	----------------------------

H01H 19/005**{Electromechanical pulse generators}****References****Informative references***Attention is drawn to the following places, which may be of interest for search:*

Electromechanical contact-making and breaking devices acting as pulse generators for setting	G04C 3/007
--	----------------------------

H01H 19/63**Contacts actuated by axial cams {([H01H 19/6355](#) takes precedence)}****References****Limiting references***This place does not cover:*

Axial cam devices for transforming the angular movement into linear movement along the axis of rotation	H01H 19/6355
---	------------------------------

H01H 21/00

Switches operated by an operating part in the form of a pivotable member acted upon directly by a solid body, e.g. by a hand (tumbler or rocker switches [H01H 23/00](#); switches having an operating part movable angularly in more than one plane [H01H 25/04](#))

References**Limiting references***This place does not cover:*

Tumbler or rocker switches	H01H 23/00
Switches having an operating part movable angularly in more than one plane	H01H 25/04

H01H 23/00

Tumbler or rocker switches, i.e. switches characterised by being operated by rocking an operating member in the form of a rocker button

Glossary of terms*In this place, the following terms or expressions are used with the meaning indicated:*

Rocking	as pivotal motion in one plane about an axis parallel to the switch faceplate and located substantially centrally between the ends of the rocker button
---------	---

H01H 23/006**{adapted for connection with printed circuit boards}****References****Informative references***Attention is drawn to the following places, which may be of interest for search:*

Connections to printed circuits in general	H01H 1/5805
--	-----------------------------

H01H 27/00

Switches operated by a removable member, e.g. key, plug or plate; Switches operated by setting members according to a single predetermined combination out of several possible settings (combined with plug-and-socket connectors [H01R 13/70](#); with current-carrying plug [H01R 31/08](#))

References**Limiting references***This place does not cover:*

Combined with plug-and-socket connectors	H01R 13/70
Switches with current-carrying plug	H01R 31/08

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

Locking switch parts to prevent operation	H01H 9/28
---	---------------------------

H01H 27/06**Key inserted and then turned to effect operation of the switch****References****Informative references***Attention is drawn to the following places, which may be of interest for search:*

IC integrated in key and connected by turning key	E05B 49/004
---	-----------------------------

H01H 27/063

{wherein the switch cannot be moved to a third position, e.g. start position, unless the preceding movement was from a first position to a second position, e.g. ignition position}

References**Informative references**

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

Starting of engines and safety devices	F02N 11/00
Safety means for electric spark ignition	F02P 11/00

H01H 29/00

Switches having at least one liquid contact (solid contacts wetted or soaked with mercury [H01H 1/08](#))

References**Informative references**

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

Solid contacts wetted or soaked with mercury	H01H 1/08
--	---------------------------

H01H 29/20

operated by tilting contact-liquid container

References**Informative references**

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

Centrifugal mercury switches	H01H 29/26
------------------------------	----------------------------

H01H 29/32

with contact made by a liquid jet, e.g. earthing switch with contact made by jet of water

References**Informative references**

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

Switches operated by direct electrodynamic action	H01H 53/00
---	----------------------------

H01H 31/00

Air-break switches for high tension without arc-extinguishing or arc-preventing means (in combination with high tension or heavy-current switches with arc-extinguishing or arc-preventing means [H01H 33/00](#))

References

Limiting references

This place does not cover:

Air-break switches in combination with high tension or heavy-current switches with arc-extinguishing or arc-preventing means	H01H 33/00
--	----------------------------

Informative references

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

Switching arrangements for the supply or distribution of electric power	H02B
---	----------------------

H01H 31/04

Interlocking mechanisms

References

Informative references

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

Interlocking with high-tension or heavy-current switches having arc-extinguishing or arc-preventing means	H01H 33/52
---	----------------------------

H01H 31/10

for interlocking two or more switches

References

Informative references

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

Interlocking with high-tension or heavy-current switches having arc-extinguishing or arc-preventing means	H01H 33/52
---	----------------------------

H01H 33/021

{Use of solid insulating compounds resistant to the contacting fluid dielectrics and their decomposition products, e.g. to SF₆}

References**Informative references**

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

Insulators or insulating bodies characterised by the insulating materials	H01B 3/00
---	---------------------------

H01H 33/04

Means for extinguishing or preventing arc between current-carrying parts

References**Informative references**

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

Means for extinguishing or preventing arc between current-carrying parts for switches in general	H01H 9/30
--	---------------------------

H01H 33/12

Auxiliary contacts on to which the arc is transferred from the main contacts (using arcing horns [H01H 33/20](#))

