

# NAUTICAST - INLAND AIS

INLAND Automatic Identification System  
Product No.2662



## Class A - SOLAS Transponder:

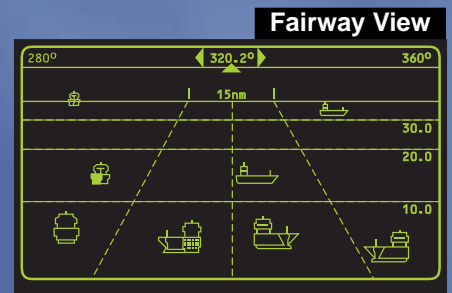
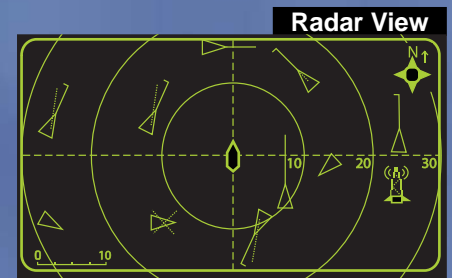
- > INLAND and SOLAS - All in one
- > Lock Management (ETA / RTA)
- > Interrogations - IFM
- > Message 23 (Group Assignment Command)
- > Inland ECDIS
- > Full Remote Control
- > Built in Sensor Configuration

> The Nauticast-INLAND AIS is 2 Transponders in 1. Designed for use in both inland waterways and SOLAS applications, the Nauticast-INLAND AIS gives you added safety in multiple cruising situations.

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

> The Nauticast Transponder makes a significant contribution to increasing safety on rivers or while at sea.



## Worldwide Approvals



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



ACR Electronics, Inc.  
5757 Ravenswood Road  
Fort Lauderdale, FL 33312, U.S.A.  
Tel Worldwide: +1(954) 981-3333  
Fax: +1(954) 983-5087  
www.acrelectronics.com

**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-INLAND 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:****▶ Multiple Applications**

The Nauticast-Inland AIS gives you the option to switch between Inland navigating or open sea cruising. All the benefits of two separate AIS systems, conveniently package for the price of one.

**▶ 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).

**▶ Full Remote Control**

Fully compliant with ECDIS connectivity, the Nauticast-Inland AIS can be driven completely by remote control (i.e. by ECDIS)

**▶ Blue Sign Switch**

Optional blue sign switch allows you to safely travel the with the river current and warn approaching vessels of your position.

**▶ Lock Management**

Inform the lock authorities with your estimated time of arrival or have a requested time of arrival reported to your vessel from the lock authorities to optimize travel through the locks.

**▶ 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.

**Warnings:**

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# ACR Electronics, Inc.

World Leader in Safety and Survival Technologies

5757 Ravenswood Road, Fort Lauderdale, FL 33312, U.S.A.

Worldwide: +1(954) 981-3333 • Fax: +1(954) 983-5087 • www.acrelectronics.com