

**YOU  
SEE®**



**licht**

**Innovation.Original.**

Made in Germany

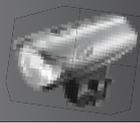
**b.m**  
BUSCH + MÜLLER

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LUMOTEC Lyt B



IXON Pure B



**15 Lux**

LUMOTEC Lyt T



IXON Pure



**30 Lux**

LUMOTEC IQ Cyo R



LUMOTEC IQ Fly T



IXON IQ Speed (50 Lux)



IXON IQ



**40 Lux**

LUMOTEC IQ Cyo T



**60 Lux**

LUXOS



**70 Lux**

**10 Lux**

Standard performance, required by German road traffic regulations, StVZO. Standard halogen headlamp.

**40 Lux**

With light at close range



# Made in Germany

Idea, technology and design - products by Busch & Müller are always created, perfected and manufactured in house. All headlights and rear lights shown in this catalogue are originals - unmistakable in both excellent performance and perfect workmanship.

Busch & Müller is the leading brand for bicycle lighting. All ground breaking innovations such as standlight, IQ light technology, daytime running light and much more originate here. The production facility of the family owned enterprise has always been in Meinerzhagen, Germany, from its founding in 1925 up until current day.

**15 Lux**



**30 Lux**

With light at close range

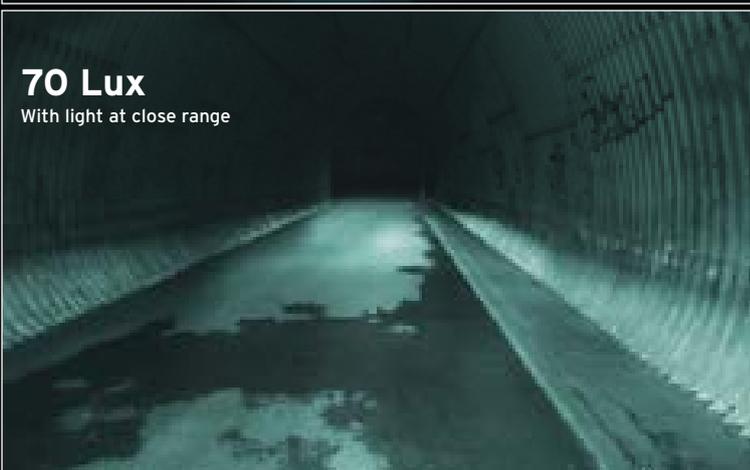


**60 Lux**



**70 Lux**

With light at close range





### **IQ-TEC - the light revolution for bicycles**

Everybody who has ever been cycling at night, using an LED IQ headlight to light his or her way, will never want to do without the comfort this outstanding light output provides. At its core is the revolutionary idea not to have the LED light source in the centre of the reflector.

The complete reflective surface is used to focus and guide the light. To that end, a special reflector was developed - if one looks into the reflector of an IQ headlight, one only sees the metalised surface. Once the headlight is turned on, what takes its place is "nothing but light".



### **LICHT24 - daytime running light. Better seeing and being seen**

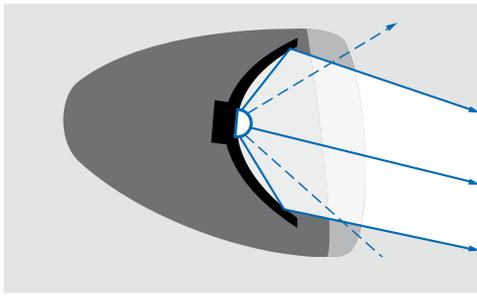
Driving with daytime running light means better being seen by other traffic participants. Especially for bicycles, who are by nature less conspicuous in traffic, daytime running light is a substantial advantage. LICHT24, the daytime running light from Busch & Müller, offers this added safety around the clock.

Additional signalling LEDs shine upwards and fulfil the warning function.

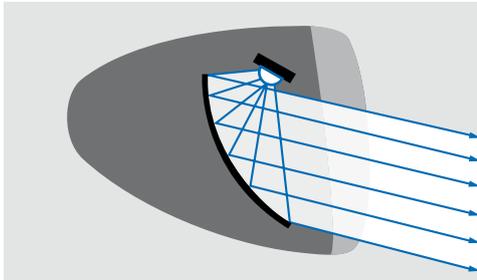
The "regular" riding light is focused on the road and limited by its clearly defined light/dark boundary to prevent glaring oncoming traffic.

Daytime running light is an innovation by Busch & Müller. LICHT24 is only available in headlights of the LUMOTEC series. All models marked with a T as well as the new LUXOS are equipped with it.

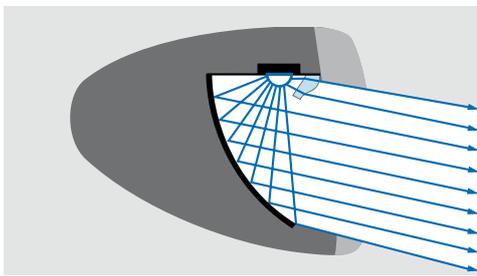




**Conventional technology.** This is how headlights have functioned for decades: A light source sits in the centre of the reflector. The result: stray light and loss of efficiency.



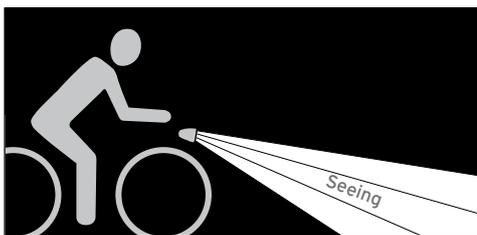
**IQ technology. Nothing but light.** The light revolution from Busch & Müller: A special reflector with an optimised cooling system uses one high output LED as an indirect light source. No LED is to be seen in the centre of the reflector. This creates a field of light that is extremely homogenous, which can be twice as wide as the one created by conventional technology. Lighting effects can be aligned much more precisely - for example the area directly in front of the bicycle can be lit.



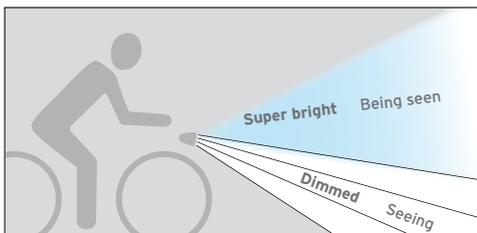
**IQ2 technology. The evolution.** The IQ technology of the next generation: position of the light source and reflector, LED and cooling have been optimised drastically. Using a prism, the light yield and efficiency are raised decisively. Additional LEDs combined with an electronic control system make "dynamic light" possible, perfectly adjusted to the individual riding situation. A dynamo powered headlight thus creates a field of light, larger by a wide margin and more homogenous than ever. The world's first headlight with IQ2 technology is called LUXOS (see p. 8).

### LICHT24. The functions

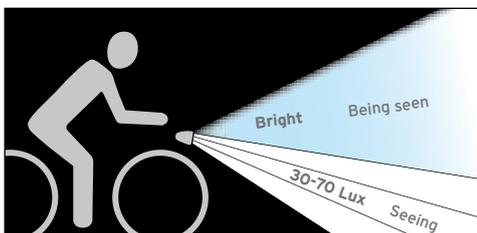
There are two modes: day and night. They provide optimal light output, adjusting to current lighting situations. A light/dark sensor automatically switches between day and night mode.



**Regular headlight** without daytime running light.



**LICHT24 headlight in day mode.** For better being seen by other traffic participants. The daytime running light (signalling LEDs) shines maximally bright, the riding light directed at the road is dimmed. Also approved for night time use (by German road traffic regulations).



**LICHT24 headlight in night mode.** For a maximum lighting of the road. The riding light shines at full capacity (30/40/70/90 Lux). The signalling LEDs are dimmed.

## Lux and light field

Busch & Müller states the light output of headlights using the unit Lux. A Lux value provides the illumination level in relation to its distance from the light source - it is exactly this relation which is a deciding factor when considering a headlight, because it states the amount of light on the road. The value Lumen states how much light exits the headlight at the light source and it cannot be told whether that light shines onto the road or is lost as stray light. However, even Lux is an incomplete value when talking about the output of a headlight.

Also important is the quality of the light field which is created on the road. Its width, depth, homogeneity as well as its glare free light/dark boundary directly affect how it is perceived by the observing eye. All those qualities cannot be stated using measured data. This means: Only when one looks at the light field as a whole, the true quality of a headlight can be appraised.

**Pictured left. Lumotec Lyt B.** Basic LED headlight with 15 Lux. This value exceeds the requirements of German road traffic regulations by 50%.

**Pictured centre. 40 Lux created with LED-IQ-TEC.** The revolutionary technology offers a wide and homogenous light field. The road is lit directly in front of the bicycle as well as in the distance. The edge of the road can clearly be seen to the right.

**Pictured right. Dynamo powered headlight LUXOS with IQ2 technology,** creating a superior light field. It shines extremely homogeneously and is as wide as the entire road. For the cyclist, this means maximum safety - he can see his immediate surroundings as well as the road in 30 metres distance clearly and precisely.



## With standlight

This innovation presented by Busch & Müller in the nineties has become a safety standard. The affix "plus" means that the product is equipped with standlight. For this function, no batteries are necessary. It works this way: As soon as the bicycle stops, the standlight is powered by a maintenance free capacitor. This capacitor is charged during the ride.

By the way: The standlight of a LUMOTEC headlight can shine for many minutes. Therefore, the standlight of IQ headlights can be deactivated manually - so as not to attract thieves to a parked bicycle.



