# Raythink

RG630
OGI Handheld Camera

The new-generation RG630 OGI handheld camera is equipped with a customized band-pass filter and an uncooled VOx infrared detector with high resolution and high sensitivity. Powered by infrared gas thermal imaging technology and AI algorithms, the camera enables the non-contact and visual leakage alarm for dozens of gases including methane (CH_4), freon, ammonia (NH_3), and sulfur hexafluoride (SF_6), and meets daily temperature measurement needs. This device is an ideal choice for gas safety, emission management and equipment maintenance in industries such as oil, gas, petrochemical, power utilities, environmental protection, and emergency response.

Product Highlights

HD Infrared Resolution and Accurate Detection

- 640×512 high resolution with 15mK high sensitivity, accurately capturing minor gas leaks
- 5-inch OLED touch screen with a wider field of view
- Customized filter detector to eliminate stray light interference
- Gas detection performance in compliance with EPA Appendix K
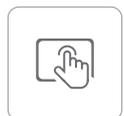
Intelligent Gas Detection

- Real-time gas leak monitoring with gas concentration retrieving function
- Self-developed gas cloud coloring algorithms for enhancement of gas leakage visualization
- Ultra-low threshold for accurate detection of trace gas leaks
- AI agent Raya supporting full-process parameter setting through voice

Industrial-Grade Environmental Adaptability

- Intrinsically safe explosion-proof compliance, meeting the compliance requirements of specific industries
- 5 hours of long-lasting battery life for continuous and more efficient operation
- GPS positioning, and automatically recording routine inspection tracks

Specifications

Model	RG630C	RG630F
Thermal Imaging Characteristics		
Detector Resolution	640×512	
Lens Configuration	19mm non-detachable manual lens	
FOV	22.9°×18.4°	
Focusing Mode	Manual	
IFOV (Spatial Resolution)	0.68 mrad	
Minimum Imaging Distance	0.3m (imaging only)	
Measurement Range	Low temperature range: -20°C~+60°C High temperature range: 60°C~650°C Automatic	Low temperature range: -20°C~+80°C High temperature range: 80°C~650°C Automatic
Common Characteristics		
Detector Type	Uncooled infrared detector	
Thermal Sensitivity	15mK	
Spectral Range	7~8.5μm	10.3~10.7μm
Frame Rate	25Hz	
Flashlight	LED lamp	
Image Display and Mode		
Display Size	5-inch touch display, 1280×720 resolution	
Digital Camera	4224×3136 (13 megapixel digital camera)	
Palette	20 palettes including iron red, gray, inverse iron red, inverse gray	
Image Mode	Thermal imaging, PIP, thermal fusion, visible light	
Temperature Scale Mode	Precise，Max/Min, Level/Span	
Image Storage		
Storage Medium	SD card, standard 64 GB, maximum expansion 2 TB	
Image File Format	jpg	
Non-radiometric Infrared or Visible Light Video	Standard MP4 video recording	
Radiometric Infrared Video Stream	TYPE-C/WLAN connection to PC, for real-time transmission of radiometric infrared video streams	
Non-radiometric Infrared Video Stream	RTSP H.264	
Video Output	TYPE-C, wireless screen projection	
Video Resolution	1280×720	
Measurement and Analysis		
Measurement Accuracy	±2°C or ±2% of the reading	
Emissivity	Adjustable between 0.01 and 1.00 with a step size of 0.01	
Ambient Temperature Settings	-20°C~+50°C with a step size of 0.1°C	
Alarm	Voice and image alarms	
Color Alarm (Isotherm)	Above/below/between	
Gas Detection Function	AI enabled gas detection, gas cloud coloring, gas concentration retrieving, automatic alarm, gas image enhancement, image multi-sensitivity options	
Detectable Gases	Methane, sulfur dioxide, ethanol, Freon (R-134a, R-152a), etc.	Sulfur hexafluoride, ammonia, ethylene, propylene, etc.
Intelligent Gas Detection Alarm	Yes	
Gas Concentration Measurement	Yes	
Positioning	Images+geolocation data. GPS, BDS and GLONASS supported	
Compass	Azimuth indication of digital magnetic compass supported	
Analysis Software	PC (infrared analysis software) or mobile device (IOS/Android APP)	
System Functions		
Laser Pointer	Yes	
Rangefinding	Yes	
Analysis Functions on Device End	Support up to 20 movable points, lines, frames, and polygonal areas (Max and Min temperature capture, Avg temperature measurement, environment variables, area alarm switch), and up to 5 preset modes	
Digital Zoom	1~10x continuous zoom	
Communication Mode	Wi-Fi, Bluetooth, Type-C	
Voice Control	Voice assistant with quick command recognition	
Intelligent Routine Inspection	Yes. General task package import and editing, standard and automatic naming of images	
Smart Diagnosis	No	
Others		
Microphone/Speaker	Yes	
Battery	3.6V, 10000mAh lithium-ion battery, not field-replaceable, fast charging	
Charging Time	Charged to 90% in 1.5 hours; fully charged in 2 hours	
Charging Mode	Direct charging, desktop charging	
Operating Time	Continuous operating time ≥ 5 hours (depending on the actual environment and service conditions)	
Hand Strap	Yes	
Storage Temperature	-40°C~ 70°C	
Operating Temperature	-20°C ~ 55°C	
External Interface	TYPE-C USB 3.0, SD card, "1/4''-20 UNC	
Impact &Vibration	2G(IEC60068-2-6), 25G(IEC60068-2-29)	
Encapsulation Rating	IP54	
Weight and Dimensions (H × W × D)	1.1kg (with battery), 143.53×129.19×307.28mm	
Standardized List	1. OGI Camera 2. Non-detachable standard lens 3. Lithium-ion battery: 2 4. Charging stand 5. Charger 6. Charging cable 7. Bluetooth earphone 8. SD card 64G 9. Type-C cable 10. Screen hood 11. Quick Start Guide 12. Data download card 13. Certificate of calibration and certificate of qualification 14. Hand strap 15. Safety box 16. Lens cap	

Applications

Oil, Gas and Petrochemical

Environmental Protection

Emergency Management

Power Utilities

Raythink Technology Co., Ltd.

*The information is for illustrative purposes only. The pictures and technical specifications are subject to change without notice. Sample No.: G2026-RG630-2P001