

Our benefits:

Energy Consulting, Analysis, Simulation, Presentation, Selling

Product catalog LED Lights



For industry, business, household and hobby

Spot

Light bar

Floodlight

Flashlight

Spotlight

Headlight

PAR38

Searchlight

MR16

GU10

LED tubes

Emergency light

Accessories

Pendant light

Professional energy saving - green light to environmental protection.

With the extensive range of LED lamps have a low-cost alternative to energy-saving bulbs and are thus very well prepared against the ban incandescent 2012th

Advantages of LEDs:

- More-efficient than compact fluorescent lamps
- Through energy savings up to 90% less CO₂ emissions,
- Very good color saturation,
- Very low maintenance costs,
- Immediately after turning on full brightness,
- No UV rays / infrared radiation,
- Flicker free light for visual comfort. THE LIGHT IS STILL!
- Precise light by optics,
- Extra long life 30,000 hours and more ...
- High Luminous fluxstabilität changes in temperature,
- Very high brightness stability over other light sources,
- Very compact design, multiple design options,
- Stylish replacement for traditional incandescent lamps,
- No mercury (energy saving lamps and fluorescent tubes contain mercury)
- Minimum heat output
- Height safty by low voltage,
- High mechanical resistance or impact resistance,
- Ballast, capacitor and starter omitted
- LED light does not disturb the insect orientation, since no UV light is emitted.



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Info

Welcome,

at **Ingenieurbüro Warnke und Partner**. We are engineers and LED bulb retailers for industry, household and commerce. Our particular strength is the combination of different products for a complete LED package. It then all required installation components, such as Cables, connectors, fittings, dimmers, etc. included.

If you are interested in a product that is not in our catalog is available, please contact us directly. We like to try to fulfill your request.

Our quality for you

Our products are equipped with high quality components that meet the requirements of European standards and norms.

This applies for example the LED, power supply, the case, the connection and the toughened. The spot in accordance with the hygiene regulations and are approved for use in food processing plants. There are a variety of applications: bakery, butchers, fruit shops, theaters, nightclubs, theaters, buildings, facades, gas stations, driveways, construction sites, high-speed photography, aquariums, etc.

We are also able to deliver this high power spot in salt water-resistant design, e.g. for aquariums in salt-containing water vapor atmosphere (chlorides areas) at 30 ° C. There's this spot in dimmable version with 10 watts.

Order number (easy to establish itself)

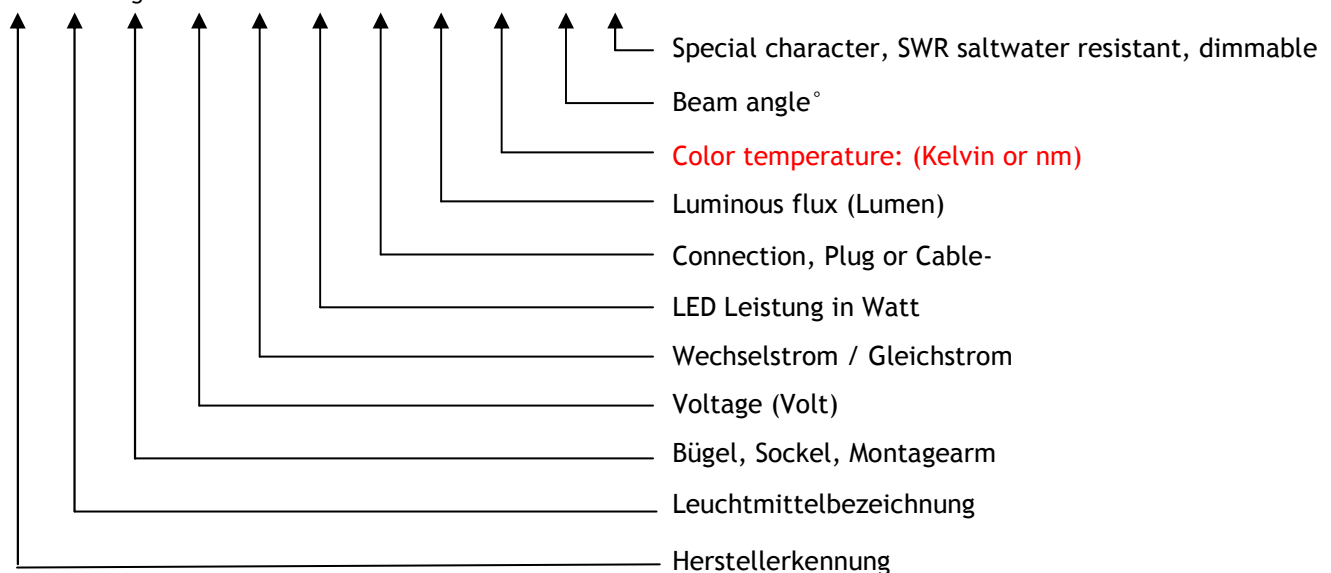
The order number is from the specific characteristics of a product as follows:

L-Flood Light-frame-230V-50Hz-140W-Cable 2000L-4000K-60-degree special characters

Special characters, such as SWR salt water resistant, Dimmable ...

Die Order number setzt sich aus den spezifischen Merkmalen eines Produktes wie folgt zusammen:

L- Floodl.-Bügel-230V-50Hz-140W-Cable-2000L-4000K-60°-Sonderzeichen



Please contact your order number together their own wishes. If you for example the color temperature: 4000 K want, enter your number to the value at the corresponding position in the Order.




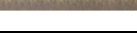

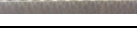



Thank you..

LED colour (color temperature) und efficiency comparison

Color temperature:

The LED lamps are available in different colours

In the description, the color temperature are explained like in Kelvin or specified by the the name of the available colour.

Colour	Color temperature Kelvin [K]	Photo
gold	2400 - 2700	
warm white	2700 - 3500	
neutral white	3500 - 4500	
daylight white	4500 - 5500	
pure white	5500 - 7000	
cold white	7000 - 9000	
cold white	9000 - 12000	
cold white	12000 - 14000	
cold white	14000 - 16000	

Luminous flux

The Luminous flux is measured in lumens with the maximum value. Cool white and warm white differ in brightness depending on the extent to about 15%.

