

# Data sheet

## idOil-30 Battery

### idOil-30 Battery Oil separator alarm device



Fulfils requirements of EN 858-1&2 standards

idOil-30 Battery is a battery powered control unit for oil separator alarm systems. It can be equipped with up to three any type of idOil sensors. The control unit is available also with 3G modem. With the idOil-30 Battery and applicable Labkotec sensors following alarms can be monitored:

- High liquid level alarm, when the liquid level in the oil separator rises excessively e.g. in an outlet blockage situation.
- Oil layer thickness alarm, when the oil separator's full capacity for oil or petrol has been reached.
- Sludge layer thickness alarm, when the sludge layer in the bottom of the separator has reached its maximum level.
- Separator leakage alarm, when the liquid level drops unexpectedly.

In these situations, an integrated alarm buzzer will sound, the display will show the alarm information and the relay(s) will switch. The idOil-30 Battery model is deactivated for most of the time, which means that it consumes very little power. The power consumption depends on the set measurement and transmission intervals. The idOil-30 Battery can be powered by Labkotec's Battery Box 10 power supply.

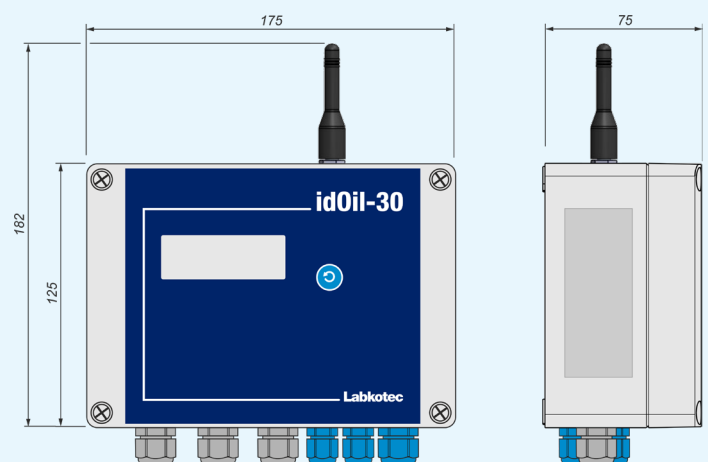
#### Features

- Selectable sensor combination with up to three sensors
- Polarity-free sensor connection
- Automatic sensor and sensor type detection
- Quick one touch commissioning
- Display for system status and alarm information
- Two fully configurable potential free relay outputs
- Alarm log
- Available with 3G modem
- Service and maintenance diary
- WLAN connection locally between control unit and laptop/tablet/smartphone to access the built in browser user interface for settings and configuration

#### Technical data

Mounting	Wall mounting
Enclosure material	Polycarbonate
Weight	680 g (800 g 3G module version)
IP classification	IP65
Display	Character-based 20x4 LCD screen
3G module (option)	900/1800/2100 MHz SMS and LabkoNet data transfer
Ambient temperature	-30 °C...+60 °C
Operating voltage	11-17 V DC
Power consumption	Max. 10 VA
Relay outputs	5 A, 30 V DC, 100 VA Bistable stepping relay
EMC	IEC/EN 61000-6-2 IEC/EN 61000-6-3
Electrical safety	IEC/EN 61010-1, Class III, UL 61010-1 CAN/CSA-C 22.2 NO. 61010-1-12
Ex-classification	Ex II (1) G [Ex ia Ga] IIB ATEX, IECEx, UKEX
Exi connection values	$U_m = 30 \text{ V DC}$ , $U_o = 14.5 \text{ V}$ , $I_o = 78 \text{ mA}$ , $P_o = 367 \text{ mW}$ , $R = 243 \Omega$ , $C_o = 4.0 \mu\text{F}$ , $L_o = 16.7 \text{ mH}$
Compatible sensors	idOil-LIQ high liquid level sensor idOil-OIL oil sensor idOil-SLU sludge sensor
Accessories	LCJ1-1 cable connector for one sensor LCJ1-2 cable connector for two sensors LCJ1-3 cable connector for three sensors LMS-SAS2 and LMS-SAS5 mounting sets

