# 16 - Highbay lighting









# **WORKING IN THE BEST LIGHT.**

Durable, sturdy and with low energy consumption: This is what distinguishes modern hall/arena lighting and is exactly where GIFAS comes in with its lighting range. Particular environmental conditions regarding harsh temperatures, excess dirt and dust are often very demanding. We are prepared for such cases and our hall spotlights are designed and engineered with this in mind.

DeltaLUXX	250
DeltaLUXX DALI	254
DeltaLUXX SMART (Zigbee, CASAMBI)	256
DeltaLUXX BLUE	258
DeltaLUXX RED / DeltaLUXX GREEN	259
LED rail system	260
Application cases	261
3D Vigualisation	263

DeltaLUXX LED highbay lighting

General





The flexible highbay lighting of GIFAS offer an impressive design and provides a variety of functions. The efficient thermal management of these highbay lights, which ensures adequate cooling even in dust and dirt-prone environments, supports the modern and efficient LED technology used, with its lifespan of at least 80,000 hours. Thanks to optional DALI and 1-10V dimmer interfaces, the DeltaLUXX models can be integrated into intelligent lighting systems.

Thanks to high-performance LEDs, the DeltaLUXX boast superlative lighting efficiency, especially in hard-to-illuminate areas with high-up lighting installations. With an external diameter of 450 millimetres, 180 high-end LEDs and high-quality individual single lenses with various beam characteristics, they can be used in halls up to 35 metres in height.

With their cast aluminium housing, special PTFE non-stick coating for minimum dust and dirt build-up, a pressure equalisation membrane and the use of sturdy polycarbonate panes with increased shatter protection or single-pane safety glass, the DeltaLUXX delivers reliable performance in environmental temperatures of up to 65° Celsius.

DeltaLUXX impresses with its modern, industrial design and sleek shapes.

- Made in Germany
- For applications with high light points
- √ Sleek, modern industrial design
- ✓ Optional with optics for a wide range of applications
- Suitable for use in industrial premises with fire hazards (D rating label)
- ✓ Approved for the food industry (according to IFS)

#### Construction



- 1 Die-cast aluminium frame
- U-profile silicon seal
- 3 Front panel (PC or toughened glass)
- 4 Optic
- 5 LED board
- 6 Heat conducting film
- 7 Die-cast aluminium housing
- 8 Cable gland with pressure compensation function
- 9 Power supply
- 10 Power supply bracket
- 11 Mounting bracket



#### DeltaLUXX LED highbay lighting Characteristics



#### Development Approach

This development is based on the need to manufacture a Highbay lighting which merits the MADE IN GERMANY mark of excellence, in terms of performance and quality. With the DeltaLUXX, GIFAS has succeeded in developing a competitive LED Highbay lighting that satisfies the highest demands and can also be used in challenging industrial sectors.



#### LED-Technology

The DeltaLUXX uses exclusively high-end SMD LEDs from reputable manufacturers, which are ideal in terms of light quality, lifespan, light colour and efficiency. For efficient light distribution high-quality optics are installed. The neutral, white 5000K light and the good colour rendering index of over R<sub>2</sub> 80, match the maximum human vision in daylight and as a result the best resolution of detail.



#### Surface coating

Industrial lights often have problems with dirt gathering on the surface and the associated reduction in cooling capability. The PTFE surface coating (coll. Teflon®) on the AlphaLUXX has a very low friction coefficient. Dust and dirt literally "bead" off the light. Even harsh acids cannot attack a PTFE coating. An improved thermal conductivity results from the four-times thinner PTFE coating, in comparison with other powder coating.



#### Technical design

The DeltaLUXX impresses with enormous system efficiency and high lighting quality. Through optional DALI and 1-10V dimming interfaces, the luminaire can be integrated into intelligent lighting systems.



