

K-BRIDGE AIS 300



KONGSBERG



| Target Information | |
|-----------------------|--------------------------|
| AIS target: 257015700 | AIS Operation |
| | List... TGT+ |
| Name | MF TRONDHEIM |
| BRG/RNG | 358.0° / 244.23NM |
| CPA/TCPA | 100.5NM / 940.6min |
| COG/SOG | 154.0° / 14.2kn |
| Navigational status | Under Way Using |
| Engine | |
| POS | 63°28.320'N 010°11.000'E |
| Position accuracy | Low |
| HDG/ROT | 154.0° / 0.0°per min |
| Draught | 4.3m |
| Length/Width | 96m / 14m |
| Cargo | Passenger ship |
| Destination | FLAKK-RØRVIK |
| ETA | Not Available |

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%* |

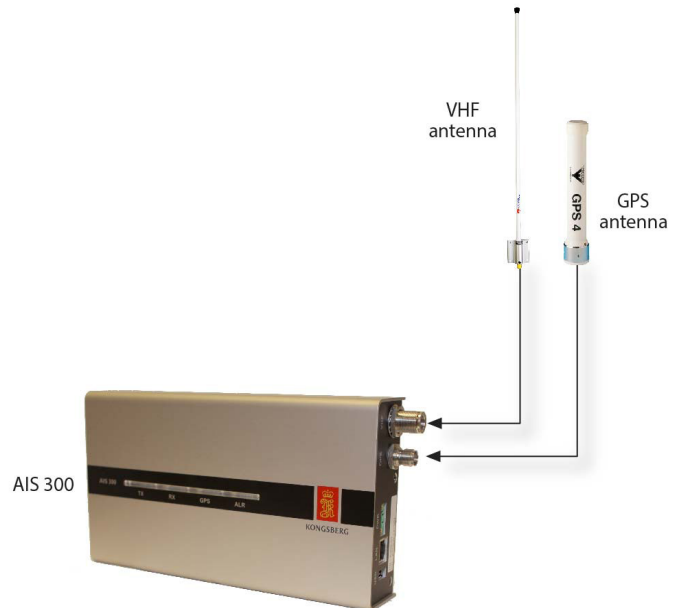
*Hermetically sealed

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 |

Specifications subject to change without any further notice.

395465B

