

Labkotec Measurement Technology

Protecting The Environment

ENG

Labkotec Alarm Devices
SolarSET Alarm Unit
Lokaset 20 Alarm Device
LID-3300IP Ice Detector
POP-22 EXI Level Controller
LabkoMax and LabkoFlex Level Sensors
Labko 3000 and Labko 3000 LPG Level Sensors
WBS 3000 Level Sensor
LabkoNet® System



Measure your success

 **Labkotec**
INDUTRADE GROUP



Protecting the environment

Peace of mind with Labkotec products

Labkotec Oy specialises in alarm devices for oil and grease separators, ice detection systems, electronic level gauges, automation, and detector technology. Our products are complimented with the LabkoNet® data monitoring and management solution.

Special attention to the design of our products enhances reliability and performance, which plays a vital role in protecting the environment.

Proven technology

Modern oil separator systems protect the environment from harmful oil spills and ground leaks, but system maintenance offers a challenge; separators are often situated underground or otherwise out of sight.

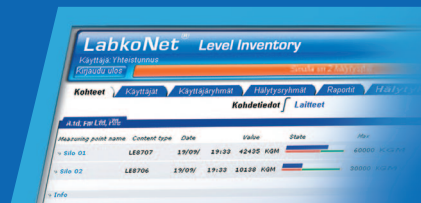
Effective alarm devices deliver peace of mind, by providing accurate and timely information on separator maintenance requirements. Every problem that is avoided protects the environment and saves money, and at the same time, ensures reliable operation.

LID – the market leader in ice detectors

The Labkotec Ice Detection System is the market leader in ice detectors. It is tested and approved by GL, TÜV Rheinland, and the Technical Research Centre of Finland (VTT). Thousands of units have already been supplied to the largest wind turbine manufacturers in the world. In addition to wind turbines, LID ice detectors have been installed at airports and weather stations, both domestically, and internationally. Finavia, the company that maintains Finnish airports and monitors air traffic, uses LID ice detectors to ensure safe flying, as well as other vital operations. LID-3300IP represents the latest technology in the field.

Labkotec alarm models are approved in accordance with the ATEX directive 94/9/EC and IECEx.

Labkotec alarm devices can be connected to the LabkoNet® system. LabkoNet® is an easy and reliable way to transfer and control the alarm data. An Internet connection is all that is needed. For further information on LabkoNet® and its key benefits, please visit www.labkonet.com



LabkoNet®
system
compatible

Labkotec is world leader in the manufacturing of oil, sand and grease separator alarm systems and has a wide range of products on offer.

Light liquid separators fall within the scope of the Construction Products Directive (CE-marking). The harmonized EN standard (EN 858-1) specifies the construction, design, etc. of such a system. The storage and handling of mineral oil products always present a potential source of danger, as the products are explosive and there is always a considerable risk of contamination. It is a clear requirement to install an alarm system in a light liquid separator, from both the point of view of the 858 standard as well as the CE-marking.

Key advantages of Labkotec alarm devices

- Meets the demands for various standards and regulations.
- There is an immediate alarm if, for example, a serious oil spill occurs, thus preventing severe environmental damage.
- The costs of routine servicing are kept to a minimum. The separator will be serviced only when the alarm indicates that the oil or sludge levels have been exceeded.
- Separator leakage into the environment can easily be detected. If the water level drops below the sensor, the alarm activates.



Alarm device models

OilSET-1000 oil separator alarm

The OilSET-1000 level alarm instrument is specially designed for oil separators. It indicates when it is time to empty the oil separator, which prevents harmful hydrocarbon emissions from being released into the sewer system.



OilSET-1000 control unit and SET/DM3AL sensor

SET-2000 Hi Level/Oil alarm with two sensors

The SET-2000 Hi Level/Oil is equipped with two sensors. One indicates the oil layer, while the other indicates blockage detection. i.e. high level, in case of sewer blockage or activation of the shutoff device. The SET/S2 sand sensor is also available.



SET-2000 Hi Level/Oil control unit and SET/DM3AL, SET/V and SET/S2 sensors

GA-1/GA-2 grease alarm

GA-1 and GA-2 alarm devices are specially designed for grease separators. They indicate when it is time to empty the grease separator, which prevents harmful grease emissions from being released into the sewer system.



