



COSMOS

Gas Detector

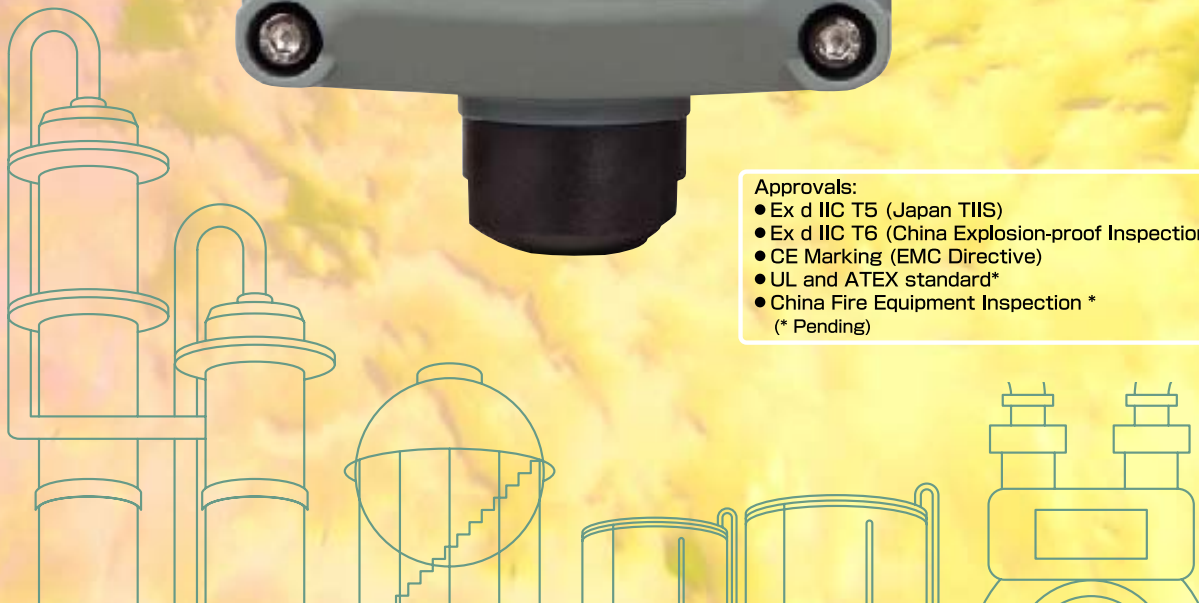
Model: KD-12

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



Approvals:

- Ex d IIC T5 (Japan TIIS)
 - Ex d IIC T6 (China Explosion-proof Inspection)
 - CE Marking (EMC Directive)
 - UL and ATEX standard*
 - China Fire Equipment Inspection *
- (* Pending)



Feature

- **Simple, and reliable gas detector**

Bright LED digital display
Maintenance mode function
Programmable alarm relay
Proven Cosmos gas sensor technology

- **Cost effective and easy installation**

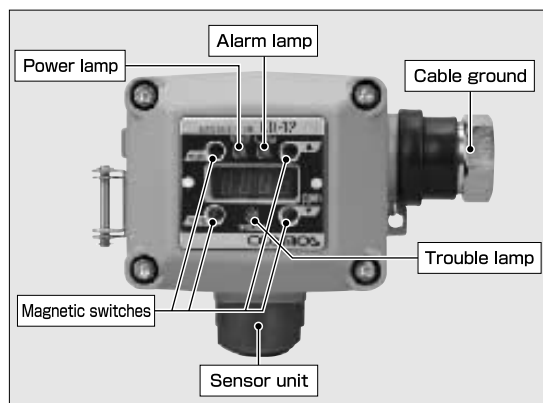
Non-intrusive, one-man calibration with relay deactivation feature
Screw-less terminal blocks
4-20mA linear output and on-board relay (standard)

- **Rugged and compact design**

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

- **Environmentally-friendly product**

Lead-free PC board, electronics parts and solders

**Specifications**

Model	KD-12
Corresponding Sensor Type	Hot wire semiconductor type (KD-12A) or Catalytic combustion type (KD-12B)
Sampling Method	Diffusion
Alarm Accuracy	● Combustible gas: $\pm 25\%$ of Alarm Set Value ● Toxic gas: $\pm 30\%$ of Alarm Set Value
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
Warning Display	● Gas alarm (1st stage only) Red lamp flashes ● Trouble alarm (sensor breaking, sensor zero drop, power supply voltage error, etc.) Yellow lamp flashes
External Output	Gas concentration analog signal (direct linear reading of concentration) ● 4 to 20 mA DC (common to the negative side of power supply) ● 0.9 mA or less at Trouble alarm ● The load resistance of analog signal is to be less than 300Ω including interconnection resistance Gas alarm contact (1st stage only) ● 1a 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	Four-digit digital LED display (direct linear reading of concentration)
Operation	At 4 points of magnetic switches
Cable Connection	Screw-less terminal blocks
Explosion-proof	Ex d IIC T5 (Japan TIIS), Ex d IIC T6 (China Explosion-proof Inspection)
Degree of protection	IP65 (internal instrument)
CE Marked	Complied with CE Directive 89/336/EEC, 92/31/EEC, 93/68/EEC
Applicable Cable	Cable outer diameter (10 to 13 mm dia.) ● 5-conductor cable (power supply, analog signal and gas alarm contact): CVV-S 1.25 mm² ● 3-conductor cable (power supply and analog signal): CVV-S 2mm²
Temperature and Humidity range	Temperature: -10 to 50 degrees C Humidity: 10% to 90% (0 to 50 degrees C) No radical temperature or humidity changes and no condensation.
Power Supply	24V DC (18 to 30V DC)
Power Consumption	3 W or less
Dimensions	158(W) x 116 (H) x 68 (D) mm (excluding protrusions)
Weight	Approx. 1.2kg



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