References**Informative references**

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

Auxiliary contacts using arcing horns	H01H 33/20
---------------------------------------	----------------------------

H01H 33/18

using blow-out magnet {(for vacuum switches [H01H 33/664](#))}

References**Limiting references**

This place does not cover:

Vacuum switches	H01H 33/664
-----------------	-----------------------------

Informative references

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

Pressure-generated arcs rotated by a magnetic field	H01H 33/982
---	-----------------------------

H01H 33/20

using arcing horns (using blow-out magnet [H01H 33/18](#))

References**Limiting references**

This place does not cover:

Using blow-out magnet	H01H 33/18
-----------------------	----------------------------

Informative references

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

Arcing horns per se	H01T 4/14
---------------------	---------------------------

H01H 33/36

using dynamo-electric motor

References**Informative references**

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

Storing energy in a spring motor	H01H 33/40
----------------------------------	----------------------------

H01H 33/38

using electromagnet

References**Informative references**

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

Storing energy in a spring motor	H01H 33/40
----------------------------------	----------------------------

H01H 33/44

Devices for ensuring operation of the switch at a predetermined point in the AC cycle (circuit arrangements [H01H 33/59](#))

References**Informative references**

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

Circuit arrangements	H01H 33/59
----------------------	----------------------------

H01H 33/53

Cases (for switchgear [H02B 1/26](#)); Reservoirs, tanks, piping or valves, for arc-extinguishing fluid; Accessories therefor, e.g. safety arrangements, pressure relief devices

References**Informative references**

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

Cases for switchgear	H02B 1/26
----------------------	---------------------------

H01H 33/55

Oil reservoirs or tanks; Lowering means therefor (associated with withdrawal mechanism for isolation of switch [H02B 11/08](#))

References**Informative references**

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

Lowering associated with withdrawal mechanism for isolation of switch	H02B 11/08
---	----------------------------

H01H 33/64

wherein the break is in gas (vacuum switches [H01H 33/66](#))

References**Limiting references**

This place does not cover:

Vacuum switches	H01H 33/66
-----------------	----------------------------

H01H 33/74

wherein the break is in gas (in air at atmospheric pressure [H01H 33/73](#))

References**Limiting references**

This place does not cover:

Breaks in air at atmospheric pressure	H01H 33/73
---------------------------------------	----------------------------

H01H 33/78

wherein the break is in gas (in air at atmospheric pressure [H01H 33/77](#))

References**Limiting references**

This place does not cover:

Breaks in air at atmospheric pressure	H01H 33/77
---------------------------------------	----------------------------

H01H 33/94

this movement being effected solely due to the pressure caused by the arc itself or by an auxiliary arc {([H01H 33/903](#) takes precedence)}

References**Limiting references**

This place does not cover:

The movement being effected by or in conjunction with the contact-operating mechanism making use of the energy of the arc or an auxiliary arc and assisting the operating mechanism	H01H 33/903
---	-----------------------------

H01H 33/98

the flow of arc-extinguishing fluid being initiated by an auxiliary arc or a section of the arc, without any moving parts for producing or increasing the flow {([H01H 33/901](#) takes precedence)}

References**Limiting references**

This place does not cover:

The movement being effected by or in conjunction with the contact-operating mechanism making use of the energy of the arc or an auxiliary arc	H01H 33/901
---	-----------------------------

H01H 35/00

Switches operated by change of a physical condition (operated by change of magnetic or electric field [H01H 36/00](#); thermally-actuated switches [H01H 37/00](#))

References**Limiting references**

This place does not cover:

Operated by change of magnetic or electric field	H01H 36/00
Thermally-actuated switches	H01H 37/00

Informative references

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

Time switches	H01H 43/00
Relays	H01H 45/00 - H01H 61/00
Sensing elements for providing continuous conversion of a variable into mechanical displacement	G01

Special rules of classification

A switching device is classified according to that physical condition which, when changed, acts as input to the device, e.g. external explosion causing pressure wave to act upon switch is classified in group [H01H 35/24](#), an explosion produced within the switch in group [H01H 37/00](#) if initiated by heat, in group [H01H 39/00](#) if initiated electrically, and in group [H01H 35/14](#) if initiated by an external blow.

