SEAMARK

DATASHEET

SEAMARK IDSL (ID Sign Light) - NAI

- Maintenance-free LED technology for the uniform illumination of ID signs (sign board sold separately)
- Smart photocell, levelling sensor, water ingress detection, optical feedback and LED monitoring
- Standard NAi bus interface for power supply and communication
- Adjustable intensity pre-sets by NAi bus

The IDSL-NAI-1000 is designed compliant with German regulation TF13, and in accordance with IALA Guideline G1162* to uniformly illuminate ID Sign Board panels with 1000 mm high letters and numbers, up to 2200 mm in width, without obscuring AtoN or affect navigation in the vicinity.

IDSL-NAI-650 and IDSL-NAI-350 offer the same performance for ID Sign Board panels with character heights of 650 mm, or two rows of 350 mm characters respectively.

For details see table in section “Optical System”.

The ruggedized stainless-steel design integrates the optical head and mechanical support into a single device.

A smart photocell ensures accurate day to night switching by distinguishing between the light produced by the ID Sign Light and ambient light.

Versions Available

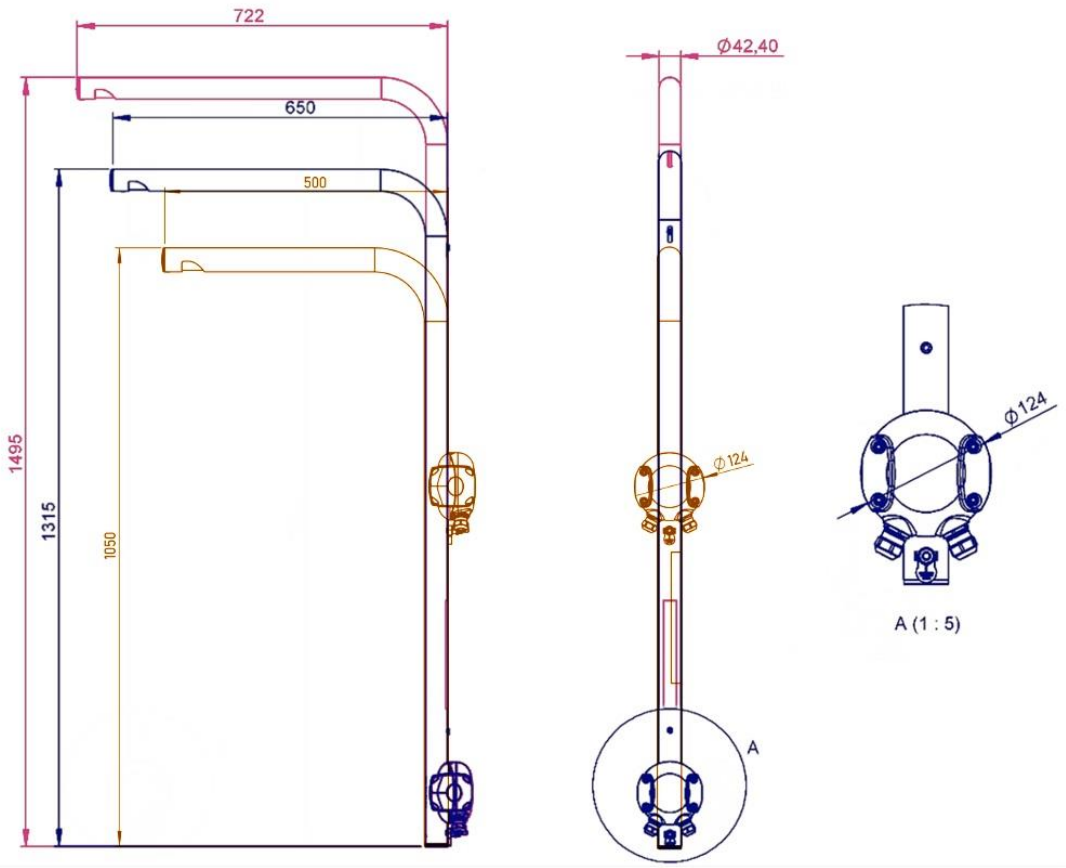
IDSL-NAI-350 - for 350 mm high characters

