

## Technical data

Supply Voltage: 220-240V~ 50Hz | LED Voltage: 24V DC

Bulb Type: 98998: 24W LED, 3000K / 98999: 24W LED, 4000K  
99000: 144W LED, 3000K / 99001: 144W LED, 4000K / 101621: 144W LED, 6000K  
99002: 48W LED, 3000K / 99003: 48W LED, 4000K  
99004: 288W LED, 3000K / 99005: 288W LED, 4000K / 101622: 288W LED, 6000K



Conformity with all relevant UKCA Directive requirements.



Conformity with all relevant EC Directive requirements.



This is a Class 3 product and requires the use of a LED Driver (not supplied).



Waste electrical products should not be disposed of with household waste. Please recycle where facilities exist. Check with your Local Authority or local store for recycling advice.



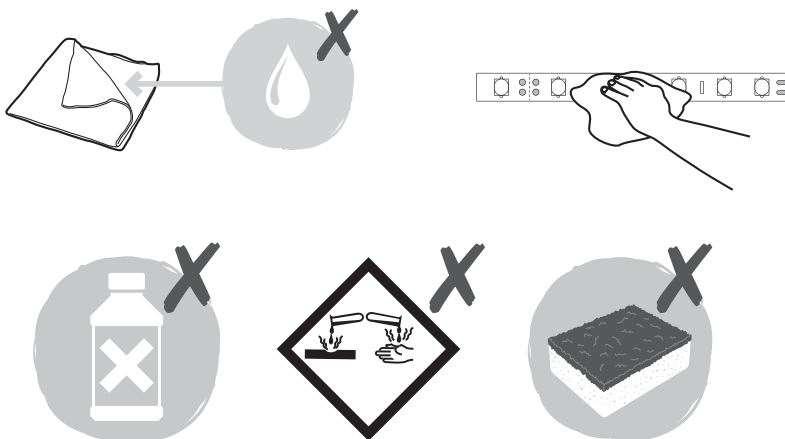
This product is suitable for dimming.



This product is rated at IP20.

## Care and Safety

We recommend cleaning with a soft dry cloth. Do not use solvents or abrasive cleaners as these could damage the LED's. For your safety, always switch off the power supply before changing lightbulbs, or cleaning.



Instruction manual

# Orion20 LED

98998, 98999, 99000, 99001, 101621  
99002, 99003, 99004, 99005, 101622



Thank you for purchasing this light fitting. Please read the instructions carefully before use to ensure safe and satisfactory operation of this product. Please retain these instructions for future reference.

## Warning

### The LED strips are Safety Extra Low Voltage and must not be earthed.

Please read these instructions carefully before commencing any work.

This unit must be fitted by a competent and qualified electrician.

Install in accordance with the IEE Wiring regulations and current Building Regulations.

Check the pack and make sure you have all the parts listed.

To prevent electrocution switch off at the mains supply before installing or maintaining this fitting. Ensure other persons cannot restore the electrical supply without your knowledge. If you are in any doubt, please consult a qualified electrician.

If replacing an existing fitting, make a careful note of the connections.

The mains plug must be situated indoors (e.g. house, garage, shed) in order to protect it from the elements.

This system operates at Safety Extra Low Voltage (24V d.c.), via a LED driver (not supplied). Never connect the LED strips directly to the mains without using the correct LED driver.

Do not exceed the LED driver load. LED drivers may require a minimum load to operate.

Always unplug the LED driver from the mains when installing or maintaining this system.

This product contains non-replacable parts and cannot be serviced. If damage occurs the part should be scrapped.

Waste electrical products should not be disposed of with household waste. Please recycle where facilities exist. Check with your local authority or retailer for recycling advice.

## Layout

The Orion20 LEDs are mounted on a sticky tape which can be stuck to most surfaces.

Plan the desired layout of this fitting carefully, ensuring the cables will reach the distance between the power supply and the Orion20 LEDs.

Avoid locating any cables in positions that would cause a hazard. Position cables and Orion20 LEDs away from areas where they may be at risk from being cut, trapped or damaged.

Cables in walls must be protected using suitable conduit or plastic trunking.

## Installation

Position the LED driver (not supplied) next to the mains outlet socket that the system will connect to. Do not plug-in at this stage. Make sure that the LED driver used can load the total power of the LED strip.

After deciding the layout of the LED strips, ensure the cables are long enough to connect to the desired positions.

We recommend driver max. loading wattage is 20% more than total LED tape wattage which can gives better life span on driver and tape. For example, if the total LED tape wattage is 24W, we recommend to use 28.8W driver.

The Orion20 LEDs 98998, 98999, 99000, 99001, 101621 can be shortened to a minimum of 100mm or multiples of 100mm.

The Orion20 LEDs 99002, 99003, 99004, 99005, 101622 can be shortened to a minimum of 50mm or multiples of 50mm.

- Cut to the desired length. Ensure that the cut is made at the copper connection points.
- Please select the appropriate connector to connect the LED strips according to the necessary. There are no markings on the connectors. Ensure Red cable is on the "+" side and the Black cable is on the "-". Make sure the connection is secure.
- Peel the backing tape off the Orion20 strip. Apply moderate pressure to stick the LED's to the surface. An assistant may be required to help stick longer lengths accurately.

- Please see installation diagram and choose the most suitable installation method. Note: When connected in series it is not possible to extend the strip to lengths longer than 10m. However, strips may be connected in parallel up to the max rating of the power supply used.
- Connect the strips to the driver (choose the correct 24V DC driver based on the length of the strip).
- When attaching the connector to the LED strip ensure that wiring sequence is correct and that strip secure.
- Connect the power connector to the LED driver. Ensure that all the connections are tight. Connect the power supply to the mains and turn on.

Attention when bending the strips:

