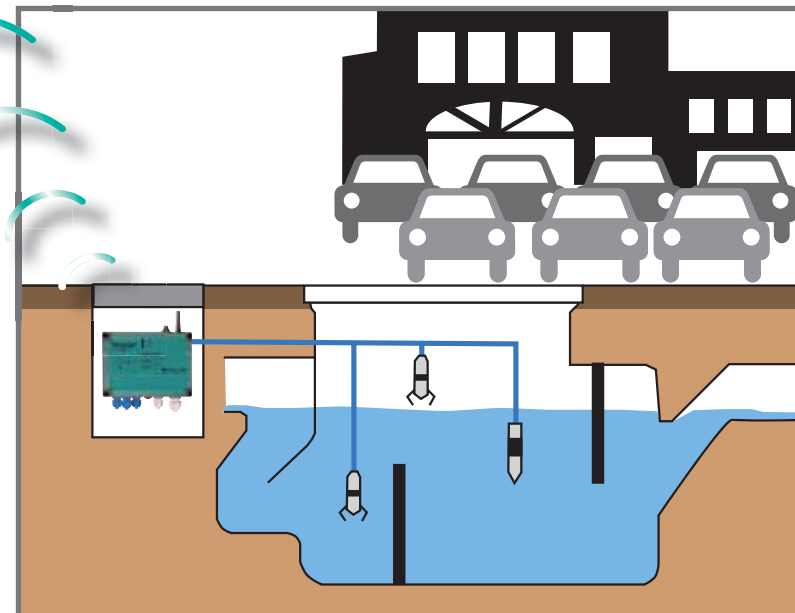
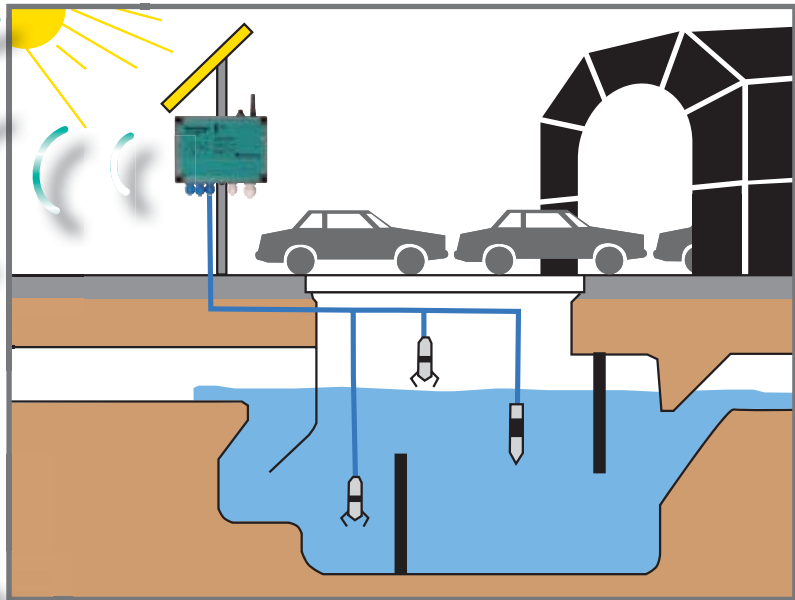
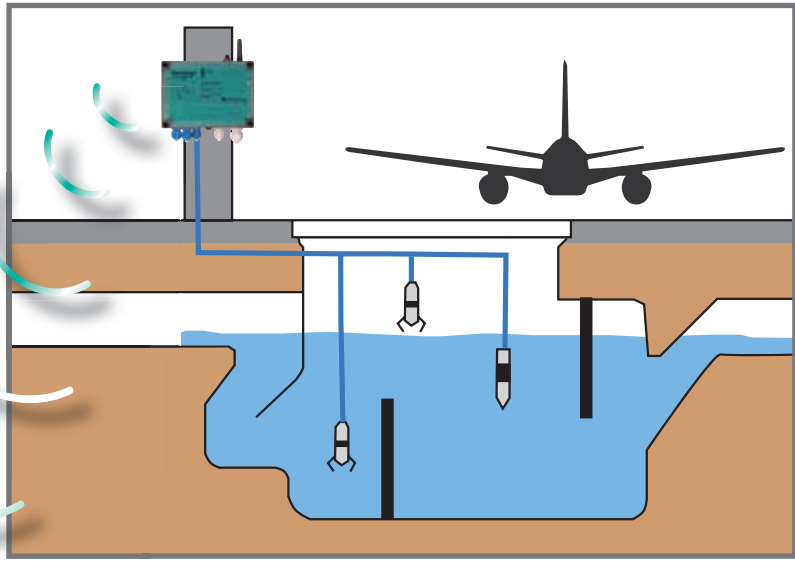


