

## LIGHTING; HEATING

### F21 LIGHTING (electric aspects or elements, see section H, e.g. electric light sources H01J, H01K, H05B)

#### Notes

- (1) If the disclosure gives no indication as to whether it relates to electrical means or not, it should be classified as if it were in fact electric. [7]
- (2) Attention is drawn to Note III following the Contents of Section of section H.
- (3) Attention is drawn to the following places: [7]
 

A01G	9/20	Lights for cultivation in receptacles, forcing frames, greenhouses
A01K	63/06	Aquaria
A01K	75/02	Fishing nets
A01K	85/01	Fishing baits
A01M	1/04	Catching insects
A21B	3/10	Baker's ovens
A45B	3/02	Sticks
A45C	15/06	Bags, purses, or the like
A45D	33/32	Toilet or cosmetic powder containers
A45D	42/10	Shaving mirrors
A47F	11/10	Shop windows or showcases
A47L	9/30	Suction cleaners
A61B	1/00	Medical instruments for examining body cavities or tubes
A61C	13/15	Curing dental plastics prostheses by light action
A61H	15/02	Massage adapted for simultaneous treatment with light
A61N	5/06	Radiation therapy
A63B	15/02	Clubs
A63B	43/06	Balls
A63C	17/26	Roller skates or skate boards
A63H	1/24	Tops
A63H	17/28	Toy vehicles
A63H	19/20	Model railways
B25B	23/18	Spanners, wrenches, screwdrivers
B26B	19/46	Hair clippers or dry shavers
B26B	21/46	Accessories for razors
B41B	21/08	Photographic composing machines
B41J	29/19	Typewriters or selective printing machines
B43K	29/10	Writing implements
B44D	3/24	Lamps for baking lacquers used in painting or artistic drawing
B60Q		Arrangement of signalling or lighting devices, the mounting or supporting thereof or circuits therefor, for vehicles in general
B61D	29/00	Railway vehicles
B61L	5/18	Railway light signals
B61L	9/00	Points, form signals, or gates
B62J	6/00	Cycles
B63B	45/00	Ships
B63C	9/20	Life-buoys, life-belts, lifejackets
B64D	47/02	Aircraft
B67D	5/66	Apparatus for transferring liquids
D05B	79/00	Sewing machines
E01F	9/016	Road signs
E01F	9/053	Road surface markings
E04H	15/10	Tents or canopies
E05B	17/10	Locks or keys
F24F	3/056	Air conditioning systems
F24F	13/078	Outlets for directing air into rooms or spaces combined with lighting fixtures
F25D	27/00	Cooling or freezing apparatus
F27D	21/02	Furnaces, kilns, ovens or retorts
F41G	1/35	Night sights
G01C	9/32	Levels
G01C	17/24	Compasses
G01D	11/28	Measuring arrangements
G01G	23/30	Weighing apparatus
G01K	1/06	Thermometers
G01P	1/08	Speedometers
G01R	1/08	Instruments for measuring
G02B	21/06	Microscopes
G02B	25/02	Magnifying glasses

**F21H – F21K**

G02B	27/20	Light-pointers
G02B	27/34	Optical instruments
G02C	11/04	Spectacles
G02F	1/1335	Liquid crystals
G02F	1/157	Electrochromic cells
G03B	15/02	Illuminating scene for taking photographs
G03B	15/03	Cameras
G03B	27/16	Contact photographic printing
G03B	27/54	Projection photographic printing
G04B	19/30	Clocks
G04C	17/02	Time indicating by electric lamps
G04C	19/02	Time signalling by electric lamps
G08B	5/36	Visible signalling or calling systems
G08B	17/103	Actuation of fire alarms
G08G	1/095	Traffic lights
G09F	13/00	Illuminated signs
G09F	19/22	Advertising or display means on roads or walls
G09F	21/10	
G09F	21/14	Aircraft advertising
G09F	21/20	Advertising on ships
G09F	23/04	Illuminated advertising on or in specific articles
G12B	11/00	Indicating elements of instruments
H01H	73/14	Indicating lamps in circuit-breaker switches
H01H	85/32	Indicating lamps in fuses
H01Q	1/06	Lighting of aerials
H01R	13/717	Coupling devices with built-in light bulbs
H03K	21/20	Pulse counter or frequency divider indicators using glow-discharge lamps
H04M	1/22	Illuminating of telephone substation equipment

