



SUPREMA[®]Touch

Modular Fire & Gas Detection System

Fire & Gas Detection Solutions

The modular design of the SUPREMATouch Fire and Gas Detection System meets the requirements of a diverse range of industries and applications, while complying with all relevant global safety standards. The system builds on the success of the original innovative SUPREMA Control System design and features a large color touchscreen display, enhanced processing capabilities, and optional integration of addressable fire and smoke detectors. It can be used with a wide range of detectors, including combustible and toxic gas, oxygen, smoke, fire and heat. Output options include relay, and analog and digital communication between racks, which allows interfacing to external systems using ModBus or Profibus.

The SUPREMATouch System's modularity enables a variety of fire and gas detection configurations that meet the requirements of virtually any application, including redundant systems with up to a Safety Integrity Level (SIL) 3 rating (IEC 61508).

Whatever the application, our strong experience in fire and gas detection enables us to provide the best combination of detectors, field devices, components and systems that will ensure reliable and secure protection of your personnel and facilities.



Modular Design for Individual Solutions

The SUPREMATouch System is compatible with all MSA fire and gas detectors and can accommodate a variety of third party devices such as 4–20 mA transmitters and heat and smoke sensors. Open-collector driver outputs (24 V, 0.3 A) provide direct control of relays or other circuit elements such as contacts, switches or solenoid valves.

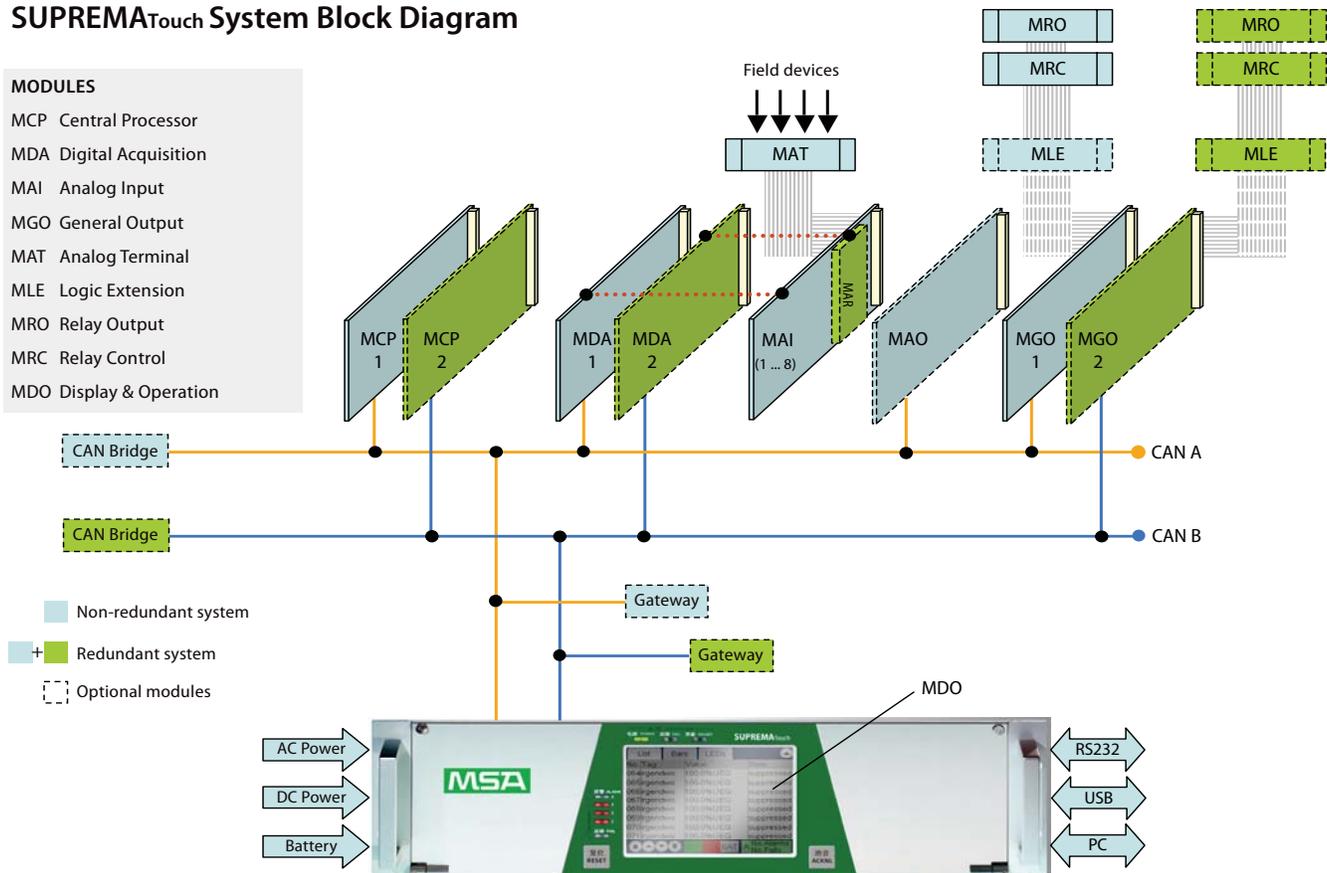
With the SUPREMATouch System, digital signal transmission is possible via ModBus and Profibus. There is also an analog output option.

