

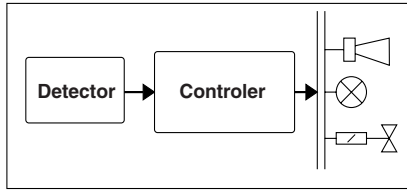
## GMC 8364 CAN



## Data Sheet



### Application



The controller system GMC 8364 CAN, in combination with Gasmonitor CO-300 detectors, has the following functions:

- Measurement and display of the current gas concentration at each measuring point.
- Monitoring gas concentration and warning when it is too high.

### Set-up

A GMC 8364 CAN installation consists of the following components:

- Up to 32 detectors
- An evaluation system comprising:
  - GMC 8364 CAN
  - Output board DIO-32 for connecting an alarm relay
  - Mains unit
- Controlled units, such as:
  - Ventilators
  - Warning lights
  - Warning signs
  - Horns
  - Solenoid valves

### Product Features

- TÜV Type Examination Certificate to VDI 2053 „Ventilation installations for garages and tunnels“.
- Up to 32 detectors can be connected
- DIO-32 board: 32 freely-programmable OpenCollector outputs for connecting an alarm relay.
- Various detection gases can be programmed
- 3 alarm outputs per measurement channel
- Alarm can be given on the basis of a time-average reading or an instantaneous reading.
- Alarm can be given on the basis of a threshold being exceeded or undershot
- Alarm triggering can be tested without test gas.
- Plain text instructions for simple operation in backlit alpha-numeric display.
- Fault monitoring for:
  - Sensor defects
  - Computer errors
- Automatic notification of servicing dates.
- Suppression of individual measuring points.

### How It Works

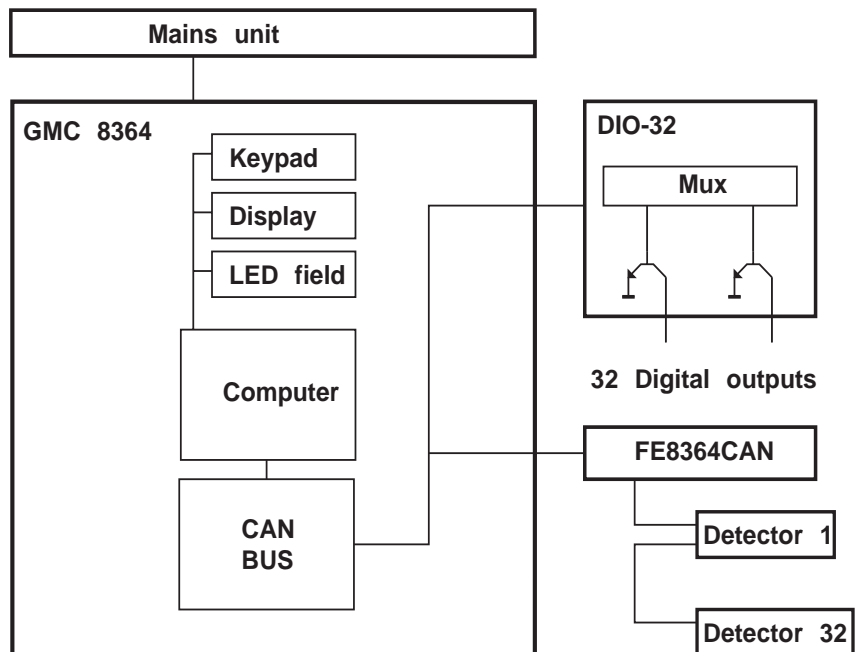
- **Inputs**  
Up to 32 detectors can be connected to a GMC. They transmit measurement data to the controller using the CAN-BUS protocol. Up to four signal groups can be connected to the controller. In addition, the power supply to the sensors (24VDC, GND) is transmitted. The essential filter board FE8364CAN protects the system from electromagnetic interference.
- **Outputs**  
All 32 outputs of the output board DIO-32 are Open Collector outputs. In practice, this means that at each output a relay (24V types with appropriate load characteristics) can be operated directly. These outputs can be freely defined: The relays have functions assigned to them: fail-safe, latching, blinking (warning lights), cutting out after 2 minutes (horns), resettable using the RESET button.



**How It Works**

- Controller GMC 8364 CAN**  
 Mechanically, the controller is designed as a panel-mounting housing. On the front, there are the control elements and a 2-line, backlit LCD display for programming and showing readings. LEDs show the current alarm status of all measuring points.
- Functions of the GMC 8364 CAN**  
 The system differentiates between programming a measuring point and detection mode. The system can accept a maximum of 32 measuring points and 10 different detection modes. In detection mode, the following parameters are defined: detection gas, measuring range limits, and the three possible alarm thresholds. The system also asks whether the alarm should be triggered when the level is exceeded or undershot. It is thus possible to enter a switching hysteresis. In addition, a switch-on delay in the range 0 ... 200 seconds can be assigned to each threshold. Time-average thresholds (only alarms 1...3) can be programmed in the range 1 ... 60 minutes. A detection mode must be assigned to each measuring point. The three alarm stages for each measuring point can be freely assigned to an output (relay). As a rule, the system will be operated in the basic configuration with 3 alarm stages. Alarm threshold 3 can have a fourth instantaneous threshold superimposed. This option can be used if alarm threshold 3 is programmed as a time-average, and a further instantaneous threshold should be assigned to it. For testing the entire installation, manual alarms can be triggered without the need for test gas. Using a password, individual measuring points can be excluded from routine alarm evaluations. System data entry is also password-protected. To ensure the safety of the system, the password can be changed by the operator at any time. When required, the system automatically indicates the next servicing date.

