

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 | <ul style="list-style-type: none"> •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 x H180 x 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 ² , 3-core cable) | | | | Up to 200m (0.5mm ² , 3-core cable) |
| Operating Temperature | -10°C to +60°C | | | -10°C to +50°C | |
| Dimensions | W94 x H141 x D123 mm (Excluding protrusions) | | | | W52 x H116 x 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 mmφ and a cable with an outer diameter of 9.1 to 9.9 mmφ.

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.