



StarGuide Maxi

24 V version
Integrated step down convertor

Order code:10639

CONTENTS

1	PICTURE.....	3
1.1	GENERAL.....	3
1.2	RANGE OF LENSES.....	3
1.3	OPTION.....	3
2	DIMENSIONS.....	4
2.1	LED-UNIT.....	4
2.2	CUT-OUT OF THE TUBE.....	4
3	SAFETY INFORMATION.....	5
3.1	SYMBOLS.....	5
3.2	PROTECTION FROM ELECTRIC SHOCK.....	6
3.3	PROTECTIONS FROM FIRE AND BURNS.....	6
3.4	PROTECTION FROM INJURY.....	7
3.5	DISPOSING OF THIS PRODUCT.....	7
4	PHYSICAL INSTALLATION.....	8
4.1	UNPACKING.....	8
4.2	LOCATION AND ORIENTATION.....	9
4.3	MOUNTING.....	9
4.4	CUT-OUT OF THE TUBE.....	9
5	EXTERNAL CONNECTIONS.....	10
5.1	DC POWER INPUT.....	10
6	EMC AND SAFETY REQUIREMENTS.....	11
7	INSTALLATION SETUP.....	13
7.1	SPECIFICATION.....	13
8	SERVICE AND MAINTENANCE.....	17
8.1	SAFETY PRECAUTIONS.....	17
8.2	CLEANING.....	17
9	WARRANTY.....	18
9.1	APPLICATION OF WARRANTY.....	18
9.2	RMA PROCEDURE.....	20
10	LIST OF USED ABBREVIATIONS.....	21

