

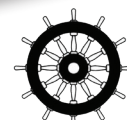
# AIS 300



KONGSBERG



## AUTOMATIC IDENTIFICATION SYSTEM - CLASS A MOBILE STATION



0575

The AIS 300 is the 4th generation AIS class A mobile station from Kongsberg and is designed to be fully integrated in a ship's bridge environment. An improved receiver sensitivity of  $-115$  dBm gives an increased range compared to AIS units with the standard sensitivity of  $-107$  dBm. The AIS 300 is tested and approved in accordance with international regulations and have the Wheelmark certification. In addition the AIS 300 is tested and approved in accordance with the inland AIS regulations.

### Integration

The AIS 300 is designed to be fully integrated with other navigation systems and can be delivered without an external display (MKD - Minimum Keyboard and Display), provided that the ECDIS is listed in MED-B for AIS-300. All operations and functionalities are handled from the ECDIS in an integrated bridge system. The AIS 300 is hence type approved with ECDIS from different manufacturers and brands, in order to avoid installing a redundant display/keyboard. One important principle of e-navigation is to reduce the number of displays on the bridge. The navigator needs to have important information easily available in order to reduce response time for decisions. Better integration will lead to a better bridge environment as well as a simpler installation. If the AIS Unit is not to be fully integrated, an external display is needed in order to operate the system.

### ECDIS/ECS, radar and sensor interface

Interface to ECDIS/ECS and radar is provided via the Presentation Interface (PI) available on network or serial interface (RS-422). It is implicit that the system supports the AIS interface. When interfacing the AIS to radar and chart systems, AIS target information such as position, heading course and speed become easily available to the mariner.

### Easy to install and maintain

The AIS 300 is by default delivered with a bracket containing a solution for strain relief in both ends. The unit has a built-in WEB based user interface (UI) providing an interface for configuration and status monitoring. Software updates are supported via the WEB UI but also the USB interface will automatically detect new software when a USB stick is inserted. The update will be accomplished without interfering with the existing configuration. The latest software will continuously be available for download from an FTP server hosted by Kongsberg.

**TESTLAB**  
EC TYPE-EXAMINATION (MODULE B) CERTIFICATE  
Marine Equipment Directive (MED) 2014/90/EU  
PHOENIX TESTLAB  
Notified Body Number: 0700

Recognized by 09005114822007

This is to certify that  
PHOENIX TESTLAB has published the relevant type examination certificate for the good of equipment certified items which may  
be used in a compliance with the requirements of Marine Equipment Directive (MED) 2014/90/EU, subject to any conditions in  
the relevant examination certificate.

Certificate No.	PTLABED-B-16-10695
Manufacturer	Kongsberg Seater AS
Address	Haugesund 9 7000 Tondevann Norway
Directive Reference (No. & item designation)	Directive 2014/90/EU, Regulation (EU) 2015/773 MEDH 32 Universal automatic identification system equipment(AIS)
Product Name	AIS 300
Specified Standards	IEC 61983-2 Ed. 2 (2012) IMO Resolution MSC.454(12) IMO Resolution MSC.742(18) IMO Resolution MSC.195(79) ITU-R M.1371-8 (Class A), 2014 IEC 61983-2 Ed. 2 (2012) IEC 61983-1 Ed. 4 (2004) and Cor. 1 (2006) IEC 61983-2 Ed. 1 (1998) IEC 62288 Ed. 2 (2014)
Date of issue	2016-07-11
Valid until	2019-06-31
Notified Body No.	165 158/02/000

The certificate remains valid unless suspended, expired or withdrawn, provided the conditions in the attached  
certificate are complied with.

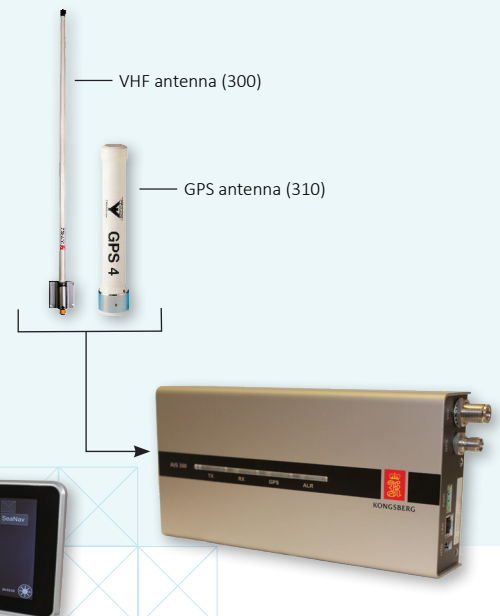
The attached Schedule of Approval forms  
part of this certificate. This certificate  
consists of 4 pages.