#### Thermal management

Efficient cooling is essential for the LEDs' long service life and ultimately affects the entire lighting system. To achieve this long-term for DeltaLUXX, high-quality technical components were combined with a sophisticated design. The external open ring ensures dissipation of the heat generated, even with high levels of dirt. The design, coupled with an extra-thin coating and heat conduction foil to ensure maximum contact between surfaces, delivers an ambient operating temperature range of up to 65° Celsius and a lifespan of at least 80,000 hours.



#### Quality

The components are selected according to the highest quality standards. High-alloy, corrosion-resistant aluminium housing (230D), stainless steel installation material (V4A), LEDs and electronics from reputable manufacturers. Individual testing of every light in accordance with DIN EN 60598-1, certified according to ENEC.

# DeltaLUXX LED highbay lighting Technical data



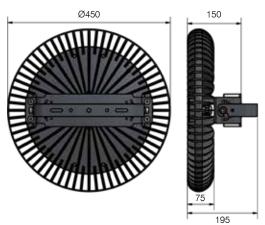


The highbay lighting meets numerous requirements, such as high efficiency and a wide range of operating temperature ranges as well as control options. In its second generation an efficiency of up to 173lm/W is achieved, which leads to significant energy savings. The housing with its many detailed solutions is predestined for rough industrial use.

#### **Product features**

- Robust housing made of corrosion-resistant die-cast aluminium
- Dirt-resistant PTFE surface coating, approved for the food industry
- 3mm impact resistant plastic cover (PC) or 3mm toughened safety glass (ESG)
- Custom-made U-profile seal surrounding all sides
- Custom-made, durable, heat-conducting film for lasting, reliable dissipation of heat from the LED board
- Low heat generation thanks to the latest LED technology
- Pressure compensation element for extreme temperature fluctuations
- Full luminous flux is available instantly after switching on
- Low energy consumption with high light output
- Maintenance-free
- Wide operating temperature range (up to 65°C)
- No UV/IR-radiation
- Vibration-resistant
- Accessories available from stock
- Various directional characteristics available

#### Dimensions





#### Technische Daten

Input voltage Light source System performance DeltaLUXX 2 DeltaLUXX 2 Optic 60° DeltaLUXX 2 Dali

System efficiency
DeltaLUXX 2 (ESG)
DeltaLUXX 2 Optik 60° (PC)
DeltaLUXX 2 Dali (ESG)
Light colour

Light colour CRI-Index Beam angle

Service life Protection category Protection class Shock resistance Max. surface temperature

Housing Surface

Housing colour Cover

Connection cable Weight Dimensions (ØxH) Certification 100-277VAC (50/60Hz) SMD-LEDs

95W / 140W / 183W / 215W / 270W 95W / 140W / 183W / 215W / 270W 225W / 264W

182lm/W / 172lm/W / 165lm/W / 162lm/W / 156lm/W 174lm/W / 164lm/W / 157lm/W / 155lm/W / 149lm/W 153lm/W / 147lm/W

5000K Ra >80

open distribution 120° Optics 60° (UGR<22) / 30° / 20° [L70/B10] > 80000h

IP65

black

IK08 (Version: PC cover)

+90°C (suitable for use in industrial premises with fire hazards), D rating label

Die-cast aluminium PTFE-coated (approved for the food industry)

3mm PC, optional 3mm ESG (Vision) 1m (Dali-Version 30cm)

approx. 9.5kg 450x195mm

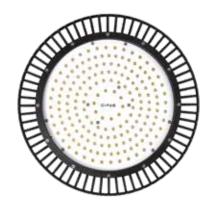
ENEC, CB, CE, D rating label



#### DeltaLUXX LED highbay lighting Range

The DeltaLUXX series covers many typical lighting requirements for highbay lighting in industry. GIFAS supports the lighting planning, so that lighting in accordance with standards can be realised.

Depending on the configuration, other performance levels can be achieved.

