NAVnet Connect

FURUNO

# AIS RECEIVER

Model FA-30

# ...ation to navigation systems
# ...ormation in all weather conditions

## What is AIS?

The Automatic Identification System (AIS) enhances safe navigation by exchanging critical navigational data with nearby AIS-enabled targets. The system utilizes VHF broadcasts to handle information about nearby vessel traffic as well as aids-to-navigation.

AIS data includes vessel's name, position and course/speed over ground, allowing you to predict the course changes of other vessels. And since AIS targets are constantly visible even when they are shrouded in fog, in darkness, behind capes, river bends and other obstructions, this system helps you to avoid dangerous collisions.

AIS
DATA
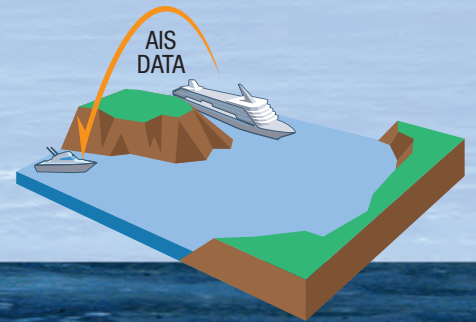
- Enhances safe navigation by receiving critical navigation information from local AIS-equipped vessels

- Vastly improves situational awareness in any weather conditions including dense fog, darkness, and congested waterways

- Dual parallel channel, "Full Duplex" receiver design receives AIS contact messages up to 100% more often than dual channel "Multiplexing" receivers

- High sensitivity, synthesized receiver automatically switches between international and local AIS channels

- Optional amplified VHF splitter allows the use of a single antenna for VHF radio and AIS Receiver

- Network output to NavNet and PCs for added redundancy and installation flexibility

- Serial Output for integration with various radar and chart plotter systems

- Bulkhead mounting and low power, flexible DC input voltage design for simplified installations

# The FA-30 delivers "Real-Time" AIS inform
## providing critical collision avoidance inf
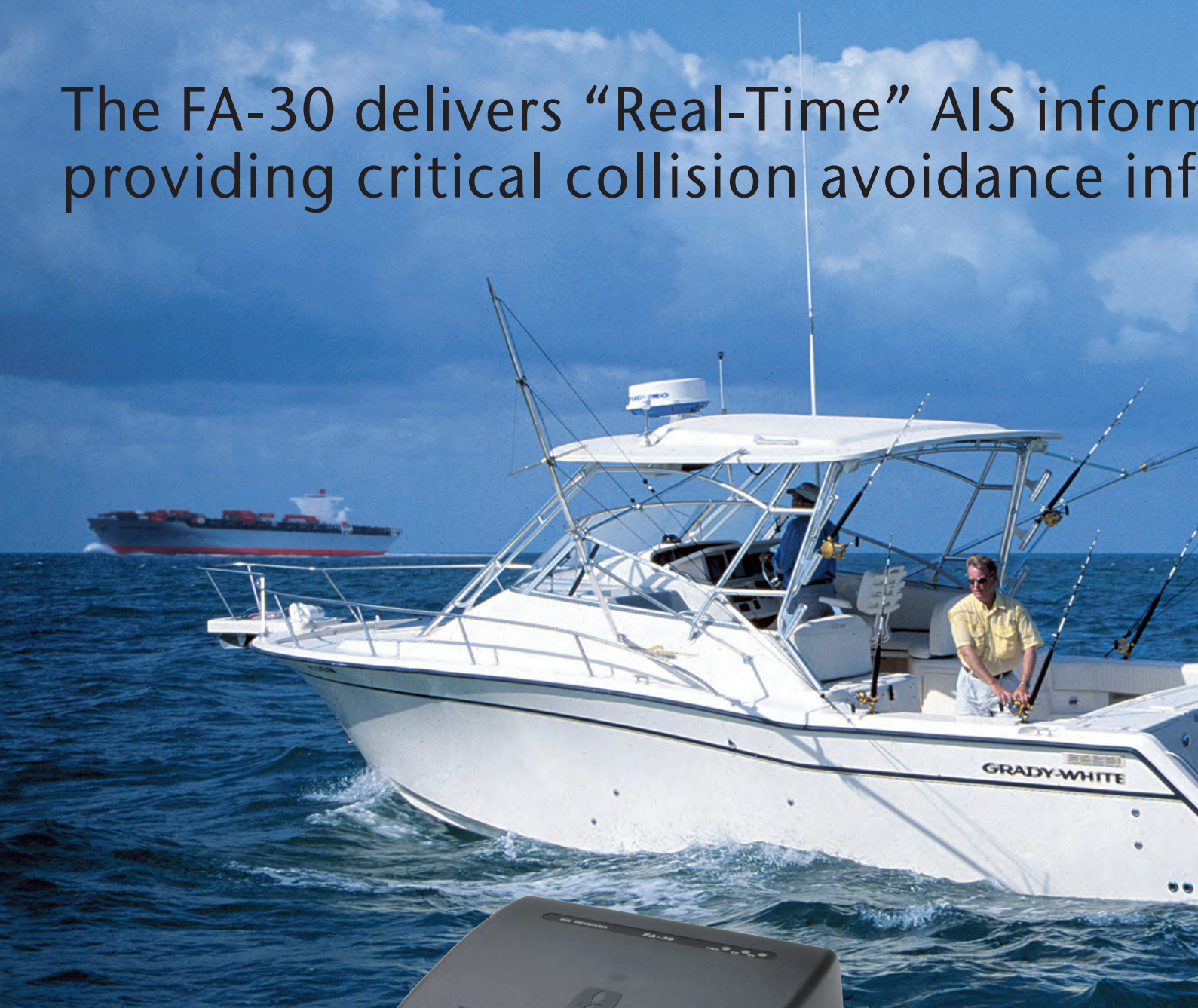
**FA-30**
AIS RECEIVER

