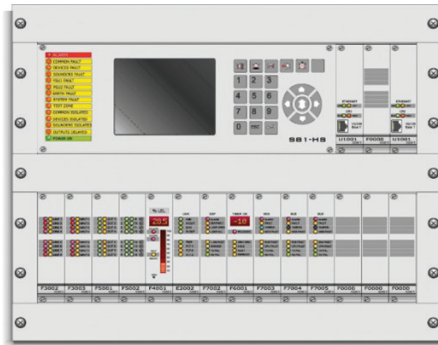




MultiSafe-MX

Gas and flame detector



Description

The MultiSafe-MX system is intended for the protection of high hazard, high risk plant and facilities.

The MultiSafe-MX is certified, by European laboratories, to comply with the applicable regulations.

The panel is composed of dedicated cards, installed in 1 9" racks which have their own "intelligence", programmed for active/passive fire protection, gas detection, intruder alarm and logic functions.

Moreover, the MultiSafe-MX can interact with supervisory and SCADA systems via Ethernet, TCP/IP or Modbus.

Applications

- Fire and Gas detection and measurement systems.
- Automatic fire extinguishing control systems.
- Integrated systems, intruder/burglar alarm, CCTV and logic functions.
- Fire protection systems in accordance with the recommendations of NFPA 72.

Features

- SIL2 / SIL 3 certified
- Front plug-in/out cards
- Automatic monitoring of card and CPU fault
- Two CPU's, in hot back-up to one other
- Device calibration data and event logging
- Hot swap of cards and CPU's
- Addressable fire detection
- Easy PC-configuration

Applications

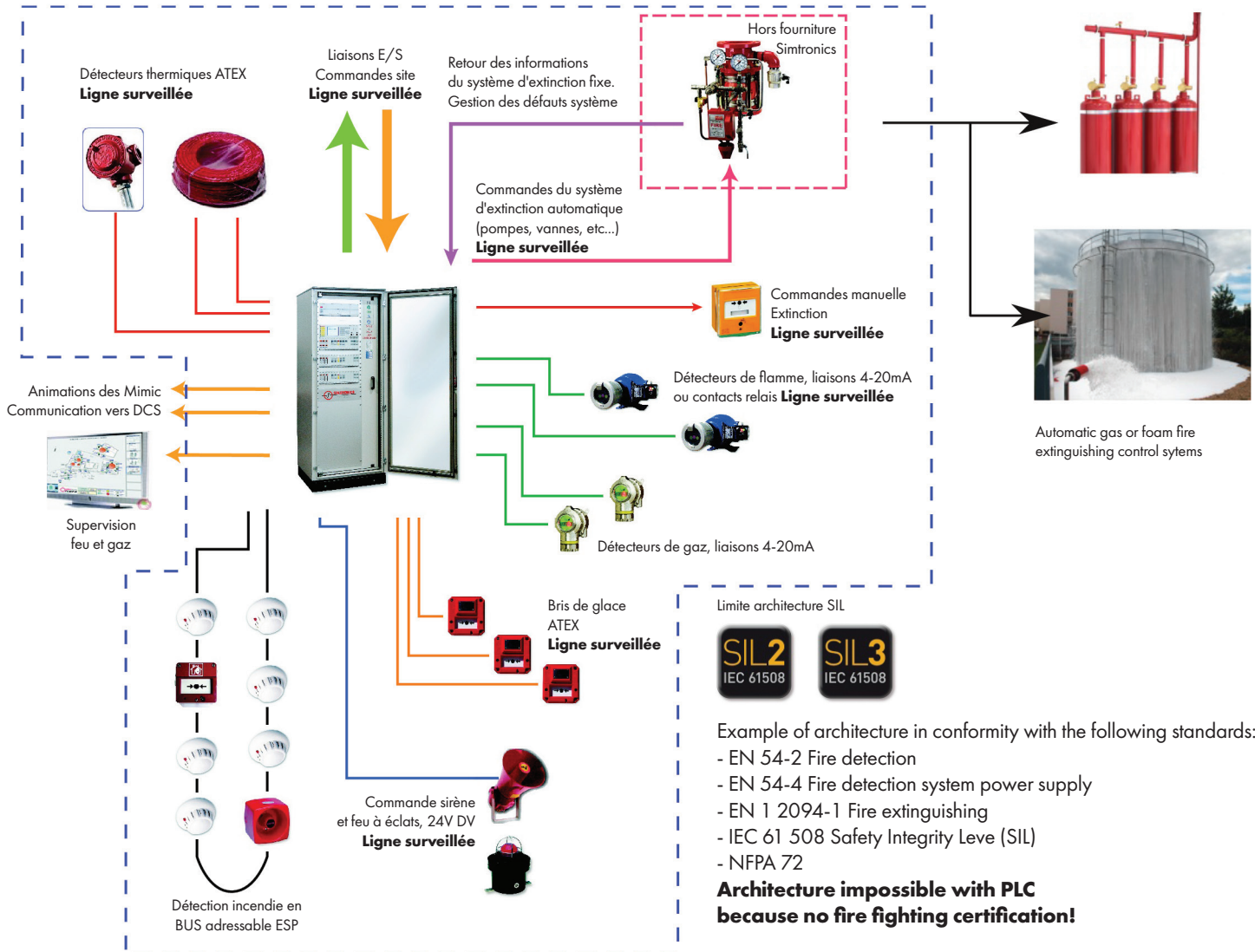
- Can replace a safety PLC system
- System flexibility
- Operational safety
- Automatic software configuration
- Tracks maintenance and incidents
- Easy and rapid maintenance
- Reduced cabling
- User friendly interface



