



## ID Sign Light – VM

Uniform Illumination of ID Signs

Adjustable Intensity Pre-sets via NAI Bus

Smart Monitoring

NAI Compatibility

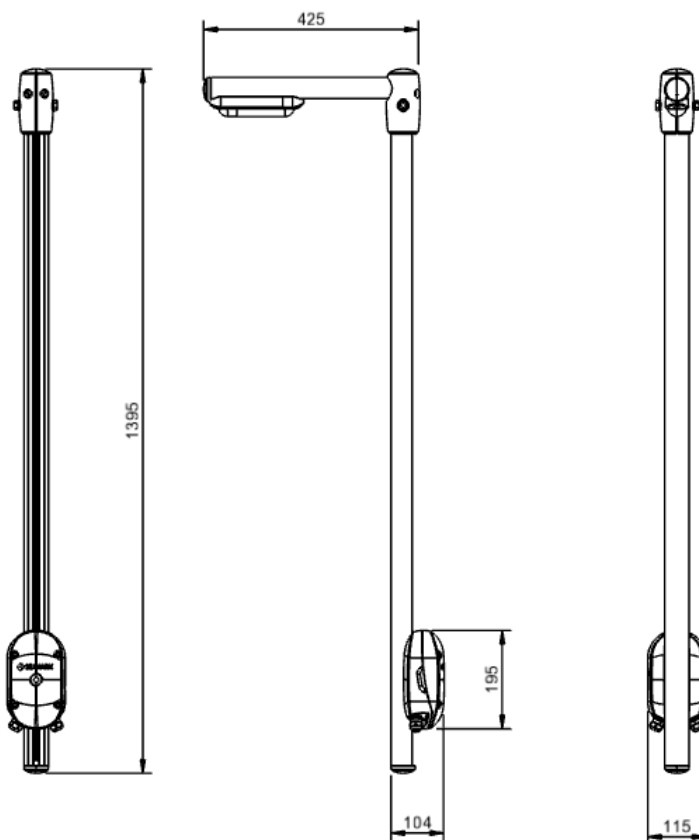
The **SeaMark ID Sign Light (IDSL)** second generation is designed to illuminate turbine identification markings in compliance with German TF13 requirements and IALA Guideline G1162\*. Depending on the configuration, the system supports character heights from 350 mm to 1000 mm and sign widths up to 2200 mm, ensuring clear visibility and reliable identification of offshore structures.

Built around the SeaMark 2 philosophy of reducing complexity, the IDSL integrates optics, electronics, and mechanical support into one compact, seawater-resistant assembly. Intelligent monitoring, remote configuration, and compatibility with both generation 1 and generation 2 NAI systems simplify installation, operation, and maintenance throughout the product lifecycle.

A smart photocell ensures reliable operation by accurately differentiating between ambient light conditions and illumination from the sign itself.

\* IALA G1162, "The marking of man-made offshore structures"

## Dimensions & Weight



|                                             |                     |
|---------------------------------------------|---------------------|
| Dimensions of Junction Box (width x height) | 115 x 195 mm        |
| Aluminum Rod diameter                       | 48 mm               |
| Total measurements (width x height x depth) | 115 x 1395 x 425 mm |
| Total Weight (excl. cable)                  | 5 kg'               |

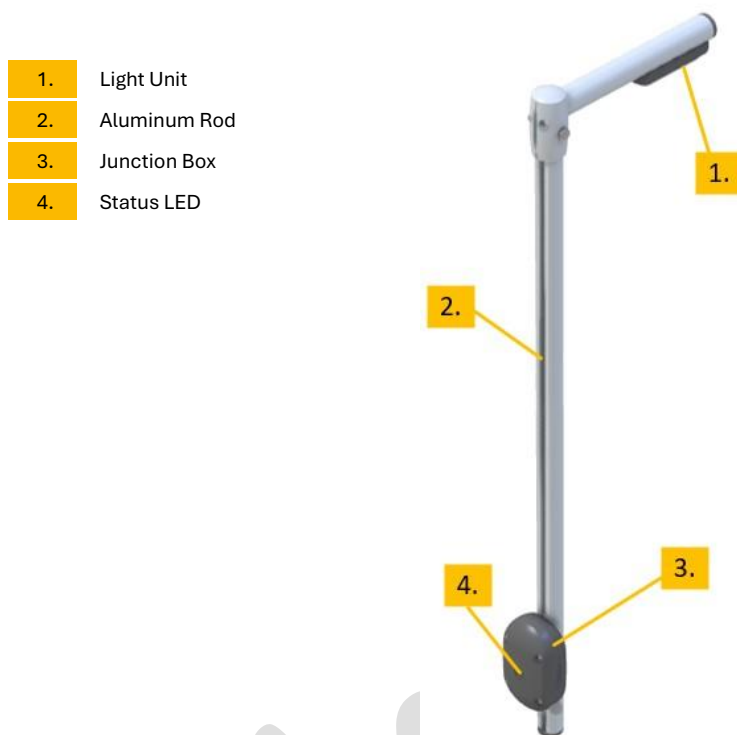
## Material

|                      |                             |
|----------------------|-----------------------------|
| Light Armature Base  | Polycarbonate               |
| Light Armature Glass | Polycarbonate               |
| Rod                  | Seawater resistant aluminum |
| Housing Junction Box | LEXAN™ Resin EXL5689        |
| Gasket               | THERMOLAST® K TC3GPZ        |
| EMC Cable Glands     | Nickel plated Brass         |