GA-1/GA-2 control unit and GA-SG1 sensor

LAL-SRW-18 complet set for oil layer and overflow monitoring

- LAL-SRW control unit
- NVO5-KV wall box for DIN rail installation
- KVF-104-PF oil layer sensor
- NVF-104/34-PF overflow sensor
- LAL-SK2 cable connector
- NVO5-B mounting bracket



LAL-SRW control unit



NVO5-KV wall box

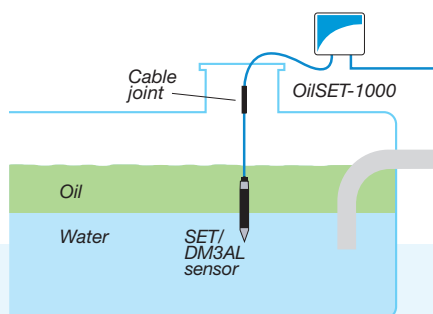


KVF-104-PF oil layer sensor

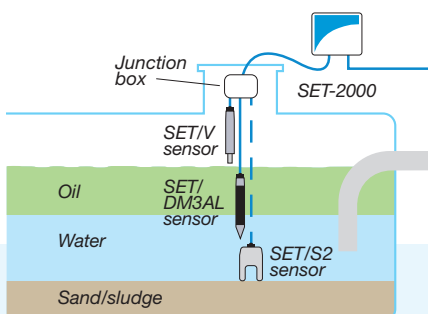
NVF-104/34-PF overflow sensor

Application areas

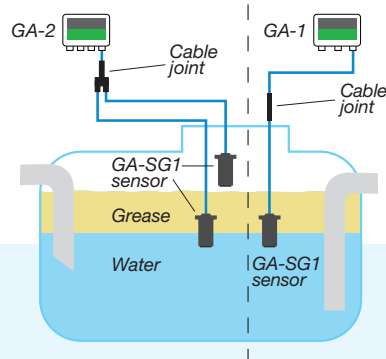
Oil separators



Oil and sand separators



Grease separators





SolarSET S Alarm Unit for applications where mains supply is not available

The SolarSET S alarm unit is a solar powered unit for monitoring the level of liquid hydrocarbon, sludge or high levels in oil separators situated in locations where mains power is unavailable.

Alarm conditions can be transmitted to mobile phones or LabkoNet® system via the GSM modem, and locally with a flashing beacon. Sensor failures are also detected automatically.

Application areas

- Airports
- Motorways
- Car parks

SolarSET S with GSM modem



SolarSET S with flashing beacon



SolarSET S with GSM/GPRS modem and flashing beacon

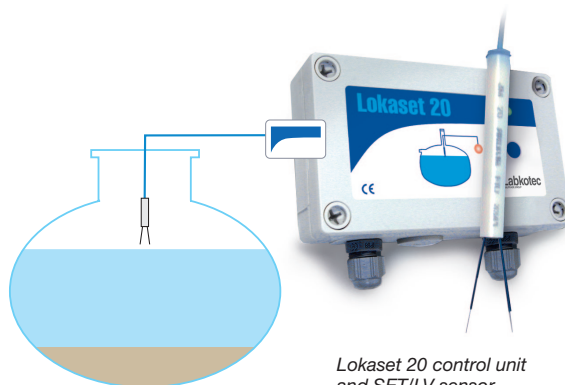


Lokaset 20 Alarm Device for septic tanks

The Lokaset 20 is an extremely reliable full alarm device for septic tanks. This compact package saves time and alleviates concerns, through efficient septic tank level control.

Complete septic tank control is achieved through a conductive sensor. The system is reliable and proven. Harmful overflow can be eliminated. Costs related to unnecessary emptying of the tank is also avoided.

The Lokaset 20 control unit is equipped with both a visual and acoustic signal alarm. The alarm can easily be forwarded with the relay output. The Lokaset 20 is powered by 230 VAC mains via a connecting cable fitted with a standard plug. Lokaset 20 is very easy to install as a retrofit. For more information, please visit www.labkonet.com



Lokaset 20 control unit and SET/LV sensor



LID-3300IP Ice Detector for cold climate wind turbines

Labkotec Ice Detectors have been specially designed for the detection of ice on rotor blades. Ice falling from rotor blades can cause damage to buildings and can injure people near the wind turbines. Ice reduces the productive capacity of wind turbines considerably, and also hinders their construction, which leads to increased maintenance needs.

- Compact, rugged design
- Quick and easy installation
- Ready to use after installation, no calibration required
- Suitable for old and new wind turbines
- Suitable for all manufacturer's wind turbines
- Easy to connect to wind turbine control systems via TCP/IP protocol
- Icing status, alarms and parameters can be monitored and adjusted through an inbuilt www user interface

Safe area of 500 meters

If the height of a wind turbine is 130 metres and the length of its rotor blades is 80 metres, the wind turbine should be surrounded by a safety area of at least 315 metres. This is not always possible in densely populated areas. Security risks, and physical strain caused by ice formation can be significantly reduced, by equipping wind turbines with ice detectors.