Variuous lights in comparison

Classic Incandescent bulb (Watt)	Halogen (Watt)	Energiy saving tubes / lamps (Watt)	Fluorescent tubes T8 (Watt)	LED (Watt)	Luminous flux (Lumen)
40	35	15	-	5 - 7	400
60	50	20	-	9 - 10	700
100	75	45	24	12 - 15	1300
-	100	-	-	18 - 25	1500
-	150	-	44	28 - 30	2500
-	300	-	65	55 - 60	5000
-	500	-	-	100 - 110	10000
-	1000	-	-	250	22000

Order numbers: L-T8-230V-50Hz-11W- 60cm-4000K-1000L-Cable-Connection-Clip
 L-T8-230V-50Hz-20W-120cm-4000K-1800L-Cable-Connection-Clip
 L-T8-230V-50Hz-24W-150cm-4000K-2200L-Cable-Connection-Clip
 L-T8-230V-50Hz-11W- 60cm-4000K-1000L
 L-T8-230V-50Hz-20W-120cm-4000K-1800L
 L-T8-230V-50Hz-24W-150cm-4000K-2200L

LED Tube (like T8) with 3m Cable and Clips for wall mounting.

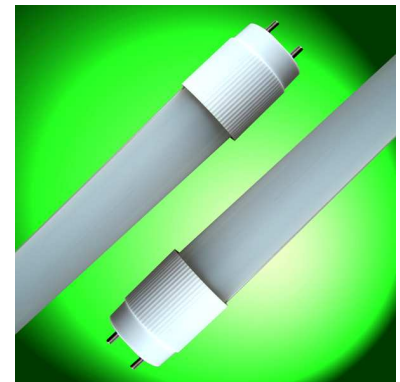
Additionally we offer LED tubes with simple assembly by clip-on and Cable. Sometimes it is easier to replace the entire lamp, as the single tube.

The LED tubes are approved in accordance with hygiene regulations in food processing companies, including lamp sockets without covers.

Main data:

- Luminous flux: 1800 Lumen,
- Electric Power: 11 Watt, 20 Watt, 24 Watt,
- Voltage: 230 Volt,
- Socket: Cable-Connection 3,0 m, 3-wire,
- Weight: 230 g,
- Length: 1212 mm + 3,0 m Cable-,
- Diameter max Ø: 35 mm,
- Number of LED: 250 Pcs,
- Dimmable: No,
- Colour: Weiß,
- Efficiency: 95 lm/W,
- Color temperature: 4000K,
- Lifetime: ca. 30.000 h,
- Working temperature: -30°C - 55°C,
- Safety notes: Laser class (EN 60825-1 :2003): 1M,
- Guarantee: 2 Years.

Also with 60° beam angle



Optional data:

- Length: 60 cm, 11 Watt, 1000 L,
- 120 cm, 20 Watt, 1800 L,
- 150 cm, 24 Watt, 2200 L,
- Beam angle: 40°, 60°,
- Cable: Ja, No.

LED tube with cable and Clip



Order number: L-Ball-230V-50Hz-360°-2800K-__W-IP55

As bright as a 75 Watt Incandescent bulb and only 10W consumption and therefore 75% savings compared to the same light energy saving lamp. Top Design, ideal even for pendant light and a very nice lighting.

Main data:

Luminous flux: 630L or 900 Lumen,

E27 Ball (globe) with 360° beam angle.

- Voltage: 230 Volt ~ 50Hz,
- Socket: E27,
- Weight: 355 g,
- Length: 180 mm,
- Diameter Ø: 100 mm,
- Number of LED: 10 CREE Chip Technologie,
- Dimmable: No,
- Colour: Warm white,
- Efficiency: 90-100 lm/W,
- Color temperature: 2800 Kelvin,
- Lifetime: ca. 30.000 h,
- Working temperature: -30°C - 65°C,
- Guarantee: 2 Years.



Optional data:

- Electric Power: 7 Watt or 10 Watt.

PAR38

Order numbers: L-Spot-PAR38-E27-230V-50Hz-12W-1200L-60°-3000K
L-Spot-PAR38-E27-230V-50Hz-15W-1500L-60°-3000K

Very good even light distribution from the center to the edge. Air circulation necessary!

Main data:

- Luminous flux: 1200 L or 1500 Lumen,
- Electric Power: 12W or 15W,
- Voltage: 230 Volt ~ 50Hz,
- Socket: E27,
- Weight: 450 g, 650 g,
- Diameter Ø: 122 mm, Height: 97 mm or 152 mm,
- IP-Protection class : 55,
- Number of LED: 6 Pcs or 12 Pcs,
- Beam angle: 60° ,
- Dimmable: No,
- Colour: Warm white,
- Efficiency: ca. 85 lm/W,
- Color temperature: 2850-3050 Kelvin,
- Lifetime: ca. 30.000 h,
- Working temperature: -30°C - 85°C,
- Safety notes: Laser class (EN 60825-1:2003): 1M,
- Guarantee: 3 Years.

12W LED = 80W Incandescent bulb



PAR30

Order number: L-Spot-PAR30-E27-230V-50Hz-10W-750L-60°-3000K

Very good even light distribution from the center to the edge. Air circulation necessary!

Main data:

- Luminous flux: 750L,
- Electric Power: 10,
- Voltage: 230 Volt ~ 50Hz,
- Socket: E27,
- Weight: 450 g,
- Diameter Ø: 75 mm,
- Height: 75 mm,
- IP-Protection class : 55,
- Number of LED: 5 Pcs,
- Beam angle: 60° ,
- Dimmable: No,
- Colour: Warm white,
- Efficiency: ca. 85 lm/W,
- Color temperature: 3000 Kelvin,
- Lifetime: ca. 30.000 h,
- Working temperature: -30° C - 85° C,
- Safety notes: Laser class (EN 60825-1:2003): 1M,
- Guarantee: 2 Years.

