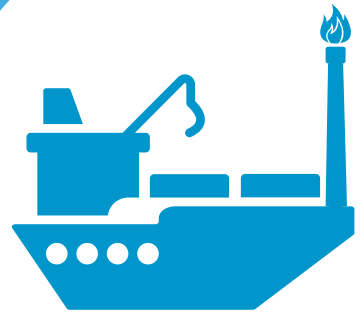
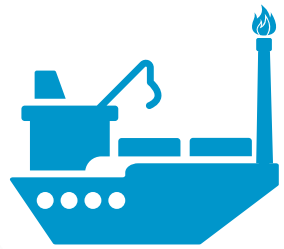
MICROPACK
FIRE & GAS



Achieve optimal performance – with a combination of technologies

Application Note: FDS301 iVFD and FDS303 IR3 - FPSO Flame Detection



FPSO Flame Detection

Experiencing inferior performance or unwanted process shutdowns from your FPSO flame detectors? Then you need a solution that ignores common sources of false alarms, while delivering exceptional coverage and reliability.

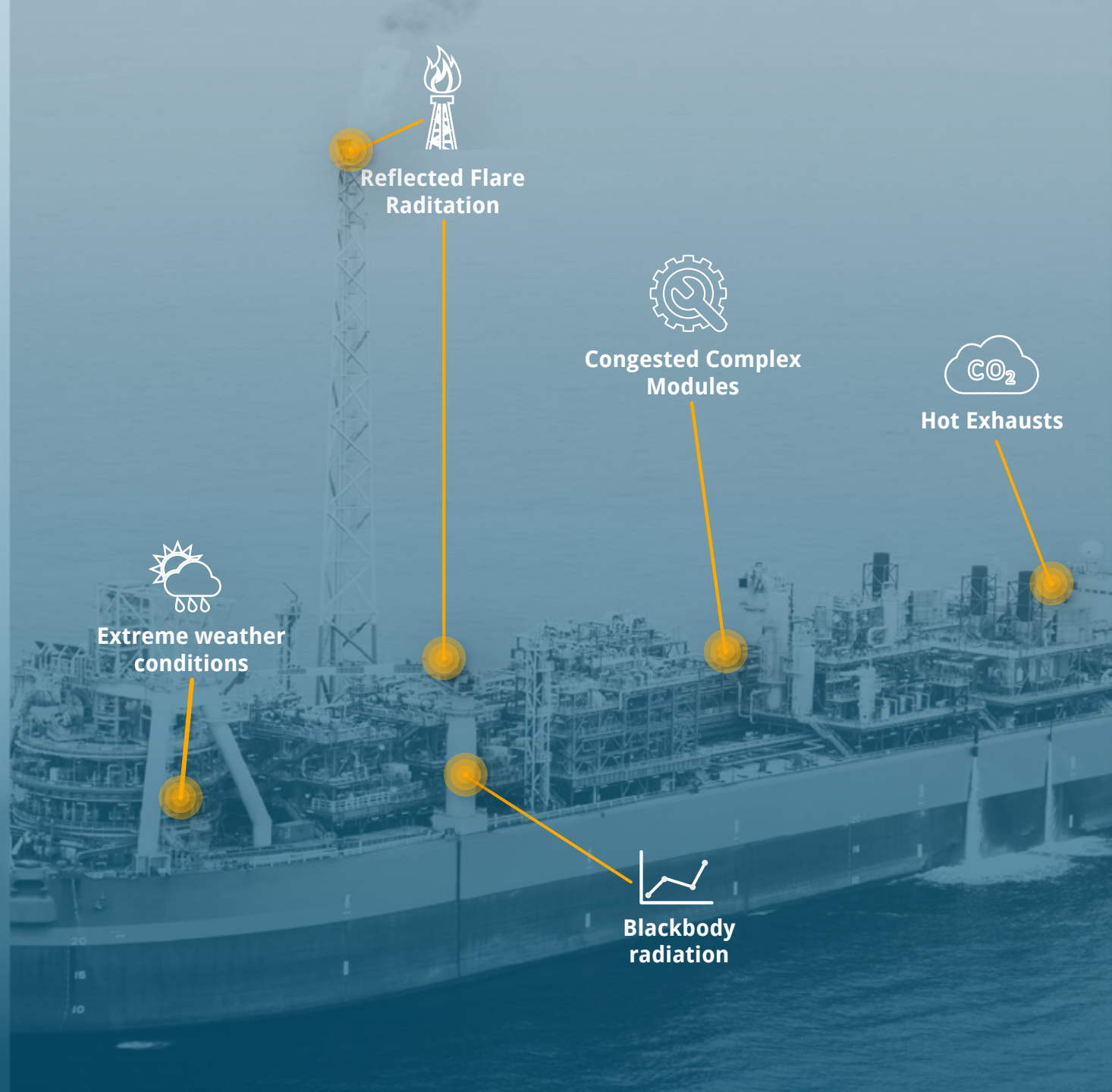
Ideally, the solution should improve safety, reduce operating costs, and only detect fire.

