MSA
The Safety Company

GasGard®100
Control System

*Because every life has a **purpose...***

It is critical for plant managers and personnel to have a proactive and diagnostic approach to understanding, analyzing and responding to conditions present inside complex plants and structures, where safety is paramount. Concise records that have the capacity to chronicle events, with corresponding actions, are imperative.

Enter the new GasGard 100 Control System from MSA. At the heart of this personal computer (PC)-based or stand-alone Data Acquisition Platform, is proven technology from Yokogawa that offers an intelligent approach to data acquisition and control raising the bar in Fixed Gas and Flame Detection.

The GasGard 100 Control System is a scalable, high performance data acquisition/data-logging platform. Its open Ethernet connectivity, with web-based configuration and data monitoring functions, allow 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 specialized software!

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

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, forms a complete gas detection solution.

Easy User Interface, Intelligent Architecture and Innovative Functionality

The 10.4" TFT SVGA LED Panel PC with resistive touchscreen provides improved, intuitive and smart operator control. LED backlight auto-dimming meets the high demands of harsh environments.
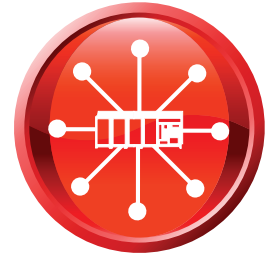
Highly Flexible System Configurations

• Main module serves as the data acquisition engine and LAN connectivity, and manages anywhere from one to six I/O modules on the backplane

• By linking two or more strategically placed GasGard 100 Controllers to the central controller, you can decrease wiring and conduit expenses
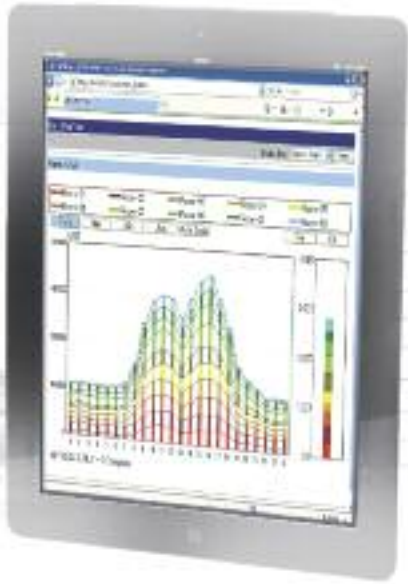
Communications

• Communicate with both Analog and Modbus field devices

• Interface with PLC's and other control devices through Modbus/TCP and Modbus/RTU

• EtherNet provides easy connection to allow modification to your system. Configure, save and view data remotely via touchscreen or PC

Data Monitoring

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

• **Delivers Access for Multiple Users.** Simply connect the GasGard 100 Control System simultaneously to multiple PCs to monitor and share measured data — remote real-time monitoring is available for those times when you can't be physically present

Event and Data Functions

- Built-in trigger function allows data recording to be started based on alarm values, time, external contact input, or other parameters. Progress continuously or according to a specified data length
- Data thinning function allows portions of measured data to be omitted, at regular intervals during measurement, before data is recorded
- Using the trigger and data thinning functions together provides "coarse" recording of general data and captures specific conditions during out of the ordinary events

Data Reporting Capabilities

- Keep facility managers, executives and stakeholders informed with peak efficiency
- Create customized hourly, daily, weekly, and monthly reports that can be saved to the system's compact flash (CF) media and automatically uploaded to an FTP server for further processing and review

Email Alert Feature

- When you can't be physically present, utilize remote real-time monitoring and continuous plant status updates
- React immediately with email messaging feature; you are instantly alerted to out of the ordinary occurrences — as they occur
- Alerts can be sent as a result of alarm conditions, report generation, power failure or system error

5

Delivers Flexibility, Performance and Affordability with Standard Configurations or Customization

