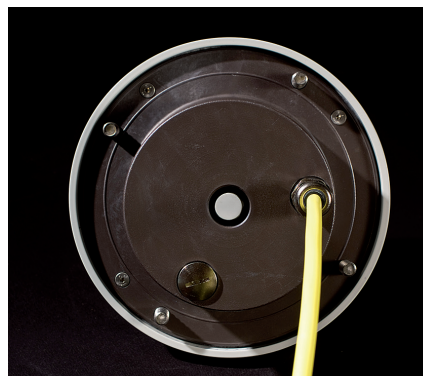


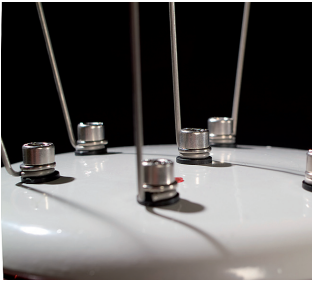
VP LED

Ice buoy LED lantern

The VP LED is a LED lantern designed to be used in moderate ice conditions. It has a proven record of surviving the crushing pressure and dynamic forces of ice. VP LED is mainly used on plastic ice spars and buoys when a light weight unit is important.

- Marine grade aluminium housing
- Designed to be fully waterproof, can sustain extensive submersion
- Integrates firmly into buoy top and presents a very low profile to lateral forces from ice
- Lantern can be removed for battery replacement
- Visual range from 2 to 6 NM ($T_c = 0,74$)
- Standard IALA colours Red, Green, White and Yellow
- Extremely low power consumption, ideal for primary battery operation
- Integrated flasher with day light switch
- Adjustable intensity and range
- Configuration and field maintenance with wireless Sabik Easy Programmer, PDA Programmer or computer
- Integrated 365 day event log
- Optionally integrated GPS synchronization
- Optionally integrated GSM Remote monitoring





Bird spikes
Stainless steel as standard.
Easy to replace.



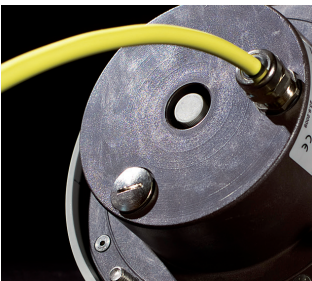
Service
The lantern forms a waterproof service door to the buoy. The primary battery can be replaced by removing the lantern.



Aluminium body
The marine grade aluminium housing with epoxy painting is corrosion resistant and will survive a lot of abuse from ice.



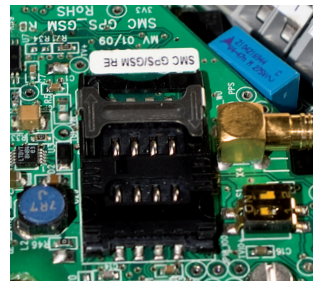
Polycarbonate lens
The low profile optical lens is designed to give minimum exposure to ice forces. Lens is supported by the lantern structure sufficient to protect the unit in arctic conditions.



Waterproof
The lantern is also protected against humidity from inside the buoy. Should the buoy leak, the lantern is still protected. Pressure vent enables breathing.



GPS
GPS unit and antenna integrated in the lantern hat for wireless synchronization and for position monitoring. The integrated GPS antenna is moulded and survives ice pressure.



GSM
GSM unit and antenna integrated in the lantern for remote monitoring and control. For more information please see the LightGuard Section.



Additional cable entry
Equipped as standard with two cable entries. If a second entry is needed, e.g. for a solar module, a standard M20 cable gland can be fitted.



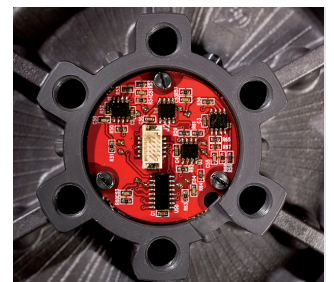
Sabik Easy Programmer
User friendly and compact wireless two-way programmer.



PDA Programmer
Wireless two-way communication using a Windows based PDA with infra red port. Flash code, range and photocell switch level etc. can be set.

