



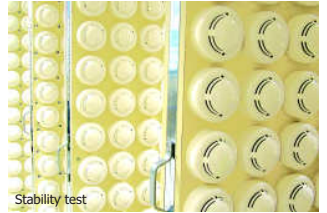
MAVIGARD®

Fire and Gas Detection Systems

Generating Confidence



# Manufacturing Technology



# Generating Confidence

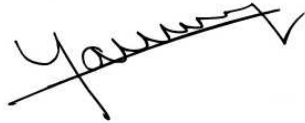
Mavili Elektronik Tic. ve San. A.S., one of the leading companies in the field of fire and gas detection systems, continues "generating confidence" with the administration mentality of "customer deserves the best quality and service". Since 1987, Mavili has been following the developing technology in the first row. Principally, Mavili actualizes its unwavering customer satisfaction policy not only by its high qualified production process, but also by novelties in design as well as sales and after sales services. Mavili has continued working in its new factory, which is 5000 square meters, since 2005. The company which is improving continuously its service network infrastructure, has offices in Ankara, İzmir, Antalya and Moscow. Export to more than 53 countries and different regions including Russia, Kazakhstan, Turkmenistan, Oman, Bahrain, Central Africa.

Mavili continues on manufacturing high quality products, and maintaining services by its dynamic staff. More than 100 people composed of technicians, and engineers are working hard for customers satisfaction. As a proof of Mavili's effort on satisfying customer, Mavili is the first company in the world, who received the certificate of ISO 9001:2008 from LPCB (Loss Prevention Certification Board), world's most prestigious organization. Mavili's investments on quality are rewarded with certificates, approvals and user licences; intelligent analog addressable system fire detectors received EN 54-5 and EN 54-7 certificate from LPCB. Most of the products of Mavili have TS EN 54, TSE, SSPB (Russian Fire Security Certification System), GOST (Russian Governmental Standard) certificates and CE sign according to 89/336/EEC EMC directive. Besides, products have Kazakhstan, Oman, and Bahrain Civil Defence approval. Also, Mavigard series gas detectors are approved by Russia Ecology, Technology, and Atom Energy Department.

Within the scope of ISO 9001:2008 quality management system, Mavili provides free technical training for its distributors and clients about installation of products, maintenance, easy fix methods and system design. Participants, who accomplish the training, receive training certificate.

Mavili maintains services like project design, technical specification or interpretation of already existing technical specification. Furthermore, engaging the installed system, test, technical and maintenance services are provided.

As a result of more than 30000 worldwide applications including schools, hospitals, dormitories, trade centers, factories, depots, residents, military establishments, petrochemical plants, dwellings, public buildings; Mavili is proud of "Generating Confidence".



Mesut Yavuz  
Managing Director  
Electrical Engineer

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## Certificates and Approvals

**Certificates:** The ISO 9001:2008 Quality Management System that Mavili Elektronik Ticaret Ve Sanayi A.S. has been audited and conformed by LPCB. Mavili Elektronik is the first company who has received the first ISO:9001:2008 certificate from LPCB in all over the world. \* Mavigard intelligent analogue addressable detectors have passed the tests and inspections conducted by LPCB (Loss Prevention Certification Board) and proved that Mavigard intelligent analogue addressable detectors are eligible to receive EN 54-5 and EN 54-7 certificates. \* Mavili Elektronik has been approved EN ISO 9001:2000 Standard by SWEDAC (Swedish Board for Accreditation and Conformity Assessment) accredited TURK LOYDU. \* Mavigard Harezmic series analogue addressable fire alarm control panels, fire detectors and manual call points; SD64+ series conventional fire alarm control panels, MG/MGR-2000 series fire detectors (standard and with relay output) and manual call points are EN 54 certified. \* All Mavigard analogue addressable and conventional fire detectors are EMC-CE (Electromagnetic Compatibility) certified by KEMA Quality B.V. (The Netherlands) \* All Mavigard products have Russian SSPB (Fire Safety Certification System) certificates given by ANO Normatest. \* All Mavigard products are GOST R (Russian State Standard) certified. \* Mavigard Marine series fire alarm and extinguishant systems are tested according to SOLAS 74 and FSS (Fire Safety System) and have TURK LOYDU certificate.

