

DISPLAY

Screen Size:
Effective Display Area:
Pixel Number:
Display Mode:
Memory Capacity:
GPS Alarm:
AIS Alarm:
AIS Message:
Projection:
Plot Scales:
AIS Radar View Scales:

95.04(W) x 53.85(H) mm
480 x 272 pixels
Plotter, AIS Radar, AIS Lists, Highway, Steering, Nav Data, Satellite, User Display1, User Display2.
3,000 ship's track points
10,000 marks and waypoints with comments
100 routes, 30 waypoints/route
Arrival, Anchor watch, XTE, Speed, SBAS, Time, Trip, Odometer.
Collision, AIS SART, EPIRB, MOB, Lost, Position
Receive Broadcast / Addressed message
Mercator projection
0.01nm ~ 320nm
0.125, 0.25, 0.5, 0.75, 1.5, 3, 6, 12, 24 nm

AIS TRANSPONDER

MAIN SPEC.
STANDARDS:
Frequency:
Channel Bandwidth:
Frequency Stability:
Modulation:
Data Rate:

IEC 62287-1,
IEC 62287-2
ITU 1371-3
IEC 61993-2
IEC 61162-1
IEC 60945
CH87 - 161.975 MHz
CH88 - 162.025 MHz
25 KHz
≤ 2.5 PPM
AIS GMSK
38400 bps

AIS TRANSMITTER
Power output:
Power Delay:
Stray Power:

2W ± 1.5dBm
Rise delay ≤ 313US
Fall delay ≤ 313US
≤ -36 dBm

AIS RECEIVER
Sensitivity:
Max Usable Sensitivity:
Channel Rejection Ratio:
Adjacent Channel Selectivity:
Intermodulation Selectivity:
Blocking:

≤ -107 dBm
PER ≤ 20% at -107 dBm
≤ -10 dB
≥ 70 dB
≥ 65 dB
≥ 85 dB

GPS/SBAS

Receiver Type:
Receive Frequency:
Time to First Fix:
Tracking Velocity:
Altitude:
Dynamics:
Geodetic Systems:
Horizontal position:
Velocity:
Heading:

GPS: 50 channels, C/A code
SBAS: WAAS, EGNOS, MSAS, GAGAN
L1(1575.42 MHz)
Cold start: 32s
Hot Start: <1s
500m/s Max
50,000 m Max
≤ 4 g
WGS-84 (and others)
GPS: 2.5 m
SBAS: 2.0 m
0.1m/s
0.5 degrees

INTERFACE

Ports:
GPS Antenna Port:
VHF Antenna Port:
Output Sentence:
REM:
REM2:
AP:
GPS:
AIS:

RS-232C
Female TNC Connector
Female Type M Connector (Optional)
DTM, GGA, GLL, RMB, RMC, VTG, ZDA
BWC, DTM, GGA, RMB, RMC, VTG, ZDA
AAM, APB, BOD, BWC, BWR, GLL, VTG, XTE, ZDA
GGA, GSA, GSV, VTG
AIVDM, AIVDO, GGA, GSA, GSV, VTG, GLL, RMC

ENVIRONMENT

Temperature:
Waterproofing:

Display unit: -15 C to +55 C
Antenna unit: -25 C to +70 C
Display unit: IP56
Antenna unit: IPX6

POWER SUPPLY

POWER SUPPLY: 12-24 VDC: 0.24-0.12 A

PHYSICAL

Size:
Weight:

181mm(W)x143mm(H)x83mm(D)
0.71 kg

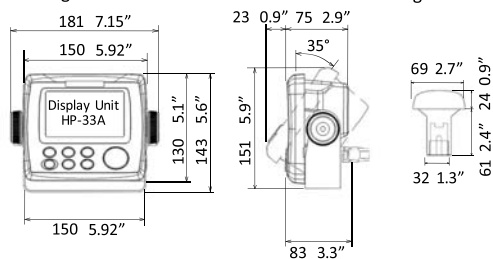
EQUIPMENT LIST

Standard:

1. Display unit HP-33
2. Antenna unit HA-017 with cable 10m
3. Power cable, 2m
4. Standard spare parts and installation materials
5. Operator manual