10W LED = 60W Incandescent bulb



Dimmable GU10 mit 300 Lumen - der ideale Ersatz für 35 Watt Halogenspot.

Order number: L-Spot-GU10-230V-50Hz-3W-255L-3000K-40°-dimmable

Even light distribution from the center to the edge. The existing dimmers can still be used, there are no special LED dimmer.

You save a lot of current, but not notice that now illuminated the room lights.

Technical data:

- Luminous flux: 255 Lumen,
- Electric Power: 3 Watt,
- Voltage: 230 Volt ~ 50Hz,
- Socket: GU10,
- Weight: ca. 150 g,
- Length: 60 mm, Diameter Ø: 50 mm,
- Number of LED: 3,
- Beam angle: 40° ,
- Dimmable: Ja,
- Colour: warm white,
- Efficiency: 85 lm/W,
- Color temperature: 3000 Kelvin,
- Lifetime: ca. 30.000 h,
- Working temperature: -30° C ~ 65° C,
- Safety notes: Laser class (EN 60825-1 :2003): 1M,
- Guarantee: 2 Years.



MR16, 12 V DC, 5 Watt, heller als 35 Watt Halogen.

Order numbers: L-Spot-MR16-12V-DC-5W-___K-__°

Top quality, very comfortable warm-white light color, perfectly even light distribution.

In 10 hours daily and 300 days a year, you save more tax-adjusted value over 15, - EUR per year compared to a 35 watt halogen spot!

Our Bestsellers:

Very nice design on the bottom as not to recognize LED commercial. These LED lamps can be used with GX5.3 or GU5.3 socket in standard low-voltage halogen lamps. Please follow the instructions to the transformer (see below). This LED Spot distinguished by their high quality workmanship and high reliability. A special, heat-conductive metal alloy improves the heat transfer within the bulb, thereby increasing its lifetime significantly.

The white spot with 450 lumen is again about ca. 30% brighter white than in warm!
The ideal replacement for all low voltage watt halogen spots, because it requires no warm-up time: 100% brightness available.

Under no circumstances use of electronic transformers! In magnetic halogen transformers with alternating voltage output (big and heavy), the transformer utilization is observed.

You need your old wound (severe) Halogen Transformer not throw away: We have a powerful and inexpensive rectifier in the program.

Technical data:

- **Energieeffizienzklasse:** Save over 80% of energy costs compared to Halogen Spot ,
- **Luminous flux:** Warm white 350 Lumen / weiß 450 Lumen,
- **Electric Power:** 5 Watt,
- **Voltage:** 12 Volt AC/DC,
- **Current:** 417 mA,
- **Socket:** GU5.3 GX5.3,
- **Weight:** ca. 40 g,
- **Height:** 52,4 mm,
- **Diameter Ø:** 50 mm,
- **Number of LED:** 4,
- **Wärmeableitung:** Heat sink aluminum alloy ,
- **Colour:** Warm white or white,
- **Lifetime:** ca. 50.000 h,
- **Working temperature:** -30°C - 65°C,
- **Safety notes:** Laser class (EN 60825-1:2003): 1M ,
- **Guarantee:** 3 Years.

Optional data:

- **Color temperature:** 2859-3050K, 5000-5650K,
- **Beam angle:** 40°, 60°.



Order number: L-Kerze-E14-230V-50Hz-4W-300L-360° -3000K-dimmable

The dimmable LED E14 candle is as bright as a 40 Watt Incandescent bulb only 4 watts. This results in 50% savings compared to the same light energy saving lamp.

Main data:

- Luminous flux: 300 Lumen,
- Electric Power: 4 Watt,
- Voltage: 230 Volt ~ 50Hz,
- Socket: E14,
- Weight: 150 g,
- Length: 130 mm, Diameter Ø: 44 mm,
- IP-Protection class : 55,
- Number of LED: 4,
- Beam angle: 360° ,
- Dimmable: Ja,
- Colour: Warm white,
- Efficiency: 80 lm/W,
- Color temperature: 2800 - 3200 Kelvin,
- Lifetime: ca. 30.000 h,
- Working temperature: -30°C - 55°C,
- Safety notes: Laser class (EN 60825-1 :2003): 1M,
- Guarantee: 2 Years.

Milky glass cover



LED-Kerze (E14 Gewinde)

Order number: L-Kerze-E14-230V-50Hz-3W-240L-160° - K-

The dimmable LED E14 candle is as bright as a 25 Watt Incandescent bulb only 3 watts. This results in >50% savings compared to the same light energy saving lamp.

Main data:

- Luminous flux: 240 Lumen,
- Electric Power: 3 Watt,
- Voltage: 230 Volt ~ 50Hz,
- Socket: E14,
- Weight: 150 g,
- Length: 100 mm, Diameter Ø: 40 mm,
- IP-Protection class : 55,
- Number of LED: 3,
- Beam angle: 160° ,
- Dimmable: No,
- Colour: Warm white,
- Efficiency: 80 lm/W,
- Color temperature: 2700K, 3000K,
- Lifetime: ca. 30.000 h,
- Working temperature: -30°C - 55°C,
- Safety notes: Laser class (EN 60825-1 :2003): 1M
- Guarantee: 2 Years.

Milky glass cover



Optional data:

Color temperature: 2700K, 3000K,
Glasform: normal, tenon.

LED-light light bar - with perfectly dimmable pulse width modulation.

The light-light bar are in a stable, ultra flat design on aluminum rail with 2 stainless steel clips and 2 connection cable-built. The rigid LED strip can be glued or screwed. The board is bepcst bar with 5050 SMD LEDs latest chip technology and the Light are characterized by high light output.

Applications

The large beam angle of the LEDs is suitable for the illumination of aquariums, areas or spaces (indoor and outdoor). Due to the different Lengthn and flexible connection cable-offer, the LED light bar for complex tasks such as for the illumination of channel letters or signage installations. But also for display cases or, indirect ceiling lighting for stairs, these LED light bar ideal. In car styling or computer modding, for Cabinet, Under illumination, tool cabinets, fire engines, truck or bus are the LED light bar used often.