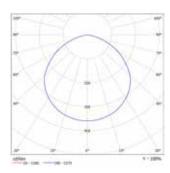




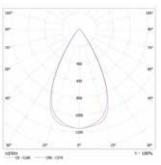
#### DeltaLUXX 2

Item no.	Туре	Beam angle	Cover	Lighting current*	Typ. mounting high**
800343	90W	120°	PC santin	14100	4-9m
800287	90W	120°	PC clear	15700	4-9m
800288	90W	120°	ESG clear	16400	4-9m
800350	130W	120°	PC santin	19300	6-11m
800289	130W	120°	PC clear	21400	6-11m
800290	130W	120°	ESG clear	22400	6-11m
800378	170W	120°	PC santin	24200	8-14m
800291	170W	120°	PC clear	26800	8-14m
800292	170W	120°	ESG clear	28100	8-14m
800402	200W	120°	PC santin	27900	10-16m
800293	200W	120°	PC clear	31000	10-16m
800294	200W	120°	ESG clear	32400	10-16m
800295	250W	120°	PC clear	37200	12-23m
800296	250W	120°	ESG clear	38900	12-23m

Light distribution curve



120°

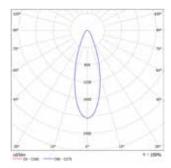


60° UGR<22

#### DeltaLUXX with optics

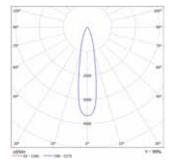
Item no.	Туре	Beam angle	Cover	Lighting current*	Typ. mounting high**
800405	90W	60°	PC clear	15700	4-10m
800406	130W	60°	PC clear	21400	6-12m
800115	150W	30°	PC clear	16400	10-16m
800161	150W	30°	ESG clear	17100	10-16m
800112	150W	20°	PC clear	18900	13-28m
800158	150W	20°	ESG clear	19800	13-28m
800407	170W	60°	PC clear	26800	8-16m
800408	200W	60°	PC clear	31000	10-17m
800116	200W	30°	PC clear	20400	13-28m
800162	200W	30°	ESG clear	21300	13-28m
800113	200W	20°	PC clear	23600	14-32m
800159	200W	20°	ESG clear	24700	14-32m
800117	240W	30°	PC clear	23400	15-30m
800163	240W	30°	ESG clear	24500	15-30m
800114	240W	20°	PC clear	27200	16-35m
800160	240W	20°	ESG clear	28400	16-35m
800409	250W	60°	PC clear	37200	12-25m

<sup>\*</sup>In thermally steady state after approx. 1 hour of operation (Im) \*\*Depends on the required lux data and light point distances



20°

30°



#### DeltaLUXX LED spotlight Product range overview

#### DeltaLUXX 2 - 2700K

Item no.	Туре	Beam angle	Cover	Lighting current*	Typ. mounting high**
313357	200W	120°	PC	27620	10-16m
800443	200W	60°	PC	29515	10-17m
800448	250W	120°	PC	33020	12-23m
313358	250W	60°	PC	35400	12-25m

Colour temperature DeltaLUXX 2 also available in other light colours: 4000K / 3000K / 1700K available

#### DeltaLUXX 2 HT - operating range of temperature to 70°C

Item no.	Туре	Beam angle	Cover	Lighting current*	Typ. mounting high**
800389	130W	120°	PC	21400	6-11m
800390	170W	120°	PC	26800	8-14m

DeltaLUXX 2 HT

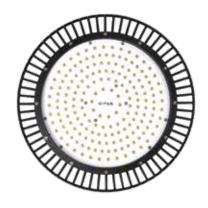
High-temperature radiator for high temperature application range up to +70°C.

#### **DeltaLUXX DALI**

To realise further electricity savings, modern lighting systems are designed to be dimmable and have light or motion sensors if required. Digital DALI is used as the control protocol.

