

## DATASHEET

## ORIGINALNAi VIS-KIT-NAI-SWS100

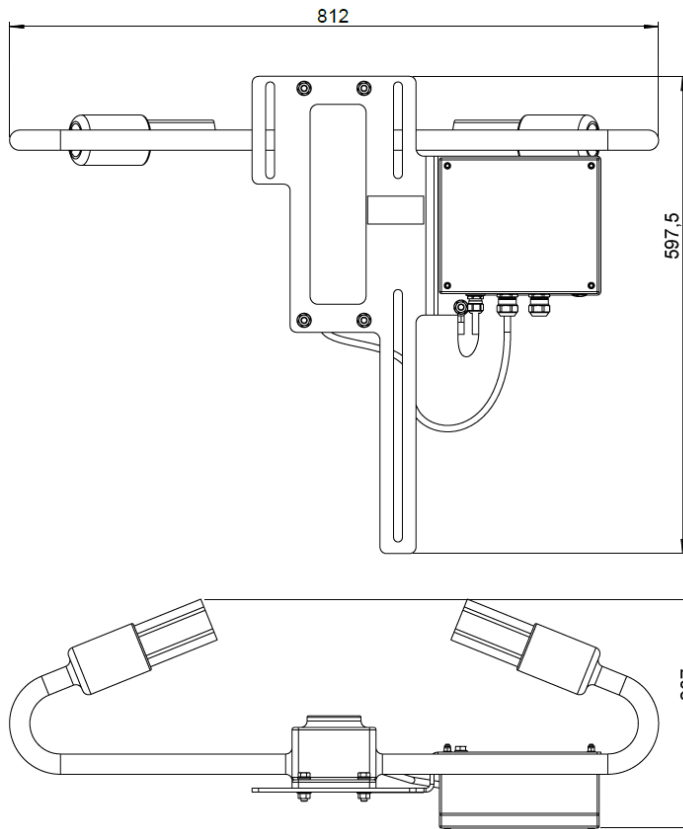
- Hard anodized body and stainless-steel junction box for superior performance against corrosion
- Accurate and reliable in all weather conditions
- Not influenced by local lights sources, even those that flash
- Seamless integration onto the Sabik Offshore NAI bus
- Easy mounting and simple electrical connection
- Low power consumption

The VIS-KIT-NAI-SWS100 combines the Biral SWS-100 visibility meter with the Sabik Offshore NAI system.

A hard anodized body and stainless-steel junction box allows for superior performance against corrosion in harsh offshore environments.

Seamless integration into the Sabik Offshore NAI system allows for the automatic triggering of audible and visual aids to navigation. The visibility meter makes use of the forward scatter measurement principle to ensure accurate and reliable detection of low visibility in all weather conditions.

## Dimensions & Weight



Width	812 mm
Height	598 mm
Depth	287 mm
Weight	12 kg

## Material

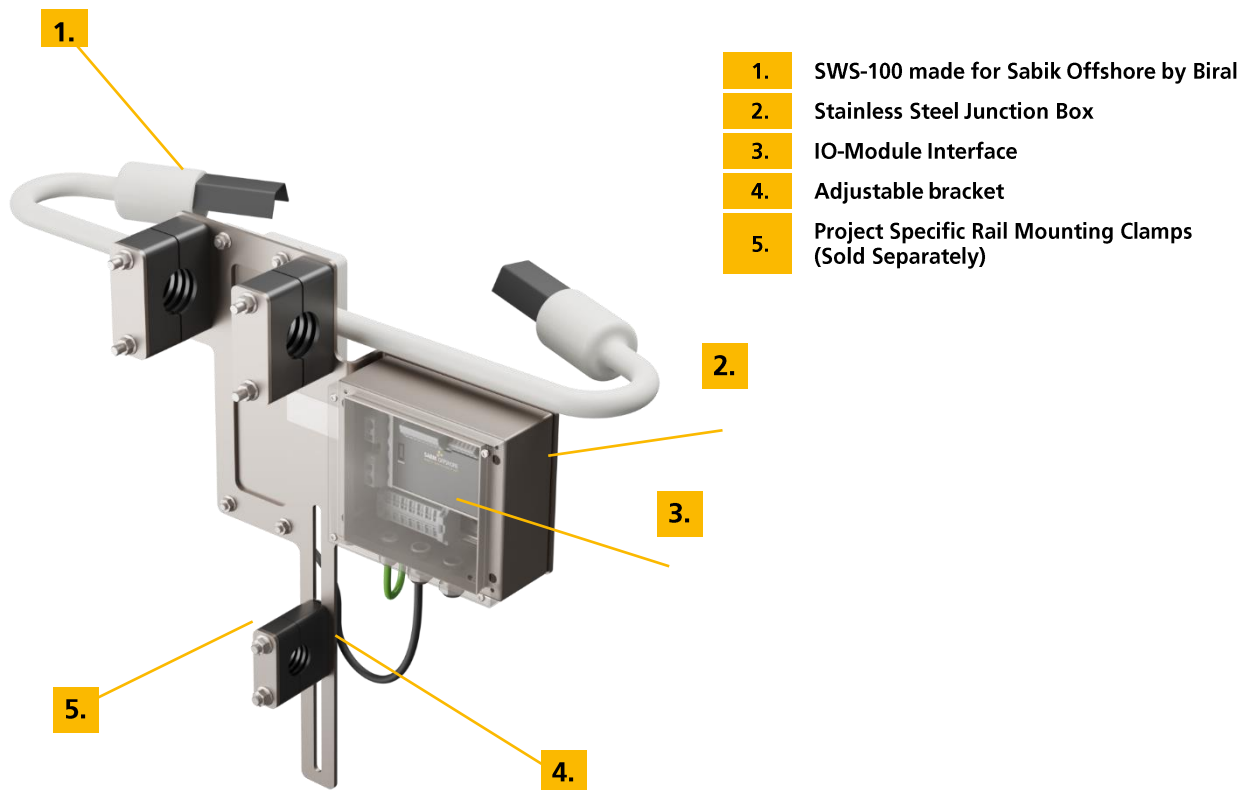
Housing Junction Box	Stainless Steel 316 L / 1.4404
Bracket	Stainless Steel 316 L / 1.4404
Biral-SWS-100	Aluminum, hard anodized to MIL-A-8625 Type III Class 1*
Cable Gland	Nickel-plated brass

