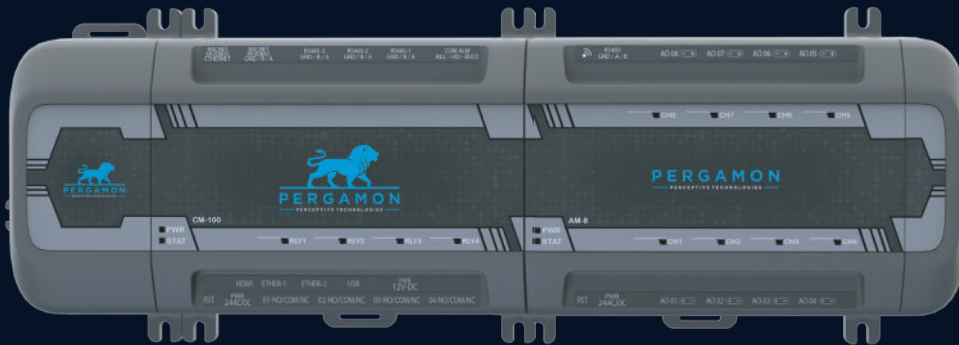




MGMS-200

Multi-Gas Monitoring System



Features

- Supports up to 256 electrochemical, PID, NDIR and pellistor sensors
- Interchangeable smart calibrated sensing modules
- Plug-and-play sensors
- Auto-addressable and self-configurable sensors
- Analog voltage and current output module
- Dry contact relay output module
- RS485 communication protocol sensors to controller
- Modbus or BACnet communication protocol to BMS
- Intuitive web-based graphic user interface
- Visual and audible alarm with mute button
- Fully programmable alarm levels
- Fan override timers
- Sequential, time-based ventilation controls
- Automatic diagnostic and maintenance modes
- Unlimited datalogger
- Low power consumption

Applications

- Parking garages and loading docks
- Warehouses
- Fire stations
- Indoor sports complexes and arenas
- Car dealerships and maintenance facilities
- Airports, schools and hospitals
- Farms and greenhouses
- Battery and boiler rooms
- Chemical storage
- Indoor air quality
- Laboratory contaminant monitoring
- Welding shops
- HVAC-R mechanical rooms