Designed around standard industrial 19" racks, the SUPREMATouch System provides signal processing for up to 256 inputs and 512 outputs. It also has the ability to distribute the system over up to 8 racks, using satellites to minimize installation costs. The modular design allows input and output connections to be either mounted on the backplane or DIN rail mounted. Wall-mount versions in a NEMA 4 enclosure are also available upon request.

System Flexibility

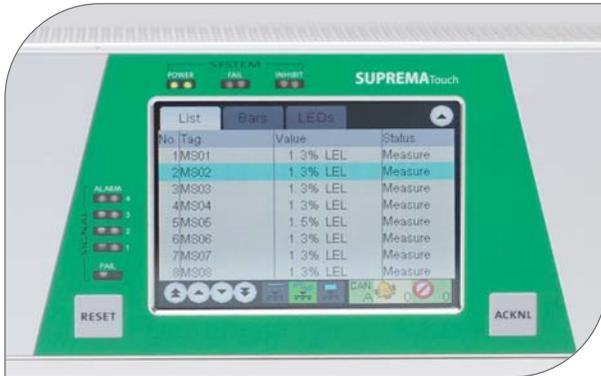
- Innovative modular assembly
- Easy checkbox selection to link measurement input with appropriate output
- Simple alarm configuration by checkbox selection including voting and grouping
- Variable and customized system layout

SUPREMATouch System Block Diagram



Simple Operation

The user-friendly touchscreen interface makes installation, configuration, setup and operation of the SUPREMATouch System extremely simple. No programming skills are necessary. The status signals of up to 256 sensors can be linked and grouped with up to 512 outputs by selecting a checkbox with a simple touch of the display or a mouse click at a connected computer.



- Color LCD touchscreen with LED backlight
- Menu-driven graphical user interface
- Detailed diagnostics and event logging
- No programming required
- Simple parameter configuration and calibration
- Comprehensive measurement input information
- Optional user-defined sensor parameters
- Simple alarm assignment and configuration
- Digital output inhibit functions
- 3-level password security

SUPREMA Manager

MSA software is available for a USB-connected computer. This is especially useful during setup and regular sensor calibration of larger systems. The software enables all the functions available at the SUPREMATouch System display, such as configuration and calibration, offline use, and the storing and printing of reports as PDF documents. This provides a user-friendly environment for configuration (see screen view image), parameter setting, and sensor calibration of large systems to minimize the cost of maintaining the SUPREMATouch System.



Made-to-Measure Safety

The SUPREMATouch System provides control capability to meet the user's safety requirements. The modular system allows I/O (Input/Output) connections to be either rail- or back-plane-mounted, to be configured as desired and to be adapted to meet each specific monitoring task.

All system functions can be controlled by the SUPREMATouch System, including I/O inhibition, alarm activation, analog output signals, I/O fault handling, voting allocation management of status signals and switched outputs, control of annunciation panels and devices such as fans and dampers. The unit can also interface with other systems (HVAC, ESD, etc.) through digital bus communications.

The digital bus technology of the SUPREMATouch System ensures reliable communication between racks and provides the flexibility of being able to have up to 8 satellite racks per system located at distances up to 1.2 km apart. This ensures that system wiring is minimized, and that overall system costs are as low as possible.

The SUPREMATouch System also interfaces to external bus systems such as ModBus and Profibus.

Features	Benefits
<ul style="list-style-type: none"> ■ Compact modular design requires fewer cabinets 	<ul style="list-style-type: none"> ■ Saves space
<ul style="list-style-type: none"> ■ Decentralized configuration 	<ul style="list-style-type: none"> ■ Use of satellites minimizes wiring
<ul style="list-style-type: none"> ■ Plug-in ribbon cables 	<ul style="list-style-type: none"> ■ Easy installation and system extension
<ul style="list-style-type: none"> ■ Future-oriented technology 	<ul style="list-style-type: none"> ■ Reduces upgrade costs
<ul style="list-style-type: none"> ■ Digital bus technology 	<ul style="list-style-type: none"> ■ Reliable communication to external bus systems
<ul style="list-style-type: none"> ■ System configuration by checkbox selection 	<ul style="list-style-type: none"> ■ No programming skills required
<ul style="list-style-type: none"> ■ Connections for 3 system power supplies 	<ul style="list-style-type: none"> ■ Automatic switchover to backup supply



The SUPREMATouch System is certified to all relevant fire and gas detection standards.

