RELIABLE AND EXCLUSIVE CONTROL FOR GAS DETECTION

Features the Honeywell Modbus Master Protocol available exclusively for Honeywell Sensepoint XCL and XRL gas detectors

PolyGard®2 Multi-Gas Controller MGC2-K

Honeywell

GAS PROTECTION FOR COMMERCIAL AND LIGHT INDUSTRIES

When leaks of combustible or toxic gases occur, the PolyGard®2 multi-gas controller enables you to take immediate action to protect people and systems.

The PolyGard®2 Multi-Gas Controller MGC2-K is designed for detection of toxic, combustible, or dangerous gases in many commercial and industrial applications.

Three analog sensors with a 4–20 mA signal and eight digital sensors via RS-485 communication from Sensepoint XCL and XRL sensors can be connected to the controller, which helps to reduce installation costs.

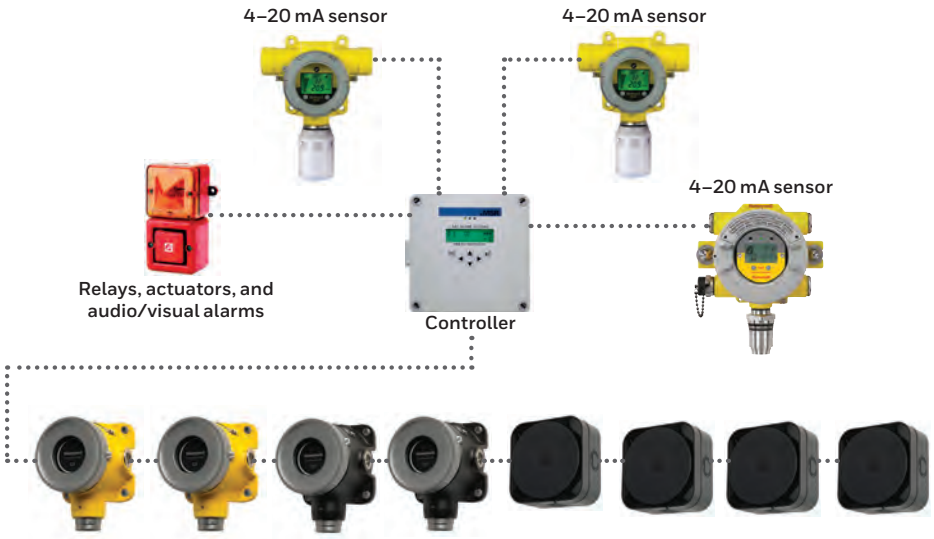
The controller monitors the measured values and activates the alarm relays if the set local alarm thresholds for pre-alarm and main alert have been exceeded or if there are alarm messages coming from the eight digital sensors.

The controller includes the Honeywell Modbus Master Protocol available exclusively for Honeywell Sensepoint XCL and XRL gas leak detectors.

KEY FEATURES

- Internal function monitoring with integrated hardware watchdog
- Hardware and software according to SIL2-compliant development process
- Reverse-polarity protected; overload and short-circuit proof
- Three analog inputs 4–20 mA
- Three relays with change-over contact, potential-free max. 250V AC, 5 A
- Two transistor outputs, 24V DC, 0.1 A (plus switching)
- Serial RS-485 interface with Modbus protocol
- Display with multicolor power LED

Industrial and Commercial Controller System



Up to eight digital sensors via Modbus RS-485 communication from the Sensepoint XCL and XRL sensors

INDUSTRIAL AND COMMERCIAL APPLICATIONS:

- Waste Water
- Power Generators
- Vehicles / Engines
- Laboratories
- Food Processing / Beverages
- Hospitals
- Boiler Rooms
- Transportation
- Parking Garages

GENERAL SPECIFICATIONS

ELECTRICAL	Power supply		24V DC ±20%, reverse-polarity protected, 24V AC ±15%
	Overvoltage category		I
	Power consumption (24V DC)	Control board Per sensor (analog) Horn / warning light	Max. 60 mA (1.5 VA), without sensor Max. 85 mA (2.1 VA) Max. 40 mA (1.0 VA)
	Alarm relays (3)		240V AC, 5 A, potential-free, change-over contact (SPDT)
	Transistor output (2)		24V DC / 0.1 A (switching to plus) (only at 24V DC power supply)
	Digital input (2)		Potential-free
	Analog input (3)		4–20 mA overload and short-circuit proof, input resistance 200 Ω
	Analog output signal (1)		Proportional, overload and short-circuit proof, load ≤500 Ohm 4–20 mA = measuring range 3.0 < 4 mA = underrange 24V DC ±20%, 24V AC ±15%, reverse-polarity protected >20–21.2 mA = overrange 2.0 mA = fault (not preset)
AMBIENT CONDITIONS	Temperature range		-25°C to +50°C (-13°F to +122°F)
	Humidity range		15–95% RH non-condensing
	Storage temperature		+5°C to +40°C (+41°F to +104°F)
SERIAL INTERFACE	Field bus		RS-485 / 19,200 Baud
	Tool bus		2-wire / 19,200 Baud
PHYSICAL	Housing type C		Polycarbonate
	Combustion		UL94 V2
	Housing color		RAL 7032 (light grey)
	Dimension housing (W x H x D) Type C		130 mm x 130 mm x 75 mm (5.12 in x 5.12 in x 2.95 in)
	Weight		Approximately 0.6 kg (1.32 lb)
	Protection class		NEMA 4X (IP65)
	Installation		Wall mounting
	Knockouts for cable and sensor entry		Standard 6 x M20/25
	Wire connection:	Digital input, analog output Power supply, relays	Screw-type terminal min. 0.25 mm2, max. 1.3 mm2 (24 to 16 AWG) Screw-type terminal min. 0.25 mm2, max. 2.5 mm2 (24 to 10 AWG)
DIRECTIVES			EMC directives 2014/30/EU Low voltage directive 2014/35/EU CE EN 61010-1:2010
WARRANTY			1 year on device
LCD DISPLAY	LCD		Two lines, 16 characters each, background highlighted in two colors
	Operation		Menu-driven via six push-buttons
	Power consumption		5 V, 60 mA, 0.3 VA

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