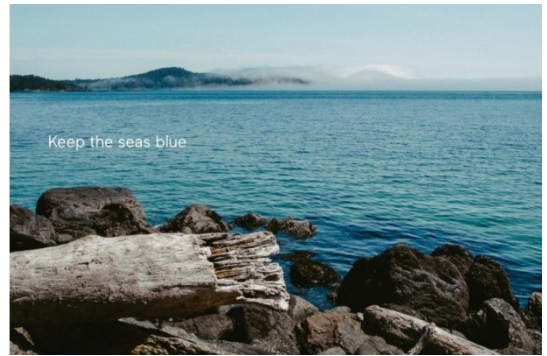


Oil Detection Sensor

The BlueHawk™ sensor is aimed for detection of oil films on water and ground surfaces in continuous unattended mode. When the oil is detected the system generates ALARM delivered to the control terminal station according to the installation structure. Sensing, processing and alarming are done continuously in 24/7 real-time mode.



TECHNOLOGY. The BlueHawk™ sensor operates with invisible Ultra-Violet (UV) light pulsed at high frequency. When the light pulse hits the surface of water or ground, and there is any type of oil product on the surface, such oil absorbs said UV-light emission and re-emits the light with specifically shifted frequency (fluorescent light). Such fluorescent flux is registered by the sensor, analyzed and reported as ALARM through the communication line. Due to this patented technology of detection, the sensor is insensitive to any other objects appeared in the area controlled by the sensor.

BENEFITS:

- Non-contact detection of oil products in water and on ground
- Selective for oil (no false alarms by other than oil objects)
- Continuous and autonomous operation
- All-weather design
- Applicable in hazardous locations
- Adjustable pollution threshold to filter out minor detection events
- Low weight and power consumption
- Operates as a stand-alone or network unit

APPLICATIONS:

- Ports
- Offshore industries
- Oil storage and transportation areas
- Oil tanker offloading
- Water intake & treatment facilities
- Oil refineries & petrochemical plants
- Power distribution and generation
- Areas of ecological importance

DESIGN. The BlueHawk™ sensor is assembled in a weatherproof enclosure (ATEX enclosure available for the application in hazardous areas) and includes electronics and communication means providing all-sufficient operations as a stand-alone or network unit. It is designed for continuous unattended operation in the risk areas for an oil leak in the water or on the ground, including industrial plants, oil storage terminals, waterways, harbors, and other sites of environmental concern.



BlueHawk™, IP68 housing

OILS DETECTABLE:

- ✓ Crude oil
- ✓ Fuel oil
- ✓ Gas oil
- ✓ Heating oil
- ✓ Hydraulic oil
- ✓ Lube oil
- ✓ Marine diesel oil
- ✓ Motor oil
- ✓ Turbine oil
- ✓ Mineral oil, etc.



BlueHawk™, ATEX housing

INSTALLATION AND MAINTENANCE

- BlueHawk™ can be installed in almost any location or environment and automatically adjusted for proper operation with no false alarms.
- BlueHawk™ is easy to integrate into the sensor network and to couple with other sensors or devices.
- BlueHawk™ requires very low maintenance due to self-control and status reporting.

TECHNICAL SPECIFICATION

Sensitivity for oil	From 10 µm oil film thickness ¹
Sensing distance: for short range setup for long range setup	0.1 – 2 m 2 -10 m
Max sensing frequency	10 Hz
Sensing frequency adjustment	From 100 msec to 1 hour
Light emission wavelength	UV-A / UV-B spectral range
Typical emission power	Up to 1000 mW
Emission safety class	3B
Operational Temperature	-20°C to +60°C
Enclosure: Standard Waterproof Housing ATEX Housing	IP68, Painted aluminum, powder paint resistant to corrosion IP66, aluminum alloy, powder paint resistant to corrosion, Class1. DIV II Group C, D
Connection	Single 8-pin cable: power in, signal out 4-20mA line
Power consumption	5 W, 12 VDC (standard), 110V/220 VAC 60/50Hz with power adapter
Output	Alarm Relay SPDT, dry Analog line 4-20mA
Communication	Modbus RS-485, baud rate 57600
Dimensions Standard housing ATEX housing	Length 27 cm Diameter Ø 10 cm Diameter Ø 14.5 cm
Weight: Standard housing ATEX housing	1.9 kg 4.9 kg
CE Declared with Applied Standards	EN 61010-1:2010, EN 61000-6-2:2004, EN 61000-6-3:2007, ATEX Directive 94/9/EC
Optional:	Ask provider

¹ Depends on the oil type. Can be lower for some oils.