\* Taken from the Biral SWS-100 Datasheet (DOC101261.08A)

## Visibility and Precipitation Measurements<sub>A</sub>

Measurement range (factory-set)	2 km (1.08 NM)
Measurement accuracy	Error ≤ 5.1 % at 2 km
Measurement principle	Forward scatter meter with 39° to 51° angle, centered at 45°

## Components



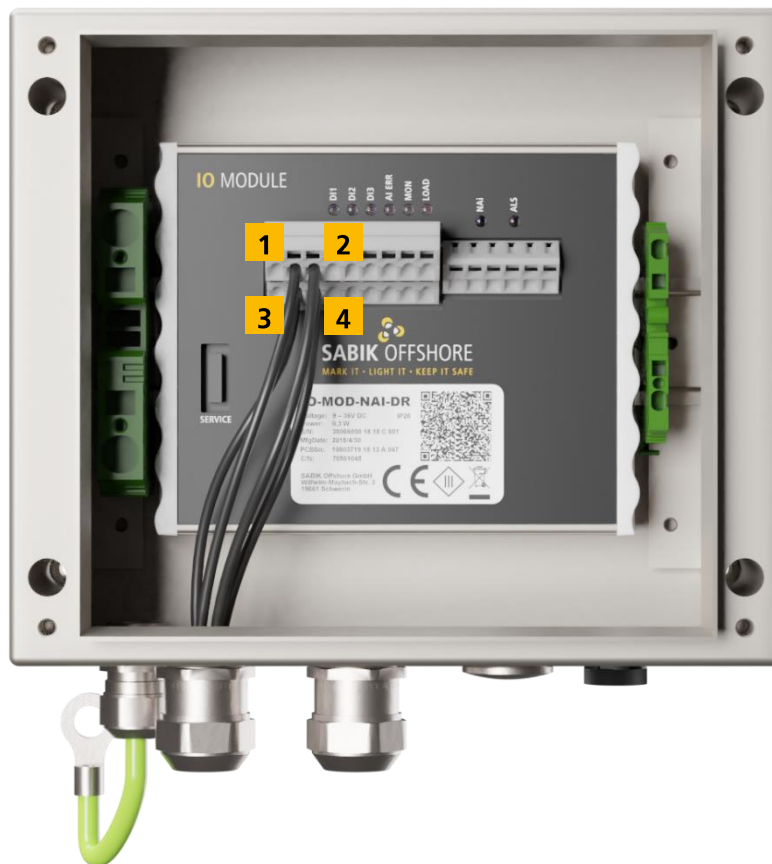
Note: The VIS-KIT-NAI-SWS100 must be fastened to the railing with three Stauff tube clamps of the heavy series (DIN 3015 part 2), size 4 – 6 (project specific).

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 <sup>2</sup>
Operating voltage $V_{IN}$	DC 24.0 V (-25 % / +25 %)
Power consumption	5.2 W



1	Power supply input (Positive)
2	Power supply input (Negative)
3	NAi data (Positive)
4	NAi data (Negative)

## 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 (according to IEC 60529)	IP66 / IP67
Lightning protection zone (acc. To IEC 62305-4:2010)	LPZ0 <sub>B</sub>

## Electrical Safety and Health

Protection class	Class III
Overvoltage protection	Class III
Pollution degree	3

## Compliance

EMC Compliance SWS100	EN 61326-2013
EMC Compliance IO-Module	EN 60945:2002 EN 61000-6-2:2005 / AC:2005
Environmental	IEC 60945, Category "Exposed" IEC 61892-1:2019 BS EN 60068-2-11:1999 <sub>A</sub> (more than 1000 hours exposure Salt Mist Spray)
Product safety	EN 61010-1:2010 EN 62311 :2012
Mechanical	IEC 61892-1:2019 IEC 61892-3:2019

## Reliability

MTBF (SWS-100 + IO Module NAI)	50.000 h **
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\*\* Calculated according to MIL-HDBK-217F, Military Standard for Reliability Prediction of Electronic Equipment

## Ordering Information

Item Number	Product ID
30 12 00 01	VIS-KIT-NAI-SWS100