

# Datasheet

## Fixed Combustible Gas Detector

### GTYQ-G1 Series



## | Description

The GTYQ-G1 series is a high-performance fixed combustible gas detector developed and manufactured by GDS INSTRUMENTS. According to the target measured gas types, the product adopts high-performance sensors with catalytic combustion, infrared and other detection principles, combined with its unique diffuse design, effectively improving the detection response time.

The GTYQ-G1 series fixed combustible gas detector provides a 4-20mA signal output and a RS48-Modbus protocol, which is compatible with most control systems. It also provides 2 programmable relay outputs to connect with audible and visual alarms, used as an independent gas detection system.

The GTYQ-G1 series fixed combustible gas detector uses infrared remote to set and adjust parameters, which can be easily calibrated and maintained in the field without opening the cover.

The GTYQ-G1 series fixed combustible gas detector is globally certified to be used in various harsh environments such as petrochemical, chemical, metallurgical and environmental protection, and Its certification level is up to ExdIICT6 Gb;Ex tD A21 IP67 T80°C.

## | Features

- 4-digit 15-segment highlight LED display and status indication
- The 4-20mA, RS485-Modbus and relays output signals can satisfy different control system's requirements.
- Smart sensor module with built-in memory containing various calibration configuration information
- Sensor module design, sensor fault diagnosis function
- IR remote control, easy to operate
- Explosion-proof design for zone 1 and zone 2 hazardous locations
- A variety of built-in different gases databases (applicable to some gas types)
- On-site software upgrades available



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## Specifications

### Environmental Specifications

TEMPERATURE RANGE	-40~+70°C
HUMIDITY RANGE	0~95%RH (Non-condensing)
INGRESS PROTECTION	IP67(Passed PCEC test)

### Mechanical Specifications

MATERIAL OF HOUSING	Aluminum (SS316 optional)
WEIGHT	1kg
DIMENSIONS	160×120×90mm
INSTALLATION	Mounting bracket

### Electrical Specifications

INPUT POWER	24 VDC nominal, 12 to 30 VDC
POWER CONSUMPTION	<2W, max current 80mA at 24VDC
SIGNAL OUTPUT	4-20mA RS485-Modbus 2 relay outputs 1 low alarm relay, 1 high alarm relay (Default the low alarm relay is a active relay with 24VDC, the rest are passive SPDT) Relay capacity 30VDC/3A
CABLE ENTRY	2*M25×1.5 (optional for others)
CABLE REQUIREMENTS	3 wires, recommended cable diameter is 1.5mm²
OPERATING MODE	IR remote

## Sensor Specifications

RANGE	RESOLUTION	ACCURACY	RESPONSE TIME
0-100%LEL	0.1%LEL	±2%LEL	≤10s
0-100%VOL	0.1%Vol	±2%Vol	≤15s

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

## Approvals

PCEC	Ex d IIC T6 Gb Ex tD A21 IP67 T80°C
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## Product Configuration

GTYQ-G1 Series Combustible Gas Detector  
Mounting bracket  
Calibration cover  
Manual  
IR Remote (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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