Department for Transport

Road Traffic Regulation Act 1984
Sections 64 and 65

Authorisation of traffic signs and special directions

Accessible transcript

Secretary of State for Transport's traffic authorisation of approval for road studs for use with the road markings shown in Schedules 7, 8, 9 and 11 of the Traffic Signs Regulations and General Directions 2016.

The following pages contain a copy of the text from the Secretary of State for Transport's traffic authorisation regarding the above sign/marking.

A scanned copy of the signed authorisation and supporting signs/markings from the application are appended to this letter. The supporting material is submitted to the Department for Transport by a third party. You should refer to the party involved for accessible copies of the supporting material.

Department for Transport

GT50/197/0010

ROAD TRAFFIC REGULATION ACT 1984 – SECTIONS 64 AND 65

APPROVAL OF TYPE OF STUD

The Secretary of State for Transport, in exercise of his powers under sections 64 and 65 of the Road Traffic Regulation Act 1984, and all other powers enabling him in that behalf, in accordance with the requirements of directions 7(4), 7(5) and 7(6) of the Traffic Signs General Directions 2016 (S.I. 2016/362) and having regard to directions 7(1), 7(2), 7(3), 7(7) to 7(11) and 11, hereby:-

1. approves the road studs specified below for use with the road markings shown in Schedules 7, 8, 9 and 11 of the Traffic Signs Regulations 2016 (Part 1 of S.I. 2016/362, "the 2016 Regulations") in accordance with the provisions of Schedule 7, Part 3; Schedule 9, Part 8 and Schedule 11, Part 6 to those Regulations; and

2. directs that the adhesive used for fixing the road studs shall be SMART10.2 or SmartBase.

The provisions of Regulation 10 of the 2016 Regulations shall apply to the road studs specified below.

SPECIFICATION

Product identification	Philips ONROADLED Marker Series Inductive Studs ORM-##-#, TLM-##-#, OR+-##-#
Description	Unidirectional or Bidirectional road studs with LED illumination

Department for Transport

GT50/197/0010

LED manufacturer's identification numbers	White (4150k-4500k) FYL-5002UWC1F-30-4200K-L7 2S-4000W30N16-5NFZ Red FYL-5002LURC1F-30-L7 2S-620R30N9-5NFZ Amber FYL-5002LUYC1F-30-L7 2S-592Y30N11-5NFZ Cyan FYL-5002BGC1F-30-L7 2S-500BG30N12-5NFZ
LED to comply with the chromaticity requirements of	prEN 1463-3 pt1 (Draft)
LED flash rate	100 Hz minimum, with each flash equally spaced
To be of the size and type shown on the drawing marked with the Department's number	GT50/197/0010-1, GT50/197/0010-2, GT50/197/0010-3

This authorisation replaces the earlier one dated 08 January 2020 under reference GT50/197/0009 which is hereby revoked.

Dated *21 September 2020*

Signed by authority of the Secretary of State

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A Delegated Official of the Department for Transport

Department for Transport

SCANNED AUTHORISATION AND MAPS / SIGNS FOLLOW

Department for Transport

GT50/197/0010

ROAD TRAFFIC REGULATION ACT 1984 – SECTIONS 64 AND 65

APPROVAL OF TYPE OF STUD

The Secretary of State for Transport, in exercise of his powers under sections 64 and 65 of the Road Traffic Regulation Act 1984, and all other powers enabling him in that behalf, in accordance with the requirements of directions 7(4), 7(5) and 7(6) of the Traffic Signs General Directions 2016 (S.I. 2016/362) and having regard to directions 7(1), 7(2), 7(3), 7(7) to 7(11) and 11, hereby:-

1. approves the road studs specified below for use with the road markings shown in Schedules 7, 8, 9 and 11 of the Traffic Signs Regulations 2016 (Part 1 of S.I. 2016/362, "the 2016 Regulations") in accordance with the provisions of Schedule 7, Part 3; Schedule 9, Part 8 and Schedule 11, Part 6 to those Regulations; and

2. directs that the adhesive used for fixing the road studs shall be SMART10.2 or SmartBase.

The provisions of Regulation 10 of the 2016 Regulations shall apply to the road studs specified below.

