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Alarm device idOil-20

DOC001713-EN-0

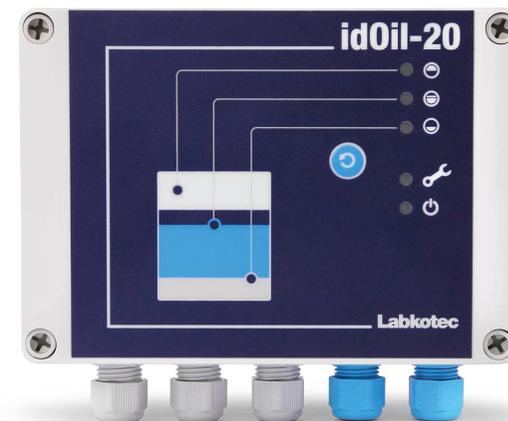
Quick Guide



Measure your success



Delivery contents



idOil-20 alarm device



LCJ1-1, LCJ1-2 and LCJ1-3 cable connectors

Measure your success



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Please take note:

This Quick Guide is not a replacement for the manual. It is only a brief overview of the functions of the alarm system. Detailed information about the alarm system can be found in the manual. The corresponding safety chapter of the manual is an integral component of this document. The safety instructions contained therein should be read and understood.

General Safety Instructions

The responsibility for the design, installation, implementation, operation, maintenance and dismantling lies with the system operator. The installation and implementation of all devices must only be carried out by trained specialist personnel. The protection of operating personnel and the system is not guaranteed if the module is not used for its intended purpose. The laws and regulations applicable to the use or intended purpose must be observed. The devices are only approved for proper and intended use. Infringement will void any warranty and manufacturer's liability.

Installation of the Alarm System

The device can only be installed outside of potentially explosive areas. The unit cannot be installed in places where aggressive vapours may be present. The device must be disconnected from the power supply during installation and maintenance. The alarm system should only be connected to the supply voltage after the sensors and relay outputs have been completely mounted and connected and the protection cover fitted. The type plate must not be removed.

Connection to Sensors in Potentially Explosive Areas

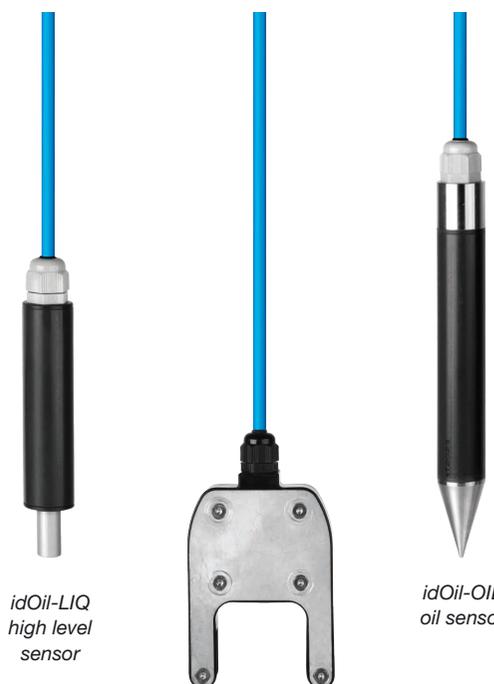
In oil/petrol separator systems, only sensors that are approved for installation in potentially explosive areas can be connected. The safety class of the external equipment must correspond to the safety class prescribed for the entire system.

Sensor Cable

Sensor cables cannot be run in cable or conductor bundles together with other circuits. Avoid running the sensor cable parallel to other cables from which interference signals can be emitted that could impair the sensor signal and thus the alarm function. The sensor itself cannot be grounded. If you extend the sensor cable, observe the applicable ATEX regulations with regard to colour, quality, durability. Use unshielded cable.

Installation in Conjunction with Intrinsically Safe Circuits

The intrinsically safe circuits of the devices may be routed into potentially explosive areas; careful attention should be paid to ensure they are safely isolated from all non-intrinsically safe circuits. The installation of the intrinsically safe circuits must be carried out in accordance with the applicable installation regulations. For the interconnection of intrinsically safe field devices with the intrinsically safe circuits of the associated devices, the respective maximum values of the field device and the associated device in terms of explosion protection must be observed (proof of intrinsic safety). In this case, EN 60079-14/IEC 60079-14 must be observed.



