

AIS 200



KONGSBERG

Automatic Identification System

Kongsberg Seatex provides, via its AIS 200 mobile station, a technical solution that enables the identification of other vessels and nav aids fitted with the VHF based AIS technology. This can be either on a stand-alone display or on the ship's electronic chart and radar. The ability to view and identify all vessels and their courses and speed, is a major contribution towards safer navigation for the maritime community.

GPS Position Interface

The vessel's primary GPS receiver needs to be interfaced with the AIS and is used as the main positioning source. However, the AIS 200 also incorporates an "all-in-view" GPS receiver which can be used as back up for the primary GPS receiver.

Heading Interface

Vessel heading as derived from the gyro compass needs to be interfaced to the AIS. This may require a gyro converter if the heading output from the gyro compass is a stepper or synchro signal and not a serial line signal which uses the NMEA data protocol for data exchange.

Easy installation

The remotely installed transceiver with separate display provides a simple installation solution, saving time and money.

AIS Minimum Keyboard Display

The AIS 200 MKD with a 4 line display is delivered as standard. However, this display unit may be replaced by a larger display (AIS 100 MKD) that additionally provides graphical display of received AIS targets.

VHF data communication

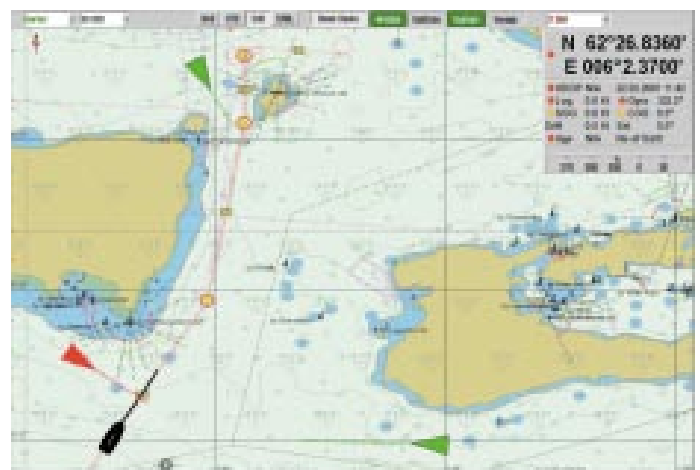
Dedicated VHF frequencies are used for AIS data communication and the range is dependant on the height of the VHF antenna. In order to avoid interference with the ship's VHF voice communication, the AIS VHF antenna must be installed in accordance with IMO requirements.



As the SOTDMA (Self Organized Time Division Multiple Access) protocol, which utilizes time-slots for transmission and reception of data is being used, an almost unlimited number of users may operate on the system at the same time without causing interference problems.

Chart and Radar Interfacing

AIS can be interfaced to electronic charts or radar provided they support the AIS interface. When interfacing AIS to radar and chart plotters, AIS target information as position, heading course and speed becomes available to the mariner and increase reliability of received navigation data from other vessels.

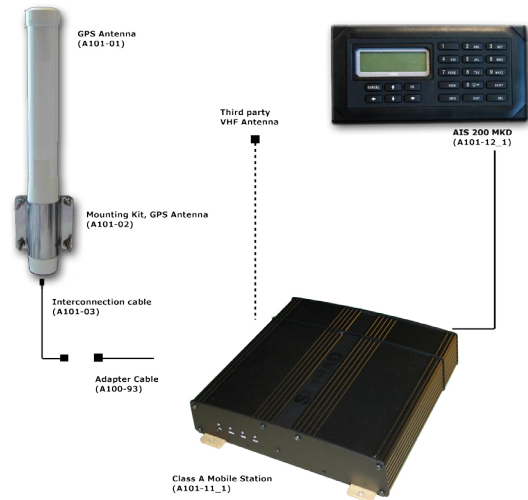


Vessels posing the potential risk of a collision are shown in red. Vessels passing safely are shown in green.

Features

AIS 200 features

- Ship name/Call sign/MMSI/IMO number
- Date and time in UTC time of composition of message
- Position WGS84; Latitude/Longitude degrees & minutes
- Course over ground (COG) in degrees
- Speed over ground (SOG) in knots and 1/10 knots
- Destination/ETA
- Actual maximum draught in 1/10 of meters
- Ship/Cargo (Static and voyage related data)
- Length/Beam
- Number of persons on board
- AIS Messaging
- Graphical display of AIS targets with optional MKD



Technical specifications

Data inputs

Gyro compass: NMEA
 GPS main source: NMEA
 DGPS corrections: RTCM - SC104 v2.1

Power

Input voltage: 24 (18-36) V DC
 Power consumption: 20 W (continuous)
 50 W (peak)

Displays

MKD (mandatory)
 ECDIS, ECS

Physical and environmental

AIS 200 MKD
 Operating temperature: -15 to +55°C
 Storage temperature: -20 to +70°C
 Humidity - operating: 0-95% RH

AIS 200 Transponder

Operating temperature: -15 to +55°C
 Storage temperature: -15 to +60°C
 Humidity - operating: 0-95% RH

GPS antenna

Operating temperature: -40 to +55°C
 Storage temperature: -40 to +70°C
 Humidity - operating: 100% Hermetically sealed

Weight

AIS 200 MKD: 0.4 kg
 AIS 200 Transponder: 4.2 kg
 GPS antenna: 0.130 kg

Dimensions (WxDxH)

AIS 200 MKD: 217x50x109mm
 AIS 200 Transponder: 338.2x79.5x341.5mm
 GPS antenna: 38x313 mm

Radio module

VHF transmitter: 12,5 W / 2W
 Receiver sensitivity: -107 dBm
 Protocol: SOTDMA
 Modulation: GMSK
 Bandwidth: 12.5kHz or 25 kHz
 Frequencies: 156.025 MHz - 162.025 band
 Default CH87B (161.975 MHz)
 Default CH88B (162.025 MHz)
 CH70 (156,525 MHz)

GPS module (internal receiver)

12 Channel GPS receiver (all in view)
 Position accuracy (GPS): 15 m r.m.s.
 Position accuracy (DGPS): 5 m r.m.s.
 Output rate: 1 Hz

Performance (typical)

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

Interfaces

Communication ports: 7xRS-422 (isolated)
 1xRS-232 (service, unisolated)
 Baud rate: 38.4 kBaud
 Message formats: NMEA
 Message type: AIS message
 LAN: Ethernet - 10 BaseT
 Alarm relay

Standards

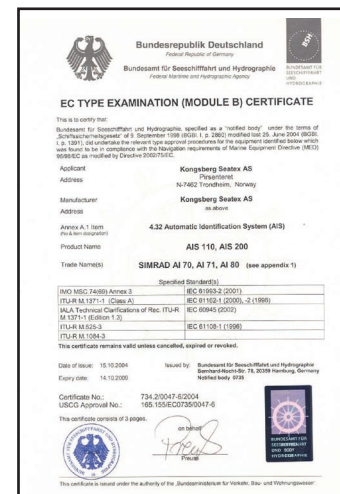
Product safety low voltage: IEC 945/EN60950
 Electromagnetic compatibility immunity/radiation: IEC 945/EN60945
 Vibration: IEC 945/EN60945
 AIS: IEC 61993-2
 MTBF (hours): 40.000

Options Input/output

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

Mandatory inputs

GPS & HEADING DATA



Approval from BSH.

Kongsberg Seatex is a member of



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