Waterside security and surveillance systems
Founded in 2007 TETIS Integrated Systems LTD. is specialized in turnkey solutions for protection of high value assets from water side threats. Protected assets include naval bases, offshore oil and drilling rigs, sea and river ports and harbors, nuclear and hydro power plants, major state and private industrial facilities.

Our product range includes intruder detections sonars, high frequency radars for small target detection, infrared and day time video systems, magnetic detection systems, ground seismic detection systems to provide reliable all weather day/night security coverage over and under water areas. Also we provide both air and underwater acoustic hailers, physical boat barriers to prevent intrusion in protected areas.

TETIS Integrated Systems is prime contractor of diving and special equipment for military and law enforcement agencies for counter-terrorist application.

Our waterside security and surveillance systems is currently deployed by government and private customers for protection of naval base facilities, nuclear and hydro power plants, ports and harbors.
NERPA is advanced, high resolution underwater object detection sonar. NERPA provides automated detection, classification and tracking multiple underwater targets up to a range of 1000 m. NERPA is mainly intended for use open acoustically complex environments such as lakes and sea bays.

NERPA utilizes state-of-the-art original software for reliable detection of underwater intruders and their discrimination from marine mammals and big fishes. This minimises potential false alarms and operator fatigue that these can generate.

NERPA can be framed seabed or pier mounted. NERPA is currently in use as integral part of waterside security and surveillance systems of Russian industrial and government high value assets. High NERPA performances have proven during numerous tests in real conditions.

### Key features
- long range - up to 1000 meters detection distance
- variable sonar frequency increases noise immunity
- variable horizontal zone of acoustic coverage
- variable sonar head vertical zone of acoustic coverage
- sonar head built – in pith, roll, heading and depth sensors
- automate detection, classification and tracing
- low false alarm rate
- friendly interface – no special operator training required
- data export into C2/C4ISR systems via Ethernet interface
- data back up

### System content:
- NERPA sonar head(s)
- Junction boxes
- Copper – based main power and telemetry cable
- Interface unit
- Sonar processor (COTS computer) with LCD display
- NERPA special software (WINDOWS or LINUX based operation system)
- Uninterrupted Power Supply (UPS) – option

Sonar heads (up to 3) are connected via junction box with main power and telemetry cable to Interface unit. Interface unit can be connected to Sonar processor with twisted pair (max. 100 meters) or fiber optic cable (max. 20 km). Standard PC is used as Sonar processor. Sonar processor can output target data to C2/C4ISR command and control system using standard LAN interface.

NERPA special software provides Sonar head performance analysis and system status monitoring.

### Specification:

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Detection range</td>
<td>up to 1000 meters</td>
</tr>
<tr>
<td>Angle detection accuracy</td>
<td>2 degrees</td>
</tr>
<tr>
<td>Distance detection accuracy</td>
<td>2 meters</td>
</tr>
<tr>
<td>Maximum operating depth</td>
<td>up to 60m</td>
</tr>
<tr>
<td>Sonar head frequency</td>
<td>47 – 53 kHz</td>
</tr>
<tr>
<td>Horizontal coverage sector</td>
<td>600 - 3600</td>
</tr>
<tr>
<td>Vertical coverage sector</td>
<td>15 + 15 – 7,5°</td>
</tr>
<tr>
<td>Maximum distance from sonar head to</td>
<td>4000 meters</td>
</tr>
<tr>
<td>Interface unit</td>
<td></td>
</tr>
<tr>
<td>Maximum sonar head per Interface unit</td>
<td>3</td>
</tr>
<tr>
<td>Maximum interface unit per sonar processor</td>
<td>10</td>
</tr>
<tr>
<td>Power consumption</td>
<td>no more than 300W</td>
</tr>
<tr>
<td>Weight in air:</td>
<td></td>
</tr>
<tr>
<td>Sonar head</td>
<td>30 kg</td>
</tr>
<tr>
<td>Interface unit</td>
<td>19 kg</td>
</tr>
<tr>
<td>Sonar processor</td>
<td>4 kg</td>
</tr>
</tbody>
</table>
NERPA system configuration

- Underwater part
  - Sonar Head 1
  - Underwater Junction box
  - Sonar Head 2
  - Sonar Head 3
- Coastal part
  - Surface Junction box
  - Interface Unit
  - Sonar processor
  - Uninterrupted Power Supply
  - Copper-based main power and telemetry cable
- Command work and control station
  - Sonar processor
  - Uninterrupted Power Supply
- Sonar Head 1
- Sonar Head 2
- Sonar Head 3
TRAL (TRAWL) underwater intruder detection sonar

TRAL is advanced, high resolution underwater object detection sonar.