**Pictured above.** Improved standlight in combination with daytime running light. LICHT24 signalling LEDs overtake the standlight function (model Cyo pictured). The advantage: The standlight is not directed onto the road, but rather upwards, directed at oncoming traffic participants.

## With sensor automatic

If a LUMOTEC headlight has the affix "senso", it activates automatically when cycling during dusk or darkness and switches off when subjected to daylight. Continuous energy supply by a hub dynamo is required for this function. In order for the headlight to not mistakenly react to car headlights, the sensor functions with a time delay. The sensor function can be deactivated.

In headlights equipped with daytime running light, the sensor automatically switches between day and night mode.

**Pictured below.** When the headlight is switched to "S", the light sensor is active. Set to "I", the headlight is activated permanently, disabling the sensor.

## Light at close range

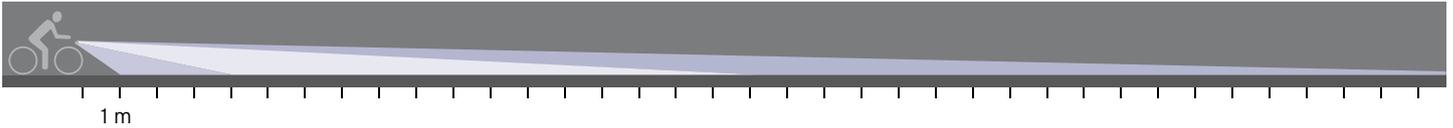
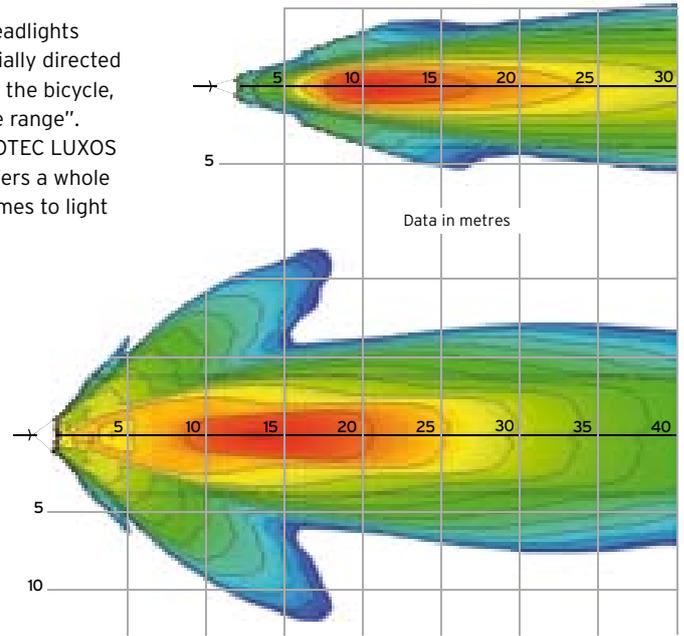
For a secure ride, it is important to be able to see the road directly in front of the bicycle. Bumps or potholes in the road can be seen better if this area is lit, and can be circumnavigated by short and intuitive steering. During darkness, this is only possible if the area between one and four metres in front of the bicycle is lit brightly and homogeneously. Subjectively, the need for light at close range is higher the slower one is riding, because one's balance can more easily be influenced by obstacles.

**Pictured above.** Light field without light at close range, LUMOTEC IQ with 60 Lux.

**Pictured right.** The new dimension of IQ2 technology. The light at close range is extremely wide, and the lighting area of the LUXOS is precise up to 30 metres.

**Pictured below.** This graphic shows how close and how far a dynamo powered LUMOTEC IQ headlight can shine onto the road.

This catalogue contains headlights whose light output is specially directed into the area just ahead of the bicycle, this is called "light at close range". By the way: The new LUMOTEC LUXOS with its IQ2 technology offers a whole new dimension when it comes to light at close range (see p. 8).



## Light for e-bikes

Pedelecs with battery supported pedalling up to 25 km/h are considered bicycles under traffic and lighting aspects. They must have a separate and independent dynamo energy source for their lighting system. Therefore, all regular LUMOTEC series headlights can be employed. All those headlights are in accordance with German road traffic regulations (marking "K").

E-bikes with battery supported pedalling up to 45 km/h may power their lighting system from the vehicle's battery. For these cycles, the LUMOTEC IQ Fly E and the LUXOS E can be used.

So called fast e-bikes are self propelled at up to 45 km/h. They are considered mopeds, and as such, they require a tested E approval for their lighting system. As of today, Busch & Müller is the only manufacturer offering special E-approved solution for this class of vehicles. They utilise the full spectrum that the vehicle battery's power provides.

**Pictured above.** Specially developed for fast e-bikes. The high power LED of the new LUXOS E is supplied with more energy for an even greater light output. This necessitates an additional cooling element.



## Approved by German road traffic regulations

German road traffic regulations (StVZO) stipulate that if a bicycle is to participate in road traffic, it must among other things be equipped with a headlight offering a light output of at least 10 Lux, as well as a rear light, both of which have to be powered by a dynamo. Racing cycles that weigh no more than 11 kg are an exception: They may participate in traffic using specially approved, battery powered lights (current state of affairs).

All headlights and rear lights shown in this catalogue comply with StVZO regulations and carry the relevant approval marks.

**Pictured below.** Busch & Müller endorses the initiative "Licht:Check". Participating retailers check bicycle lighting systems free of charge and issue a test badge.

# 70-140 Lux

**The first LUMOTEC with IQ2 technology. Gigantic output. New features. Light delight has never been greater.**

### ■ IQ2 technology

With a new light and reflector design, Busch & Müller raises the bar for dynamo powered LED headlights: 70 Lux (e-bike version 140 Lux), light field twice as wide as previous LED headlights, lights an area that is several times larger, maximally homogenous. Dynamo powered light enters a new dimension - so wide, so far, so pristinely bright.

### ■ Panorama light at close range

The light field is as excellent and wide as never before: directly in front of the bicycle and also to its side, beyond the edge of the road. Technology: additional LEDs, controlled electronically.

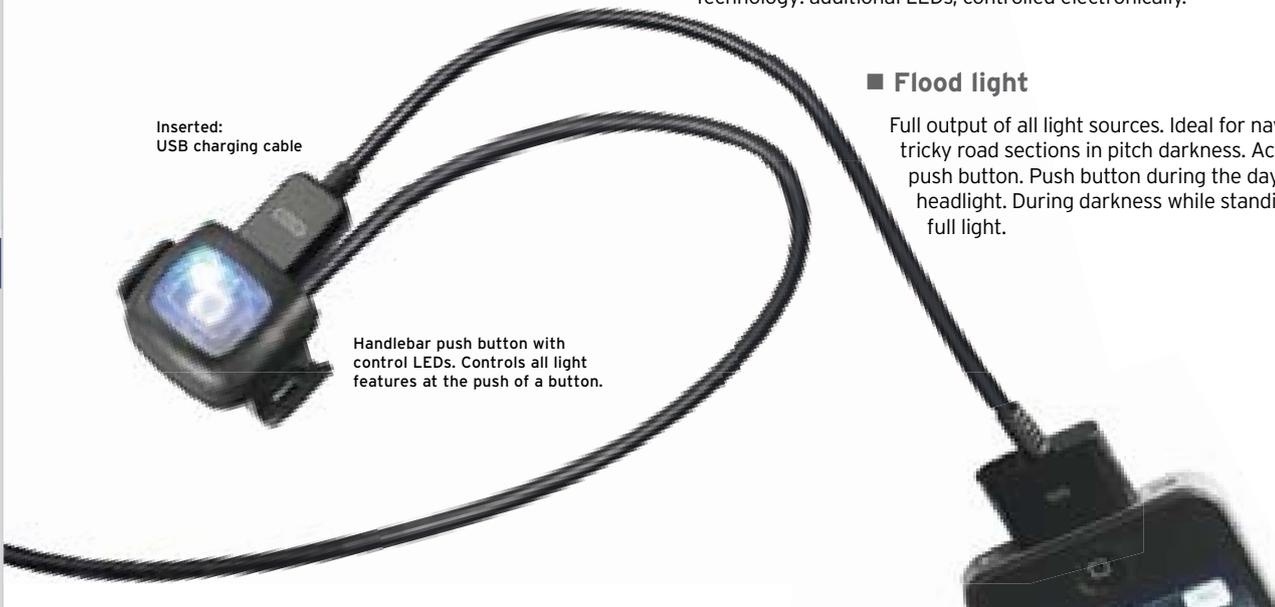
### ■ Flood light

Full output of all light sources. Ideal for navigating tricky road sections in pitch darkness. Activated by push button. Push button during the day: flashing headlight. During darkness while standing still: full light.