MultiSafe-MX

Gas and flame detector

Applications



System capacity

Maximum number of racks per panel	10
Maximum number of cards per rack	13
Maximum number of configurable zones (* 1)	300 + 300
Maximum number of devices per zone (* 2)	99 + 99 + 99
Maximum number of devices per panel (* 3)	1 651 0
Maximum number of panels connectable to each other	64
(* 1) = 300 safety zones and 300 security zones	
(* 2) = 99 inputs, 99 outputs, 99 logic relations	
(* 3) = based on all racks containing 1 3 addressable cards each	

Environmental

Temperatures	
Storage	-40°C to +85°C
Operational	5°C to +50°C
Humidity	5% to 95% RH (non-condensing)

Approvals

IMQ-certified to EN 54-2 and EN 54-4 (fire detection)
 IMQ-certified to CEI 79-2 (intruder alarm)
 CPD-certified to EN 1 2094-1 (fire extinguishing)
 TUV-certified to IEC61 508 (functional safety) – SIL 2 & 3

Supervision PC Vue

Simtronics can provide one or more PC with SCADA software to view, on site-wide interface, state and location of the detectors.
 Totally customizable configuration.



PC Vue

Supervision software enables site specific software

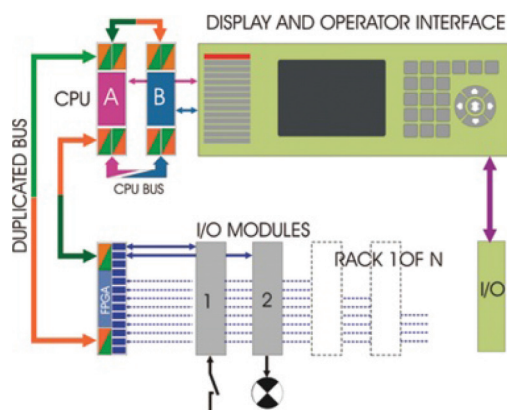


Operational safety

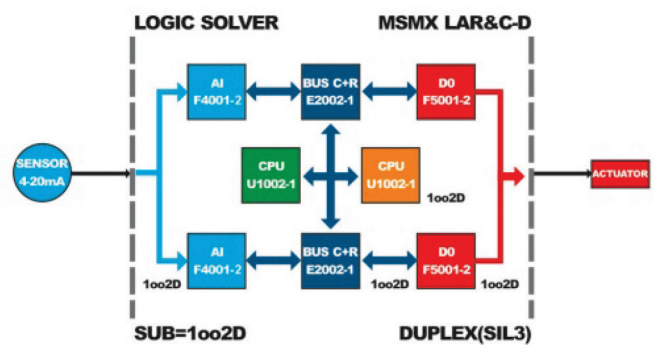
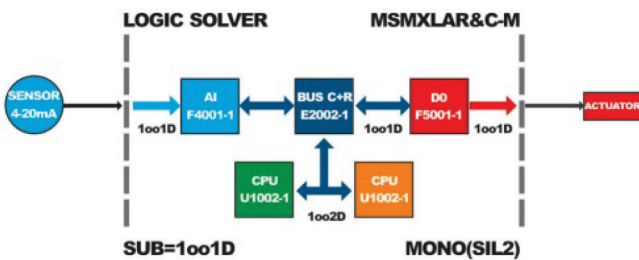
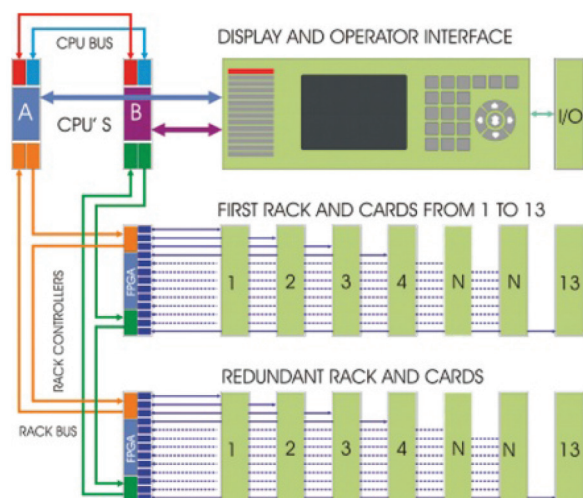
The MultiSafe-MX F&G system can be used to produce SIL2 and SIL3 compliant systems.