#### Dimensions (mm)

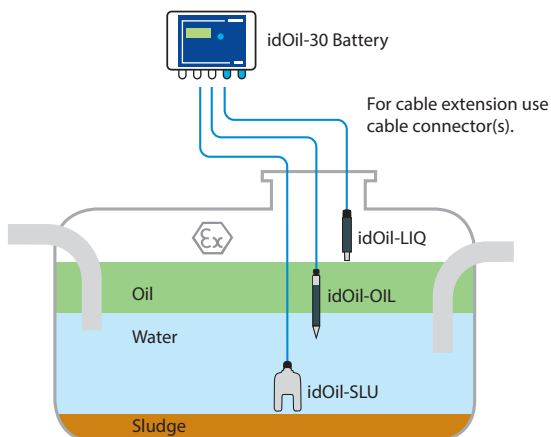


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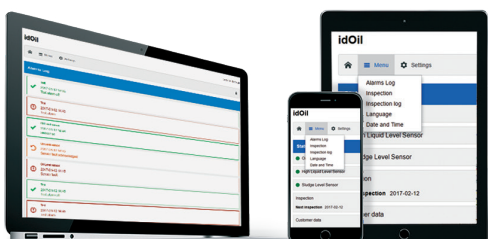
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## Application






## Settings, configurations and information via browser user interface

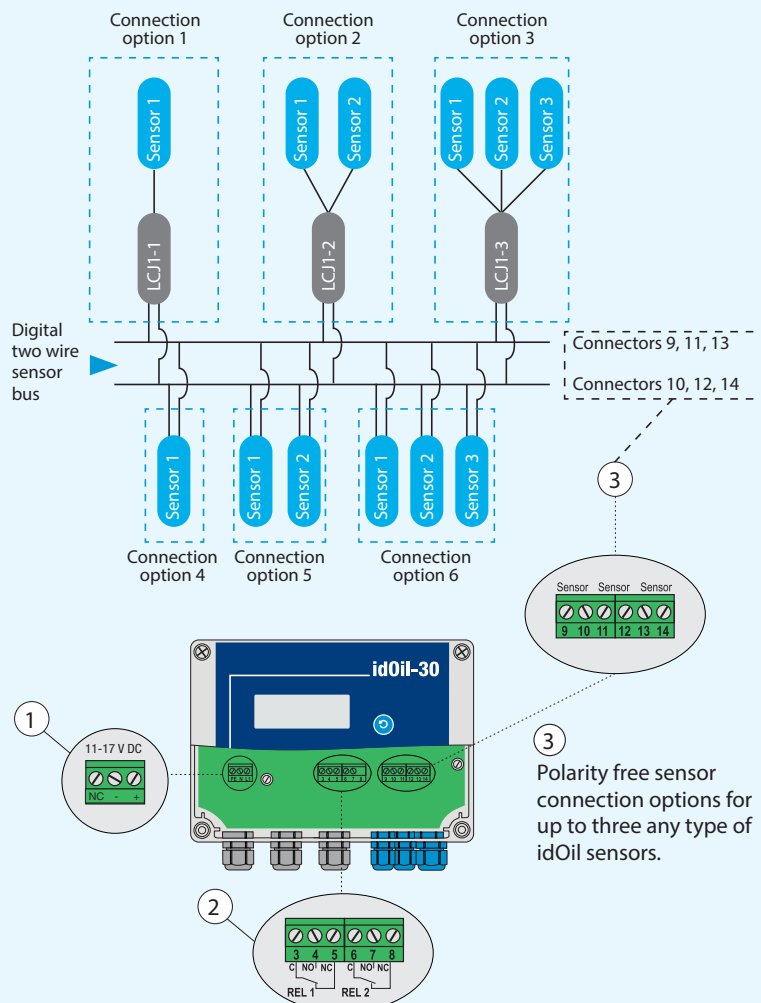


- System status view with current alarms
- Date and time settings
- Language selection
- Alarms log, downloadable
- Inspection settings
- Write inspection notes
- Inspection diary, downloadable
- Customer data input for display
- Alarm settings
- Sensor identification and naming
- Relay configuration
- Software update

## Cable connectors

-  **LCJ1-1**  
Cable connector for one sensor.
-  **LCJ1-2**  
Cable connector for two sensors.
-  **LCJ1-3**  
Cable connector for three sensors.