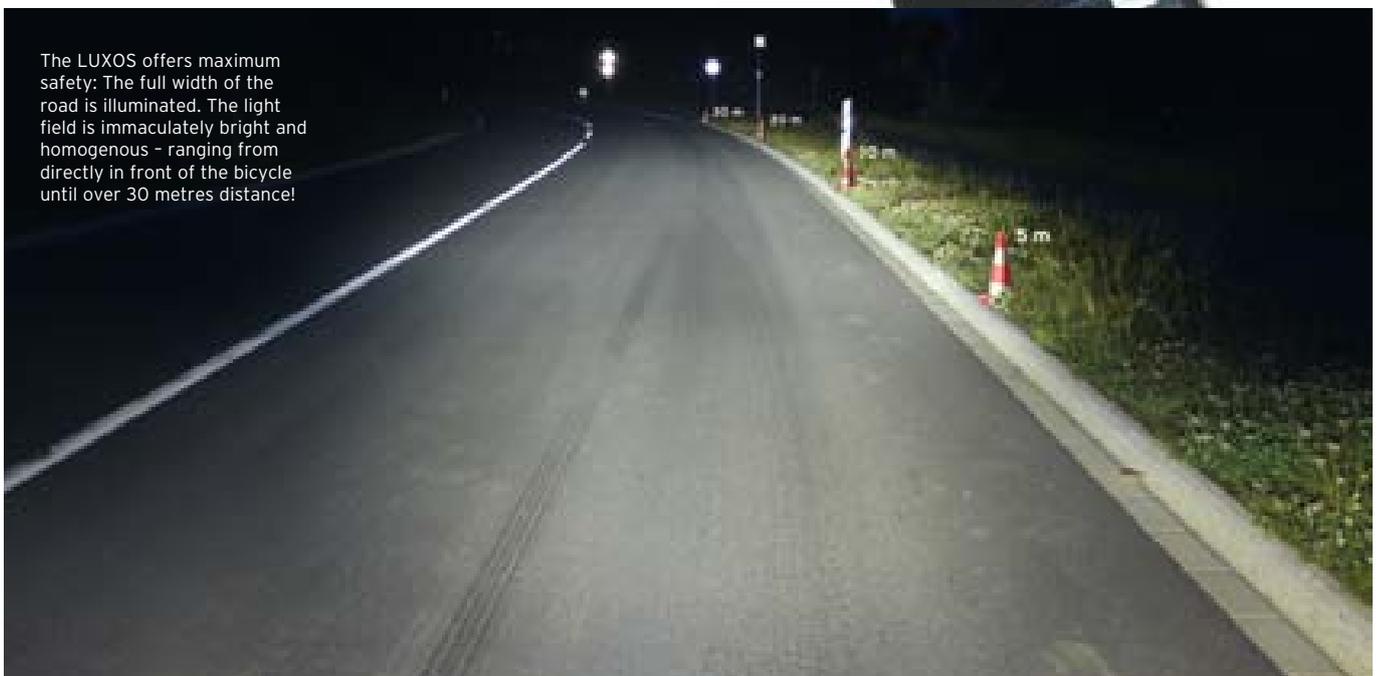
Inserted:  
USB charging cable



Handlebar push button with control LEDs. Controls all light features at the push of a button.



The LUXOS offers maximum safety: The full width of the road is illuminated. The light field is immaculately bright and homogenous - ranging from directly in front of the bicycle until over 30 metres distance!





Aluminium cooling element, glossy piano lacquer.

Integrated into the "forehead" with reflectors of their own: additional LEDs for panorama light at close range and LICHT24.

Hidden inside the "head", more efficient than ever: the IQ2 LED technology.

# LUXOS®

## U LUMOTEC IQ<sub>2</sub>



### ■ USB charging option

USB socket integrated in handlebar push button. Charges USB devices (mobile phone, GPS, MP3 player) with USB energy. An integrated lithium cache battery supplies constant voltage.

### ■ Handlebar push button

Now you control your light directly. All important light functions can be switched on the handlebar: ON/OFF, floodlight, flashing headlight etc.

### ■ Integrated lithium cache battery

This additional energy storage unit is used for peaks of demand as well as charging. Recharges continually when cycling. The charging status is indicated by an LED inside the handlebar button.

### ■ LICHT24. Daytime running light

Signalling LEDs shining brightly forward. A sensor automatic switches automatically between day and night mode.

### ■ Standlight

Automatic. Special LEDs are directed so they are perceived by other traffic participants. Can be switched off with the handlebar push button.

### ■ Rear light monitoring

A control LED inside the headlight continually shows whether or not a connected rear light functions properly.

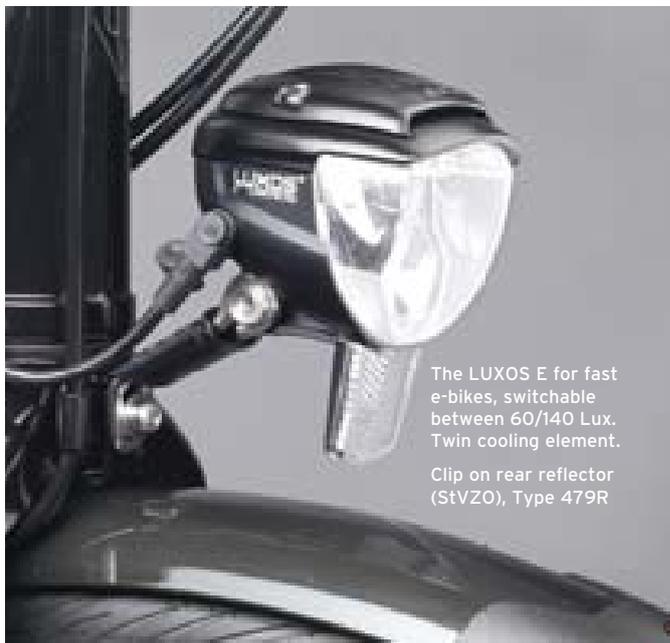
Model	179B	179U	179E
<b>Lux</b>	<b>70</b>	<b>70/90</b>	<b>60/140</b>
<b>Panorama light at close range</b>		■	■
<b>Floodlight 90 Lux</b>		■	
<b>Handlebar push button</b>		■	■
<b>Cache battery</b>		■	■
<b>USB charging option</b>		■	■
<b>LICHT24. Daytime running light</b>	■	■	■
<b>Standlight</b>	■	■	■
<b>Sensor automatic</b>	■	■	■
<b>Rear light monitoring</b>		■	■
<b>Two modes: 60/140 Lux</b>			■

All versions approved by German road traffic regulations or with E mark of approval.

**LUXOS B** Basic version with IQ2 technology, LICHT24, sensor automatic and standlight.

**LUXOS U** Unique. The definite version of the LUXOS. Equipped with all features.

**LUXOS E** 140 Lux with an even wider light area. The LUXOS E uses the vehicle's battery and literally "outshines everything".



The LUXOS E for fast e-bikes, switchable between 60/140 Lux. Twin cooling element.

Clip on rear reflector (StVZO), Type 479R

# LUMOTEC IQ Cyo®

The smallest of the high output dynamo powered headlights from Busch & Müller: compact, elegant, dynamic. Its classically puristic shape is one of the reasons for the huge success of the Cyo. Another reason is the IQ technology's formidable performance spectrum which is housed in a minimalist casing. Many versions for virtually all different purposes. Approved by German road traffic regulations.

### Design

The high output LED's temperature is kept in check by distinctive cooling fins, which add to the sportive appeal. Mounting bracket and screw made from stainless steel compound the high quality appearance.



○ without reflector, 60 Lux, without light at close range



● with reflector, 40 Lux, with light at close range

### LUMOTEC IQ Cyo T

The version offering the maximum safety. With daytime running light LICHT24: Four additional signalling LEDs shine beneath the main IQ LED. The switching options: Off, Day or Senso for automatic change between day and night mode. The standlight function is fulfilled by two signalling LEDs.

- LICHT24. Daytime running light
- LED IQ-TEC
- 60 Lux or
- 40 Lux with light at close range
- Standlight & sensor automatic

#### LUMOTEC IQ Cyo T

T senso plus	175QTSNDI	○	■	■	■	■	■
RT senso plus	175QRTSNDI	●	■	■	■	■	■

■ for hub dynamo ■ standlight ■ sensor automatic  
■ with light at close range ■ LICHT24



Trekkingbike: Milestone 2011

The form fit turn switch allows a precise choice of operating mode.

# LUMOTEC IQ® Fly

The elegant high output dynamo powered headlight from Busch & Müller: Its idiosyncratic and spirited shape makes bicycle lighting appear light and friendly. Much copied, never equalled in its confidence. Approved by German road traffic regulations.

### Design

The headlight's range can easily be adjusted by tilting the Fly's head - it firmly and precisely locks into the chosen position! Mounting bracket and screw made of stainless steel, rear switch.



● with reflector, 40 Lux



Best vision and visibility in traffic.

### LUMOTEC IQ Fly T

Elegance plus maximum safety. With daytime running light LICHT24: Six additional signalling LEDs shine beneath the main IQ LED and substantially enhance attention for other traffic participants. IQ-TEC light output with 40 Lux and light at close range.

- LICHT24. Daytime running light
- LED IQ-TEC
- 40 Lux with light at close range
- Standlight & sensor automatic

#### LUMOTEC IQ Fly T

RT senso plus	174QRTSNDI	●	■	■	■	■	■
---------------	------------	---	---	---	---	---	---

■ for hub dynamo ■ standlight ■ sensor automatic  
■ LICHT24



Trekkingbike: Milestone 2011



○ without reflector, 60 Lux,  
without light at close range



Design alternative: specially  
chromed casing, aluminium look



● with reflector, 40 Lux,  
with light at close range

## LUMOTEC IQ Cyo

When the Cyo was introduced, discriminating "heavy cyclists" were practically overwhelmed by its light output and described it as a "true enlightenment" (see Cyo customer reviews at [www.bumm.de](http://www.bumm.de)).

The petite light wonder is available in both a sportive version with a light output of 60 Lux (without integrated reflector) and as a comfortable 40 Lux version, including a reflector as well as featuring light at close range.