Acquisition and tracking of traffic around your vessel is absolutely necessary for safe and efficient navigation. FURUNO's FA-30 AIS Receiver provides navigational data about other AIS-equipped vessels, increasing your situational awareness and allowing you to navigate more safely.

The FA-30 incorporates real-time AIS information into your radar, chart plotter.

AIS targets are displayed with SOG/COG vector, which aids you in recognizing possible collisions and grasp the navigational situation at a glance, even in congested waterways. Closest Point of Approach (CPA) and Time to Closest Point of Approach (TCPA) can be computed and displayed on-screen.

The FA-30 outputs AIS data to NavNet series. The FA-30 can also be interfaced with a FURUNO radar or chart plotter via NMEA0183 format to supplement those systems.

LAN

NMEA 0183

FA-30
AIS RECEIVER

## Information to be received

| | |
|---|---|
| Dynamic Data | • Ship's position<br>• Course over ground (COG)<br>• Speed over ground (SOG)<br>• Rate of turn (ROT)<br>• Heading<br>• Navigation status* |
| Static Data | • MMSI (Maritime Mobile Service Identity)<br>• IMO number*<br>• Ship's name<br>• Type of ship<br>• Call sign<br>• Length and beam<br>• Location of position-fixing antenna on the ship |
| Voyage Related Data | • Ship's draft*<br>• Hazardous cargo<br>• Destination and ETA* |
| Safety-related messages | |

* Class-A AIS only
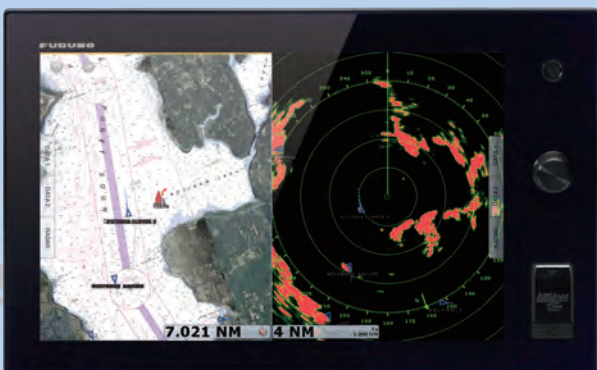
**NAVnet** *TZ touch*



NavNet TZtouch2

When placing a cursor onto the AIS target, an AIS data window will pop up to display the following data of the target: Ship's name, COG, SOG, CPA, TCPA, Range and Bearing.



