ecol-unicon



SMARTSEP MONITORING FOR OIL/WATER SEPARATORS

SMARTSEP MONITORING FOR OIL/WATER SEPARATORS

The day-to-day operation of devices that make up the sanitary and stormwater drainage systems is a task that requires a great deal of responsibility and commitment. In order to reduce the risk of secondary pollution, it is necessary to carry out periodic inspections of equipment such as oil separators, sediment traps, septic tanks and others. The increasing cost of labour and the considerable dispersion of equipment in the field affect the amount of operating expenses. Unfortunately, even carrying out regular maintenance does not guarantee that the equipment remains in good condition. In the period between inspections, it is possible that a random situation may occur (e.g. an oil or fuel leak from a vehicle), which may require taking immediate action at the site.

Information on the occurrence of emergency situations is essential to ensure effective protection of the environment. In order to reduce operating costs and to guarantee the maintenance of the correct condition throughout the lifetime of the equipment comprising the water and sewerage systems, it is recommended to use alarm systems that allow the continuous recording of events requiring ad hoc action at the location where the alarm situation occurs.

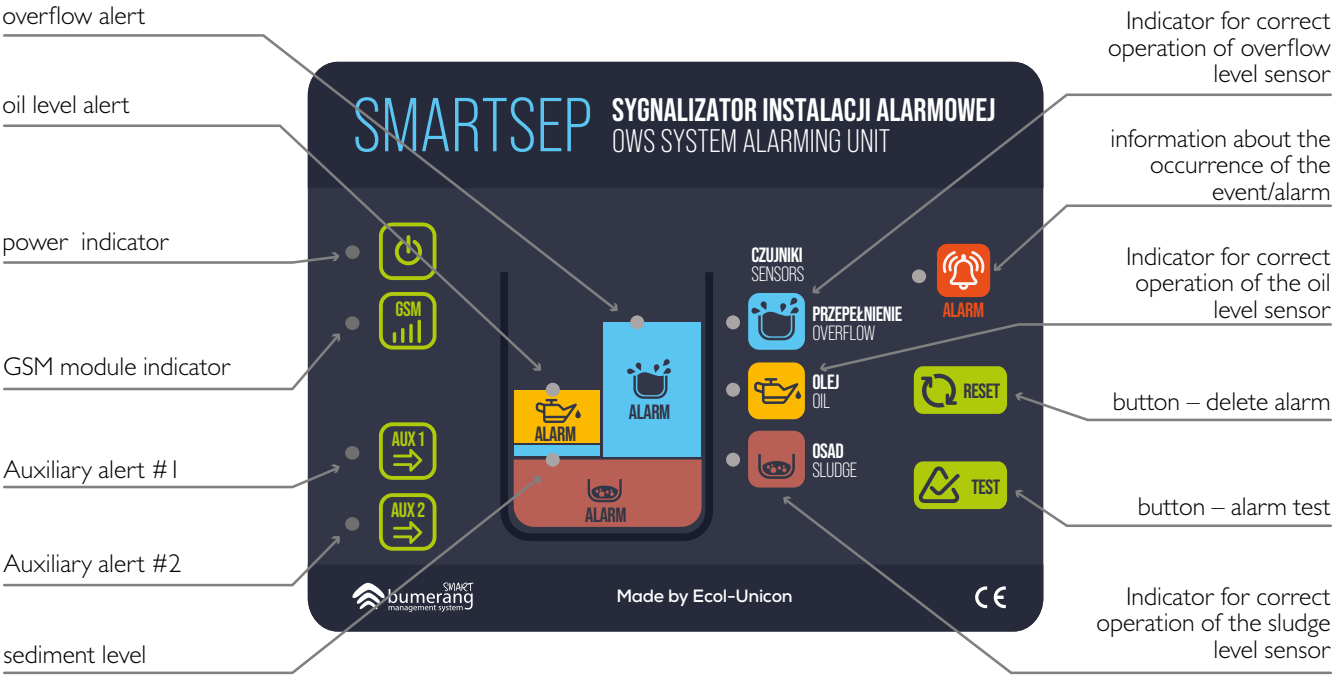
SMARTSEP (separator alarm integrated with the Bumerang Smart monitoring system) is a device intended for full visualisation of the device, operation control, alarming, reporting, logging of events and operating states of individual systems, as well as data archiving.