- LED IQ-TEC
- 60 Lux or
- 40 Lux with light at close range
- Standlight & sensor automatic

### LUMOTEC IQ Cyo

plus	175QDI	○	■	■	■
N plus	175QNDI	○	■	■	■
senso plus	175QSNDI	○	■	■	■
R plus	175QRDI	●	■	■	■
RN plus	175QRNDI	●	■	■	■
R senso plus	175QRSNDI	●	■	■	■

■ for hub dynamo ■ standlight ■ sensor automatic  
● with light at close range



Available upon request:  
Exclusive versions of  
headlight models Cyo and  
Fly with E mark of approval  
for speed e-bikes (electric  
mopeds, self propelled up  
to 45 km/h).



CR8/NEX                      CR9, NCX                      RST  
For mounting to the suspension fork bridge

## LUMOTEC IQ Fly

Elegant light range adjustment and shape have added to the Fly's popularity. Adapters available for easy combination with suspension forks.

- LED IQ-TEC
- 40 Lux with light at close range
- Standlight & sensor automatic

### LUMOTEC IQ Fly

Standard	174Q			
plus	174QDI		■	
N	174QN	■		
N plus	174QNDI	■	■	
senso	174QSN	■	■	■
senso plus	174QSNDI	■	■	■

■ for hub dynamo ■ standlight ■ sensor automatic

Halogen headlight    Dynamo



## LUMOTEC Fly

The halogen version of the Fly.

- Halogen headlight
- 17 Lux
- Standlight & sensor automatic

### LUMOTEC Fly

Standard	174			
plus	174DI		■	
N	174N	■		
N plus	174NDI	■	■	
senso	174SN	■	■	■
senso plus	174SNDI	■	■	■

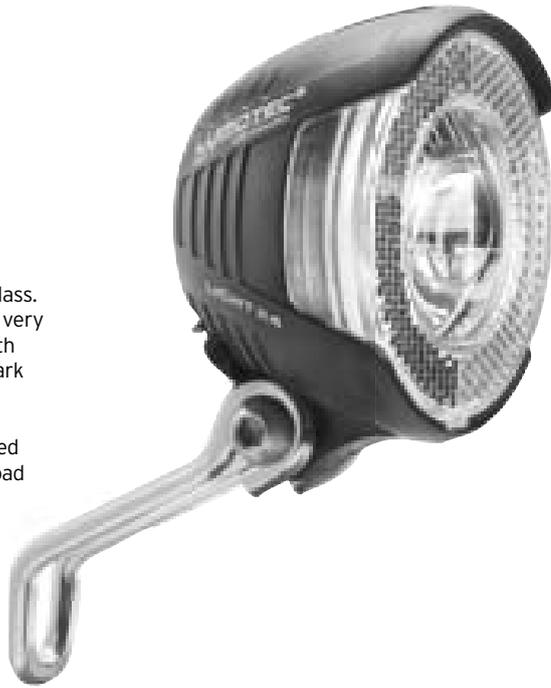
■ for hub dynamo ■ standlight ■ sensor automatic

# LUMOTEC Lyt<sup>®</sup>

The LED headlight of the new middle class. Modern LED lens technology creates a very good and homogenous field of light with light at close range and precise light/dark boundary. High operational reliability - the operating life of the LED is many thousands of hours long. With integrated front reflector. Approved by German road traffic regulations.

### Design

Compact shape with integrated lateral light emission for added safety, extremely robust casing. Stainless steel mounting bracket.



## LUMOTEC Lyt T

Daytime running light models have a light output of 30 Lux. Distinctive signalling LEDs for better visibility during the day are integrated into the headlight.

- LICHT24. Daytime running light
- LED lens technology
- 30 Lux
- Light at close range



### LUMOTEC Lyt T

TN	178TN				
T senso plus	178TSNDI				

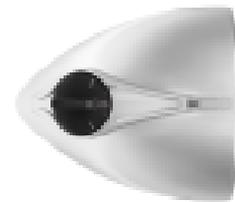
for hub dynamo standlight  
 sensor automatic LICHT24

# LUMOTEC<sup>®</sup> Classic

LED headlight featuring a classy retro look. 25 Lux create a very good and homogenous field of light with light at close range and precise light/dark boundary. Approved by German road traffic regulations.

### Design

Specially chromed casing with stainless steel mounting bracket. Ergonomic turn switch.



## LUMOTEC Classic T

Daytime running light models have a light output of 30 Lux. Distinctive signalling LEDs for better visibility during the day are integrated into the headlight.

- LICHT24. Daytime running light
- LED lens technology
- 30 Lux
- Light at close range



### LUMOTEC Classic T

TN	1786CTN				
T senso plus	1786CTSNDI				

for hub dynamo standlight  
 sensor automatic LICHT24



### LUMOTEC Lyt

Modern LED lens technology creates a large and homogenous field of light with light at close range and precise light/dark boundary. Light output 25 Lux, compact shape.

- LED lens technology
- 25 Lux
- Light at close range

#### LUMOTEC Lyt

<b>Standard</b>	178			
<b>plus</b>	178DI		■	
<b>N</b>	178N	■		
<b>N plus</b>	178NDI	■	■	
<b>senso</b>	178SN	■		■
<b>senso plus</b>	178SNDI	■	■	■

- for hub dynamo
- standlight
- sensor automatic



### LUMOTEC Lyt B

Entry level LED headlight model. Light output 15 Lux. Good lighting of the road. Economic and ideal for changing from halogen to LED reliability.

- LED lens technology
- 15 Lux

#### LUMOTEC Lyt B

<b>Standard</b>	1781			
<b>B plus</b>	1781DI		■	
<b>B N</b>	1781N	■		
<b>B N plus</b>	1781NDI	■	■	
<b>B senso</b>	1781SN	■		■
<b>B senso plus</b>	1781SNDI	■	■	■

- for hub dynamo
- standlight
- sensor automatic

Halogen headlight    Dynamo

## LUMOTEC® Basic



### LUMOTEC Basic

In 1991 the LUMOTEC Basic was the first headlight with an integrated ring reflector. Because of its straightforward shape it remains the most popular halogen headlight until today. Approved by German road traffic regulations.

- Halogen
- 17 Lux

#### LUMOTEC Basic

<b>Standard</b>	170			
<b>plus</b>	1702DI		■	
<b>N</b>	170N2	■		
<b>N plus</b>	170N2DI	■	■	
<b>senso</b>	170SN2	■		■
<b>senso plus</b>	170SN2DI	■	■	■

- for hub dynamo
- standlight
- sensor automatic



### LUMOTEC Classic

Modern LED technology with a light output of 25 Lux. Creates a large and homogenous field of light with light at close range and precise light/dark boundary.

- LED lens technology
- 25 Lux
- Light at close range

#### Classic

<b>Standard</b>	1786C			
<b>plus</b>	1786CDI		■	
<b>N</b>	1786CN	■		
<b>N plus</b>	1786CNDI	■	■	
<b>senso</b>	1786CSN	■		■
<b>senso plus</b>	1786CSNDI	■	■	■

- for hub dynamo
- standlight
- sensor automatic

Halogen headlight    Dynamo

## LUMOTEC® Retro



### LUMOTEC Retro

The LUMOTEC Retro combines a nostalgic shape with reliable halogen technology. Circular reflector. Approved by German road traffic regulations.

#### Design

Chromed casing. Bracket for control set available separately.

- Halogen
- 17 Lux

#### LUMOTEC Retro

<b>Standard</b>	1706C			
<b>plus</b>	1706CDI		■	
<b>N</b>	1706CN	■		
<b>N plus</b>	1706CNDI	■	■	
<b>senso</b>	1706CSN	■		■
<b>senso plus</b>	1706CSNDI	■	■	■

- for hub dynamo
- standlight
- sensor automatic

## Headlight bracket overview

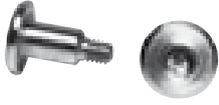
<p>470H</p>  <p>Metal, long, black, L = 50 mm</p>	<p>471F</p>  <p>Metal, short, black</p>	<p>471U</p>  <p>Diecast zinc, U-shaped, black</p>	<p>474D</p>  <p>Stainless steel, shiny, short, L/S = 25/18 mm</p>
<p>474DS</p>  <p>Stainless steel, black, short, L/S = 25/18 mm</p>	<p>475D</p>  <p>Stainless steel, shiny, medium length, L/S = 45/18 mm</p>	<p>475D/1</p>  <p>Stainless steel, shiny, medium length, L/S = 45/25 mm</p>	<p>475DS</p>  <p>Stainless steel, black, medium length, L/S = 45/18 mm</p>
<p>475DS/1</p>  <p>Stainless steel, black, medium length, L/S = 45/25 mm</p>	<p>474DL</p>  <p>Stainless steel, shiny, long, L/S = 60/18 mm</p>	<p>474DLS</p>  <p>Stainless steel, black, long, L/S = 60/18 mm</p>	<p>475DU</p>  <p>Bracket for overhead mounting</p>
<p>4706CB</p>  <p>Chromed metal bracket, for head tube mounting (1" or 1 1/8")</p>	<p>471B (1"), 471B/1 (1 1/8")</p>  <p>Plastic, for head tube mounting</p>	<p>471LH</p>  <p>Plastic, long, extremely break proof, L = 75 mm</p>	<p>471AR</p>  <p>Adapter for RST forks</p>

## Reflectors

Cyclists and pedestrians are very much endangered because they are the 'weakest' road users and will often be seen very late by other traffic participants. Reflectors are a considerable safety factor! We only use high quality prisms in order to get high reflection values from small surface areas.