**Approvals:** All Mavigard products are approved by DGPS (State Fire Prevention Service Department of Ministry for Emergency Situations) of Kazakhstan. \* All Mavigard products are approved by Directorate General of Civil Defence of Sultanate of Oman. \* Conventional fire alarm control panels, fire detectors and Harezmic series analogue addressable fire alarm control system are approved by General Directorate of Civil Defence of Kingdom of Bahrain. \* Mavigard series gas detectors are approved by Russian Federal Department of Ecological, Technological and Atomic Energy Supervision. \* Mavili Elektronik is a member of NFPA (National Fire Protection Association).





More than 30,000 sites around the world are protected by Mavigard fire and gas alarm systems.



## Maxlogic ML-125XX series intelligent analogue addressable fire alarm control panels

Maxlogic series fire alarm control panels, offering high performance by the VIP communication protocol, provide 2032 address capacity with its expandable modular structure up to 16 loops.

### Fire alarm control panel features

01. Designed and manufactured according to EN 54-2 and EN 54-4
02. Compatible with Mavigard Harezmic series addressable devices
03. Up to 64 panels and/or repeater panels can be assembled into a network
04. Extendable loops up to 16 loops, max. 2032 address capacity for each panel
05. 1000 user-defined zones and 1000 event log memory
06. Top priority of fire alarm indication, different buttons for fire and other events, categorical classification due to events
07. Real time clock
08. Communication interrupt for fast fire alarm detection in 1.5 sec  
Loop polling in 7.5 sec
09. 4 programmable supervised remote control inputs
10. Protection from electromagnetic interference
11. Ability of communication with enhanced computers (RS232/RS485 for close access, GPRS/TCP-IP for remote control)
12. Supervised peripheral devices, extension cards (power supply, loop extensions, printer...)
13. Day and night mode, pre-alarm, contamination warning
14. Virtual panel, supervisor applications
15. Input/output modules can be connected directly to panel
16. Advanced control/monitoring features
17. Updating software on the site by the help of Boot Loader Software
18. Advanced parametric arrangement options for input/output devices
19. User-defined event types creation



ML-125XX.NPTA  
Intelligent analogue addressable fire alarm control panel including network, printer, fire telephone and public announce modules

- Maxlogic series intelligent analogue addressable fire alarm control panels use advanced microprocessor technology for high level security.
- LCD with 240x64 adjustable blue backlight indicates fire alarm, fault and other information in detail.
- Panel menu, serigraphy and Loop Manager software have 3 language options as Turkish, English and Russian.
- Addressable detectors, buttons, loop-powered addressable sounders, interface modules (monitor and control modules) and analogue addressable gas detectors can be programmed, in order to operate in cause-effect scenarios and the fire automation can be built in this manner.



Maxlogic analogue addressable system fire-fighter telephone can be applied in a different location from the panel and can be integrated into communication with the system.

ML-5011  
Fire-fighter telephone

### PANEL MODELS

Product code	Loop capacity	Address capacity	Product code	Loop capacity	Address capacity
ML-1250.N	0	0	ML-1259.NPTA	9	1143
ML-1251.NPTA	1	127	ML-12510.NPTA	10	1270
ML-1252.NPTA	2	254	ML-12511.NPTA	11	1397
ML-1253.NPTA	3	381	ML-12512.NPTA	12	1524
ML-1254.NPTA	4	508	ML-12513.NPTA	13	1651
ML-1255.NPTA	5	635	ML-12514.NPTA	14	1778
ML-1256.NPTA	6	762	ML-12515.NPTA	15	1905
ML-1257.NPTA	7	889	ML-12516.NPTA	16	2032
ML-1258.NPTA	8	1016			





ML-125XX  
Fire alarm control panel

- Availability of adding optional products into the fire alarm control panel i.e. telephone, public announce and printer modules.
- Unauthorized people are not allowed to use the system by the help of key control structure.
- All outputs have latching / non-latching and interruptable options.
- Possibility to select event type for all input/output devices, as well as user-defined event type creation.
- 0-loop fire alarm control panel models are used as repeater panels.

