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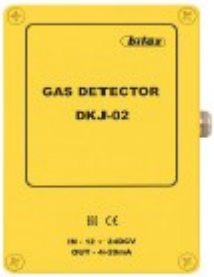
DKJ-02 4–20mA Series Gas Detectors© UAB “Bitas”, 2025



1. General Information

Series: DKJ-02 (stationary industrial gas detectors)
Output: Standard 4–20mA current signal, compatible with controllers and control panels.
Purpose: Continuous monitoring of air quality in work areas and rooms, alarm systems, and ventilation control.
Warranty period: 24 months (unless otherwise specified).
Compliance: EN61010-1, EN50270 (EMC), and other standards related to gas detection.
Dimensions: (80×125×57) mm
Weight: 0.54 kg
Coverage area: Up to 80–100 m^2, depending on gas type, room ventilation, and installation location.
Compatibility: Works with US-12 4–20mA control panels and other manufacturers’ systems using standard 4–20mA inputs.

2. Technical Data (General)

Power supply: 12–24 V DC
Output: 4–20 mA
Accuracy: ±3% F.S. (depending on sensor type and range)
Operating temperature: –20 °C … +50 °C
Relative humidity: 15–90% RH (non-condensing)
Protection rating: IP67 (aluminum housing with anti-corrosion coating)
Calibration: Factory-set; periodic recalibration recommended according to operating conditions.

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3. Design and Operating Principle

The aluminum housing is intended for fixed installation. The internal electronics process the sensor signal and convert it into a proportional 4–20 mA current output.
Different sensor types are used depending on the target gas:
- Electrochemical: for toxic gases and O_2
- Catalytic or semiconductor: for combustible gases and VOCs

4. Operating Instructions (Summary)

1. Install the detector in an appropriate location based on gas properties and airflow.
2. Connect the 12–24 V DC power supply and the 4–20 mA output to the controller or central system.
3. After powering on, allow time for signal stabilization.

5. Safety Requirements

Only qualified personnel may perform installation and maintenance.
Observe electrical safety and EMC regulations.
Avoid exposure of the sensor to aggressive chemicals and mechanical shocks.
In explosion-hazard zones, use detectors with the appropriate protection category.

6. Maintenance and Servicing

Calibrate every 12–24 months or according to working conditions.
Regularly clean the outer cover; do not use solvents.
Replace the sensor if calibration fails or the signal becomes unstable.

7. Transportation and Storage

Transport in the original packaging, protecting from shocks and moisture.
Store in a dry, ventilated area, avoiding extreme temperatures and condensation.

8. Disposal

Dispose of the unit as electronic waste in accordance with EU waste management regulations.
No batteries are contained within the detector.

9. Installation Instructions

Mount to a wall or structure using the housing mounting holes.
Ensure free air access to the sensor.
Recommended installation height depends on the gas density and risk area.

10. Model List and Typical Ranges*

Model	Gas	Range	Sensor Type
DKJ-02 NO	Nitric oxide (NO)	0–50 / 0–100 ppm	Electrochemical
DKJ-02 CO_2	Carbon dioxide (CO_2)	0–5000 ppm	NDIR

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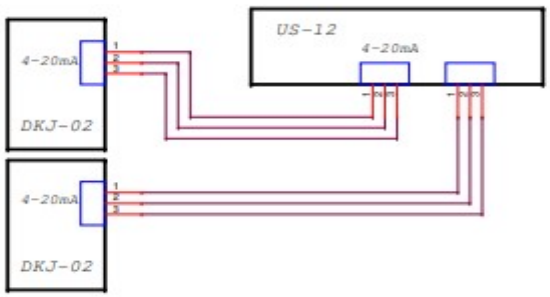
DKJ-02 Cl	Chlorine (Cl_2)	0–10 ppm	Electrochemical
DKJ-02 CH_2O	Formaldehyde (CH_2O)	0–10 ppm	Electrochemical
DKJ-02 NH_3	Ammonia (NH_3)	0–100 ppm	Electrochemical
DKJ-02 NO_2	Nitrogen dioxide (NO_2)	0–30 ppm	Electrochemical
DKJ-02 H_2S	Hydrogen sulfide (H_2S)	0–100 ppm	Electrochemical
DKJ-02 CO	Carbon monoxide (CO)	0–300 ppm	Electrochemical
DKJ-02 $(CH_3)_2CO$	Acetone ($(CH_3)_2CO$)	0–50 %LEL	Catalytic
DKJ-02 H_2	Hydrogen (H_2)	0–50 %LEL / 0–100 %LEL	Catalytic
DKJ-02 C_2H_2	Acetylene (C_2H_2)	0–50 %LEL	Catalytic
DKJ-02 O_2	Oxygen (O_2)	0–30 %VOL	Electrochemical
DKJ-02 LPG	Liquefied Petroleum Gas	0–50 %LEL / 0–100 %LEL	Catalytic
DKJ-02 CH_4	Methane (CH_4)	0–50 %LEL / 0–100 %LEL	Catalytic

*Note: Listed ranges are typical examples. Exact parameters may vary depending on the model.

11. Electrical connection diagram



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Contacts and Additional Information

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This document summarizes the general technical specifications of the DKJ-02 4–20 mA series and is intended for use as a general reference specification.