TRAL provides automated detection, classification and tracking multiple underwater targets up to a range of 450 m. TRAL is mainly intended for use in restricted high - reverberation acoustically complex environments such as rivers and channels.

TRAL utilizes state-of-the-art original software for reliable detection of underwater intruders and their discrimination from marine mammals and big fishes. This minimises potential false alarms and operator fatigue that these can generate.

TRAL can be frame seabed or pier mounted.

TRAL is currently in use as integral part of waterside security and surveillance systems of Russian industrial and government high value assets.

High TRAL performances have proven during numerous tests in real conditions

Key features

- effective in restricted high - reverberation environments such as rivers and channels
- variable sonar frequency increases noise immunity
- variable zone of acoustic coverage – from 30 to 360 degrees
- sonar head built – in pith, roll, heading and depth sensors
- up to 450 meters detection distance
- automate detection, classification and tracing
- low false alarm rate
- friendly interface – no special operator training required
- data export into C2/C4IS systems via Ethernet interface
- data back up

System content:

- TRAL sonar head(s)
- Junction boxes
- Copper – based main power and telemetry cable
- Interface unit
- Sonar processor (COTS computer) with LCD display
- TRAL special software (WINDOWS or LINUX based operation system)
- Uninterrupted Power Supply (UPS) – option

Sonar heads (up to 3) are connected via junction box with main power and telemetry cable to Interface unit. Interface unit can be connected to Sonar processor with twisted pair (max. 100 meters) or fiber optic cable (max. 20 km). Standard PC is used as Sonar processor. Sonar processor can output target data to C2/C4ISR central command and control system using standard LAN interface.

TRAL special software provides Sonar head performance analysis and system status monitoring.

### Specification:

- **Detection range**: up to 450 meters
- **Maximum operating depth**: up to 20m
- **Angle detection accuracy**: 2 degrees
- **Distance detection accuracy**: 2 meters
- **Sonar head frequency**: 180 – 120 kHz
- **Horizontal coverage sector**: 30° - 360°
- **Vertical coverage sector**: 10°
- **Maximum distance from sonar head to Interface unit**: 2000 meters
- **Maximum sonar head per Interface unit**: 3
- **Maximum interface unit per Sonar processor**: 6
- **Power consumption**: no more than 300W
- **Weight in air**:
  - Sonar head: 19 kg
  - Interface unit: 12 kg
  - Sonar processor: 4 kg
TRAL system configuration

Underwater part

Sonar Head 1
Sonar Head 2
Sonar Head 3

Copper-based main power and telemetry cable

Coastal part

Boxes
Interface Unit
Uninterrupted Power Supply

Sonar processor

Command and control station

Sonar Head 1
Sonar Head 2
Sonar Head 3
NEVA-B small target detection radar

NEVA-B is advanced, high resolution detection radar.

NEVA-B provides automated detection, classification and tracking multiple targets up to a range of 20 km. NEVA-B is mainly intended for use open in landscape such as lakes and sea bays.

NEVA-B utilizes state-of-the-art original software for reliable detection of small and fast intruders such as small boats and even diver head.

NEVA-B is currently in use as integral part of waterside security and surveillance systems of Russian government high value assets.

High NEVA-B performances have proven during numerous tests in real conditions.