**F21H INCANDESCENT MANTLES; OTHER INCANDESCENT BODIES HEATED BY COMBUSTION** (arrangements thereof F21V 36/00; burners F23D)

**1/00 Incandescent mantles; Selection of imbibition liquids therefor**

1/02 . characterised by the material thereof

**3/00 Manufacturing incandescent mantles; Treatment prior to use, e.g. burning-off; Machines for manufacturing**

5/00 **Solid incandescent bodies** (incandescent mantles F21H 1/00)

**F21K LIGHT SOURCES NOT OTHERWISE PROVIDED FOR**

**2/00 Light sources using luminescence** (luminescent materials C09K 11/00; selection of luminescent materials for light screens F21V 9/16; using excitation by radioactivity G21H 3/02, H01J 65/06, H01J 65/08; transforming the wavelength of the light of gas- or vapour-discharge lamps by luminescence H01J 61/42; electroluminescent light sources H05B 33/00) [2,7]

2/04 . using triboluminescence; using thermoluminescence

2/06 . using chemiluminescence [3]

2/08 . . activated by an electric field, i.e. electrochemiluminescence [3]

**5/00 Light sources using charges of combustible material, e.g. illuminating flash devices** (explosive or thermic compositions C06B; fireworks F42B 4/00; photographic flash units G03B 15/03) [3,5]

5/04 . Plural charges, e.g. associated for sequential ignition (F21K 5/06, F21K 5/12 take precedence) [5]

5/06 . Charge containment [5]

5/08 . . Charge held in non-disrupting container, e.g. photo-flash bulb [5]

5/10 . . . bearing a coating [5]

5/12 . Charge ignition [5]

5/14 . . percussive [5]

5/16 . . electrical (circuit arrangements H05B 43/02) [5]

5/18 . . . Electrically-ignited primers [5]

5/20 . Charge feeding means [5]

5/22 . Protective light shields [5]

**7/00 Other light sources**

**F21L LIGHTING DEVICES OR SYSTEMS THEREOF, BEING PORTABLE OR SPECIALLY ADAPTED FOR TRANSPORTATION [1,7]**

**Notes**

- (1) This subclass covers devices or systems designed or specially adapted to be carried, e.g. by hand, or otherwise transported from place to place, e.g. on wheeled supports, in order to provide illumination as and where required. [7]
- (2) This subclass does not cover devices or systems intended for fixed installation, e.g. vehicle lighting, or for use essentially at a permanent location, which are covered by subclass F21S. [7]

**Note**

In this subclass, it is desirable to add the indexing codes of subclasses F21W and F21Y. [7]

**Subclass Index**

<p><b>ELECTRIC DEVICES</b></p> <p>Systems ..... 2/00</p> <p>with self-contained batteries or cells ..... 4/00</p> <p>with built-in generators..... 13/00</p> <p>without self-contained power source ..... 14/00</p>	<p><b>NON-ELECTRIC DEVICES</b></p> <p>Torches, flares; lanterns .....17/00; 19/00</p> <p>Pocket-lamps; miners' hand-lamps .....21/00; 23/00</p> <p>Other portable lighting devices or systems thereof.....26/00</p> <p><b>COMBINATIONS OF ELECTRIC AND NON-ELECTRIC DEVICES</b> .....27/00</p>
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**Electric lighting**

<p><b>2/00</b> Systems of lighting devices [7]</p> <p><b>4/00</b> Devices with self-contained electric batteries or cells [7]</p> <p>4/02 . characterised by provision of two or more light sources [7]</p> <p>4/04 . characterised by provision of a light source housing portion adjustably fixed to the remainder of the device [7]</p> <p>4/06 . with light source coupled to the remainder of the device solely by cable [7]</p> <p>4/08 . characterised by means for <u>in situ</u> recharging of the batteries or cells [7]</p> <p><b>13/00</b> Devices with built-in electric generators (with solar cells F21L 4/00) [1,7]</p> <p>13/02 . with fluid drive</p> <p>13/04 . . actuated by hand</p> <p>13/06 . with mechanical drive, e.g. spring</p> <p>13/08 . . by reciprocating pusher actuated by hand</p>
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<p><b>14/00</b> Devices without a self-contained power source, e.g. for mains connection [7]</p> <p>14/02 . capable of hand-held use, e.g. inspection lamps [7]</p> <p>14/04 . carried on wheeled supports [7]</p>
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**Non-electric lighting** (candle holders F21V 35/00; burners, combustion apparatus F23)

