

SEM RAD

Labkotec SET®

A complete range of alarm devices for oil and grease separators



- Designed to comply EN858-1&2 and PPG3 norms
- Warns of excessive levels of oil, sludge & liquids
- Prevents pollution incidents
- Fail-safe & fault monitoring systems in built
- Indicates when Separator needs emptying – reduces waste management cost
- Remote monitoring capability

 **Labkotec**
INDUSTRAL GROUP

SEMRAD

Labkotec SET[®] alarm devices for oil and grease separators

Labkotec SET[®] alarm devices are utilized in oil separators and grease traps, to indicate the need for emptying the oil/grease layer or the sludge deposits from the separator. A reliable oil separator alarm device is the only way to be sure, when it is economically sound and environmentally safe to collect the hazardous waste from separators.

All Labkotec SET[®] alarm devices can be connected to LabkoNet[®], Internet-enabled remote monitoring system. See www.labkonet.com

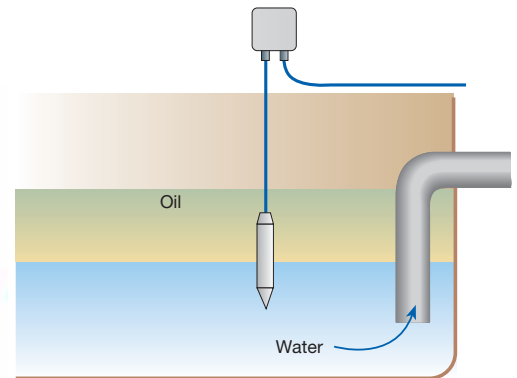
Complies the European oil separator EN 858 and PPG3 norms.

Control units and probes are approved according to ATEX directive 94/9/EC.



Oil separator alarm device OilSET-1000

The OilSET-1000 level alarm instrument is specially designed for oil separators and grease traps. It indicates when it is time to empty the oil separator and thus prevents harmful hydrocarbon emissions to the sewer system.



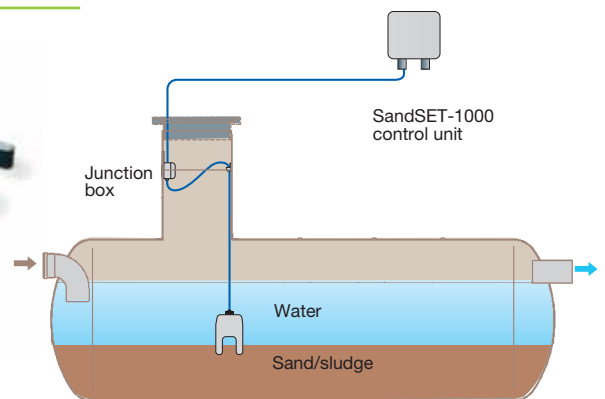
SandSET-1000 - Sludge alarm device for oil and sand separators

The SandSET-1000 is a complete package to detect sand or sludge in the tanks. The SET/S2 probe gives alarm signal when there is sand or sludge between the ultrasonic sensing elements.

The ultrasonic SET/S2 probe does not require any calibration, nor any regular service. Just install it to the level required and switch the mains on.

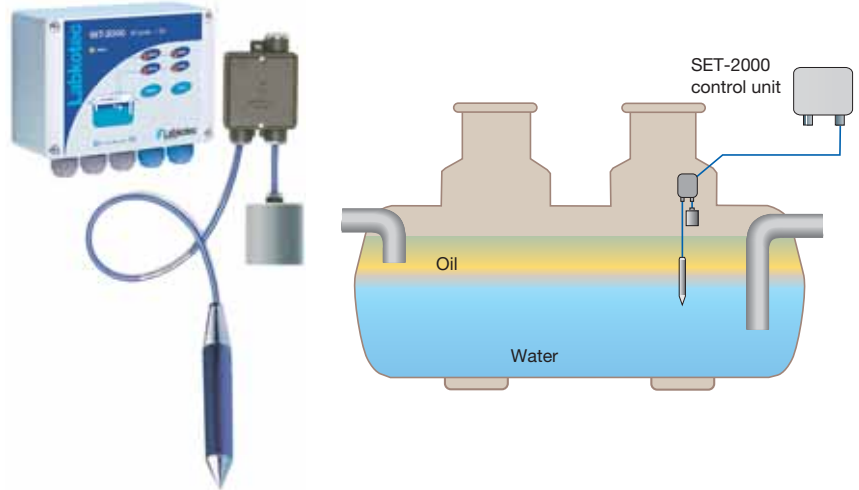


SandSET-1000 sludge alarm device.



