

NAUTICAST

Automatic Identification System

Product No. 2607



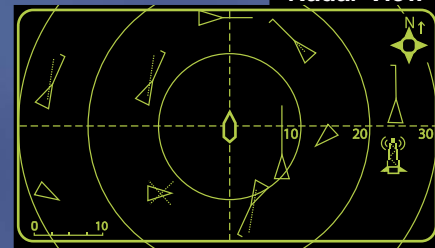
Class A - SOLAS Transponder:

- > Most compact AIS-System
- > All-In-One Unit
- > Built in Sensor Configuration
- > Graphical User Interface
- > Best Value

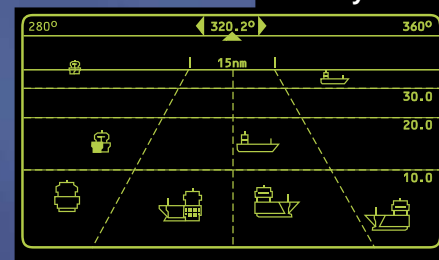
Alphanumeric View

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LAT: N 48-15'58" SOG:0.0kn 17-09-2002
LON: E 16-25'22" COG:0.0 UTC11:21.28
GPS: 3D-INT-----Ships:4 ----AIS1
***** Ship Settings *****
IMO No. : 3031741
CallSign : DQQ
Ship Name : Europa
Length : 220m
Beam : 43m, 20m
RefPoint : 33m, 20m
Ship Type : <Search and rescue vessel>
save exit
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Radar View



Fairway View



- > The Nauticast includes the innovative 3-in-1 Graphical Display with 3 different views at a fingertip: Alphanumeric, Radar View and Fairway View. This representation of the surrounding traffic scenario also with different zoom-levels is a completely unique way of capturing and representing vessel data.

- > The Nauticast Transponder fully corresponds to the technical specifications for the Universal Automatic Identification System (AIS) Transponder, issued by the International Maritime Organization (IMO).

- > The Nauticast Transponder is specifically designed for commercial shipping, e.g. for vessels which are subject to the SOLAS regulations. The Nauticast Transponder makes a significant contribution to increasing safety at sea.

Worldwide Approvals



ACR Electronics, Inc. is registered by UL to ISO 9001: 2000



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Automatic Identification System Components

AIS Data/Power Cable - Mandatory Accessory - Select one Cable

Interface cable (power & data) between transponder, connection box & pilot plug, halogen free, IP6

- > 3 meters (9.8 ft): P/N 2610 [Mandatory Accessory]
- > 10 meters (32.8 ft): P/N 2611

Workboat/Inland cable (power & ECDIS) RS-422; sensor 1,2 included

- > 1.5 meters (4.5 ft): P/N 2617 [Optional Accessory]

AIS GPS/VHF Cable - Mandatory Accessory - Select one Cable

GPS/VHF interface cable, includes 1 each Male PL & TNC connector installed.

- > 10 meters (32.8 ft): P/N 2613

GPS/VHF interface cable, includes 1 each Female N and TNC connectors installed and 1 each Male N and TNC connectors for RG-214 cable (specify length) Not required with P/N 2624 VHF/GPS combi antenna.

- > 1 meters (3.3 ft): P/N 2612

Misc AIS Cables & Special Functions [Optional Accessories]

Flash cable kit (documentation & software CD included)

- > P/N 2616

Silent mode (cable & switch) / stealth switch AIS

- > P/N 2619

RG-214 COAX cable (sold by the foot)

- > P/N 2630



Optional VHF/GPS antenna extensions and plugs (or supply own cable)

N Male RG214 Crimp > P/N 2631

PL Male RG214 Crimp > P/N 2632

TNC Male RG214 Crimp > P/N 2633

Optional AIS cable connection box (Required for Advanced Installation with ECDIS, etc.)

