### Self-contained

### HBL 110

Unique Hybrid LED lantern

HBL 110 is a robust lantern with a outer polycarbonate cover. It is a low profile lantern to be used integrated into buoy applications.

HBL 110 has an unique hybrid system including a solar panel and an integrated rechargeable battery. During the dark winter months an Alkaline battery is used as a back-up. This hybrid solution saves also time and money when batteries can be changed more rarely and there is less need for maintenance visits.

This robust lantern has very low power consumption and is equipped with GPS synchronization. LightGuard remote monitoring can be added as an option. Advanced bluetooth programming app also available for android and IOS mobile phones.

- Adjustable intensity and range
- Standard range: 4 NM at Tc = 0,74 (5 NM at Tc = 0,85)
- Integrated flasher with day and night switch
- · Available in standard IALA colours
- Vertical divergence 8° @ 50% (±1°) of peak intensity
- GPS synchronization as standard
- Remote monitoring with LightGuard
  Monitor
- Programming with all Sabik
   programmers
- New: programmable up to 50 meters
   distance using Bluetooth technology





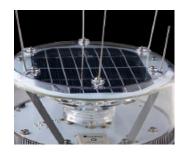




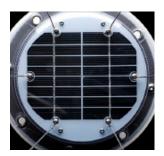


Lens

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.

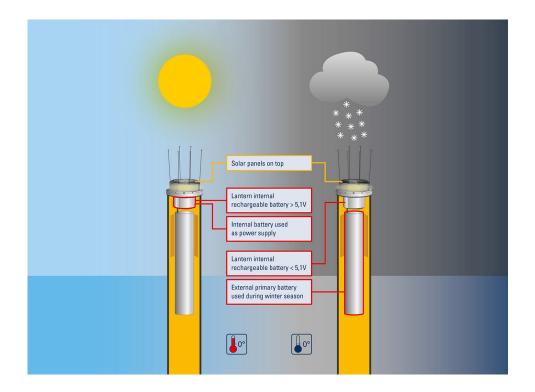


Programming

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

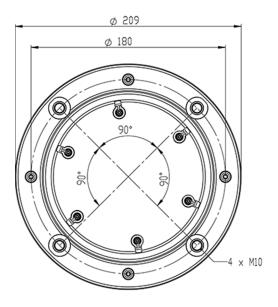


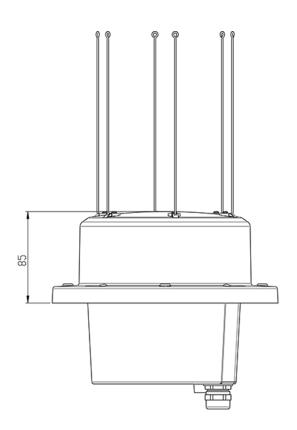
Innovative Bluetooth app Lantern can be programmed and battery status checked up to 50 meters distance with standard android and IOS mobile phones.



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## 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	Integrated GSM based monitoring including	
OPT 9H	GSM/GPS antennas	
Optical Feedback System	Integrated LED performance measurement	
OPT 1H		
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	

yellow

#### Product code for Programmer

980332

HBL 110Y4

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