SPECIFICATIONS OF
FA-30

FURUNO

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	156.025MHz to 162.025MHz
Channel Spacing	25kHz/12.5kHz

INTERFACE
NMEA0183
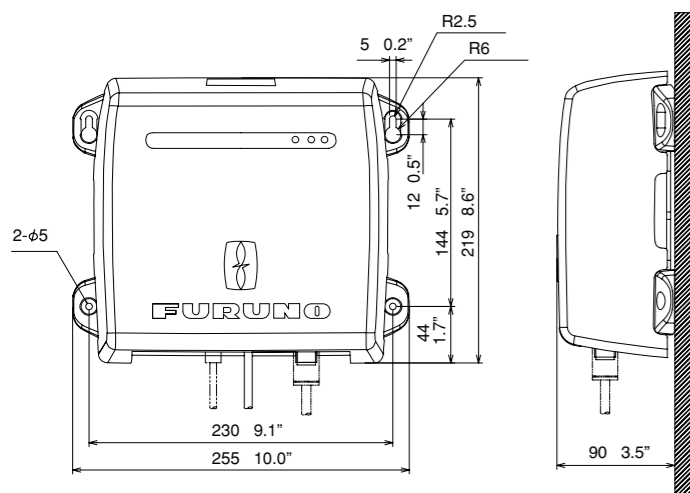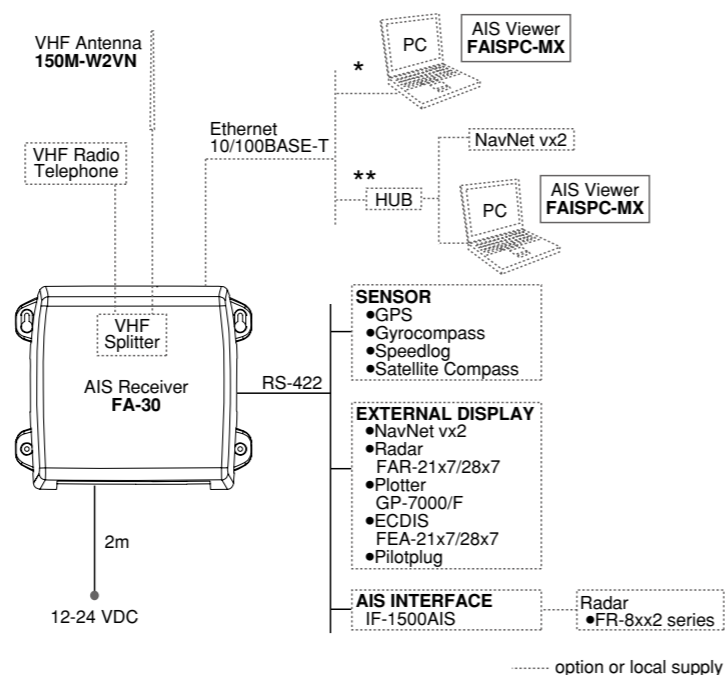|	
Input:	ACK, ACA, AIQ, DTM, GBS, GGA, GLL, GNS, HDT, OSD, RMC, VBW, VTG, DSC, DSE, ZDA, PFEC
Output (38.4kbps):	VDM, VDO, ACA, ACS, ALR, TXT
Ethernet	10/100BASE-T

POWER SUPPLY
12-24 VDC, 1.2-0.6 A

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

EQUIPMENT LIST
Standard
1. AIS Receiver FA-30
   with a Power/Serial combined cable ... 1 unit
2. AIS Viewer Software FAISPC-MX ... 1 set
3. Installation Materials and Spare Parts ... 1 set

Option
1. VHF Antenna 150M-W2VN
2. LAN Cable (2/10m)
3. VHF Splitter Kit

AIS RECEIVER

1.5kg   3.3lb

INTERCONNECTION DIAGRAM

VHF Antenna **150M-W2VN**

VHF Radio Telephone

Ethernet 10/100BASE-T

* PC — AIS Viewer **FAISPC-MX**

NavNet vx2

** HUB — PC — AIS Viewer **FAISPC-MX**

VHF Splitter

AIS Receiver **FA-30**   RS-422

2m

12-24 VDC

SENSOR
- GPS
- Gyrocompass
- Speedlog
- Satellite Compass

EXTERNAL DISPLAY
- NavNet vx2
- Radar FAR-21x7/28x7
- Plotter GP-7000/F
- ECDIS FEA-21x7/28x7
- Pilotplug

AIS INTERFACE
IF-1500AIS   Radar
- FR-8xx2 series

·········· option or local supply

* A crossing cable should be used.

**When using a hub that is not compatible with AUTO MDI/MDI-X, a straight cable will be needed for connection.
(Most hubs available are compatible with AUTO MDI/MDI-X).