#### DeltaLUXX 2 DALI

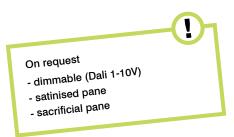
Item no.	Туре	Beam angle	Cover	Lighting current*	Typ. mounting high**
800423	200W	60°	PC	31000	4-20m
800300	200W	120°	ESG	30600	4-16m
800299	200W	120°	PC	31000	4-16m
800424	240W	60°	PC	33818	4-20m
800302	240W	120°	ESG	35345	4-16m
800301	240W	120°	PC	33818	4-16m



#### **DeltaLUXX DALI with optics**

Item no.	Power	Beam angle	Cover	Lighting current*	Typ. mounting high**
800141	240W	30°	PC	23400	10-30m
800138	240W	20°	PC	27200	10-35m

- \*In thermally steady state after approx. 1 hour of operation (Im) \*\*Depends on the required lux data and light point distances







#### Light management by DALI

GIFAS offers various luminaire models with an optional 1-10V or DALI interface and thus enables integration into intelligent light management systems.

Particular attention is paid to the installation of modern systems on the Digital Addressable Lighting Interface (DALI) which combines many advantages with few components, little wiring effort and simple programming. Due to the expanded options and increased functional reliability, digital dimming is increasingly replacing analog 1-10V dimming.

Due to their individual addressability and status feedback, the light control systems based on DALI not only offers comprehensive monitoring functions, but also opens up new approaches to sophisticated lighting solutions thanks to the programmable parameters. Via gateways, DALI systems can also be operated as a subsystem in modern building automation systems.

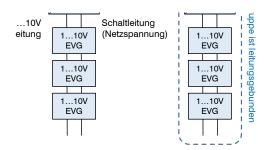
DALI is an independent system. It controls the light with all the DALI components involved and can address and configure each device individually, e.g. assign each luminaire to 16 groups, define individually with 16 light values for lighting staging, or dim all luminaires synchronously. Thanks to the simple combination with daylight or motion sensors, additional energy savings of up to 80% can be achieved depending on the application.

# The planning and commissioning of DALI systems requires the following parameters to be taken into account:

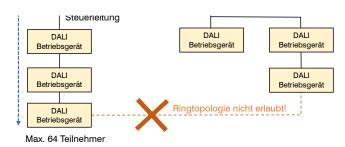
- DALI uses serial asynchronous data protocol transfer rate of 1200bit / s at a voltage level of 16V
- Lines can be in almost any topology, star, line or tree structures. A ring-shaped connection components must be avoided
- There are a maximum of 64 actuators and / or a maximum of 16 groups per DALI-Bus allowed
- The maximum current consumption of a DALI circuit is 250 mA.
- The current consumption per DALI load is a maximum of 2 mA
- The maximum voltage drop between transmitter and actuator 2 V do not exceed
- The maximum cable length when using 1.5 mm<sup>2</sup> conductors is 300m

	DALI	1-10V
Control signal	Digital	Analog
Control input	Potential free tax entrance	Potential free tax entrance
Connection	Reverse polarity protection two-wire line	Two-wire line with polarity (+/-)
Dimming curve	Logarithmic dimming curve, according to eye sensitivity	Linear dimming curve
Grouping and addressing	Dynamic addressing and group formation - Max. 64 single adresses - Max. 16 groups - in combination = no groups-wiring necessary	Not addressable, wiring according to groups (high effort)
Scene memory	Scene memory, max. 16	Not possible
Bidirectionality	Bi-directional communication with DALI Master Status message of the DALI control gear - lamp failure - operating time - dimming	Not possible
Storage of dimming settings	Individual dimming, saving of the last dimming value	Not possible
Mains voltage isolation	Via control line	On / off via external relay contact

#### Analog interface 1...10V



#### Digital interface DALI



# Intelligent highbay lighting DeltaLUXX SMART ZigBee

Modern lighting in combination with targeted control and automation is becoming increasingly important. Whether simple switching, presence detection or daylight-dependent control - control makes lighting more flexible and convenient and contributes enormously to energy savings.

