

*Be sure, be safe.*

**COSMOS**

SIMPLIFIED GAS ALARM SYSTEM

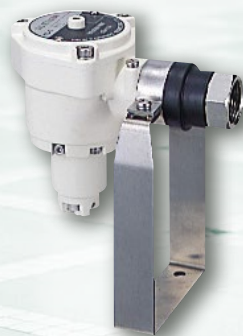
# **ALARM B-780** **DETECTOR KD-5 / GD-1B**

## **Simple and Reliable Three-point Gas Alarm System**

For LPG / Methane Monitoring



**GD-1B**  
Gas Detector



**KD-5**  
Explosion-proof /  
Weather-resistant Gas Detector



**B-780**  
Gas Alarm

## Features

- The B-780 works with three detector models suitable for different applications.
- Gas alarm will be notified with red LED blinks and beeping sound.
- Fault alarm will be notified with amber LED blinks and beeping sound.
- Alarm unit is wall-mounted and easy to install.
- Power supply is 100/220 VAC and is connected to a standard AC outlet.
- Compact and lightweight
- There are three types of external outputs, which can be output to an external alarm device, emergency shutoff interlocking system, etc.
- Operation check can be done easily with TEST button.

## Specifications

### ALARM

Model	B-780	
Target Gas	LPG	Methane
Number of Connected Detectors	Up to 3 Units	
Detectors to be Connected	KD-5G, KD-5T, GD-1B	KD-5GM, KD-5M
Gas Alarm	•Red ALARM LED blinks •Beeping sound, 80 dB/m or higher •Selectable to auto resetting or manual resetting	
Fault Alarm	Amber FAULT LED blinks	
Power Supply	100/220 VAC±10%, 50/60Hz	
Power Consumption	Approx. 5 W during normal operation (max.) Approx. 10 W during gas alarm (max.)	
External Outputs	(1) 6 VDC, 10 mA during normal operation, 12 VDC, 10 mA during gas alarm, and 0 VDC during fault alarm (2) 100/220 VAC, 1 A max. during gas alarm (output delay time is approx. 35 sec., which can be changed to zero (no delay) by DIP switch setting), Replaceable fuse (3) NO/NC contact 24 VDC, 1 A max. (output delay is approx. 35 sec., which can be changed to zero (no delay) by DIP switch setting)	
Operating Temperature	-10°C to +40°C (No condensation)	
Dimensions	W138 × H180 × D33 mm (Excluding protrusions)	
Mass	Approx. 420 g	
Accessories	Screws x 2, Crimp terminals x 10	

### DETECTOR

Model	KD-5G	KD-5GM	KD-5T	KD-5M	GD-1B
Detection Principle	Catalytic combustion			Hotwire semiconductor	Catalytic combustion
Target Gas	LPG	Methane	LPG	Methane	LPG
Alarm Set Value	1/100 to 1/4 %LEL				
Response Time	30 sec. or less	1 min. or less	30 sec. or less	1 min. or less	30 sec. or less
Power Supply	24 VDC±20%				
Current Consumption	30 mA or less at 24 V				
Structure	Explosion-proof (d2G4)			Weather-resistant	—
Cable Length	Up to 500 m (CVV, 1.25 mm <sup>2</sup> , 3-core cable)				Up to 200m (0.5mm <sup>2</sup> , 3-core cable)
Operating Temperature	-10°C to +60°C			-10°C to +50°C	
Dimensions	W94 × H141 × D123 mm (Excluding protrusions)				W52 × H116 × D37 mm
Mass	Approx. 1,500 g				Approx. 220 g
Mounting Method	By screws				By installation plate or band
Accessories	Stand, rainproof cap, rainproof cover, screws, screw expansion plugs, crimp terminals				Installation plate, wood screws, band, connectors, screw expansion plugs, crimp terminals

### Installation Location of Detectors

1. Location where leaked gas is likely to stay
2. Within 10 cm from the floor (for LPG)
3. On the leeward side
4. Location where daily check of gas detector can be done
5. Location where rainwater does not accumulate and the gas detector does not submerge

### About Installation Work

Explosion-proof construction is required when installing the gas detector in storage facilities.

\* The cable is a pressure-resistant packing method.  
Use a packing with an inner diameter of 10 mm  $\phi$  and a cable with an outer diameter of 9.1 to 9.9 mm  $\phi$ .

### About Maintenance

The gas alarm system requires regular maintenance. We recommend operation check every month and periodic inspection\* at least once a year.

\* Please contact us for periodic inspection.



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## SAFETY WARNING

Carefully read the instruction manual prior to use.

Select and use the device designed to detect the required type of gas. Use of a wrong sensor type may cause an accident.