



BlueTraker iVMS

On-Board Device for Inshore Monitoring and Tracking



Inshore Vessel Monitoring System, optimised for smaller vessels

BlueTraker iVMS GPRS Model Benefits

- \$ Low Operating Costs
- 🚤 Approved for Maritime Use
- 🔒 Data Encryption
- 🌐 Embedded Geozones
- ⚡ Low Power Design
- 🔑 Numerous Security Features



Traditional vessel monitoring systems work well for large fleets, but they may not be the best fit for small fishing boats and artisanal vessels fishing close to the coast, in the inshore areas. With small fisherman in mind, BlueTraker introduces efficient and at the same time affordable solution our Inshore Vessel Monitoring System - the iVMS.

HOW DOES IT WORK?

BlueTraker iVMS provides regular reports of the fishing vessel's location, speed, catch reports and other information to the respective authorities. National Fisheries Monitoring Centres (FMCs) can track, monitor and keep continuous control of fishing fleet activities while iVMS is their basic onboard tool. BlueTraker iVMS uses low-cost GPRS communication exclusively to transfer data and commands that allow the operators to understand more precisely the movements of a vessel and make informed decisions.



BlueTraker VMS Key Benefits

Low Operating Costs



BlueTraker VMS only transmits position messages at user preset time intervals. Data and remote upgrades are transferred over low-cost GPRS network exclusively. Compared to satellite tracking, iVMS uses longer reporting intervals which further reduces the already affordable operational cost.

IP68 Rated Device



BlueTraker's unique double shell housing protects the components against anything that the harsh marine environment can throw at it. Whether it's extreme temperatures, wind, chill or humidity, iVMS can handle it.

Embedded Geozones



Up to 100 geographical areas can be remotely uploaded, edited, activated and deactivated in the form of geofences for every BlueTraker iVMS terminal. iVMS immediately detects and reports when vessel enters a new geozone.



Simple installation - no external antennas

BlueTraker iVMS is a straightforward terminal to mount and set-up. Easy to understand user manuals and a how-to video guarantee a quick and easy installation process.

Low Power Design



BlueTraker terminals only draw an average of 2W at 12V DC. The rechargeable internal battery lasts up to 72 hours.



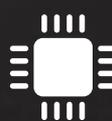
BlueSenz Ready - Remote Fishing Gear Monitoring

All iVMS terminals can be optionally upgraded with our BlueSenz range of onboard sensors mounted directly to the fishing gear for accurate and precise assessment of the fishing effort - for every vessel in the fleet. IoT technology allows Fisheries Monitoring Centres to monitor the precise fishing effort of their fleets easily.

Future proof technology



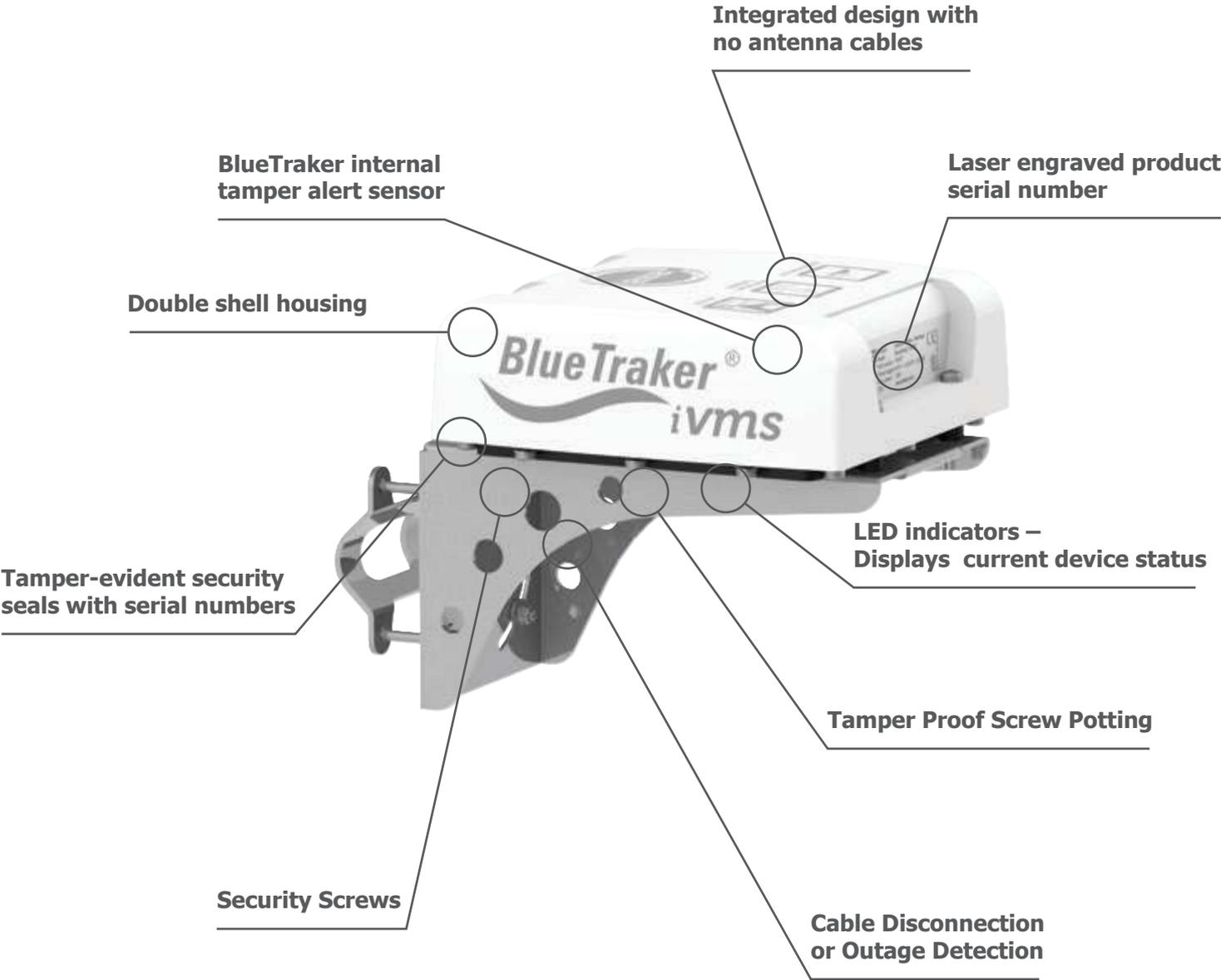
Fully upgradable for the next generation of monitoring techniques. Firmware, geozones, eLogbooks etc. are remotely updated/upgraded via the mobile network.