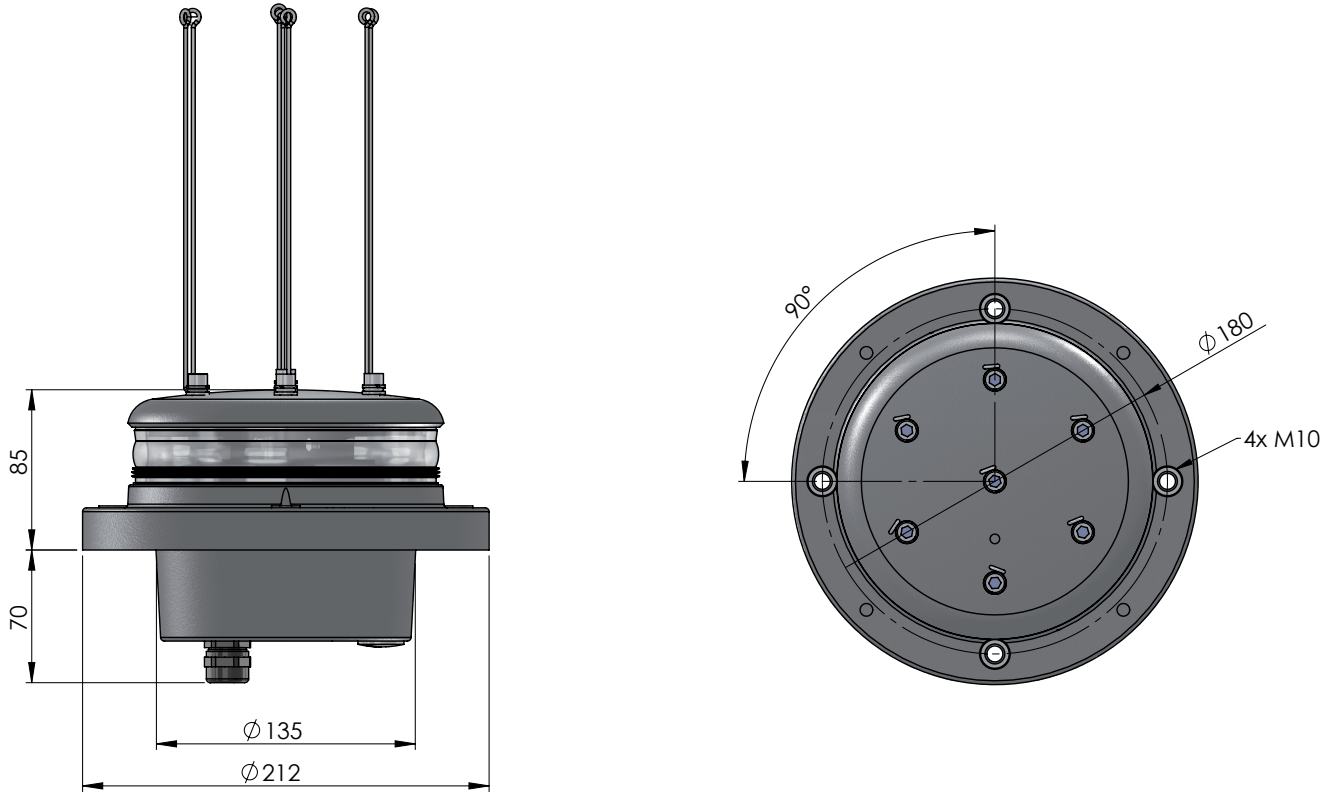


Installation
The lantern is integrated with the buoy top for maximum support against lateral forces. Mounting with 4 pcs of M10 bolts.



OFBS
The Optical Feedback System (OFBS) enables built-in monitoring of LED degradation over time.

Technical Specification VP LED



Optical performance

Maximum fixed intensity

At full power 6 W 120 cd 180 cd 250 cd 100 cd

Main Technical Specification

Lens visual/Mechanical diameter	160 mm
Lens material	UV stabilized Polycarbonate
Light source	Light Emitting Diodes (LEDs)
Vertical divergence (wide lens)	10° @ 50 % (±1°) of peak intensity 20° @ 10 % (±2°) of peak intensity
Unit lifetime	Up to 10 years
Weight	3,2 kg
Temperature range	-40°...+60°C
Supply Voltage	10 – 32 VDC
Solar Panel Charger	16 ampere PWM charger
Power consumption	6 watts/tier
Degree of protection	IP 68

Order Overview VP LED

Option matrix

OPT 1: Optical Feedback System	Integrated LED performance measurement
OPT 4: GPS sync	Integrated GPS sync including GPS antenna
OPT 7: External GPS	External GPS antenna
OPT 9: LightGuard GSM + GPS	Integrated GSM based monitoring including GSM/GPS antennas
OPT 10: LightGuard GSM	Integrated GSM based monitoring including GSM antenna
OPT 11: Control card	Control card for secondary battery
OPT 12: Aux card with I/O	Aux card including I/O ports
OPT 13: Aux card with RS485 and I/O	Aux card including RS 485 and I/O port
Shock & Tilt Sensor	Integrated 3-axis G sensor for tilt and shock sensing

N = Narrow (6° @ 50 % of peak intensity)

W = Wide (10° @ 50 % of peak intensity)

Red	VP LED1NR	Red	VP LED1WR
Yellow	VP LED1NY	Yellow	VP LED1WY
Green	VP LED1NG	Green	VP LED1WG
White	VP LED1NW	White	VP LED1WW

Product code example: VP LED1NWOPT13

- VP LED1 is Sabik code for a single tier VP LED
- NW is the code for a Narrow lens in white
- with a selection of option 13 Aux card with RS485 and I/O

Order Overview VP LED B/Y

Wreck marking lantern blue/yellow

Product codes

VP LED BLUE/YELLOW WRECK MARK	980107
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Option matrix

OPT 4: GPS sync	GPS Synchro unit with GPS antenna integrated in the top of the lantern
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