## Installation



1 **Supply voltage 11-17 V DC**  
 - = Negative supply voltage  
 + = Positive supply voltage  
 Max. supply cable 2.5 mm<sup>2</sup> (-, +) AWG 13.

2 **Relay output**  
 Relay 1  
 3 = Relay common contact  
 4 = Contact that opens in an alarm situation  
 5 = Contact that closes in an alarm situation  
 Relay 2  
 6 = Relay common contact  
 7 = Contact that opens in an alarm situation  
 8 = Contact that closes in an alarm situation

3 **Sensor connectors**  
 9 = Sensor 1, connection 1  
 10 = Sensor 1, connection 2  
 11 = Sensor 2, connection 1  
 12 = Sensor 2, connection 2  
 13 = Sensor 3, connection 1  
 14 = Sensor 3, connection 2

3 Polarity free sensor connection options for up to three any type of idOil sensors.

# Data sheet

# Battery Box 10

## Battery Box 10

for idOil-30 Battery, idOil-30 Battery 3G



The Battery Box 10 is used as a power supply for idOil-30 Battery and idOil-30 Battery 3G alarm devices.

### Fusing

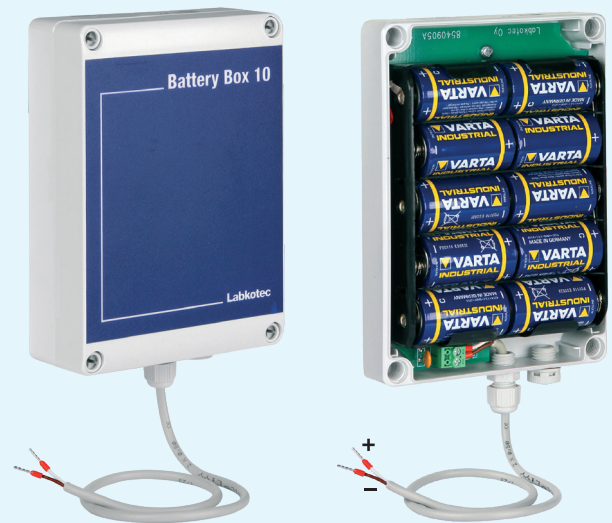
idOil alarm devices are fused by means of automatic multiple fusing integrated in the Battery Box 10.

### Tips for battery operation

The service life of batteries depends on factors such as current consumption, battery quality and type of alarm device, age and storage. With normal usage of the alarm device with the default settings, the batteries have a service life of at least 1 year. To achieve the longest possible service life, always select quality batteries.

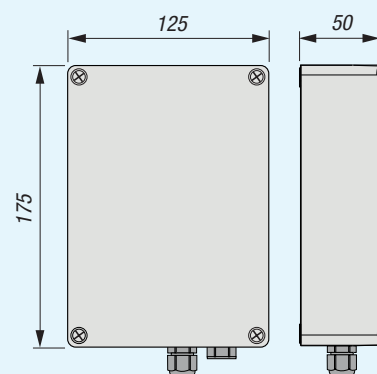
### Note

idOil alarm devices are tested exclusively with alkaline batteries.

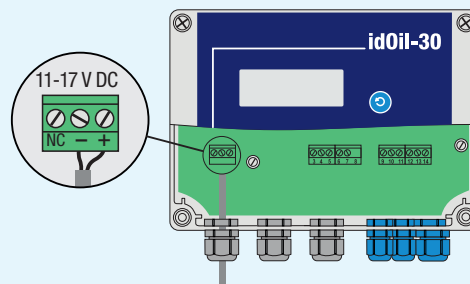


### Technical data

<b>Enclosure</b>	IP 65, material polycarbonate
<b>Weight</b>	470 g (without batteries) 1130 g (with batteries)
<b>Ambient temperature</b>	-10 °C...+ 45-55 °C (Max. temperature depends on battery type)
<b>Output operating voltage</b>	15 V DC
<b>Permitted battery type</b>	10 x 1,5 V DC (Type C, LR14 or AM-2 JIS)
<b>Accessories</b>	LMS-SAS2
<b>Manufacturing year</b>	xxxxxxx x xxx xx YY x Please see the serial number on the type plate where YY = manufacturing year (E.g. 19 = 2019)



Battery Box 10 dimensions (mm)



Connecting Battery Box 10 to control unit

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