B60Q

ARRANGEMENT OF SIGNALLING OR LIGHTING DEVICES, THE MOUNTING OR SUPPORTING THEREOF OR CIRCUITS THEREFOR, FOR VEHICLES IN GENERAL

NOTES

1. This subclass also covers the operation and control of lighting devices, for example:
   • arrangement or adaptation of lighting switches or signal-initiating means for vehicles.
   • control of lighting devices in relation to the vehicle as a whole, e.g. for levelling, swivelling or aiming.
2. This subclass does not cover optical, mechanical, thermal or electrical arrangement of elements within lighting devices, which are covered by groups B21S 41/00 – B21S 45/00.
3. Attention is drawn to the Note following the title of class B60.
4. Attention is drawn to the following places:
   5. B60K 28/00 Safety devices, e.g. sleeping driver
      B60R 25/00 Anti-theft
      B62D Steering aids
      B60K 31/0008 Cruise control
      G01S Infrared night vision
      G01S 13/931 Anti-collision
      G05D 1/00 Automatic pilot
      G06K 9/00 Pattern recognition
      G06T 3/00 Image transformation
      G06T 5/00 Image enhancement
      G06T 7/00 Image analysis
      G08B 21/00 Alarms in general
      G08G Traffic control
      G08G 1/16 Anti-collision systems
      H04N Television systems

WARNINGS

1. The following IPC groups are not in the CPC scheme. The subject matter for these IPC groups is classified in the following CPC groups:
   B60Q 1/128 covered by B60Q 1/124
   B60Q 1/132 covered by B60Q 1/124
   B60Q 1/136 covered by B60Q 1/124
2. In this subclass non-limiting references (in the sense of paragraph 39 of the Guide to the IPC) may still be displayed in the scheme.

1/00 Arrangements or adaptations of optical signalling or lighting devices (for lighting vehicle interior B60Q 3/00 ; circuit arrangements for electric light sources in general H05B 47/001)

1/0005 . Devices preventing the lights from becoming dirty or damaged (protecting lighting devices from damage in general F21V 15/00), e.g. protection grids (fastening of grids or protective cages in general F21V 17/00), cleaning by air flow (windshield wipers for cleaning optical devices of vehicles B60S 1/04))

1/0011 . with light guides for distributing the light between several lighting or signalling devices (using light guides inside a single device F21S 8/00, light guides per se G02B 6/001)

1/0017 . Devices integrating an element dedicated to another function)

1/0023 . (the element being a sensor, e.g. distance sensor, camera)

1/0029 . Spatial arrangement

1/0035 . relative to the vehicle

1/0041 . (of several lamps in relation to each other)

1/0047 . (Signalling unit mounted on a headlamp unit)

1/0052 . (concentric)
the devices being primarily intended to illuminate the way ahead or to illuminate other areas of way or environments

1/04 the devices being headlights
1/0408 [built into the vehicle body, e.g. details concerning the mounting of the headlamps on the vehicle body (B60Q 1/0491; B60Q 1/05 take precedence, integrated front ends B62D 25/00)]

1/0416 [the housing being mounted on the vehicle body using rails]
1/0425 [the housing being swivel mounted on the vehicle body]
1/0433 [the housing being fastened onto the vehicle body using screws (adjustable headlamp by rotation of a screw B60Q 1/0683)]
1/0441 [the housing being fastened onto the vehicle body using means other than screws]
1/045 [with provision for adjusting the alignment of the headlamp housing with respect to the vehicle body (adjusting the light beam B60Q 1/06)]
1/0458 [the front cover being directly mounted onto the vehicle body (mounting the cover on the housing F21S 41/50)]
1/0466 [with arrangement for sealing the headlamp with respect to the vehicle body, or for concealing gaps between the headlamp and the vehicle body]
1/0475 [with provisions for pre-mounting, for temporary holding the headlamp before or during final mounting]
1/0483 [mounted on a bracket, e.g. details concerning the mounting of the lamps on the vehicle body]
1/0491 [Shock absorbing devices therefor (resilient mounting of lighting devices in general F21V 15/04; shock absorbing devices in general F16F 15/04)]
1/05 retractable

