

PolyGard® Gas Controller MGC-02

Description

Gas measuring controller series for continuous monitoring and warning of toxic, combustible and refrigerant gases and vapours.

The Gas Controller series MGC-02 can monitor up to 24 analog gas transmitters with 4 to 20 mA signal. Five alarm thresholds are adjustable to each channel. For activating the alarm up to 20 relays with changeover contacts are available.

The free adjustable parameters and alarm threshold enable a very flexible use in the gas measuring technique. Simple and comfortable commissioning is granted by the factory adjusted parameters.

The configuration, parameter settings and operation is easy to do without programming knowledge.

The Gas Controller MGC-02 is equipped with a self monitoring system and with a power supply monitoring. The analog inputs are monitored to detect short-circuit and wire break.

Optionally the gas controller has got a serial interface.

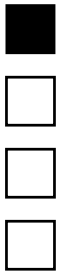
Additionally the gas controller is available with emergency power supply.

Application

The MGC-02 gas controller is used for monitoring and warning of toxic and combustible gases as well as of Freon refrigerant.

The MGC-02 gas controller fulfills the functions of monitoring Carbon monoxide (CO) in garages and tunnels etc. in accordance with VDI 2053 and ÖNORM. Additionally ammonia (NH₃)- refrigerant plants can be monitored in accordance with the requirements EN 378, VBG 20 and with the guidelines "safety-relevant requirements for ammonia refrigeration systems".

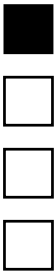
Due to free configurable parameters and alarm thresholds the MGC-02 gas controller is suitable for various applications in the range of gas measurement and monitoring.





Features

- Up to 24 analog inputs, 4 to 20 mA to one controller
- For larger Projects cascadable max. three controllers (72 analog inputs)
- For monitoring CO, CO₂, NO, NO₂, NH₃, O₂, combustible gases and Freons
- Simple and comfortable commissioning due to configuration with standard parameter
- Logical system menu in different languages
- Flexible configuration by programmable parameters
- Five adjustable alarm thresholds for each channel
- Up to 20 relay with DPDT, potentialfree, max. 250 VAC, 5A.
- Failure relay with DPDT, potentialfree, max. 250 VAC, 5A
- Two analog outputs, 4 mA to 20 mA
- Conform to VDI - 2053
- Shapely, durable housing
- Housing lockable (optional)
- Serial interface (optional)
- Emergency power supply (optional)
- Power fail flashing light (optional)
- Integrated buzzer (optional)



Specifications

Electrical	
Power supply	110/230 VAC 50/60Hz; 24 VAC/DC -10% + 20%
Power consumption (inkl. max. AT) MGC-02-04-04 MGC-02-08-08 to MGC-02-12-12 MGC-02-16-16 to MGC-02-24-16	13 W, 500 mA 27 W, 1100 mA 55 W, 2200 mA
Option Emergency power supply	Supply duration 60 minutes
Analog input (max. 24)	4 to 20 mA, overload-proof and short-circuit-proof, input resistor 200 Ω
Power supply for external analog transmitters	24 VDC max. 50 mA / channel
Analog output (2), Free adjustable to each channel.	4 to 20 mA, overload-proof and short-circuit-proof, max. 500 Ω
Alarm relay (max. 20)	250 VAC, 5 A, potentialfree, DPDT
Failure relay (1)	250 VAC, 5 A, potentialfree, DPDT
Option buzzer - Acoustic pressure - Frequency	85 dB (Distance 300 mm) 3,5 kHz
Visualization	
Display	Two lines, each 16 characters, illumination.
Status LED	Yellow = Status Alarm; Red = Failure
Operation	6 Push button
Gases¹	
Gas Transmitter external	CO, CO ₂ , NO, NO ₂ , NH ₃ , O ₂ , combustible gases and Freons
Environmental	
Humidity	15 – 95 % RH non-condensing
Working temperature	-10° C to + 50° C (14 °F to 122 °F)
Storage temperature	0° C to + 50° C (32 °F to 122 °F)
Physical	
Enclosure	Plastic housing with view cover
Color	RAL 7035 (gray)
Protection class	IP 65
Weight ² MGC-02-04-04 MGC-02-08-08 to MGC-02-12-12 MGC-02-16-16 to MGC-02-20-16 MGC-02-24-16	2,7 kg (6.0 lbs.) 4,0 kg (9.0 lbs.) 6,0 kg (13.5 lbs.) 7,5 kg (16.5 lbs.)
Mounting	Wall mounting
Cable entry	M 16; M 20; M 25
Wire connection: Power supply Relay Input	Screw type: 2,5 mm ² (14 AWG) Spring type: 0,5 to 1,5 mm ² (22 to 16 AWG) Spring type: 0,5 to 1,5 mm ² (22 to 16 AWG)
Dimensions ² (W x H x D) MGC-02-04-04 MGC-02-08-08 to MGC-02-12-12 MGC-02-16-16 to MGC-02-20-16 MGC-02-24-16	298 x 260 x 140 mm (11.7 x 10.2 x 5.5 in.) 298 x 420 x 140 mm (11.7 x 16.5 x 5.5 in.) 298 x 570 x 140 mm (11.7 x 22.5 x 5.5 in.) 410 x 655 x 140 mm (16.2 x 25.8 x 5.5 in.)
Guidelines	EMV – Guidelines 89/336/EWG; CE Low voltage guideline 73/23/EWG VDI 2053
Warranty	One year on material and workmanship

¹ Other gases on request ² Data for plastic enclosure

Order Information

MGC-02-00-00-00000

Option

1XXXX	Emergency power supply
X1XXX	Power fail flashing light
XXX1X	Integrated buzzer
XX1XX	Housing lockable
XXXX0	Language German
XXXX1	Language English
XXXX2	Language USA
XXXX3	Language Netherlands
XXXX4	Language Danish

Version

04-04	04 Measuring point, 05 Relay
08-08	08 Measuring point, 10 Relay
12-12	12 Measuring point, 15 Relay
16-16	16 Measuring point, 20 Relay
20-16	20 Measuring point, 20 Relay
24-16	24 Measuring point, 20 Relay

Enclosure

0X	Plastic Enclosure (Standard)
1X	Metal Enclosure

Example: MGC-02 with 12 measuring points, 15 relays, Language English, buzzer.
Order No. **MGC-02-12-12-00011**

Connecting diagram

(Example MGC-02-04-04)