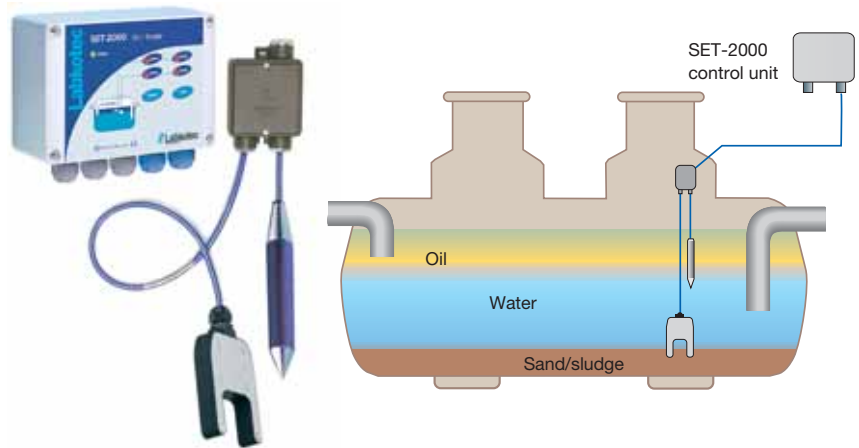
SET-2000 Hi Level/Oil alarm device with two probes

The SET-2000 Hi Level/Oil is equipped with two probes, one indicates the oil layer and the other indicates blockage detection. i.e. high level in case of sewer blockage or closure of the closing device.



SET-2000 Oil/Sludge alarm device with two probes

The SET-2000 Oil/Sludge is equipped with two probes, one indicates the oil layer and the other indicates when there is sand or sludge between the sensing elements of the SET/S2 ultrasonic sensor.



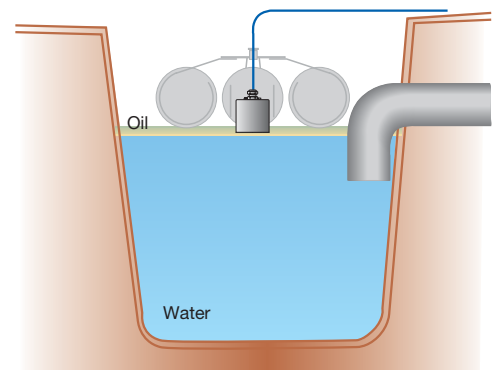
Inspection shaft oil alarm with the floating SET/OSK2 probe

The SET/OSK2 probe indicates an oil layer in an inspection shaft, pump shaft or on a water basin.

The SET/OSK2 floating oil probe



SET-1000 control unit



SolarSET alarm unit

The SolarSET is a solar powered alarm and communication unit for monitoring the level of liquid hydrocarbon in oil separators in locations where mains power is unavailable. In case of an oil alarm or any device malfunction, SolarSET sends an alarm message as a text message (SMS) to the user's mobile phone or LabkoNet system. Probe failures are also detected automatically. SolarSET contains OilSET-1000 12VDC oil alarm, Labcom 200 12VDC communication unit, battery charge controller and solar panel.



Control units

SET-1000, OilSET-1000, SandSET-1000

Outputs: Two potential-free relay contacts, 250 V AC 5 A.
One relay (alarm relay) resettable. LEDs for mains, alarm, probe cable break and probe cable short circuit indication. Internal buzzer and external alarm can be muted. Direction of alarm operation can be changed.

Probe: One capacitance type Labko SET/...2 series probe or SET DM/3 or SET/S2

Enclosure: IP 65, 175 x 125 x 75 mm (WxHxD), material polycarbonate.

Cabling between control unit and probe:
Screened instrument cable 3 x 0,5 mm².
Max. loop resistance 75 Ohm.

Approval: Ⓢ II (1) G, [EEx ia] II C, VTT 04 ATEX 031X

SET-2000 Hi Level/Oil, SET-2000 Oil/Sludge

Outputs: Two potential-free relay contacts, 250 V AC 5 A.
LEDs for mains, alarm, probe cable break and probe cable short circuit indication.
Internal buzzer and external alarm can be muted.
Direction of alarm operation can be changed.

Probe: Two capacitance type Labko SET/...2 series probes, SET DM/3 or SET/S2

Enclosure: IP 65, 175 x 125 x 75 mm (WxHxD), material polycarbonate.

Cabling between control unit and probe:
Screened instrument cable 3 x 0,5 mm².
Max. loop resistance 75 Ohm.

Approval: Ⓢ II (1) G, [EEx ia] II C, VTT 04 ATEX 031X

Probes

SET DM/3 – for oil separators and grease traps

Operation principle: Conductance

Application: Oil/water and grease/water interface

Approval: Ⓢ II 1 G, EEx ia II A T4, VTT 02 ATEX 012X

SET/OS2 – for oil separators and grease traps

Operation principle: Capacitance

Application: High level and low level detection

Approval: Ⓢ II 1 G, EEx ia II A T5, VTT 03 ATEX 009X

SET/S2 – for sludge alarm device

Operation principle: Ultrasonic

Application: Sand and sludge detection

Approval: Ⓢ II 1 G, EEx ia II B T5, VTT 07 ATEX 051X

SET/OSK2 – for inspection shaft's oil detection

Operation principle: Capacitance

Application: Oil on water detection

Approval: Ⓢ II 1 G, EEx ia II A T5, VTT 03 ATEX 009X

SolarSET

Dimensions: 300 mm x 400 mm x 132 mm (L x H x D)

Enclosure: IP 43, material polycarbonate

Ambient temperature: -25°C...+50°C

Supply voltage: 11 - 17 VDC

Power consumption: Max 1,9 VA, typical (power save mode) 0,1 mVA

Control unit: OilSET-1000 or SandSET-1000 and Labcom 200

Probes: SET DM/3 for OilSET-1000 and SET/S2 for SandSET-1000

Ex-classification: See probes and control units

Data transfer: GSM text messages (SMS)