



SE/MARK WL01-NAI

- **Maintenance-free LED technology for uniform area illumination**
- **Optical feedback and LED monitoring**
- **Standard NAI bus interface for power supply and communication**
- **Adjustable intensity pre-sets by NAI bus**

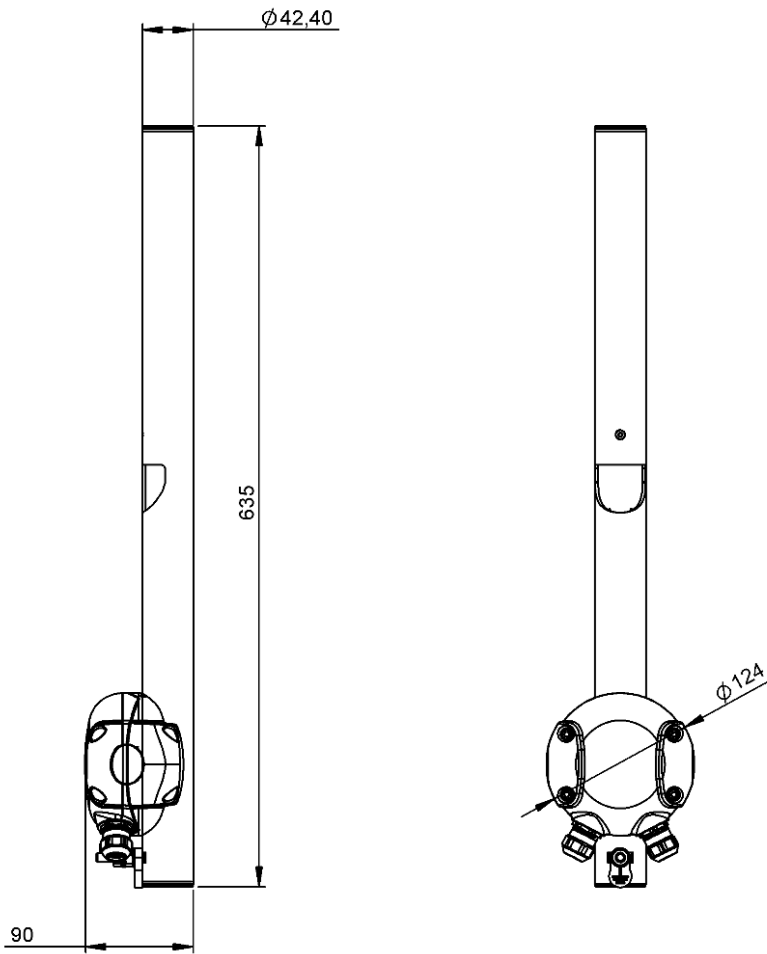
The SeaMark NAI work light is designed for uniform area illumination. The ruggedized stainless-steel design integrates the optical head and mechanical support into a single device.

A levelling sensor assures accurate installation whilst water ingress detection, optical feedback and LED monitoring allow for detailed monitoring and optimized maintenance.

The NAI bus supplies power, sets the intensity and transmits status and error messages to the central NAI controller with a SCADA interface

The work light shall be switched on and off remotely by either SCADA or a force on command from the NAI controller.

Dimensions & Weight



Diameter of junction Box	124 mm
Diameter of stainless-steel enclosure	42 mm
Height	635 mm
Weight	2.5 kg



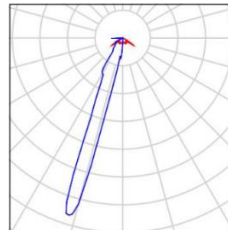
Material

Tube	Stainless Steel 316L / 1.4404
Housing Junction Box IDSL-350 / IDSL 1000	LEXAN™ Resin EXL5689
Housing Optical Head	LEXAN™ LS2
Gasket	THERMOLAST® K TC3GPZ

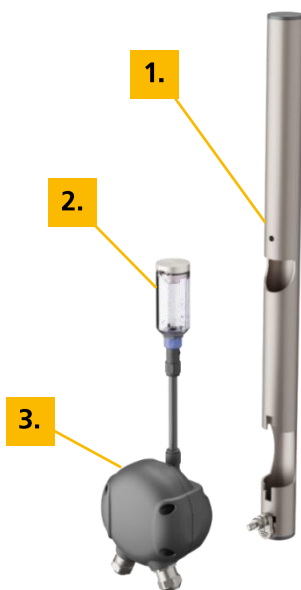
Optical System

Light colour	3000 K (White)
Lumen output	200 lm
Radiance lamp group (acc. to EN 62471:2008)	RG1
Irradiance lamp group (acc. to EN 62471:2008)	RG0