Picture

1.1 General



1.2 Range of lenses



11°

Real Spot



15°

Spot



30°

Medium



50°

Wide



34°x18°

Asymmetrical

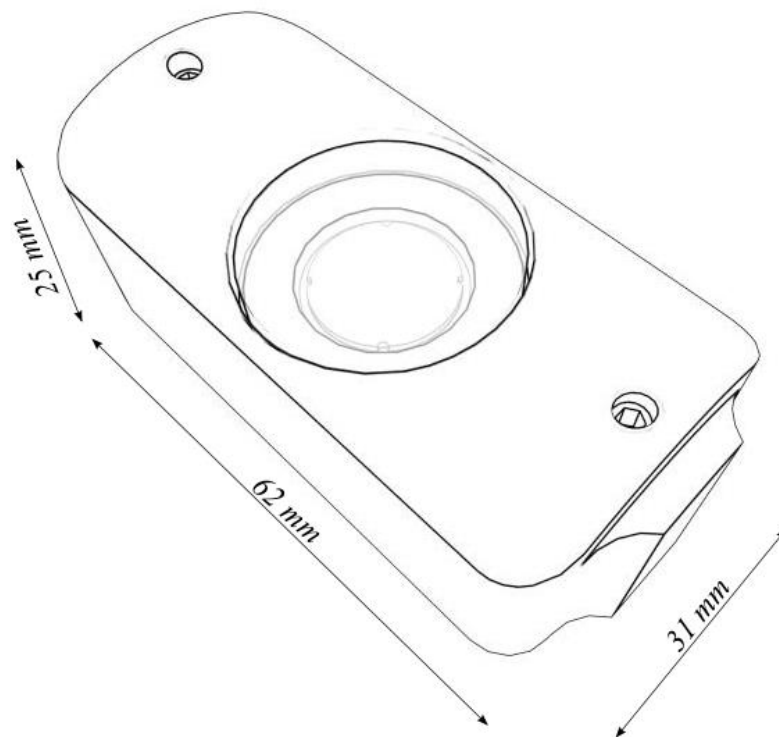
1.3 Optional

- Anti-theft screws

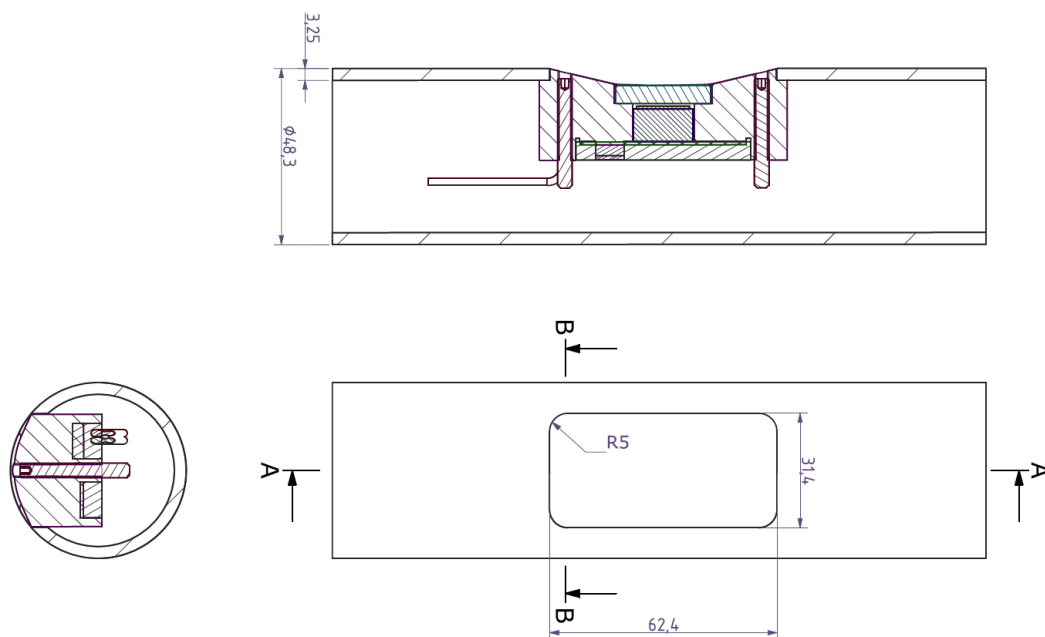
2

Dimensions

2.1 Led-unit



2.2 Cut-out of the tube



Safety information

Before installing, powering up, or servicing the StarGuide Maxi led-unit, it is highly recommended that you read this manual, and you insure yourself that you completely understand its content. Observe the safety precautions in this manual. Install and operate the led-unit only as described in this manual, and in conformity with local regulations. If you have any questions how to operate this product safely, please contact your point of sale.

3.1 Symbols

Following symbols are used to identify important safety information on the product and in this manual.



DANGER!
Safety hazard. Risk of severe injury or death.



Warning!
Hazardous voltage. Risk of lethal or severe electric shock.



Warning!
LED light emission. Risk of eye injury.



Warning!
Burn hazard. Hot surface. Do not touch



Warning!
Refer to user manual.

3.2 Protection from electric shock



Although this device itself does not operate with dangerous voltages, the installation in which is intended to be used, can contain dangerous voltages.

Shut down the power of the complete installation before carrying out any installation, or maintenance work.

Use only AC to DC 24/48 Volt power sources, suitable for the application and conform to local regulations. Please ensure yourself that the AC to DC power supply is able to deliver the rated requirements of the complete installation.

If any cable, seal or housing is damaged, cracked or reformed, disconnect the power of the installation immediately.

For any additional servicing, not described in this manual, please contact your point of sale.

3.3 Protections from fire and burns



Do not operate this led-unit if ambient temperature is over 45 °C (113 °F). It might be necessary to allow the led-unit to cool down for 5 minutes, before servicing.

Do not modify the led-fixture, in a way, not described in this manual.

3.4 Protection from injury



Ensure yourself that all components, covers are securely fastened. Verify that the led-unit is firmly fixed to its supporting railing. Ensure yourself that the vibration, will not loosen the screws, which hold the unit. Take precautions if necessary, by applying a low grade locking glue. (Loctite® 222)

3.5 Disposing of this product



This led-lighting device is manufactured in compliance with directive of the European community: waste of electrical and electronically equipment. Please help to preserve our environment and ensure that this product will be recycled properly at the end of its life.



