Safer navigation with full control through integration
Safety is a key issue for all mariners. With the new Simrad AI70 AIS system on board, you can receive safety related navigational information being broadcast from other ships and nav aids such as buoys and lighthouses. The Simrad MKD is a compact control unit that can be installed within reach of the mariner, in accordance with the IMO installation guidelines. It provides you with the vessel’s position, speed and course over ground as well as static and voyage related information.

**AI70 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/Beams
- Number of persons on board
- SMS (Free)
Connected to a chart system Simrad AI70 can ”see around corners”...

GPS Positioning
The vessel’s primary GPS receiver is used as the main positioning source. However, the AI70 also incorporates an “all-in-view” GPS receiver used for both time synchronisation and also as back up for the primary GPS receiver.

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

ECDIS / ECS interfacing
Interfacing to ECDIS & ECS chart systems can be provided and the Simrad AI70 can also interface to Radar, Gyro and THD.

VHF data communication
VHF data communication is used for all communication purposes. The Simrad AI70 uses the IMO defined transmission protocol with three VHF tranceivers operating on the international AIS frequencies.

(VHF channel 70 is used for channel switching in areas where non standard AIS frequencies are used.)

Vessels posing the potential risk of a collision are shown in RED. Vessels passing safely are shown in green.
Technical specifications

Data inputs
- Gyro compass: NMEA 0183 v3.0/IEC 60
- GPS main source: NMEA 0183 v3.0
- DGPS corrections: RTCM - SC104 v2.1

Power
- Input voltage: 24 (18-36) V DC
- Power consumption: 30 - 70 W (max while transmitting, 30W (nominal))

Displays
- MKD (mandatory)
- ECDIS, ECS

Physical and environmental

AI70 MKD
- Operating temperature: -15 to +55°C
- Storage temperature: -20 to +70°C
- Humidity - operating: 0-95% RH

AI70 Transponder
- Operating temperature: -15 to +55°C
- Storage temperature: -15 to +60°C
- Humidity - operating: 0-95% RH

AI70 Connection box
- Operating temperature: -15 to +55°C
- Storage temperature: -20 to +70°C
- Humidity - operating: 0-95% RH

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: 6xRS-422
- Baud rate: 38.4 kbaud
- Message formats: NMEA
- Message type: AIS message
- LAN: Ethernet
- Alarm relay: 6xRS-422

Standards
- Product safety low voltage: IEC 945/EN60950
- Electromagnetic compatibility immunity/radiation: IEC 945/EN60945
- Vibration: IEC 945/EN60945
- AIS: IEC 61857-2

Note: Specifications are subject to change without notice.

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