Installation Notes undCurrentversorgung:

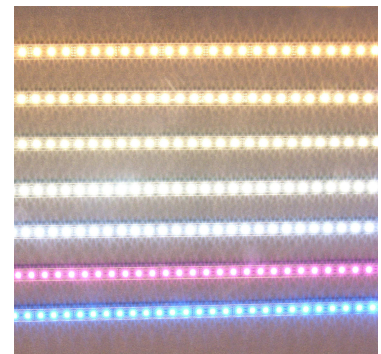
Please provide for air circulation. LEDs are very robust, but not as heat tolerant as an Incandescent bulb!

Using LED Light bar to put into operation, they require a voltage of 12 volts DC (direct current). For up to 3 pieces of this 100cm bar LED Light, we recommend our "stabilized power supply - 12V DC 5A 60W. Without much effort, several LED Light bar can be connected directly after the other. Power supplies and transformers, watertight, see our catalog on the next page. The light-light bars are available in different colours as below.

Order numbers: L-Leiste-___cm-12VDC-___W-___L-___K

Main data:

- **Electric Power:** 3,6 Watt, 7,25 Watt, 14,5 Watt,
- **Voltage:** 12 Volt DC (24 Volt DC at request),
- **Socket:** Cable-Connection (2x25 cm),
- **Length:** 250 mm, 500 mm, 1000 mm,
- **Width:** 15 mm, **Height:** 7 mm, **Weight:** 45 g,
- **IP-Protection class :** 67,
- **Number of LED:** 60 LED/m,
- **Beam angle:** 120° ,
- **Dimmable:** Ja,
- **Efficiency:** ca. 75 lm/W,
- **Lifetime:** ca. 50.000 h,
- **Working temperature:** -30° C ~ 85° C,
- **Safety notes:** Laser class (EN 60825-1 :2003): 1M,
- **Guarantee:** 2 Years, excluding damage of accumulation of heat .



Optional data:

Colour	Color temp. In Kelvin [K]	Lumen of 25cm	Lumen of 50 cm	Lumen of 100 cm
gold	2700 K	260	525	1050
warm white	3000 K	275	550	1100
neutral white	4500 K	290	575	1150
pure white	6500 K	300	600	1200
cold white	12000 K	350	700	1400
pink	3000-4000 K	250	500	1000

LED-Dimmer

Order numbers: L-LED-Dimmer-12V-24V-DC-150W

Dimmer with Pulse Width Modulation of LEDs with
12 Volts DC and 24 volt DC to 150 watts.

This dimmer you can remotely control the brightness of the LEDs, for example, MR16, GU4, LED light bar control, continuously variable from 0-100%.



Dimmer 12+24V DC 150W

Technical data:

- **Input und output power:** DC12V ~ DC24V,
- **Output Signal:** single channel constant Voltage PWM signal,
- **Output Power:** 75W (12V) und 150W (24V),
- **Output Current:** 6 Ampere,
- **Weight:** ca. 200 g,
- **Length:** 87 mm,
- **Width:** 87 mm,
- **Fernbedienung:** Length: 86 mm. Width: 33 mm, Dick: 6 mm,
- **Graustufen:** 256 Level,
- **Working temperature:** -30°C ~ 55°C,
- **Guarantee:** 2 years.

Dimmableer Transformator

Order number: L-dimmable-Transf-230V-12VDC-18W-IP54

Ideal for dimming of low voltage LED lamps as light bar, tube, MR16, G4.

Technical data:

- **Input Voltage:** 230 Volt ~ 50Hz (Range: 100-240V/AC 50Hz),
- **Output Voltage:** 12 Volt DC (Speziell für LEDs stabilisiert),
- **Electric Power:** min. 16,5 Watt, maximal 18 Watt,
- **Minimum load factor:** 90% -> 16,5 Watt Load,
- **Weight:** 190 g,
- **Length:** 91 mm, **Width:** 41 mm, **Height:** 19 mm,
- **Dimmable:** Ja,
- **Working temperature:** -30°C bis 75°C,
- **Protection class :** IP54,
- **Constant current precision:** 5%,
- **Dielectric strenght (V/AC):** 3000,
- **Power factor:** 0,95,
- **Guarantee:** 2 years.



Dimmable Trafo (Power supply)
230V -> 12V DC, 18 Watt

Order number: L-Transf-230V-50Hz-12V-DC-__W-IP67

Even for 24 volts, 5 volts output voltage.

We also carry rectifier to 600 watts for 12 volts.

POWER OUTPUT (MAX)	Größe (mm)	Eingangsvoltage (INPUT)	OUTPUT Current (MAX)	OUTPUT Voltage	Weight (g)	Cable-	Gehäuse
12V constant output voltage power supply							
20W	160x30x20	90~250V	1.67A	12±0.5V	210	VDE20cm	AL
30W	200x30x20	170~250V	2.50A	12±0.5V	260	VDE20cm	AL
60W	175x50x67	170~250V	5.0A	12±0.5V	850	VDE30cm	AL
100W	240x67x50	170~250V	8.3A	12±0.5V	1200	VDE30cm	AL
150W	228x120x64	170~250V	12.5A	12±0.5V	2400	VDE40cm	AL



Order numbers: L-Rectifier-12V-50Amp-600W

Rectifier für Netzteile mit 12 Volt Wechsel Voltagesausgang 12V 50 Amp max. 600W

You can reuse your old wound transformers and power supplies!

Please insert this rectifier between the output of the transformer and the LEDs. In the middle is a hole of 5mm diameter for fixing the rectifier.

Technical data:

- **Material:** Aluminium,
- **Input Voltage:** 12 Volt AC ~ ,
- **Output Voltage:** 12 Volt DC,
- **Electric Power:** max. 600 Watt,
- **El. power:** 50 Amp,
- **Weight:** 25 g,
- **Length:** 27 mm,
- **Width:** 27 mm,
- **Height mit Stifte:** 21 mm,
- **Height ohne Stifte:** 11 mm,
- **Working temperature:** -30° C bis 75° C,
- **Guarantee:** 2 Years.