The GasGard 100 Control System delivers:
- A seamless integration
- A scalable platform
- A consistent user experience
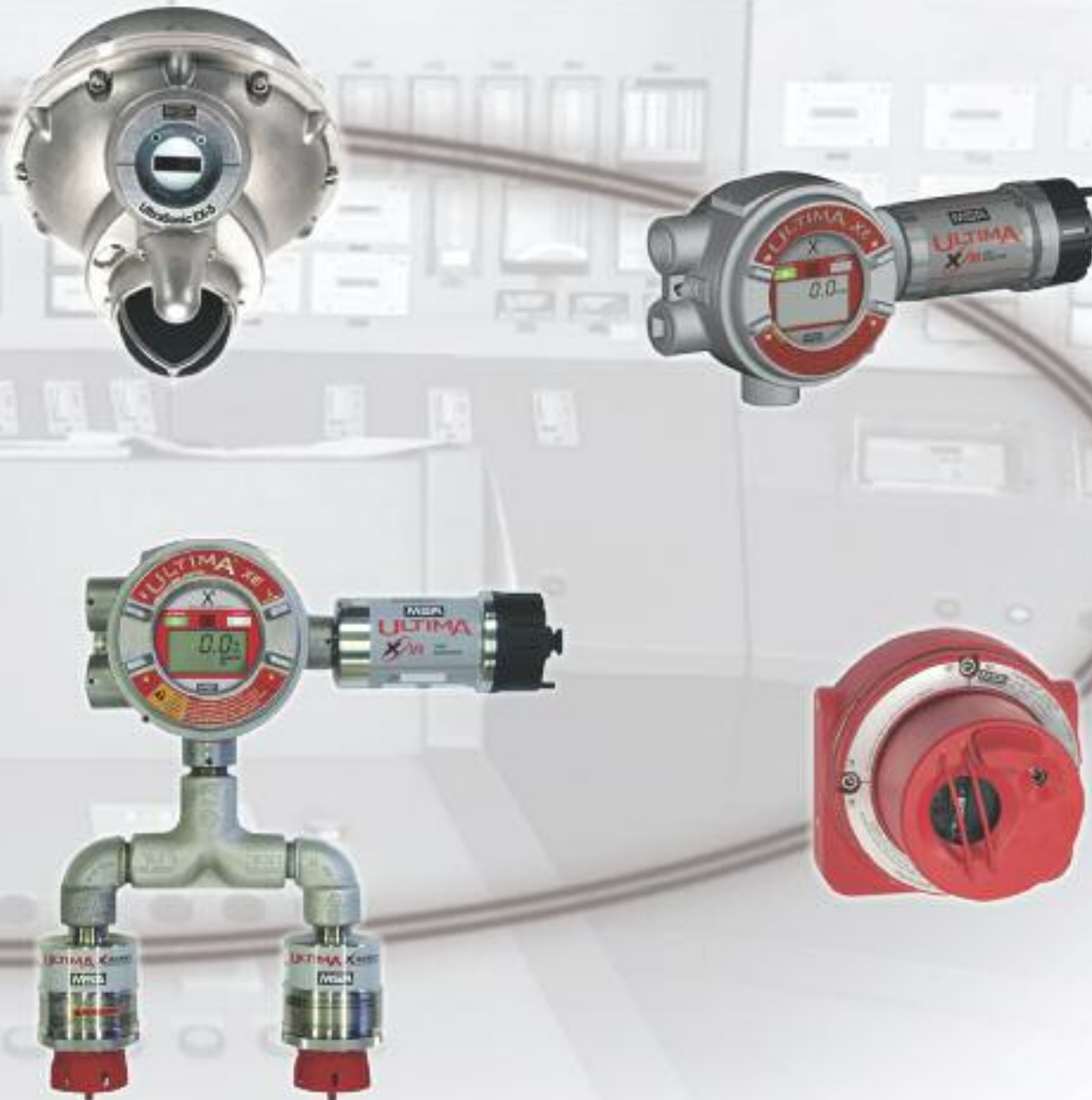- Unique data communications across buildings, industrial plants and data centers

The GasGard 100 Control System's highly adaptable, smart controllers and MSA's extensive line of detectors and monitors, your data acquisition and control challenges can be solved. Our system is so adaptable and modifiable, we are able to provide standard configurations or we can customize an integrated gas detection system designed specifically to suit your needs.

Dedicated to Providing Complete Solutions for Your Gas Detection Needs

For nearly a century, MSA has been at the forefront of hundreds of safety innovations, consistently pushing the envelope in ways that provide the highest levels of safety for workers across the world. With such a rich history in developing and manufacturing the highest quality, leading edge gas and flame detection instruments available, MSA established itself as the global leader in Fixed Gas and Flame Detection and remains dedicated to providing the best products, service, and support in the industry.

We are proud to provide complete solutions for your gas detection requirements. You can select from a variety of enclosures, alarming devices, wiring, configurations and more. Call MSA today to learn more about our standard configurations or to construct your customized gas detection system.

Specifications*

POWER SUPPLY	90 to 250 VAC 50/60 Hz
OPERATING TEMPERATURE	Rack -20°C to 50°C (-4°F to 140°F) Enclosure 24x24 Fiberglass enclosure (accepts up to 6 I/O) shall not exceed 45°C; no internal power supply. With a 240W Internal power supply the 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 2.5m² (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 With Display - 24.0" L x 23.5" W x 12" D
INGRESS PROTECTION	Designed to meet NEMA 4X

* *Specification is based on standard configuration*

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

www.MSAsafety.com