Whether LED hall lighting reacts to light incidence from outside and independently provides the desired illuminance, whether warehouses are only lit where work is performed, night lighting is to be switched or other controls are desired - an easy-to-operate, broad-based and future-oriented control system is required for this purpose.

A radio-based solution based on the open ZigBee standard saves wiring costs and can be used in both new and existing installations. The interfaces on luminaires and sensors serve both as transmitters and receivers, which makes an infinite expansion of the measurement network possible with high functional safety.

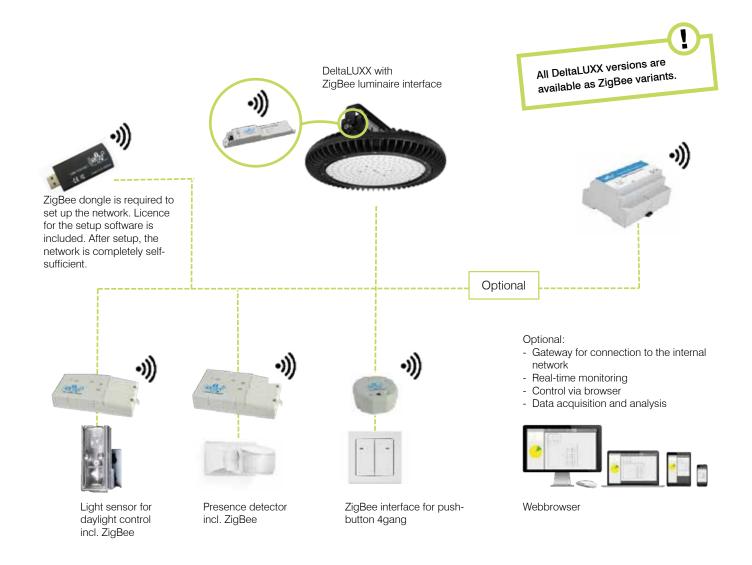
Thanks to the communication of all components with each other, a wide variety of usage scenarios and needs-based lighting situations are possible. Once configured, the system runs completely autonomously - the computer with the configuration software is only needed for changes to the system. If control is to take place

comfortably in real time via a web browser, the gateway is needed as an interface to the building network. In this case, it is possible to record power consumption and status monitoring, among other things.

The ZigBee control system allows a wide range of application scenarios. GIFAS supports you in the right implementation! Starting with project planning of lighting scenarios and definition of the optimal sensor positions up to commissioning. Talk to us!

#### What is ZigBee?

- Standard for wireless networks with low data volume.
   There are many possible applications for ZigBee, for example building automation, in the medical sector, for control systems and control systems and for all kinds of sensor measurements.
- ZigBee operates license-free in the 2.4 GHz band, interference-free alongside existing WLAN and Bluetooth networks.
- The range between ZigBee devices is up to 100 m, due to the network, ranges of up to several kilometres are possible.
- High network security through encryption with AES-128





# Intelligent highbay lighting DeltaLUXX SMART CASAMBI

LED luminaires can be easily and flexibly controlled and dimmed via smartphone or tablet thanks to CASAMBI technology. To do this, CASAMBI uses the latest technological developments based on Bluetooth 4.0. To use this intelligent technology, all you need is the free CASAMBI app (available for iOS and Android) and an easy-to-integrate control unit for LED luminaires.

Extraordinary here: with CASAMBI, luminaires connected via three-wire cabling can now also be dimmed. And not only via smartphone, but also by means of a wall-mounted radio switch. A timer function makes it possible to call up lighting scenarios precisely to the minute on the basis of days of the week or times of day, or to have them switched on and off in sequence (switching on and off, dimming). The integrated timer function can be triggered by various events such as freely programmable dates or the sunrise and sunset in your time zone.