DISPLAY UNIT HP-33

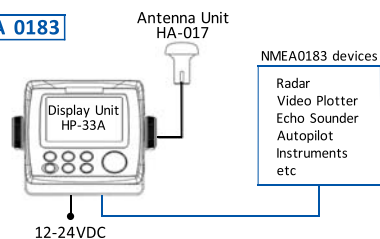
0.71 kg 1.57 lb



GPS ANTENNA HA-017

0.5 kg 0.96 lb

NMEA 0183



4.3" LCD CLASS B AIS TRANSPONDER COMBO WITH GPS NAVIGATOR



Model:
HP-33A

■ ■ ■
■ Innovation For Marine
■ ■ ■

4.3" COLOR LCD CLASS B AIS TRANSPONDER COMBO HIGH SENSITIVITY GPS NAVIGATOR

Compact in size, yet big on features and performance, The Matsutec HP-33A is perfect Class B AIS Transponder with GPS navigator. This advance unit provides accurate and reliable position fixing and navigator, it also provides automated AIS communication from "Ship-to-Ship" and "Ship-to-Shore", Transmitting and receiving vessel, Voyage and safety related information. Own Vessel Voyage, Position and Course information is automatically transmitted and the AIS information provided by other ships in the vicinity, Shore based stations and AIS equipped aids to navigation is clearly displayed.

The HP-33A is a Class B AIS transponder for Non-SOLAS vessels such as pleasure craft, work-boat, fishing boat etc small boat. Special design Watching display to monitor Fishing net buoy, friendly ships etc. External Alarm for MOB and Collision-Risk management.

FEATURE

- To AIS**
- Detail Target list and Radar overview
 - Watching display to monitor important subject, Example: Fishing net Buoy, Friend ships etc
 - External Alarm (Buzzer)
 - Low Cost, Reduced size and easy installation make the HP-33A ideal to meet your budgets and demands of owners and vessel operators

- To GPS**
- 4.3" Sunlight Viewable color LCD (Brightness: 500 cd)
 - GOTO track navigation
 - Stores up to 10,000 marks/waypoints, 100 routes and 3,000 track points
 - Delicated Man Over Board Button (MOB)
 - Support NMEA 0183 ver 2.0
 - 7 display modes available, including 2 user-customized modes
 - SBAS capable for better measurement

AIS BEACONS COVERAGE

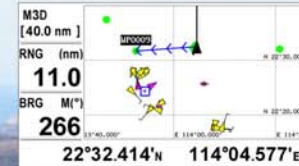


* You can track your vessels information thru this website:
<http://www.marinetraffic.com/>

VARIOUS DISPLAYS

The HP-33A provides navigation/AIS data and displays them in a wide variety of numerical and graphical formats. You may freely select which data you want displayed with easy to use controls. The combination of a high resolution screen and large data fields makes the screen easy to read in almost any condition.

AIS ON PLOTTER



Except presents various data of ship tracks, GPS information and graphic symbols, now HP-33A added AIS information displayed on plotter.

AIS RADAR



Radar Overview look like a marine radar display, North-up, Course-up and Range from 0.125NM to 24NM are supported.

AIS LISTS

Target	Danger	Match	Total: 29		
Name/MMSI	RNG(km)	BRG(°)	SOG(kn)	COG(°)	
371624000	6.25	91	0.0	241	
YUEGANG2408	6.80	88	0.0	96	
47799251	6.98	95	14.3	90	
47215200	7.63	91	10.8	138	
477995174	8.86	325	0.0	0	
000000003	8.88	325	0.0	60	
004772776	8.99	313	---	---	
636925008	10.0	310	9.0	17	
412468180	10.1	311	9.9	7	

- The Target List display show all detected AIS equipped vessels and targets.

- The Danger list display show a list of vessels that are within 6nm CPA and 60 minutes TCPA from your vessel. The Danger list can be sorted by CPA or TCPA order.

- Watching display MOB, Fishing net Buoy, friendly ships.

OTHER DISPLAYS



THE COMPLETE AIS SOLUTION

The HP-33A supports connection to a vessel's existing GPS navigation, connection of ECDIS, or ECS using NMEA0183, or USB interface to PC software. And also There is optimised for use with Fishing net AIS Buoy (HAB-80), AIS SART and Personal AIS Beacon for MOB alarm.