Physical installation

Thank you for selecting this StarGuide Maxi led-unit as best solution in your setup.

Warning! Read the safety precautions in this manual before integrating this led-unit into your installation.

Installation must be carried out by qualified professionals only.

4.1 Unpacking

The StarGuide units are only sold in sets, together with their dedicated power supply and all accessories.

The following items are included in your set:

- A number of StarGuide Maxi led-units each with its two Allen key N°2 bolts / Allen Key N°2:



- A tube, or flacon with thread locking glue.



- A dedicated led-driver.



- A cable loom, with M12 connectors:



Sets are delivered in a cardboard box and protective antistatic packaging, with manual.

4.2 Location and orientation

This StarGuide Maxi led-unit itself can be used in all different directions and orientations.

4.3 Mounting

The StarGuide Maxi led-unit is designed to be used on a stainless steel tube. Due to the unique concept of fixation, installation can be done easily, with the help of a small Allen Key.

In case of problems, or doubts, please contact your point of sale.

4.4 Cut-out of the tube

Cut-out dimensions: see 2.2 Cut-out of the tube



External connections

5.1 DC power input

Safety precautions

Never connect the live power on the input terminals of the StarGuide Maxi led-unit!

In case of doubts, contact your point of sale.

Polarity

The StarGuide Maxi led-unit is polarity sensitive, but if used with proper cable loom, which is included in the set, this is self explanatory.

Power supply: Rated voltage

The rated input voltage of this led-unit is 24 Volt DC. Verify that the power supply has a voltage controlled output. If you are not sure do not connect the power supply! In case of doubt, please contact your point of sale.

Power supply: Rated current

A StarGuide Maxi led-unit consumes approximately 1 watt power, which results at 24 Volt in a current of approx 65 mA.





EMC and safety requirements

The StarGuide Maxi led-unit is fully compliant to the LVD and EMC directive of the European council, if used in a properly designed setup.

The StarGuide Maxi led-unit is only intended to be used in lighting applications, and as such, the complete assembly of led unit and power supply needs to be fully compliant with following harmonized standards:

LVD requirements of the power supply:

- EN 60598: general requirements of lighting equipment.

EMC requirements of the power supply:

Immunity according to:

- EN 61547:2009 (General EMC immunity requirements lighting eq.)
- EN 61000-4-1:2006 (General immunity testing techniques)
- EN 61000-4-2:2008 (ESD immunity test)
- EN 61000-4-3:2006 + A1:2007 (Radiated immunity test)
- EN 61000-4-4:2004 (Fast transients and burst immunity)
- EN 61000-4-5:2005 (Surge immunity test)
- EN 61000-4-6:2008 (Conducted immunity test)
- EN 61000-4-8:1993 (Magnetic field immunity test)
- EN 61000-4-11:2004 (Voltage variations immunity test)
- EN 61000-6-1:2005 (Generic standards for immunity)

Emission according to:

- EN 61000-3-2:2005+A1:2008+A2:2009 (Harmonics emission test<16A)
- EN 61000-3-3:2008 (Flicker+ voltage changes limits< 16A)
- EN 55015:2006+A2:2009 (Conducted + radiated emission lighting equipment)

To achieve this compliance, a proper power supply must be supplied. In case of doubts, contact your point of sale.

The unit can be categorized according to EN 60598 as following:

- SELV class III
- Power supply-cord type Z, no removal, without permanent damage to the unit.
- IP 67 for the StarGuide Maxi led-unit.
- IK2 for the StarGuide Maxi led-unit with glass front, IK10 for the StarGuide Maxi led-unit with polycarbonate front.



Installation setup

7.1 Specification

The StarGuide Maxi led-unit is a small and efficient solution which can be easily integrated in a circular railing tube $\varnothing 48 \times 2$ mm or tailor made for other tube dimension.

