



## APPLICATION AND MOUNTING INSTRUCTIONS

### DuraLED® Combi-SR Rear Combination Lamp STOP / REAR POSITION / INDICATOR / REVERSE LAMP WITH REFLECTOR Multivolt (Suitable for 12 and 24 volt systems)

#### Features Include:

**DuraLED® Combi** = Fully sealed against salt-water submersion  
**DuraLED® Combi** = Stop, Rear Position, Indicator and Reverse functions in a single lamp  
**DuraLED® Combi** = Vibration and shock resistant  
**DuraLED® Combi** = Ultra long service life  
**DuraLED® Combi** = Ultra fast response time

**DuraLED® Combi** = Reverse polarity protected  
**DuraLED® Combi** = Low power consumption  
**DuraLED® Combi** = Manufactured from the latest "high tech" materials with enhanced impact and chemical tolerance  
**DuraLED® Combi** = Enhanced transient spike protection

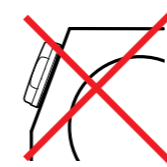
#### Lens Marking and Installation Requirements

This Stop / Rear Position / Direction Indicator / Reverse Lamp with Reflector identified by lens marking (E24) 5925 and the  logo, was manufactured to comply with:

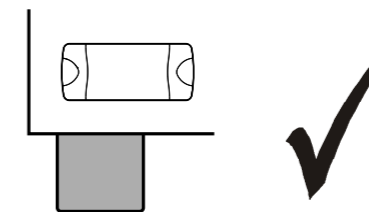
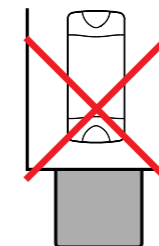
ECE Regulation No. 148 Category 2a Rear Direction Indicator Lamps  
ECE Regulation No. 148 Rear Position (side) / Stop Lamp  
ECE Regulation No. 148 Reversing Lamps  
ECE Regulation No. 150 Reflex Reflector

- Lamp mounting surface must be vertical to the ground, and at right angles to the longitudinal axis of the vehicle.
- Lamp must be visible from 45° inboard and 80° outboard, as well as from 15° above and below the horizontal axis.
- At least two lamps are required.
- Lamps must not be mounted less than 350 mm and more than 1200 mm above the ground.
- Lamps must be mounted within 400 mm of the widest point of the vehicle and no closer than 600 mm together.
- Lamp is approved to be mounted horizontally only.
- Please refer to ECE Regulation 48 or ADR 13/00 for more details.

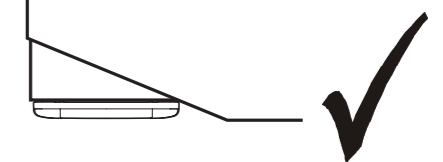
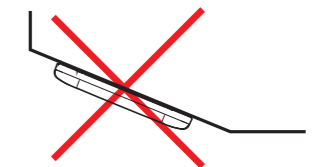
Side View



