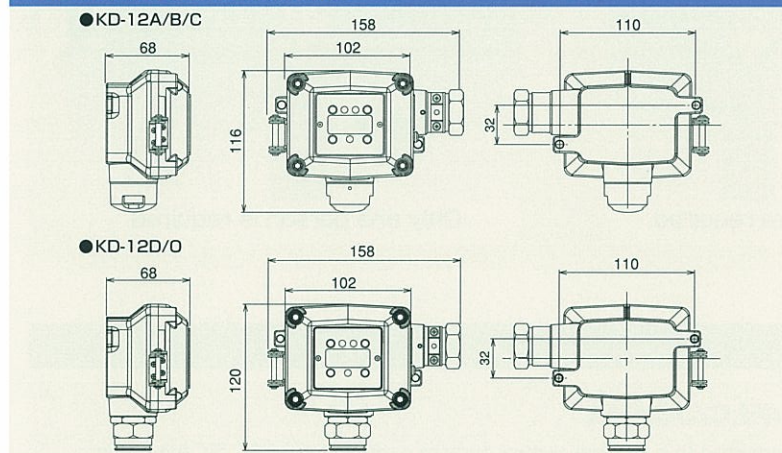


## Specifications

Mode	KD-12A	KD-12B	KD-12C	KD-12R	KD-12D	KD-12O
Corresponding Sensor Type	Hot wire semiconductor	Catalytic combustion	Thermal Conductivity	Nondispersive infrared	Electrochemical cell	Galvanic cell
Target Gas	Combustible /Toxic gas	Hydrogen, Helium, Carbon dioxide	Methane	Carbon monoxide	Hydrogen sulfide	Oxygen
Sampling Method	Diffusion type					
Detection Range	As per specifications			0-100%LEL	0-100ppm, 0-150ppm or 0-250ppm*1	0-30ppm or 0-50ppm*1
Alarm Set Value	As per specifications			FS100ppm: 25ppm(recommendation) FS150/250ppm: 50ppm(recommendation)	10ppm	18.0vol%
Alarm Accuracy	Combustible gas: ±25% of Alarm Set Value (under identical conditions).		±25% of Alarm set Value(under identical conditions)		±30% of Alarm Set Value (under identical conditions)	
Alarm Delay	Combustible gas: 30s or less at 160% concentration of an Alarm Set Value. Toxic gas: 60s or less at 160% concentration of an Alarm Set Value.		30s or less at 160% concentration of an Alarm set Value.		60s or less at 160% concentration of an Alarm Set Value.	
Warning Display	Gas Alarm: Red LED lamp flashes Trouble Alarm: Yellow LED lamp flashes (sensor trouble, power voltage malfunction, etc.)					
External Output	Gas concentration analog signal: 4 to 20mA DC (common to the negative side of power supply) Gas alarm contact *3 : 1 a non-voltage relay contact / Non-latching Rated load: 0.5 A at 250V AC or 0.5 A at 30V DC (resistance load)					
Gas Concentration Display	4-digit digital LED display					
Operation	At 4 points of magnetic switches					
Cable Connection	Screw-less / terminal block					
Approvals	Ex d IIC T5 (Japan), Ex II 2G Ex d IIC T5 (ATEX)   Ex d II BT5					
Degree of protection	IP65					
CE Marked	Complied with CE Directive 2004/108/EC					
Applicable Cable	Cable out diameter (10 to 13 mm dia.) 5-conductor cable *3 : CVV-S 1.25mm <sup>2</sup> 3-conductor cable: CVV-S 2mm <sup>2</sup> or 1.25mm <sup>2</sup>					
Temperature and Humidity range *4	Temperature: -10 to 50 degrees C Humidity: 10 to 90%RH (0 to 50 degrees C)		Temperature: -10 to 40 degrees C Humidity: 30 to 85%RH		Temperature: 0 to 40 degrees C Humidity: 30 to 85%RH	
Power Supply	24V DC (18 to 30V DC)					
Power Consumption	3W or less		2.2W or less		1.2W or less	
Dimensions	158(W) x 116(H) x 68(D) mm (excluding protrusions)		158(W) x 120(H) x 68(D) mm (excluding protrusions)			
Weight	Approx. 1.2kg					

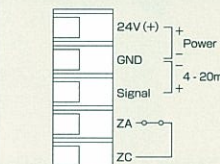
\*1: Please specify when purchasing \*2: Under the condition of 20±2 degrees C \*3: Screwless type only \*4: No radical temperature or humidity changes and no condensation.