Order numbers: L-Floodlight-Bügel-230V-50Hz-10W-960L-4000K-120°
L-Floodlight-Bügel-230V-50Hz-10W-960L-4000K-120°-dimmable

Main data:

- Luminous flux: 960 Lumen,
- Electric Power: 10 Watt,
- Voltage: 230 Volt ~ 50Hz, 12V, 24V, 36V
- Connection: Cable with European plug,
- Montage: Very flexible with mounting bracket,
- Weight: 400 g,
- Length: 125 mm, Width: 950 mm, Height: 155 mm,
- IP-Protection class : 65,
- Number of LED: 10,
- Efficiency: 90 - 100 lm/W,
- Lifetime: ca. 30.000 h,
- Working temperature: -40°C ~ 55°C,
- Protection class : 1,
- CRI: > 80,
- Safety notes: Laser class (EN 60825-1 :2003): 1M,
- Guarantee: 2 Years.

Optional data:

- Beam angle: 60°, 120°,
- Dimmable: Ja / No
- Color temperature: 3000K, 4000K, 5000, 7000K.

Even dimmable!



10W LED = 75W Halogen

Order numbers: L-Floodlight-Bügel-230V-50Hz-20W-1800L-4000K-120° (60°)
L-Floodlight-Bügel-230V-50Hz-50W-4500L-4000K-120° (60°)

Main data:

- Voltage: 230 Volt ~ 50Hz, 12V, 24V, 36V
- Connection: Cable-Connection 3x1,
- Montage: Montagebügel,
- Weight: 2500 g, 3800 g,
- Length 20W: 250 mm, Width: 150 mm, Height: 235 mm,
- Length 50W: 295 mm, Width: 150 mm, Height: 235 mm,
- IP-Protection class : IP65,
- Efficiency: 85 - 95 lm/W,
- Lifetime: ca. 30.000 h,
- Working temperature: -40°C ~ 55°C,
- Protection class : 1,
- CRI: > 80,
- Safety notes: Laser class (EN 60825-1 :2003): 1M,
- Guarantee: 2 Years.

Optional data:

- Beam angle: 60°, 120°,
- Color temperature: 3000K, 4000K, 5000, 7000K.

60° Beam angle



120° Beam angle



20W LED = 100W Halogen

50W LED = 300W Halogen

Order numbers: L-Floodlight-Bügel-230V-50Hz-100W-9000L-4000K-60°
L-Floodlight-Bügel-230V-50Hz-100W-9000L-4000K-120°

Main data:

- Luminous flux: 9000 Lumen,
- Electric Power: 100 Watt,
- Voltage: 230 Volt ~ 50Hz, 12V, 24V, 36V
- Connection: Cable-Connection 3x1,
- Montage: sehr flexibel durch Montagebügel,
- Weight: 10.700 g
- Length: 58 cm, Width: 28 cm,
- Height: 9,50 cm (zzgl. Montagebügel mit 24 cm),
- IP-Protection class : 65,
- Number of LED: 2x50, or 100,
- Efficiency: 85 - 100 lm/W,
- Lifetime: ca. 30.000 h,
- Working temperature: -40°C ~ 55°C,
- Protection class : 1,
- CRI: > 80,
- Safety notes: Laser class (EN 60825-1 :2003): 1M,
- Guarantee: 2 Years.

60° Beam angle



120° Beam angle



Optional data:

- Beam angle: 60°, 120°,
- Color temperature: 3000K, 4000K, 5000, 7000K.

100W LED = 600W Halogen

Order numbers: L-Floodlight-Bügel-230V-50Hz-140W-11500L-4000K-60°
L-Floodlight-Bügel-230V-50Hz-140W-11500L-4000K-120°

Main data:

- Luminous flux: 11500 Lumen,
- Electric Power: 140 Watt,
- Voltage: 230 Volt ~ 50Hz, 12V, 24V, 36V
- Connection: Cable-Connection 3x1,
- Montage: sehr flexibel durch Montagebügel,
- Weight: 10.700 g
- Length: 58 cm, Width: 28 cm, Height: 9,50 cm without bracket,
- IP-Protection class : 65,
- Number of LED: 2x70,
- Efficiency: 85 - 100 lm/W,
- Lifetime: ca. 30.000 h,
- Working temperature: -40°C ~ 55°C,
- Protection class : 1,
- CRI: > 80,
- Safety notes: Laser class (EN 60825-1 :2003): 1M,
- Guarantee: 2 Years.

60° Beam angle



120° Beam angle



Optional data:

- Beam angle: 60°, 120°,
- Color temperature: 3000K, 4000K, 5000, 7000K.

140W LED = 800W Halogen

Order numbers: L-Floodlight-Bügel-230V-50Hz-150W-15.000L-4000K-12°
L-Floodlight-Bügel-230V-50Hz-150W-15.000L-4000K-60°

Main data:

- Luminous flux: 6000 Lumen,
- Lichtquelle: CREE,
- CRI (Color Rendering Index): Ra>85,
- Connection: 230V (vorgeschalteter Trafo 24 Volt DC),
- Electric Power LED: 150 Watt,
- Length: 416 mm, Height über Alles: 422 mm, Width: 340 mm,
- Weight: 18 kg,
- Total harmonic distortion (THD): <20%,
- IP-Protection class : 65,
- Recommended installation height: bis 250 m,
- Working temperature: -45°C bis + 55°C,
- Humidity: 10-90% Rel.,
- Junction temperature : <65°C (Ta=25°C),
- Lifetime: ca. 30.000 Hours,
- Efficiency LED: 100 lm/Watt,
- Montage: Bügel mit 300° Schwenkbereich,
- Material: Aluminium und Edelstahl,
- Safety notes: Laser class (EN 60825-1 :2003): 1M,
- Guarantee: 3 Years.

12° Beam angle



150W LED = 850W Halogen

Optional data:

- Beam angle: 12°, 60°,
- Color temperature: 4200K, 5200K, 5800K, 9000K (±200).

