

## PolyGard® Digital Gas Controller DGC-03

### DESCRIPTION

Gas measuring and monitoring controller based on state-of-the-art micro-technology with internal buzzer for the continuous monitoring of the ambient air and detecting carbon monoxide gases and vapours.

The DGC-03 can monitor up to 16 digital transmitters of the  $\mu$ -Gard series MD via the RS 485 bus. Alternatively it can also monitor 8 digital MD transmitters each combined with an analog transmitter of the  $\mu$ -Gard series MA. Up to four alarm thresholds are free programmable per input at the basic unit. Two alarm relays and one open collector output are provided for the alarm messages. Relay modules REL-03 are available in different versions for further alerting.

Configuration and operation are possible via the logical, simple system menu structure without specific programming knowledge.



Standard enclosure

### APPLICATION

The DGC-03 is especially designed for the use in underground garages and multi-storey car parks.

The DGC-03 gas controller fulfils the functions of monitoring carbon monoxide (CO) in garages according to VDI 2053, ÖNORM, NEN 2443 etc.

### FEATURES

- Maximum 16 transmitters MD or 8 MD transmitters with one MA analog transmitter each
- Especially suitable for monitoring underground garages and car parks
- Logical menu structure in different languages
- Simple, fast commissioning due to pre-configuration with standard parameters and set-points
- Comfortable calibration and maintenance
- Four free programmable alarm thresholds per channel
- Modular design (plug-in technology)
- Serial interface RS 485
- Two alarm relays, potential-free, max. 30 VAC/DC, 0,5 A
- One open collector output, max. 24 VDC, 50 mA
- (0) 4 – 20 mA / (0) 2 – 10V analog signal output
- IP 65 version
- Enclosure fire-resistant according to UL 94V2
- Integrated warning buzzer with reset function internal/external
- 230 VAC power supply (option)
- Power relay (250 VAC, 5 A) (option)
- LED flash signal (option)
- Heating (option)

## SPECIFICATIONS

<b>Electrical</b>	
Power supply	18 - 28 VDC/AC, reverse polarity protected
Power consumption (basic unit without options)	100 mA, max. (2,5 VA)
Tension for external analog transmitter	24 VDC max. charge 50 mA
Analog output, current or voltage selectable	(0) 4 – 20 mA, charge ≤ 500 Ω (0) 2 – 10 V, charge ≥ 50 kΩ overload-proof and short-circuit-proof
Alarm relay (1)	30 VAC/DC 0,5 A, potential-free, SPDT
Alarm relay (1)	30 VAC/DC 0,5 A, potential-free, SPNO/SPNC
Binary output (1)	30 VDC /0,05 A open collector output
<b>Visualisation</b>	
Display	Two lines, 16 characters each
Status LED (4)	Normal operation- Fault- Alarm1- Alarm 2
Operation	4 push-buttons – menu-driven
<b>Buzzer</b>	
Acoustic pressure	83 dB (A) (distance 200 mm/ 0.6 ft )
Frequency	2300 Hz
<b>Serial interface</b>	
Transceiver	RS 485 / 19200 Baud
<b>Gases</b>	
Gas transmitter MD and MA series	CO, NO, NO2, LPG
<b>Operating environment</b>	
Humidity	15 – 90 % RH non-condensing
Working temperature	-10 °C to + 50 °C (14 °F to 122 °F)
Storage temperature	5 °C to 30 °C (41 °F to 86 °F)
Pressure range	Atmospheric ± 10 %
<b>Physical</b>	
Enclosure <b>plastic type C</b>	Polycarbonate
Flammability	UL 94 V2
Enclosure colour	RAL 7032 (light grey)
Dimensions (W x H x D)	130 x 130 x 75 mm (5.12 x 5.12 x 2.95 inch.)
Weight	Approx. 0.6 kg (1.323 lbs.)
Protection class	IP 65
Installation	Wall mounting
Cable entry	Standard 6 x M 20
Wire connection	Screw type terminal, min. 0.25 mm <sup>2</sup> (24 AWG) max. 2.5 mm <sup>2</sup> (14 AWG)
<b>Guidelines</b>	
	EMC Directive 2004/108/EEC Low Voltage Directive 73/23/EEC VDI 2053 CE
<b>Warranty</b>	1 year on material

# GAS ALARM SYSTEMS

## Options

### Flashlight

IP65, LED, 3500 lm.

