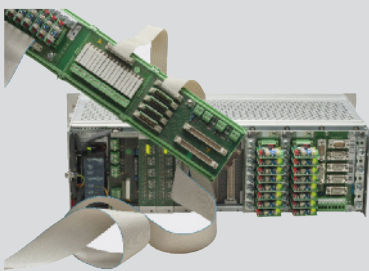


# SUPREMA<sup>Touch</sup>

Modular Fire & Gas Detection System



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

# Class Leading Fire & Gas Detection Solutions

MSA's permanent gas detection systems are relied upon by a huge number of installations across a wide range of industries throughout the world to protect employees, facilities and our environment from fire and hazardous gases. As a highly experienced designer and manufacturer of gas and flame detection equipment, MSA provides the optimum combination of detectors, field devices, components and systems that will ensure reliable and secure protection of personnel and facilities. SUPREMA<sup>Touch</sup> can be used with a wide range of detectors including flammable and toxic gas, oxygen, smoke, fire

and heat and manual call points. A range of outputs are provided, including relay and analogue, while interfacing to external systems is provided using Modbus or Profibus. Remote racks can be connected using digital communication. Designed around standard industrial 19" racks, SUPREMA<sup>Touch</sup> provides signal processing for up to 256 sensor inputs and 512 relay outputs. It can be configured to meet the requirements of even the most demanding of applications, including redundant systems up to SIL3 and complies with all relevant global safety standards.

## New Enhancements offer a Lower Cost of Ownership

The SUPREMA<sup>Touch</sup>'s new features will not only reduce your total cost of ownership, but it now comes close to functionalities of many PLCs, due to addition of logic functions. This enhanced controller is still compatible with current SUPREMA<sup>Touch</sup> installations and is certified to all relevant standards in the field of fire and gas hazard detection (ATEX, SIL3, CSA, cCsAus, CCCF, TPTC).

### Enhancements to the SUPREMA<sup>Touch</sup> include:

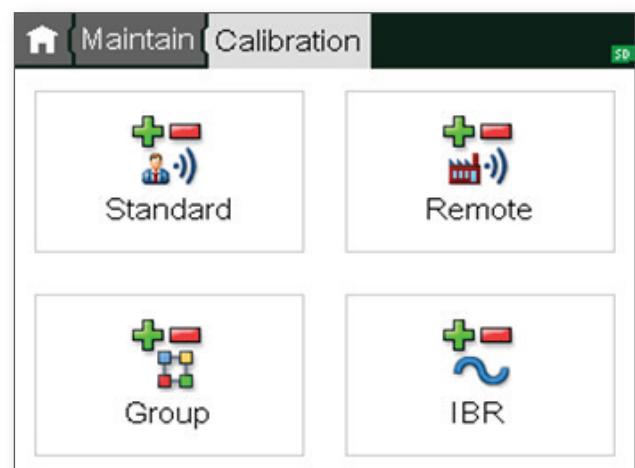
- New Analog input module MAI30 reduces system complexity
  - Unique input module for all sensor types with automatic detection
  - No additional sensor specific plug-in modules necessary anymore
  - **Optional HART support**
- Extension of switching logic with time delays and multi-level logic
- New Hardware
  - Dedicated switch inputs for acknowledge and reset of points and groups
  - USB & Ethernet
  - New more efficient power supply
  - Improved user interface with modern intuitive tiles
- Additional Calibration options
  - One-man-calibration
  - Group calibration
  - **Remote calibration** of HART transmitters
- Integrated Webserver and network time synchronization
- Micro SD Card support for data logging and backups
- Enhanced SUPREMA Manager software
  - Administrating several SUPREMA systems incl. reporting
  - Offline configuration and parametrization
  - Significantly more comfortable parametrization
- Compatible with MSA's complete range of gas and fire detectors

System configuration can be intuitively executed via touchscreen.