PANEL MODELS					
Product code	Loop capacity	Address capacity	Product code	Loop capacity	Address capacity
ML-1250.N	0	0	ML-1259	9	1143
ML-1251	1	127	ML-12510	10	1270
ML-1252	2	254	ML-12511	11	1397
ML-1253	3	381	ML-12512	12	1524
ML-1254	4	508	ML-12513	13	1651
ML-1255	5	635	ML-12514	14	1778
ML-1256	6	762	ML-12515	15	1905
ML-1257	7	889	ML-12516	16	2032
ML-1258	8	1016			

OPTIONAL PRODUCTS	
Product code	Description
ML-1201	Maxlogic intelligent analogue addressable system network module
ML-1203	Maxlogic intelligent analogue addressable system printer module
ML-1204	Maxlogic intelligent analogue addressable system telephone module
ML-1205	Maxlogic intelligent analogue addressable system public announce module
ML-1206	Maxlogic intelligent analogue addressable system TCP/IP module
ML-1207	Maxlogic intelligent analogue addressable system GPRS module
ML-5011	Maxlogic intelligent analogue addressable system firefighter telephone
ML-50112	Maxlogic firefighter's telephone control unit with 12 telephone module capacity
ML-50116	Maxlogic firefighter's telephone control unit with 16 telephone module capacity
ML-50132	Maxlogic firefighter's telephone control unit with 32 telephone module capacity
ML-50148	Maxlogic firefighter's telephone control unit with 48 telephone module capacity
ML-50216	Maxlogic alarm matrix module, 16 zones



**ML-1203 Printer module**  
Event logs can be printed instantaneously or collectively by the printer module



**ML-1205 Public announce module**  
The current announcement system of the building can be dealt with using ML-50216 Alarm matrix module



**Telephone / Public announce control unit**  
The use of telephone module and public announce module over the panel is realized with the LCD designed control unit.



**ML-1204 Telephone module**  
ML-1204 Telephone module realizes the communication with the firefighter telephones and the telephone modules in other panels by using ML-501XX Firefighter's telephone control unit



## Maxlogic ML-121X / ML-123X / ML-124X.P series intelligent analogue addressable fire alarm control panels

Maxlogic series fire alarm control panels, offering high performance by the VIP communication protocol, provide 1016 address capacity with its expandable modular structure up to 8 loops.

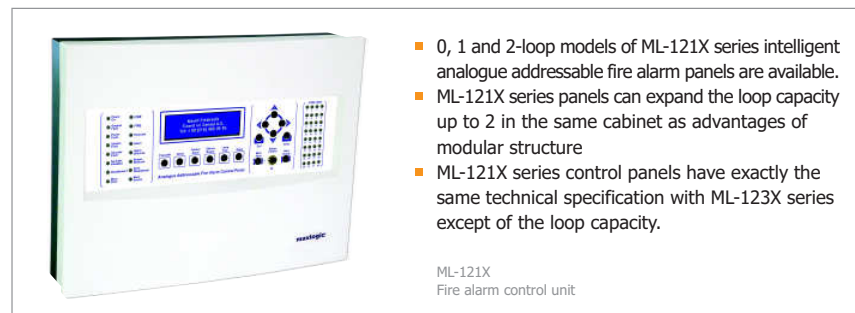
### Fire alarm control panel features

01. Compatible with EN54-2 and EN54-4
02. Compatible with Mavigard Harezmic series addressable devices
03. Up to 64 panels and/or repeater panels can be assembled into a network
04. Extendable loops up to 8 loops, max. 1016 address capacity for each panel
05. 1000 user-defined zones and 1000 event log memory
06. Top priority of fire alarm indication, different buttons for fire and other events, categorical classification due to events
07. Real time clock
08. Communication interrupt for fast fire alarm detection in 1.5 sec
09. Loop polling in 7.5 sec
10. 4 programmable supervised remote control inputs
11. Protection from electromagnetic interference
12. Ability of communication with enhanced computers (RS232/RS485 for close access, GPRS/TCP-IP for remote control)
13. Supervised peripheral devices, extension cards (power supply, loop extensions, printer...)
14. Day and night mode, pre-alarm, contamination warning
15. Virtual panel, supervisor applications
16. Input/output modules can be connected to panel directly
17. Advanced control/monitoring features
18. Updating software on the site by the help of Boot Loader software
19. Advanced parametric arrangement options for input/output devices
20. User-defined event types creation



ML-123X  
Fire alarm control unit

- Maxlogic series intelligent analogue addressable fire alarm control panels use advanced microprocessor technology for high level security.
- Addressable detectors, buttons, loop-powered addressable sounders, interface modules (monitor and control modules) and analogue addressable gas detectors can be programmed, in order to operate in cause-effect scenarios and the fire automation can be performed in this manner.
- Unauthorised people are not allowed to use the system by the help of key control structure.
- All outputs have latching/non-latching and interruptable options.
- Possibility to select event type for all input/output devices as well as user-defined event type creation.



