

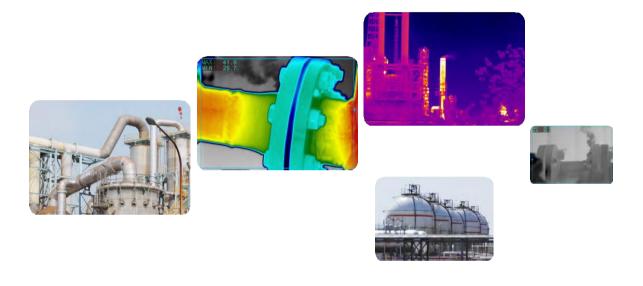


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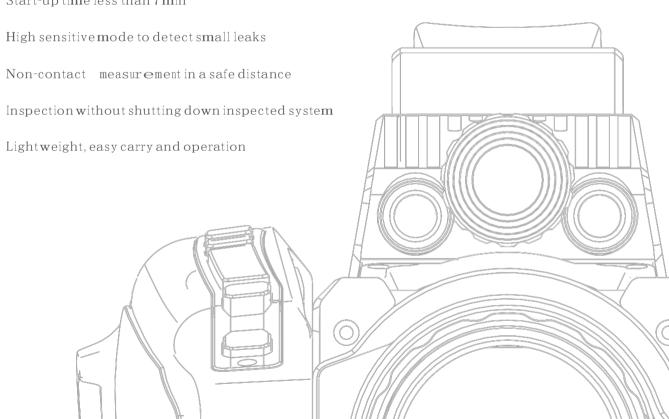
Website: <a href="http://www.thermocom1.com">http://www.thermocom1.com</a>
E-mail: service@thermocom1.com

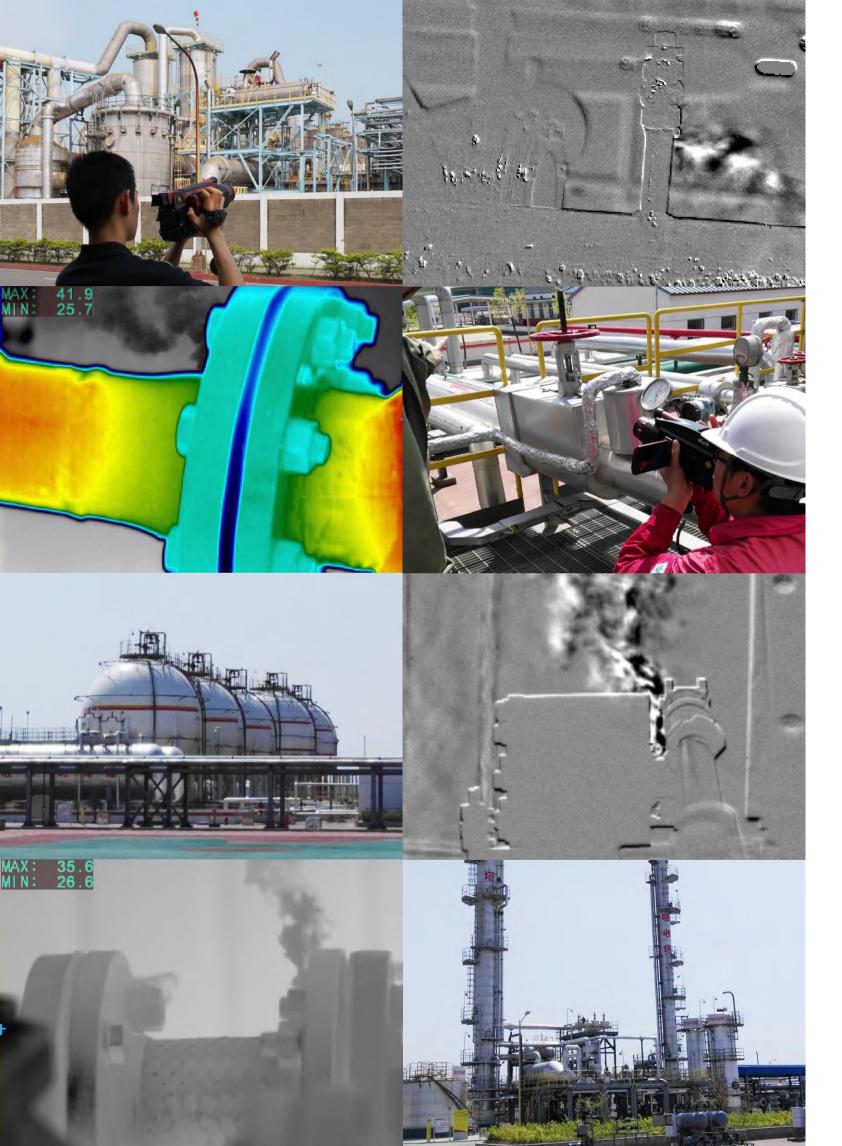
# TH1000 – Gas detection camera for Methane and other volatile gaseous Compounds