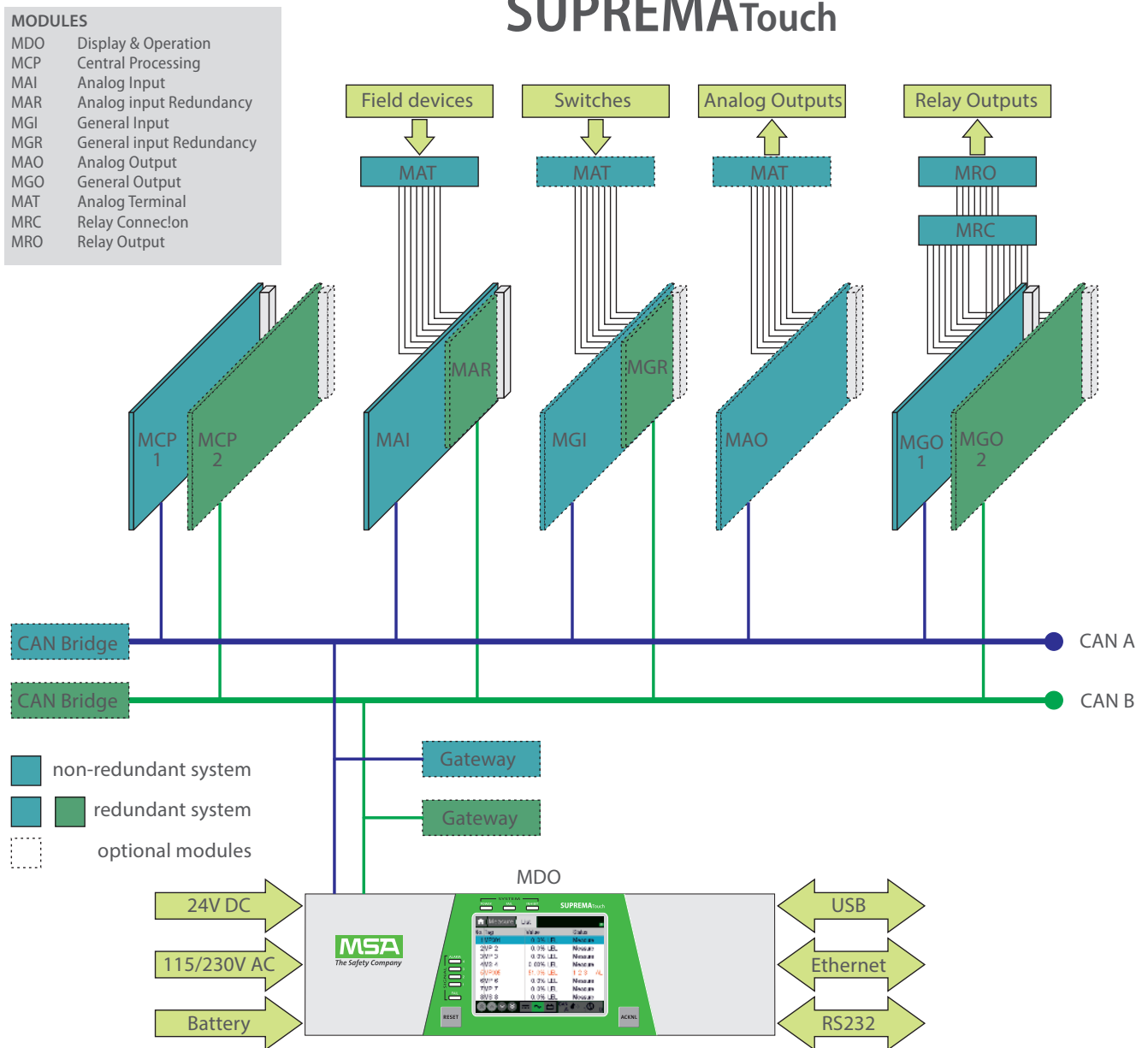
The user friendly touch screen makes any operation of the SUPREMA<sup>Touch</sup> simple.

The status signals of up to 256 sensors can be linked and grouped by selecting a checkbox with a simple touch of the display

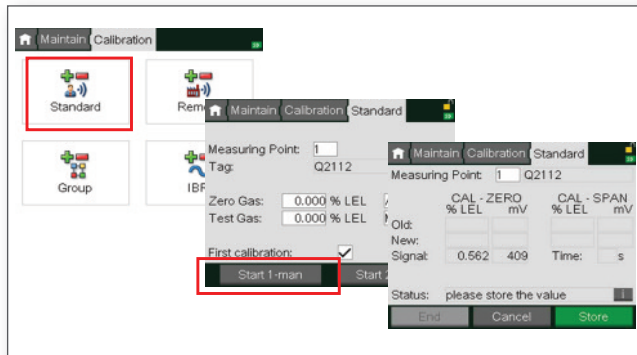
No programming skills are necessary.