idOil-LIQ
high level
sensor

idOil-SLU
sludge sensor

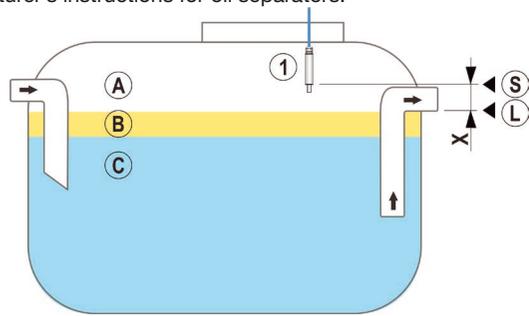
idOil-OIL
oil sensor

LMS-SAS5
accessories
for one sensor



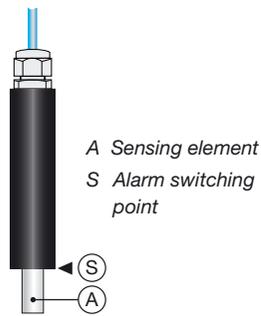
1 Installing the idOil-LIQ high liquid level sensor

The sensor is normally in air, and it issues an alarm when the sensing element is submerged in liquid. The sensor is installed at a suitable height above the standard liquid level (L) so that the overflow alarm is activated once the liquid level reaches the sensing element. Notice manufacturer's instructions for oil separators.



1 High level sensor idOil-LIQ

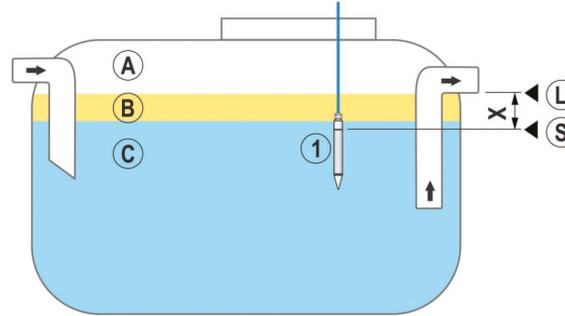
- A Air
- B Oil
- C Water
- L Standard liquid level
- S Sensor switching point
- X Alarm level (max surface level)



- A Sensing element
- S Alarm switching point

2 Installing the idOil-OIL oil sensor

The sensor must be submerged at the desired installation depth when the liquid is at the separator's standard liquid level (L). Notice manufacturer's instructions for oil separators.



1 Oil sensor idOil-OIL

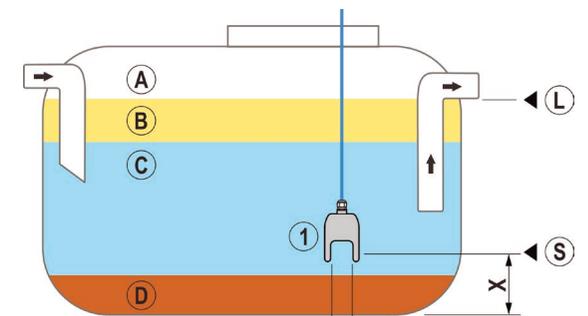
- A Air
- B Oil
- C Water
- L Standard liquid level
- S Alarm switching point
- X Alarm level (max oil level)



- A Measuring electrode
- B Reference electrode
- S Alarm switching point

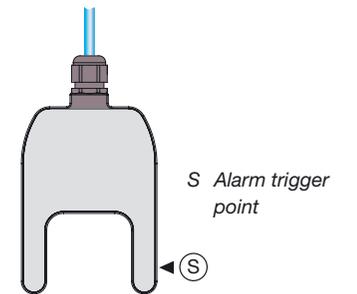
3 Installing the idOil-SLU sludge sensor

The sensor must be submerged at the desired installation depth when the liquid is at the separator's standard liquid level (L). Notice manufacturer's instructions for oil separators.



