

Albatross On Board Module

Alba-USB



The Alba-USB is a gateway for bridging USB equipment using NMEA 0183 sentences, such as on board computer running navigational software with an NMEA 2000 network.

The gateway automatically converts incoming NMEA 2000 messages to NMEA 0183 sentences so you can continue benefiting from navigational and charting software that you already own while enjoying the many benefits of networked NMEA 2000 instruments.

The Alba-USB translate a multitude of NMEA 2000 messages to NMEA 0183 sentences including GPS data, Speed Over Ground (SOG), Course Over Ground (COG), vessel heading, rudder angle, depth, speed, distance log, weather, wind and more.

The Alba-USB is engineered and manufactured to the highest standards (IEC 60945 Maritime Navigation and Radiocommunication Equipment). Its compact waterproof housing will provide years of reliable performance.

SPECIFICATIONS	
NMEA 2000 Standard	Level A (Highest Level of Certification)
NMEA 2000 Connector	DeviceNet Micro-C (Industry Standard Waterproof)
NMEA 2000 USB Isolation	Opto-Isolated (No Electrical Connection Across Bridge)
USB Standard	USB 1.1
USB Connector	USB Type B (Industry Standard Waterproof)
USB Supported Signals	D+, D-, +5V, GND (Bi-directional Gateway)
USB Auxiliary Power	+5 Volts <50mA
USB Baud Rate	Up to 12 Mb/s (Full Speed USB Data Rate)
USB Interface Modes	NMEA 0183 (With supplied Windows Drivers)
Translated Data Types (NMEA 2000 to/from NMEA 0183)	
Attitude	Vessel Pitch and Roll Angles
Battery Status	Voltage, Current, Temperatura
Compass	Vessel Heading
Depth	Water Depth
Engine Monitor	Oil & Coolant Pres & Temp, Alt, Fuel Rate, Hours, Fuel Pres, Tilt, RPM, Boost Pres.
GPS	COG, SOG, DOP, Position, Satellites, Time
Primary Navigation	BTM, DTM, TTM, CTE, Datum, Set & Drift
Rate of Turn	Rate of Turn
Rudder Indicator	Rudder Position
Speed	Distance Log, Speed
Weather Station	Water Temp, Air Temp, Atmospheric Pres
Wind	Wind Direction and Speed
ELECTRICAL	
Voltage	9 to 16 Volts (DC Voltage)
Consumption	< 150µA (Average Current Drain)
Load Equivalence Number (LEN)	3 (NMEA2000 Spec. (1 LEN=50mA))
Reverse Battery Protection	Yes (Indefinitely)
Load Dump Protection	Yes (Energy rated per SAE J1113)
MECHANICAL	
Size	4.50" x 3.20" x 2.09" (Including Flanges for Mounting)
Weight	170g
ENVIRONMENTAL	
IEC 60945 Classification	Exposed
Degree of Protection	IP66
Operating Temperature	-25°C to 55°C
Storage Temperature	-40°C to 70°C
Relative Humidity	93%RH@40°C per IEC 60945-8.2
Vibration	2-13.5Hz @ ±1mm, 13.2-100Hz @ 7m/s ² per IEC 60945-8.7
Rain and Spray	12.5MM Nozzle @ 100liters/min from 3m for 30 min per IEC 60945-8.8
Solar Radiation	Ultraviolet B, A, Visible, and Infrared per IEC 60945-8.10
Corrosion (Salt Mist)	4 times 7 days @ 40°C, 95%RH after 2 hour Salt Spray Per IEC 60945-8.12
Electromagnetic Emission	Conducted and Radiated Emission per IEC 60945-9
Electromagnetic Immunity	Conducted, Radiated, Supply, and ESD per IEC 60945-10
Safety Precautions	Dangerous Voltage, Electromagnetic Radio Frequency per IEC 60945-12