H01H 35/02

Switches operated by change of position, inclination or orientation of the switch itself in relation to gravitational field (tilting mercury container [H01H 29/20](#); change of position due to change of liquid level [H01H 35/18](#))

References**Application-oriented references**

Examples of places where the subject matter of this place is covered when specially adapted, used for a particular purpose, or incorporated in a larger system:

Specially adapted for electromechanical clocks or watches	G04C 3/002
---	----------------------------

H01H 35/06

Switches operated by change of speed (operated by change of fluid flow [H01H 35/24](#))

References**Informative references**

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

Switches operated by change of fluid flow	H01H 35/24
---	----------------------------

H01H 35/10

Centrifugal switches (level of mercury displaced by centrifugal action [H01H 29/26](#))

References**Informative references**

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

Level of mercury displaced by centrifugal action	H01H 29/26
--	----------------------------

H01H 35/14

Switches operated by change of acceleration, e.g. by shock or vibration, inertia switch {(wherein the liquid constitutes a contact of the switch [H01H 29/002](#))}

References**Limiting references**

This place does not cover:

Switches operated by change of acceleration, wherein the liquid constitutes a contact of the switch	H01H 29/002
---	-----------------------------

H01H 35/18

Switches operated by change of liquid level or of liquid density, e.g. float switch (by magnet carried on a float [H01H 36/02](#))

References**Limiting references**

This place does not cover:

Switches operated by magnet carried on a float	H01H 36/02
--	----------------------------

Informative references

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

Switches operated by change of acceleration, wherein the liquid constitutes a contact of the switch	H01H 29/002
---	-----------------------------

H01H 35/24

Switches operated by change of fluid pressure, by fluid pressure waves, or by change of fluid flow (wherein the change of pressure is caused by change of temperature [H01H 37/36](#))

References**Limiting references**

This place does not cover:

Switches operated by change of fluid pressure, by fluid pressure waves, or by change of fluid flow wherein the change of pressure is caused by change of temperature	H01H 37/36
--	----------------------------

H01H 36/00

Switches actuated by change of magnetic field or of electric field, e.g. by change of relative position of magnet and switch, by shielding

References

Informative references

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

Switches specially adapted for electromechanical clocks or watches	G04C 3/004
--	----------------------------

H01H 37/00

Thermally-actuated switches

References

Informative references

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

Electrothermal relays operated by electrical input	H01H 61/00
Protective switches with electrothermal release or actuation	H01H 73/00 - H01H 83/00

H01H 37/04

Bases; Housings; Mountings {([H01H 37/5427](#) takes precedence)}

References

Limiting references

This place does not cover:

Encapsulated in sealed miniaturised housing	H01H 37/5427
---	------------------------------

H01H 37/32

Thermally-sensitive members

References

Informative references

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

Temperature responsive elements in general	G01K
--	----------------------

H01H 37/323

{making use of shape memory materials (in thermal relays [H01H 61/0107](#); release mechanism [H01H 71/145](#); treatment of SMF alloys [C22F 1/006](#); for control of temperature [G05D 23/024](#))}

References**Limiting references**

This place does not cover:

In thermal relays	H01H 61/0107
Release mechanism	H01H 71/145
Treatment of SMF alloys	C22F 1/006
For control of temperature	G05D 23/024

Informative references

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

Using materials with a configuration memory in general	G01K 5/483
--	----------------------------

H01H 37/36

actuated due to expansion or contraction of a fluid with or without vaporisation (the fluid forming a contact of the switch [H01H 29/04](#), [H01H 29/30](#))

References**Limiting references**

This place does not cover:

Fluid forming a contact of the switch	H01H 29/04 , H01H 29/30
---------------------------------------	---

H01H 37/46

actuated due to expansion or contraction of a solid (deflection of a bimetallic element [H01H 37/52](#))

References**Limiting references**

This place does not cover:

Deflection of a bimetallic element	H01H 37/52
------------------------------------	----------------------------

H01H 37/60

Means for producing snap action (inherent in bimetallic element [H01H 37/54](#); caused by a magnet [H01H 37/66](#))

References**Limiting references**

This place does not cover:

Inherent in bimetallic element	H01H 37/54
Snap action caused by a magnet	H01H 37/66

H01H 37/70

Resetting means {([H01H 37/5409](#) takes precedence)}

References**Limiting references**

This place does not cover:

Bistable switches; Resetting means for Bistable switches	H01H 37/5409
--	------------------------------

H01H 37/74

Switches in which only the opening movement or only the closing movement of a contact is effected by heating or cooling

References**Informative references**

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

Electrical protection of electric lines or electric apparatus	H01H 73/00 - H01H 83/00
---	---

H01H 37/76

Contact member actuated by melting of fusible material, actuated due to burning of combustible material or due to explosion of explosive material