Cooled detector (MWIR)  $320 \times 256$  pixels

Start-up time less than 7 min







Thermocom has been focusing on the development of optoelectronic products based on infrared thermal technology with rich experience in applied research of thermal imaging system, development of related software and hardware. How to find out, identify and solve potential problems more efficiently and practically is our first consideration when designing and developing new products.

Regardless the need in regular or special applications, Thermocom people will fully dedicate with their abundant knowledge and experience to provide total thermal imaging solution from single product to completed system. Meanwhile, Thermocom also provide thermal scan inspection service for various industrial clients and the professional test report we presented is issued by ITC certified technicians.

Thermocom continues to grow up with yearly sales no matter in China mainland or the rest of the world from governments to professional companies in different industries.

Our mission is to lead the technology trends, explore infrared applications and strive to be a global leader of infrared imaging companies.

Infrared Performance Evaluation La

UAV Performance Testing Room



Production Worksl



Temperature Calibration Lab

Walk-in Environmental Performance Testing Chamber

### Application

TH1000 gas detection camera can detect and visualize small leaks of SF6 gas by utilizing the temperature difference of gas compounds and background and processing the image. So, it can detect gases including: Benzene, Ethanol, Ethylbenzene, Heptane, Hexane, Isoprene, Methanol, MEK, MIBK, Octane, Pentane, 1-Pentene, Toluene, Xylene, Butane, Ethane, Methane, Propane, Ethylene, and Propylene.

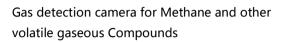
Experience shows that up to 84% of leaks occur in less than 1% of the plant. This means that 99 percent of what are expensive, time consuming inspection tools are being used to scan safe, leak-free components.

Using Thermocom gas detection camera you get a complete picture and can immediately exclude areas that do not need any action. This means you can achieve enormous savings in terms of time and personnel.

Another advantage is that systems do not have to be shut down during the inspection, measurements can be carried out remotely and rapidly and-most important of all-problems can be identified at an early stage.

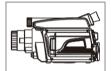


## **TH1000** PRO









## Introduction

With development of industries, many companies work intensively with chemical compounds and gases before, during and after production process. Earlier methods of gas detection are time consuming and may expose inspectors to invisible and potentially harmful chemicals using traditional sniffer and probes. Thermocom TH1000 are able to quickly visualize and pinpoint VOC gases leak in the application of petrochemical industry, oil & gas industry, refinery, rescue and firefighting department etc.

Thermocom gas detection camera is an extremely important tool for tracing potential faults.



High definition view finder / high resolution 3.5" LCD display



Cooled detector (MIRW) 320X256 pixels



Start-up time less than 7 min with new design of core



Capable of detecting gas leak as small as 0.001ml/s with multi-levels high sensitive mode adjustment.



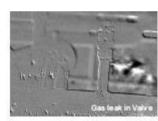
Gas detection & accurate temperature measurement

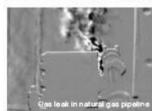


 $In spection\ without\ shutting\ down\ in spected\ system$ 



Capture images directly without light assistance and reflection background.