- Redundant CPU's
- Two CPU's, in hot back-up to one other
- Independent display
- Two rack control bus
- Rack controller independently connected to two buses
- Independent serial communication for each card

SIL2 CONFIGURATION



SIL3 CONFIGURATION



Custom integration

The Simtronics MultiSafe-MX F&G system can be integrated in stand alone or wall mounted cabinet.

- Fixed or rotating frame
- Integration of fire suppression manual alarms
- Safety battery back up
- Size fitted to your constraints



Hot swap cards

All components of the MultiSafe-MX system can be hot swapped:

- CPU's
- Control rack (screen + keyboard)
- I/O cards (BUS)
- Power supply modules
- Battery charger



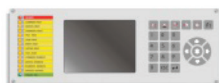
MultiSafe-MX

Gas and flame detector

Cards for expansion rack

U1 006 - CONTROL RACK

Interface between the panel and the operator (IHM). Large back lit screen 19 LED (fault, alarms)



Control keys.
Integral buzzer

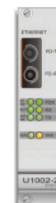
U1 002-1 - CPU CARD

This card is the system central unit and contains the micro-controller
This version includes an RJ 45 Ethernet output connector



U1 002-2 - CPU CARD

As a U1 002-1 CPU but includes an ST Ethernet output
Connector for fibre optic



Cards for expansion rack

E2002 - RACK CONTROL CARD

Rack controller



F5001 - 8-MONITORED LINE CONTROL CARD

8 x 500 mA outputs
Mainly used to control solenoids
For extinguishing agent release and directional valves, or to activate visual/audible alarm devices.



F6001 - CONTROL CARD FOR FIRE EXTINGUISHING SYSTEMS

Logic voting function for fire extinguishing control
Enables system compliance with N 1 2094-1



F4001 - ONE ANALOGUE INPUT CARD

4-21 mA single channel analogue input card
Two alarm levels



F5002 - 1 6-CONTROL CHANNEL CARD WITH OPEN COLLECTOR OUTPUTS

16 x non-monitored 250-mA outputs
Widely used for controls and direct hardwiring, or in conjunction with a 16-relay card (T8007)



F6002 - SPECIAL LOGIC CONTROL CARD

Produces and manages functional logic functions through flip/flop, toggle and timer devices
Timers can be configured to operate in A and B modes



F4002 - TWO ANALOGUE INPUT CARD

4-21 mA dual channel analogue input card
Two alarm levels



F5003 - ALARM CONTROL CARD WITH 8 OUTPUT LINES MONITORED THROUGH POLARITY REVERSAL

8 x 250mA outputs lines
Use in systems conforming to NFPA standards (activation of the alarm sounders)



F7002 - ADDRESSABLE DEVICE CONTROL CARD

Control card for devices addressable through ESP protocol (Hochiki's ESP protocol)
Manages up to 127 three-channel devices



F4003 - EIGHT ANALOGUE INPUT CARD

4-21 mA eight channel analogue input card
Two alarm levels



F5004 - 4-MONITORED LINE CONTROL CARD

4 x 2A outputs lines of the card
Mainly used to drive solenoids and heavy loads



F7006 - MODBUS PROTOCOL SERIAL COMMUNICATION CARD

ModBus RTU Master/Slave protocol communication card
Two independent output ports: RS485 (Half Duplex) and RS232



F3002 - 8-INPUT CARD FOR CONVENTIONAL DETECTION

8 inputs for conventional (nonaddressable) detection and flame detection



F7007 - ANALOGUE ADDRESSABLE DEVICE CONTROL CARD - SSP PROTOCOL

Manage up to 127 analogue/digital input addressable modules and control modules for SSP protocol addressable devices.



Cards for power supply rack



PU-A0008 - 20A AC/DC CONVERTER - DRAWER TYPE

Universal switching feeder
Supplies a maximum 20A current at 25Vdc
19" rack mount used with PU-A009-1 battery charger
Connects up to four feeders in parallel
Hot swappable