References**Informative references**

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

Fuses	H01H 85/00
-------	----------------------------

H01H 41/00

Switches providing a selected number of consecutive operations of the contacts by a single manual actuation of the operating part

References**Informative references**

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

Switches for telephone communication	H04M 1/26
--------------------------------------	---------------------------

H01H 43/00

Time or time-programme switches providing a choice of time-intervals for executing one or more switching actions and automatically terminating their operations after the programme is completed

References**Informative references**

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

Clocks with attached or built-in means operating any device at preselected times or after preselected time-intervals	G04C 23/00
Apparatus which can be set and started to measure-off predetermined intervals	G04F 3/06
Programme-control systems	G05B 19/00

H01H 43/024

{Terminal arrangements}

References**Informative references**

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

Electric connections to or between contacts in general	H01H 1/58
--	---------------------------

H01H 45/00

Details of relays (electric circuit arrangements [H01H 47/00](#); of electromagnetic relays [H01H 50/00](#); details of electrically-operated selector switches [H01H 63/00](#))

References**Limiting references**

This place does not cover:

Electric circuit arrangements	H01H 47/00
-------------------------------	----------------------------

Details of electrically-oriented selector switches	H01H 63/00
--	----------------------------

Application-oriented references

Examples of places where the subject matter of this place is covered when specially adapted, used for a particular purpose, or incorporated in a larger system:

Relays for emergency protective circuit arrangements	H02H
--	----------------------

Informative references

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

Electric circuit arrangements	H01H 47/00
Details of electrically-operated selector switches	H01H 63/00
Testing of relays	G01R 31/00

H01H 45/02

Bases; Casings; Covers (frames for mounting two or more relays or for mounting a relay and another electric component [H02B 1/01](#), [H04Q 1/08](#), [H05K](#))

References

Informative references

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

Frames for mounting two or more relays or for mounting a relay and another electric component	H02B 1/01 , H04Q 1/08 , H05K
---	--

H01H 45/10

Electromagnetic or electrostatic shielding (casings [H01H 45/02](#))

References

Limiting references

This place does not cover:

Casings	H01H 45/02
---------	----------------------------

Informative references

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

Screening in general	H05K 9/00
----------------------	---------------------------

H01H 45/12

Ventilating; Cooling; Heating (for operating electrothermal relays [H01H 61/013](#))

References**Limiting references**

This place does not cover:

Operating electrothermal relays	H01H 61/013
---------------------------------	-----------------------------

H01H 47/00

Circuit arrangements not adapted to a particular application of the relay and designed to obtain desired operating characteristics or to provide energising current

References**Informative references**

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

Circuit arrangements for electro-magnets in general	H01F 7/18
---	---------------------------

H01H 47/04

for holding armature in attracted position, e.g. when initial energising circuit is interrupted; for maintaining armature in attracted position, e.g. with reduced energising current {(with switching regulator [H01H 47/325](#))}

References**Limiting references**

This place does not cover:

Switching regulators	H01H 47/325
----------------------	-----------------------------

H01H 47/18

for introducing delay in the operation of the relay (short-circuited conducting sleeves, bands or discs [H01H 50/46](#))

References**Informative references**

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

Short-circuited conducting sleeves, bands or discs	H01H 50/46
--	----------------------------

H01H 47/34**Energising current supplied by magnetic amplifier****References****Informative references***Attention is drawn to the following places, which may be of interest for search:*

Magnetic amplifiers	H03F 9/00
---------------------	---------------------------

H01H 50/00**Details of electromagnetic relays ({[H01H 51/28](#) takes precedence;} electric circuit arrangements [H01H 47/00](#); details of electrically-operated selector switches [H01H 63/00](#))****References****Limiting references***This place does not cover:*

Electric circuit arrangements	H01H 47/00
Relays having both armature and contacts within a sealed casing outside which the operating coil is located, e.g. contact carried by a magnetic leaf spring or reed	H01H 51/28
Details of electrically-operated select or switches	H01H 63/00

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

Testing of relays	G01R 31/00
Electromagnets in general	H01F 7/06
Relays for emergency protective circuit arrangements	H02H

H01H 50/02**Bases; Casings; Covers (frames for mounting two or more relays or for mounting a relay and another electric component [H02B 1/01](#), [H04Q 1/08](#), [H05K](#))****References****Informative references***Attention is drawn to the following places, which may be of interest for search:*

Frames for mounting two or more relays or for mounting a relay and another electric component	H02B 1/01 , H04Q 1/08 , H05K
---	--