Optical Profile



Components



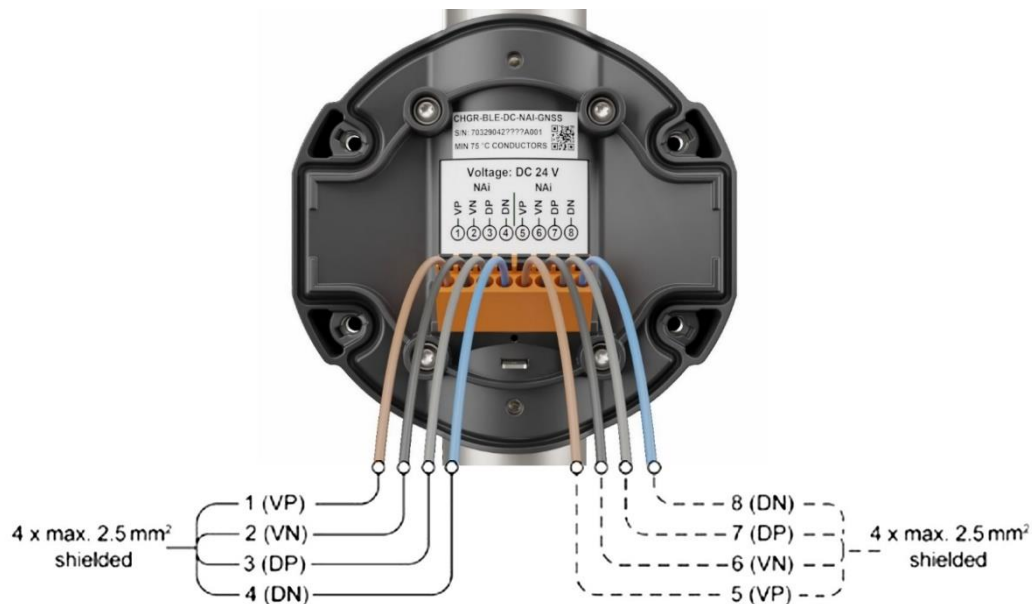
- 1. Stainless Steel Tube
- 2. Optical Head
- 3. Junction Box

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.

	Size	For cable diameter	Key width
EMC Cable Gland	M20 x 1.5	8.0 – 15.0 mm	24 mm

Electrical Connection

Electrical Connection	Spring Terminal Block, max. 2.5 mm ²
Operating Voltage V_{IN}	DC 24.0 V (-25 % / +25 %)
Power Consumption (Peak, $V_{IN} = DC 24 V$) DC	4.0 W



1	VPI	Power supply input (Positive)
2	VN	Power supply input (Negative)
3	DP	NAi data (Positive)
4	DN	NAi data (Negative)
5	VPO	Power supply output (Positive – to next device)
6	VN'	Power supply output (Negative – to next device)
7	DP'	NAi data (Positive – to next device)
8	DN'	NAi data (Negative – to next device)

Environmental Conditions

Ambient temperature (operation)	-25 °C to 55 °C
Ambient temperature (storage / transport)	-40 °C to 70 °C
Humidity (operation / storage / transport)	95 % r.h. up to 45 °C 70 % r.h. for T > 45 °C
Atmospheric pressure (operation / storage / transport)	80 kPa to 108 kPa
Degree of protection (acc. to IEC 60529)	IP66, IP67
Luminaire classification (acc. to EN 60598-1:2018)	Rough service luminaire
Wind zone classification (acc. to IEC 61400-1 Ed. 4)	I
Lightning protection zone (acc. to IEC 62305-4:2010)	LPZ0 _B

Electrical Safety and Health

Protection class	Class III
Overvoltage protection	Class III
Pollution degree	3

Reliability

IALA Category	1* (assumed MTTR of 96 h)
MTBF Electronics	1 083 000 h
Minimum LED lifetime	100 000 h

* IALA Recommendation O-130-Categorisation and Availability Objectives for Short Range AtoN

Compliance

Electromagnetic Compatibility	EN 60945:2002, category "exposed" EN 61547:2009 EN 61000-6-2:2005 + AC :2005 EN 61000-6-4:2007 + A1:2011
Environmental	EN 60945:2002, category "exposed" IEC 61892-1:2019 EN 60598-1:2015 + A1:2008
Product Safety	EN 60598-1:2015 + A1:2018
Health	EN 62471:2008
Mechanical	EN 60945:2002, category "exposed" EN 60598-1:2015 + A1:2018 IEC 61892-1:2019 IEC 61892-3:2019

Ordering Information

Item Number	Product ID	Details
30291600	WL01-NAI	SeaMark NAI Work Light