Application: Sports field, airports, industry, building lighting, helicopters, ships, warehouses, high rack storage, crane boom, fire brigade, ladder, high-speed photography, etc.



Brithness of different distances:

Distance	cold white	warm white
m	Lux	Lux
2	25.000	24.000
30	356	334
50	305	272
100	265	246
150	223	203
200	172	154

Order numbers: L-AquaSpot-Bügel-230V-50Hz-10W-960L-9000K-120° -SWR
L-AquaSpot-Bügel-230V-50Hz-10W-960L-9000K-120° -dimmable -SWR

Main data:

- Luminous flux: 960 Lumen,
- Electric Power: 10 Watt,
- Beam angle: 120° ,
- Voltage: 230 Volt ~ 50Hz, 12V, 24V, 36V
- Connection: Cable- with plug,
- Montage: Very flexible because of bracket,
- Weight: 400 g,
- Length: 125 mm, Width: 950 mm, Height: 155 mm,
- IP-Protection class : 65,
- Number of LED: 10,
- Efficiency: 50 - 100 lm/W,
- Lifetime: ca. 30.000 h,
- Working temperature: -40° C ~ 55° C,
- Protection class : 1,
- CRI: > 80,
- Safety notes: Laser class (EN 60825-1 :2003): 1M,
- Guarantee: 2 Years.

Optional data:

- Dimmable: Ja / no,
- Color temperature: Blau, 9000K.

Even dimmable!



10W LED = 75W Halogen

**For chloride-containing
Environments !**

Order numbers: L-AquaSpot-Bügel-230V-50Hz-20W-1800L-12000K-120° -SWR
L-AquaSpot-Bügel-230V-50Hz-50W-4500L-12000K-120° -SWR
L-AquaSpot-Bügel-230V-50Hz-100W-9000L-12000K-120° -SWR
L-AquaSpot-Bügel-230V-50Hz-140W-11500L-12000K-120° -SWR

Main data:

- Voltage: 230 Volt ~ 50Hz, 12V, 24V, 36V
- Connection: Cable-Connection 3x1,
- Montage: Bracket,
- Weight: 2500 g, 3800 g, 11kg
- Length 20W: 250 mm, Height: 150 mm, Height: 235 mm,
- Length 50W: 295 mm, Height: 150 mm, Height: 235 mm,
- Length 100W: 295 mm, Height: 150 mm, Height: 235 mm,
- Length 140W: 295 mm, Height: 150 mm, Height: 235 mm,
- IP-Protection class : IP65, Protection class : 1,
- Efficiency: 50 - 100 lm/W, Lifetime: ca. 30.000 h,
- Working temperature: -40° C ~ 55° C,
- CRI: > 80,
- Safety notes: Laser class (EN 60825-1 :2003): 1M,
- Guarantee: 2 Years.

Optional data:

- Beam angle: 60° , 120° ,
- Color temperature: Blau(460nm), 12.000K.



**For chloride-containing
Environments !**

High bay

Order numbers: L-High bay-Hook-230V-50Hz-50W-Cable--4500L-___° - ___K
L-High bay-Hook-230V-50Hz-70W-Cable--6300L-___° - ___K
L-High bay-Hook-230V-50Hz-100W-Cable--9000L-___° - ___K

Main data:

- **Luminous flux:** 2700 ~ 9000 Lumen,
- **Electric Power:** 30 ~ 100 Watt,
- **Voltage:** 230 Volt ~ 50Hz, 12V, 24V, 36V
- **Socket:** Cable-Connection
- **Weight:** 3000 ~ 5.500 g,
- **Width:** 4300 ~ 600 mm, **Height:** 400 ~ 700 mm,
- **IP-Protection class :** 65,
- **Number of LED:** 100,
- **Dimmable:** No
- **Efficiency:** 85 - 100 lm/W,
- **Lifetime:** ca. 50.000 h,
- **Working temperature:** -40°C ~ 55°C,
- **Protection class :** 1, **CRI:** > 80,
- **Safety notes:** Laser class (EN 60825-1 :2003): 1M,
- **Guarantee:** 3 Years.
- **Optional data:**
- **Color temperature:** 2700–7000 Kelvin,
- **Beam angle:** 70°, 100°, 120° ,



Order number: L-Street-Pole-230V-50Hz-___W-___L-___K

LED head for Street- or Way illumination from 30 until 200 Watt!



High efficiency heat dissipation system

Very low current consumption through effective use of LED technology and intelligent control, Very good solid workmanship.

Please feel free to ask for a simulation.

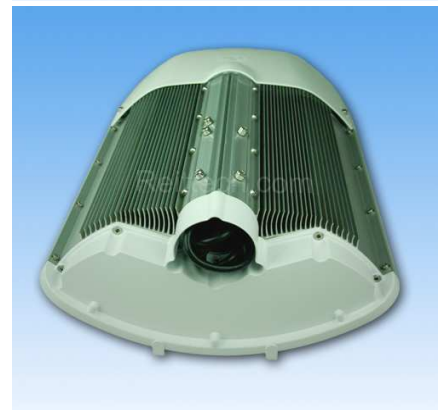
Main data:

- **Lichtquelle:** BridgeLux / Edison,
- **CRI (Color Rendering Index):** Ra >80,
- **BetriebsVoltage:** 185 bis 230 Volt, 50Hz,
- **Dämpfung der LED nach 10.000 h:** < 1%,
- **Length:** bis 760 mm,
- **Weight:** bis 18 kg,
- **Totale harmonische Verzerrung (THD):** <20% ,
- **IP-Protection class :** 65,
- **Recommended installation height:** 3 to 20 m,
- **Working temperature:** -45°C bis + 55°C ,
- **Humidity:** 10-90% Rel.,
- **Color temperature: (Licht):** 3000K - 9000K (±200),
- **Beam angle LED:** 120° ,
- **Disortion temperature:** <65°C (Ta=25°C),
- **Lifetime:** ca. 30.000 Std,
- **Efficiency LED:** > 80 lm/Watt,
- **Pole diameter:** 60 mm,
- **Material:** Anodized aluminum and stainless steel,
- **Safety notes:** Laser class (EN 60825-1 :2003): 1M,
- **Guarantee:** 2 Years,
- **Certifikate:** CE, RoHS, CQC, ISO9001:2000.

