

# Data sheet

# idOil sensors

## idOil® sensors

idOil sensors are an integral part of the idOil oil separator alarm system and they are to be used with the idOil control units. All idOil sensors are digital and polarity free.



### idOil-LIQ high liquid level sensor

Indicates when the liquid level in the oil separator rises excessively e.g. in an outlet blockage situation.



### idOil-OIL oil sensor

Detects oil and indicates when the separator's oil storage is full.



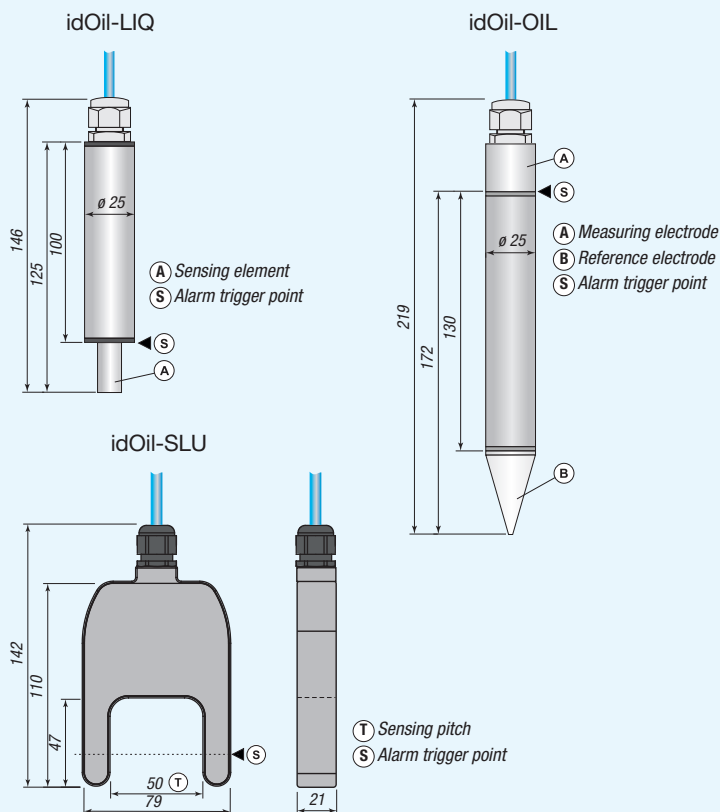
### idOil-SLU sludge sensor

Monitors the sludge layer in the oil separator and indicates when the sludge layer has reached its maximum level.

## Technical data

	idOil-LIQ	idOil-OIL	idOil-SLU
<b>Measurement principle</b>	Vibration	Conductive	Ultrasonic
<b>Mounting</b>	Suspension		
<b>Wetted parts</b>	PVC, aluminium, PA, CR, Viton	PVC, AISI 316, PA, CR, NBR	PP, AISI 316, PA, CR, Silicon
<b>Weight incl. 5 m cable</b>	240 g	395 g	530 g
<b>IP classification</b>	IP68		
<b>Ambient temperature</b>	-30 °C...+60 °C		-25 °C...+60 °C
<b>Supply voltage</b>	12 V DC		
<b>Fixed cable</b>	Length 5 m, 2 x 0.75 mm <sup>2</sup> PUR unshielded		
<b>EMC</b>	IEC/EN 61000-6-2 Emission IEC/EN 61000-6-3 Immunity		
<b>ATEX</b>	VTT 17 ATEX 005X	VTT 17 ATEX 004X	VTT 17 ATEX 006X
<b>IECEX</b>	IECEX VTT 17.0003X	IECEX VTT 17.0002X	IECEX VTT 17.0004X
<b>Ex-classification</b>	Ex II 1 G Ex ia IIB T5 Ga	Ex II 1 G Ex ia IIA T5 Ga	Ex II 1 G Ex ia IIB T5 Ga
<b>Exi interface values</b>	U <sub>i</sub> =16 V, I <sub>i</sub> =80 mA, P <sub>i</sub> =400 mW	U <sub>i</sub> =16 V, I <sub>i</sub> =80 mA, P <sub>i</sub> =400 mW	U <sub>i</sub> =16 V, I <sub>i</sub> =80 mA, P <sub>i</sub> =400 mW
<b>Max values in IIB</b>	C <sub>i</sub> ≤ 5.2 nF, L <sub>i</sub> ≤ 1.6 mH	C <sub>i</sub> ≤ 5.2 nF, L <sub>i</sub> ≤ 1.6 mH	C <sub>i</sub> ≤ 4.0 nF, L <sub>i</sub> ≤ 1.6 mH