Key features

- Radar scans the scene up to 60 times per minute
- Very effective for tracking small, fast craft
- Extracts very small targets, such as surface swimmers
- Automatic intruder detection and auto tracking
- Optimal detection of all kind of surface targets
- Background digital map on color display
- Unique signal processing

System configuration:

- Antenna-transmitter-receiver device
- Radar processor with two LCD displays
- Special software (WINDOWS based operation system)

Specification:

<table>
<thead>
<tr>
<th>Radar sensor</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Ka·Band</td>
</tr>
<tr>
<td>Frequency</td>
<td>33.6GHz–34.1GHz</td>
</tr>
<tr>
<td>Pulse capacity</td>
<td>15 kW</td>
</tr>
<tr>
<td>Azimuth beamwidth</td>
<td>0.23°</td>
</tr>
<tr>
<td>Elevation beamwidth</td>
<td>7° / 3°</td>
</tr>
<tr>
<td>Sector coverage</td>
<td>360°</td>
</tr>
<tr>
<td>Gain level</td>
<td>7000 / 20000</td>
</tr>
<tr>
<td>Transmitted power</td>
<td>480 / 650W average</td>
</tr>
<tr>
<td>Operating voltage</td>
<td>220V AC, 50Hz</td>
</tr>
<tr>
<td>No. of targets/tracks</td>
<td>&gt; 100</td>
</tr>
<tr>
<td>PC Based system</td>
<td>Windows XP Operating System</td>
</tr>
<tr>
<td>Two configurations of unit</td>
<td>with Hot Swap (Neva-B2M) and without Hot Swap (Neva-B)</td>
</tr>
<tr>
<td>Horizontal size</td>
<td>2.5 m</td>
</tr>
<tr>
<td>Weight</td>
<td>150 kg w/o Hot Swap</td>
</tr>
<tr>
<td></td>
<td>250 kg with Hot Swap</td>
</tr>
<tr>
<td>Set-up</td>
<td>less than 1.5 minutes, one operator</td>
</tr>
</tbody>
</table>
SOVA Infrared Panoramic Intruder Detection System

SOVA (OWL) multi-sensor detection system is equipped with a highly reliable, mid-wave, uncooled detector which offers mid- to long range detection in all weather conditions.

The thermal imaging camera enables a continuous optical and electronic zoom. This provides excellent situational awareness while also giving the possibility to zoom in at suspect activities, and have a closer look, once they are detected.

The OWL precision pan/tilt mechanism gives operator accurate pointing control while providing fully programmable scan patterns, radar slew-to-cue, and slew-to-alarm functionality. The multi-sensor configuration also includes a day/night 36X zoom color CCD camera on the same pan/tilt platform.

The OWL can be used as a self-contained unit or integrated with NEVA-B radar. In case of integration with radar OWN operates in fully automated mode using radar target data for target pointing, classification and tracing.

Key features
- 3 integrated sensors: thermal camera, day light CCD camera and laser rangefinder
- Micro-bolometric thermal camera with 17μm pixel size
- Continuous zoom up to 9x in thermal camera
- Automated panoramic scanning mode
- Automatic intruder detection and auto tracking

System configuration:
- Pan and tilt device
- Thermal camera
- Day light CCD camera
- Laser range finder (option)
- Interface unit
- Control unit with LCD display
- Special software (WINDOWS based operation system)

### Specification:

#### Thermal camera
- Detector: uncooled microbolometer FPA
- Spectral band: 8-14 μm
- Resolution: 640 x 512
- Pixel size: 17 μm
- Focal length: 25 to 225 mm
- Zoom: 9x

#### Day light CCD camera
- Detector: Exview HAD CCD
- Focal length: 3.4 to 122.4 mm
- Zoom: 36x optical, 12x digital
- Minimum illumination: 1.0 lx (typical)
- Video output: NTSC or PAL

#### Laser range finder
- Wavelength: 1570 nm
- Range: 50 m to 10 km
- Accuracy: +/- 10 m
- Laser class: 1

- Operation temperature: -40°C to +55°C
- Humidity: up to 95% (Non-condensing)
Passive magnetic intruder detection system (PIMDS)

PIMDS is covert perimeter intrusion detection system and can be used as a primary or optional perimeter intruder system for high value assets protection including waterside security applications. PIMDS can reliably detect armed intruders including tracks, tanks, etc.

PIMDS can be discreetly incorporated into landscaped or underwater areas, where security fencing may not be possible. PMDS can be used to activate external devices such as CCD cameras, projectors, loudspeakers, etc.

The PIMDS utilizes the principle of Magnetic Anomaly Detection (MAD) in a point of intrusion. Magnetic anomaly is measured by each magnetic sensor in three coordinates (X, Y, Z) as a difference of measured magnetic field between sensors. This method allows to ignore of magnetic field changes caused by natural and industrial magnetic noises and discriminates magnetic field changes caused by intruder. This advanced technology provides PIMDS with high level of noise immunity comparing with existing magnetic systems normally triggered by wide range of natural and industrial noises.