H01H 50/023**{Details concerning sealing, e.g. sealing casing with resin}****References****Informative references***Attention is drawn to the following places, which may be of interest for search:*

Auxiliary contact devices in general	H01H 9/0066
--------------------------------------	-----------------------------

H01H 50/10**Electromagnetic or electrostatic shielding (casings [H01H 50/02](#))****References****Limiting references***This place does not cover:*

Casings	H01H 50/02
---------	----------------------------

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

Screening in general	H05K 9/00
----------------------	---------------------------

H01H 50/12**Ventilating; Cooling; Heating (for operating electrothermal relays [H01H 61/013](#))****References****Limiting references***This place does not cover:*

Operating electrothermal relays	H01H 61/013
---------------------------------	-----------------------------

H01H 50/14**Terminal arrangements {(for coils [H01H 50/443](#))}****References****Limiting references***This place does not cover:*

Terminal arrangements for coils	H01H 50/443
---------------------------------	-----------------------------

H01H 50/16**Magnetic circuit arrangements****References****Informative references**

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

Cores, yokes, or armatures in general	H01F 3/00
Magnets in general	H01F 7/00

H01H 50/323

{for interlocking two or more relays}

References**Informative references**

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

Auxiliary contact devices in general	H01H 9/0066
--------------------------------------	-----------------------------

H01H 50/44**Magnetic coils or windings****References****Informative references**

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

Circuit arrangements	H01H 47/00
Magnetic coils or winding in general	H01F 5/00

H01H 50/46

**Short-circuited conducting sleeves, bands, or discs {(for electromagnets
[H01F 7/1205](#))}**

References**Limiting references**

This place does not cover:

Sleeves, bands, or discs for electromagnets	H01F 7/1205
---	-----------------------------

H01H 50/54**Contact arrangements****References****Informative references**

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

Contacts for switches in general	H01H 1/00
----------------------------------	---------------------------

H01H 50/541**{Auxiliary contact devices}****References****Informative references**

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

Auxiliary contact devices in general	H01H 9/0066
--------------------------------------	-----------------------------

H01H 50/60

**moving contact being rigidly combined with movable part of magnetic circuit
{(for polarised relays [H01H 51/2254](#), [H01H 51/2281](#))}**

References**Limiting references**

This place does not cover:

Contacts for polarised relays	H01H 51/2254 , H01H 51/2281
-------------------------------	--

H01H 50/64

**Driving arrangements between movable part of magnetic circuit and contact
(structurally associated with contact spring sets [H01H 50/58](#))**

References**Informative references**

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

Driving arrangements structurally associated with contact spring sets	H01H 50/58
---	----------------------------

H01H 50/86

Means for introducing a predetermined time delay between the initiation of the switching operation and the opening or closing of the contacts (circuit arrangements for introducing delay [H01H 47/18](#); short-circuited conducting sleeves, bands, or discs [H01H 50/46](#))

References

Informative references

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

Circuit arrangements for introducing delay	H01H 47/18
Short-circuited conducting sleeves, bands, or discs	H01H 50/46

H01H 50/92

Thermal means (inherent in electrothermal relays [H01H 61/00](#))

References

Limiting references

This place does not cover:

Thermal means inherent in electrothermal relays	H01H 61/00
---	----------------------------

H01H 51/00

Electromagnetic relays (relays using the dynamo-electric effect [H01H 53/00](#))

References

Informative references

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

Relays using the dynamo-electric effect	H01H 53/00
---	----------------------------

H01H 51/01

Relays in which the armature is maintained in one position by a permanent magnet and freed by energisation of a coil producing an opposing magnetic field {([H01H 51/02](#) - [H01H 51/26](#) take precedence)}

Special rules of classification

[H01H 51/02](#) - [H01H 51/26](#) take precedence over [H01H 51/01](#).

H01H 51/06

Armature is movable between two limit positions of rest and is moved in one direction due to energisation of an electromagnet and after the electromagnet is de-energised is returned by energy stored during the movement in the first direction, e.g. by using a spring, by using a permanent magnet, by gravity

References

Informative references

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

Motors with armature moved one way and returned by spring in general	H02K 33/02
--	----------------------------

H01H 51/12

Armature is movable between two limit positions of rest and is moved in both directions due to the energisation of one or the other of two electromagnets without the storage of energy to effect the return movement

References

Informative references

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

Motors with armature moved one way and returned by spring in general	H02K 33/02
--	----------------------------