## Dimensions (mm)



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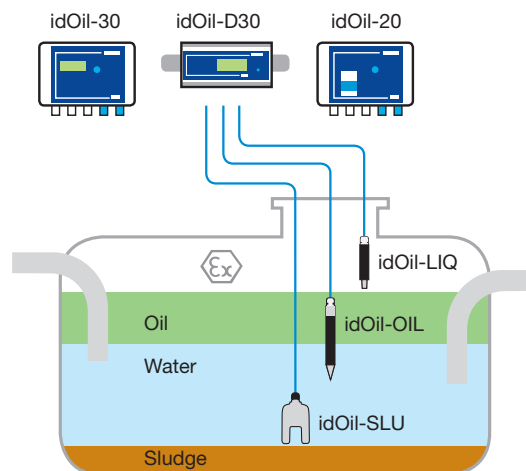
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## Application



## Cable connectors

Cable connectors are used for cable extension between the sensors and the control unit. They are oil resistant, IP68 and suitable for ATEX Zone 0. Simple apparatus according to IEC/EN 60079-11.



### LCJ1-1

Cable connector for one sensor.



### LCJ1-2

Cable connector for two sensors.



### LCJ1-3

Cable connector for three sensors.

## Sensor cable extension with installation

### Sensor cable extension with Labkotec cable connector

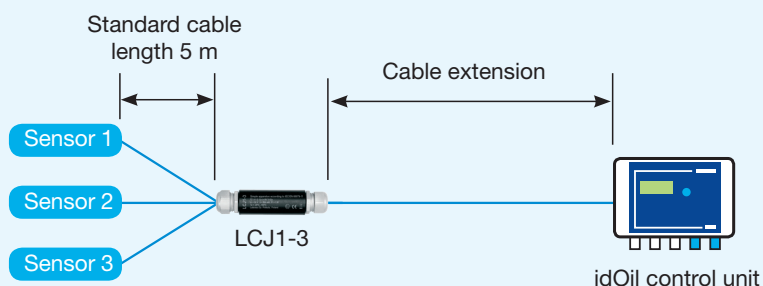
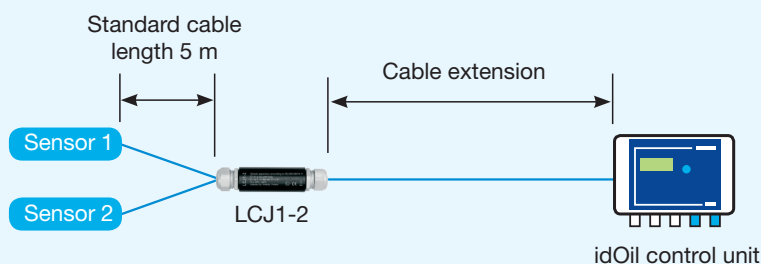
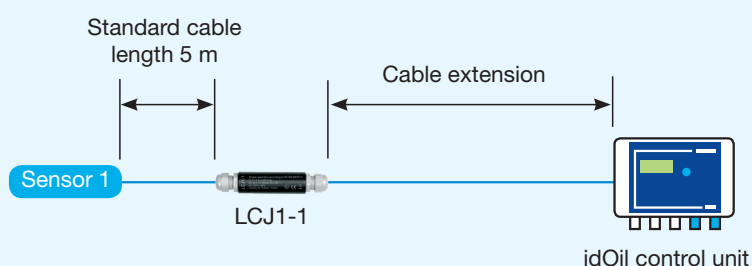
LCJ1-1 for one sensor  
LCJ1-2 for two sensors  
LCJ1-3 for three sensors

### Extension cable example

Twisted pair cable, 2 x 0.75 mm<sup>2</sup>

### Extension cable diameter

LCJ1-1:  $\varnothing$  4 mm...9 mm  
LCJ1-2 and LCJ1-3:  $\varnothing$  5 mm...10 mm  
Max. extension cable resistance 68 Ohms.



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