# System Flexibility from Modular Design



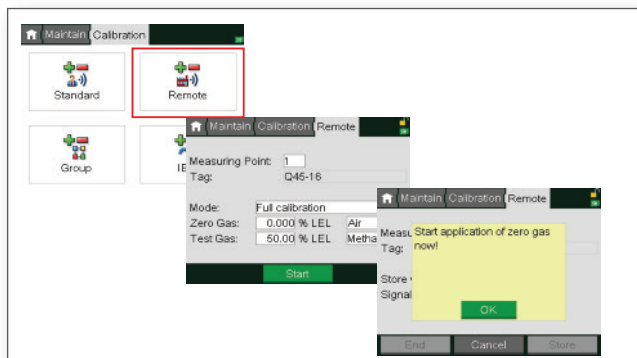
Only seven basic modules are necessary to provide full functionality, namely MCP20, MDO20, MAI30, MGO20, MGI30, MAO20 and gateways. Due to its proven modular design, SUPREMA<sup>Touch</sup> easily fits most installations and has the ability to be expanded with the requirements of the plant. This concept ensures the maximum protection of people and plant with minimal additional outlay.



## One man Calibration

Simplifies calibration procedure by automatically transferring the gas values – conforms to ATEX guidelines.

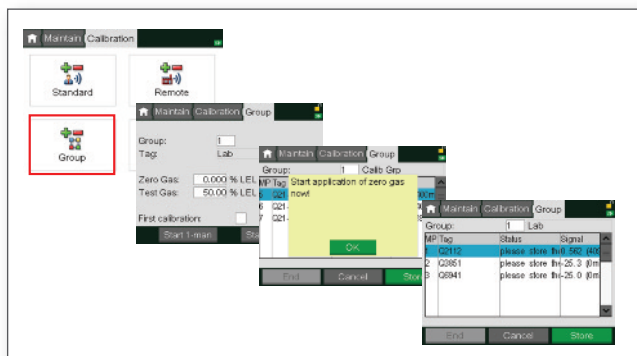
- Response time is measured (in accordance with ATEX)
- Direct lower total cost of ownership



## Remote Calibration

The HART support offers the ability to calibrate MSA detectors at hard to reach areas or those without a control interface

- Ideal for hard to access areas
- No additional tools for calibration necessary
- The HART option on a gas detection controller system is outstanding in its class.



## Group Calibration

It is now possible to calibrate several compatible measuring points at the same time.

