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## **Company Profile**

Qingdao Allred Electronics Co., Ltd. is a high-tech enterprise dedicated to the development and application of gas detection technology. Our main products are Remote Methane Leak Detectors and Infrared-Based Gas Detectors.

We are located in Qingdao, Shandong Province in China. The company's predecessor was the infrared technology division of Qingdao ALPTEC Safety Equipment Co., Ltd., which has more than 20 years of experience in the design, development and manufacturing of Overfill Protection & Grounding Systems and is a leader in the field of safety equipment in hazardous chemicals storage and transportation, petrochemical natural gas and other industries.

Our philosophy is to provide customers with a value-added experience through innovation; our code is to

build a bridge of trust with customers through service; our idea is to establish new benchmarks for the industry through leading products and sincere service.

We have been working hard for the ideal and sincerely look forward to cooperating with you.

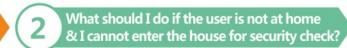




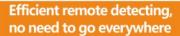


### ARD Series Remote Methane Leak Detector

What to do if there are too many pipelines and there are not enough inspection staff?









Measuring height up to 30th Floor

What if the distance is too far to detect?





150m actual detection distance



5ml/min small leakage flow monitoring



### **ARD1000**

### Remote Methane Leak Detector

#### Introduction

ARD1000 Remote Methane Leak Detector has the characteristics of long detecting distance, high sensitivity, and long battery life. It can adapt to various gas leak detection occasions, especially the residents' kitchens and long-distance upright pipe detection.







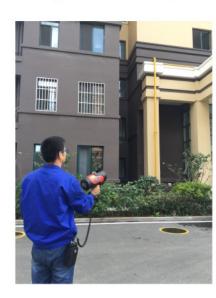
Equipped with dual display for easier reading



Equipped with optical sight Easier aiming and positioning



Larger light entrance path Ultra-long detection distance





## ARD2000 Remote Methane Leak Detector



#### Introduction

ARD2000 Remote Methane Leak Detector is a lightweight, compact, and portable device. By optimizing the optical design, both the volume and weight of the product and the detection distance are taken into consideration.

#### **Features & Benefits**



Small and lightweight, easy to carry



Efficient optical design
Longer detection distance



Internally powered optical sight Easier aiming and positioning







# **Specifications**



**ARD1000** 

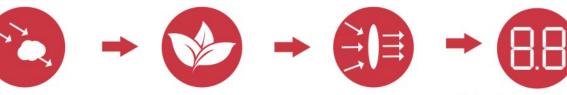


ARD2000

	ARD1000	ARD2000
Measurement Range	0 ppm · m ~ 99999 ppm · m	0 ppm · m ~ 99999 ppm · m
Sensitivity	5 ppm⋅m	5 ppm⋅m
<b>Detection Distance</b>	200 m	150 m
Laser Class	Measurement Laser: Class I Indicating Laser: Class III R Protect your eyes from direct exposure	Measurement Laser: Class I Indicating Laser: Class III R Protect your eyes from direct exposure
Response Time	0.1 s	0.1 s
Explosion Proof Classification	Exib IIA T3 Gb	Exib IIA T3 Gb
Level of Protection	IP54	IP54
Operating Temperature	-20°C~50°C	-20°C~50°C
<b>Battery Operating Life</b>	Single battery working time is more than 12 hours	Single battery working time is more than 8 hours
Power	Rechargeable Lithium battery	Rechargeable Lithium battery
Instrument Weight	Hand-held detection section 1.3 kg Battery section 0.7 kg	0.65 kg
Aiming Method	Sight and indicating laser	Sight and indicating laser

# **Principle Introduction**

ARD series Remote Methane Leak Detector uses advanced TDLAS technology to make use of diffuse reflection of irradiated laser light on the surface of the object and absorption of specific wavelength laser light by methane gas, which can quickly achieve remote detection of methane gas, especially suitable for various leak detection occasions where people cannot access.

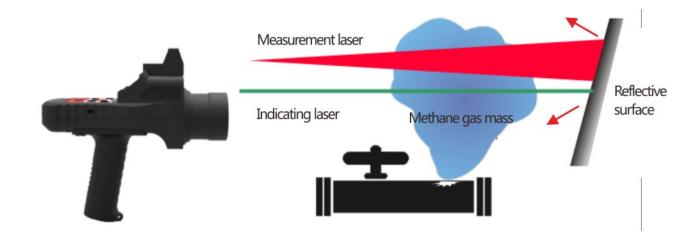


The laser emitted by the Leak Detector pass through the air mass of natural gas Methane gas absorbs this laser

The absorbed laser light is received by the detector through diffuse reflection

Data collection and processing to obtain concentration information of methane gas leakage

The concentration information is methane cylinder density (ppm.m) = methane concentration (ppm) x air mass thickness (m)



#### Common Problems

# At present, can Remote Methane Leak Detector replace traditional handheld alarms?

The detection principle of the Remote Methane Leak Detector requires that methane can form air masses with a certain thickness, which is restricted by the environment (such as wind), and sometimes small leaks cannot form sufficient air mass thickness, which will affect the detection sensitivity. Therefore, the current Remote Methane Leak Detector can be regarded as an effective supplement to the existing gas leak detection methods. In the gas industry standard CJJ / T215-2014 "Technical Regulations for Leak Detection in Urban Gas Pipeline Networks", it is stipulated that the Remote Methane Leak Detector is suitable for detecting overhead pipelines and inaccessible gas equipment and facilities.

#### Can Remote Methane Leak Detector distinguish natural gas and biogas?

No, the Remote Methane Leak Detector only targets methane gas, while the main components of both natural gas and biogas are methane, so it cannot be distinguished.

# 3 Can Remote Methane Leak Detector penetrate glass for detection?

Yes, the laser can penetrate all common transparent objects, so the Remote Methane Leak Detector is often used to penetrate window glass to detect indoor gas leaks.

# What will affect the detection distance of the Remote Methane Leak Detector?

The detection distance is affected by the reflecting surface and sunlight. The higher the reflectivity of the refracting surface, the longer the detection distance, the stronger the sunlight, the closer the detection distance. Therefore, the detection distance data of ARD series are based on the direct reflection of the concrete wall with direct sunlight.

