



FEATURES

- Simpler, smarter and reliable gas detector with digital display
- Simple and cost effective installation
- Rugged, compact and lightweight design
- Environmental friendly product
- NDIR (non-dispersive infrared sensor) mounted type
- Approvals:
 - Ex d IIC T5 (KD-12A/B/C)
 - Ex d IIB T5 (KD-12D/R/O)
 - ATEX standard (KD-12A/B/C/D/O/R)
 - CE Marking (EMC Directive)
 - SIL2 (KD-12B)

Specifications

| Model | KD-12A | KD-12B | KD-12C | KD-12R | KD-12D | KD-12O |
|--------------------------------------|--|----------------------|----------------------------------|---|--|-------------------------------------|
| Detection Principle | Hot wire semiconductor | Catalytic combustion | Thermal conductivity | Non-dispersive infrared | Electrochemical cell | |
| Target Gas | Combustible / Toxic gas | | Hydrogen, Helium, Carbon dioxide | Methane, Carbon dioxide | Carbon monoxide | Hydrogen sulfide Oxygen |
| Sampling Method | Diffusion type | | | | | |
| Detection Range | As per specifications | | | | 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 |
| Alarm Accuracy | Combustible gas: +/-25% of alarm set value Toxic gas: +/-30% of alarm set value | | | +/-25% of alarm set value | +/-30% of alarm set value | |
| AResponse Time | Combustible gas: within 30s at 1.6 times of alarm set value. Toxic gas: within 60s at 1.6 times of alarm set value | | | Within 30s at 1.6 times of alarm set value | Within 60s at 1.6 times of alarm set value | |
| Warning Display | Gas alarm: Red LED lamp flashes Trouble alarm: Yellow LED lamp flashes (sensor trouble, power voltage malfunction, etc.) | | | | | |
| Display | Four-digit digital LED display | | | | | |
| Operation | At 4 points of magnetic switches | | | | | |
| Approvals | Ex d IIC T5 (ATEX) | | | Ex d IIB T5 | | |
| Degree of Protection | IP65 | | | | | |
| CE marked | Complied with CE Directive 2004/108/EC | | | | | |
| Applicable Cable | Cable out diameter: 10 to 13 mm 5-conductor cable*3: CVV-S 1.25mm ² , 3-conductor cable: CVV-S 2mm ² or 1.25mm ² | | | | | |
| Operating Temperature and Humidity*4 | Temperature: -10 to 50°C Humidity: 10 to 90%RH (0 to 50°C) | | | Temperature: -10 to 40°C Humidity: 30 to 85%RH | | Temp: 0 to 40°C Hum: 30 to 85%RH |
| Power Supply | 24V DC (18 to 30V DC) | | | | | |
| Power Consumption | 3W max. | | | 2.2W max. | 1.2W max. | |
| Dimensions | W158 x H116 x D68mm (excl. protrusion) | | | W158 x H120 x D68mm (excl. protrusion) | | |
| Weight | Approx. 1.2kg | | | Approx. 1.3kg | | |

*1 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 condensing.