1 Sludge sensor idOil-SLU

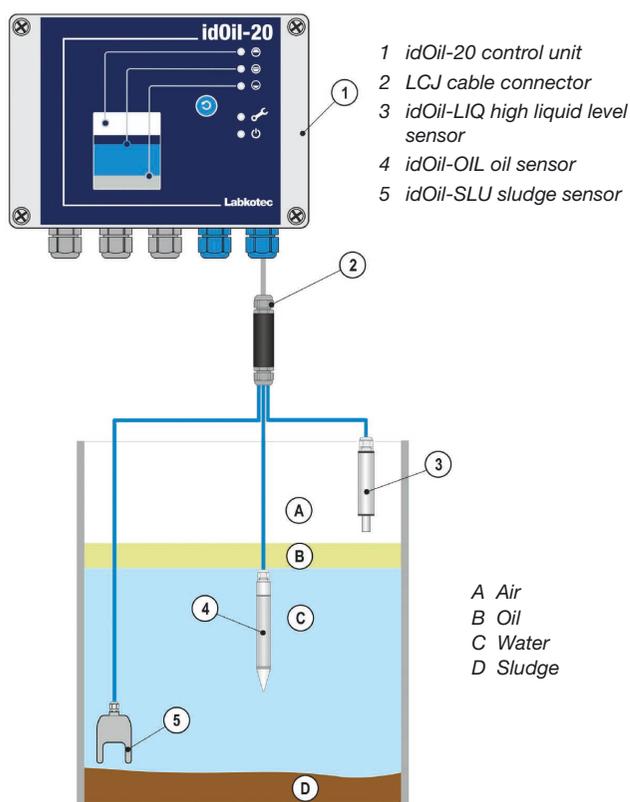
- A Air
- B Oil
- C Water
- D Sludge
- L Standard liquid level
- S Alarm switching point
- X Alarm level (max sludge level)



- S Alarm trigger point

4 Connections

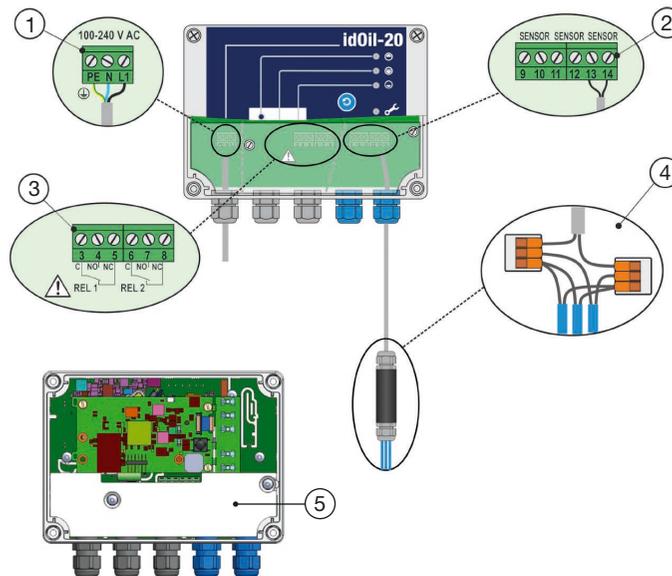
After complete installation of control unit, sensors, relays and installing of protection plate the power supply may be connected.



- 1 idOil-20 control unit
- 2 LCJ cable connector
- 3 idOil-LIQ high liquid level sensor
- 4 idOil-OIL oil sensor
- 5 idOil-SLU sludge sensor

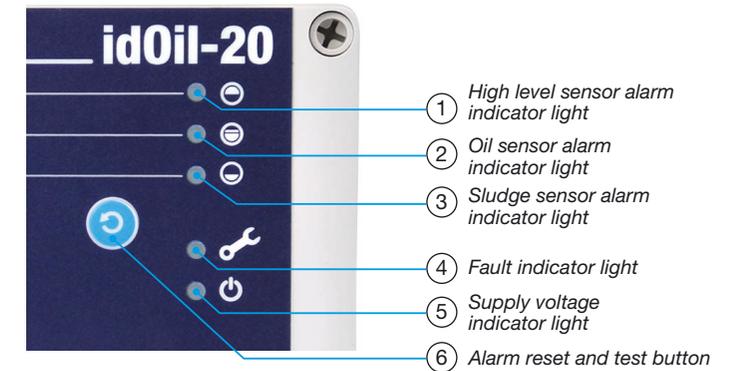
- A Air
- B Oil
- C Water
- D Sludge

Connection with three sensors, two relays and supply voltage



- 1 Supply voltage (connectors L1, N, PE)
- 2 Sensor connections (connectors 9-14)
- 3 Relay 1 connection (connectors 3,4,5)
Relay 2 connection (connectors 6,7,8)
- 4 Extension of cable with LCJ cable connectors
- 5 Protection cover

5 Commissioning



The front cover of the housing must be removed. Make sure that the protection cover (8) is properly attached.

Caution: High voltage!

Warning: Do not touch live parts!

The „supply voltage on“ LED and the fault LED light up green. Push the button (7) on the top PCB briefly. The automatic sensor detection starts and the fault LED (4) flashes green. Attach the front cover and lock it in place with the four plastic screws. After all connected sensors have been detected, the corresponding sensor LEDs (1), (2), (3) and the fault LED light up green. In case of an alarm, the corresponding sensor LED lights up red. In the event of a fault, the corresponding sensor LED flashes red and the fault LED lights up red.

