



Data sheet

Boat Landing Floodlight ALS 450 NAI

- **Maintenance-free LED technology for illumination of boat landing and maintenance platforms on offshore structures**
- **Anodised, powder-coated aluminium housing**
- **Standard NAI bus interface for power supply and communication**

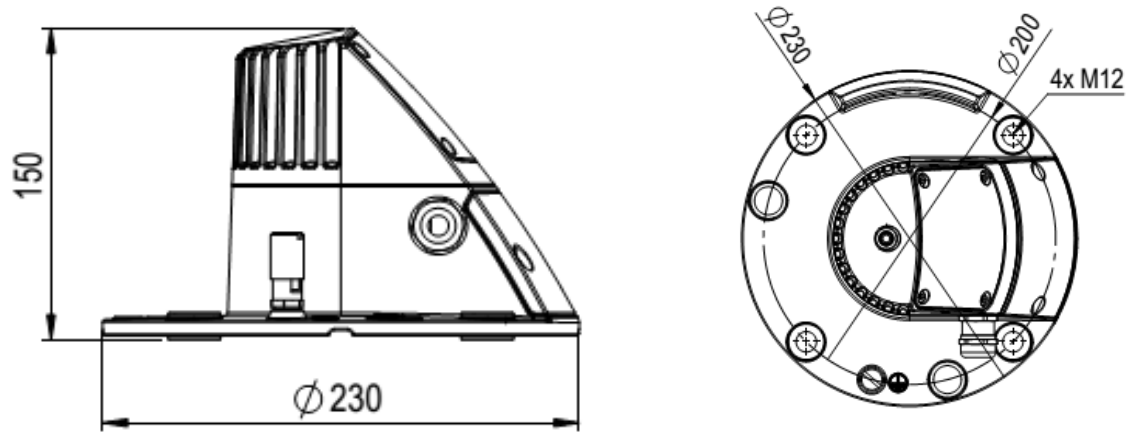
The ALS 450 NAI floodlight is used for illuminating boat landing and maintenance platforms.

The floodlight's integrated NAI bus interface is used to supply power and control the intensity and switching status and to transmit status and error messages to the central NAI Controller. The messages are then available to the central SCADA system.

The integrated operational monitoring detects failure of LEDs, errors in the control electronics as well as supply voltage problems, excess temperature and interruptions in communication.

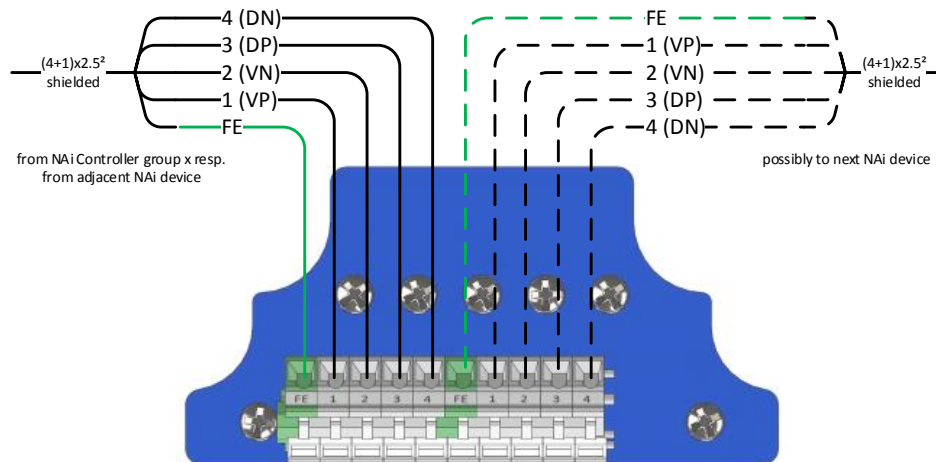
Technical Data

Dimensions, weight



Dimensions, (diameter x height)	230 mm x 150 mm
Weight	2 kg

Electric connection



Electric connection	Spring terminal block, max. 2.5 mm ²
Operating voltage V_{IN}	19 to 36 V DC
Power consumption ($V_{IN}=24$ V DC - max. intensity)	25 W

Optical system

Light colour	3800 K
Average illuminance (10 m installation height)	100 lx

Reliability

MTBF Electronics	2 130 000 h
Minimum LED Lifetime	60 000 h

Environmental conditions

Regulations	IEC 60945, device type 'exposed'
Ambient temperature (operation)	-40 to 55 °C
Ambient temperature (storage / transport)	-40 to 70 °C
Humidity (operation / storage / transport)	max. 95 % acc. to IEC 60945
Atmospheric pressure (operation / storage / transport)	80 kPa to 108 kPa
Degree of protection (acc. to IEC 60529)	IP67
Protection class	Class III