 <p><b>FRONT 313/5WB</b></p> <p>Marks of approval B, D, E, GB. Also available in red: HECK Type 313/1WB.</p>	 <p><b>FRONT 313/5U<sup>1)</sup></b></p> <p>Integral U shaped plastic bracket. Especially suited for cantilever brakes. Weighs only 12 g. Marks of approval D, E, GB. Also available in red: HECK Type 313/1U.</p>	 <p><b>FRONT 302F<sup>1)</sup></b></p> <p>Fastening strap for handlebar annex screw or calliper brake. Standing or suspended assembly. Wide angle reflection. Marks of approval B, D, E, GB.</p>	 <p><b>FRONT 305K<sup>1)</sup></b></p> <p>Fastening clamp for handlebar shaft. Transverse or upright assembly. Marks of approval D, E.</p>	 <p><b>HECK 312H<sup>2)</sup></b></p> <p>Admitted for contour parallel attachment to mudguards (up to 30° inclination). Marks of approval D, E. Type 312H/8: with metal strap for riveted attachment.</p>
 <p><b>FRONT 313/5WF<sup>1)</sup></b></p> <p>Metal bracket. Especially suited for suspension forks, V brakes, hydraulic and drum brakes. Wide angle reflection. Marks of approval B, D, E, GB. Also available in red: HECK Type 313/1WF.</p>	 <p><b>FRONT 313/5WU<sup>1)</sup></b></p> <p>U shaped metal bracket. M6 thread. Especially suited for cantilever brakes. Wide angle reflection. Marks of approval B, D, E, GB. Also available in red: HECK Type 313/1WU.</p>	 <p><b>TEDDY REFLEX 621STPB/CLIP 625</b></p> <p>For pedestrians. Clear or coloured reflector.</p>	 <p><b>FRONT UNIVERSAL 313/5K<sup>1)</sup></b></p> <p>Tensioning strap and rubber lining for any tube diameter. 10 g only. Marks of approval D, E, GB. Also available in red: HECK universal Type 313/1K.</p>	 <p><b>HECK 313/1<sup>2)</sup></b></p> <p>For screw on attachment to mudguard. Marks of approval D, E.</p>

1) Many mounting straps available. For the complete range, see [www.bumm.de](http://www.bumm.de)

471A  Adapter for SR suspension forks CR8, NEX	471E  Extension piece (in addition to 471A for hydraulic brakes)	471AXK  Adapter, short, for SR suspension forks CR9 + NCX from 2009	471AX  Adapter, long, for SR suspension forks CR9 + NCX from 2009					
475K  Cable guide for 475D, 475DS, 475D/1, 475DS/1		Luxos 179/Cyo 175Q/R	Basic 170	Lyt 178	Fly 174	Classic 1786C	Retro 1706C	Oval 171
475ISS/ISM  Special screw, for all stainless steel brackets	470H							
	471F							
	471U							
	474D							
	474DS							
	475D							
	475D/1							
	475DS							
	475DS/1							
	474DL							
	474DLS							
	475DU							
	4706CB							
	471B							
	471B/1							
	471LH							
	471AR							
	471A							
	471E							
	471AXK							
	471AX							

Only common applications are shown. Further combinations are possible and available upon request.

 <b>HECK MINI-Z 313/1ZB<sup>1)</sup></b> Plastic screw on clamp Ø 13-40 mm. Superior reflection values in spite of small size. Marks of approval D (including Z), E.	 <b>HECK 314/1<sup>2)</sup></b> For mudguard attachment. Especially suited for short type mudguards. Complete with screw. Marks of approval D, E. Type 314/8: with metal strap for riveted attachment.	 <b>HECK 313/3Z</b> Format 27 x 91 mm. Carrier mounting. Screw hole distance 50 mm. With 2 screws. Mark of approval D (incl. Z).	 <b>Spoke reflector 309</b> Undetachable. Fits any tyre size. With rotatable plastic brackets. 97 mm long. Easy assembly: just twist into spokes. Marks of approval D, E.	 <b>Spoke reflector 309M</b> Undetachable. Fits any tyre size. With stainless steel clamps. 85 mm long. Easy assembly: just twist into spokes. Marks of approval D, E.
 <b>HECK BIG 316WZ</b> For luggage carrier attachment. Screw connection at 50 mm and 80 mm distance. Complete with 2 screws. Mark of approval D (including Z). Type 316: with flat reflector. Type 316W: wide angle design.	 <b>Spacer 317</b> With white (forward reflection) and red (backward reflection) reflector, including brackets and assembly instructions. Approved for use within the area of application of the German StVZO.	 <b>SPECIAL 563</b> Format 36 mm x 61 mm. Self adhesive foil on the back. Marks of approval E, SAE. Type 563/2: yellow reflector, Type 563/5: white reflector.	 <b>Spoke reflector 309V</b> Design like 309, but complete with twisted plastic fastening elements for narrow spoke clearance. Marks of approval D, E.	 <b>Spoke reflector 308</b> 113 mm long, wide angle design. Easy assembly: just twist into spokes. Marks of approval B, E, F, GB.

2) Approved by German StVZO as the required second reflector in combination with the luggage carrier rear light with Z reflector.

# TOPLIGHT®

The original TOPLIGHT was the first carrier mounted rear light to receive a German mark of approval. The trademarked name TOPLIGHT is often used synonymously replacing the term "carrier mounted rear light". It was and is the prototype for the most popular rear light series from Busch & Müller. All rear lights shown here are approved by German road traffic regulations. Further approvals are noted.



for dynamo



battery powered

## TOPLIGHT Line

LED rear light with LineTec: 2 high power LEDs inside the 90 mm LineTec light strip (transparent glass, shines red). Super bright with 320° visibility. Standlight (powered by capacitor, no batteries required), deactivates automatically after 4 minutes (parking function) or manually. Only 53 g, very slim, 94 x 45 x 16.5 mm. Integrated large Z reflector. Mounting distance 50 or 80 mm. Mark of approval F.

- 2 high power LEDs
- LineTec light strip
- 320° visibility
- Standlight, can be deactivated manually
- Large Z reflector

### Battery powered versions senso and permanent

- Theft proof: battery compartment can be locked with special screw
- Incl. 1 battery (AA)
- Shines for approx. 40 h
- With battery indicator



Model Line - 16.5 mm



Model Flat - 20 mm



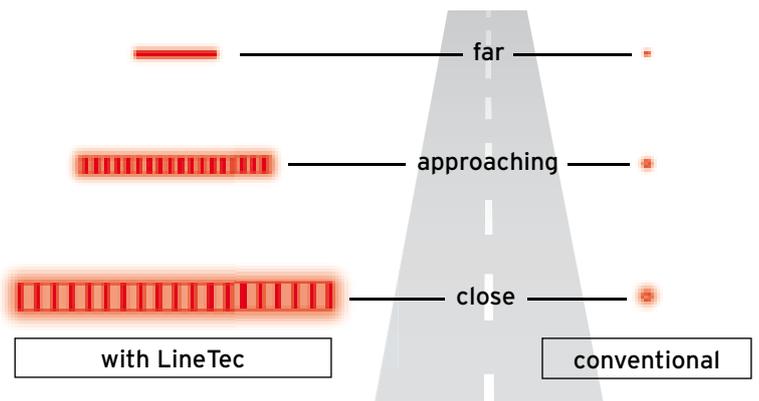
Toplight Line		■	■	■	■	■
plus	323ALT	■	■	■	■	■
brake plus	323ALTV	■	■	■	■	■
permanent	323BL	■	■	■	■	■
senso	323BLHR	■	■	■	■	■

■ dynamo powered ■ battery powered  
 ■ sensor automatic ■ standlight ■ BrakeTec

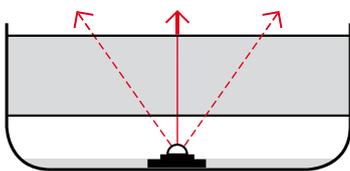
# LineTec®

## Light strip for more safety

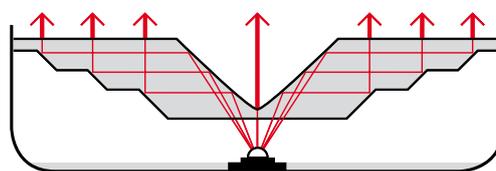
LineTec is a light technology featuring a special lens system. The punctual light of one high power LED is spread up to become a wide strip of light, shining homogenously. Why is that important? In the past, if one approached a bicycle at night from behind, one could only see a single point of light emitting from the rear light, and the distance could only be estimated inadequately. To accurately estimate the distance, the human eye requires a spatial relation - especially in the "spaceless" dark. A rear light sending out a LineTec light strip emits "spatial light". This is why other traffic participants can estimate the distance much better and more quickly.



Rear light with LineTec and without. The way a car driver sees it.



Conventional: punctual light



Light strip created by LineTec lens technology



LineTec in action



Battery powered version, 40 mm

### TOPLIGHT Flat S

The TOPLIGHT Flat with integrated lens technology LineTec. LineTec enables other traffic participants to better estimate the distance to the bicycle. Mark of approval F.

- LineTec light strip
- 1 high power LED
- 220° visibility
- Standlight
- Large Z reflector



**LineTec**<sup>®</sup>

Toplight Flat S		■	■	■	■
plus	329ASK	■	■	■	■
permanent	329BS		■	■	■
senso	329BSHR		■	■	■

- dynamo powered ■ battery powered
- sensor automatic ■ standlight

### TOPLIGHT Flat

LED rear light. 220° visibility due to special lens system. Design: Extremely flat and light, large Z reflector integrated elegantly in two circular shapes. Carrier mounting: 50 or 80 mm mounting distance. Mark of approval F.

