

Explosion protected handlamps



## SEB 10 - The "Powerlight"

Explosion protected handlamp with LED technique



# EATON

*Powering Business Worldwide*

# Ex-Searchlight in LED Technology SEB 10

(Zone 1, 2, 21, 22)

## The all-rounder for harsh and hazardous areas

For inspection-, maintenance & repair in industrial areas with harsh & hazardous areas we offer you the SEB 10 searchlight in LED technique. This searchlight can be used in most gas-Ex and dust-Ex areas. Also the SEB 10 is suitable for control and rescue operations of fire departments and emergency services of all kind. The emergency light function even offers you the use of this powerful searchlight as an emergency lighting.

## Technique for your safety

This extremely robust and bright searchlight with the high degree of protection IP 66 is ideally suited for use in all work areas with high mechanical requirements and a humid environment.

Reliably it supplies a light output even after 5.5 hours operating time. This is ensured by the two high-performance LEDs and the powerful maintenance-free lithium iron phosphate battery pack.

## Don't get left in the dark

Five LEDs supply information on the current operation and charge status at all times.

Thus, the SEB 10 shows you in good time whether the battery is discharged or charged, or if it needs to be replaced.

In addition, the circuit protects the electronics against deep discharge and overcharge- only the energy actually consumed is recharged. This increases the lifetime of the battery.

So that the user does not get left in the dark, the searchlight has a safety electronic, which automatically reduces the luminous flux down to 50 %. This generates a safety buffer of up to 60 minutes to leave the danger area.

## Search and working light

The SEB 10 searchlight offers a searchlight function which is suitable for inspection and control tasks in hazardous areas.

The new searchlight-boost for more light intensity in the distance increases the luminous flux of up to 150 %.

Especially for applications where a consistent working light is required, the work light with a radiation angle of 22° provides a square-shaped illumination with an even light distribution- without significant losses.

By fitting coloured slip-on filters they can be used also for signaling purposes.

## Approvals and test certificates

This searchlight is the only one of this kind to meet the construction and test standards listed below; they have been issued with the following approvals and test certificates:

- DIN14642 (German Institute for Standardisation) for explosions protected hand lamps with motor vehicle charger, edition 7/2011, for equipping fire brigade vehicles.
- EC Type Examination Certificate for explosion protection in explosive gas and dust atmospheres (ATEX Certificate)
- EWG type approval of the Federal Office for Motor Vehicles for meeting the requirements of the EMC Directive 95/54/EC for use in motor vehicles (e1 certificate) \*)
- Shock test report according to DIN EN 60068-2-27 for the use of the light fittings in fire brigade vehicles (DIN 1846-2:2001) \*)







\*) in preparation







## Features

- Compatible with existing chargers and accessories for SEB
- 2-Lens system for optimised light distribution (search/working light)
- Searchlight boost circuit for temporary increase of the luminous flux up to 150 %
- Lithium iron phosphate battery with high energy density for a long lifetime
- Safety circuit and decrease of the luminous flux down to 50 % in case of low capacity. This generates a safety buffer of up to 60 minutes.

## Ordering details

Type	Scope of delivery	Order unit	Order-No.
 SEB 10	with twin-lens high power LED system Lithium-Iron-Phosphate battery (rechargeable with LG 443 or motor vehicle charger 90)	1	<b>1 1147 000 820</b>
 SEB 10 L	with twin-lens high power LED system lithium-iron-phosphate battery (rechargeable directly via mains lead, with LG 443 or motor vehicle charger 90)	1	<b>1 1147 000 810</b>
 Set with mains charger	Complete package SEB 10 incl. charger LG 443	1	<b>1 1147 443 820</b>
 Set with motor vehicle charger	Complete package SEB 10 incl. motor vehicle charger 90	1	<b>1 1147 792 820</b>
 Set with mains charger and motor vehicle charger	Complete package SEB 10 incl. charger LG 443 and motor vehicle charger 90	1	<b>1 1147 924 820</b>
 Set with slip-on filter	Complete package SEB 10 incl. coloured slip-on filter	1	<b>1 1147 300 820</b>

## Accessories

Type	Content	Application	Order unit	Order No.
 LG 443 mains charger	220 V- 250 V AC	for SEB 8/9/10	1	<b>1 1540 000 443</b>
 Motor vehicle charger KFZ 90	Charger 10 V- 33 V DC	for SEB 8/9/10	1	<b>1 1145 000 792</b>
 Wall bracket SW	Console without charging module	for SEB 8/9/10	1	<b>1 1145 000 795</b>
 Set slip-on filters	red, orange, green	for SEB 8/9/10	1	<b>2 1147 300 000</b>