Optional data:

- **Watt:** 30W, 50W, 89W, 100W, 140W, 16W, 200W,
- **Kelvin:** 3000K, 4500K, 5500K, 7000K, 9000K,

Watt	Luminous flux (4500K)
30W	2400 Lumen
50W	4000 Lumen
80W	6400 Lumen
100W	8000 Lumen
140W	11200 Lumen
160W	12800 Lumen
200W	16000 Lumen



Ultra thin Wall-washer lighting for buildings and property (deep and width flood light)

Order numbers: L-Wallwasher-ultra_thin-24VDC-18W-___K-___°-500mm
 L-Wallwasher-ultra_thin-24VDC-36W-___K-___°-500mm
 L-Wallwasher-ultra_thin-24VDC-72W-___K-___°-1000mm

Versatile usage to compact size and robust design. For bright illumination of rooms or objects (indoor and outdoor). The variant can be ordered with RGB controller.

Main data:

- Width (24VDC) ultra thin: 45mm,
- Height (24VDC) ultra thin, without feet: 26mm,
- Weight: bis 3 kg,
- IP-Protection class : IP65,
- Working temperature: -45° C bis + 55° C ,
- Lifetime: ca. 30.000 hours,
- Efficiency LED: > 80 lm/Watt,
- Montage: 360° Swivel Feet,
- Material: Anodized aluminum and stainless steel,
- Safety notes: Laser class (EN 60825-1 :2003): 1M,
- Guarantee: 2 Years.



Optional data:

Color temperature: 3000K, 7000K, ROT, GRÜN, BLAU, RGB

Beam angle LED: 15°, 45°, 60°.

Wallwasher (single line) with integrated power supply für 110V or 230V

The variant RGB is also possible with controller (DMX).

Order numbers: L-Wallwasher-230V-9W-___K-___°-300mm
 L-Wallwasher-230V-12W-___K-___°-400mm
 L-Wallwasher-230V-18W-___K-___°-600mm
 L-Wallwasher-230V-30W-___K-___°-1000mm
 L-Wallwasher-230V-36W-___K-___°-1200mm

- Main data:
- Width (230V): 76mm,
- Height (230V), without feet: 75mm,
- Weight: bis 6 kg,
- IP-Protection class : IP65,
- Working temperature: -45° C bis + 55° C ,
- Lifetime: ca. 30.000 hours,
- Efficiency LED: > 80 lm/Watt,
- Montage: Swivel Feet,
- Rostfreies Material: Anodized aluminum and stainless steel,
- Safety notes: Laser class (EN 60825-1 :2003): 1M,
- Guarantee: 2 Years.



Optional data:

• Color temperature: 3000K, 7000K, Rot, Grün, Blau, RGB

• Beam angle LED: 15°, 45°, 60°.

Multiline Wallwasher (also with RGB Controller - DMX) lighting for buildings and property (low flood – deep-wide-beam)

Versatile usage and compact size and robust design with swivel base.

The RGB variant can conjure up at the object illumination in conjunction with a DMX controller very impressive and atmospheric images.

Order numbers: L-Wallwasher-Multiline-230V-48W-500mm ___K-___°
 L-Wallwasher-Multiline-230V-72W-600mm ___K-___°
 L-Wallwasher-Multiline-230V-144W-1236mm ___K-___°

Main data:

- **Weight:** bis 10kg,
- **IP-Protection class :** IP65,
- **BetriebsVoltage:** 230V,
- **Width:** (48W) 95mm, (72W+144W) 150mm
- **Working temperature:** -45°C bis + 55°C ,
- **Humidity:** 10-90% Rel.,
- **Lifetime:** ca. 30.000 Std,
- **Efficiency LED:** > 80 lm/Watt,
- **Montage:** Swivel Feet,
- **Material:** Anodized aluminum and stainless steel,
- **Safety notes:** Laser class (EN 60825-1 :2003): 1M,
- **Guarantee:** 2 Years,

Optional data:

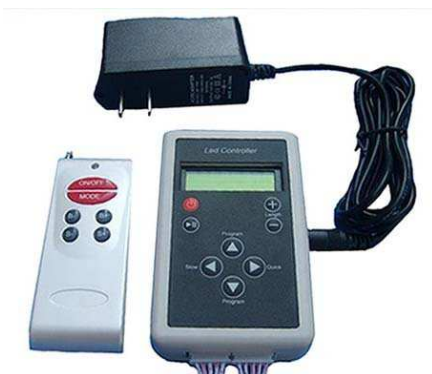
- **Color temperature:** 2700K, 5000K, Rot, Grün, Blau, RGB
- **Beam angle LED:** 15°, 45°, 60° .



Flexible LED, LED light strip

Available in colours warm white, green, blue, yellow and red. The RGB light strip, a controller are included.

There are a variety of options regarding Watt LED source, color, waterproof or not waterproof, with RGB Controller, etc. Please define the optimal solution for your application and order it within our recommendations. Please feel free to ask.



Universal and mobile Rechargeable LED Flood Light.

A perfect combination between the integrated LED light source and lithium-rechargeable battery. Environmentally friendly, mobile lighting system complete in one case.

