VDL 6000

AIS Class A Transponder

-The AIS Class A transponder communicates required static, voyage-related and dynamic data.

-The screen presentation of call signs of other ships enables a user to make direct contact with conflicting vessels.

-Easy to install on every ship.

The VDL 6000 AIS Class A Transponder provides SOLAS compliance and BSH-certification at very attractive prices.

The data link communication covers identity, position, destination and other required static, voyage-related and dynamic data, which gives all vessels in an area increased situational awareness and improves safety at sea for the individual ship. Positive identification and positioning of all ships in the vicinity reduces the unnecessary “ship on my port bow” calls. Less information overload greatly enhances safety at sea.

Features

The SOTDMA technology is used in the AIS transponder which transmits and receives information on all vessels within VHF coverage. This information includes position, identity, course over ground, heading, and rate of turn as well as navigational status and the destination of the ship. The information received from, and provided to, the ships is easily plotted on any ARPA radar or electronic chart system. This gives the Officer of the Watch a situational awareness that could never be achieved prior to AIS.

Information of draught, type of cargo and destination could also be used to make decisions related to maneuvering. The screen presentation of the call signs of other ships enables a ship to make direct contact with conflicting vessels. Maximum awareness is accomplished.

Configuration and interfaces

The AIS Class A transponder is easy to install onboard any ship by connecting it to a GPS and VHF antenna, and is complete after connecting it to the onboard sensors. To maximize the benefit of the investment, the AIS Class A transponder is delivered with an interface to the electronic chart system and/or ARPA radar. Moreover, the system is designed to support long-range reporting.

The shipborne AIS Class A transponder consists of an integrated Minimum Keyboard and Display (MKD).

CNS Systems™

AIS Class A Transponder

Technical Specifications

Power

Input voltage	12 or 24 V DC

Radio

Transmitter output power (adjustable)	1 and 12.5 W, 50 Ohm load
Bandwidth	25 kHz
Protocol	TDMA (AIS)
Baud rate	9600 bps (AIS) / 1200 bps (DSC)
Modulation	GMSK (AIS) / FSK (DSC)
Frequencies	156.025 MHz – 162.025 MHz
Default channels	87B (161.975 MHz), 88B (162.025 MHZ), 70 (156.525 MHz)
Number of receivers	3 (2 AIS TDMA, 1 DSC)
Receiver sensitivity, 20% MER	< - 107 dBm

GNSS Receiver

GNSS receiver	GPS L1, 50 parallel channels
DGNSS support	Yes

Environmental

IEC 60945	Protected installation

Interfaces

VHF antenna	N female, 50 Ohm
GPS antenna	TNC female, 50 Ohm
Power	3-way pluggable screw terminal
Sensor Interfaces 1 to 3 (RS422)	IEC 61162-1 or -2
Pilot/Auxiliary (RS422)	IEC 61162-2
External Display (RS422)	IEC 61162-2
Long-range (RS422)	IEC 61162-2
DGNSS correction input (RS232)	RTCM/SC-104
Alarm relay	Normally closed

Standards

ITU-R M.1371-4
IEC 61993-2
IEC 61162-1, 2
IMO Resolution A.694 (17)
IMO Resolution MSC.74 (69) Annex 3
ITU-R M.825-3
ITU-R M.1084-5
IEC 61108-1
IEC 62288
RTCA/DO 178B (SW development)
IPC-A-610 (Manufacturing)

Physical characteristics

Size (W x H x L mm)	164 x 103.5 x 233 (132 x 100.5 x 233 without brackets)
Weight	2.3 kg
Cooling	Not required

Integrated MKD on the front panel

Accessories included

Pluggable screw terminals for cable connections

Compliance

BSH Statement of Conformity

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