WARNING DEVICES FOR OIL SEPARATORS WITH SMS ALARM



APPLICATION EXAMPLES

ALARM MESSAGE VIA SMS
TO MOBILE PHONE USING
INTEGRATED
GSM MODEM

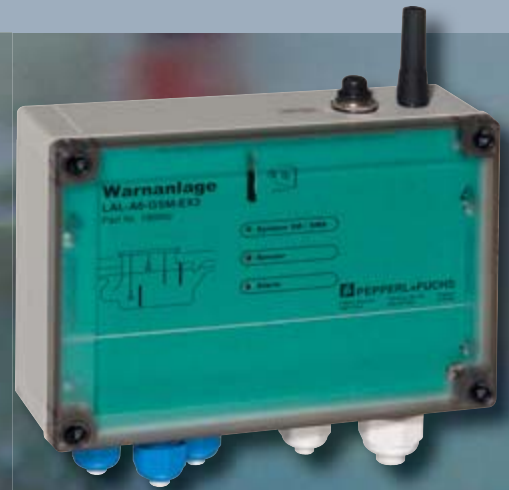


CONTROL UNITS

The alarm system is available in 3 versions to suit a variety of applications:

LAL-A6-GSM-EX3

GSM alarm system for 230 V AC supply voltage.



LAL-A8-GSM-EX3

Stand-alone GSM alarm system with battery operation (6 x 1.5 V) for areas without supply voltage.



LAL-D2-GSM-EX3

GSM alarm system for operation with 12-30 V DC (for example, in conjunction with solar collectors).



The requirements for separator systems for light liquids such as oil or petrol are set forth in European Standard EN858-1. It is the prerequisite for the CE mark and also defines the criteria for a “device that triggers an alarm if the light liquid or wastewater level is too high, or if the wastewater level is too low”. These types of alarm systems require approval for use in the potentially explosive atmospheres of zone 0.

An alarm system for oil or petrol separators can be equipped with up to three sensors that trigger an alarm in case of overflow, if the oil layer is too high and the water level is too low, or if the sludge level is too high. The selection of the required sensors depends on the respective application. The same is true for the type of alarm activation, which can range from a visual indicator or acoustic warning signal to remote transmission or wireless transmission via SMS. The minimum requirements for an alarm system include monitoring of the sensors and their installation, as well as repeat alarm activation if not acknowledged.



OVERFLOW SENSOR LAL8-D-EX

This digital ultrasonic sensor allows detection of an excessive liquid level in oil or petrol separators. It is installed suspended above the normal liquid level.

If the sensor overflows, an alarm signal is generated.

The sensor reacts, for example, to a closed floating stop or dirty coalescence filter, thus reducing the risk that oil separators will overflow and oil products will contaminate the ground. Its robust construction with no moving parts guarantees long-lasting, reliable function. Its compact design helps to make installation easy under any conditions.

LAYER THICKNESS SENSOR LAL1-D-EX

This digital capacitive sensor detects the thickness of the oil layer or a falling liquid level within an oil or petrol separator. As long as the sensor is surrounded by water, its high-frequency signal is attenuated; if it is surrounded by oil or air, however, this attenuation does not occur, indicating an alarm condition.

The sensor detects situations that may mean an overflow of oil and thus a hazard to the environment. Its robust construction guarantees long-lasting, reliable operation, and its compact design makes it easy to install under any conditions.

SLUDGE SENSOR LAL9-D-EX

This digital ultrasonic sensor is used to monitor the sludge level in oil or petrol separators. As long as the sensor is surrounded by liquid, its output signal is reflected to the receivers. However, if the signal is interrupted by sludge, sand or metal parts, this signals an alarm situation.


This sensor reliably prevents the oil or petrol separator from being clogged with sludge, allowing hazardous materials to escape into the environment. Furthermore, this allows manual checks of the sludge level to be kept to a minimum. Its robust construction with no moving parts guarantees long-lasting, reliable operation, while its compact design makes installation easy.

APPLICATION-ORIENTED ALARM SYSTEM

WARNING DEVICE FOR OIL/PETROL SEPARATORS WITH SMS ALARM

This new warning device is an efficient solution for monitoring oil and petrol separators. It is suitable for all applications for which efficient monitoring was previously impossible due to cost or technical reasons.

The system enables reliable, round-the-clock remote monitoring and thus is also suited to areas where persons are not always present. If it detects an alarm condition, it generates a text message and sends it via SMS to up to three mobile phones using the integrated GSM modem. This alarm message is periodically repeated until the cause of the alarm is remedied. In addition, weekly status messages via SMS make it easier to gain a seamless overview of the condition of the oil and petrol separator.



The scope of the monitoring can be individually configured by connecting up to three different sensors. Possibilities include, for example, layer thickness, overflow or sludge sensors. This ensures a comprehensive, application-specific protective function.

Because additional sensors can be connected to each available 2-wire connection, the system is also optimally suited for retrofitting existing systems.

PROCESS AUTOMATION – PROTECTING YOUR PROCESS



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