HEQ PURWAY-CH-4 UAV Laser Methane Leak Detector Ⅲ

Introduction

HEQ PURWAY-CH-4 Laser Methane Detector is a compact and lightweight drone payload known for its high sensitivity, long-range remote sensing capability, and rapid response. It utilizes laser absorption spectroscopy technology to swiftly detect trace amounts of methane gas in the air, with a maximum inspection distance of up to 300 meters.



This device combines laser detection with visible light sensors, employing Tunable Diode Laser Absorption Spectroscopy (TDLAS) technology for real-time data analysis. It integrates with drone systems, keeping the detection equipment away from potential leak sources. It is a powerful tool for natural gas inspection operations, helping to improve safety, reduce environmental impact, improve operating efficiency, and achieve accurate visual inspection.Coupled with gimbal intelligent stabilization control, laser rangefinding, and other technologies, it can quickly provide users with key information on leak points, help users seize the opportunity, and improve perception capabilities and operating efficiency to a new level.

300m remote telemetry distance

4K video recording;
1080P real-time image transmission

Compatible with
DJI M300/M350 RTK

5ms response speed

1200m laser ranging module;
precise leak point positioning

KMZ import
TIF terrain following
Task report output

CH-4 Laser Methane Detector Ⅲ



Detector parameters

Detection Target	Methane and methane-containing gas
Instrument Weight	≤770g
Gimbal Stabilization	YAW+PITCH+ROLL
Protection Level	IP44
Camera Parameters	48MP 16x Digital Zoom
Photo/Video Recording	48MP resolution / 4K 30FPS
Real-time Image	1080P 30FPS
Operating Temperature	-20°C to 50°C
Sensitivity	5ppm*m
Gimbal Rotation Range	Pitch: ±30° to -90°; Pan: ±135°
Detection Concentration Range	0-99999 ppm*m
Captain Software Functions	KMZ import, tif terrain following, task report output
Supported Drone Models	DJI M350RTK, DJI M300 RTK
Rangefinder Distance	1.2KM
Measurement Accuracy	±10% (100~50000 ppm*m)
Laser Safety Level	Class3R, avoid direct laser eye exposure
Response Speed	5ms, 10ms, 100ms (configurable)
Infrared Detection Wavelength	1.65μm, <25 mW
Infrared Detection Distance	≥300m
Beam Divergence Size	Infrared laser divergence 3 mrad (6cm at 20m)

info@purway-innovate.com