- 1 high power LED
- 220° visibility
- Standlight
- Large Z reflector

"Plus" version for dynamo. With standlight. Light (65 g).

"Permanent" or "senso" version, battery powered (with battery indicator).

Toplight Flat

Toplight Flat		■	■	■	■
Standard	329AL	■	■	■	■
plus	329ALK	■	■	■	■
permanent	329BL		■	■	■
senso	329BLHR		■	■	■

- dynamo powered ■ battery powered
- sensor automatic ■ standlight

## BrakeTec<sup>®</sup>

### The brake light function for bicycles - how it works

As a matter of course motorised vehicles signal a brake application to following traffic participants with a red, brightly shining light. Such a "brake light function" is now available for bicycles as well.

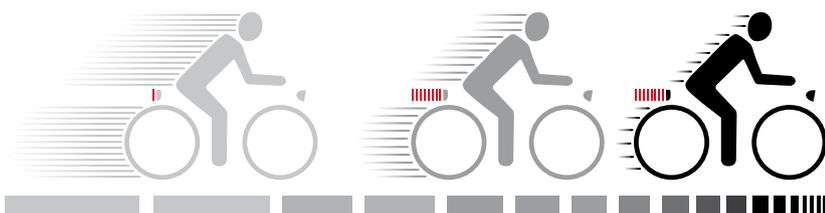
The new BrakeTec technology is integrated into the rear light. However, no connection to the brakes has to be established. Simply exchange the existing rear light for a

BrakeTec rear light. The new function is approved by German road traffic regulations.

This is how it works - provided that the lighting system (dynamo) is turned on: A processor inside the rear light analyses signals from the dynamo. If the velocity decreases significantly, the processor registers deceleration and the rear light shines noticeably brighter.

The warning function of BrakeTec harmonises ideally in connection with LineTec - so that a wide strip lights up. BrakeTec is an innovation by Busch & Müller.

*BrakeTec works only when the rear light is connected to a headlight whose rear light contacts supply alternating current. This applies to all N and senso headlights from Busch & Müller as well as the new LUXOS.*



# TOPLIGHT® Mini



Type 322ALK

## TOPLIGHT Mini

The world's smallest TOPLIGHT rear light. Many functions in a minimalistic casing: Two high power LEDs shine brightly. Fully automatic standlight included!

- 2 high power LEDs
- Standlight
- Large Z reflector
- More safety due to exceptional lateral light emission

### Design

Only 95 x 38 x 17 mm, at 34 g extremely light. Ideally fits on modern bikes with slender carriers. Mounting distance 50 or 80 mm.



Full scale picture

# SECUA®



Type 331ALK



## Bright. Compact. Sturdy.

The compact rear light for mudguard mounting. A prism system creates a light crown from one high power LED, which is very distinctive due to its "spatial" shape and enables other traffic participants to better estimate the distance to the bicycle.

- 1 high power LED
- Exceptionally bright LineTec light crown
- Standlight
- Centrally integrated rear reflector
- Compact casing

### Design

Circumferential, elegant transparent glass. When operating, the light crown shines a bright red.

### Optional

Rear light for bar mounting, type 331/2ALK



Full scale picture



**D-TOPLIGHT XS**

Delicate and yet robust carrier mounted rear light. Protected against shocks and moisture by soft touch sealing edge. With large Z reflector. Available as dynamo or battery powered version. Carrier mounting with 50 or 80 mm mounting distance.



Version: D-plus



TOPLIGHT XS					
<b>Standard</b>	325AL	■	■	■	■
<b>plus</b>	325ALK	■	■	■	■
<b>permanent</b>	325BL	■	■	■	■
<b>senso</b>	325BLHR	■	■	■	■

■ dynamo powered ■ battery powered  
■ sensor automatic ■ standlight



Type 328ALK

**D-TOPLIGHT. The classic**

For dynamo, battery or both energy sources in combination (version Duo). Large Z reflector.



Type 320ALK

**SELECTRA® plus**

Basic carrier mounted rear light with 3 LEDs, electronic standlight function. Large Z reflector. Carrier mounting with 50 or 80 mm mounting distance.



Type 325AS

**TOPLIGHT XS**

The delicate yet robust carrier mounted rear light is also available as a version with an incandescent bulb. Large Z reflector.



Type 327AS

**TOPLIGHT. The original**

With incandescent bulb. Large Z reflector. Marks of approval E and F. Carrier mounting with 50 or 80 mm mounting distance.



**SECULITE®**

With 1 high power LED. Integrated rear reflector. Mark of approval F.



Type 246

Cross mounting. Made from stainless steel. For all bikes without mudguard. Earth connection possible via bicycle frame.

SECULITE			
<b>Standard</b>	330AL	■	■
<b>plus</b>	330ALK	■	■

■ dynamo powered ■ standlight



**4D-Lite plus**

Rear light with 4 LEDs and protective frame.



**Standard**

Mudguard rear light with incandescent bulb 6V/0.6W, integrated rear reflector.

<b>Standard</b>	339AS	■	■
<b>4D-Lite plus</b>	339ALK	■	■

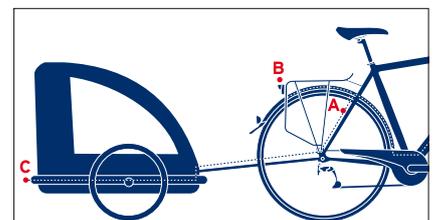
■ dynamo powered ■ standlight



**TRAILERMATIC®**

**For trailer lighting**

Switching hub TRAILERMATIC (A) connected between dynamo powered bicycle and trailer lighting system. When riding with the trailer hooked up, the rear light (B) is switched off and the trailer rear light (C) shines automatically. In accordance with German road traffic regulations. Easy mounting, no tools needed.



# E-WERK®



Easy mounting on bicycle frame, splash and rainwater proof

## Power without mains

For all those that do not want to do without mobile phone, GPS, MP3 player or other electronic devices while cycling, Busch & Müller has developed the bike mobile E-WERK. Connected to a hub dynamo; the energy is made useable to charge and/or power mobile devices.

- Voltage and current adjustable
- Universal connections (e.g. USB)
- Extensive accessories
- Splash and rainwater proof



Eurobike Green Award 09 for ecologically sensible and sustainable products.



Trekkingbike: Milestone 2010

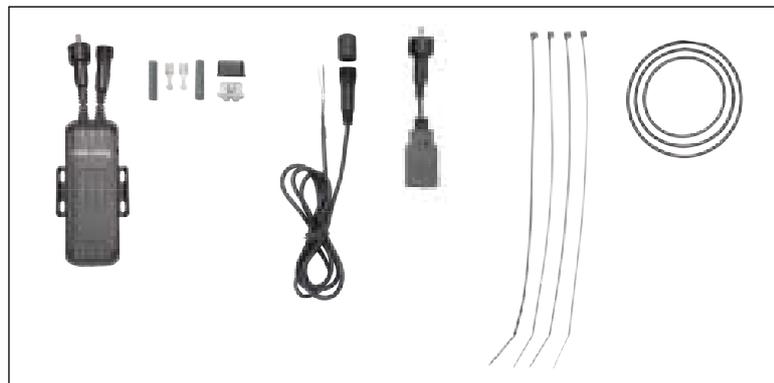
# USB-WERK AC



For dynamo / type 361BW

## Dynamo supplies USB energy

The USB-WERK supplies 5 V and up to 1 A current. An integrated small cache battery ensures a constant voltage supply during slow riding and/or stops. For these reasons, the USB-WERK is a perfect fit for charging/powering USB devices of any kind: mobile phone, GPS, MP3 player etc. Contains cable with USB socket.



Complete accessory set of the USB-WERK

### Universally usable

With this dynamo connected, universal powering device, voltage (up to 13.3 V) and current (up to 1.5 A) can be adjusted variably in small increments. It charges at velocities of approx. 8 km/h and faster. At only 15 km/h it charges as quickly as standard mains connected chargers. It can be fed with up to 50 V DC, so that operation with an e-bike or car battery is possible as well.



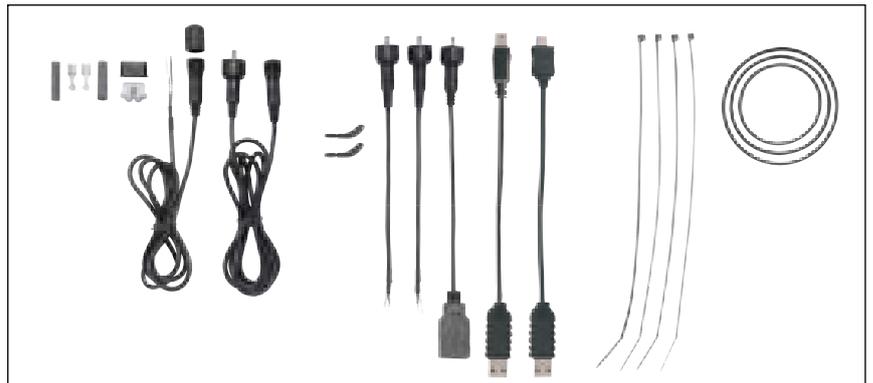
For dynamo or battery connection / type 361

### Mounting

The E-WERK can be connected to bicycle frames of different diameters, in any suitable position using rubber bands or cable straps. The E-WERK is splash and rainwater proof.

### Connection options of the E-WERK

Universal connections for USB, Mini USB, Micro USB. 2 free cables for individual connections. With special plugs for SON and Shimano hub dynamos. Watertight cable screw joints.