FA-30
AIS RECEIVER

Enhances safe navigation
by receiving critical AIS target data
and displaying it on a navigation system

NAVnet® vx2

NavNet vx2 can be interfaced with the FA-30

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

The FA-30 provides critical information that can be utilized for collision avoidance

- **Enhances safe navigation by receiving critical navigation information from AIS-equipped vessels nearby**

- **Greatly improves the level of the situational awareness even in fog, darkness or congested waterways**

- **Dual channel receiver design provides automatic update of AIS information**

- **Optional VHF splitter allows the use of existing VHF antenna**

- **Outputs data to NavNet vx2 through Ethernet or Serial**

- **Flexible integration with various AIS compatible radar and chart plotters**

- **AIS Viewer software for PC (Standard supply)**

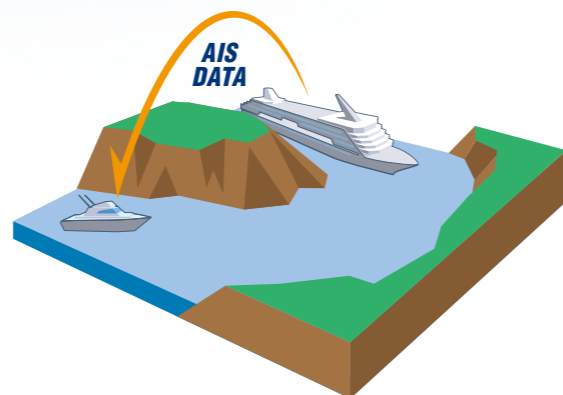- **Sturdy design mounts easily on a bulkhead**

Acquisition and tracking of vessels cruising around your vessel is absolutely necessary for conducting safe and efficient navigation. FURUNO's FA-30 AIS Receiver provides accurate data about other AIS-equipped vessels, allowing you to better operate and navigate your vessel.

The Automatic Identification System (AIS) improves the safety level of navigation by exchanging information about the status of AIS-targets nearby. The system utilizes VHF broadcasts to handle information about the surrounding area, including other vessels and aid-to-navigation, such as buoys.

The FA-30 incorporates real-time AIS information into radar, a chart plotter and other graphic display options such as a PC to improve situational awareness. Since AIS targets are constantly visible even when they are shrouded in fog, in darkness, behind capes, river bends and other obstructions, the FA-30 allows you to continually track AIS targets to help avoid a possible collision and grasp the situation even in congested waterways.

The received target data includes ship's position, course/speed over ground, heading, rate of turn, etc. AIS targets on the chart plotter/radar screens are shown with SOG/COG vector, allowing you to predict the course changes of other vessels. Also, Closest Point of Approach (CPA) and Time to Closest Point of Approach (TCPA) can be computed and displayed on the radar/chart plotter screens.

The FA-30 outputs AIS data to the NavNet vx2 series or a PC with the AIS Viewer software through Ethernet. The FA-30 can also be interfaced with a FURUNO chart plotter and radar in NMEA 0183 format to supplement information to the onboard navigation system.
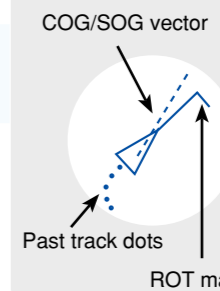
NAVnet® vx2

FA-30

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

```
MMSI 123456789
NAME BRIGHTER DAY
COG   150.0°   SOG  10.0  kt
CPA   2.41nm  TCPA 92:17
BRG   222.1°   RNG   4.66nm
BEAM  20m    LENGTH 130m
```

AIS target   AIS information

AIS target

Radar FR-8xx2 series

When interfacing with FR-8xx2 series, AIS interface IF-1500AIS is needed.

AIS information

AIS target symbol

COG/SOG vector

Past track dots

ROT mark

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.
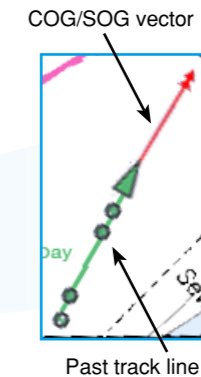
AIS Viewer for PC (Standard supply)

The software can be upgraded to a full version of MaxSea Navigation Software.

AIS info on NOAA chart

Additional charts can be installed into this viewer.

COG/SOG vector

Past track line

AIS target data for the selected vessel

AIS DATA

Information to be received

- **Dynamic Data**
  - Ship's position
  - Coordinated universal time (UTC)
  - Course over ground (COG)
  - Speed over ground (SOG)
  - Rate of turn (ROT)
  - Heading
  - Navigation status*

- **Static Data**
  - MMSI (Maritime Mobile Service Identity)
  - IMO number*
  - Ship's name
  - Call sign
  - Length and beam
  - Type of ship
  - Location of position-fixing antenna on the ship

- **Voyage Related Data**
  - Ship's draft*
  - Hazardous cargo
  - Destination and ETA*

- **Safety-related messages**

* Class-A only