H01H 51/22

Polarised relays {([H01H 51/284](#) takes precedence)}

References

Limiting references

This place does not cover:

Polarised relays having both armature and contacts within a sealed casting outside which the operating coil is located	H01H 51/284
--	-----------------------------

H01H 51/28

Relays having both armature and contacts within a sealed casing outside which the operating coil is located, e.g. contact carried by a magnetic leaf spring or reed ([H01H 51/27](#) takes precedence)

References

Limiting references

This place does not cover:

Relays with armature having two stable magnetic states and operated by change from one state to the other	H01H 51/27
---	----------------------------

H01H 51/284**{Polarised relays}****References****Informative references***Attention is drawn to the following places, which may be of interest for search:*

Polarised relays in general	H01H 51/22
-----------------------------	----------------------------

H01H 51/29**Relays having armature, contacts, and operating coil within a sealed casing
([H01H 51/27](#) takes precedence)****References****Limiting references***This place does not cover:*

Relays with armature having two stable magnetic states and operated by change from one state to the other	H01H 51/27
---	----------------------------

H01H 51/32**Frequency relays; Mechanically-tuned relays****References****Informative references***Attention is drawn to the following places, which may be of interest for search:*

Mechanical means for producing a desired natural frequency of operation of the contacts	H01H 50/74
Switched devices for electric time devices	G04C
Electromechanical resonators	H03H 9/00
Telegraph circuits with oscillating relay	H04L 25/205

H01H 53/10**Induction relays, i.e. relays in which the interaction is between a magnetic field and current induced thereby in a conductor****References****Informative references***Attention is drawn to the following places, which may be of interest for search:*

Parts of protective circuit arrangements	H02H 1/00
--	---------------------------

H01H 53/14

Contacts actuated by an electric motor through fluid-pressure transmission, e.g. using a motor-driven pump

References**Informative references**

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

Switches using dynamo-electric motor	H01H 3/26
--------------------------------------	---------------------------

H01H 59/00

Electrostatic relays; Electro-adhesion relays

References**Informative references**

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

Electrostatic measuring instruments	G01R 5/28
Clutches in general using the Johnson-Rahbek effect	H02N 13/00
Electrostatic transducers	H04R 19/00
Systems for preventing the formation of electrostatic charges	H05F

H01H 61/00

Electrothermal relays (thermal switches not operated by electrical input, thermal switches with anticipating electrical input [H01H 37/00](#); thermally-sensitive members [H01H 37/32](#))

References**Limiting references**

This place does not cover:

Thermal switches not operated by electrical input, thermal switches with anticipating electrical input	H01H 37/00
--	----------------------------

Informative references

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

Thermally-sensitive members	H01H 37/32
-----------------------------	----------------------------

H01H 61/0107**{making use of shape memory materials}****References****Informative references***Attention is drawn to the following places, which may be of interest for search:*

Making use of shape memory materials	H01H 37/323
--------------------------------------	-----------------------------

H01H 63/00**Details of electrically-operated selector switches****References****Informative references***Attention is drawn to the following places, which may be of interest for search:*

Details of relays	H01H 45/00
-------------------	----------------------------

H01H 63/34**Bases; Cases; Covers; Mountings (racks for mounting selectors with or without other exchange equipment [H04Q 1/04](#)); Mounting of fuses on selector switch****References****Informative references***Attention is drawn to the following places, which may be of interest for search:*

Racks for mounting selectors with or without other exchange equipment	H04Q 1/04
---	---------------------------

H01H 67/00**Electrically-operated selector switches****References****Informative references***Attention is drawn to the following places, which may be of interest for search:*

Details of electrically-operated selector switches	H01H 63/00
Selecting in general	H04Q
Methods, circuits, or apparatus for selectively establishing a connection between a desired number of stations	H04Q

H01H 69/00**Apparatus or processes for the manufacture of emergency protective devices****References****Informative references***Attention is drawn to the following places, which may be of interest for search:*

Manufacture of switches in general	H01H 11/00
Manufacture of relays in general	H01H 49/00

H01H 69/01**for calibrating or setting of devices to function under predetermined conditions****References****Informative references***Attention is drawn to the following places, which may be of interest for search:*

Measuring electric values	G01R
---------------------------	----------------------

H01H 71/04**Means for indicating condition of the switching device {(by means of an auxiliary contact [H01H 71/46](#))}****References****Limiting references***This place does not cover:*

Means for indicating condition of the switching device by means of an auxiliary contact	H01H 71/46
---	----------------------------

H01H 71/08**Terminals; Connections****References****Informative references***Attention is drawn to the following places, which may be of interest for search:*