Embedded SIM card

Using an embedded sim grants the iVMS an added level of protection against vibrations, as well as mechanical and electrical spikes and surges.

BlueTraker Security and Safety Features



“Several layers of tamper proof design offer an unprecedented level of security currently not available in any other VMS on the market to date.”

Features and Functionalities



Global SIM card with no additional roaming cost

On vessels cruising close to shore and in range of available network, the iVMS terminal uses GPRS communication exclusively. With Global Sim Fisheries Monitoring Centres receive position and other data reports at a much higher rate compared to satellite communication, down to one minute. For inshore fishing Global Sim is equally efficient and much more cost-effective at the same time.



Position reporting

BlueTraker iVMS automatically changes its sampling period while the vessel is within an authorised port, transmitting position on a schedule of a pre-set interval, for example, every 30 minutes. When the vessel is out of an authorised port, the device transmits its position every 5 minutes for example, while at the same time storing the message in the internal memory of the device (BlueTraker iVMS devices are capable of storing more than 10,000 messages).



Worldwide regulations compliant

The BlueTraker terminals are fully compliant with the laws and regulations covering vessel monitoring systems based on the experience gained from the fisheries industry, including the International Marine Organization's (IMO) required compliance to standard IEC 60945. The iVMS is designed with a special emphasis on EU Commission Regulations. All BlueTraker terminals are IEC 60945 certified and comply with IP68/IP69K standards.



Message Data Encryption and Authentication

BlueTraker iVMS incorporates an extensive range of mechanical, electrical and electromagnetic safety and security features designed to prevent tampering and fraud and ensure safety on-board usage. A unique serial number is engraved onto the housing while tamper detection, antenna blockage detection, security seals and a four-colour status LED are all vital features of the design. The terminals have been designed to comply with the highest security and safety requirements expected by the customers, making the installation as tamper-proof as possible.



eLogbook Upgrade Ready

The worldwide eLogbook initiative is gathering pace in helping to eradicate illegal, unregulated and unreported fishing (IUU). As authentication is required each time a catch report is sent, only approved Electronic Reporting Systems (ERS) can be integrated. iVMS offers an optional interface and built-in data-pass functionality for transferring catch reports.

BlueTraker iVMS Technical Specification

Physical

External Dimensions	198 mm (width) x 198 mm (length) x 67 mm (height)
Weight	1.140 g (including one back-up battery)
Housing	Double shell housing, light colour outer shell, resistant to UV solar radiation

Environmental

Operating Temperature	-20°C to +60°C (On Backup Battery)
Storage Temperature	-25°C to +70°C
Humidity	10% a 100% Relative Humidity including condensation
Dust and Water Ingress	IP68 protection class (depth 6m, duration 30 min.)
Vibration	IEC 60945:2002, 5Hz - 13.2 Hz sweep sine, displacement 0.001m, sweep rate 0.5 oct/min; 13.2 - 100Hz sweep sine, acceleration amplitude 7m/s ² , sweep rate 0.5 oct/min

Electrical

Input Voltage Range	9 V DC to 36V DC (max. supply cable length: 50m)
Nominal Supply Voltage	24 V DC or 12 V DC
Energy Consumption (Average)	2W @ 12 V DC
Input Protection	Resettable fuses, Level 4 ESD protection according to ISO 61000-4-2, Over-voltage protection above 36 V DC, Load Dump protection according to ISO 7637-2:2004(E) (pulse 5a), ISO16750-2:2002 (load dump)
Back-up Battery	LiPoly battery
Autonomy With Back-up Battery	Up to 72 hours

GSM/GPRS channel

Supported Bands	Quad Band 850/900/1800/1900 MHz
SIM card	Global SIM, supplied with the terminal
Data Features	Embedded TCP / IP and UDP / IP protocol stack Embedded FTP SSL – Secure Connection
Antenna GSM	Integrated

GPS/GLONASS positioning receiver

Channels	33 tracking, 99 acquisition
Acquisition	Cold start 28 s, Hot start <1 s, sensitivity -167 dBm @ tracking
Accuracy	2,5 m CEP
Antenna	Integrated patch antenna

Inshore Vessel Monitoring System



Standards, Certificates and Approvals

IEC 60945

Maritime electronic navigation and communication equipment and systems

ISO 7367-2:2004

Electrical transients along supply lines

ISO 16750-2

Environmental conditions and testing for electrical and electronic equipment - part two; electrical loads - load dump

IEC60529 – IP68

water and dust ingress protection CE
European product safety CE mark
safety CE mark
ICE 60068-2-1
Low temperature functional test

ISO9001:2008

EMA Quality management system certificate



Distributor Label
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