Complete accessory set of the E-WERK

### Cache battery for E-WERK (type 361)

Constantly supplies 5 V - the standard voltage for charging via USB connection. 1400 mAh capacity. With nylon bag. Weighs approx. 180 g. Measurements 80 x 40 x 40 mm.

Some sensitive mobile electronic devices react to voltage fluctuations by interrupting

the charging process. Since the E-WERK is connected to a hub dynamo, it cannot supply power free of those kinds of fluctuations. The cache battery harmonises the voltage and prevents charging interruptions.



E-WERK (type 361) with cache battery (type 461A)

### Universal cockpit adapter

For devices with a width ranging from 45 to 115 mm. For handlebar diameters from 22 to 40 mm. Easy mounting with elastic strap, no tools necessary. Detachable.



Type 261

# IXON IQ®

Battery powered LED headlight\* with IQ technology. When set to HighPower mode, the high output LED inside the LED reflector shines extremely bright for up to 5 hours. In CityEco mode, 10 Lux are reached - for 20 hours. The electronic system (90% efficiency) shows battery capacity, charging process and condition. Supercharging is not possible.

\* In Germany approved as the sole light on racing bicycles up to 11 kg.



Type 192QM



- 40 Lux
- Excellent and homogenous lighting of the road. With light at close range.
- High power: 40 Lux, 5 hours
- Low power: 10 Lux, 20 hours
- Approved by German road traffic regulations

Headlight	192QM
Headlight / mains charger / 4 rechargeable batteries	192QMLA
Mains charger	447L
4 rechargeable batteries, Ni-MH, each 2100 mAh	492A/2100
Standard mounting bracket	492HPB
Oversized mounting bracket	492HOPB
Universal mounting bracket	492HUPB
Fork mounting bracket	475D/492GAPB
Anti glare protection	492BPB

# IXON® Pure

Battery powered LED headlight\* with lens technology. Very good lighting of the road, with light at close range. A circumferential rubber edge protects from shocks and serves as an anti glare protection for the cyclist when riding out of the saddle. Lateral light emission: improved visibility for other traffic participants.



Type 194



- Very good lighting of the road
- With light at close range
- High power: approx. 30 Lux, 5 hours
- Low power: approx. 15 Lux, 15 hours
- Approved by German road traffic regulations

Fully equipped: headlight with USB charging socket, includes mains charging unit with charging cable, 3 rechargeable AA batteries.

Also available without accessories: charging via micro USB socket using standard mobile phone charging units. Batteries not included.



Easy mounting by handlebar mounting bracket

Headlight with all accessories	194LA
Headlight without charging set	194

\* In Germany approved as the sole light on racing bicycles up to 11 kg.

### Power supply

4 rechargeable Ni-MH batteries, each 2100 mAh, no memory effect. Charging time approx. 5 hours using provided charging unit. Power supply by 4 non-rechargeable AA batteries possible.

### Mounting

Easy mounting, convenient handling: The headlight can be tilted, pivoted and removed from its mounting bracket with one click.

Optional: Oversized mounting brackets for handlebar diameters up to 32 mm (type 492HOPB).



Set with rear light, type 192QLMA/382S

### Anti glare protection



Type 492BPB

Anti glare protection. For IXON IQ and IXON IQ Speed. Prevents glaring when cycling out of saddle. Easy mounting with adhesive pads.

### Fork mounting



Type 475D/492GAPB

Type 475ISS/ISM

Fork mounting made of stainless steel for IXON IQ and IXON Pure. Special screw for all stainless steel mounting brackets.

### Mounting bracket 492UHPB



for all handlebar diameters from 22 to 32 mm

Special Sportsline



Type 492RK

### RIDE&CHARGE

For cycling travellers and "global bikers". Charging power created by pedalling. The electronic switching point RIDE&CHARGE uses the hub dynamo to charge batteries inside the IXON IQ.

### Power supply

3 AA batteries, rechargeable or non-rechargeable. Batteries included with type 194LA.



Full charging equipment with 3 rechargeable AA batteries (inside the headlight)

### Quick mounting

Same handlebar mounting as the IXON IQ. Removable with one click. For further options like oversized or fork mounting bracket, see IXON IQ.



Type 1941

### IXON Pure B

Economically priced basic version with good lighting of the road. No charging socket.

- Approx. 15 Lux
- Shines for up to 12 hours
- Power supply: standard AA or externally charged rechargeable AA batteries

# IXON IQ® Speed

The sportive, high end battery powered headlight. Powerful. Robust. Best lighting of the road with a single LED, considering German road traffic regulations. 50 Lux light output in HighPower mode. Weighs only 98 g (without battery/cable). Test winner in Europe's largest racing cycle magazine.



Type 1930



- LED IQ-TEC
- 50 Lux
- With light at close range
- HighPower mode: 10 hours - 50 Lux
- or LowPower mode: 50 hours - 10 Lux
- Approved by German road traffic regulations

**Optional:**

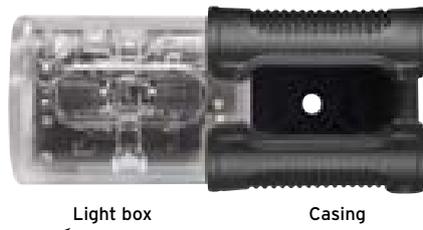
- Secondary headlight
- Helmet mounting
- Forehead mounting
- Separate anti glare protection

Basic set: headlight with charging unit and battery pack	1930LA
Secondary headlight	1930Z
Secondary headlight with mounting set for helmet and forehead	1930K
Replacement set: mounting set for helmet and forehead	493HHSTB
Anti glare protection	492BPB



TOUR 1<sup>st</sup> place, grade 1.8

# IXBACK®

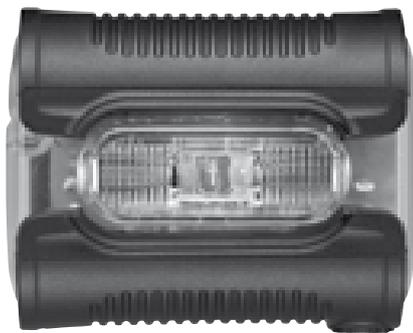


25 hours full light intensity. Powered by two AAA batteries, included. Quick and easy mounting using rubber bands or cable straps - light box can be removed with one click.

Also possible: maximally theft protected mounting.



Design: The clear glass shines red when the rear light is activated.



Type 382S Full scale picture

- Battery powered LED rear light
- LineTec: patented lens system
- Clear glass light box, shines super bright
- Automatic activation (light/motion sensor) or permanent light
- 50 g (incl. batteries)
- Approved by German road traffic regulations



Visible all around



Full light intensity



### Power supply

High output battery pack, separate in nylon bag with Velcro strap. Second socket for additional headlight. Charging unit deactivates automatically.



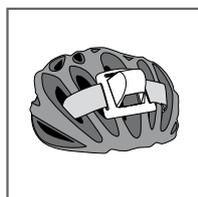
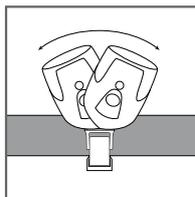
### Quick mounting

Headlight universally mounted on handlebars using quick release elastic strap, suitable for all handlebar diameters. Pivots, can be adapted to handlebar curve.

### Up to 100 Lux

Low power mode is economical and persistent in city traffic. High power mode is super bright for off road challenges. Using a second headlight (type 193QZ or 193QK), perfect for competitions: supreme light output of up to 100 Lux.

By the way: A second headlight is allowed to be used in road traffic when used as a helmet light.



Basic set: Headlight with charging unit and battery pack, type 193QLA



Secondary headlight with mounting bracket for helmet or forehead, type 193QK

Battery powered LED rear light Sportline

**IX-RED®**



Version senso (type 381S)



Without sensor automatic (type 381)

Battery powered LED rear light. With intelligent senso safety automatic for dusk, darkness, tunnel rides. Approved by German road traffic regulations.\*



shines long



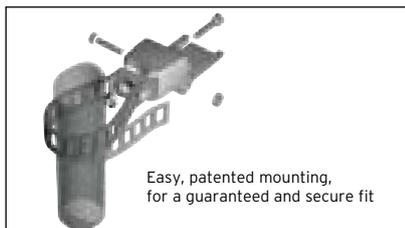
extremely visible



super flat



quick adapter



Easy, patented mounting, for a guaranteed and secure fit

\* In Germany approved as the sole light on racing bicycles up to 11 kg.

**TESTSIEGER**

STIFTUNG WARENTEST

SEHR GUT (1,5)

Im Test: 8 Batterie-Rücklichter

test® 3/2006

www.test.de



**RELITE-D®**

Battery powered LED rear light. Universal mounting for saddle post or frame brace. Adjustable ball and socket joint. Can also be clipped onto clothing or carrier bags. Approved by German road traffic regulations. Integrated rear reflector for improved safety.

Type 380

Approved by German road traffic regulations. Integrated rear reflector for improved safety.



Type 630

**TOPFIRE**

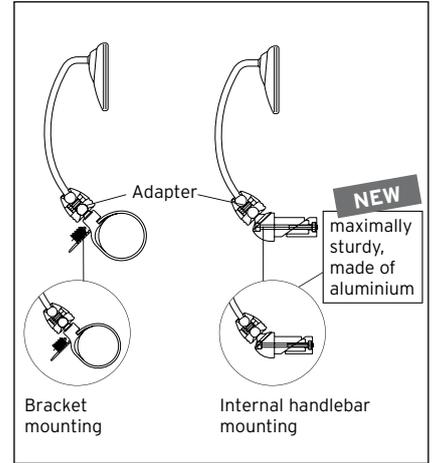
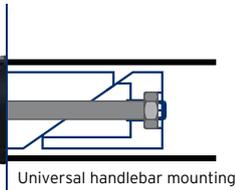
Flashing light, 4 super bright LEDs. Fits into almost every helmet, adhesive pads included. Extremely light (18 g) and very efficient (up to 180 hours). Coin cell integrated in switch. Ideal also for inline skating.