Terminals and Connections in general	H01R
--------------------------------------	----------------------

H01H 71/14

Electrothermal mechanisms {(combined with a electro-thermal time delay relay [H01H 61/002](#))}

References**Limiting references**

This place does not cover:

Electrothermal mechanisms combined with a electro-thermal time delay relay	H01H 61/002
--	-----------------------------

H01H 71/145

{using shape memory materials ([H01H 71/16](#) takes precedence)}

References**Limiting references**

This place does not cover:

With bimetal element	H01H 71/16
----------------------	----------------------------

Informative references

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

Making use of shape memory materials in general	H01H 37/323
---	-----------------------------

H01H 71/16

with bimetal element {(combined with detection of imbalance of two or more currents [H01H 83/223](#))}

References**Limiting references**

This place does not cover:

Bimetal elements combined with detection of imbalance of two or more currents	H01H 83/223
---	-----------------------------

H01H 71/2445

{using a reed switch (for current measuring [G01R 19/16509](#))}

References**Limiting references**

This place does not cover:

For current measuring using electromagnetic relays	G01R 19/16509
--	-------------------------------

Informative references

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

Reed switches in general	H01H 51/28
--------------------------	----------------------------

H01H 71/26

with windings acting in opposition {([H01H 71/2436](#) takes precedence)}

References**Limiting references**

This place does not cover:

Windings acting in opposition	H01H 71/2436
-------------------------------	------------------------------

H01H 71/44

having means for introducing a predetermined time delay (by short-circuited winding [H01H 71/30](#); by additional armature [H01H 71/34](#))

References**Limiting references**

This place does not cover:

Short-circuited winding	H01H 71/30
Additional armature	H01H 71/34

H01H 71/504

{provided with anti-rebound means}

References**Informative references**

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

For switches in general	H01H 1/50
-------------------------	---------------------------

H01H 73/045

{Bridging contacts}

References**Informative references**

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

Contacting bridge per se	H01H 1/20
Rotating bridge	H01H 1/2041

H01H 73/08**Plug-in housings****References****Informative references**

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

Plug-in housings for a plurality of juxtaposed housings	H02B 1/056
---	----------------------------

H01H 73/12**Means for indicating condition of the switch****References****Informative references**

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

Indicating condition of the switch by means of an auxiliary contact	H01H 71/46
---	----------------------------

H01H 73/18**Means for extinguishing or suppressing arc {(magnet coil acting as blow-out device [H01H 71/38](#))}****References****Limiting references**

This place does not cover:

Magnet coil acting as blow-out device	H01H 71/38
---------------------------------------	----------------------------

Informative references

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

Means for extinguishing or suppressing arc in general	H01H 9/30 - H01H 9/46
---	---

H01H 73/20**Terminals; Connections****References****Informative references**

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

Terminals and Connections in general	H01R
--------------------------------------	----------------------

H01H 73/22

having electrothermal release and no other automatic release (cartridge type [H01H 73/62](#))

References**Limiting references**

This place does not cover:

Cartridge type	H01H 73/62
----------------	----------------------------

H01H 73/36

having electromagnetic release and no other automatic release (cartridge type [H01H 73/64](#))

References**Limiting references**

This place does not cover:

Cartridge type	H01H 73/64
----------------	----------------------------

H01H 73/48

having both electrothermal and electromagnetic automatic release (cartridge type [H01H 73/66](#))

References**Limiting references**

This place does not cover:

Cartridge type	H01H 73/66
----------------	----------------------------

H01H 75/04

Reset mechanisms for automatically reclosing a limited number of times (circuit arrangements [H02H 3/06](#))

References**Informative references**

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

Circuit arrangements	H02H 3/06
----------------------	---------------------------

H01H 77/00

Protective overload circuit-breaking switches operated by excess current and requiring separate action for resetting ([H01H 73/00](#), [H01H 75/00](#) take precedence)

References**Limiting references**

This place does not cover:

Protective overload circuit-breaking switches in which excess current opens the contacts by automatic release of mechanical energy stored by previous operation of a hand reset mechanism	H01H 73/00
Protective overload circuit-breaking switches in which excess current opens the contacts by automatic release of mechanical energy stored by previous operation of power reset mechanism	H01H 75/00

H01H 77/06

with electromagnetic opening {(combined with electromagnetic release mechanism [H01H 71/2409](#))}

References**Limiting references**

This place does not cover:

Electromagnetic opening combined with electromagnetic release mechanism	H01H 71/2409
---	------------------------------