### External Gimentions

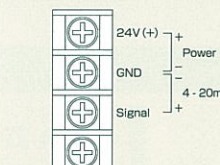


### Terminal Block

#### Screw-less Type

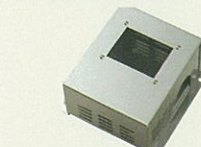


#### Terminal Block Type



### Optional Item

#### Protective Cover Horizontal Type(KW-41)



#### Protective Cover Vertical Type(KW-42)



### Safety warning

- Read the operating instructions thoroughly before use. Always operate in accordance with the instructions.
- Be sure to choose the sensor designed to detect the required type of gas. Use of the wrong sensor type could cause an accident.

We received ISO 9001 certification for our design, manufacturing, sales, and service operations at our head office, branches and factories.



We obtained the ISO 14001 International Environmental Management System certification at head office.



## NEW COSMOS ELECTRIC CO., LTD.

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URL : <http://www.new-cosmos.co.jp/en/index.html>



\* The information contained in this catalog is subject to change.

2011102k-02 Printed in Japan

# Gas Leak Detector With in-built Display and Alarm Model: KD-12 Series

- Simpler, smarter and reliable gas detector with digital display
- Simple and cost effective installation
- Rugged, compact and lightweight design
- Environmentally friendly Product

Scale  
1:1



### Approvals:

- Ex d IIC T5 (KD-12 A/B/C)
- Ex d IIB T6 (KD-12 B/O)
- CE Marking (EMC Directive)
- ATEX standard
- China Fire Equipment Inspection (KD-12B)
- Others

Great lineup corresponding to a wide variety of gases & various uses.

