

## LAS-10

### Oil spray and gas leakage protection

Fires aboard ships can evolve into catastrophes for the environment, ship and cargo. What's more, if action isn't taken promptly, they can threaten the very lives of the crew and passengers.

Crews and shipowners know how to fight fires. What they say they need is faster detection of the threat. In other words, considering the severe consequences, they would prefer not to have to put their firefighting skills to the test. That's exactly where the DASPOS Leakage Alarm System comes in.

### The components of the LAS-10 system

A smoke test conducted in the open engine room determines the optimal number of detectors and location to ensure prompt warning of oil spray or gas leakage. A complete LAS-10 system consists of:

- **2-12 detectors** (depending on the vessel size and design)
- **A control unit** that collects information from each detector
- **A monitor** where data is collected and stored. Here alarm limit settings can be adjusted, and data history is displayed in both numerical and graphical form.

### Technical specifications:

Detector	
Detection range	> 0,002 mg oil/liter air
Airflow	600 m <sup>3</sup> /hour = 10.000 ltr/minute
Reaction time	5-10 sec. depending on preset alarm limit
Gas metering	Hydro carbons
Filtertypes	Filtertype A = Light oils (Diesel oil, hydraulic oil) Filtertype B = Heavy oils (Heavy fuel)
Material	Aluminium
Dimensions	Ø190 x 235mm
Weight	5,5 kgs
Power supply	24 V dc (Internal)
Power consumption	45 W
Enclosure rating	IP44
Operating temperature	-20 ~ +60°C

Control unit	
Number of detectors	1-12
Display	LED
Material	Aluminium
Dimensions	160 x 240 x 80mm
Weight	1,0 kg
Power supply	48 V dc
Power consumption	15 W
Enclosure rating	IP65
Operating temperature	-20 ~ +60°C

Power supply unit	
Number of detectors	max. 12
Material	Aluminium
Dimensions	300 x 127 x 42
Weight	1,95 kgs
Power supply	Input voltage: Output voltage:
Power consumption	7 - 9 % of load, max. 1000 W
Enclosure rating	For mounting in distribution panels only.
Operating temperature	-20 ~ +60°C
Humidity limit	0 - 95% RH

For further information or quotation please contact [sales@daspos.com](mailto:sales@daspos.com)



**How the system works**

The system detects leaking oil from valves and pipe work partly by measuring differential pressure over a period of time within a removable, custom-made filter inserted into the detector house. It also measures hazardous hydrocarbons and certain other toxic gases using an electronic sensor (also built into the detector). The various types of detection reduce the risk of fire and explosion.



**Cleaning**

Cleaning of filters is typically required with intervals of 4-8 weeks, depending on the engine room’s general level of cleanliness. Filters can be cleaned with ordinary supplies or ultrasonic baths.

**LAS-10 installation**

Fire/explosion prevention	The heavy airflow of approximately 600,000 liters/hour ensures a prompt alert in case of a gas and/or oil leak.
Working environment	Staff is protected from inhalation of harmful soot particles, hydrocarbons and various gases.
Insurance	A reduced number of fires on board will ultimately lead to lower insurance rates.
Quality	LAS-10 is produced from materials that can withstand the heat, humidity and vibrations that occur in the engine room.
Cleaning	Filters are easy to replace and easy to clean with ordinary cleaning tools and agents.
Maintenance	The LAS-10 system requires no special maintenance other than the routine, periodic cleaning of filters (typically at intervals of 4-8 weeks).
Operation	The LAS-10 system is easy to operate via the control unit or touch-screen monitor.
Location	Detectors are installed based on recommendations from a smoke test. The control unit is installed in the engine room, while the monitor is installed on the bridge or in the engine control room.
Installation/Commissioning	Installation and commissioning is carried out exclusively by trained DASPOS personnel.
Documentation	Functionality has been validated by the Danish Technological Institute and documented in the operating manuals.

For individual installations or installations in separate rooms (for example, power-packs), it is possible to install an all-in-one unit (an integrated detector unit).

Detection of leaking oil from valves and pipe work is done partly by measuring differential pressure over time within a removable, custom-made filter inserted into the detector house. Combined with measurement of hazardous hydrocarbons and certain other toxic gases, using an electronic sensor - also built into the detector - reduce the risk of fire and explosion.

Cleaning of filters is required periodically. The need is dependent on the general cleanliness in the engine room in general, but typically cleaning will be required with intervals of 4-8 weeks. Cleaning of filters can be made with ordinary cleaners or ultrasonic bath.

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