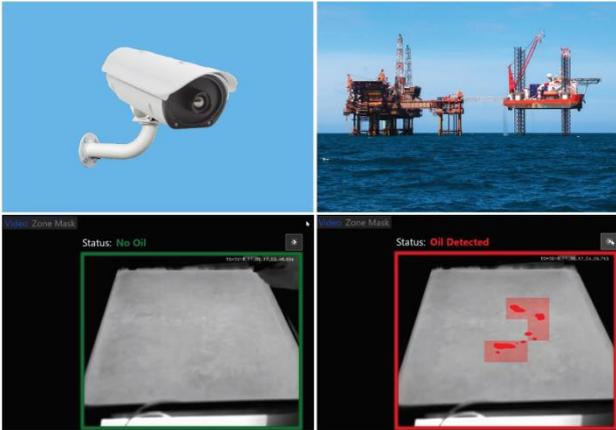


OIL SPILL DETECTION SENSORS

INTERNET OF THINGS | ARTIFICIAL INTELLIGENCE | VIDEO ANALYTICS

THE PYXIS is a small, lightweight LWIR polarimeter that measures both the thermal and polarization content of the scene. Polarization exploits a fundamental phenomenon of light to reveal detail, contrast and other data undetected by standard thermal imaging devices.



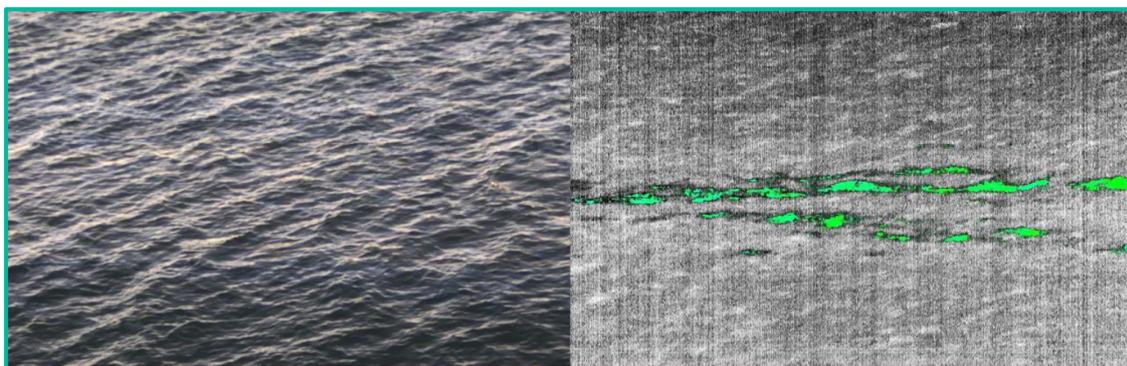
While standard thermal imagers can identify only some oil leaks on the water and mainly during the daytime, Pyxis is able to detect almost any oil spill at the distances up to 500m.

With Pyxis, oil spills, both crude and refined, can be revealed in a daylight as well as in low light and dark scenarios. It is also important that oils can be detected both in rough and calm waters, sea and fresh waters, and even with an added dispersants, taking the detection quality to the next level.

At less than 2 cubic inches and 83 grams, Pyxis is the industry’s first system to enhance thermal imaging with polarization without adding to the size, weight and power requirements. This allows using Pyxis in stationary applications, handheld, and UAVs (drones) of any type.

Pyxis literally “sees” the oil spills and immediately renders them as a colored spot on the real-time video.

Pyxis can be equipped with wide selection of lenses with the focal lengths matching the specific application.



Video camera

Pyxis detection

TECHNICAL PARAMETERS

Detector Technology	Uncooled Microbolometer
Resolution	640x512 pixels
Pixel Pitch	17um
Waveband	7.5-13.5um
Operating temperatures	0..45 degrees C (without climatic enclosure), -20..+85 degrees C (with climatic enclosure)
NETD @f/0.85	<70mK
NEDOLP @f/0.85	<0.5%
Frame Rate	7.5Hz
Data Interface	Ethernet, Analog NTSC
Input voltage	5VDC, PoE
Power Consumption	7W max
Lens	20mm f/0.85, 40mm f/1, 50mm f/0.86, 75mm f/1, 100mm f/1
Camera Size (with 20mm Lens)	46.5mm x 46.5mm x 88.0mm
Camera Weight (with 20mm lens)	185 gram
Environmental protection	IP52 (Environmental Enclosure Required for Outdoor use)

USE CASES



PORTS



OIL COMPANIES



DESALINATION PLANTS



OIL SPILL RESPONSE



ECOLOGY CONTROL