PMDS operates effectively under any type of surface such as all types of ground and artificial covering including concrete, asphalt roads, vegetation, mountain terrain and even under water, snow and ice.

PMDS software provides state of the art signal processing and communication.

PIMDS has smart adaptive sensitivity and auto calibration feature. The signal processing method will probe continually the sensors field background condition and adjust itself to the maximum sensitivity possible for these conditions.

Key features:
- covert installation and intruder detection
- fully automated operation
- effective in high magnetic noise environment condition
- low false alarm rate
- friendly interface – no special operator training required
- data import/export from/into external command and control systems
- reconfigurable detection zone
- built-in self-test for all system components

System configuration:
- 3D magnetic sensors
- Sensors communication cables
- Switching units
- main power and telemetry cable
- System processor unit with LCD display
- Uninterrupted Power Supply (UPS) – option

<table>
<thead>
<tr>
<th>Specification:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum sensor length</td>
</tr>
<tr>
<td>Number of sensors in line</td>
</tr>
<tr>
<td>Number of sensors lines</td>
</tr>
<tr>
<td>Magnetic sensor detection range (radius)</td>
</tr>
<tr>
<td>Number of sensors</td>
</tr>
<tr>
<td>Maximum distance from magnetic sensors line to switching unit</td>
</tr>
<tr>
<td>Maximum distance from switching unit to system processor unit</td>
</tr>
<tr>
<td>Power consumption</td>
</tr>
</tbody>
</table>

3D magnetic sensors
• • • • • • •
up to 9 sensors per line
KAIMA in-ground seismic perimeter intrusion detection system

KAIMA perimeter intrusion detection system uses in-ground seismic sensors (geophones) to detect humans and vehicles crossing over the sensor area. Unlike the readily visible fence-mounted sensors a buried KAIMA sensors are covert.

KAIMA systems feature high sensitivity monitoring, capable of easily detecting and pinpointing the location of an intruder’s footsteps. Geophones are buried in the ground. Buried geophones can be deployed in a single straight line or configured to cover areas of any shape and size on any type terrain. Geophones are compatible with a wide range of soil types and climate conditions.

KAIMA original signal processing and state-of-the-art software provide high system environment noise immunity and low false alarm rate.

KAIMA geophones can be discreetly incorporated into landscaped areas, where security fencing may not be desirable on aesthetic basis. Alternatively, KAIMA can be used as a second layer of intrusion detection, in conjunction with fence- or wall-mounted sensors. KAIMA can be used to activate external devices such as CCD cameras, projectors, loudspeakers, etc.

Key features:
- covert installation and intruder detection
- fully automated operation
- effective in high noise environment condition
- low false alarm rate
- friendly interface – no special operator training required
- data import/export from/into external command and control systems
- simple installation method
- reconfigurable detection zone

System content:
- Ground seismic sensors (geophones)
- Communication cables
- Switching unit
- System processor unit
- LCD monitor (optional)

Specification:

<table>
<thead>
<tr>
<th>Parameter/Model</th>
<th>KAIMA-S-01</th>
<th>KAIMA-SK-01</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum sensor length</td>
<td>up to 10000 m</td>
<td>up to 1250 m</td>
</tr>
<tr>
<td>Geophone detection range (radius)</td>
<td>up to 30 m</td>
<td>up to 30 m</td>
</tr>
<tr>
<td>Number of independent detection channels</td>
<td>up to 256</td>
<td>up to 32</td>
</tr>
<tr>
<td>Sensor depth</td>
<td>up to 50 cm</td>
<td>up to 50 cm</td>
</tr>
<tr>
<td>Power consumption</td>
<td>no more than 700 W</td>
<td>no more than 30 W</td>
</tr>
</tbody>
</table>
KAIMA system configuration

~ 1000 м

1  8  9  16  17  24  25  32

Seismic sensor

Switching unit

Power and communication cables

Communication cables

System processor

LCD monitor

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PORTGUARD series of mobile integrated waterside security and surveillance systems

PORTGUARD series of mobile systems have been designed for protection of high value ships temporary anchorage.

PORTGUARD provides situation awareness, surface and underwater target detection, tracking and recognition and effective response at any climate and environment conditions. Depending on mission required system can be configured accordingly.