ATEX



MSA

Technical Specifications

Enclosure	Standard 19" rack (up to 8 racks per system) Optional NEMA 4 wall-mount cabinet
System	Satellites for decentralized input and outputs up to a distance of 1.2 km Optional redundant configuration Event and fault diagnosis logging
Inputs	Up to 256 per system Up to 64 per rack
Outputs	Up to 512 per system Up to 80 per rack Switched open-collector driver (24 V, 300 mA) Relays – SPNO or SPST redundant (230 V, 3 A) Optional solid state relays for low-current applications Software control of switched outputs/relays: <ul style="list-style-type: none"> ■ group creation ■ n out of m alarms ■ alarm multiplication
Power supply	Operating voltage: 18 to 32 VDC Optional rack power supply – 85 to 265 VAC, 150 W, 50/60 Hz Power supply connections for internal, external, and battery backup (24 VDC) with automatic switch-over
Display	Color LCD touchscreen with backlight 5.7" TFT with 320 x 240 resolution
Controls and indicators	Alarm reset and acknowledge keys Front panel LEDs for alarms 1, 2, 3 and 4, signal fail, inhibit, power and system fail 3-level password or keyswitch for secure access control
Sensors	Catalytic or IR for combustible 4–20 mA transmitters Electrochemical for toxic and oxygen Conventional smoke, heat and fire detectors Addressable smoke, heat and fire detectors via external fire panel
Approvals	ATEX (EN 50104, EN 50271, EN 61779-1, EN 61779-4, EN 61779-5) CSA / CSA us SIL 3 (EN 50402, EN 61508) GB16808-2008 Combustible Gas Alarm Control Units (China)
Interfaces	Optional interfaces to external bus systems (ModBus RTU and TCP, Profibus) 2 x RS-232 and 1 x USB electrically isolated interfaces for data transfer Printer report of system events (standard ASCII, 80 CHR)

Detailed ordering information available upon request.

Ordering Information

Inputs

of Analog
of Discrete

of Relay Outputs

(First 8 relays common; 80 maximum – rail mount)

Mounting Style

A = 4-20 mA Rail Mount
B = 4-20 mA Back Mount

Power Supply

0 = None
1 = 150 W, 85–265 VAC (Internal)

Safety Integrity

S = Simplex
D = Duplex

Bus Interface

0 = None
M = ModBus RTU
P = Profibus DP
T = ModBus TCP

Custom Features

0 = None
C = Custom
ST = Satellite
S3 = TUV SIL 3 Certification

Rail Mount or Back Mount

Number of Sensors*
Number of Relays*
**Must be ordered in multiples of 8.*

Accessories

NEMA 4 Wall-mount Cabinet
8 Analog Outputs
Satellite (duplex)
External Power Supply DIN Rail
240 W
480 W

Call MSA for detailed pricing information based on your application.



MSA, the Global Leader in Safety



MSA's passion for safety comes from almost a full century of manufacturing the highest quality gas monitoring instruments. MSA designs and manufactures a complete line of flame and gas detection products for oil, gas, and petrochemical applications. Our passion shows through in our all-stainless-steel, globally-approved flame and gas detection fixed-gas instruments, and our reliable and durable single-gas and multigas portable instruments.

MSA is dedicated to designing and manufacturing superior flame and gas monitoring instruments to help ensure that men and women may work in safety, and that they, their families, and their communities may live in health throughout the world. Providing the best products, service, and support in the industry: that's MSA's passion.

Global Reach

MSA is the largest company in the world dedicated solely to producing a complete range of equipment and systems for worker and plant protection. With headquarters located in Cranberry Township, Pennsylvania, our operations extend around the world. Our vast resources ensure that an MSA affiliate is never far away and help to maintain our commitment to protecting lives in more than 120 countries, on all continents around the globe.



Local Presence

MSA-authorized representatives comprise one of the largest distribution networks, providing comprehensive sales, service, and support. MSA field sales representatives and service technicians are thoroughly trained in the use, application, and servicing of our products. With MSA, you have access to dedicated and highly-trained field staff as well as support within our Customer Service Center. Engineers, architects, and operators find flame and gas detection products to suit their every need, with the superior reliability, durability, and design excellence expected from MSA.



Got to www.MSAafety.com/SUPREMAtouch or call Customer Service 1.800.MSA.INST for more information on the SUPREMATouch System.

Note: This bulletin contains only a general description of the products shown. While uses and performance capabilities are described, under no circumstances shall the products be used by untrained or unqualified individuals and not until the product instructions including any warnings or cautions provided have been thoroughly read and understood. Only they contain the complete and detailed information concerning proper use and care of these products.



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