	Dedicated alarm inputs		
Example applications including product designations	Light liquids (oil) / Grease sensor EU-O	Overflow Sensor EU-L	Sludge Sensor EU-L
	R 🛒	P 🛒	O 🛒
Coalescence oil-water separators	×	×	
Lamella oil-water separators	×		
Separators of mineral solids			×
Settling tanks for suspended solids			×
Grease separators	×		
Coalescence oil-water separators with integrated settling tanks	×	×	×
Lamella oil-water separators with integrated settling tanks	×		×
Grease separators with integrated settling tanks	×		×
Septic tanks		×	
Retention tanks for flood prevention (maximum 3 alert levels)*		×	
Manholes with flow regulators		×	
Waste water treatment devices			×

*) *use of 2 additional floats on AUX1 and AUX2 inputs*
🛒 *available at ecol-shop.com*

Indicators and buttons on the panel:

- LEDs indicating the type and number of connected sensors
- LEDs indicating power connection and GSM modem operation
- LEDs indicating the occurrence of an alarm situation
- operating buttons



How does SMARTSEP work in the event of an incident?:

1. Converts the signal coming from the sensor(s) in the measuring zone into a visual signal (LEDs on the housing).
2. Activates acoustic signal (internal buzzer).
3. Activates the relevant potential-free outputs.
4. Saves (permanently - non-erasable) in the internal flash memory the history of all events recorded by the device.
5. It signals the event to the Bumerang Smart system and, depending on the configuration, the system sends email and SMS notifications to the relevant recipients.
6. Saves the event in the Bumerang Smart log archive - makes it possible to check the event history at a later date.

Available types of sensors

EU-AL alarm systems can be fitted with two types of electronic sensors:

EU-L (level) – used to monitor one of two levels: sludge or overflow. Note: two EU-L sensors can be installed in one device – one for recording high sludge levels, the other for recording alarm overflow levels.

EU-O (oil) – used to detect the emergence of an oil or grease film in the monitored device.



Sensor EU-O



Sensor EU-L

The EU-L and EU-O sensors are certified with the EC type-examination certificate OBAC 17 ATEX 0004X.
Group, equipment category, type of explosion protection, explosion group, temperature class, equipment protection level:



The main benefits of SMARTSEP monitoring

1. ACCESS FROM ANY BROWSER

No restrictions on the number of devices from which monitoring can be accessed. Access the application from anywhere using your own mobile phone or tablet. You just need to remember your login and password.

2. FLEXIBLE NOTIFICATIONS

Ability to add alarms and events of interest independently. No extra charge for email or SMS notifications. Ability to create events and configure appropriate notifications for your own needs.

3. OPTIMISATION OF COSTS AND OPERATIONAL ACTIVITIES

Reduced operating costs, thanks to the high availability of up-todate site information. Prioritisation of incidents allows easier decisions to send personnel to the right place and this leads to shorter response times to a real emergency.

4. INCREASING ENVIRONMENTAL SAFETY

Increased environmental safety of the devices in use through continuous monitoring and rapid notifications.

5. SCALABILITY OF THE SOLUTION WITHOUT OBLIGATION

The user does not need to declare how many sites will ultimately be monitored. Flexible scaling reduces one-time investment costs. Costs scale with the size of the system. Changes are possible on a daily basis.

6. SERVICE MANAGEMENT

The system informs about failures, allows full logging of events, scheduling of maintenance work. Available data in the system allows more accurate scheduling of equipment maintenance. Access to the entire history of events from one place. Ecol-Serwis can be called up more easily. Maintaining an "electronic" service log of facilities together with an extensive mechanism of reminding about the necessity to carry out specific works or call in external specialists will ensure the best conditions for serviced equipment and give a chance for many years of failure-free operation.

CAPABILITIES	Separator ALARM	SMARTSEP
Monitoring of oil/grease levels	✓	✓
Sludge layer monitoring	✓	✓
Overflow level monitoring	✓	✓
Monitoring of inlet closure status (open/close)	✓	✓
Incident acoustic alert	✓	✓
Incident visual notification (LED)	✓	✓
Incident SMS notification	✓	✓
Incident email notification	✗	✓
Customisable notifications	✗	✓
Browser-based access to incident logs	✗	✓
Historical overview of incidents	✓	✓
Creating customised lists of past incidents	✓	✓
Option for instant notification of service teams	✗	✓
Electronic log book	✗	✓
Possibility of adding attachments to service entries (protocols / photos)	✗	✓
Easy monitoring of the entire device network	✗	✓
Creation of reminders for upcoming service events	✗	✓
Possibility of viewing the weather forecast	✗	✓

*) *use of 2 additional floats on AUX1 and AUX2 inputs*
available at ecol-shop.com

Installation of SMARTSEP monitoring for separators

Necessary mounting components (cable clamps, bails, pins, etc.) adapted to the number of sensors ordered are included along with the sensors, alarm device and cables. Basic tools such as a drill and a set of spanners are required to install the alarm system. The suspension levels of the sensors depend on the type of device to be monitored and are detailed in the installation instructions included in the technical documentation.