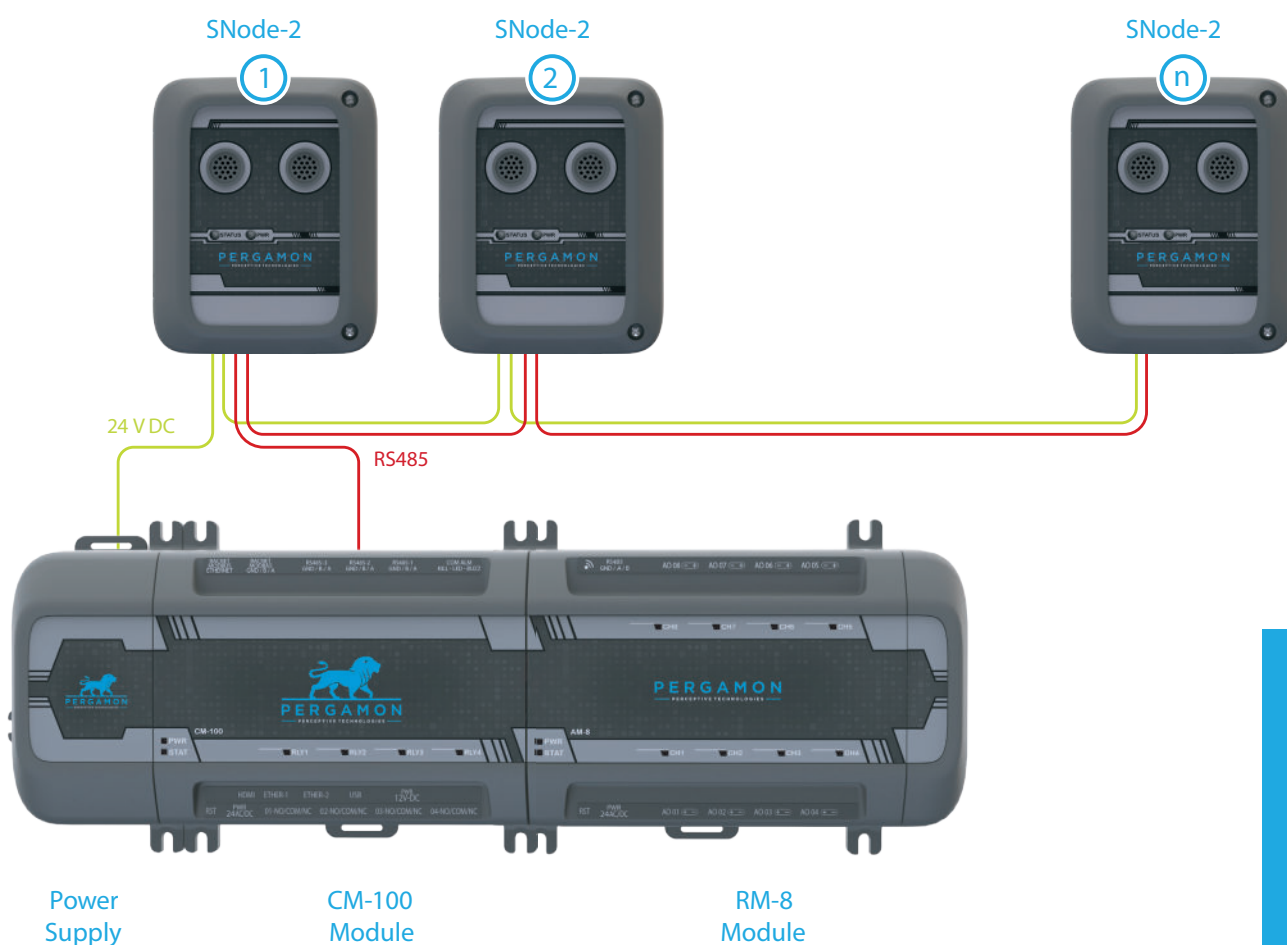
General Description

The MGMS-200 is a multi-gas monitoring system designed to ensure occupant safety in enclosed areas, maintain indoor air quality at satisfactory levels and reduce energy costs through a demand-controlled ventilation system.

It is a scalable-architecture, low-maintenance, cost-effective system that uses remote hardwired sensors to communicate with a central control module, remote relay modules and remote analog modules and operate ventilation equipment and activate remote alarms.


The MGMS-200 controls gas levels suitable for different applications, notably combustible and toxic gases. The controller can monitor up to 256 sensors, including assorted sensor technologies such as electrochemical, infrared, pellistor and PID, or any combination thereof. The system contains :

The "CM-100" control module with 12 relays included. Can support 12 banks relays "RM8" and 12 analog banks output "AM-8". For each module, competitive features offer an unmatched combination of accuracy, reliability, robustness and ease of use.



General Specifications

MGMS-050

Dimensions	16.1/2 in. x 4.3/4 in. x 3 in. (420mm x 115mm x 75 mm)	
Weight	0.88lb. (400g)	
Power Supply	+24 VDC/AC	
Power Consumption	620mA max.	
Communication	<ul style="list-style-type: none"> • 3 x RS485, Modbus RTU, Modbus TCP, BACnet MS/TP, BACnet IP • 2 x Ethernet, HDMI, 2 x USB3 • LoRa gateway 	
Relay Outputs	12 dry contact relays, 8 A @ 240 V each	
Number of Supported RM-8 Modules	88 relay outputs optional Link to product	
Number of Supported AM-8 Modules	96 universal analog outputs optional Link to product	
Number of Supported SNode Modules	up to 128 Gas transmitter Link to product	
Number of Supported Sensors	up to 256 sensors	
Alarm	Audible and visual alarm with mute switch (rated 85 dB @ 2 ft.)	
Data Loggers	15 GB storage	

Operating Conditions

Operating Temperature	0 °C to 50 °C (32 °F to 122 °F)
Operating Humidity	0 to 90% RH non-condensing
Total Current Consumption	620 mA max.

