



PGA-TOC
Portable Volatile Organic Gas Analyzer

System Introduction

System Overview

PGA-TOC portable VOC gas analyzer is based on FID and PID detection technology, which can achieve ultra-high sensitivity and rapid detection and analysis of VOC gases in ambient air. The analyzer adopts intrinsically safe and explosion-proof design, consisting of two parts: main unit and sampling rod, equipped with explosion-proof hand manipulator, with fast system response, small volume and light weight, which meets the application requirements of "Volatile Organic Compounds Unorganized Emission Control Standard" (GB 37822-2019) for rapid detection of total hydrocarbons in daily unorganized emissions, and can target leak points of various types of pipe and valve parts, discharge ports and facility confined systems for rapid and Accurate identification, to facilitate the monitoring and management of VOCs disorga-nized emissions of enterprises.

Specifications

Performance Indicators	
Measurement Range	PID: (0~2000) $\mu\text{mol/mol}$ Isobutene, customizable range (maximum range up to 10000 $\mu\text{mol/mol}$)
Detection Limit	PID: 0.5 $\mu\text{mol/mol}$ Isobutene FID: 0.5 $\mu\text{mol/mol}$ Methane
Repeatability	PID: $\pm 1\%$ at 100 $\mu\text{mol/mol}$ Isobutene FID: $\pm 2\%$ at 500 $\mu\text{mol/mol}$ Methane
Accuracy	PID: $\pm 0.5\mu\text{mol/mol}$ FID: $\pm 1\mu\text{mol/mol}$
Sampling Flow	At the inlet of the sampling probe, generally 1L/min
Response Time	$\leq 3.5\text{s}$
Service Life	PID: >2000h FID: >5000h
Communication	Support WIFI & GPRS communication
Explosion-proof Mark	EX db ia IIC T4 Gb
Power	7.4V/0.6A
Ambient Temperature	-10 $^{\circ}\text{C}$ ~45 $^{\circ}\text{C}$
Battery Servie Life	More than 10h
Dimensions & Weight	280mm \times 220mm \times 98.5mm, <4.5kg

System Introduction

System Advantages

Whole Machine Explosion-proof Design

- ⦿ The whole circuit of the analyzer adopts intrinsically safe and explosion-proof design, the core FID detector module adopts explosion-proof design, and the hand operator adopts intrinsically safe and explosion-proof design to meet the requirements for use in explosive hazardous gas scenarios.

Wide Measurement Range

- ⦿ With dual PID and FID detectors, responds to almost all organic gases and some inorganic gases.

High Integration

- ⦿ Highly integrated, hydrogen gas cylinder can be repeatedly disassembled and filled, easy to carry.

Long Continuous Operation Time

- ⦿ The battery module is removable and easy to replace to support continuous operation of the device for more than 10h.

Wireless Transmission

- ⦿ The equipment is equipped with intrinsically safe hand-operated device and adopts wifi communication to realize stable and fast data transmission, which is flexible and convenient to operate.

Application Scenarios

It is mainly used in unorganized on-site emergency detection, rapid detection of emissions from fixed pollution sources, energy efficiency assessment of VOCs treatment facilities, VOCs traceability investigation, pipeline emission and leakage detection of petrochemical enterprises, onsite investigation of gas station and oil depot oil recovery, etc.



Onsite Emergency Detection



**Stationary Source Emissions
Rapid Detection**



**Oil and Gas Recycle
Site Inspection**



**Petrochemical Enterprise
Pipeline Leakage Detection**

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