Application areas

- Wind turbines
- Airports
- Weather stations



LID-3300IP control unit



LID/ISD sensor



Efficient ice detection brings reliability and safety

Labkotec's LID-3300IP Ice Detector improves turbine production reliability and radically reduces risks associated with ice formation in cold climate conditions. LID, tested by the Technical Research Centre of Finland (VTT), is the leader in the market. Thousands of units have already been supplied to the largest turbine manufacturers in the world. In Finland they are also used also at airports to ensure flying safety.



US+Canada
NRTL-Certificate
Certificate no.
CU 72131267 01



Component Certificate
GL Renewables
Certificate no.
CC-GL-013A-2014

For onshore and
offshore applications





POP-22 EXI Level Controller for monitor levels, control pumps and valves

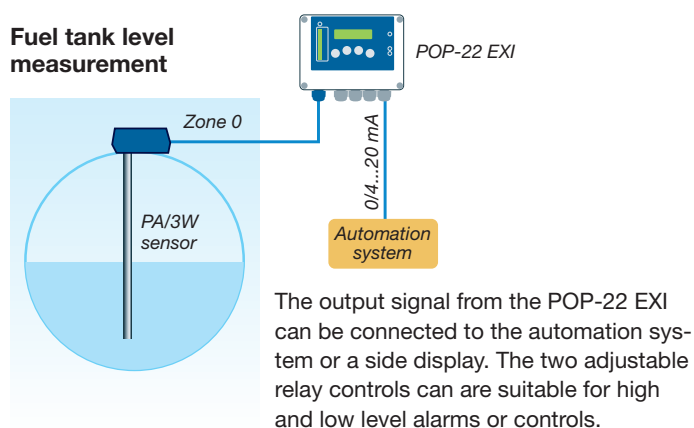
The POP-22 EXI is a versatile level controller for monitoring levels, control pumps and valves and for sending alarm warnings. Labkotec's capacitive 3W sensors – or other loop-powered 2-wire sensors – can easily be connected to the device.

The POP-22 EXI is equipped with an in-built Ex-barrier, which means that no separate barrier is needed, if the sensor is located in an explosive atmosphere.