<p><b>17/00</b> Torches; Flares</p> <p><b>19/00</b> Lanterns, e.g. hurricane lamps, candle lamps</p> <p><b>21/00</b> Pocket-lamps, e.g. producing sparks</p> <p><b>23/00</b> Miners' hand-lamps</p> <p><b>26/00</b> Non-electric portable lighting devices, or systems thereof, not provided for in groups F21L 17/00 to F21L 23/00 [8]</p> <hr/> <p><b>27/00</b> Devices or systems employing combinations of electric and non-electric light sources; Replacing electric by non-electric light sources or <u>vice versa</u></p>
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**F21S NON-PORTABLE LIGHTING DEVICES OR SYSTEMS THEREOF [1,7]**

**Notes**

- (1) This subclass covers devices or systems intended for fixed installation, e.g. vehicle lighting, or for use at a permanent location, e.g. free-standing floor- or table-lamps. [7]
- (2) This subclass does not cover devices or systems specially adapted for transportation, which are covered by subclass F21L. [7]

**Note**

In this subclass, it is desirable to add the indexing codes of subclasses F21W and F21Y. [7]

**Subclass Index**

<p><b>ELECTRIC DEVICES</b></p> <p>Systems ..... 2/00</p> <p>String or strip of light sources ..... 4/00</p>	<p>Free-standing .....6/00</p> <p>Fixed installation .....8/00</p> <p>Built-in power supply.....9/00</p>
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**F21S – F21V**

Producing varying lighting effects .....10/00  
**NON-ELECTRIC DEVICES**  
 Using daylight .....11/00  
 Light source: Point-like or of  
 unspecified shape .....13/00

Other devices ..... 15/00  
**COMBINATIONS OF ELECTRIC AND  
 NON-ELECTRIC DEVICES** ..... 19/00

**Electric lighting** [7]

**2/00** **Systems of lighting devices, not provided for in main groups F21S 4/00 to F21S 10/00, e.g. of modular construction** [7]  
**4/00** **Devices or systems using a string or strip of light sources** [7]  
**6/00** **Devices intended to be free-standing** (F21S 9/00, F21S 10/00 take precedence) [7]  
**8/00** **Devices intended for fixed installation** (F21S 9/00, F21S 10/00 take precedence; using a string or strip of light sources F21S 4/00) [7]  
 8/02 . of recess-mounted type, e.g. downlighters (F21S 8/10 takes precedence) [7]  
 8/04 . intended only for mounting on a ceiling or like overhead structure (F21S 8/02 takes precedence) [7]  
 8/06 . . by suspension [7]  
 8/08 . with a standard [7]  
 8/10 . specially adapted for vehicles (arrangement of signalling or lighting devices, the mounting or supporting thereof or circuits therefor, for vehicles in general B60Q) [7]  
 8/12 . . providing a single shaped beam, e.g. asymmetric beam, e.g. for penetrating fog or for preventing glare [7]  
**9/00** **Devices with a built-in power supply; Systems employing such devices**  
 9/02 . the power supply being a battery or accumulator  
 9/03 . . rechargeable by exposure to light [7]  
 9/04 . the power supply being a generator

**10/00** **Devices or systems producing a varying lighting effect** [7]

10/02 . changing colours (F21S 10/04 takes precedence) [7]  
 10/04 . simulating flames [7]  
 10/06 . flashing, e.g. with rotating reflector or light source [7]

**Non-electric lighting** (candle holders F21V 35/00; burners, combustion apparatus F23)

**11/00** **Devices or systems using daylight** (building arrangements in general, building details E04; windows or the like E06B)

**13/00** **Devices or systems employing a point-like light source; Devices or systems employing a light source of unspecified shape**

13/02 . Devices intended to be fixed, e.g. ceiling lamp, wall lamp  
 13/04 . . with a pendant  
 13/06 . . . multi-branched, e.g. chandelier  
 13/08 . . with suspension from a stretched wire  
 13/10 . . with a standard, e.g. street lamp  
 13/12 . Devices intended to be free-standing, e.g. table lamp, floor lamp  
 13/14 . Lighting systems

**15/00** **Devices or systems employing light sources not covered by group F21S 11/00 or F21S 13/00**

**19/00** **Devices or systems employing combinations of electric and non-electric light sources; Replacing electric by non-electric light sources or vice versa**