Connection Box

- > P/N 2640



VHF Antenna Solution - Mandatory Accessory - Select one Antenna

VH-3200 VHF stainless steel whip antenna. Includes mounting kit & plug PL Male for RG-214

- > 91.4 cm (36 in.): P/N 2628

Comrod AV7 VHF fiberglass antenna. Includes aluminum mount (vert or horiz. stanchion, or bulkhead)

When used with P/N 2612, (1) P/N 2632 PL Male Connector & P/N 2630 cable (specify length) are required.

- > 1.22 meters (4 ft): P/N 2621

ACR GPS Antenna Solution - Mandatory Accessory - Select one Antenna

ProCom GPS-4 quadrifilar helix antenna 5 volt.

When used with P/N 2612 interface, (1) P/N 2633 TNC connector & P/N 2630 cable (specify length) are required. Mount P/N 2623 is required. (Thread 1/12)

- > P/N 2622

ProCom GPS-4 deck mounting kit metal horiz. surface

- > P/N 2623 (fits P/N 2622 only)

Matsushita Marine II GPS antenna 5 volt.

When used with P/N 2612 interface, one P/N 2633 TNC connector & P/N 2630 cable (specify length) are required. Mount P/N 2627, P/N 2626 or P/N 2821 is required. (thread 1/14)

- > P/N 2625

Deck mounting for GPS antenna Marine II (plastic) - Glomex

- > P/N 2623 (fits P/N 2625 only)

Deck mounting for GPS antenna Marine II (metal)

- > P/N 2821 (fits P/N 2625 only)

Pipe mount for GPS antenna Marine II (metal)

- > P/N 2626 (fits P/N 2625 only)

ACR VHF/GPS Combination Antenna Solution (in lieu of individual VHF and GPS antenna solutions)

Comrod AC17 (combined GPS/VHF) includes aluminum mount (vert or horiz. stanchion or bulkhead) & integrated cable splitter

(2) Male N connectors (P/N 2631) & RG-214 cable (P/N 2630 specify length) are required

- > P/N 2624

Optional Converters

Gyro Converter (For GYROs without NMEA 0183 output)

- > P/N 2641

12v to 24v DC to DC power converter (Required for 12v power systems)

- > P/N 2642

Optional Mounting Bracket Assemblies

Retro Fit Frame Drop In Mount (Includes 3 screws, nuts, clips to hold display to bracket)

- > P/N 2651

Mounting Bracket Gimbal Style (Includes 4 screws and 2 Mounting Knobs)

- > P/N 2650

PHYSICAL

Size (w)	281,26 mm / 10,07 "
Size (h)	60 mm / 2,36 "
Size (d)	201,26 mm / 7,92 "
Weight	2490 g / 5,50 lbs
Operating Temperature	-15°C to +55°C / 5°F to 131°F

POWER SUPPLY

Supply Voltage (galvanic isolated)	24 V DC (-10% +30%)
Input Current	min.7 A (24V)

INTERFACES

Number of Data Ports	3 Input / 4 I-O / 1 Output
IEC 61162-1/2	(RS422 / NMEA 0183)
ITU-R M.823-2	(RS422 / RTCM SC104)
Bitrate	
CH1 Sensor Input; (e.g.: GPS)	4800 bps / 38400 bps
CH2 Sensor Input; (e.g.: GYRO)	4800 bps / 38400 bps
CH3 Sensor Input; (e.g.: HDG)	4800 bps / 38400 bps
CH4 ECDIS Port (In- / Output) AIS targets, AIS messages	in / out 38400 bps
CH5 Pilot Port (In- / Output) AIS targets, AIS messages	in / out 38400 bps
CH8 Long Range Port (In- / Output)	in / out 38400 bps
CH9 DGPS correction (In- / Output) (RTCM SC104)	in / out 9600 bps
Alarm Circuit CH10	Dry relay contact (see BIIT-Alarm System)

BUILT IN GPS

Receiver Architecture	12 channel differential
Tracking Capability	12 satellites sim.
Accuracy Horizontal	10 m / 2 drms *
Accuracy Vertical	15 m / 2 drms *
GPS Antenna Connector	TNC
DGPS Accuracy	< 5 m / 2 drms