H01H 77/10

with electrodynamic opening {(combined with electromagnetic release mechanism [H01H 71/2418](#))}

References**Limiting references**

This place does not cover:

Electrodynamic opening combined with electromagnetic release mechanism	H01H 71/2418
--	------------------------------

H01H 79/00

Protective switches in which excess current causes the closing of contacts, e.g. for short-circuiting the apparatus to be protected {([H01H 39/004](#) takes precedence)}

References**Limiting references**

This place does not cover:

Protective switches in which excess current causes the closing of contacts, e.g. for short-circuiting the apparatus to be protected	H01H 39/004
---	-----------------------------

H01H 83/02

operated by earth fault currents ([H01H 83/14](#) takes precedence)

References**Limiting references**

This place does not cover:

Operated by imbalance of two or more currents or voltages, e.g. for differential protection	H01H 83/14
---	----------------------------

H01H 85/00

Protective devices in which the current flows through a part of fusible material and this current is interrupted by displacement of the fusible material when this current becomes excessive (switches actuated by melting of fusible material [H01H 37/76](#); disposition or arrangement of fuses on boards [H02B 1/18](#))

References**Limiting references**

This place does not cover:

Switches actuated by melting of fusible material	H01H 37/76
Disposition or arrangement of fuses on boards	H02B 1/18

Informative references

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

Automatic release of protective switches due to fusion of a mass	H01H 73/00 - H01H 83/00
--	---

H01H 85/044

General constructions or structure of low voltage fuses, i.e. below 1000 V, or of fuses where the applicable voltage is not specified ([H01H 85/046](#) - [H01H 85/048](#) take precedence)

Special rules of classification

[H01H 85/046](#) - [H01H 85/048](#) take precedence over [H01H 85/044](#).

H01H 85/0445

fast or slow type ([H01H 85/045](#) - [H01H 85/048](#) take precedence)

Special rules of classification

[H01H 85/045](#) - [H01H 85/048](#) take precedence over [H01H 85/0445](#).

H01H 85/06

characterised by the fusible material ([H01H 85/11](#) takes precedence)

References

Limiting references

This place does not cover:

M-effect devices	H01H 85/11
------------------	----------------------------

H01H 85/10

with constriction for localised fusing ([H01H 85/11](#) takes precedence)

References

Limiting references

This place does not cover:

M-effect devices	H01H 85/11
------------------	----------------------------

H01H 85/165

Casings

References

Informative references

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

Electrical contacts	H01H 85/143
Fillings	H01H 85/18

H01H 85/20**Bases for supporting the fuse; Separate parts thereof****References****Informative references***Attention is drawn to the following places, which may be of interest for search:*

Bases, casings for connectors, in general	H01R
---	----------------------

H01H 85/25**Safety arrangements preventing or inhibiting contact with live parts, including operation of isolation on removal of cover****References****Informative references***Attention is drawn to the following places, which may be of interest for search:*

Interlocking between casing or protective shutter of a switch and mechanism for operating its contacts	H01H 9/22
--	---------------------------

H01H 85/38**Means for extinguishing or suppressing arc (by powder filling [H01H 85/18](#); by mechanical tension applied to fusible member [H01H 85/36](#))****References****Limiting references***This place does not cover:*

Means for extinguishing or suppressing arc by powder filling	H01H 85/18
Means for extinguishing or suppressing arc by mechanical tension applied to fusible member	H01H 85/36

H01H 85/40**using an arc-extinguishing liquid (characterised by the composition of the liquid [H01H 33/22](#))****References****Limiting references***This place does not cover:*

Arc-extinguishing liquid characterised by the composition of the liquid	H01H 33/22
---	----------------------------

H01H 85/42

using an arc-extinguishing gas (characterised by the composition of the gas [H01H 33/22](#))

References**Limiting references**

This place does not cover:

Arc-extinguishing gas characterised by the composition of the gas	H01H 33/22
---	----------------------------

H01H 2300/018

Application transfer; between utility and emergency power supply

References**Informative references**

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

Circuit arrangements for emergency or stand-by power supply in which the distribution system is disconnected from the normal source and connected to a standby source	H02J 9/04
---	---------------------------

H01H 2300/052

Controlling, signalling or testing correct functioning of a switch

References**Informative references**

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

Testing or measuring non-electrical properties of switches, e.g. contact velocity	H01H 11/0062
Tools for actuating a switch	H01H 2300/056
Electric switches, relays selectors or emergency protective devices using tools as locking means	H01H 2300/06