

GasGard 100 Control System

The GasGard 100 Control System is a scalable, high performance data acquisition/data-logging platform. Open Ethernet connectivity with Web-based configuration and data monitoring functions allows GasGard 100 Controllers to handle a wide range of monitoring and historical logging functions. See real time trends with your Web browser from any PC without the need for special software!

Flexible, modular architecture of the GasGard 100 Control System's main module can manage from one to six I/O modules on the backplane. Up to six GasGard Controllers can be networked to create a complete system. With this capability, each GasGard 100 Controller can serve as a measurement node, monitoring a subgroup of sensors; all communicate back back to a master GasGard Controller. This process can minimize the length of wire and conduit typically necessary for adequately monitoring a facility.

Also available with 10.4" TFT SVGA LED Panel PC with resistive touchscreen to provide improved, intuitive and smart operator control. LED backlight auto-dimming meets the high demands of harsh environments.

The GasGard 100 Control System provides fully integrated measurement, display and recording platforms, that when equipped with MSA's extensive line of transmitters and sensors, form a complete gas detection solution.

Highly Flexible System Configurations

- Main module serves as data acquisition engine and LAN connectivity, and manages from one to six I/O modules on the backplane
- By linking two or more strategically-placed GasGard 100 Controllers to the central controller, wiring and conduit expenses are decreased

Communications

- Communicate with both analog and Modbus field devices.
- Interface with PLCs and other control devices through Modbus/TCP and Modbus/RTU

Data Monitoring

Customize your layout configuration. Create your own viewing screen by choosing bar graphs, digital read outs, trending analyses and more

Event and Data Functions

Built-in trigger function allows data recording to start based upon alarm values, time, external contact input or other parameters

Data Reporting Capabilities

Create customized hourly, daily, weekly, and monthly reports that can be saved and uploaded for further processing and review

Email Alert Feature

React immediately with email messaging feature; you are instantly alerted to out-of-the-ordinary occurrences—as they occur



GasGard 100 Control System Specifications*	
POWER SUPPLY	90 to 250 VAC 50/60 Hz
OPERATING TEMPERATURE	-20°C to 50°C (-4°F to 140°F)
RACK ENCLOSURE	24 x 24 fiberglass enclosure (accepts up to 6 I/O) shall not exceed 45°C; no internal power supply. With 240 W internal power supply, reading shall not exceed 35°C
	6x20 small enclosure (accepts up to 3 I/O) shall not exceed 45°C; no internal power supply.
TYPES OF MEASUREMENTS	mA (standard), DC voltage, DI (non-voltage contact), level (5 V logic)
CONNECTION MODES	2 wire or 3 wire, mA; RS485 (Modbus)
TERMINAL CONNECTIONS	Max 2.5m ² (12AWG) stranded wire
MAXIMUM NUMBER OF ANALOG INPUTS PER UNIT	50
COMMUNICATION SPECIFICATION	Standard Interfaces: 100Base-TX/10Base-T (auto detect), Ethernet FTP function, E-mail function, DHCP client function, SNTP function, HTTP function, Modbus TCP (server/client), Modbus RTU (master/slave), EtherNet/IP
MAXIMUM NUMBER OF RELAYS PER UNIT	60, programmable
RELAY CONTACT MODE	SPST (Form A), normally energized/de-energized
RELAY CONTACT CAPACITY	250 VDC/0.1 A, 250VAC/2 A, or 30 VDC/2 A (resistance load)
MAXIMUM NUMBER OF ANALOG OUTPUTS	40
ANALOG OUTPUT TYPE	DC voltage, DC current
MAXIMUM RANGE OF ANALOG OUTPUTS	-11 to 11 V or 0 to 22 mA
ENCLOSURE DIMENSIONS	24.0" L x 23.5" W x 8.70" D or 20.2" L x 16.2" W x 8.2" D
INGRESS PROTECTION	Designed to meet NEMA 4X

* Specification is based upon standard configuration

GasGard 100 Control System Approvals (Rack Only)	
CSA	CSA22.2 No 61010-1, overvoltage category II, measurement category II, pollution degree 2
UL	Conforms to UL61010B-1 (CSA NRTL/C)
CE EMC DIRECTIVE	EN61326 Class A EN61000-3-2 EN61000-3-3
LOW VOLTAGE DIRECTIVE	EN61010-1; overvoltage category II, measurement category II, pollution degree 2
FM	Class I Division 2 Groups A, B, C, D