ML-121X  
Fire alarm control unit

- 0, 1 and 2-loop models of ML-121X series intelligent analogue addressable fire alarm panels are available.
- ML-121X series panels can expand the loop capacity up to 2 in the same cabinet as advantages of modular structure
- ML-121X series control panels have exactly the same technical specification with ML-123X series except of the loop capacity.







LCD with 240x64 adjustable blue backlight indicates fire alarm, fault and other information in detail.

Zone In Alarm: 1 Alarm: 2 Fault: 1  
 \*FIRE: MG-8110 Man. Call Point: 430\*  
 P: 0 L:1 A:127 ML-1248.P  
 FLOOR CORRIDOR

Zone In Alarm: 1 Alarm: 2 Fault: 1  
 \*FIRE: MG-9300 Heat Detector: 860\*  
 P: 0 L:6 A:58 ML-1248.P  
 3. FLOOR CAFETERIA



ML-124X.P  
 Fire alarm control panel, with printer

- ML-124X.P series intelligent analogue addressable fire alarm control panels have exactly the same technical specification with ML-123X series except of the loop capacity.
- Printer module is mounted into the steel front cover as standard.
- Event log can be printed as both instantaneously or collectively. Filtering according to the event type is possible.
- Panel menu, serigraphy and Loop Manager software have 3 language options as Turkish, English and Russian.

PANEL MODELS		
Product code	Loop capacity	Address capacity
ML-1210.N	0	0
ML-1211	1	127
ML-1212	2	254
ML-1230.N	0	0
ML-1231	1	127
ML-1232	2	254
ML-1233	3	381
ML-1234	4	508
ML-1235	5	635
ML-1236	6	762
ML-1237	7	889
ML-1238	8	1016
ML-1240.N	0	0
ML-1241.P	1	127
ML-1242.P	2	254
ML-1243.P	3	381
ML-1244.P	4	508
ML-1245.P	5	635
ML-1246.P	6	762
ML-1247.P	7	889
ML-1248.P	8	1016

OPTIONAL PRODUCTS	
Product code	Description
ML-1201	Maxlogic intelligent analogue addressable system network module
ML-1203	Maxlogic intelligent analogue addressable system printer module
ML-1206	Maxlogic intelligent analogue addressable system TCP/IP module
ML-1207	Maxlogic intelligent analogue addressable system GPRS module

## Harezmic MG-7100 Single loop intelligent analogue addressable fire alarm control panel

MG-7100 Fire alarm control panel, offering high performance with the VIP communication protocol, provides 127 address capacity.

### Fire alarm control panel features

01. Compatible with EN54-2 and EN54-4
02. 240 x 64 pixel LCD with adjustable blue backlight  
16 user-defined zones
03. 1000 event log memory
04. 1 loop and 127 address capacity
05. Detailed fire alarm and fault warning
06. Real time clock
07. Communication interrupt for fast fire alarm detection in 1.5 sec
08. Loop polling in 7.5 sec
09. 2 programmable and supervised sounder outputs
10. 3 programmable relay outputs
11. MG-Thermal printer can be mounted
12. Protection against electromagnetic interference



- Harezmic series intelligent analogue addressable fire alarm control panels use advanced microprocessor technology for high level security.
- LCD with 240x64 adjustable blue backlight indicates fire alarm, fault and other information in detail.
- Panel menu, serigraphy and Loop Manager software have 3 language options as Turkish, English and Russian.
- Fire automation can be performed by using control and monitor modules.
- Addressable detectors, buttons, loop-powered addressable sounders, interface modules (monitor and control modules) and analogue addressable gas detectors can be programmed, in order to operate in cause-effect scenarios.
- Unauthorised people are not allowed to use the system by the help of the key control structure.
- Control panel has; supervised 2 sounder and 3 relay outputs, which can be programmable just like other addressable devices in the system. It is possible to assign two-level, 250 seconds delay into the panel outputs and 300 seconds delay into the outputs of relay controller module and sounder controller module. Once delay is assigned, "Delay On" LED on the front panel illuminates.
- In case of more than one event log, the fire alarm logs are displayed of top priority.