PORTGUARD can be effectively used for number of application such as protection of temporary military facilities, temporary ships anchorages, maritime security, etc.

Key features:
- Can be used on unequipped shore
- Rapid deployment
- Comprehensive range of security and surveillance equipment
- Flexible system configuration
- Wide range of application
System configuration:

- NERPA-M intruder detection sonar,
- NEVA-B small target detection radar,
- OWL infrared/day video system,
- High power projector
- Microwave, fence and seismic perimeter security systems,
- MARS air – cushion craft
- Patrol boat equipped with ZEUS diver interruption system
- Rigid inflated boat
- ORLAN remotely piloted aircraft
- URAL off - road track installed 20” containers
- Integrated command and control system

Specification:

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
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</thead>
<tbody>
<tr>
<td>Time of deployment</td>
<td>24 hours</td>
</tr>
<tr>
<td>Operation temperature range</td>
<td>-50 - +50 C</td>
</tr>
<tr>
<td>Radar detection range</td>
<td>up to 35 km</td>
</tr>
<tr>
<td>Sonar detection range</td>
<td>up to 1 km</td>
</tr>
<tr>
<td>Perimeter security systems length</td>
<td>up to 2 km</td>
</tr>
</tbody>
</table>
BARRIER floating security barrier system

BARRIER has been designed to provide key areas such as military facilities, harbors, channels, anchorage, hydro and electrical power plants from small high speed boats intrusion on protected area.

BARRIER floating modules are made from durable, sunlight resistant polyethylene and filled with water resistant foam to save module buoyancy in case of module hull damage. Inner stainless steel tubular strength member provides module structural strength and connection modules to each other. Floating modules are connected to each other with reinforced rubber connectors with stainless steel hardware. To provide BARRIER system superior strength tubular strength members can be reinforced with steel wired ropes. Bright orange color makes BARRIER system highly visible.

Floating modules can be connected in any configuration to meet project requirements, including two parallel lines. BARRIER floating modules can be used to construct temporary bridges installation as well.

Additional options such as surface fence, underwater stainless steel protection net can be installed to increase BARRIER protection ability.

Key features:
- Stops logs, debris and impact of high speed boats
- Positive boat restraining barrier
- Unsinkable flotation
- Superior strength and durability
- Easy connected and anchored
- Clearly visible line of demarcation
- Flexible configuration, unlimited length
- Allow for use for temporary installation
- Low maintenance required

System configuration:
- Polyethylene molded-on flotation modules filled with foam
- Reinforced rubber connectors with stainless steel hardware
- Steel wired ropes (optional)
- Surface fence, underwater stainless steel net (optional)
- Anchoring facility (optional)

Specification:

<table>
<thead>
<tr>
<th>Load bearing capacity:</th>
<th>Standard</th>
<th>60 kN</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Reinforced with steel wired ropes</td>
<td>195 kN</td>
</tr>
<tr>
<td>Operating temperature range</td>
<td>-40 - +50</td>
<td></td>
</tr>
<tr>
<td>Maximum barrier line bend angle</td>
<td>55</td>
<td></td>
</tr>
<tr>
<td>Floatation module dimensions</td>
<td>505x505x2332 mm</td>
<td></td>
</tr>
<tr>
<td>Module wall thickness</td>
<td>6 mm</td>
<td></td>
</tr>
<tr>
<td>Module weight</td>
<td>103 kg</td>
<td></td>
</tr>
<tr>
<td>Module draught</td>
<td>0.3 meters</td>
<td></td>
</tr>
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</table>
ZEUS underwater acoustic diver disruption system

ZEUS system is intended to prevent diver intrusion into protected area.

ZEUS can be deployed as permanent installation for protection of coastal and maritime facilities or supplied as in a rapid deployment version installed on patrol crafts.

ZEUS utilizes electro – dynamic impulse generation to create high power short time acoustic impulse. Acoustic impulse duration and form is very close to shock wave generated by explosives.