SPECIFICATION

Product identification	Philips ONROADLED Marker Series Inductive Studs ORM-##-#, TLM-##-#, OR+-##-#
Description	Unidirectional or Bidirectional road studs with LED illumination

Department for Transport

GT50/197/0010

LED manufacturer's identification numbers	White (4150k-4500k) FYL-5002UWC1F-30-4200K-L7 2S-4000W30N16-5NFZ Red FYL-5002LURC1F-30-L7 2S-620R30N9-5NFZ Amber FYL-5002LUYC1F-30-L7 2S-592Y30N11-5NFZ Cyan FYL-5002BGC1F-30-L7 2S-500BG30N12-5NFZ
LED to comply with the chromaticity requirements of	prEN 1463-3 pt1 (Draft)
LED flash rate	100 Hz minimum, with each flash equally spaced
To be of the size and type shown on the drawing marked with the Department's number	GT50/197/0010-1, GT50/197/0010-2, GT50/197/0010-3

This authorisation replaces the earlier one dated 08 January 2020 under reference GT50/197/0009 which is hereby revoked.

Dated *21 September 2020*

CERTIFIED TRUE COPY

[redacted]

Department for Transport

Date: 21/09/2020

Signed by authority of the Secretary of State

[redacted]

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A Delegated Official of the Department for Transport

ON ROAD MARKER

Inductively Powered, Intelligent On Road Marker.
Ideal for on road lighting, including lane delineation, road edge, pedestrian crossings and tidal flow applications

Product Code: ORM-[][]-[]

Features

- Less than 4 mm above road surface
- No physical wire connection between power source (buried cable) and On Road Marker
- Visible up to 2 km (1.2 miles) away
- Dimmable, switchable
- Uniquely addressable
- Fully programmable
- High impact UV stable polycarbonate housing
- Self-cleaning design
- Patented 2-way communication and diagnosis capabilities available
- Integrated optics (one part housing)

Product data

Functionality

Light Direction: Uni-Directional with 8 high intensity LEDs facing one direction
Bi-Directional with 16 high intensity LEDs facing both directions
LED Colours: Blue, Green, Red, White, Yellow (other available on request)
Marker Shell Colour: Black (White/Translucent available on request)

Electrical Specification

Electrical Input

Power Consumption: 2 Watt

Electrical Output

Power Transfer Method: Inductive (no direct electrical connection)
Frequency of operation: 38.4 kHz for power conversion
± 1.5% for data communication

Other

Individual LED Aperture Angle: 30°
Life Span of LEDs: 100 000h (L70F10) (LED manufacture Specification)
Individual LED Brightness: Blue = 9 000 mcd
Green = 20 000 mcd
Red = 12 000 mcd
White = 16 000 mcd
Yellow = 11 500 mcd
Cyan (Blue-Green) = 14 000 mcd

Chromaticity: Blue = 464 – 473 nm
Green = 518 – 527 nm
Red = 620 – 625 nm
White = 4150 – 4500 K (neutral)
Yellow = 591 – 595 nm
Cyan (Blue-Green) = 497 – 503 nm

Compliance

CE marking: YES
RoHS: YES

Operating Environment

Ingress Protection Rating: Built to IP68 and IP69K
Operating Temperature: -20°C to 100°C
Compressive Load: Up to 18 000kg

Physical Construction

Housing Material: Polycarbonate certified to UL 94 V0

Installation

Orientation: Long or Cross (See Product Options)
Method of Attachment: Smart10.2 adhesive or ONROADLED BASE

Product Dimensions

Diameter: 83mm
Installed above road: Less than 4mm
Height: 31mm
Total Height: Less than 35mm

Product Data

Full product code: See Product Options
Full product name: On Road Marker
Pieces per pack: 10
Packing configuration: Horizontal
Packs per outerbox: 1
Net weight per piece: 250g
Made in New Zealand

Department for Transport

Date: 14 August 2020

Number: GT50/197/0010-1

Product Options:

Symbol	Order Code	Description
	ORM-YX-L	Uni-Directional Yellow Long
	ORM-YX-C	Uni-Directional Yellow Cross
	ORM-RX-L	Uni-Directional Red Long
	ORM-RX-C	Uni-Directional Red Cross
	ORM-WX-L	Uni-Directional White Long
	ORM-WX-C	Uni-Directional White Cross
	ORM-GX-L	Uni-Directional Green Long
	ORM-GX-C	Uni-Directional Green Cross
	ORM-BX-L	Uni-Directional Blue Long
	ORM-BX-C	Uni-Directional Blue Cross
	ORM-CX-L	Uni-Directional Cyan Long
	ORM-CX-C	Uni-Directional Cyan Cross
	ORM-RGB-L	Uni-Directional RGB Long
	ORM-RGB-C	Uni-Directional RGB Cross
	ORM-WY-XL	Uni-Directional White Yellow Long

Symbol	Order Code	Description
	ORM-YY-L	Bi-Directional Yellow Yellow Long
	ORM-YY-C	Bi-Directional Yellow Yellow Cross
	ORM-RR-L	Bi-Directional Red Red Long
	ORM-RR-C	Bi-Directional Red Red Cross
	ORM-WW-L	Bi-Directional White White Long
	ORM-WW-C	Bi-Directional White White Cross
	ORM-GG-L	Bi-Directional Green Green Long
	ORM-BB-L	Bi-Directional Blue Blue Long
	ORM-CC-L	Bi-Directional Cyan Cyan Long
	ORM-WB-L	Bi-Directional White Blue Long
	ORM-WR-L	Bi-Directional White Red Long
	ORM-WG-L	Bi-Directional White Green Long
	ORM-WY-L	Bi-Directional White Yellow Long

ON ROAD+ MARKER

Inductively Powered, Intelligent ONROADLED marker with vertical and horizontal lighting capabilities. Ideal for on road lighting, including crosswalk warning lights, road edge, pedestrian, bus lane and cycle lane lighting

Product Code: OR+-[][]-[]

Features

- Horizontal and vertical lighting
- Less than 4 mm above road surface
- No physical wire connection between power source (buried cable) and ON ROAD PLUS LEDmarker
- Visible up to 2 km (1.2 miles) away
- Dimmable, switchable
- Uniquely addressable
- Fully programmable
- High impact UV stable polycarbonatehousing
- Scratch resistant coating
- Self-cleaning design
- Patented 2-way communication and diagnosis capabilities available
- Integrated optics (one part housing)

Product data

Functionality

Light Direction: Bi-Directional (8x LED's vertical plus 8x LED's horizontal facing one direction)
LED Colours: Blue, Green, Red, White, Yellow (other available on request)
Marker Shell Colour: Black (Translucent available on request)

Electrical Specification

Electrical Input

Power Consumption: 2 Watt

Electrical Output

Power Transfer Method: Inductive (no direct electrical connection)
Frequency of operation: 38.4 kHz for power conversion
± 1.5% for data communication

Other

Individual LED Aperture Angle: 30°
Life Span of LEDs: 100 000h (L70F10) (LED manufacture Specification)
Individual LED Brightness: Blue = 9 000 mcd
Green = 20 000 mcd
Red = 12 000 mcd
White = 16 000 mcd
Yellow = 11 500 mcd
Cyan (Blue-Green) = 14 000 mcd

Chromaticity: Blue = 464 – 473 nm
Green = 518 – 527 nm
Red = 620 – 625 nm
White = 4150 – 4500 K (neutral)
Yellow = 591 – 595 nm
Cyan (Blue-Green) = 497 – 503 nm

Compliance

CE marking: YES
RoHS: YES

Operating Environment

Ingress Protection Rating: Built to IP68 and IP69K
Operating Temperature: -15°C to 100°C
Compressive Load: Up to 18 000kg

Physical Construction

Housing Material: Polycarbonate certified to UL 94 V0

Installation

Ori
Above road: Less than 4mm
Height: 31mm
Total Height: Less than 35mm

Product Data

Full product code: See Product Options
Full product name: On Road+ Marker
Pieces per pack: 10
Packing configuration: Horizontal
Packs per outerbox: 1
Net weight per piece: 250g
Made in New Zealand

Department for Transport

Date: 14 August 2020

Number: GT50/197/0010-2

Product Options:

Symbol	Order Code	Description
	OR+-YY-L	Bi-Directional Yellow Yellow Long
	OR+-YY-C	Bi-Directional Yellow Yellow Cross
	OR+-RR-L	Bi-Directional Red Red Long
	OR+-RR-C	Bi-Directional Red Red Cross
	OR+-WW-L	Bi-Directional White White Long
	OR+-WW-C	Bi-Directional White White Cross
	OR+-GG-L	Bi-Directional Green Green Long
	OR+-BB-L	Bi-Directional Blue Blue Long
	OR+-CC-L	Bi-Directional Cyan Cyan Long

TUNNEL LANE MARKER

Inductively Powered, Intelligent Lane LED Marker. Ideal for on road lighting, including lane delineation, road edge and tidal flow/dynamic lane applications

Product Code: TLM-[][]-[]

Features

- Less than 4 mm above road surface
- No physical wire connection between power source (buried cable) and LED marker
- Visible up to 2 km (1.2 miles) away
- Dimmable, switchable
- Uniquely addressable
- Fully programmable
- High impact UV stable polycarbonate housing
- Self-cleaning design
- Patented 2-way communication and diagnosis capabilities available
- Integrated optics (one part housing)

Product data

Functionality

Light Direction: Uni-Directional with 8 high intensity LEDs facing one direction
Bi-Directional with 16 high intensity LEDs facing both directions
LED Colours: Blue, Green, Red, White, Yellow
(Other available on request)
Marker Shell Colour: Black (White available on request)

Electrical Specification

Electrical Input

Power Consumption: 2 Watt

Electrical Output

Power Transfer Method: Inductive (no direct electrical connection)
Frequency of operation: 38.4 kHz for power conversion
± 1.5% for data communication
Individual LED Aperature Angle: 30°
Life Span of LEDs: 100 000h (L70F10) (LED manufacture specification)
IIndividual LED Brightness: Blue = 9 000 mcd
Green = 20 000 mcd
Red = 12 000 mcd
White = 16 000 mcd
Yellow = 11 500 mcd
Cyan (Blue-Green) = 14 000 mcd

Chromaticity: Blue = 464 – 473 nm
Green = 518 – 527 nm
Red = 620 – 625 nm
White = 4150 – 4500 K (neutral)
Yellow = 591 – 595 nm
Cyan (Blue-Green) = 497 – 503 nm

Compliance

CE marking: YES
RoHS: YES

Operating Environment

Ingress Protection Rating: IP68 and IP69K
Operating Temperature: -15°C to 100°C
Compressive Load: Up to 18 000kg

Physical Construction

Housing Material: Polycarbonate certified to UL 94 V0

Installation

Orientation: Long or Cross (See product options)
Method of Attachment: Smart10.2 adhesive or BASE

Product Dimensions

Diameter: 83mm
Above road: Less than 4mm
Height: 31mm
Total Height: Less than 35mm

Product Data

Full product code: See Product Options
Full product name: Tunnel Lane Marker
Pieces per pack: 10
Packing configuration: Horizontal
Packs per outerbox: 1
Net weight per piece: 250g
Made in New Zealand

Department for Transport

Date: 14 August 2020

Number: GT50/197/0010-3

Product Options:

Symbol	Order Code	Description
	TLM-YX-L	Uni-Directional Yellow Long
	TLM-RX-L	Uni-Directional Red Long
	TLM-WX-L	Uni-Directional White Long
	TLM-GX-L	Uni-Directional Green Long
	TLM-BX-L	Uni-Directional Blue Long
	TLM-CX-L	Uni-Directional Cyan Long

Symbol	Order Code	Description
	TLM-YY-L	Bi-Directional Yellow Yellow Long
	TLM-RR-L	Bi-Directional Red Red Long
	TLM-WW-L	Bi-Directional White White Long
	TLM-GG-L	Bi-Directional Green Green Long
	TLM-BB-L	Bi-Directional Blue Blue Long
	TLM-CC-L	Bi-Directional Cyan Cyan Long
	TLM-WB-L	Bi-Directional White Blue Long
	TLM-WR-L	Bi-Directional White Red Long
	TLM-WG-L	Bi-Directional White Green Long
	TLM-WY-L	Bi-Directional White Yellow Long