Smart switch functions enable CASAMBI installations to integrate presence detectors that have a switchable mains output. In this case, a presence detector is connected in front of a CASAMBI unit, which in turn is part of a network and acts as a 'master' module. Individual scenes can be called up via the 'Control scenes' mode, which are switched off again when inactive. 'Active/Standby' enables switching between two scenarios, for example, in the case of corridor lighting, switching between orientation light and full lighting. These options illustrate the range of applications towards efficient, intelligent and intuitively operable lighting concepts.

CASAMBI control allows a wide range of application scenarios. GIFAS supports you with the right implementation. From project planning of lighting scenarios and definition of sensor positions to commissioning. We will be happy to advise you!



#### What is CASAMBI?

- uncomplicated installation
- easy synchronisation with several smartphones and tablets
- can be retrofitted to almost all GIFAS luminaires
- Switching on and off as well as stepless dimming via mobile devices or wall-mounted radio switch (switching, dimming, calling up scenarios)
- Freely definable switching groups
- High range

#### Mesh-Network

CASAMBI technology offers the possibility to build a wireless mesh network where all the intelligence of the system is replicated in each node, thus creating a chain without single points of failure.

Such a self-organising mesh network can control a large number of devices from any point. It also allows firmware updates over the network so that changes can be made over-the-air. In this type of fully distributed and symmetrical architecture, each device can go offline and be updated by others when they come back online.

The CASAMBI modules are pre-configured at the factory and can be used directly (plug & play). An internet connection is not required for normal operation. This is only required to make updates or to send or retrieve configurations of the user interface from the cloud service.

All DeltaLUXX versions are available as CASAMBI variants.

#### **DeltaLUXX BLUE** Crane safety lighting



**◆▲▲♦**(**€ T** 

The LED Spotlight DeltaLUXX BLUE was specially developed for the increased safety requirements when working with crane systems. The blue warning signal has already proven itself when working with forklifts by warning other persons when it is in use. The DeltaLUXX BLUE also warns the employee about the crane system in use. With the 5° optics, a spot is projected onto the floor from a mounting height of up

to 20 metres. The beam has approximately a diameter of one meter by a distance of 30 metres. The DeltaLUXX BLUE is designed for robust applications and withstands even temperature fluctuations from -20 ° C to + 55 ° C. the maximum surface temperature may be up to + 90 ° C. The DeltaLUXX BLUE can also be equipped with a 30° optic and is used, among other things, as facade lighting on high buildings or industrial

plants.

#### **Product features**

- Robust housing made of corrosion-resistant die-cast aluminium
- Dirt-resistant PTFE surface coating, approved for the food industry
- 3mm impact resistant plastic cover (PC)
- Custom-made U-profile seal surrounding all sides
- Custom-made, durable, heat-conducting film for lasting, reliable dissipation of heat from the LED board
- Low heat generation thanks to the latest LED technology
- Full luminous flux is available instantly after switching on
- Low energy consumption with high light output
- Maintenance-free
- No UV/IR-radiation
- Vibration-resistant
- Various directional characteristics available

#### Technical data

100-277VAC (50/60Hz) Input voltage System power approx. 130W / 240W SMD LEDs Light source Wavelength 460nm

130W - approx. 1600lm Luminous flux 240W - approx. 2900lm

Beam angle 5° / 30° Protection category IP65 Protection class

-20°C to +50°C Operating temperature Storage temperature -25°C to +70°C

Max. surface Temperature +90°C (suitable for use in fire endangered operations)

Housing material die-cast aluminum Housing surface PTFE-coated Housing colour black

Frontcover 3mm polycarbonate Connection cable

1m

Weight approx. 11.5kg 450x208.5mm Dimensions (Ø x H)

Warranty 2 years

#### Crane lighting

Item no.	Description
289861	DeltaLUXX BLUE/W130V230/5°/-
291506	DeltaLUXX BLUE/W130V230/5°/DIMM/-incl. Dimmbox

#### Facade lighting

Item no.	Description
292021	DeltaLUXX BLUE/W240V230/30°/-



#### **DeltaLUXX RED** Safety lighting



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The LED Spotlight DeltaLUXX RED was specially developed for the increased safety requirements when working in transportation zones. The Intention of the DeltaLUXX RED is to warn employees by producing a red spot on the floor, from incidences, e.g. access restrictions. The DeltaLUXX RED projects a red spot on the floor and increases the safety on site as a signal light. The heater is designed for robust use and can withstand temperature fluctuations from -20 ° C to + 55 ° C, the maximum surface temperature can be up to + 90 ° C.