It uses a voltage controlled power supply, and all units are connected in parallel. Up to 50 units can be connected, depending on the power supply used.

Please note that dangerous voltages are used. Always disconnect the main power of the complete installation, before executing any works on the installation.



- Power consumption each StarGuide Maxi led-unit: $\pm 1,5$ W.
- Power supply voltage: 24 V
- Body material is 15 μ M anodized aluminum.
- Resin is epoxy based and heat conductive.
- Ingress protection: IP 67
- Impact protection: IK10

- Weight: 32 gr

- Different lenses are possible:
 - Real spot: 11°
 - Spot: 15°
 - Medium: 30°
 - Wide: 50°
 - Asymmetrical: 34° x 18°
- Transparent cover material is PMMA.

Standard cable length 200 mm is equipped with M12 connector.

Installation

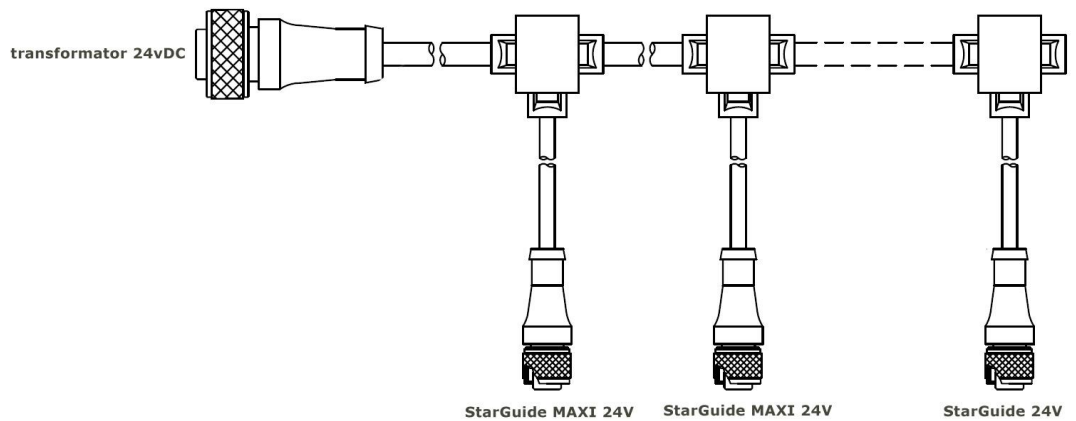
Tools

The installation of the StarGuide Maxi led-unit is straightforward, and mainly needs one tool:

- Allen key N° 2:



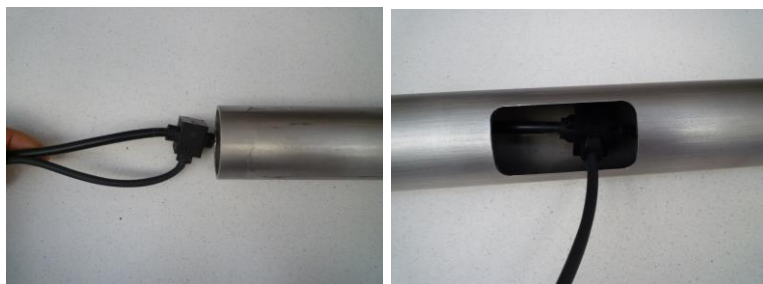
Wiring scheme



The units are connected in parallel as one string with the supplied cable loom. All connections are made by M12 connectors IP67.

STEP1:

Slide the cable loom in the railing tube, starting at one side. Pay attention that the connection side of the cable loom (= bare cables without bare cables) is at the side of the power supply.



STEP 2:

Once the cable loom is pulled completely through the railing tube, take out all pigtails, as shown here:



STEP 3:

Connect the led-units firmly with the M12 connectors.



STEP 4:

Unscrew one of the 2 screws, as shown here:



STEP 5:

Insert the unit in the tube:



STEP 6:

Drive both Allen screws completely in, as shown here:



Note: The installer has to be sure that the screws don't perforate any of the cable loom located in the railing tube! Therefore use manual tools and **never** use an electrical fastener to drive the screws of the led-unit.