Key features:
- Narrow directional pattern
- High efficiency
- Disruption impulse power variation ability

System configuration:
- ZEUS underwater acoustic transmitter
- Power cable
- Surface control unit

Specification:
- Weight (in air): 100 kg
- Dimensions: 420 x 984
- Operation depth: 10 m
- Consumption power: 70 W
- Power supply: 220VAC/50Hz
- Nonlethal operation range: 2 - 100 m
- Recharging time: 20-90 sec
LOOCH (RAY) projector

LOOCH is high power narrow beam projector. LOOCH can be used for search and rescue or security application. As a part of security system LOOCH provides intruder lighting and recognition. Thanks to stroboscopic mode LOOCH has ability to use as nonlethal weapon.

LOOCH projector is available in stationary or mobile versions. In stationary version LOOCH is equipped with remote control.

Key features:
- Portability
- Small power consumption
- High power light
- Even light flux
- Nonlethal weapon ability

Specification:

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weight</td>
<td>3.9 kg</td>
</tr>
<tr>
<td>Dimensions</td>
<td>391 x 183 x 185 mm</td>
</tr>
<tr>
<td>Light beam angle</td>
<td>1° up to 40°</td>
</tr>
<tr>
<td>Light flux</td>
<td>12 000 000 kd</td>
</tr>
</tbody>
</table>
NEPTUNE imaging sonar

NEPTUNE high frequency sound imaging sonar has been designed for real-time detecting, monitoring and tracking underwater objects in low and zero visibility conditions. NEPTUNE is intended for use in different applications – ROV navigation, object/target detection, obstacle avoidance, search and rescue, underwater inspection, etc.

NEPTUNE can be stationary deployed on seabed tripod or using manual pole/portable mount system/

Key features:
- Crisp, real time like sonar imagery
- Improved target identification
- Quick and easy integration

System configuration:
- NEPTUNE sonar head
- Sonar cable
- Switching box
- Ethernet cable
- PC with SonoVizNet software
- Carrying case

Specification:

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating frequency</td>
<td>450 kHz</td>
</tr>
<tr>
<td>Field-of-View</td>
<td>45x15</td>
</tr>
<tr>
<td>Maximum Range</td>
<td>up to 100 m</td>
</tr>
<tr>
<td>Range resolution</td>
<td>0.02 m</td>
</tr>
<tr>
<td>Number of beams</td>
<td>45</td>
</tr>
<tr>
<td>Weight (in air)</td>
<td>4.5 kg</td>
</tr>
<tr>
<td>Dimensions</td>
<td>245 x 234 x 95 mm</td>
</tr>
<tr>
<td>Operation depth</td>
<td>up to 100 m</td>
</tr>
<tr>
<td>Power supply</td>
<td>9-36 VDC</td>
</tr>
<tr>
<td>Power consumption</td>
<td>50-100 W</td>
</tr>
</tbody>
</table>

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**NAROCH diver navigation console**

NAROCH diver navigation console has been designed for autonomous diver underwater positioning and navigation. NAROCH console allows a diver navigate underwater autonomously. Initial coordinates can be input manually or from optional GPS receiver.

In standard version NAROCH is equipped with Doppler log, depth gauge, altimeter, compass and thermometer.

Optionally GPS receiver, small TV camera and imaging sonar can be connected.

Power supply is provided from internal long time life battery.

NAROCH control panel is equipped with bright, easy to read LCD screen, joystick and control buttons.

LCD screen displays current diver position (coordinates), distance and bearing to the next waypoint, current depth, distance to bottom, dive time, gyro horizon indicator, water temperature and battery status.

All navigation fixes and event marks are saved on internal HDD for further access and analysis.

**Key features:**
- Autonomous navigation
- Mission (route) planning
- Rugged and waterproof aluminum case
- Bright, easy to read LCD for easy navigation

**Specification**

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weight (in air)</td>
<td>5 kg</td>
</tr>
<tr>
<td>Dimensions</td>
<td>360 x 390 x 430 mm</td>
</tr>
<tr>
<td>Distance accuracy</td>
<td>3%</td>
</tr>
<tr>
<td>Operating depth</td>
<td>100 m</td>
</tr>
<tr>
<td>Operation temperature</td>
<td>-5 - +45</td>
</tr>
<tr>
<td>Speed accuracy</td>
<td>0.2%</td>
</tr>
<tr>
<td>Power supply</td>
<td>12V DC</td>
</tr>
<tr>
<td>Power consumption</td>
<td>50-100 W</td>
</tr>
</tbody>
</table>
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