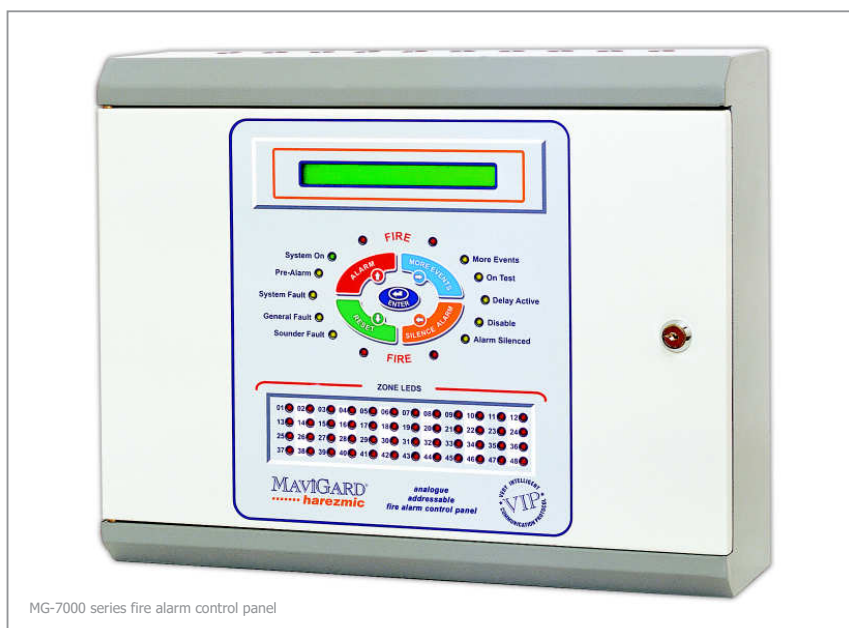
### PANEL MODELS

Product code	Loop capacity	Address capacity	Zone capacity
MG-7100	1	127	16



## Harezmic MG-7000 series intelligent analogue addressable fire alarm control panels

MG-7000 series fire alarm control panels, offering high performance with the VIP communication protocol, provide 508 address capacity.



MG-7000 series fire alarm control panel

- Harezmic series intelligent analogue addressable fire alarm control panels use advanced microprocessor technology for high level security.
- Provided Ftp Cat6 cable is used, max. cable length between the panels in a RS-485-based network can be up to 1200m.
- Panel LCD (2 x 40 characters) with backlight provides fire alarm and fault information in detail. Panel menu, serigraphy and Loop Manager software have 3 language options as Turkish, English and Russian.
- Addresses in MG-7000 series control panels can be grouped into 48 user-defined zones. Each zone has a fire alarm signal indicator on the front panel.
- Addressable detectors, buttons, loop-powered addressable sounders, interface modules (monitor and control modules) and analogue addressable gas detectors can be programmed, in order to operate in cause-effect scenarios and the fire scenario can be applied.
- 2nd and 3rd level passwords are available in order to prevent all unauthorised access to the settings of the system.

### Fire alarm control panel features

01. Compatible with EN54-2 and EN54-4
02. 1000 event log memory
03. 2 or 4 loop standard models
04. Detailed fire alarm and fault warning information
05. Real-time clock
06. Soft touch buttons
07. Switched mode power supply (Microprocessor-controlled SMPS)
08. Communication interrupt for fast fire alarm detection in 1.5 sec
09. Up to 32 panels and/or repeaters can be assembled into a network
10. 4 programmable and supervised sounder outputs
11. 3 programmable relay outputs
12. Protection against electromagnetic interference
13. Hosting up to 127 addresses on each loop
14. LCD (2 x 40 characters) with backlight
15. 48 user-defined zones
16. Loop polling in 7.5 sec
17. MG-Thermal printer can be mounted



MG-7010 Repeater panel

### PANEL MODELS

Product code	Loop capacity	Address capacity	Zone capacity
MG-7200	2	254	48
MG-7400	4	508	48

#### Repeater panel models

Product code	Loop capacity	Address capacity	Zone capacity
MG-7010	0	0	48

#### Accessories

Product code	Açıklama
MGY-1205	Extended line control unit (EXLCU)
MG-7090	Network card



## MG-9000 series intelligent analogue addressable fire detectors

Intelligent analogue addressable fire detectors, offering high performance by the VIP communication protocol, provide a high level of reliability as result of stable detection feature.

