

# Data sheet

# SandSET-1000

## 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 sensor gives alarm signal when there is sand or sludge between the ultrasonic sensing elements.

The ultrasonic SET/S2 sensor does not require any calibration, or any regular service. Just install the sensor at the correct alarm level.



SandSET-1000 control unit and SET/S2 sensor

#### Accessories:

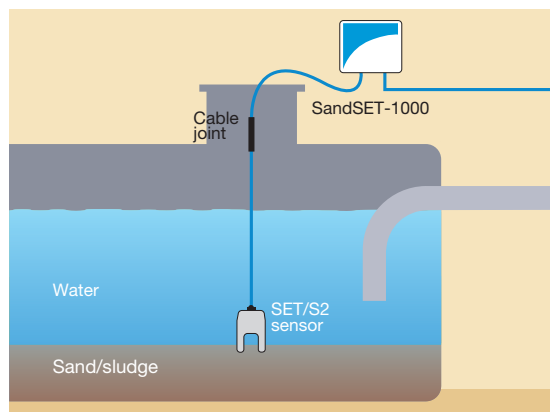


Junction box

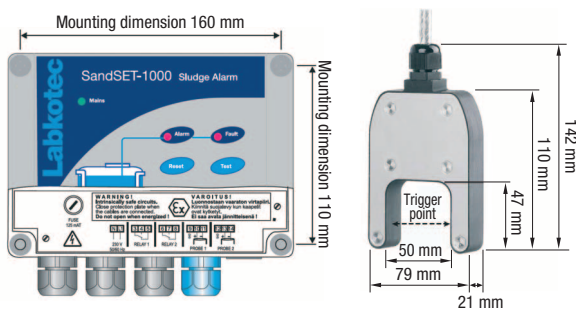


Cable joint

### Application



### Dimensions



Mounting holes diameter  $\varnothing$  4,5 mm  
Enclosure depth 75 mm

### Control unit SandSET-1000

Dimensions:	175 mm x 125 mm x 75 mm (L x H x D)
Material:	Polycarbonate
Enclosure:	IP65
Operation temperature:	-25 °C...+50 °C
Supply voltage:	230 VAC $\pm$ 10 %, 50/60 Hz Fuse 5 x 20 mm 125 mA (IEC/EN 60127-2/3) The device is not equipped with a mains switch
Power consumption:	2 VA
Sensors:	One Labkotec SET sensor (SET/S2)
Max. resistance of the current loop between the control unit and a sensor:	75 $\Omega$
Relay outputs:	Two potential-free relay outputs 250 V, 5 A, 100 VA Operational delay 5 sec or 30 sec. Relays de-energize at trigger point. Operation mode selectable for increasing or decreasing level.
Electrical safety:	IEC/EN 61010-1, Class II $\square$ , CAT II/III
Insulation level sensor/mains supply voltage:	375 V (IEC/EN 60079-11)
EMC:	IEC/EN 61000-6-3 (Emission) IEC/EN 61000-6-2 (Immunity)
Ex-classification:	$\square$ II (1) G [Ex ia] IIC
Special conditions	(Ta = -25 °C...+50 °C)
ATEX	VTT 04 ATEX 031X
IECEX	IECEX VTT 10.0003X
Electrical parameters:	U <sub>0</sub> = 14,7 V I <sub>0</sub> = 55 mA
Characteristic curve of the output voltage is trapezoidal	P <sub>0</sub> = 297 mW R = 404 $\Omega$
Manufacturing year:	xxx x xxxxx xx YY x
Please see the serial number on the type plate	Where YY = manufacturing year (e.g. 10 - 2010)

### Sensor SET/S2

Principle of operation:	Ultrasonic
Material:	PP, PVC, AISI 304, AISI 316, NBR rubber
Enclosure:	IP68
Temperature:	Operation 0 °C...+60 °C Safety -25 °C...+60 °C
Signal:	Analog 7 mA/13 mA
Supply voltage:	8 V...16 V (DC)
Cable:	Fixed oil resistant PVC cable 3 x 0,5 mm <sup>2</sup> , standard length 5 m.
Weight:	Approx. 450 g
EMC:	IEC/EN 61000-6-3 (Emission) IEC/EN 61000-6-2 (Immunity)
Ex-classification:	$\square$ II 1 G Ex ia IIB T5 Ga
ATEX	VTT 09 ATEX 051X
IECEX	IECEX VTT 10.0002X
Electrical parameters:	U <sub>i</sub> = 16 V I <sub>i</sub> = 80 mA P <sub>i</sub> = 320 mW C <sub>i</sub> = 3 nF L <sub>i</sub> = 80 $\mu$ H
Manufacturing year:	xxx x xxxxx xx YY x
Please see the serial number on the type plate	Where YY = manufacturing year (e.g. 10 - 2010)

Measure your success

**Labkotec**  
INDUTRADE GROUP

Labkotec Oy  
Myllyhaantie 6  
FI-33960 Pirkkala, FINLAND  
Tel. int. +358 (0)29 006 260  
Fax int. +358 (0)29 006 1260  
E-mail: info@labkotec.fi



[www.labkotec.com](http://www.labkotec.com)  
[www.labkonet.com](http://www.labkonet.com)