Web-based Software

Multi-platform web-based HMI live-monitoring software provides real-time alerts for hazardous conditions and alarms, allowing you to see what is happening and respond to incidents as they occur.

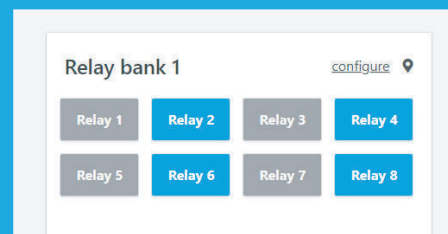
With this software interface, you can be confident that operators are kept informed of site conditions even when they are miles away.

The web-based MGMS system has a strong communication backbone that continuously monitors and transmits sensor data and events, as well as looking for issues and generated alerts when required. With immediate notification, operators can ensure that problems are quickly addressed.

Because the web-based MGMS system is connected to the internet behind a password protected interface, operators can remotely access information via tablets and PCs.

Additionally, the software has the following features:

- Automatic sensor plug-in/pull-out detection
- Alarm and gas concentration indications
- Monitoring, configuration and control from a standard web browser via the local network and the Cloud
- User management
- Sensing node, relay and analog module management
- Data logging
- Recovery, auto-diagnostic and maintenance modes
- Remote forced relay start, sequencer



Supported Gas Sensors

Gas		Sensor Technology	Range	Sensor Lifespan	Coverage Radius
Combustible					
Butane	C ₄ H ₁₀	Catalytic bead	0 –60% LEL	>3 years	20 ft. (6 m)
Hydrogen	H ₂	Catalytic bead	0 –60% LEL	>3 years	20 ft. (6 m)
Methane	CH ₄	Catalytic bead	0 –60% LEL	>3 years	20 ft. (6 m)
Propane	C ₃ H ₈	Catalytic bead	0 –60% LEL	>3 years	20 ft. (6 m)
Oxygen Deficiency					
Oxygen	O ₂	Electrochemical	0 –25%	5 years	20 ft. (6 m)
Refrigerant					
Refrigerant	R-407C	Infrared	0 –1,000 ppm	>10 years	20 ft. (6 m)
Refrigerant	R-134A	Infrared	0 –1,000 ppm	>10 years	20 ft. (6 m)
Refrigerant	R-410A	Infrared	0 –1,000 ppm	>10 years	20 ft. (6 m)
Refrigerant	R-404A	Infrared	0 –1,000 ppm	>10 years	20 ft. (6 m)
Refrigerant	R-22	Infrared	0 –1,000 ppm	>10 years	20 ft. (6 m)
Toxic					
Ammonia	NH ₃	Electrochemical	0 –100 ppm	>2 years	20 ft. (6 m)
Carbon dioxide	CO ₂	Infrared	0 –5,000 ppm	>10 years	50 ft. (15 m)
Carbon monoxide	CO	Electrochemical	0 –200 ppm	10 years	50 ft. (15 m)
Hydrogen sulfide	H ₂ S	Electrochemical	0 –20 ppm	>3 years	20 ft. (6 m)
Nitrogen dioxide	NO ₂	Electrochemical	0 –10 ppm	>2 years	50 ft. (15 m)
Formaldehyde	CH ₂ O	Electrochemical	0 –10 ppm	>2 years	20 ft. (6 m)
Chlorine	CL ₂	Electrochemical	0 –10 ppm	>2 years	20 ft. (6 m)
Nitric oxide	NO	Electrochemical	0–250 ppm	>2 years	20 ft. (6 m)
Sulfur dioxide	SO ₂	Electrochemical	0–2,000 ppm	>2 years	20 ft. (6 m)

Other GASES and RANGES are available. link to product:
<https://pergamon.ca/products/gas-sensors-transmitter/>

For more information

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