## Optical System

| Optical data                                                                               |                 |                            |
|--------------------------------------------------------------------------------------------|-----------------|----------------------------|
| Radiance, risk group (acc. to EN 62471:2008)                                               |                 | RG1                        |
| Irradiance, risk group (acc. to EN 62471:2008)                                             |                 | RG0                        |
| Light Colour                                                                               |                 | White (T=3000 K)           |
| Average illuminance of the ID Sign Board                                                   | IDSL-350-G2-VM  | 25 ... 60 lx               |
|                                                                                            | IDSL-1000-G2-VM |                            |
| Resulting luminance for ID Sign Boards with inverse lettering (Yellow on black background) | IDSL-650-G2-VM  | 5 ... 10 cd/m <sup>2</sup> |
| Illuminance uniformity ratio on the ID Sign Board                                          | IDSL-350-G2-VM  | 1:5                        |
|                                                                                            | IDSL-650-G2-VM  | 1:3                        |
|                                                                                            | IDSL-1000-G2-VM | 1:10                       |

## Components



**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 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 <sup>2</sup> |
| Operating voltage $V_{IN}$                   | DC 24.0 V (-25% / +25%)                         |
| Power consumption (Peak, $V_{IN}$ = DC 24 V) | 2 W                                             |



| X1 Connector |     |                                                 |
|--------------|-----|-------------------------------------------------|
| 1            | VPI | Power supply input (Positive)                   |
| 2            | VNI | Power supply input (Negative)                   |
| 3            | DP  | NAi data (Positive)                             |
| 4            | DN  | NAi data (Negative)                             |
| 5            | VPO | Power supply output (Positive) – to next device |
| 6            | VNO | 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 ... 55 °C                                    |
| Ambient Temperature (storage / transport)              | -40 ... 70 °C                                    |
| Humidity (operation / storage / transport)             | 95 % r.h. up to 45 °C<br>70 % r.h. for T > 45 °C |
| Atmospheric Pressure (operation / storage / transport) | 80 ... 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                                                |
| Impact Protection (acc. to IEC 62262-1:2018)           | IK08                                             |
| Lightning Protection Zone (acc. to IEC 62305-4:2010)   | LPZ0 <sub>B</sub>                                |

## Electrical Safety & 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 R0130 (O-130) Categorisation and Availability Objectives for Short Range AtoN

## Compliance

|                               |                                                                                                                                                                                                                                                                                                             |
|-------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Electromagnetic Compatibility | EN 60945:2002, category "exposed"<br>EN 61547:2009<br>EN 61000-6-2:2005<br>EN 61000-6-4:2007 + A1:2011<br>EN 55015:2013<br>EN 62479:2011<br>ETSI EN 303 446-2 V1.2.0 (201903)<br>ETSI EN 301 489-17 V3.1.1<br>ETSI EN 301 489-1 V2.1.1<br>ETSI EN 300 328 V2.1.1<br>ETSI EN 300 330 V2.1.1<br>FCC Part 15 B |
| Environmental                 | EN 60945:2002, category "exposed"<br>IEC 61892-1:2019<br>EN 60598-1:2015 + A1:2008                                                                                                                                                                                                                          |
| Product Safety                | EN 60598-1:2015 + A1:2018<br>EN 60598-2-5 :2015                                                                                                                                                                                                                                                             |
| Health                        | EN 62471:2008                                                                                                                                                                                                                                                                                               |
| Mechanical                    | EN 60945:2002, category "exposed"<br>EN 60598-1:2015 + A1:2018<br>EN 60598-2-5:2015<br>IEC 61892-1:2019<br>IEC 61892-3:2019                                                                                                                                                                                 |

## Ordering Information

| Product ID      | Details                                          | Part Number |
|-----------------|--------------------------------------------------|-------------|
| IDSL-350-G2-VM  | ID Sign Light for 2 Rows of $\pm 350$ mm Letters | 30380110    |
| IDSL-650-G2-VM  | ID Sign Light for $\pm 650$ mm letters           | 30380130    |
| IDSL-1000-G2-VM | ID Sign Light for $\pm 1000$ mm letters          | 30380150    |