Rear View



Top View





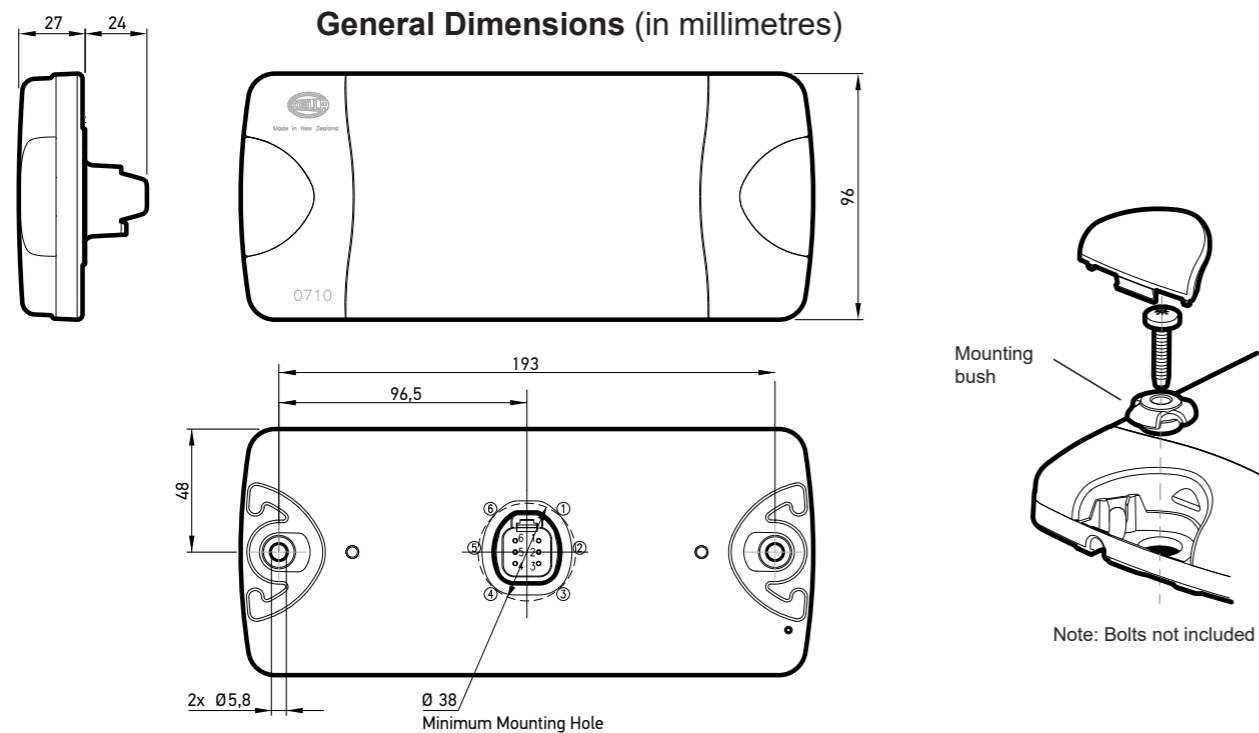
## Lamp Mounting Instruction

### Screw Cap Removal

Carefully insert a small flat blade screwdriver between the cap and the lens and pull towards the lens, the cap will clip off. To install the cap push in by hand until the top is flush with the lens.

### Surface Mounting

- Lamp should be mounted on a flat surface.
- Drill two holes up to 6.5mm Ø at 193mm centres. 6mm screws or bolts are recommended to mount the lamp using the mounting bushes provided.
- A minimum hole size of Ø38mm is required for the Deutsch 6-way socket in the backplate.
- Prepare the cable for the lamp (not supplied) using the correct plug connector (Deutsch P/N DT06-6S), wedge (Deutsch P/N W6S) and terminals (Deutsch P/N 0462-201-16141).
- Once the lamp is mounted, clip the screw caps on securely until flush with the lamp surface.



### Wiring Colour Coding

Lamp is polarity conscious. The reversal of the polarity will not damage this product but will inhibit its function.

Pin Number	Connect to	Power Consumption
1	Rear Position (+)	1.5 watts
2	Stop (+)	5 watts
3	Indicator (+)	6 watts
4	Reverse (+)	2 watts
5	Earth (-)	-
6	Park (+)	1.5 watts

**NB:** Lamp must be protected by a fuse rated at 5 amperes maximum.



### Introduction

Multivolt LED signal and marker lamps offer many advantages over conventional bulb lamps. Significantly reduced power consumption, ultra long life and high tolerance to shock and vibration make LED lamps the ideal choice for the commercial transport industry, where the cost of ownership versus the initial purchase price of the product is well understood.

### Compatibility to existing electrical systems

It is important for the installer to ascertain the compatibility of the low power consumption LED lamps with the electrical and/or electronic systems of the complete vehicle, including trailers. In most cases the reduced power consumption is beneficial by imposing less demands on the entire electrical system. For certain functions some electrical systems rely on a set power consumption for monitoring whether, for example, a trailer is connected.

Operation of this lamp using alternating current or modulated direct voltage will cause premature light failure. HELLA recommends connecting ADR or ECE certified Multivolt LED signal and marker lamps to a continuous (unmodulated) 12V or 24V power supply to ensure safe light operation.

### Electromagnetic Compatibility (EMC)

This Multivolt LED lamp is an electronic device. The electrical circuits contain components that suppress possible interference, both emission as well as susceptibility, to the limits prescribed in UNECE Vehicle Regulation No. 10.

To avoid false signals or interference, it is standard practice that sensitive instrumentation such as ABS and Tachometers etc. are provided with direct earths.

### Protection against damage due to voltage spikes

This Multivolt LED lamp is protected against damage from positive voltage spikes caused by events such as load dump conditions specified in ISO 16750-2 and contains a Transient Voltage Suppressor (TVS) designed to withstand a pulse of up to 5000 Watts.

The lamp is protected against reverse polarity connection and negative voltage spikes of up to 1000 volts.

### Electric Welding

Electric Welding may damage the LED lamps. For LED lamps, HELLA recommends the negative connection to be wired isolated from the vehicle chassis. If the lamp uses the chassis as the earth return it is recommended that this earth return is disconnected during electric welding.

## FIT AND FORGET - BY DESIGN

Congratulations, the product you have selected comes from **HELLA** - a world leader in LED lighting design.



Following the launch of the first LED automotive signal lamps in 1990, **HELLA** Design and Innovation continues to set new standards. **HELLA** innovative solutions have been incorporated into millions of lamps, engineered and tested to the most stringent standards, to suit the most demanding environmental conditions.

The cornerstone to the success of our products is our no compromise **Fit and Forget - by Design** philosophy which is incorporated into every step of the product life cycle.

In a world consuming finite resources at an ever faster rate, **Fit and Forget - by Design** is the right environmental choice that also makes perfect economic sense to customers that consider the total life cycle Cost of Ownership.