- Up to 32 measuring points per group
- Saves time and money



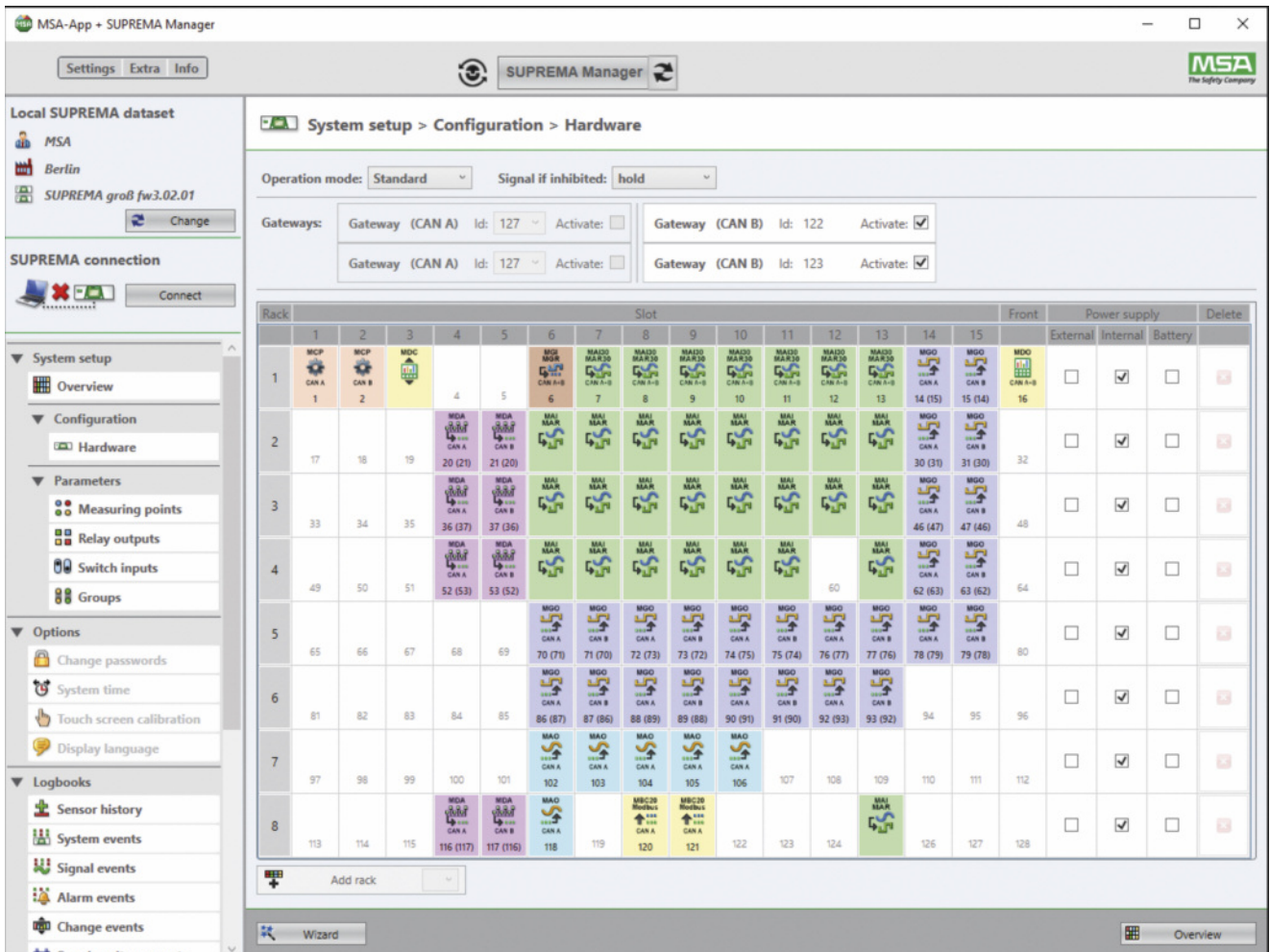
# SUPREMA<sup>Touch</sup> Software

# SUPREMA Manager

MSA's SUPREMA Manager software is available for a USB connected PC which is especially useful during commissioning and regular sensor calibration of larger systems. This provides all the functions available at the SUPREMA<sup>Touch</sup> display such as configuration and calibration, offline use and the storing and printing of reports as PDF documents.

### Highlights:

- Supports new features of SUPREMA<sup>Touch</sup>
- More comfortable on parametrization, diagnosis, calibration and maintenance
- System reports on documentation
- Graphic visualisation and modification of complex new multi-level relay logic is shown as tree-view



This provides a user friendly environment for configuration (screen view shown), parameter setting and sensor calibration of large systems to minimise the cost of maintaining SUPREMA<sup>Touch</sup>.

# SUPREMA Calibration Software

In addition to the SUPREMA Manager, MSA offers dedicated Calibration software, which is able to calibrate passive sensors, supporting standard calibration and zero adjustment for transmitters. Its main advantage, however, is that it provides the option to issue detailed calibration reports whilst based on user defined criteria.

## Technical Specifications

<b>Enclosure</b>	Standard 19" rack 3U high (up to 8 racks per system)
<b>System</b>	Satellites for decentralised input and outputs up to a distance of 5000 m Optional redundant configuration Event and fault diagnosis logging
<b>Inputs</b>	Up to 256 sensor inputs and 64 switch inputs per system Up to 80 inputs per rack
<b>Outputs</b>	Up to 512 relay outputs and 256 analogue outputs per system Up to 400 outputs per rack Switched open-collector driver (24 V, 300 mA) Relays – SPCO or SPST redundant (230 V, up to 5A) Optional solid state relays for low current applications Software-control of switched outputs/relays <ul style="list-style-type: none"> <li>• Creation of groups</li> <li>• n out of m alarms</li> <li>• Multi-level logic</li> <li>• Time delays</li> </ul> Alarm multiplication
<b>Power supply</b>	Operating voltage range – 18 to 32 VDC Optional rack power supply – 85 to 265 VAC, 250 W, 50/60 Hz Power supply connections for internal, external and battery backup (24 VDC) with automatic switch-over
<b>Display</b>	Colour LCD touch screen with backlight 5.7" TFT with 320 x 240 resolution
<b>Controls and indicators</b>	Alarm reset and acknowledge keys Switch inputs for remote reset and acknowledge 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
<b>Detectors</b>	Catalytic or IR for combustible 4–20 mA transmitters, transmitters with HART ability Electrochemical for toxic and oxygen Conventional smoke, heat and fire detectors
<b>Approvals</b>	<ul style="list-style-type: none"> <li>• ATEX (EN 50104:2010, EN 50271:2010, EN 60079-29-1:2007; EN 50270:2015); Dekra-EXAM; EN 61010:2011</li> <li>• cCSAus (CSA)</li> <li>• SIL 3 (EN 50402:2005+A1:2008, EN 61508:2010); TÜV</li> <li>• CCCF (GB16808-2008)</li> <li>• TP TC 020/2011, TP TC 004/2011</li> </ul>
<b>Interfaces</b>	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 Ethernet, microSD card Printer report of system events (standard ASCII, 80 CHR)
<b>PC Software</b>	SUPREMA Manager SUPREMA Calibration Both ATEX approved and Win7&10 compatible