**F21V** **FUNCTIONAL FEATURES OR DETAILS OF LIGHTING DEVICES OR SYSTEMS THEREOF; STRUCTURAL COMBINATIONS OF LIGHTING DEVICES WITH OTHER ARTICLES, NOT OTHERWISE PROVIDED FOR [1,7]**

**Note**

In this subclass, it is desirable to add the indexing codes of subclasses F21W and F21Y. [7]

**Subclass Index**

**DETAILS OF PARTS INVOLVED IN LIGHT EMISSION OR DISTRIBUTION**

Shades; globes; refractors;  
 reflectors ..... 1/00; 3/00;  
 5/00; 7/00  
 Light guides .....8/00  
 Light filters .....9/00  
 Other screens .....11/00  
 Combinations of elements .....13/00  
 Changing characteristics or  
 distribution of the light .....14/00

**DETAILS OF PARTS NOT INVOLVED IN LIGHT EMISSION OR DISTRIBUTION**

Fastening ..... 17/00; 19/00

Arrangements for supporting or  
 suspending ..... 21/00  
 Arrangements of electric circuit  
 elements ..... 23/00  
 Cable stowing ..... 27/00  
 Protection; safety; cooling;  
 tightness .....15/00; 25/00;  
 29/00; 31/00  
 Combinations with other articles ..... 33/00  
 Candle holders ..... 35/00  
 Arrangements of mantles or burners ..... 36/00  
 Details of combustion lighting ..... 37/00

**SUBJECT MATTER NOT PROVIDED FOR  
 IN OTHER GROUPS OF THIS SUBCLASS** ..... 99/00

**Details of those parts involved in light emission or distribution**

(optical elements or systems in general G02B)

**1/00 Shades**

- 1/02 . Frames
- 1/04 . . rigid (F21V 1/08 takes precedence)
- 1/06 . . foldable or collapsible
- 1/08 . . adjustable
- 1/10 . Rotating shades
- 1/12 . Composite shades
- 1/14 . Covers for frames; Frameless shades
- 1/16 . . characterised by the material
- 1/18 . . . the material being paper
- 1/20 . . . the material being glass
- 1/22 . . . the material being plastics
- 1/24 . . . the material being metal
- 1/26 . Manufacturing shades

**3/00 Globes; Bowls; Cover glasses** (with refracting properties F21V 5/00; with reflecting properties F21V 7/00)

- 3/02 . characterised by the shape
- 3/04 . characterised by the material; characterised by surface treatments or coatings

**5/00 Refractors**

- 5/02 . of prismatic shape (F21V 5/04 takes precedence)
- 5/04 . of lens shape
- 5/06 . Hanging lustres for chandeliers
- 5/08 . producing an asymmetric light distribution [1,7]

**7/00 Reflectors**

- 7/04 . Optical design (F21V 7/22 takes precedence) [1,7]
- 7/05 . . plane [1,7]
- 7/06 . . with parabolic curvature [1,7]
- 7/07 . . with hyperbolic curvature [1,7]
- 7/08 . . with elliptical curvature [1,7]
- 7/09 . . with a combination of different curvatures [1,7]
- 7/10 . Construction (F21V 7/22 takes precedence) [1,7]
- 7/16 . . with provision for adjusting the curvature [1,7]
- 7/18 . . with provision for folding or collapsing [1,7]
- 7/20 . . specially adapted for facilitating cooling, e.g. with fins (cooling by other means, e.g. fluid, F21V 29/00) [1,7]
- 7/22 . characterised by the material; characterised by surface treatments or coatings

**8/00 Use of light guides, e.g. fibre optic devices, in lighting devices or systems** (light guides *per se*, structural details of arrangements with other optical elements G02B 6/00) [4]**9/00 Light filters** (coloured shades F21V 1/00); **Selection of luminescent materials for light screens** (luminescent materials *per se* C09K 11/00; electroluminescent light sources *per se* H05B 33/00)

- 9/02 . for simulating daylight (F21V 9/04, F21V 9/06, F21V 9/16 take precedence)
- 9/04 . for filtering out infra-red radiation (using liquid-filled chambers F21V 9/12)
- 9/06 . for filtering out ultra-violet radiation (F21V 9/16 takes precedence)
- 9/08 . for producing coloured light, e.g. monochromatic; for reducing intensity of light (F21V 9/16 takes precedence)
- 9/10 . . with provision for variation of the colour or intensity (F21V 9/12 takes precedence)
- 9/12 . . with liquid-filled chambers