1/06 adjustable, e.g. remotely controlled from inside vehicle (B60Q 1/05 takes precedence []; controlling the distribution of the light emitted by adjustment of elements F21V 14/00)]
1/064 by fluid means
1/068 by mechanical means
1/0683 [Adjustable by rotation of a screw]
1/0686 [using a position indicator mounted on the headlight and permanently attached thereto]
1/072 comprising a flexible element, e.g. chain
1/076 by electrical means [including means to transmit the movements, e.g. shafts or joints]
1/08 automatically
1/085 [due to special conditions, e.g. adverse weather, type of road, badly illuminated road signs or potential dangers (B60Q 1/10; B60Q 1/12, B60Q 1/1423 take precedence)]
1/10 due to vehicle inclination, e.g. due to load distribution
1/105 by fluid means
1/11 by mechanical means
1/115 by electric means [(details of the electric drive components, e.g. motors, shafts, ball joints B60Q 1/076)]
1/12 due to steering position
1/121 [with fluid actuating means]
1/122 [with electrical actuating means (details of the electric drive components, e.g. motors, shafts, ball joints B60Q 1/076)]
1/124 by mechanical means
1/14 having dimming means [(lighting power supply circuits in general H05B)]
1/1407 [General lighting circuits comprising dimming circuits (dimming circuits per se B60Q 1/1415)]
1/1415 [Dimming circuits]
1/1423 [Automatic dimming circuits, i.e. switching between high beam and low beam due to change of ambient light or light level in road traffic]
1/143 [combined with another condition, e.g. using vehicle recognition from camera images or activation of wipers]
1/1438 [Actuating means for dimming masks or screens (adjustable screens per se F21V 11/04)]
1/1446 [controlled by mechanically actuated switches]
1/1453 [Hand actuated switches]
1/1461 [Multifunction switches for dimming headlights and controlling additional devices, e.g. for controlling direction indicating lights]
1/1469 [controlled by or attached to a single lever, e.g. steering column stalk switches]
1/1476 [comprising switch controlling means located near the free end of the lever, e.g. press buttons, rotatable rings]
1/1484 [mounted on the steering wheel]
1/1492 [Foot actuated switches]
aerials, e.g. for purpose of warning | H01Q 1/06

means for the lighting or illuminating of traffic { ( means for the lighting or illuminating of vehicle, or parts thereof, or to give signals, to other traffic { (means for the lighting or illuminating of aerials, e.g. for purpose of warning | H01Q 1/06) }

the devices being primarily intended to indicate the vehicle, or parts thereof, or to give signals, to other traffic { (means for the lighting or illuminating of aerials, e.g. for purpose of warning | H01Q 1/06) }.

{ Attenuation of the light according to ambient luminiosity, e.g. for braking or direction indicating lamps]

[comprising at least two indicating lamps]

{ Indicating devices mounted on the roof of the vehicle (flashing light sources in general F21S 10/06) ]

{ mounted on the vehicle body, e.g. with magnets ]

{ built in the vehicle body ]

{ Details of the fastening means ]

{ Screw-nut fasteners ]

{ Snap-in fasteners ]

{ Fastening by rotating the device housing about its longitudinal axis, e.g. bayonet fasteners ]

{ Positioning the device housing by indexing means separate from the fastening means, e.g. pins, rails ]

{ with provision for adjusting the alignment of the device housing with respect to the vehicle body ]

{ using dowels or expandable elements ]

{ with provision for pre-mounting or temporary holding the device before or during final mounting ]

{ with arrangement for sealing the device with respect to the vehicle body, or for concealing gaps between the device and the vehicle body ]

{ mounted on a shaft, e.g. telescopic (lamps on antennas or powerlines F21S 8/085) ]

{ mounted on parts having other functions (on wheels B60Q 1/323) ]

{ on rear-view mirrors (lighting devices for vehicle interior on or for rear-view mirrors B60Q 3/258; rear-view mirror arrangements B60R 1/09; mirror assemblies combined with lamps B60R 1/1207; adaptations or arrangements of mirrors for use on cycles B62f 29/001) ]

{ on door or boot handles (lighting devices for vehicle interior on door handles B60Q 3/267; vehicle doors B60J 5/00; illuminating devices on or for locks or keys E05B 17/10; keyhole finders E05B 15/081) ]

{ on parts worn by the driver, e.g. clothes (professional or sporting clothes with reflecting or luminous means A41D 13/01), gloves (protective gloves with reflecting or luminous means A41D 19/0157), or bags, specially adapted to provide auxiliary vehicle signalling]
interiors; Lighting devices specially adapted for passenger or driving compartments (lighting for dashboards B60Q 1/44)

3/18 . . for varying the light intensity
3/20 . . for lighting specific fittings of passenger or driving compartments; mounted on specific fittings of passenger or driving compartments (lighting for dashboards B60Q 3/10)

3/208 . . Sun roofs; Windows
3/217 . . Doors, e.g. door sills; Steps
3/225 . . Small compartments, e.g. glove compartments
3/233 . . Seats; Arm rests; Head rests
3/242 . . Safety belts; Body harnesses
3/252 . . Sun visors
3/258 . . Rear-view mirrors
3/267 . . Door handles; Hand grips

