

# Datasheet

## Portable Multi-gas Detector

### P10 Series



#### | Description

The P50 series is a new generation of portable multi-gas detector developed by GDS INSTRUMENTS. It detects gas by natural diffusion or inhalation, and uses a high-performance gas sensor with excellent sensitivity and repeatability. Up to 5 different gases can be detected simultaneously.

P50 series is mainly used to detect a variety of combustible, toxic and other harmful gases in the ambient air.

P10 adopts composite materials with high strength and toughness, and has high waterproof and dustproof performance, providing the product with the highest industrial standard level of protection, protection grade up to IP67.

P50 series is globally certified to be used in various harsh environments such as petrochemical, chemical, metallurgical and environmental protection, and the explosion-proof grade is Ex d ib IIC T4 Gb.

#### | Features

- Up to 5 gases can be detected simultaneously
- Smart sensor design, easy to maintain
- Easy to operate, no training required
- EXd design, applicable for Zone 1 and Zone 2 explosion-proof environments
- Withstand 3 meters' drop
- Visual, audible and vibration alarms
- Continuous working time up to 24 hours (Max version up to 36 hours)



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## Specifications

### System Specifications

DISPLAY	Dot-matrix LCD display High brightness LED to indicate normal, fault, alarm status
GAS TYPE	Combustible and toxic gases
DETECTION PRINCIPLE	Catalytic, electrochemical, Semiconductor, PID, infrared
SENSOR LIFE	3 years(Most gases)
DETECTION METHOD	Diffusion/Pump

### Environmental Specifications

TEMPERATURE RANGE	-20~+60°C
HUMIDITY RANGE	0~95%RH (non-condensing)
INGRESS PROTECTION	IP67(passed CNEX test)

### Mechanical Specifications

MATERIAL OF HOUSING	Composite
WEIGHT	295g
DIMENSIONS	120×73×37mm

### Electrical Specifications

POWER	3.7V rechargeable 4000mAh lithium battery
CHARGING VOLTAGE	Um=6V±5%
WORKING TIME	>200 hours (25°C, electrochemical sensor)
CHARGING TIME	<6 hours (25°C, with original charger)
ALARMS	95dB audible, LED visual and vibration
OPERATING MODE	buttons

## Sensor Specifications

GAS	RANGE	RESOLUTION	RESPONSE TIME
CH <sub>4</sub>	0-100%LEL	0.1%LEL	≤15s
H <sub>2</sub>	0-100%LEL	0.1%LEL	≤15s
CO	0-1000ppm	1ppm	≤20s
O <sub>2</sub>	0-25%VOL	0.1%vol	≤20s
O <sub>3</sub>	0-10ppm	0.01ppm	≤20s
H <sub>2</sub> S	0-100ppm	1ppm	≤30s
H <sub>2</sub>	0-1000ppm	1ppm	≤30s
CL <sub>2</sub>	0-20ppm	0.1ppm	≤60s
NH <sub>3</sub>	0-100ppm	1ppm	≤60s
SO <sub>2</sub>	0-20ppm	0.1ppm	≤30s
NO	0-250ppm	0.1ppm	≤30s
NO <sub>2</sub>	0-20ppm	0.1ppm	≤30s
CH <sub>2</sub> O	0-50ppm	0.01ppm	≤30s
HCL	0-20ppm	0.5ppm	≤30s
C <sub>2</sub> H <sub>4</sub> CL <sub>2</sub>	0-50ppm	1ppm	≤30s

\*For other ranges, please consult your local GDS INSTRUMENTS representative

## Approvals

CNEX	Ex d ib IIC T4 Gb
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## Product Configuration

P50 Series Portable Gas Detector
Calibration cover
Charger
Manual
External sampling pump (optional)

\*For standard configuration, please refer to the actual product provided by the factory. And for more accessories, please consult your local GDS INSTRUMENTS representative.



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