



Gas can Leak but can't Escape

PV Series VOCs Detection Thermal Camera

-  Gas Visualization
-  High-Precision
-  Mobile Interaction
-  Explosion-proof

Introduction

Based on the self-developed high-performance refrigerated infrared detector, the PV series VOCs detection thermal imaging camera converts invisible gas into infrared images visible to the naked eye by leveraging infrared thermal imaging technology. It realizes effective monitoring of methane and other volatile organic compounds leakage during production, transportation, and handling in petrochemical and other enterprises, avoiding accidents such as dangerous gas emissions and ensuring safe production.

Features

- High-sensitivity cooled infrared detector, capable of detecting small gas leakage.
- Professional gas-enhancement imaging algorithm, effectively presenting trends in gas distribution and diffusion.
- Effective leak detection of alkanes, alkenes, alcohols, benzenes, ketones, and other gases.
- The rotatable and ergonomic design allows for convenient detection in complex situations from multiple angles.
- The remote non-contact temperature measurement function supports temperature analysis and high-temperature alarms, etc.
- Multiple lens configurations offer a plethora of fields of view to choose from and various scenarios to consider.

Applications

- Ideal for petrol stations, refineries, gas treatment plants, offshore extraction platforms, chemical industries, biogas plants, power stations, and environmental supervision.



Specifications

Product model	PV400
Imaging and optics	
Detector type	Cooled, HgCdTe/MCT, 3.2 μ m~3.5 μ m
Infrared resolution	320 \times 256@30 μ m
Super resolution	Yes, Upgrade to 640 \times 512
NETD	Detector NETD \leq 10mK
Frame rate	50Hz
Focal length	23mm
Field of view	24 $^{\circ}$ \times 18 $^{\circ}$
IFOV	1.3mrad
Min. object distance	1m
D:S	769:1
Focusing mode	Manual/Automatic
Digital zoom	1x to 10x
Measurement and analysis	
Measurement range	IR mode: -40~350 $^{\circ}$ C; Gas mode: -40 $^{\circ}$ C~60 $^{\circ}$ C
Measurement accuracy	\pm 2 $^{\circ}$ C or \pm 2%, whichever is greater
Analyzed target	Supports adding up to 15 analyzed targets (including a maximum of 15 spots, 2 lines, 4 circles, and 4 rectangles)
Alarm	Full screen temperature threshold alarm (image, voice and flash)
Parameter settings	Emissivity, reflection temperature, target distance, humidity, atmospheric temperature, optical transmittance
Others	Isothermals
Image display	
Display screen	4.3", 800 \times 480 pixel touchscreen LCD
Eyepiece	1024 \times 768 OLED screen
Image mode	IR, VIS, MIF, PIP, Gas mode (support GDEMode)
Color palettes	12: White Hot, Iron Red, Arctic, Rainbow 2, Hot Iron, Rainbow 1, Fulgurite, Medical, Tint, Black Hot, Blue Hot, Sepia
Image adjustment	Level span mode: Automatic, Semi-automatic, Manual
Digital camera	8 MP
Functions	
Laser	Laser (Indication, Ranging 0.1m to 40m)
Recording function	Photo and Video (infrared & visible light)
Cloud Services	Available
Gas detection	Gas detection sensitivity: \leq 0.4g/hr (CH4); Gas types: methane, ethane, propane, butane, pentane, hexane, heptane, octane, ethylene, propylene, isoprene, methanol, ethanol, butanone, benzene, toluene, xylene, ethylbenzene, etc
Others	Customized physical button, OTA update
Storage and transmission	
Storage media	Built-in (64 GB) and external SD card (128 GB and up to 256 GB)
Image storage	JPG with temp info
Video storage	MP4 format (without temp info) can be used to record audio synchronously; Irgd (with temp info)
External interface	Type-C, DC (12V) , SD card slot, Micro HDMI, RJ45, UNC 1/4"-20 (Tripod mounting)
WIFI	Yes, it can be connected to the mobile terminal for image and real-time video transmission
Cellular network	5G module (optional)
Power system	
Battery type	Lithium-ion rechargeable battery
Operating time	4 hours
Charging mode	The device can be charged through desktop charger after shutdown.
Charging time	90% of full charge in 2.5 hours, revealed by the status screen
Environmental parameters	
Working temperature	-20 $^{\circ}$ C to 50 $^{\circ}$ C
IP rating	IP54
Certification	CE, FCC, ROHS, UN38.3, MSDS
Physical parameters	
Hardware	Illuminator \times 2, Microphone, Speaker, Electronic Compass, GPS
Weight	3.36kg (with battery)
Size	297 \times 167 \times 204mm
Software kit	PC: ThermoTools; Mobile: Thermography (iOS/Android)
Standard	A device (with lens), Lens front and back cover, Lithium-ion battery (2 pcs), Desktop charger, Power adapter, Adapter plug (for China, US, UK, Australia and Europe), TYPE-C USB cable, Micro HDMI cable, Ethernet Cable, SD card (128 GB) , Wrist strap, Safety box, Quick Start Guide, Data download card, Certificate of approval, Factory certificate
Options	Lithium battery, Tripod, Carrying bag, 5G module

* Product performance is based on testing in a controlled laboratory environment. Your test results may vary due to several external and environmental factors. All specifications are subject to the actual product. The manufacturer reserves the right to modify technical specifications without notice or liability to you.