**New Release**

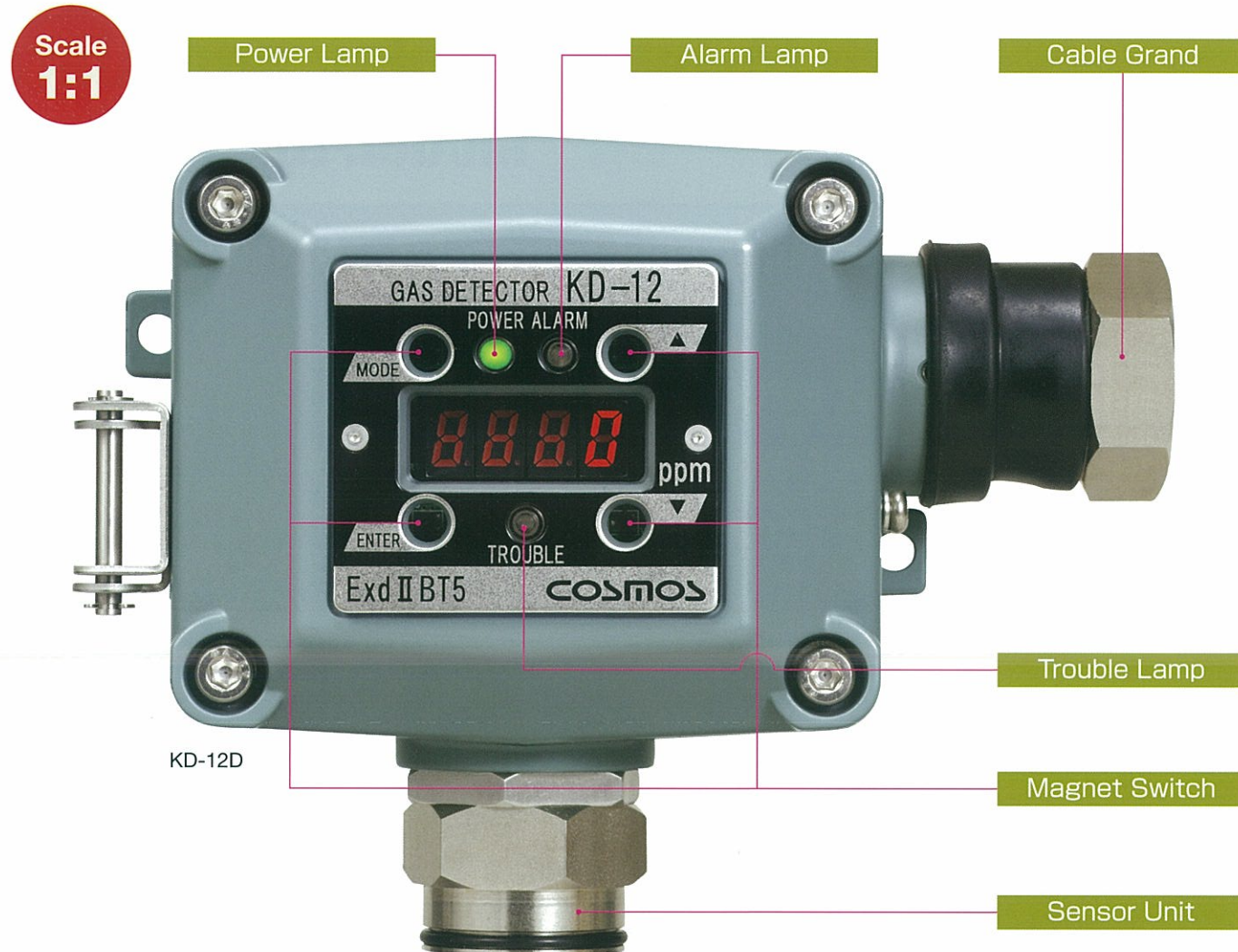
NDIR (Non-dispersive infrared sensor) mounted type!

Combustible Gas

Hot wire semiconductor sensor

Catalytic combustion sensor

# Very Compact and Light with Digital Display



## Features

### LED Display

Large and Easy-to-see display shows the gas concentration and alarm indication.

### Easy maintenance

With a magnetic stick, Zero and Span adjustments can be done without any difficulty on site.

### Easy sensor replacement

The simple plug-in sensor module makes it easier.

### Rugged, Compact and Lightweight

Protection rating IP65 (standard)  
Size W158×H116×D68mm, weight 1.2kg

### Explosion-proof

KD-12A/B/C are designed as ExdII CT5 for Hydrogen and Acetylene.

### Environmentally-friendly design

Lead-free PC board, electronics parts and solders  
RoHS regulation can be applied to KD-12A/B/C on your request.

### For Combustible, Toxic gases and Oxygen deficiency

Detects many gases from ppm to vol% with

- Hot Wire Semiconductor Sensor
- Catalytic Combustion Sensor
- Thermal Conductivity Sensor
- Electrochemical Sensor
- Galvanic Cell Sensor (oxygen)

