



AILF INSTRUMENTS

**U10 UAV BASED LASER
METHANE LEAKAGE DETECTOR**



1. The U10 is a light-weight, high-sensitivity gas detector based on Tunable Diode Laser Absorption Spectroscopy (TDLAS), which enables rapid identification of methane from up to 100 m away, or at a concentration as low as 5ppm.m. Powered by DJI SkyPort, the U10 can be seamlessly integrated with DJI Matrice 200 Series V1 and V2 platforms.

CH₄

Detects CH₄

100m

Up to 100 m
Detection Distance

25ms

25 ms Response
Time



Stationary Detection
Limit 5ppm.m

Accurate Results from Afar:

Get real-time readings on the concentration of methane from up to 100 m away, adjust the pitch of the gimbal to pinpoint gas leaks in dangerous or hard-to-reach areas while keeping personnel safe.

Visualize the Detection:

The high sensitivity allows detection at a concentration as low as 5ppm.m. Receive concentration data in just 25 ms, so you can make decisions quickly. Gain an aerial overview of the suspected leakage site through the 720p visual camera.

Automated Workflows:

Plan flight missions and view flight paths, monitor gas concentration levels and historical trends in real-time, and flag specific points along the flight route for abnormalities, and generate inspection reports – all through the α -ONE iOS application.

APPLICATIONS



Critical Facility Inspection

Use DJI's leading drone platforms equipped with the U10 to inspect and maintain facilities like Liquid Natural Gas plants, gas storage tanks, and gas pipelines in areas such that are difficult for human operators to access, such as mountains or rivers. With the U10, users can detect and monitor methane leakages accurately to make informed response decisions quickly.

SPECIFICATIONS

U10 UAV Based Laser Methane Leakage Detector			
Method of Detection	TDLAS	Detection target	Methane (CH ₄)
Stationary Detection Limit	5 ppm·m	Detection Laser	Class III R
Response Time	25 ms (0.025s)	Operating Temperature	-20 ~ 50°C
Sampling Rate	500KHz	Operating Humidity	<90%RH, no condensation
Detection Concentration Range	0~50,000 ppm·m	Size	155 x 90 x 100 mm
Max Detection Distance	100 m	Weight	534g
Camera	Video at 720 p	Supported Aircraft	DJI Matrice 200 Series, Matrice 200 Series V2

SUPPORTED PRODUCTS

DJI Matrice 200 Series, Matrice 200 Series V2

Supports the use of both the U10 and the Zenmuse XT2, Zenmuse Z30, and Zenmuse X5S on the M210, M210 V2, M210 RTK, M210 RTK V2

Download the α-ONE app on the App Store



ABOUT DJI SKYPORT

Bring your tools to the sky using DJI's Payload SDK. Integrate any payload – sensors, robotic components and more – with DJI's leading industrial drone platforms to bring your business to new markets.

ABOUT AILF (SHANDONG) INSTRUMENTS

AILF (Shandong) Instruments combines advanced laser gas detection technologies with industrial applications and developed a full line of gas leakage detection products, including methane (CH₄), ethane (C₂H₆), propane (C₃H₈), ammonia (NH₃), hydrogen fluoride (HF) and additional noxious gases.

ORDER THE U10 TODAY

The U10 is available for order through official DJI Dealers. For more information, please visit our website at

<https://www.dji.com/products/enterprise#payloads>

Or contact enterprise@dji.com for more information.

ABOUT DJI ENTERPRISE

DJI Enterprise is a global team dedicated to developing world class drone solutions for a new generation of work. These solutions help businesses across the agricultural, infrastructure, public safety sectors and more to empower workers, enhance jobs and digitize operations.

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