PHOENIX TESTLAB  
Notified Body

PHOENIX TESTLAB GmbH  
Haugesund 9  
D-50569 Germany, Germany  
www.phoenixtestlab.com

## FEATURES

- Reception of all types of internationally approved AIS messages, including, but not restricted to, class A mobile, class B mobile, AtoN and AIS base station
- Three separate AIS channels
- Static data, dynamic data, voyage related data
- Safety related messaging
- Easy integration via network or serial interfaces
- Transmission of message 27 on SAT AIS frequencies
- Special tracking functionality and well valve status monitoring adapted to aquaculture live-fish carriers for documentation and reporting during transport operations in accordance with "Forskrift om transport av akvakulturdyr", §9a



## TECHNICAL SPECIFICATIONS

### AIS 300

#### PERFORMANCE

Position accuracy	5 m (DGPS optional) -95 % CEP
Velocity	0.05 m/s (DGPS optional) -95 %
Output rate	1 Hz

#### DATA INPUTS

Gyro compass	NMEA
GPS main source	NMEA
DGPS corrections	RTCM - SC104 v2.1
Blue sign switch	Closed/open

#### INTERFACES

Communication ports	7 x RS-422 (isolated) 2 x RS-232 (service, unisolated)
Baud rate	4800 to 115200 Baud
Message formats	NMEA
Message type	AIS message
LAN	Ethernet, 10/100 Mbit/s (autosense)
Alarm relay, blue sign switch	Open/closed

#### RADIO MODULE

VHF transmitter	12.5 W/1 W
Receiver sensitivity	Better than -107 dBm
Protocol	SOTDMA/DSC
Modulation	GMSK/FSK
Bandwidth	25 kHz
Frequencies	156.025 to 162.025 MHz band Default CH87B (161.975 MHz) Default CH88B (162.025 MHz) CH70 (156.525 MHz) SAT 1 (156.775 MHz) SAT 2 (156.825 MHz)

#### WEIGHTS AND DIMENSIONS

AIS 300 Unit	1.3 kg, 260 x 133 x 54 mm
GPS antenna	0.15 kg, 230 mm x 33 mm
VHF antenna	1 kg, 1250 mm

#### POWER SPECIFICATIONS

##### AIS 300 Unit

Input voltage	+24 V DC (op. range 12 to 32 V DC)
Power consumption	9 W average, 39 W peak
GPS antenna	5 V CD from AIS Unit

#### ENVIRONMENTAL SPECIFICATIONS

##### Operating temperature range

AIS 300 Unit	-15 to +55 °C
GPS antenna	-50 to +70 °C
VHF antenna	-55 to +70 °C

##### Humidity

AIS 300 Unit	< 95 % relative, non-condensing
GPS antenna	100 %, hermetically sealed
VHF antenna	100 %, hermetically sealed

#### STANDARDS

Product safety low voltage	IEC 60945/EN 60945
Electromagnetic compatibility, immunity/radiation	IEC 60945/EN 60945
Vibration	IEC 60945/EN 60945
AIS	IEC 61993-2, ed. 2/ITU-R M.
1371-5	
IWW	Inland AIS test standard (CCNR), ed. 2.0 10/2012

#### OPTIONS INPUT/OUTPUT

- Rate of turn (Input)
- ECDIS/ECS
- Standard PI
- Radar
- Long range communication system
- Blue sign plate

#### MANDATORY INPUTS

GPS & heading data

Specifications subject to change without any further notice.

#### KONGSBERG SEATEX

Switchboard: +47 73 54 55 00  
Global support 24/7: +47 33 03 24 07  
E-mail sales: km.seatex.sales@km.kongsberg.com  
E-mail support: km.support.seatex@kongsberg.com

[km.kongsberg.com/seatex](http://km.kongsberg.com/seatex)



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