* depends on SA

GPS Solutions

Beacon interoperability	
EGNOS interoperability	
WAAS interoperability	
OMNISTAR interoperability	
LongWave interoperability	
VHF interop. (DGPS over Msg.17)	
optional internal Beacon Receiver	
Combined GPS/DGPS Antenna	

BIIT – Alarm System

Relay breaking capacity	
30V DC	8A
250V AC	8A

OPTIONAL INTERFACES

Number of Data Ports RS232	up to 5
Bitrate	Up to 115000 bps
Simplex / Duplex	Duplex
Number of Data Ports IEC 61162-3 CAN (RS485)	1
Bitrate	up to 1 Mbps

KEYBOARD

Integrated	alphanumerical
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SPECIFIED STANDARDS

IMO MSC.74(69) Annex 3	
ITU-R M.1371 (Class A)	
IALA Techn.Clar. of ITU-R M.1371-1 (Ed.1.3)	
IEC 61993-2 (2002)	
IEC 61162-1 (2000)	NMEA 0183-3
IEC 61162-2 (1998)	NMEA 0183-3
IEC 61162-3	NMEA 2000
ITU-R M.823-2	
IEC 61108-1 (1996)	
IEC 60 945 (1996)	
ITU-R M.825-3	
ITU-R M.1084-3	

VHF

Frequency Range	156 MHz - 162 MHz
Channel Spacing	12.5 or 25 kHz
Number of RF Channels	3 Receiv. / 1 Transm.
Number of AIS Receivers	2
Number of DSC Receivers	1
Frequency Error	+/- 2.5ppm

VHF TRANSMITTER

Output Power	2 Watt to 12.5 Watt (adjustable)
Receive to Transmit Switching Time	< 1 ms
Transmit release time	< 1 ms
Automatic shutdown	1 sec.
Channel switching time	< 25 ms
Attack Time	< 1 ms

VHF RECEIVER

Max. Useable Sensitivity	< -110 dBm
Co-channel Rejection	> -8 dB (25 kHz); > -12 dBm (12.5 kHz)
Adjacent Channel Selectivity	> 70 dB (25 kHz); > 60 dB (12.5 kHz)
Inter-modulation Rejection	> 65 dB
Spurious Response Rejection	> 70 dB
Blocking	> 84 dB

VHF MODEM

Bitrate GMSK	9600 bps
RF Baud Rate (DSC)	1200 bps
Modulation	GMSK / FSK

SOFTWARE

Nauticast Version 2.0.x	
- installed and ready for use	
- implemented configuration Software	
- User friendly Interface to System and AIS Information	
- Additional Interface to System Configuration (Windows 2000®)	
- Nauticast Demonstrator for training purposes (Text only) (Windows 2000®, Windows XP®)	

HARDWARE

Nauticast Version 1.0.x	
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DISPLAY

Integrated	Text: 40 x 16 chars Graphical: 240 x 128 dots adjustable brightness and contrast
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FEATURES:

▶ Graphical Display

The 3 in 1 Graphical Display includes 3 different views and an adjustable zoom-functionality. Targets can be selected directly using cursor keys with both graphical views (are shown in a minimized view including a ship list of receiving AIS-signals).

▶ Sensor Configuration

The Nauticast software enables you to automatically check, read out/trace and evaluate the data received from your sensor-interfaces. This gives you a detailed overview of how to configure and setup the interfaces for accurate input and display of all your ship sensor-data within the Automatic Identification System.

▶ Size it up!

The Nauticast's alluring measurements are W 28 cm x D 20cm and its height is only 6 cm. It's a lightweight at 2,5 Kg, and won't take up precious space on your bridge, even though keyboard and display are integrated.

▶ Plug & Play

Inventive technology at its best! Two sockets suffice to connect power, sensors and antennas and initial Transponder operation is up and running within minutes.

Warnings:

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For over 50 years, ACR has built quality products knowing they are used to save lives. Please call or write for a complete catalogue of safety and survival products.



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