- 9/14 . for producing polarised light
- 9/16 . Selection of luminescent materials for light screens

**11/00 Screens not covered by groups F21V 1/00, F21V 3/00, F21V 7/00, F21V 9/00**

- 11/02 . using parallel laminae or strips, e.g. of Venetian-blind type (F21V 11/06 takes precedence)
- 11/04 . . adjustable
- 11/06 . using crossed laminae or strips; using lattices or honeycombs
- 11/08 . using diaphragms containing one or more apertures
- 11/10 . . of iris type
- 11/12 . . of slot type
- 11/14 . . with many small apertures
- 11/16 . using sheets without apertures, e.g. fixed (F21V 11/02, F21V 11/06 take precedence)
- 11/18 . . movable, e.g. flaps, slides

**13/00 Producing particular characteristics or distribution of the light emitted by means of a combination of elements specified in two or more of main groups F21V 1/00 to F21V 11/00** (by means of a combination of two or more elements covered by a single one of main groups F21V 1/00 to F21V 11/00, *see* the relevant group; changing the characteristics or distribution of the light emitted by adjustment of parts F21V 14/00) [1,7]

- 13/02 . Combinations of only two kinds of elements
- 13/04 . . the elements being reflectors and refractors
- 13/06 . . . a reflector being rotatable
- 13/08 . . the elements being reflectors and filters
- 13/10 . . the elements being reflectors and screens
- 13/12 . Combinations of only three kinds of elements
- 13/14 . . the elements being reflectors, refractors, and filters

**14/00 Changing the characteristics or distribution of the light emitted by adjustment of parts** (reflectors with provision for adjusting the curvature F21V 7/16; light filters with provision for variation of colour or intensity F21V 9/10; screens using iris-type diaphragms F21V 11/10; adjustable mountings for lighting devices F21V 21/14) [7]

- 14/02 . by movement of light sources [7]
- 14/04 . by movement of reflectors [7]
- 14/06 . by movement of refractors [7]
- 14/08 . by movement of screens [7]

**Details of those parts not involved in light emission or distribution, e.g. fittings****15/00 Protecting lighting devices from damage** (cooling or heating arrangements F21V 29/00; gas-tight or water-tight arrangements F21V 31/00)

- 15/01 . Housings, e.g. material or assembling of housing parts (F21V 15/02 takes precedence) [7]
- 15/015 . . Devices for covering joints between adjacent lighting devices; End coverings [7]
- 15/02 . Cages
- 15/04 . Resilient mountings, e.g. shock-absorbers (in general F16F 15/04)
- 15/06 . Thermal insulation [7]