TECHNICAL SPECIFICATIONS		
PERFORMANCE		
Field of view	11' x 8.8'  24' x 18'	
Thermalsensitivity	0. 015℃ at 30℃	
Spatial resolution (IFOV)	$0.6\mathbf{m}$ rad	
Focus	Auto / Manual	
Electronic zoom function	1X~8X	
Responsivity	$0.001 \mathrm{ml/s}$	
Image frequency	50Hz/60Hz	
Detector type	Cooled detector 320×256 pixels	
Spectral range	3. 2~3. 5 µm	
Startup time	< 7 min	
IMAGE PRESENTATION		
CCD camera performance	Build-in 5million pixels digital camera	
Video output	AV	
External display	3.5"LCD with screen	
View finder	Build-in TFT LCD with high resolution (800×600 pixels)	
Palette	6 palettes	
MEASUREMENT		
Temperature range	−20°C~+350°C	
Accuracy	±2°C or ±2% of reading	
Analysis	Automatic tracking Max / with temperature data	
	Class 2	
Faringi its annuation		
Emissivity correction		
Variable from 0.01 to 1.0 Classification	32G	
IMAGE STORAGE		
Removable SD-Card	Li-ion, rechargeable, field replaceable	
BATTERY SYSTEM	≥2.5 hours continuous operation	
Туре	2-bay intelligent charger ( Optional: External power cable)	
Operating time		
Charging system	≤2.40kg	
PHYSICAL CHARACTERISTICS		
Weight (Include battery)		
Size (L×W×H)	$-10^{\circ}$ C $^{\sim}$ 40 $^{\circ}$ C	
ENVIRONMENTAL SPECIFICATION	-40° C~70° C	

Operating and storage 10% to 95%, non-condensing

 $Benzene, Ethanol, Ethylbenzene \ , \ Heptane, \ Hexane \ , \ Isoprene, \ Methanol, \ MEK, \ MIBK, \ Octane, \ Pentane,$ 

1-Pentene, Toluene, Xylene, Butane, Ethane, Methane, Propane, Ethylene, Propylene.

IP54, IEC 529

Operating temperature range

Storage temperature range

Humidity

Vibration

Туре

Encapsulation



# **TH1000** PRO

# Gas detection camera for Methane and other voltage

Thermal sensitivity	0. 015°C at 30°C
Min. focus distance	3m/0.5m/0.3m/0.2m
Focus	Auto/Manual
Electronic zoom function	1X~8X
Responsivity	$0.001 \mathbf{m} \mathrm{l/s}$
Weight (Include battery)	≤2.6Kg



#### **Optional lens for different distance inspections**

 $High\ definition\ vie \mathbf{w}\ finder\ /\ high\ resolution\ 3.5"LCD\ display$ 

Cooled detector (QWIP) 320X256 pixels

Start-up time less than 7 min with new design of

Core Capable of detecting gas leak as small as 0.001ml/s multi-levels high sensitive mode adjustment.

With Gas detection & accurate temperature

measurement

Inspection without shutting down inspected system

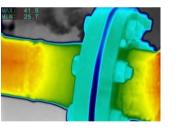
Capture images directly without light assistance and reflection background.

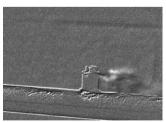
With GPS information

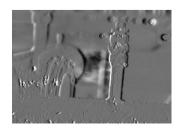


 $W \hbox{\it IFI for connection and } transmission$ 



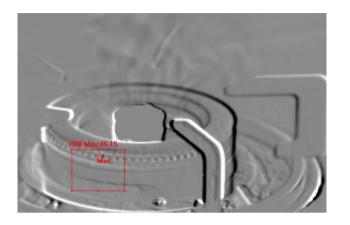


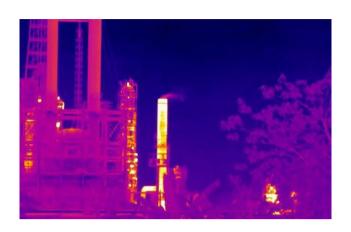




## Features of TH1000 & TH1000 Pro

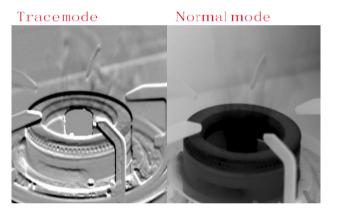
1. Gas detection and temperature measurement 2. Non-contact inspection in a safe distance

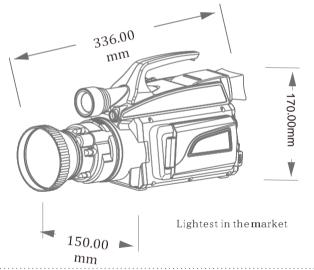




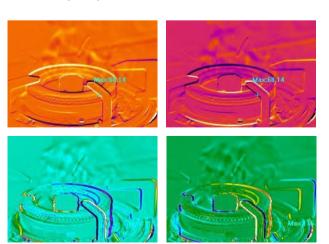
3. High sensitive mode for small leak detection.

4. lightweight: TH800  $\leq$  2.40Kg (with battery) TH800pro  $\leq$  2.60Kg (with battery)





5. Multiple palette



6. Adaptabl to almost all working environment without special background