Your challenge: removing false alarms, avoiding process shutdowns, and optimizing cost.

Flame detection on FPSO's is challenging due to the compact, single-level nature of the process plant and the proximity of the relief flare to topside process modules.

The most common flame detection problems faced by FPSO owners / operators are:

- False alarms and unwanted process shutdowns due to reflected flare radiation, hot CO2 exhaust emissions, sunlight, and radiant heat sources.
- Flame detector blinding due to environmental and process conditions, such as sunlight and blackbody radiation.
- Special fire hazards such as methanol.
- High CAPEX/OPEX due to the quantity, or incorrect type of detectors.



Our solution: detectors that meet your demands

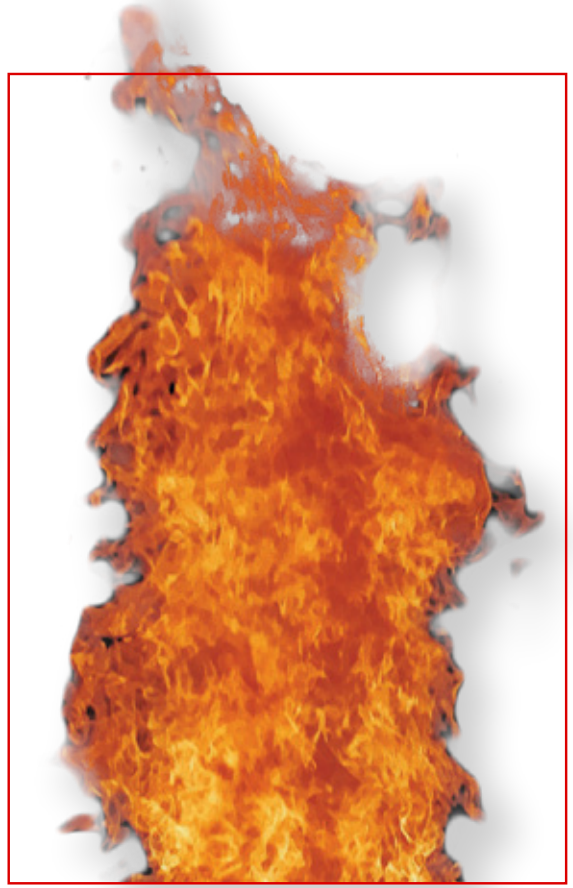
We designed the FDS301 and FDS303 to meet the challenge of reliably detecting flames on an FPSO, whilst delivering the best possible balance between safety and economy.

The **FDS301** visually detects flames using live video and an on-board flame recognition algorithm.

The advantage of using a camera to detect flames is no-sensitivity loss due to environmental factors and an unrivalled false alarm immunity to the common problems faced on an FPSO.

The FDS303 flame detector uses its triple IR sensors to detect hydrocarbon gas and liquid fires at great distances.

The advantage of using IR3 technology on an FPSO is that it can detect flames that are not visible to naked eye, such as methanol.



Win-win solution

The use of both the Micropack FDS301 iVFD and FDS303 IR3 will give you the best of both worlds.

Proven in use for over **25 years,** the **FDS301 iVFD** reliably detects flames in the most challenging FPSO modules, such as the upper deck of the topside process, the flare base, and any areas subject to hot exhaust emissions, black body radiation or sunlight (i.e., power generation and helidecks).

iVFD is false alarm immune to reflected flare radiation, hot exhaust emissions, sunlight, and blackbody radiation.

The **FDS303 IR3 detector** is the perfect solution for special risk fire zones such as the methanol skid, and general-purpose hydrocarbon processing modules.

Alarms, Visualised

The Micropack FDS301 has additional safety features, such as live colour video, and on-board alarm recording.

In the event of a fire, these functions help emergency response teams to manage incidents, evacuate personnel, and retrospectivelyinvestigate the event.

Trusted Expert Knowledge

To protect your plant, personnel, and business reputation, it is important to plan for potentially hazardous situations.

Micropack’s Flame and Gas Mapping service clearly defines risk and the precautions needed to detect fires and gas releases.

This practice, through performance / risk-based design, improves safety and reduces operating costs by minimizing the number of devices while maintaining the required safety level.

We are here to help

Find out more about the benefits of the Micropack FDS301 and FDS303 and how they can help you reduce false alarms, improve safety, and reduce cost. Please contact your responsible sales representative or contact us.

Get in Touch!

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