### Technical data

	SEB 10	SEB 10 L
EC-Type Examination Certificate	BVS 15 ATEX E122	BVS 15 ATEX E122
Marking accd. to 2014/34/EU	⊕ II 2 G Ex d e ib mb IICT4 Gb ⊕ II 2 D Ex tb IICT85 °C Db	⊕ II 2 G Ex d e ib mb IICT4 Gb ⊕ II 2 D Ex tb IICT85 °C Db
Permissible ambient temperature	-20 °C up to +40 °C, specified data 0 °C up to +30 °C (battery)	-20 °C up to +40 °C, specified data 0 °C up to +30 °C (battery)
Battery	9.6 V / 3 Ah rechargeable LiFePO <sub>4</sub> battery	9.6 V / 3 Ah rechargeable LiFePO <sub>4</sub> battery
Rated voltage (charger)	–	230 V AC
Frequency (charger)	–	50- 60 Hz
Charging duration	max. 8 h (depends on the state of charge)	max. 8 h (depends on the state of charge)
Rated operating duration (main light)	5.5 h	5.5 h
Switch	Flashing light – Working light – OFF – Search light – Boost function search light (max. 10 min)	Flashing light – Working light – OFF – Search light – Boost function search light (max. 10 min)
Protection class	III	III / II
Lamp / Illuminant	2 high efficiency LED-Systems	2 high efficiency LED-Systems
Rated luminous flux	230 lm (search light)/ 365 lm (search light boost function)	230 lm (search light)/ 365 lm (search light boost function)
Max. luminous intensity	12000 cd (search light) 19000 cd (search light boost function) 1000 cd (working light)	12000 cd (search light) 19000 cd (search light boost function) 1000 cd (working light)
Dimensions (L x W x H)	325 x 119 x 146.5 mm	325 x 119 x 146.5 mm
Function	microprocessor-controlled operating period indication, capacity-dependent charge, flashing light, emergency light, back-up light when low capacity	microprocessor-controlled operating period indication, capacity-dependent charge, flashing light, emergency light, back-up light when low capacity
Charging option	with LG 443 or motor vehicle charger 90	directly with mains cord, with LG 443 or motor vehicle charger 90
Enclosure colour	black	black
Enclosure material	Polyamide	Polyamide
Weight	1.55 kg	2.1 kg
Light aperture	Ø 98 mm, mineral glass	Ø 98 mm, mineral glass
Degree of protection accd. to EN 60529	IP66	IP66
Scope of delivery	with twin-lens LED-system and battery	with twin-lens LED-system, battery and internal charger unit,

# Technical data / Dimension drawings / Range-diagram

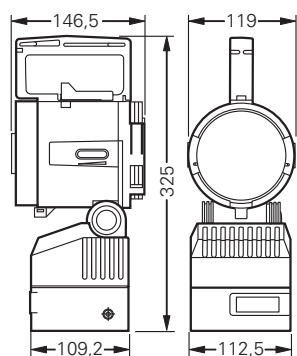
Charger/wall bracket for SEB 10 / SEB 10 L



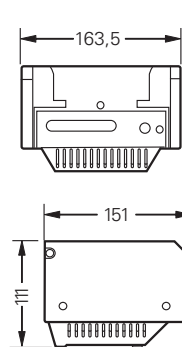
## Technical data

	Mains charger LG 443 for SEB 10/9/8..	Motor vehicle charger KFZ 90 for SEB 10/9/8..	Wall bracket SW for SEB 10/9/8..
Permissible ambient temperature	-0 °C up to +30 C	-0 °C up to +30 C	-20 °C up to +40 C
Rated voltage	220- 250 V AC	10- 33 V DC	
Frequency	50- 60 Hz		
Protection class	II	III	
Dimensions (L xW x H)	163.5 x 151 x 111	152.5 x 145 x 128	152.5 x 145 x 85
Enclosure colour	black	black	black
Enclosure material	ABS	ABS	ABS
Weight	1.3 kg	0.65 kg	0.55 kg
Degree of protection accd. to EN 60529	IP31	IP31	

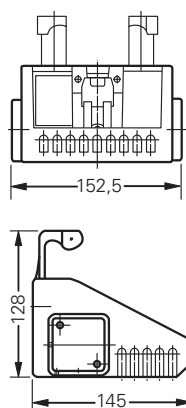
## Dimension drawing SEB 10 / SEB 10 L



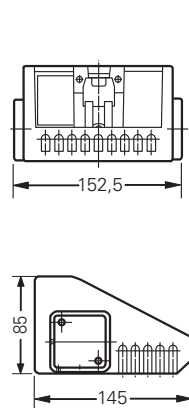
## LG 443



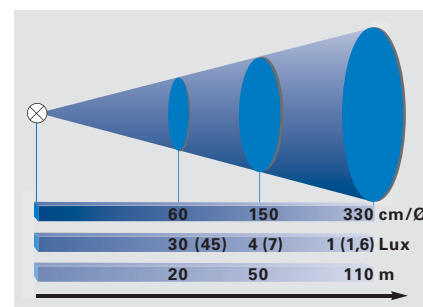
## Motor vehicle charger 90



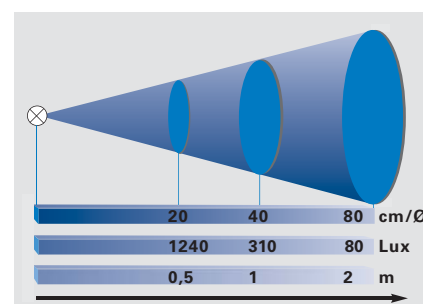
## Wall bracket SW



## Range-diagramm SEB 10 searchlight (Values in brackets for boost operation)



## SEB 10 working light







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