IDSL-NAI-650 – for 650 mm high yellow and unframed characters on black ground

IDSL-NAI-1000 - for 1000 mm high characters

* IALA Guideline G1162 The marking of offshore man-made structures

Dimensions & Weight



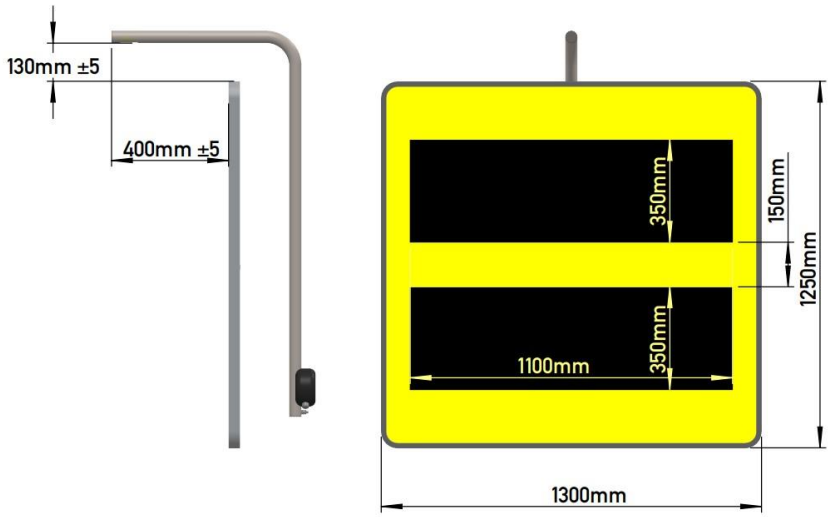
	IDSL-NAI-350	IDSL-NAI-650	IDSL-NAI-1000
Diameter of junction Box	124 mm	124 mm	124 mm
Diameter of stainless-steel enclosure	42 mm	42 mm	42 mm
Height	1315 mm	1050 mm	1495 mm
Depth (arm extension)	650 mm	500 mm	722 mm
Weight	5.2 kg	4.5 kg	5.9 kg
Maximum associated sign board dimensions	1300 x 1250 mm	1600 x 850 mm	2200 x 1500 mm

Material

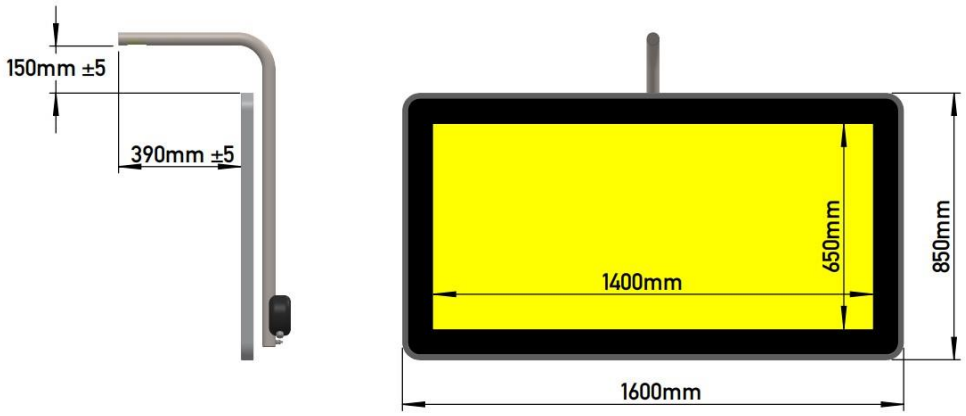
Tube	Stainless Steel 316L / 1.4404
Housing Junction Box IDSL-350 / IDSL 1000	LEXAN™ Resin EXL5689
Housing Optical Head	LEXAN™ LS2
Gasket	THERMOLAST® K TC3GPZ

Optical System

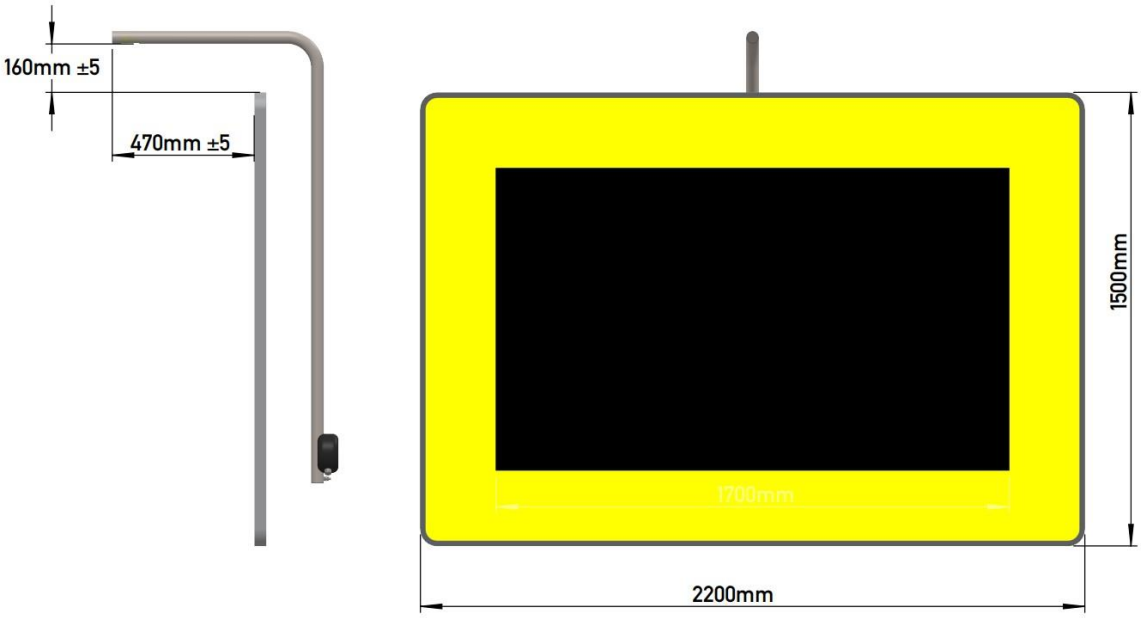
Optical data		
Radiance, risk group (acc. to EN 62471:2008)		RG1
Irradiance, risk group (acc. to EN 62471:2008)		RG0
Light Colour		White (T=3000 K)
Average illuminance of the ID Sign Board	IDSL-NAI-350	25 ... 60 lx
	IDSL-NAI-1000	
Resulting luminance for ID Sign Boards with inverse lettering (Yellow on black background)	IDSL-NAI-650	5 ... 10 cd/m²
Illuminance uniformity ratio on the ID Sign Board	IDSL-NAI-350	1:5
	IDSL-NAI-650	1:3
	IDSL-NAI-1000	1:10



