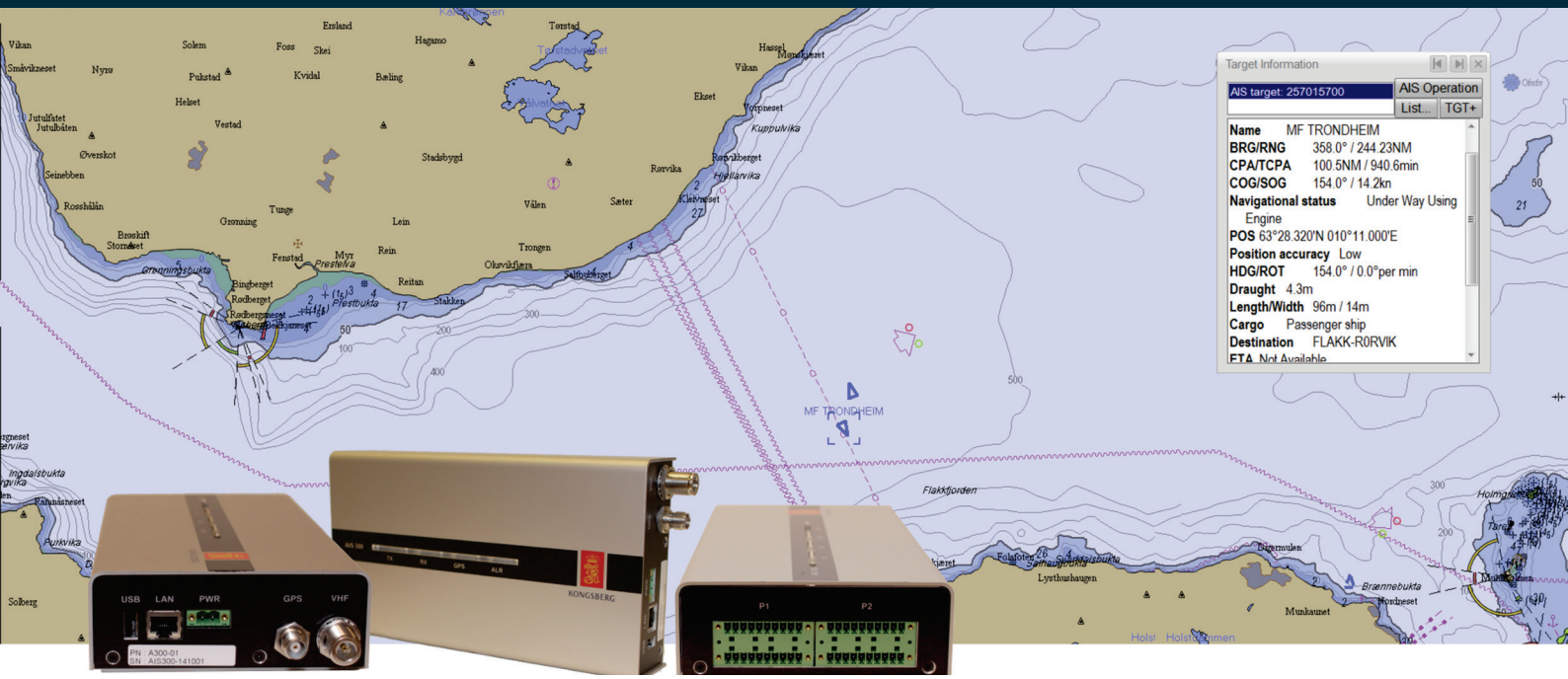
K-BRIDGE AIS 300

KONGSBERG



AIS 300 BLACK BOX SYSTEM - SEAMLESS OPERATION

K-Bridge AIS 300 is a “black box” AIS system, which means that it has no need of a dedicated display and control unit. Controls for it have been designed into the user interface for K-Bridge ECDIS and Radar.

In addition, K-Bridge AIS 300 has an improved receiver sensitivity of -115 dBm. This increases its range by comparison with AIS units that have the standard receiver sensitivity of -107 dBm.