Order number: L-PRLF-30W-120° -Rechargeable battery-case



Technical data:

- Luminous flux: 3000 Lumen,
- Light ON time 100%: ca. 10 Hours,
- Light ON time 50%: ca. 20 Hours,
- LED Efficiency: 100 Lm/W,
- Charging voltage: 85-265V, 50-60Hz,
- Working voltage: 33-42 V,
- Rechargeable battery Capacity: 36V, 10AH,
- Rechargeable battery Charge time: 16 hours,
- Height Stativ: 1,10 + 1,80m,
- Weight (LED, tripod + Rechargeable battery): 14,5 kg,
- Length: 40 cm (Tragestellung), Width: 20 cm,
- Height min: 1,1m, Height max: 1,8m,
- Beam angle: 120° ,
- Color temperature: 5000K ,
- Working temperature: -40° ~ 55° C,
- Protection class : IP65
- Rechargeable battery: Maintenance-free, position-independent lithium rechargeable battery, no memory effect, deep-discharge and overcharge protection,
- Weight Rechargeable battery: 6 kg
- Size rechargeable battery: 385*110*85 mm,
- Intelligent rechargeable battery management: Charge control,
- Usage: Bring to light, quickly by one person in position,
- Advantage: Autark, mobil, anywhere, no noise, no fumes,
- Total weight: 22,0 kg (incl. case)
- Guarantee: 2 years, rechargeable battery 1 year.

Work lamp, emergency lighting Portable Rechargeable LED-Floodlight

External Solar panel incl. charge control and cable for additional price.



Adjustable beam LED-Flashlight with 250 Lumen

Order number: L-flashlight-250lm-adjustable beam-easy_charge

With USB-charging cable and charging indicator.

Technical data:

- **Luminous flux:** 250 Lumen, like a 25 Watt Incandescent bulb,
- **2 Switching stages:** 100% und 30%,
- **Service life:** 2 hours 100% or 8 hours 30%,
- **Overcharge and discharge protection:** yes,
- **Charging indicator:** red/green LED at charger,
- **Rolling away lock:** yes,
- **Waterproof:** yes,
- **Switch:** Tactical tail cap with taste and click,
- **Material:** Aircraft aluminum with hardened surface,
- **Accessories:** Belt holster and wrist lynard,
- **Adjustable beam:** Yes to serve very easy with one hand,
- **Universal charging options:** USB, truck, car, 230V,
- **Rechargeable battery:** high performance-Lithium-Ionen-rechargeable battery, 3,7 Volt 2500mA
- **Easy Charge:** built in charging socket - rechargeable battery stays in flashlight
- **Stable:** Safe for fall height 1.0 m on concrete ,
- **Caption / lable:** On request for small fee ,
- **Guarantee:** 2 years.



LED-Headlight with 220 Lumen

Order number: L-headlight-220lm-Li-Ion-3,7V

This Headlight is small and handy. The light is distributed in the near and far range in optimal. The outer diameter of the beam corresponds to the visible region of the eye in the dark. Another positive feature is the Li-ion rechargeable battery as in the above-LED Flashlight. The plug on the Rechargeable batterybox can be removed and replaced by the charging plug.

Technical data:

- **2 Switching stages:** 100% und 30%,
- **Service life:** 2 hours 100% or 8 hours 30%,
- **Universal charging options:** Truck, car, 230V,
- **Lichtkegel:** Helle Fläche im Zentrum bis zum Rand gleichmäßig auslaufend,
- **Switch position:** Right on the temple - can also be converted for left-handed,
- **Rechargeable battery:** high performance-Lithium-Ionen-rechargeable battery,
- **Overcharge and discharge protection:** yes,
- **Charging indicator:** red/green LED at charger,
- **Easy Charge:** built in charging socket - rechargeable battery stays in headlight
- **Stable:** Safe for fall height 1.0 m on concrete,
- **Material:** Aircraft aluminum with hardened surface,
- **Overcharge and discharge protection:** Ja,
- **Charging indicator:** Am Ladegerät,
- **Waterproof:** yes,
- **Guarantee:** 2 Years.



Mobile and portable Solar LED-Light with Motion detection and brightness sensor

Order numbers: L-Solar-Pole-12V-Solar12W-LED8W
 L-Solar-Pole-12V-Solar12W-LED8W-Cable-230V
 L-Solar-Pole-12V-Solar18W-LED8W
 L-Solar-Pole-12V-Solar18W-LED8W-Cable-230V

A great alternative to conventional street lighting. Simply screw on and ready.

Other models and designs on request. Please contact us.

Function:

During the night, the LED is always lower (about 30%) on the light intensity.
 Once the infrared motion detector registers something, the light intensity is increased to the maximum, and after about 30 seconds, turn it down to the minimum.

Properties and Advantage:

- Self-contained, mobile LED Außenleuchte mit solar collector
- Easy installation
- no cable required. Alternatively, even with network connection order.
- Very compact design
- High-performance lithium-ion rechargeable battery for long lifetime.
- With built-in overload and discharge protection.
- With brightness and motion.

Technical data:

- Luminous flux: 680 Lumen
- 230 Volt On Grid option: yes, optional
- Electric Power LED: 8 Watt
- Electric Power Solar module: 12 Watt / 18 Watt
- Overcharge and discharge protection: yes,
- Charge time by sunny wether: ca. 8 hours
- Length: 587 mm, Width: 297 mm
- Height Solarpanel mit LED: 35 mm
- Height over all: 129 mm
- Weight: 3,0 kg
- IP-Protection class : 65
- Recommended installation Height: 3 bis 4 m
- Working temperature: -20 °C bis + 55 °C
- Color temperature: (Licht): 6000 - 7000 K (weis)
- Beam angle LED: 120°
- Rechargeable battery (intern - removele): Lithium Ion, 12 Volt, 5000 mA
- Lifetime: ca. 30.000 Std
- Working at 680 lumens and fully rechargeable battery: >= 5 Hours / 8 Hours
- Working at 200 lumens and fully rechargeable battery: >= 15 Hours / 24 Hours
- Efficiency LED: 85 lm/Watt
- Montage (Pole diameter): 40 - 70 mm
- Infrared motion detection: built in, pre defined with default value
- Range of motion detection: ca. 2 - 6 m
- Motion detectiopl light ON time: ca. 30 sec
- Safety notes: Laser class (EN 60825-1 :2003): 1M
- Certificate: CE, RoHS
- Guarantee: Lamp 2 years, Rechargeable battery: 1 Jahr



Ingenieurbüro Warnke und Partner

WEEE-Reg.-Nr.: DE 19278988, Ust.-Ident-Nr.: DE267754994

Specifications subject to change, not responsible for typographical errors.