

C.N.S. Systems

Competence Centre and Supplier
of
Communication, Navigation and Surveillance Systems



VDL 6000 AIS Class A System

The VDL 6000 AIS Class A System is compliant to the International standards ITU M.1371-1 and IEC 61993-2 as applicable for SOLAS vessels. The system is wheel marked.

The VDL 6000 is robustly designed with technology used in C.N.S. Systems civil aviation products with its special demands on quality, performance, safety, security, traceability etc.

The VDL 6000 system consists of three basic building blocks; Transponder, MKD and Connection Unit (including connecting cables). The system is optionally delivered with antennas, antenna cables and connectors.

The VDL 6000 system is based on a digital radio module, high performance processors, robust software and a compact design.

General	
Power requirements	24 V DC, from Connection unit
Transmitter	
Number of transmitters	1
Tuning range	156.025 –162.025 MHz
Channel spacing	12.5 and 25 kHz
TX to Rx turnaround time	< 1 ms
Channel selection time	< 26 ms
Baud rate	9600 bps
Modulation scheme	GMSK (AIS TDMA) / GFSK (DSC)
Carrier power (adjustable)	33 and 41 dBm (2 and 12,5W) 50Ohm load
Receiver	
Number of receivers	3 (2 AIS TDMA, 1 DSC)
Tuning range	156.025 - 162.025 MHz
Channel spacing	12,5 and 25 kHz
Sensitivity, 20% MER	< -107 dBm AIS for 25 kHz, < -98 dBm AIS 12,5 kHz channel
GNSS Receiver	
GNSS receiver	12 parallel channels
DGNSS support	Yes
Environmental	
IEC 60945	Protected installation
Electrical Interfaces	
Sensor Interfaces 1 to 3 (RS485)	IEC 61162-1 or -2
Pilot/Auxiliary (RS485)	IEC 61162-2
External Display (RS485)	IEC 61162-2
Long-range (RS485)	IEC 61162-2
DGNSS correction input (RS232)	RTCM-SC-104
Alarm relay	Normally closed
Transponder Interfaces	
VHF Antenna	Type N, jack
GNSS Antenna	Type TNC, jack
Applicable Standards	
ITU-R M.1371-1, IEC 61993-2, IEC 60945, IEC 61162-1/2	
RTCA/DO 178B (SW development)	Level C
IPC-A-610 (Manufacturing)	
Physical characteristics transponder	
Size (W x H x L)	175 x 81 x 276 mm
Weight	3.9 kg
Cooling	Not required
Minimum Keyboard and Display	
Power requirements	24 V DC, from Connection Unit
Size (W x H x L)	120 x 180 x 45 mm
Weight	1,2 kg
Connection unit	
Power requirements	24 V DC 3 A
Size	175 x 345 x 75 mm
Weight	1,1 kg
Accessories included	
Interface cables between transponder, MKD and connection unit	
Certification	
BSH	

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