

03/ OILSPY Piezo

Explosion Proof and intrinsically safe Floating Hydrocarbons Detector for Piezometer

SIL2 Certified



OILSPY PIEZO is used to monitor groundwater tables as well as variable water level installations where space restrictions do not allow the use of buoys or slides.

OILSPY PIEZO detects floating hydrocarbons thanks to a polymer membrane (cf sheet n° 01) that is held in tension on a float that follows the variations of the groundwater table. This float holds a dead weight also connected to the **OILSPY** moving axis.

When in contact with hydrocarbons, the membrane dissolves, releasing the dead weight that pulls down the moving axis, activating the relay mounted on the electronic board inside the **OILSPY**.

The current loop passing through the detector is opened and this triggers an alarm. This alarm is then transmitted by electric cable or radio to either an **OILSPY** Alarm Station (cf sheet n° 09) or directly to the end user's control system.

Specifications

Material : Cast aluminum
 Protection : IP68
 Ambient T° : -20°C à +60°C

2 modes of alarm transmission

Wired:
 Ref. 1628b: *OILSPY ATEX Piezo Wire connection*
Wireless:
 Please contact us: *OILSPY ATEX Piezo Radio*

Certifications

INERIS 03ATEX0184

SIL2

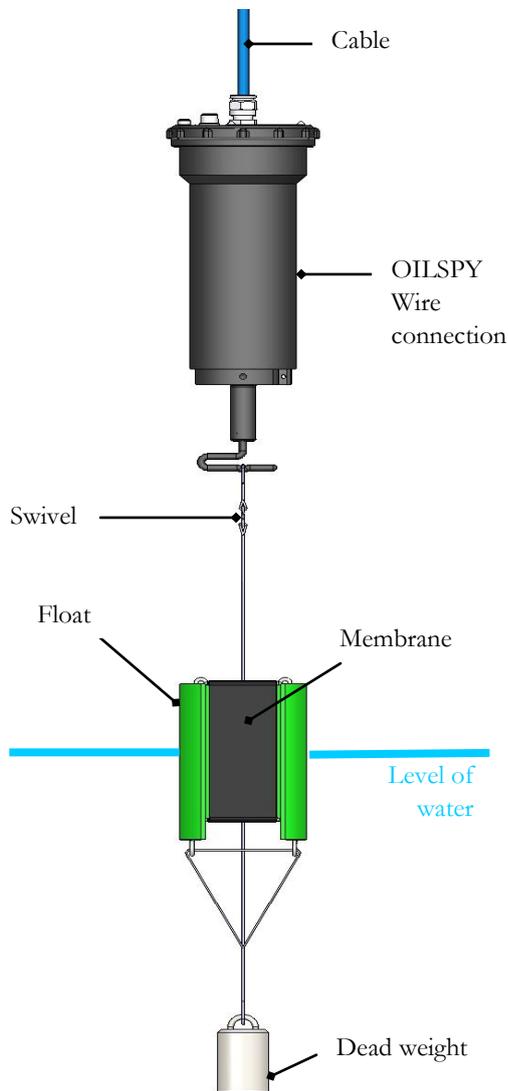
 II2G Ex d IIC T6 Gb

 II2G Ex ib IIC T4 Gb

EN 61508 / 50495 :2010

OILSPY Piezo Wire Connection (1628b)

⇒ Specifications are identical to those of Oilspy Standard, for more details please see data sheet n° 02



Explosion proof version

Mass:	about 1.5 kg
Max Load Power:	1W
Max. Tension accepted:	100V
Max. Current accepted:	250mA
Cable length:	up to 1000 meters

Intrinsically safe version (IS)

To use only with a certified type of equipment, whose the output circuit is recognized intrinsically safe for IIC explosive atmospheres group.

The association must check safe's rules according to following parameters:

Max input characteristics:

$U_i = 30 \text{ V}$; $I_i = 100 \text{ mA}$; $P_i = 1,2 \text{ W}$

Max exposed characteristics:

$C_i = 0 \text{ F}$; $L_i = 0 \text{ H}$

Cable length: fixed according of associate equipment's characteristics

⇒ To protect it, the whole Piezo system (OILSPY, float, membrane, dead weight) is usually inserted in a 4" piezo tube, ideally suited to be used in a piezometer:



Accessories

- Alarm Station (ref. 1645c) sheet n° 09
- Radio Receiver sheet n° 10

Other Versions

- OILSPY Standard sheet n° 02

Installation Supports

- 4" piezo tube with brackets Ref. 1642