**Block Diagram**




**Technical Data**

 ● **GMC 8364 CAN**

	<b>GMC 8364 C</b>
Measurement channels	Max. 32 (CAN BUS)
Suitable detectors	- Gasmonitor CO-300 - Gasmonitor NO2-300
Outputs	- Alarm signals: DIO 32: 32 (open collector) - Sensor fault (open collector) - Device fault (open collector)
Reset	Input for external reset
Alarm stages	- 3+1 freely-definable alarm stages for each measurement channel - Alarm characteristics: - freely-definable time-average 0 ... 60 min. - alarm signal with switch-on delay (0...200 sec.) - Every alarm stage can be defined as: - a collective alarm for several detectors - latching / non-latching - alarm given on exceeding / undershooting - switch-on delay - blinking - resettable
Display elements	- Two-line LCD display - LEDs for: - ready for operation - fault - programming - Alarm 1 - Alarm 2 - Alarm 3 - horn
Control elements	Four buttons for: - horn and alarm reset - menu guidance - programming
Supply voltage	21.7 ... 28 VDC, SELV
Current draw	Ca. 250 mA DC
Operating temperature	0 ... +50°C
Storage temperature	-10 ... +50°C

 ● **Output Board DIO-32**

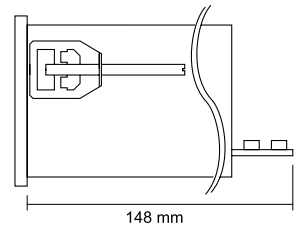
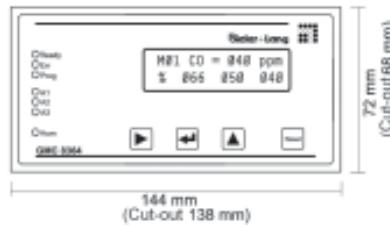
<b>Type</b>	<b>DIO-32</b>
Control outputs (open collector)	32 freely-programmable
Output loading	Up to 27.6 V DC, max. 50 mA DC
Operating voltage	21.7 ... 27.6 V DC, SELV
Current draw	60 mA DC plus current draw of relay
Operating temperature	0 ... +50°C
Storage temperature	-10 ... +50°C



### Mechanical Data

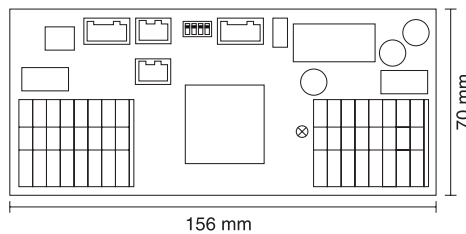
- GMC 8364 CAN

Design	Panel-mounting housing
Weight	Ca. 500 g
Dimensions (H x B x D)	72 x 144 x 148 mm
Mounting cut-out (H x B)	68 x 138 mm
Connection terminals	1.5 mm <sup>2</sup>
Housing material	Flame-resistant Noryl
Degree of protection	IP 30



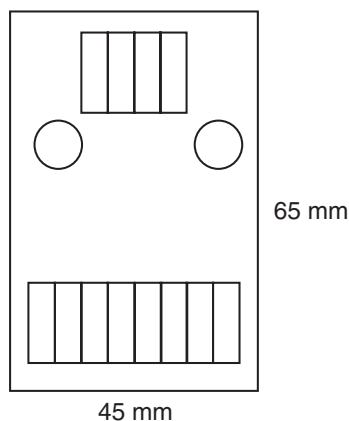
- Output Board DIO-32

Weight	Ca. 230 g
Design	Suitable for DIN-rail mounting
Dimensions (H x B x D)	70 x 156 x 76 mm
Connection terminals	1.5 mm <sup>2</sup>



- Suppression Module FE8364CAN

Weight	Ca. 35 g
Design	Suitable for DIN-rail mounting
Dimensions (H x B x D)	65 x 45x 40 mm
Connection terminals	1.5 mm <sup>2</sup>





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**Certificates**

Type Examination Certificate to VDI 2053 (Ventilation plant for garages and tunnels) in combination with the detector Gasmonitor CO-500. Inspection No. 432-987996, TÜV Rheinland.

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**Safety**

Compliance with the following standards ensures the highest levels of safety and reliability:

- EN 50081-1 01/1992 EMC - Interference emissions
- EN 50082-2 02/1995 EMC - Resistance to interference
- EN 61010-1 03/1994 Low Voltage Directive
- EN 60439-1 04/1994 Low Voltage Directive

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**Accessories**

- Horns
- Warning lights
- Warning signs
- Warning signs with integral emergency power supply
- Solenoid valves
- Mains units
- Central emergency power supply, consisting of:
  - charging unit
  - batteries of appropriate capacity
- Test gas set

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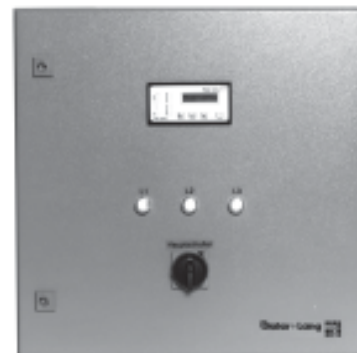
**Service**

Everything from a single supplier - from system design to installation of your new gas warning system. The comprehensive coverage of our sales and service network ensures this. Ask us about regional representatives in your area. And after purchase, our service technicians are available to help and advise.

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**Customer-specific Installations**

Our sales representatives and service technicians are always ready to help find solutions to your measurement and control problems. A comprehensive range of equipment, housings and accessories combined with decades of experience enable us to design and install a measuring system especially for your application.



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