- 17/00 Fastening of component parts of lighting devices, e.g. shades, globes, refractors, reflectors, filters, screens, grids or protective cages** (of light sources or light holders F21V 19/00; gas-tight or water-tight arrangements F21V 31/00)
- 17/02 . with provision for adjustment (F21V 17/04 to F21V 17/08 take precedence; changing the characteristics or distribution of the light emitted by adjustment of parts F21V 14/00) [1,7]
  - 17/04 . onto or by the light source
  - 17/06 . onto or by the lamp holder
  - 17/08 . onto the supporting or suspending arrangements of the lighting device, e.g. power cords, standards [7]
  - 17/10 . characterised by specific fastening means or way of fastening (F21V 17/02 to F21V 17/08 take precedence) [7]
    - 17/12 . . by screwing [7]
    - 17/14 . . Bayonet-type fastening [7]
    - 17/16 . . by deformation of parts of the lighting device; Snap action mounting [7]
    - 17/18 . . Latch-type fastening, e.g. with rotary action [7]
    - 17/20 . . by toggle-action levers [7]
- 19/00 Fastening of light sources or lamp holders** (fastening electric light source solely by the coupling device H01R 33/00)
- 19/02 . with provision for adjustment, e.g. for focusing (changing the characteristics or distribution of the light emitted by adjustment of parts F21V 14/00) [1,7]
  - 19/04 . with provision for changing light source, e.g. turret
  - 19/06 . Fastening incandescent mantles or other incandescent bodies to lamp parts; Suspension devices for incandescent mantles or other incandescent bodies [1,7]
- 21/00 Supporting, suspending, or attaching arrangements for lighting devices** (F21V 17/00, F21V 19/00 take precedence; arrangement of signalling or lighting devices, the mounting or supporting thereof or circuits therefor, for vehicles in general B60Q; stands for supporting apparatus or articles in general F16M 11/00); **Hand grips** [1,7]
- 21/002 . making direct electrical contact, e.g. by piercing (F21V 21/35 takes precedence) [7]
  - 21/005 . for several lighting devices in an end-to-end arrangement, i.e. light tracks [7]
  - 21/008 . Suspending from a cable or suspension line [7]
  - 21/02 . Wall, ceiling, or floor bases; Fixing pendants or arms to the bases (F21V 21/08 takes precedence; bases for movable standing lamps F21V 21/06)
    - 21/03 . . Ceiling bases, e.g. ceiling roses (F21V 21/04 takes precedence) [7]
    - 21/04 . . Recessed bases
    - 21/06 . Bases for movable standing lamps; Fixing standards to the bases (F21V 21/08 takes precedence)
    - 21/08 . Devices for easy attachment to a desired place
    - 21/084 . . Head fittings (for medical purposes A61B 1/06) [7]
    - 21/088 . . Clips; Clamps [7]
    - 21/092 . . Suction devices [7]
    - 21/096 . . Magnetic devices [7]
    - 21/10 . Pendants, arms, or standards; Fixing lighting devices to pendants, arms, or standards (adjustable mounting F21V 21/14; construction of posts not peculiar to use with lighting devices E04H 12/00)
      - 21/104 . . Pendants [7]
      - 21/108 . . Arms [7]
  - 21/112 . . Fixing lighting devices to pendants (F21V 21/002 takes precedence) [7]
  - 21/116 . . Fixing lighting devices to arms or standards (F21V 21/002 takes precedence) [7]
  - 21/12 . . capable of being elongated or shortened by the insertion or removal of intermediate pieces
  - 21/13 . Spring-loaded poles fixed at both ends [7]
  - 21/14 . Adjustable mountings
  - 21/15 . . specially adapted for power operation, e.g. by remote control [7]
    - 21/16 . . using wires or cords
    - 21/18 . . . operated by springs
    - 21/20 . . . operated by weights
    - 21/22 . . telescopic
    - 21/24 . . Lazy-tongs
    - 21/26 . . Pivoted arms
      - 21/28 . . . adjustable in more than one plane
      - 21/29 . . . . employing universal joints
    - 21/30 . . Pivoted housings or frames
    - 21/32 . . Flexible tubes
    - 21/34 . Supporting elements displaceable along a guiding element
      - 21/35 . . with direct electrical contact between the supporting element and electric conductors running along the guiding element [7]
    - 21/36 . Hoisting or lowering devices, e.g. for maintenance (F21V 21/14 takes precedence)
      - 21/38 . . with a cable
      - 21/40 . Hand grips [7]
- 23/00 Arrangement of electric circuit elements in or on lighting devices** (electric circuits *per se* H05B 39/00)
- 23/02 . the elements being transformers or impedances
  - 23/04 . the elements being switches (safety devices F21V 25/00)
  - 23/06 . the elements being coupling devices
- 25/00 Safety devices structurally associated with lighting devices** (gas-tight or water-tight arrangements F21V 31/00; in general F16P; protective circuit arrangements *per se* H02H 7/00)
- 25/02 . coming into action when lighting device is disturbed, dismantled, or broken
    - 25/04 . . breaking the electric circuit
    - 25/06 . . feeding a quenching fluid to the light source
    - 25/08 . . cutting the incandescent filament
  - 25/10 . coming into action when lighting device is overloaded, e.g. thermal switch
  - 25/12 . Flameproof or explosion-proof arrangements
- 27/00 Cable-stowing arrangements structurally associated with lighting devices, e.g. reels** (storing lengths of cable in general B65H)
- 27/02 . Cable inlets [7]
- 29/00 Cooling or heating arrangements** (air-treatment systems with air-flow over lighting fixtures F24F 3/056; lighting fixtures combined with outlets for air-treatment systems F24F 13/078) [1,7]
- 29/02 . Cooling by forcing air over or around the light source (cooling arrangements structurally associated with electric lamps H01J 61/52, H01K 1/58) [7]
- 31/00 Gas-tight or water-tight arrangements**
- 31/03 . with provision for venting [7]
  - 31/04 . Provision of filling media (safety devices F21V 25/00; cooling arrangements F21V 29/00)