The K-Bridge AIS 300 has wheel mark certification and meets the requirements of Inland Waterways (IWW) navigation standards.

FEATURES

- Operated seamlessly as part of ECDIS or Radar
- An interface to the vessel’s primary GPS receiver ensures that navigation data transmitted agrees with the own-ship’s operating data
- Built-in GPS receiver for backup and time synchronization
- Serial or LAN interface to the vessel’s gyro-compass
- Easy installation
- Easy configuration and software upgrades via a web-based user interface
- Receives all types of internationally approved AIS messages, including class A mobile, class B mobile, AtoN, and AIS Base Station messages
- Target data includes:
  - Ship name, call sign, MMSI, and IMO number
  - Destination and ETA
  - Static and voyage-related ship and cargo data
  - Ship length/beam
- Position data (according to WGS84) given in degrees/ minutes of latitude/longitude
- Course over ground (COG) given in degrees
- Speed over ground (SOG) given in knots and 1/10 knots
- Maximum draught given in 1/10 of metres
- Messages incorporate date and time (UTC) of composition
- Supports transmission of Message 27 (the long-range broadcast AIS message) on SAT AIS frequencies

SPECIFICATIONS

Standards
The equipment is designed to conform to the following standards:

Product safety low voltage	IEC 60945/EN 60950
Electromagnetic compatibility, immunity/radiation	IEC 60945/EN 60945
Vibration	IEC 60945/EN 60945
AIS	IEC 61993-2, ed. 2/ ITU R-1371-5
IWW	Inland AIS test std, ed. 1.0
MTBF (hours)	40, 000

Performance

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

Weight and dimensions

	Length	Width	Height	Weight
AIS unit	260 mm	133 mm	53 mm	≈1.3 kg
GPS antenna		38 mm	313 mm	≈0.15 kg
VHF antenna			1250 mm	

Data inputs

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

Power (AIS unit)

Input voltage	12 to 24 VDC
Power consumption	20 W continuous/30 W peak

Interfaces

Communication ports	7 x RS-422 (isolated) 1 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

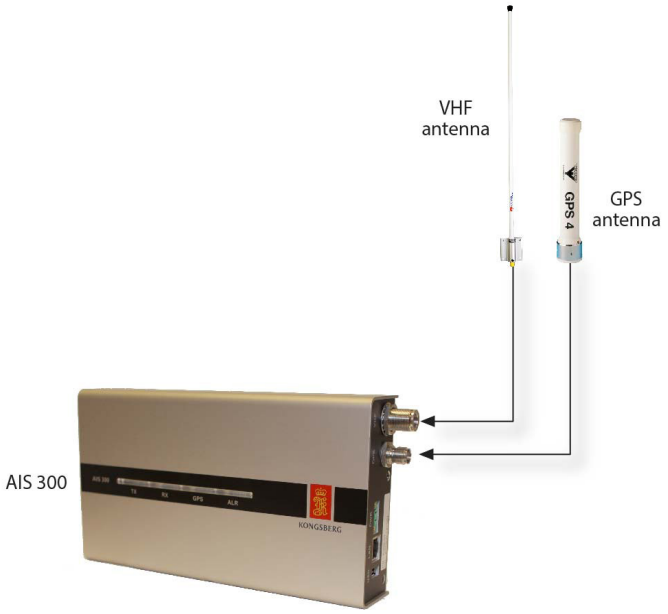
Environmental specifications

	Op temp.	Store temp	Op humidity
AIS unit	-15 to +55 °C	-15 to +70 °C	0 - 95 % RH
GPS ant.	-15 to +55 °C	-15 to +70 °C	100%*

*Hermetically sealed

Mandatory
GPS data
Heading data

Optional input / output
Rate of turn (input)
ECDIS
Radar
Long range communication system
Blue sign plate



Radio module specifications

VHF transmitter	12.5 W/1 W
Receiver sensitivity	Better than -115 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

Built-in GPS module specifications

12-channel GPS receiver	
Position accuracy (GPS)	15 m RMS
Position accuracy (DGPS)	5 m RMS
Output rate	1 Hz

395465B

Specifications subject to change without any further notice.

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