IDSL-NAI-350 (for 2 rows of black characters) with IDSB-350
(Typical IDSB dimensions and may require project-specific design)



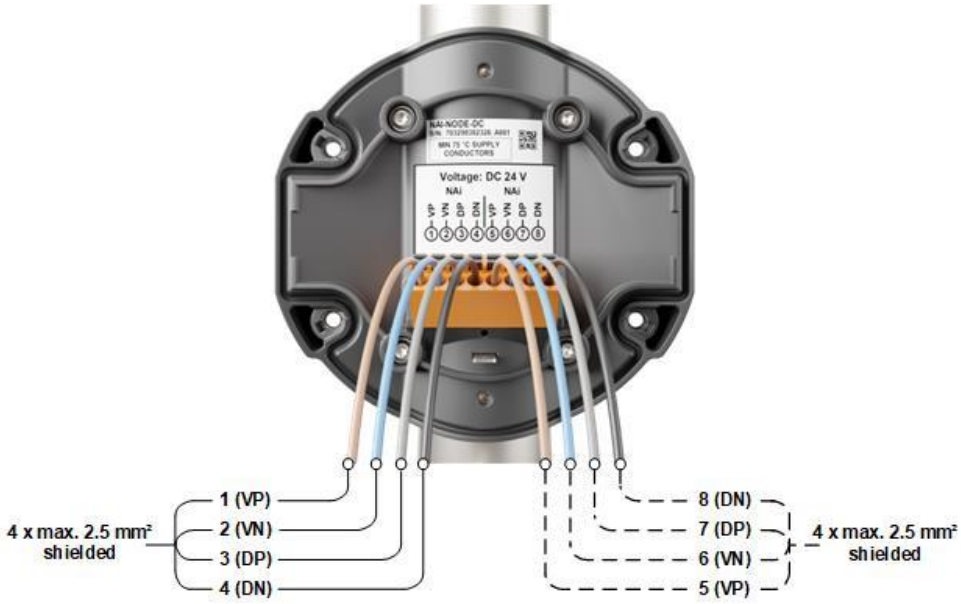
IDSL-NAI-650 (for 650 mm high yellow characters on black ground) with IDSB-650
(Typical IDSB dimensions and may require project-specific design)



IDSL-NAI-1000 with IDSB-1000
(Typical IDSB dimensions and may require project-specific design)

Electrical Connection

	IDSL-NAI-350	IDSL-NAI-650	IDSL-NAI-1000
Electrical connection	Spring terminal block, max. 2.5 mm^2	Spring terminal block, max. 2.5 mm^2	Spring terminal block, max. 2.5 mm^2
Operating voltage V_{IN}	DC 24.0 V (-15 % / +25 %)	DC 24.0 V (-15 % / +25 %)	DC 24.0 V (-15 % / +25 %)
Power consumption (Peak, V_{IN} = DC 24 V)	1.6 W	1.4 W	2.2 W



Sabik recommended colour code

1	VP	Power supply input (Positive)
2	VN	Power supply input (Negative)
3	DP	NAi data (Positive)
4	DN	NAi data (Negative)
5	VP	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)

Components

1. Optical Head
2. Stainless Steel Arm
3. Earthing
4. Junction Box
5. Internal Cable

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

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

Ordering Information

Product ID	Details
IDSL-NAI-350	ID Sign Light for 2 Rows of ±350 mm Letters
IDSL-NAI-650	ID Sign Light for ±650 mm letters
IDSL-NAI-1000	ID Sign Light for ±1000 mm letters
IDSB-350	ID Sign Board for 350 mm letters
IDSB-650	ID Sign Board for 650 mm letters
IDSB-1000	ID Sign Board for 1000 mm letters