### Heating

Temperature controlled

3 °C ±2°C (37.5 °F ± 3,6 °F)

Ambient temperature

- 40 °C (- 40 °F)

Power supply

18 - 28 VDC/AC

Power consumption

0,3 A; 8 VA

### Power supply 230 VAC

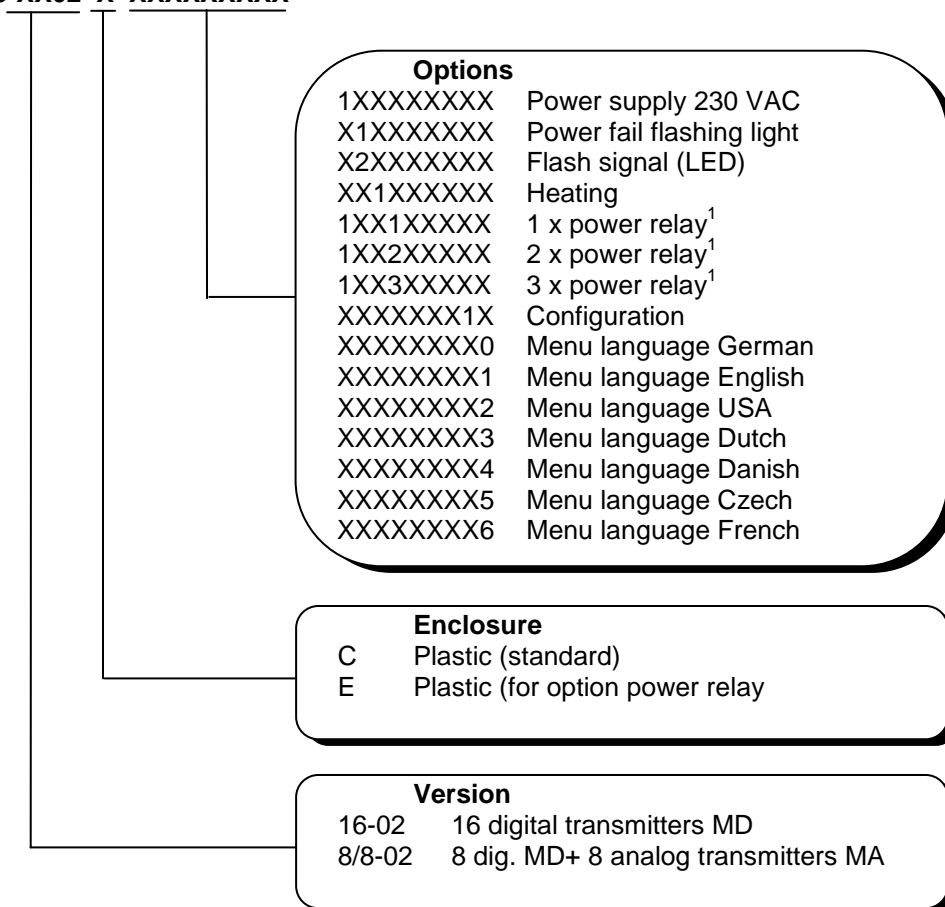
90 -230 VAC 50/60 Hz

### Power relay

250 VAC, 5 A, potential-free, change-over cont.

## ORDERING INFORMATION

DGC-03-XX02-X-XXXXXXXXXX



<sup>1</sup> Only in combination with power supply 230 V

**Example:** Gas Controller MGC-03 for 16 bus transmitters MD, standard plastic housing, power fail flashing light, factory configuration, language English

**Ordering number: DGC-03-1602-C-01000011**

## CONNECTING DIAGRAM

