

PolyGard® 2-channel Gas Controller MGC-03

DESCRIPTION

Gas measuring and monitoring controller based on state-of-the-art micro-technology with integrated buzzer for continuous monitoring of the ambient air and detecting toxic and combustible gases and vapours as well as oxygen and Freon refrigerants. Other physical values with analog output signal can be connected as well.

The MGC-03 is equipped with two analog inputs for the connection of external transmitters including detection of wire break and short-circuits. Up to four alarm thresholds are free programmable per input. Two alarm relays and one open collector output are available for the alarm messages.

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



Standard enclosure

APPLICATION

The MGC-03 is suitable for a wide range of commercial and industrial applications. Free programmable parameters and set-points enable the individual adaptation to a variety of possible applications in the field of gas measuring and monitoring.

FEATURES

- Suitable for toxic and combustible gases and vapours, oxygen, refrigerants, temperature, pressure, humidity etc.
- 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)
- Two analog inputs for standard current/ voltage signals
- Two alarm relays, potential-free, max. 30 VAC/DC, 0,5 A
- One open collector output, max. 24 VDC, 100 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
- 230 VAC power supply (option)
- Power relay (250 VAC, 5 A) (option)
- Uninterruptible emergency power supply (option)
- LED flash signal (option)
- Heating (option)

SPECIFICATIONS

Electrical	
Power supply	18 - 28 VDC/AC, reverse polarity protected
Power consumption (without options)	100 mA, max. (2,5 VA)
Analog input (2)	4 – 20 mA, input resistance 200 Ω, (0) 2 – 10V, input resistance 25 kΩ, overload-proof and short-circuit-proof
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 /0,1 A open collector output
Visualisation	
Display	Two lines, 16 characters each
Status LED (4)	Normal operation- Fault- Alarm1- Alarm 2
Operation	4 push-buttons – menu-driven
Buzzer	
Acoustic pressure	83 dB (A) (distance 200 mm/ 0.6 ft)
Frequency	2300 Hz
Monitored medium	
Toxic, combustible, refrigerant gases and vapours, oxygen, temperature, humidity, pressure, etc.	with 4 -20 mA / (0) 2 -10 V signal
Operating environment	
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 %
Physical	
Enclosure plastic type C	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 (1.32 lbs.)
Protection class	IP 65
Installation	Wall mounting
Cable entry	Standard 6 x M 20
Wire connection	Screw type terminal, min. 0.25 mm ² (24 AWG) max. 2.5 mm ² (14 AWG)
Guidelines	
	EMC Directive 2004/108/EEC
	Low Voltage Directive 73/23/EEC
	CE
Warranty	1 year on material

GAS ALARM SYSTEMS

Options

Flash signal	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 -250 VAC 50/60 Hz
Emergency power supply	Supply duration 60 min. (only meas. system)
Power relay	250 VAC, 5 A, potential-free, change-over cont.

ORDERING INFORMATION

MGC-03-0202-X-XXXXXXXXXX

	Options
1XXXXXXXXX	Power supply 230 VAC
2XXXXXXXXX	EPS
X2XXXXXXXX	Flash signal (LED)
XX1XXXXXXX	Heating
1XX1XXXXXX	1 x power relay ¹
1XX2XXXXXX	2 x power relay ¹
1XX3XXXXXX	3 x power relay ¹
	Analog input (2)
XXXXX1XXX	4 - 20 mA and 0 - 10 V
XXXXX2XXX	4 - 20 mA and 2 - 10 V
XXXXX3XXX	2 x 2 - 10 V
XXXXX4XXX	2 x 0 - 10 V
XXXXX5XXX	2 x 4 - 20 mA
XXXXXX1XX	Power fail flashing light
XXXXXXX1X	Configuration
XXXXXXX0	Menu language German
XXXXXXX1	Menu language English
XXXXXXX2	Menu language USA
XXXXXXX3	Menu language Dutch
XXXXXXX4	Menu language Danish
XXXXXXX5	Menu language Czech
XXXXXXX6	Menu language French

Enclosure

C	Plastic (standard)
E	Plastic (for options EPS/ power relays)

¹ only in combination with power supply 230V

Example: Gas Controller MGC-03 standard plastic housing, 4-20 mA / 2-10 V analog input, factory calibration, language English

Ordering number: MGC-03-0202-C-000002011

CONNECTING DIAGRAM

