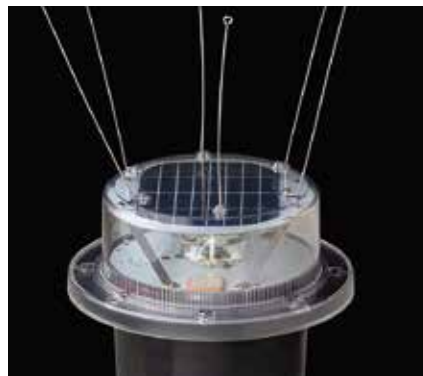


HBL 110

Unique Hybrid LED lantern

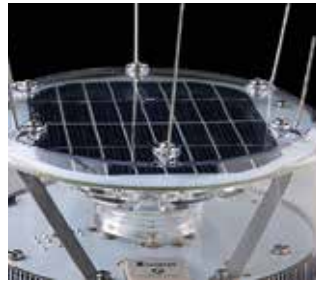
HBL 110 is a robust lantern with an outer polycarbonate cover to be used integrated into buoy applications. It has a unique hybrid system including a solar panel and an integrated rechargeable battery. During the dark winter months an alkaline battery is used as a backup. This hybrid solution also saves time and money as batteries can be changed less often and there is less need for maintenance visits. This lantern has very low power consumption and is equipped with GPS synchronization. LightGuard remote monitoring can be added as an option and advanced **Bluetooth® Control** app is also available for android and iOS mobile phones.

- **Adjustable intensity and range**
- **Integrated flasher with day and night switch**
- **Standard range: 4 NM at Tc = 0,74 (5 NM at Tc = 0,85)**
- **Available in standard IALA colours**
- **Vertical divergence 8° @ 50% ($\pm 1^\circ$) of peak intensity**
- **GPS synchronization as standard**
- **Remote monitoring with LightGuard Monitor**
- **Programmable with Sabik standard IR programming devices**
- **Advanced Bluetooth® Control up to 50m available for android and iOS smart phones**

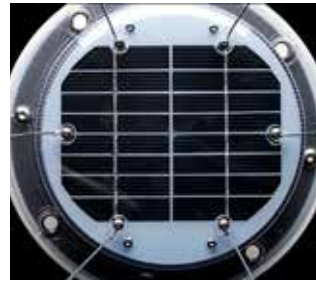




Lens
Sabik especially designed optical unit with outer polycarbonate cover.



Bird spikes
Stainless steel bird deterrents as standard. Easy to replace.



Solar panel
High efficient solar panel on the top of the lantern.



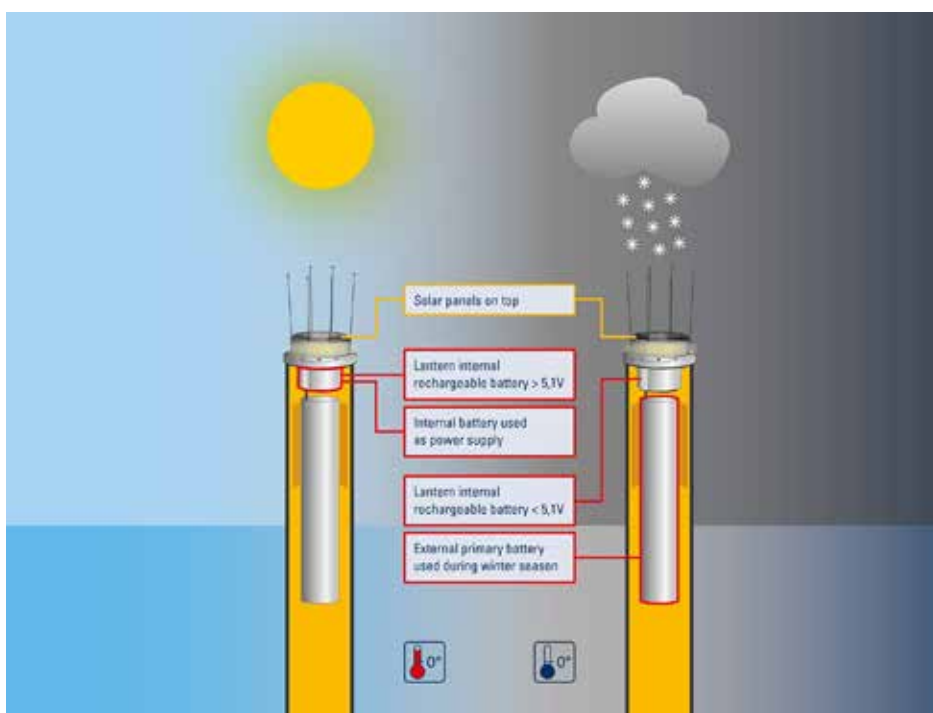
PTFE breathing
PTFE breathing vent for pressure release in the bottom of the lantern.