#### Product features

- Robust housing made of corrosion-resistant die-cast aluminium
- Dirt-resistant PTFE surface coating, approved for the food industry
- 3mm impact resistant plastic cover (PC)
- Custom-made U-profile seal surrounding all sides
- Custom-made, durable, heat-conducting film for lasting, reliable dissipation of heat from the LED board
- Low heat generation thanks to the latest LED technology
- Full luminous flux is available instantly after switching on
- Low energy consumption with high light output
- Maintenance-free
- Vibration-resistant

#### Technical data

100-277VAC (50/60Hz) Input voltage System performance approx. 80W

SMD-LEDs Light source Wavelength 625nm approx. 3800lm Luminous flux

Beam angle IP65 Protection category Protection class

-20°C to +50°C Operating temperature Storage temperature -25°C to +70°C

Max. surface

+90°C (suitable for use temperature

in fire endangered operations)

Die-cast aluminum Housing material Housing surface PTFE-coated

Housing colour black

Frontcover 3mm polycarbonat

Connection cable 30cm

approx. 11.5kg Weight Dimensions (ØxH) 450x208.5mm Warranty 2 years

Item no.	Description
293370	DeltaLUXX RED/W80V230/5°/-

#### **DeltaLUXX GREEN** Safety lighting



The LED Spotlight DeltaLUXX GREEN was specially developed for the increased safety requirements when working in transportation zones. The Intention of the DeltaLUXX GREEN is to warn employees by producing a green spot on the floor, from incidences, e.g. access restrictions. The DeltaLUXX GREEN projects a green spot on the floor and increases the safety on site as a signal light. The heater is designed for robust use and can withstand temperature fluctuations from -20 ° C to + 55 ° C, the maximum surface temperature can be up to + 90 ° C.

#### **Product features**

- Robust housing made of corrosion-resistant die-cast aluminium
- Dirt-resistant PTFE surface coating, approved for the food industry
- 3mm impact resistant plastic cover (PC)
- Custom-made U-profile seal surrounding all sides
- Custom-made, durable, heat-conducting film for lasting, reliable dissipation of heat from the LED board
- Low heat generation thanks to the latest LED technology
- Full luminous flux is available instantly after switching on
- Low energy consumption with high light output
- Maintenance-free
- Vibration-resistant

#### Technical data

100-277VAC (50/60Hz) Input voltage System performance approx. 84W

Light source SMD-LEDs Wavelength 525nm Luminous flux approx. 5625lm

Beam angle Protection category IP65 Protection class

Operating temperature -20°C to +50°C Storage temperature -25°C to +70°C

Max. surface

+90°C (suitable for use temperature in fire endangered operations)

Die-cast aluminum Housing material

Housing surface PTFE-coated Housing colour black

Frontcover

3mm polycarbonat 30cm

Connection cable

Weight approx. 11.5kg Dimensions (ØxH) 450x208.5mm Warranty 2 years

Item no.	Description
308901	DeltaLUXX GREEN/W84V230/5°/-

D - Marking according to VDE 0711-2-24 resp. EN 60598-2-24

D - Marking according to VDE 0711-2-24 resp. EN 60598-2-24

# LED rail system



#### Modular LED rail system





The LED rail system is characterized by high flexibility, easy installation, enormous light output and a high degree of protection. Thanks to the many possible combinations, optimal illumination is ensured for every application. The cabling integrated in the carrier rail minimizes the installation effort and, in addition to a simple power supply for the LED modules, also enables integration into a DALI system.