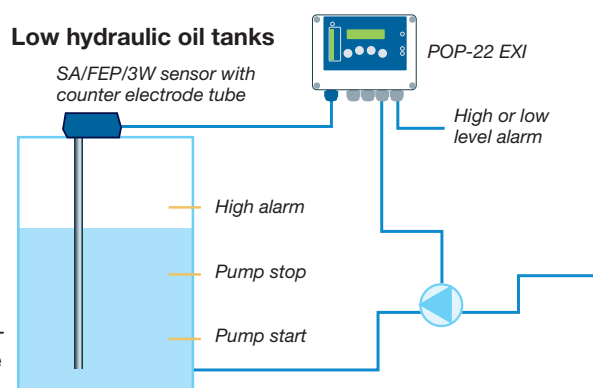


Application areas

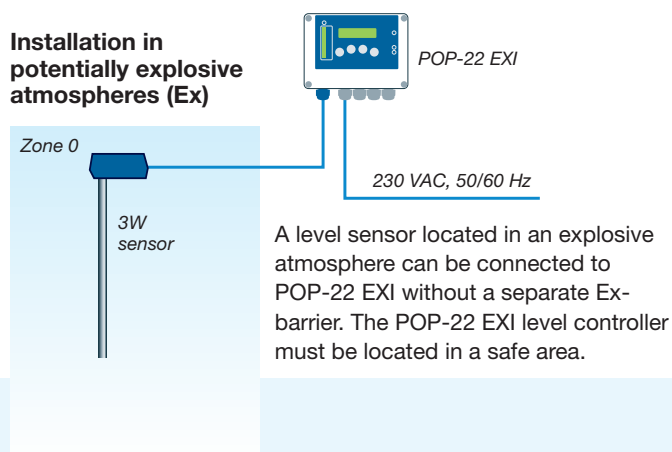
Fuel tank level measurement



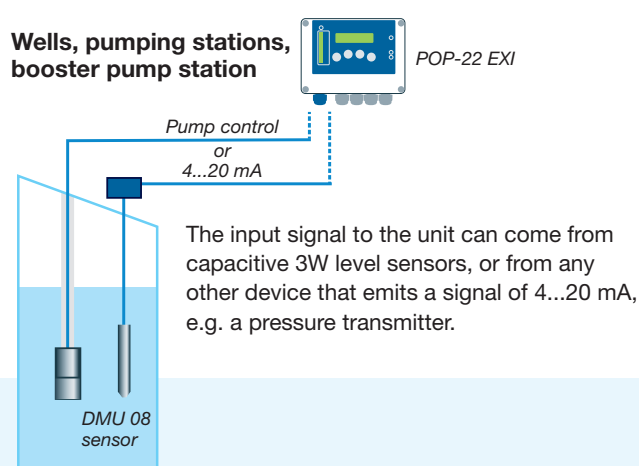
Low hydraulic oil tanks



Installation in potentially explosive atmospheres (Ex)



Wells, pumping stations, booster pump station





LabkoMax and LabkoFlex Level Sensors for demanding measurements

The LabkoMax and LabkoFlex 7100 series sensors are based on the magnetostrictive measuring principle. They are ideal for applications that demand high accuracy and good repeatability.

Both 7100MR and 7100V/B sensor types indicate product level, temperature, and eventual condensed water level.

The sensor's wetted parts are made of stainless steel and PVDF, which is perfect for fuels like gasoline, diesel, fuel oil and various additives, as well as many industrial chemicals.

LabkoMax sensor

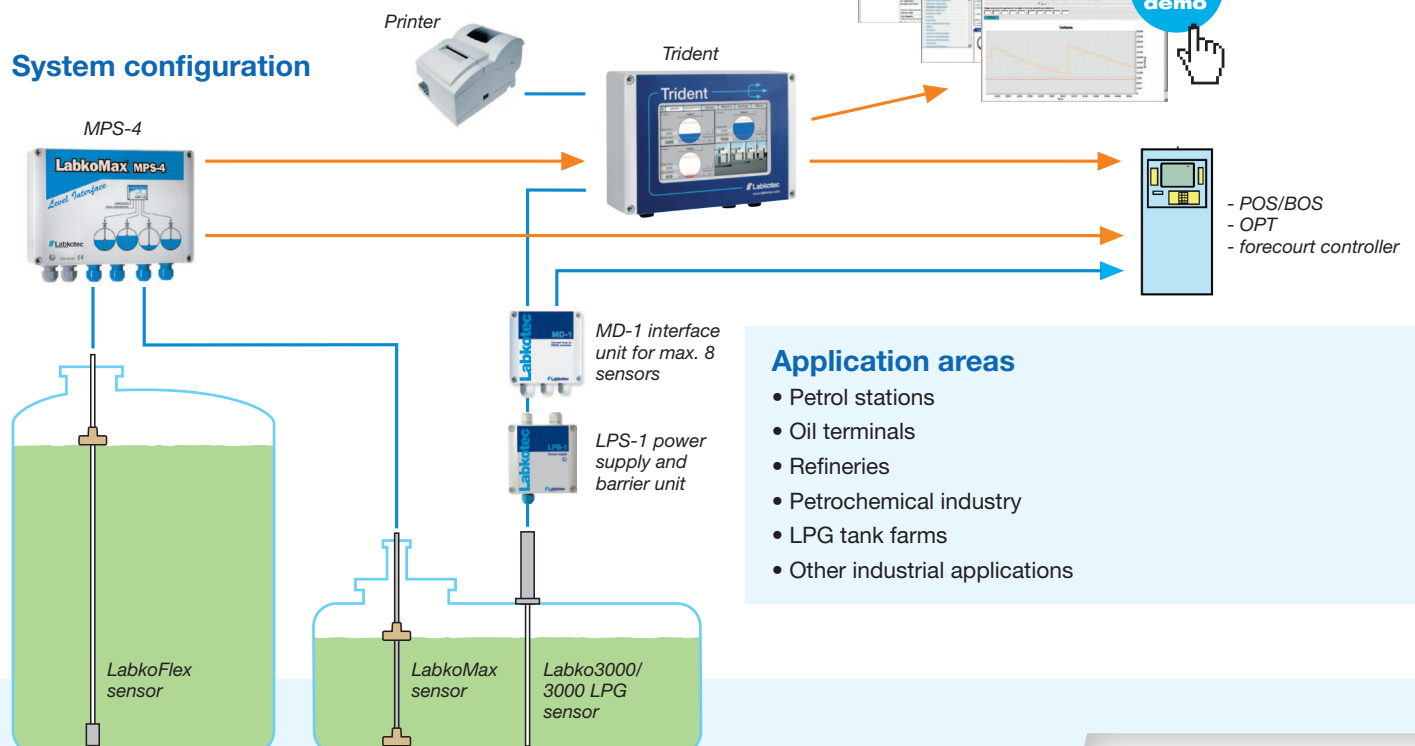
The LabkoMax fuel storage monitoring system is designed for use in service stations, terminals, refineries and other fuel distribution sites. Typically, the 7100MR sensors are used in tanks that are less than 5 m high.