**33/00** Structural combinations of lighting devices with other articles, not otherwise provided for [1,7]

**Note**

Attention is drawn to Note (3) following the title of class F21. [7]

**35/00** Candle holders

**36/00** Arrangements of mantles or other incandescent bodies on burners (attaching to lamp parts F21V 19/06)

36/02 . in ceiling lamps

**37/00** Details of lighting devices employing combustion as light source, not otherwise provided for [1,7]

37/02 . Special adaptation for protection against draughts [7]

**99/00** Subject matter not provided for in other groups of this subclass [8]

**F21W** INDEXING SCHEME ASSOCIATED WITH SUBCLASSES F21L, F21S AND F21V, RELATING TO USES OR APPLICATIONS OF LIGHTING DEVICES OR SYSTEMS [7]

**Note**

This subclass constitutes an indexing scheme associated with subclasses F21L, F21S and F21V, relating to uses or applications of lighting devices or systems. [7]

**101/00** Use or application of lighting devices on or in vehicles [7]

101/02 . for land vehicles [7]

101/023 . . for cycles [7]

101/027 . . . for motorcycles [7]

101/04 . for water vehicles [7]

101/06 . for aircraft [7]

101/08 . Interior lights [7]

101/10 . Head-, spot- or fog-lights [7]

101/12 . Direction indicator lights [7]

101/14 . Rear or stop lights [7]

**111/00** Use or application of lighting devices or systems for signalling, marking or indicating, not provided for in group F21W 101/00 [7]

111/02 . for roads, paths or the like [7]

111/023 . . for pedestrian walkways [7]

111/027 . . for indicating kerbs, steps or stairs [7]

111/04 . for waterways [7]

111/043 . . for lighthouses or lightships [7]

111/047 . . for light-buoys [7]

111/06 . for aircraft runways or the like [7]

111/08 . for handles or handrails [7]

111/10 . for personal use, e.g. hand-held [7]

**121/00** Use or application of lighting devices or systems for decorative purposes [7]

121/02 . for fountains [7]

121/04 . for Christmas trees [7]

121/06 . for personal wear [7]

**131/00** Uses or applications of lighting devices or systems not provided for in groups F21W 101/00 to F21W 121/00 [7]

131/10 . Outdoor lighting [7]

131/101 . . of tunnels or the like, e.g. under bridges [7]

131/103 . . of streets or roads [7]

131/105 . . of arenas or the like [7]

131/107 . . of the exterior of buildings [7]

131/109 . . of gardens [7]

131/20 . Lighting for medical use [7]

131/202 . . for dentistry [7]

131/205 . . for operating theatres [7]

131/208 . . for hospital wards [7]

131/30 . Lighting for domestic or personal use [7]

131/301 . . for furniture [7]

131/302 . . for mirrors [7]

131/304 . . for pictures [7]

131/305 . . for refrigerators [7]

131/307 . . for ovens [7]

131/308 . . for aquaria [7]

131/40 . Lighting for industrial, commercial, recreational or military use [7]

131/401 . . for swimming pools [7]

131/402 . . for working places [7]

131/403 . . for machines [7]

131/4035 . . . for sewing machines [7]

131/405 . . for shop-windows or displays [7]

131/406 . . for theatres, stages or film studios [7]

131/407 . . for indoor arenas [7]

131/409 . . for furnaces or kilns [7]

131/411 . . for inspection of the interior of hollow structures, e.g. vessels, tubes [7]

**F21Y INDEXING SCHEME ASSOCIATED WITH SUBCLASSES F21L, F21S AND F21V, RELATING TO THE FORM OF THE LIGHT SOURCES [7]****Note**

This subclass constitutes an indexing scheme associated with subclasses F21L, F21S and F21V, relating to the form of the light sources. [7]

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<b>101/00</b>	<b>Point-like light sources [7]</b>	<b>105/00</b>	<b>Planar light sources [7]</b>
101/02	. Miniature, e.g. light emitting diodes (LED) [7]	<b>111/00</b>	<b>Light sources of form not covered by groups F21Y 101/00 to F21Y 105/00 [7]</b>
<b>103/00</b>	<b>Elongated light sources, e.g. fluorescent tubes [7]</b>	<b>113/00</b>	<b>Combination of light sources [7]</b>
103/02	. curved, e.g. ring-shaped [7]	113/02	. of different form [7]
103/025	. . U-shaped [7]		