Mechanical requirements

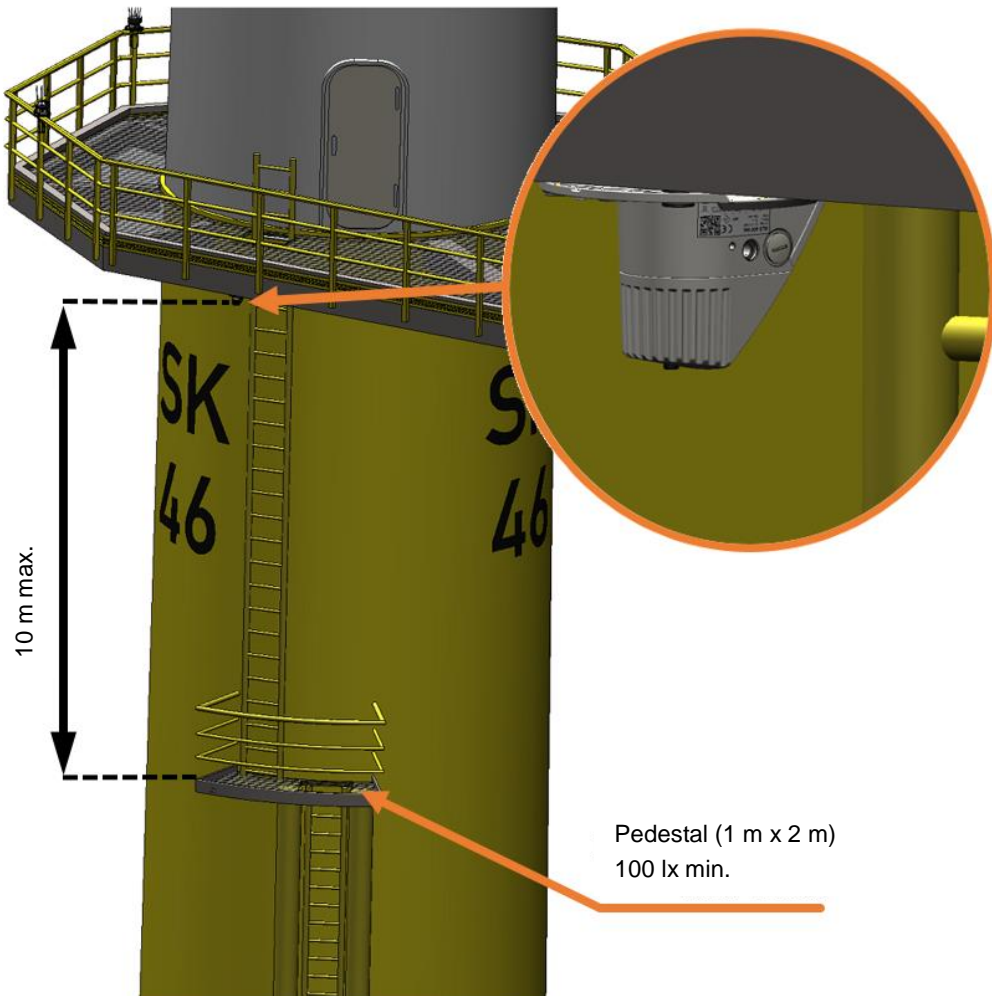
Vibration testing sinusoidal vibrations	acc. to IEC 60945
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EMC compliance

EMC requirements		Applied standard	Test standard / Test criteria
EMC emission	Radiated interference emission	EN 60945:2002	IEC/CISPR 16-2-3:2010 Measuring distance 3 m
EMC immunity	Electrostatic discharge (ESD)	EN 60945:2002	IEC 61000-4-2:2008 Criterion B 8 kV air discharge 6 kV contact discharge
	Electromagnetic fields	EN 60945:2002	IEC 61000-4-3:2010 Criterion A Field strength 10 V/m
	Fast transients (burst)	EN 60945:2002	IEC 61000-4-4:2012 Criterion B All connections: Test voltage 1 kV
	High energy transients (surge)	EN 61000-6-2:2005	IEC 61000-4-5:2005 1 kV on NAI bus line (shield)
	Conducted interference	EN 60945:2002	IEC 61000-4-6:2008 Criterion A All connections: Test voltage 10 kV

Assembly

The floodlight ALS 450 NAI is mounted a maximum of 10 m above the boat landing or the platform to be illuminated in a horizontal position. The floodlight is aligned axially on the ascension ladder, so that the upper area of the ladder is lit evenly. The distance to the ladder must be at least 1 m.



Position of the ALS 450 NAI (example)

Components



1. Device head with LED insert
2. Indicator LED
3. Second cable gland M20 or blanking plug
4. Housing cover for socket with spring terminal block
5. Cable gland M20
6. Earthing connection
7. Device foot with integrated socket and third cable gland M20 or blanking plug on the bottom side

Note: All housing components including the cable glands satisfy the IP67 degree of protection requirements according to IEC 60529. During connection and assembly, ensure that no moisture or dirt penetrates into the open socket.

EMC cable gland¹⁾	Size	for cable diameter	Key width
	M20 x 1.5	7.5-14.0 mm	24 mm

¹⁾ Typ: HELUTOP® MS-EP4

Material

Housing (Device foot, head, cover for socket)	Anodised, powder-coated aluminium (AlSi12)
Lens	PMMA
Cover LED insert	PC (MAKROLON®)
Cable gland	Nickel-plated brass
Earthing connection	Nickel-plated brass
Cover indicator LED	PMMA
Insulation sleeve	PA
Seals	TPE / EPDM
Pressure compensation valve	PTFE membrane

Order data

Product name	Boat Landing Floodlight
Product ID	ALS-450-NAI
Item number	30221000