LabkoFlex sensor

The LabkoFlex system is designed for terminals, refineries and other fuel storage facilities.

The 7100V/B series level measurement sensor provides the same output as the 7100MR series sensor, but is best suited for tanks that are 5-21 m high. Thanks to its flexible construction and PVDF material, installation of the sensor is quick and easy.

System configuration



Application areas

- Petrol stations
- Oil terminals
- Refineries
- Petrochemical industry
- LPG tank farms
- Other industrial applications



Labko 3000/Labko 3000 LPG Level Sensors for petrol stations and LPG plants

The operation of the Labko 3000 and Labko 3000 LPG level sensors are based on the segmented capacitive measurement method and the use of sophisticated built in electronics, which enables automatic recalibration, according to variations caused by changes in liquid quality or the mixture of additives.

Uniquely, the Labko 3000 and Labko 3000 LPG level sensors can be connected into a petrol station's Labko Intelligent Level System without the need for additional devices. Due to its high accuracy, the Labko 3000 level sensor can be used as a level sensor in tank reconciliation and leakage detection systems.

The rugged construction of Labko 3000 and Labko 3000 LPG level sensors make them ideal for harsh environmental conditions.

*Labko 3000
level sensor*



*WBS 3000
water bottom
sensor*

WBS 3000 Level Sensor for water/oil interfaces

The WBS 3000 level measuring sensor is used to measure the lowermost water level in tanks containing petrochemical products.

The sensor is installed at an appropriate level in the tank, between the suspension cable and the anchoring to the tank bottom.

Application areas

- LPG tank farms
- Petrol stations
- Fuel terminals
- Other industrial applications



LabkoNet® System

control of all inventory levels and alarms

– anywhere, any time

LabkoNet® domain contains inventory level and alarm reports from the LabkoNet® web service product tanks. LabkoNet® is a wet stock inventory monitoring system, where you log on into LabkoNet® with your own user ID and password. The web browser allows you to monitor all levels from your own computer.

All Labkotec alarm devices can be connected to LabkoNet's, internet-enabled remote monitoring system.

LabkoNet® web service

The LabkoNet® web service enables on-line monitoring of tank inventory data. The data can be shown in trend curves for desired intervals. The LabkoNet® web service is an extremely informative tool for logistics planning and optimizing of stock. The web service effortlessly lets you know the alarm status.



Fuel terminals



Petrol stations



LPG farms



Tanks

Application areas

- Logistics centres
- Transport companies
- Finance departments
- Supervisors
- (Authorities)

LabkoNet® web service
www.labkonet.com



Database
- tank levels
- alarms
- reports
- configurations



See live demo



WAP interface

SMS service
- alarms
- updates



Measure your success with Labkotec

Labkotec is a leading measurement equipment manufacturer, and related services provider for various industrial applications. Founded in 1964, Labkotec has decades of experience in providing innovative measurement solutions for a myriad of applications. Our mission is to provide solutions that augment our customers' business and to help them ensure that they protect people, and the environment.

Labkotec's comprehensive export product range comprises alarm devices for oil and grease separators, ice detection systems, level measurement equipment for petrol storage and distribution, as well as a wide range of level measurement and detection instruments. We also provide our own unique cloud based measurement data monitoring system LabkoNet®, which offers our customers remote onsite monitoring of measurement and alarm information.

Since most of our products are intended for use in hazardous areas, they are designed and certified in strict accordance with EX-norms.

In addition to our export range Labkotec's domestic market includes a wide range of imported level measurement devices, flow measurement equipment, detection technology and analyzers as well as related services. We also provide complete control systems for municipal water supply and sewerage.

Labkotec is ISO 9001:2008 and ISO 14001:2004 quality certified, while our environmental systems are certified by Lloyd's Register Quality Assurance.

Labkotec Oy reserves the rights to alterations without prior notice. Due to policy of continuous improvement in R&D, technical specifications may change. Installation shall always be made as documented in manufacturer's instructions.



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