3/275 . . Smoking-related fittings, e.g. cigarette lighters or ashtrays
3/283 . . Steering wheels; Gear levers
3/292 . . Ignition locks
3/30 . . for compartments other than passenger or driving compartments, e.g. luggage or engine compartments
3/35 . . Portable lighting devices
3/40 . . specially adapted for specific vehicle types
3/41 . . for mass transit vehicles, e.g. buses
3/43 . . General lighting
3/44 . . Spot lighting, e.g. reading lamps
3/46 . . Emergency lighting, e.g. for escape routes
3/47 . . Circuits; Control arrangements
3/49 . . for vehicles with non-fixed roofs, e.g. convertibles
3/50 . . Mounting arrangements (for compartments other than passenger or driving compartments B60Q 3/30; specially adapted for specific vehicle types B60Q 3/40)
3/51 . . for mounting lighting devices onto vehicle interior, e.g. onto ceiling or floor
3/53 . . Modular mounting systems, e.g. using tracks, rails or multiple plugs
3/54 . . Lighting devices embedded in interior trim, e.g. in roof liners
3/56 . . Lighting devices mounted on elongate supports, e.g. on flexible arms
3/57 . . Retractable or concealable lighting devices
3/59 . . Lighting devices mounted in the vehicle interior and adapted for portability
3/60 . . characterised by optical aspects
3/62 . . using light guides
3/64 . . for a single lighting device
3/66 . . for distributing light among several lighting devices
3/68 . . using ultra-violet light
3/70 . . characterised by the purpose
3/72 . . for preventing the driver from being dazzled
3/74 . . for overall compartment lighting; for overall compartment lighting in combination with specific lighting, e.g. room lamps with reading lamps (general lighting mounted on specific fittings B60Q 3/20; general lighting for mass transit vehicles B60Q 3/43)
3/745 . . [using lighting panels or mats, e.g. electro-luminescent panels, LED mats]
3/76 . . for spotlighting, e.g. reading lamps (spotlighting on or for specific fittings B60Q 3/20; spotlighting in mass transit vehicles B60Q 3/44)
3/78 . . for generating luminous strips, e.g. for marking trim component edges
3/80 . . Circuits; Control arrangements (for dashboards B60Q 3/16; for mass transit vehicles B60Q 3/47)
3/82 . . Switches specially adapted for vehicle interior lighting, e.g. switching by tilting the lens
3/85 . . for manual control of the light, e.g. of colour, orientation or intensity
3/88 . . Means for plugging to the electrical power supply of the vehicle, e.g. by using cigarette lighter sockets

5/00 Arrangements or adaptations of acoustic signal devices (sound producing devices in general G10K)
Arrangements or adaptations of portable emergency signal devices on vehicles

Arrangements or adaptations of signal devices not provided for in one of the preceding main groups, [e.g. haptic signalling]

Arrangements or monitoring devices for devices provided for in groups B60Q 1/00 - B60Q 9/00

Special features or arrangements of vehicle headlamps

Special features for controlling or switching of the light beam

Switching delay, i.e. the beam is not switched or changed instantaneously upon occurrence of a condition change

Variable non-standard intensity, i.e. emission of various beam intensities different from standard intensities, e.g. continuous or stepped transitions of intensity

Special anti-blinding beams, e.g. a standard beam is chopped or moved in order not to blind

Indexing codes relating to particular vehicle conditions

Linear movements of the vehicle

Vehicle speed

Vehicle acceleration or deceleration

Vehicle at a stop

Steering parameters

Steering angle

Steering speed

Hysteresis behavior based on steering

Steering dead zone

Attitude of the vehicle body

Pitch

Yaw

Roll

Other vehicle conditions

Turn signal actuation

Rearward ratio actuation

Abnormalities, e.g. fail-safe

Indexing codes relating to the driver or the passengers

Manual control

Seat occupation

Driver’s line of sight

Indexing codes relating to the vehicle environment

Calendar date or clock time

Atmospheric conditions

Adverse weather

Ambient light

Road surface or travel path

Road curvature

Road inclination, e.g. uphill or downhill

Driving situation

characterised by the driving side, e.g. on the left or right hand side

on city roads

Detection of streetlights

on suburban or country roads

on motorways

Number or size of road lanes

Crossings

Tunnels or bridges

Overtaking

preceding vehicle

oncoming vehicle

following vehicle
2300/45 . Special conditions, e.g. pedestrians, road signs or potential dangers

2300/47 . Direct command from other road users, i.e. the command for switching or changing the beam is sent by other vehicles or road devices

2400/00 Special features or arrangements of exterior signal lamps for vehicles

2400/10 . Electroluminescent surfaces, i.e. signalling by way of electroluminescent strips or panels

2400/20 . Multi-color single source or LED matrix, e.g. yellow blinker and red brake lamp generated by single lamp

2400/30 . Daytime running lights [DRL], e.g. circuits or arrangements therefor

2400/40 . Welcome lights, i.e. specific or existing exterior lamps to assist leaving or approaching the vehicle

2400/50 . Projected signs, i.e. symbol or information is projected onto the road

2500/00 Special features or arrangements of vehicle interior lamps

2500/10 . embedded in interior trim, e.g. integrated in headliner layers

2500/20 . associated with air conditioning arrangements

2900/00 Features of lamps not covered by other groups in B60Q

2900/10 . Retrofit arrangements

2900/20 . Arrangements for easy recycling, e.g. for easy dismantling or use of special materials

2900/30 . Lamps commanded by wireless transmissions