#### **Product features**

- Lengths of up to 50m are possible with one feed
- Easy installation, versatile expansion
- Optimal for industrial use due to the high degree of protection
- Other optics possible, on request

#### Technical data

Dimensions lenght

Conductor cross-section support rail

System power 39W / 63W / 77W Dimmable yes (DALI) 230VAC Input voltage System efficiency >140lm/W CRI Ra >80 Beam angle 90° Service life >50000h [L80] LED Switching resistance >1Mio. Light colour 5000K Operating temperature -40°C to +50°C Aluminium Housing material Protection category / class lamp IP54 / I Shock resistance IK08 Weight approx. 3.7kg

1416mm

2.5mm<sup>2</sup>

Item no.	Description
300510	LED Modular rail system 7 pole 39W 5600lm, without DALI
300511	LED Modular rail system 7 pole 63W 9000lm, without DALI
300512	LED Modular rail system 7 pole 77W 11000lm, without DALI
300513	LED Modular rail system 7 pole 39W 5600lm, with DALI
300514	LED Modular rail system 7 pole 63W 9000lm, with DALI
300515	LED Modular rail system 7 pole 77W 11000lm, with DALI
300516	Carrier bar, start, 7 poles, white
300517	Carrier bar, middle, 7 poles, white
300518	Carrier bar, end, 7 poles, white
300519	Blank cover for carrier rail 7-pin, white
Accessories / spare parts	
300520	3 m rope for ceiling suspension
300521	Chain 3 m for ceiling suspension
300522	Clip for ceiling mounting
300523	7-pin feed coupling

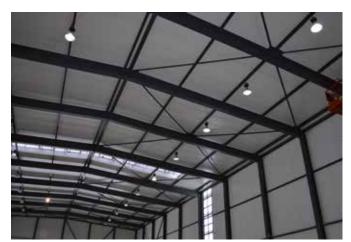
## DeltaLUXX



Warehouse lighting



Manufacturing hall



Highbay lighting



Processing hall for forklift trucks



Automotive supply industry



### DeltaLUXX BLUE / DeltaLUXX RED



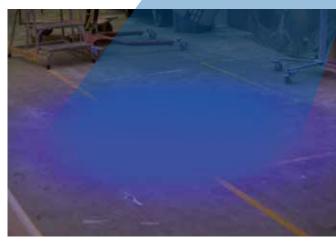
Ambient lighting



Safety lighting on ceiling crane



Ambient lighting



Light spot on the hall floor



Truck signaling system with DeltaLUXX RED

## **GIFAS live experience!**

#### How it works

Download the GIFAS Augmented Reality App free for your smartphone or tablet. Then scan the picture that you can see below - the so-called marker - with the GIFAS app. You are now able to look at the product that you have selected from various angles and all sides. Enjoy your 3D tour!

#### Instructions

The GIFAS app has been developed for use on modern tablets and smartphones using both Apple iOS and Android operating systems. Older devices and software may experience some limitations in their functionality. Due to the larger display size, the app's features are generally at their best on a tablet.

#### Tip

If you need to place your tablet or smartphone very close to the marker for it to be detected, this may be because there isn't enough light. How it's done: First, point the camera at the marker at close range. Once the app has captured the marker and constructed the 3D model, you can slowly move the device away from the marker - up to a distance of 3 metres. Keep the phone or tablet as still as possible.



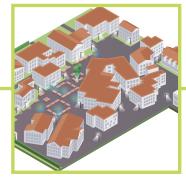


Download the GIFAS app here



# WE ARE EXPERTS IN YOUR FIELD

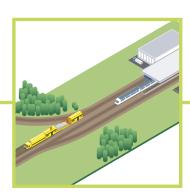
## **Highbay lighting**







Industrial sector



**Transportation** 

## THE GIFAS WORLD.

All products for your sector at a glance.

More on www.gifas.de/en/gifas-world