Millions of motorcycles and scooters from many large brands use our rear view mirrors (BMW, Honda, KTM, MBK, Peugeot, Yamaha etc.). We transfer these high tech standards to bicycles uncompromisingly.



## CYCLE STAR®

The premium rear view mirror series for bicycles. The pronounced curvature of the mirror provides an extra large field of vision. Its glass has a diameter of 60 mm and is protected against shattering. The black, elegantly shaped plastic casing is extremely adjustable and folds in. Especially sturdy when using the internal handlebar mounting made of aluminium.



Universal mounting system with both bracket and internal handlebar mounting included with types 901, 901/1 and 901/3.

- Large field of vision
- 60 mm diameter
- Shatter protection
- Extremely adjustable
- Folds in

## DYMOTEC®



Mounting bracket type 406ALU



Regular rubber tyre roller



Tyre roller for extreme conditions

## DYMOTEC 6

High output tyre dynamo with approx. 40% efficiency. The position to the tyre as well as the contact pressure can be aligned perfectly with two easy adjustments. With easy touch trigger: a quick press of the finger suffices, and the dynamo pivots toward the tyre.

- Unique efficiency: approx. 40%
- Position and contact pressure adjustable
- Separate versions for mounting to the left or right of the bicycle

A special separate roller with high alloyed steel brushes is available for temporary use under extreme conditions. During rain, slush, snow or ice it works with optimised contact pressure and maximal traction - gentle to the tyre and self cleaning.



**CYCLE STAR 901**

Extra long bar



**CYCLE STAR 901/1**

Short straight bar



**CYCLE STAR 901/2**

Only with internal handlebar mounting



**CYCLE STAR 901/3**

Short curved bar

Rear view mirrors



**E-bike mirror 913/801VLM**

With mark of approval "E". Complies with requirements for fast e-bikes. Defined size, curvature and function: The mirror must not stay rigid during collisions, but must collapse.



**Mirror 902/1**

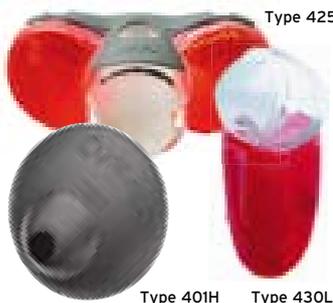
with reflective foil

**Mirror 902/2**

Plastic casing: Ø 93 mm, plane glass. Bar: Ø 6 mm, with sturdy metal clamp.

Spare parts

Original spare parts. Tools. Accessories.



Replacement rear light covers, mirror spare parts



6V, 2.4W halogen - type 427H



6V, 3W halogen - type 427H3W



6V, 0.6W - type 425

Light bulbs: for headlights and rear lights



Duplex wires - many different qualities and lengths available



Typ 470KS



Typ 470ST

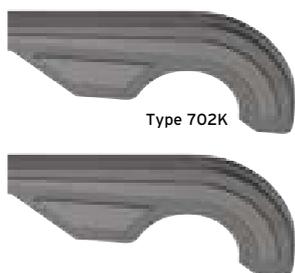


Typ 470SCHLAUCH

Push on contacts, flat terminals, shrinkable tubing

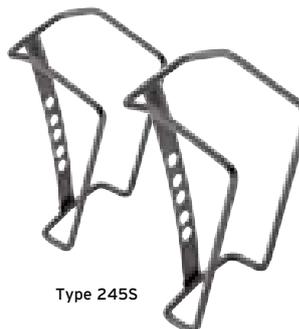


Bicycle tools. Ten hole wrench, tyre iron



Type 702K

Chain protectors



Type 245S

Rear light protection guides



Type 851K

Stabilisers

## Rear view mirrors for motorcycles



Universal  
Ref. no. 911/2 - L+R / P+V



Legshield mirror  
Ref. no. 912/2 - L+R / P+V



Swivel mirror (retractable)  
Ref. no. 913/3 - L+R / P+V  
Ref. no. 913/1 - version made of plastic



Universal  
Ref. no. 920P



Universal  
Ref. no. 922 - M / P+V



Universal  
Ref. no. 922/15 - M / P+V / e



Universal  
Ref. no. 922/16 - M / P+V / e



Pivot mirror  
Ref. no. 960VE - V / e

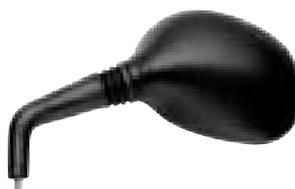
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Honda  
Ref. no. 926/38VM



Honda  
Ref. no. 926/500AVME / L+R



KTM  
Ref. no. 916/140VE / L+R



KTM  
Ref. no. 916/307VMEKT<sup>1)</sup>



KTM  
Ref. no. 916/809VME / L+R<sup>1)</sup>



KTM  
Ref. no. 916/909VE / L+R<sup>1)</sup>



KTM  
Ref. no. 916/962VM / L+R<sup>1)</sup>



MBK  
Ref. no. 928/801SILBVE / L+R

This is just a selection from our range. Many more models available upon request!

**L+R** separate versions available for mounting on the left or right

**P+V** available with plane or convex glass  
**V** only available with convex glass

**M** available also with black matt finish  
**C** chrome coloured version available



BMW  
Ref. no. 1911/302VLM<sup>1)</sup>



BMW  
Ref. no. 1911/903VCE<sup>1)</sup>



BMW  
Ref. no. 1911/72 - L+R / P+V  
Ref. no. 1911/82 - short stem for  
elevated handlebars



BMW  
Ref. no. 1911/77BVME



Hercules  
Ref. no. 913/4 - L+R / P+V  
Ref. no. 913/2 - universal handlebar  
end fitting



Honda  
Ref. no. 926/25A30VM



Honda  
Ref. no. 926/300A0VE2



Honda  
Ref. no. 926/37V / M+C



MBK  
Ref. no. 928/808VE / L+R



MZ  
Ref. no. 928/105AVM / L+R



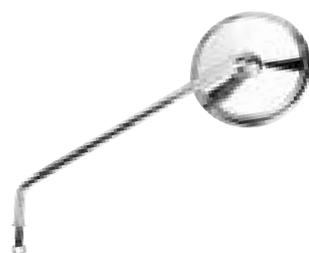
Peugeot  
Ref. no. 917/90V - L+R



Triumph  
Ref. no. 928/27VME



Vespa  
Ref. no. 928/44 - L+R / P+V



Zündapp, Kreidler  
Ref. no. 911/62K - L+R / P+V / M



Zündapp, Kreidler  
Ref. no. 911/67M - P+V / C / e



Zündapp, Kreidler  
Ref. no. 911/6 - L+R / P+V

**M+C** black matt finish or chromed versions  
available

**e** also available with mark of approval "e" (EU standard)  
**E** also available with mark of approval "E" (ECE standard)

**1)** exclusive for original equipment  
manufacturers



Herbert Baltrusch  
North Germany / PLZ 2



Frank Regge  
Central Germany / PLZ 0-1, 3-6



Stefan Jurkovic  
South Germany / PLZ 7-9

Our technical sales people exclusively advise retailers in all matters regarding "Best light for bicycles". If you are a retailer, make an appointment with our technically versed advisors.



### The perfect light and merchandise presentation.

We support retailers with system modules for sales presenters. For more information, please send an email with the subject "Retail wall system" to [info@bumm.de](mailto:info@bumm.de)



**1 Lightchecker Pro**, type 1516LC2: Electronic and professional tool for bicycle workshops. Checks light system, dynamo and wiring - optical and acoustic signal. Battery and charging unit included. **1a** Adapter, type 4516LC2GKA: Checks for short circuits (frame earthing) and tests incandescent bulbs. **1b** Shimano adapter, type 4516LC2SHIA. Quick connection for Shimano hub dynamos.

**2 Lichtchecker Light**, type 1516LC1: Simple checking of headlights and rear lights. With quick connection terminals.

**3 Light adapter**, type 447LIA: Show the full output of headlights in display windows or during sales pitches - without using a dynamo. Connect the light adapter to the mains and the headlight to the quick connection terminals. (Both Lightcheckers do not show the full light output.)



More information for retailers at [www.bumm.de/service](http://www.bumm.de/service)



Type 1511005

**Stainless steel light display**

All products light up. Preassembled. Shows (among other things) the difference between riding light and standlight. With mains connector. Stainless steel. For long-time continuous operation.



Type 151174T

**Daytime running light display**

Presents LICHT24, the daytime running light for bicycles. Preassembled. With mains connector.



Type 1511323V

**BrakeTec display**

Presents BrakeTec, the brake light function. Switches continually between regular light and "brake light". Preassembled. With mains connector.

## Made in Germany

Our products can be found mounted on premium quality bicycles or at well sorted retailers.

More information at  
[www.bumm.de](http://www.bumm.de)



### Busch & Müller KG

Auf dem Bamberg 1  
58540 Meinerzhagen  
Germany

Tel. +49 (0) 23 54-915-6  
Fax +49 (0) 23 54-915-700

[info@bumm.de](mailto:info@bumm.de)  
[www.bumm.de](http://www.bumm.de)