**NAVnet** *TZ touch 2*



## Radar FR-8xx5 series

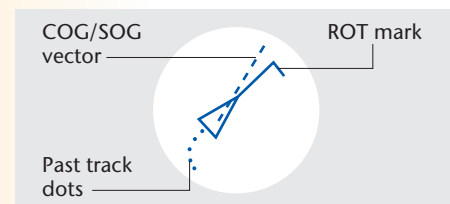When interfacing with FR-8xx5 series, AIS interface IF-1500AIS is needed.
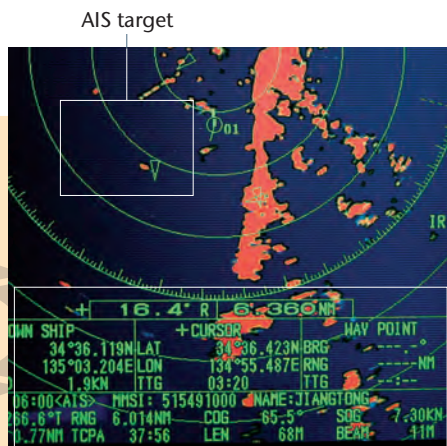
AIS target



AIS information

## AIS target symbol

COG/SOG vector changes its length according to SOG.
ROT mark is viewable when the target vessel sends the information.
Past track dots enables you to evaluate the target's action.



COG/SOG vector

ROT mark

Past track dots

# SPECIFICATIONS OF
## Model FA-30

### STANDARDS REFERRED
IMO Res. MSC.74 (69) Annex 3, ITU-R Rec. M.1371-2
IEC 61993-2 Ed.1 (Class-A AIS), IEC 62287-1 (Class-B CS-TDMA AIS),
IEC 60945 Ed.4, IMO Res. A.917 (22)

### RECEIVING UNIT
| | |
|---|---|
| RX Frequency | 156.025 MHz to 162.025 MHz |
| Channel Spacing | 25 kHz/12.5 kHz |

### INTERFACE
NMEA0183

| | |
|---|---|
| Input: | ACK, ACA, AIQ, DTM, GBS, GGA, GLL, GNS, HDT, OSD, RMC, VBW, VTG, DSC, DSE, ZDA |
| Output (38.4kbps): | VDM, VDO, ACA, ACS, ALR, TXT |
| Ethernet | 10/100BASE-T |

### POWER SUPPLY
12-24 VDC, 1.2-0.6 A

### ENVIRONMENT
| | |
|---|---|
| Temperature (IEC 60945 Ed.4) | -15 to +55 °C |
| Humidity (IEC 60945 Ed.4) | +40 °C, 93%RH |
| Waterproofing (IEC 60529) | IP20 |

### EQUIPMENT LIST
Standard
1. AIS Receiver FA-30
   with a Power/Serial combined cable — 1 unit
2. Installation Materials and Spare Parts — 1 set

Option
1. VHF Splitter Kit  OP05-106
2. VHF Antenna  FAB-151D
3. LAN Cable (2/10 m) for the connection with a PC
4. LAN Cable (1/5/10/20/30 m) for the connection with NavNet

## AIS RECEIVER

1.5 kg   3.3 lb
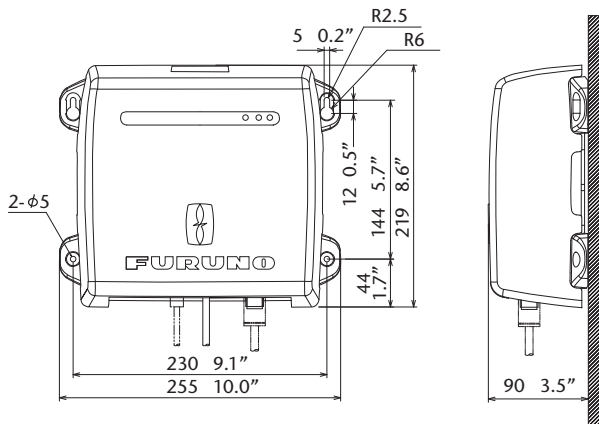


## INTERCONNECTION DIAGRAM