### Easy maintenance

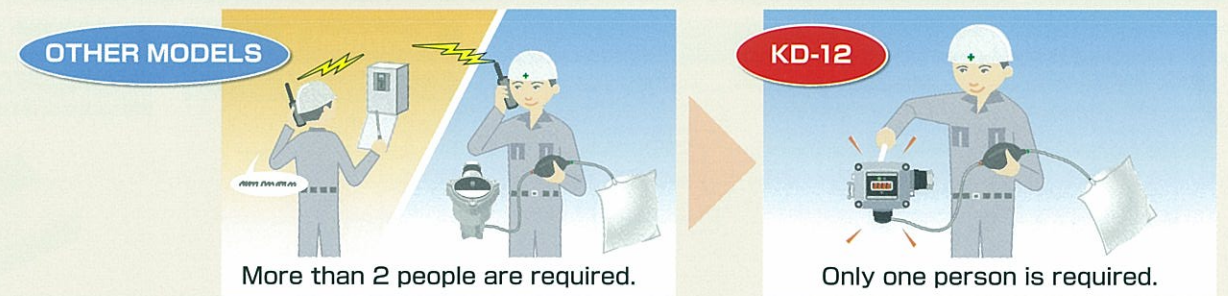


### Easy sensor replacement



## Cost effective

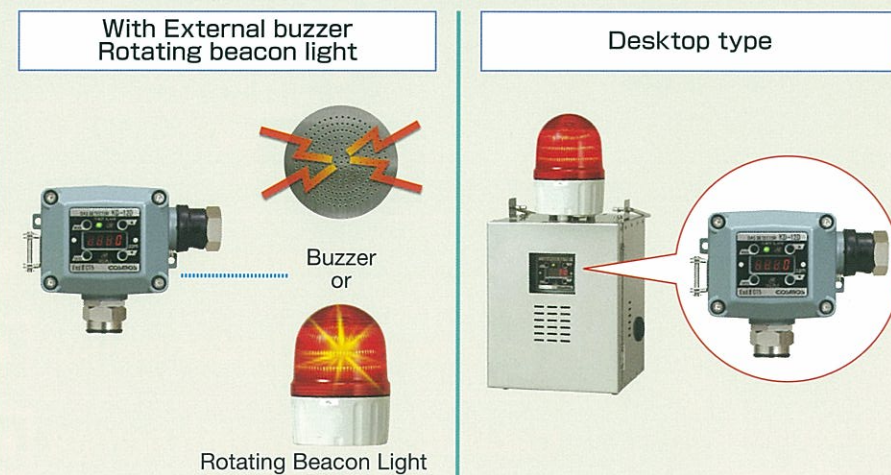
### User friendly, one person calibration



## Different Configurations of KD-12

### With Buzzer or Rotating beacon light

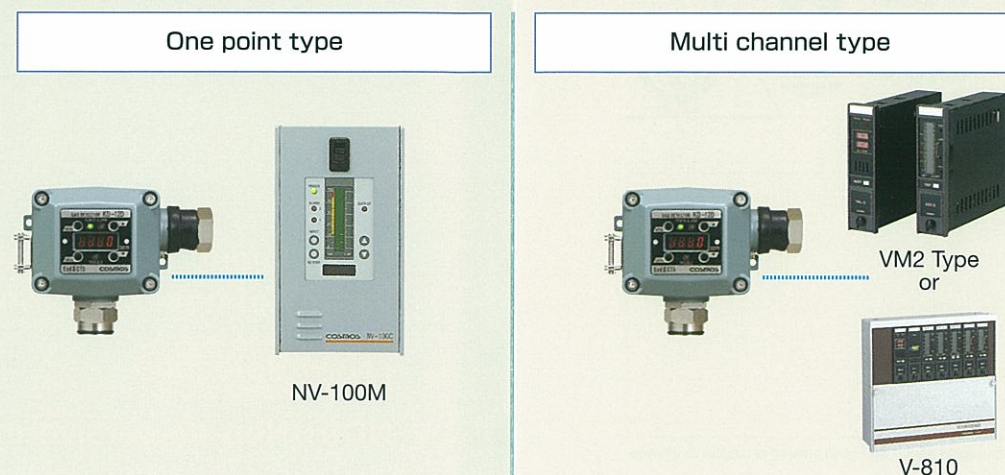
It is used as an integral type gas detection system, connecting to External Buzzer or Rotating beacon light (screw-less type only).



※ Non Explosion-proof

### With Indicator unit

It is connected with our indicators. Alarms and gas concentration indications can be displayed and checked from not only Indicator unit but also form Detector head.



### With DCS/PLC/SCADA

It is directly connected to a Central control system such as DCS/PLC/SCADA. It is also mounted in a vehicle like Tank lorry etc.