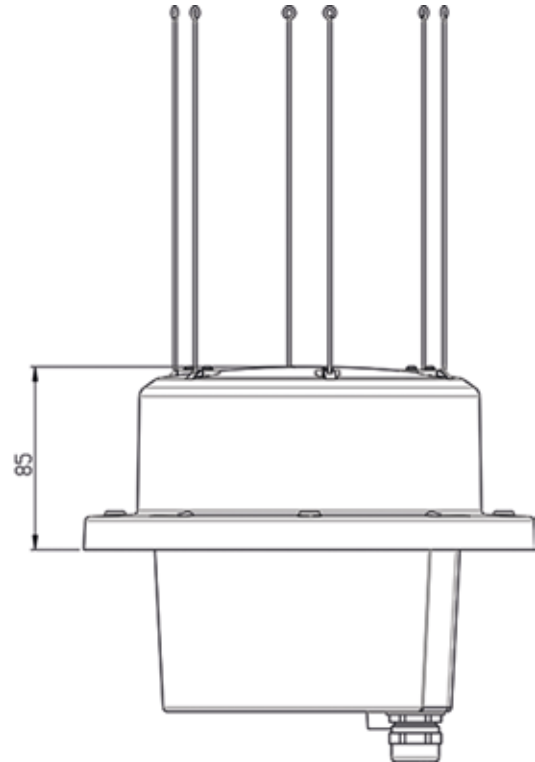
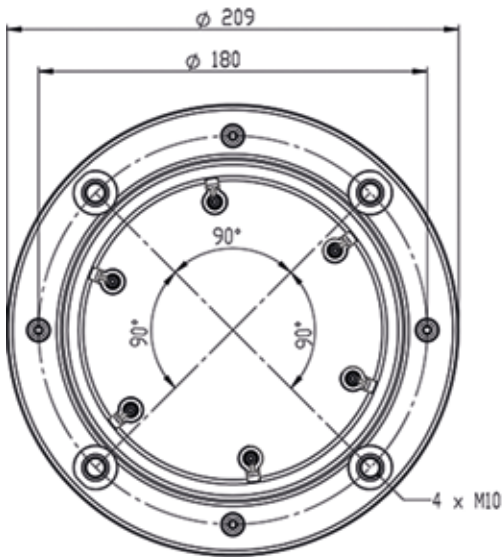
Programming
Lantern can be programmed and battery status monitored with the Sabik user friendly and compact Easy Programmer.



Innovative Bluetooth® app
Lantern can be controlled and battery status checked up to 50 meters distance with standard android and iOS mobile phones.



Technical Specification HBL 110



Optical performance

Maximum fixed intensity

HBL 110	40 cd	40 cd	50 cd	45 cd
---------	-------	-------	-------	-------

Main Technical Specification

	up to 4 Nautical miles
Lens visual/Mechanical diameter	166mm
Lens material	UV stabilized Polycarbonate
Light source	High Power Light Emitting Diode (LED)
Vertical divergence	8° @ 50% (±1°) of peak intensity
Unit lifetime	Up to 10 years
Weight	2,8 kg
Controller	Sabik SMC flasher
Temperature range	-40°...+60°C
Degree of protection	IP 67
Battery Voltage NiMH	6,0 VDC
Battery capacity NiMH	26 Ah
Solar power	1,5W

Order Overview HBL 110

Option matrix

LightGuard GSM + GPS OPT 9H	Integrated GSM based monitoring including GSM/GPS antennas
Optical Feedback System OPT 1H	Integrated LED performance measurement
Shock & Tilt Sensor	Integrated 3-axis G sensor for tilt and shock sensing

HBL 110 (GPS sync as a standard)	Colour
HBL 110W4	white
HBL 110R4	red
HBL 110G4	green
HBL 110Y4	yellow

Product code for Programmer

980332	Sabik Easy Programmer
	Bluetooth mobile app for android and IOS available

Order Overview VPL 110

A component lantern without a solar panel and battery

VPL 110 (GPS sync as a standard)	Colour
VPL 110W4	white
VPL 110R4	red
VPL 110G4	green
VPL 110Y4	yellow