Service and maintenance



8.1 Safety precautions

Read carefully the safety information in this manual. Lock out the power on the entire system and allow all electronic devices to discharge, and cool down, before executing any service or maintenance.

8.2 Cleaning

The StarGuide MAXI Led-unit itself

Extensive dirt and particle build-up degrade performance, may cause overheating and can result in damaged led-unit and power supply's. Damage by inadequate cleaning or maintenance is not covered by the product warranty.

Never use solvents to clean the outer housing of the unit.



Warranty

9.1 Application of warranty

Warranty period

Warranty service is valid for one year from the date of purchase by the consumer, as evidenced by invoice date given out by your point of sale.

Warranty service

Service under warranty can only be done by Lux Lumen.

Coördinaties:

Lux Lumen
Kernenergiestraat 53 A
2610 Wilrijk
Belgium

Any cost of secure transportation of the product to and from Lux Lumen service department, will be borne by the customer.

Limitations

Lux Lumen will not warrant the following:

- Periodic check-ups, maintenance and repair or replacement of parts due to normal wear and tear.
- Consumables
- Any software
- Defects caused by modifications carried out without Lux Lumen's approval.
- Damage resulting from the fact that a product is not conforming to country specific standards or specifications in another country than the country of purchase.

Costs incurred by Lux Lumen's service center in making any adaptations or modifications of a product necessary for country specific technical or safety standards or specifications, or any other cost to adjust the product as a result of any specifications which have changed since the delivery of the product.

Warranty service is excluded if damage or defects have been caused by:

Improper use, extensive use, handling or operation of the product as referred to in the user manual or operator manual and/or relevant user documents, including without limitation, incorrect storage, dropping, excessive shocks, corrosions, dirt, water, or sand damage, if the product is not rated to be used in severe conditions, indicated by its IP and IK degree, mentioned in the product specifications in this manual.

Repairs, modifications or cleaning carried out by a non Lux Lumen service centre.

Use of spare parts, software or consumables, which are not compatible with the product.

Connecting the product to equipment not intended to be used with this product.

Defects caused by improper condition of the power supply network.

Inadequate packaging of the product when returning it under the RMA procedure.

Accidents or disasters or any cause beyond the control of Lux Lumen, including but not limited to lightning, water, fire, public disturbances, improper ventilation, and acts of God.

Others

It is the responsibility of the customer to backup and save any software files and programs before repair and to restore the same after such repair.

This warranty does not affect the consumer's statutory rights under applicable national legislation in force, nor the consumer's rights against the retailer arising from the sales/purchase contract. In the absence of applicable national legislation, this warranty will be the consumer's sole and exclusive remedy, and Lux Lumen cannot be liable for any incidental or consequential damages for breach of any express or implied warranty of this product.

For full details of the warranty offered on this product, please contact Lux Lumen's service center.

9.2 RMA procedure

To send material back to Lux Lumen, you need a RMA (Return Material Authorization) document that you will receive from Lux Lumen.

Without the RMA document, we cannot accept the material.

The procedure to obtain a RMA:

Step 1:

Customer contacts Lux Lumen about warranty, defects if material has to be returned.

Step 2:

Lux Lumen sends the customer a filled out RMA document (using a unique RMA number)

Step 3:

Customer sends material (include a copy of the RMA document with the material)

Step 4:

Lux Lumen evaluates and informs the client if repair is under warranty or – if not - makes an offer for repair to the client.



List of used abbreviations

- AC: Alternating current
- DC: Direct current
- LED: Light Emitting Diode
- SELV: Safety extra low voltage
- PMMA: PolyMethylMethAcrylate
- LVD : Low Voltage Directive
- EMC: Electro Magnetic Compatibility
- ESD: Electro Static Discharge
- RMA: Return Material Authorization
- IP : ingress Protection
- IK : International Mechanical Protection