### Features

01. Compatible with EN 54-2 and EN 54-4
02. Twin fire alarm indicators for 360° viewing
03. 'Soft' addressable by use of address programmer
04. Remote indicator output
05. Communication interrupt for fast fire alarm detection in 1.5 sec
06. Stable sensitivity
07. PCB protected by metal case
08. Protection from electromagnetic interference
09. MG-3510 series mounting base compatible
10. MG-3600 series recessed mounting base compatible
11. MG-3700 series surface mounting back box compatible
12. Microprocessor controlled
13. Clamp terminals to ensure firm contact with the base
14. Produced by use of surface mount technology



### MG-9100 Intelligent analogue addressable photo-electric smoke detector

Photo-electric smoke detector utilises the light scatter sensing principle. It has an infrared light source, which emits signals and a photo-diode, which senses the scattering light with the effect of smoke entering the chamber. The chamber is designed for protection from dust, insects and other external interferences.



### MG-9200 Intelligent analogue addressable ionisation smoke detector

Ionisation smoke detector has twin room ionisation chamber to prevent the interference of excessive humidity and heat. One of the rooms functions as reference and the other as the sampling one. The chamber is designed for protection from dust, insects and other external interferences.



### MG-9300 Intelligent analogue addressable heat detector

Heat detector detects temperature change by temperature-sensitive thermistors. The detector can function either as a fixed heat or rate of rise heat detector. The design of the chamber provides sensitive ambient temperature measurement.



### MG-9400 Intelligent analogue addressable multisensor detector (photo-electric smoke + heat)

The multi-sensor has a photo-electric smoke detection chamber and a temperature-sensitive thermistor. The chamber is designed for protection from dust, insects and other external interferences. The design of the chambers provides maximum sensitivity to smoke and temperature change.



### MG-3700 Surface mounting back box

MG-3700 Surface mounting back box is used at media with harsh weather conditions. Back box is surface mounted.



### MG-3510 Addressable mounting base



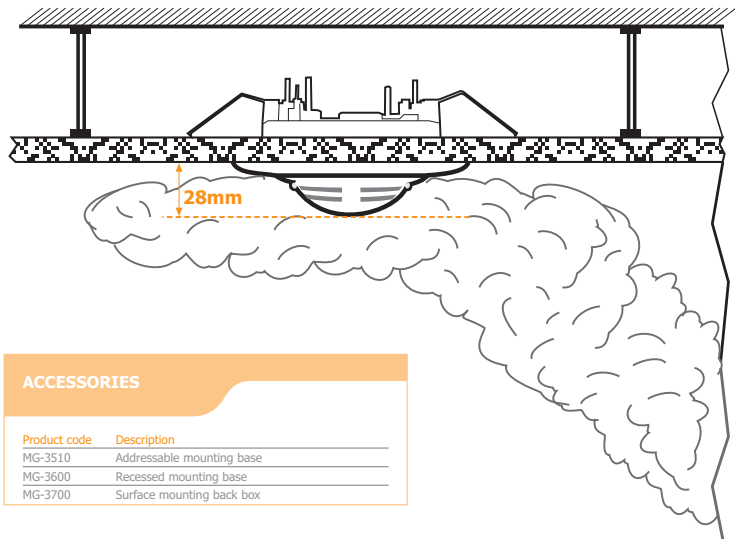
Latest MG- 3510 Analogue addressable mounting bases are compatible with MG-9000 series analogue addressable detectors. Remote indicator output is standard for MG series detectors. Addressable mounting base has Ni-Cd coated corrosion-proof clamp type contacts. It is used for wall and ceiling mounted applications.

### MG-3600 Recessed mounting base



Recessed mounting base is used for mounting conventional as well as analogue addressable detectors on false ceilings of various types (metal, plaster etc.). The base allows creating more aesthetic architectural applications. Bases are produced from ABS and have the same colour as detectors. Bases are flush-mounted into ceiling with two clamps and stainless steel screws.

The smoke effect results in the accumulation of smoke at the ceiling. When detectors are zeroed at the exact level of ceiling, it is more difficult to detect the accumulated smoke. In order to prevent this result, MG-3600 Recessed mounting base has been designed, after fire simulations and precise tests.



#### DETECTOR MODELS

Product code	Description
MG-9100	Photo-electric smoke detector
MG-9200	Ionisation smoke detector
MG-9300	Heat detector
MG-9400	Multisensor detector (photo-electric smoke + heat)

#### ACCESSORIES

Product code	Description
MG-3510	Addressable mounting base
MG-3600	Recessed mounting base
MG-3700	Surface mounting back box



## AGD series addressable gas detectors

An addressable solution for gas leakage detection. AGD series gas detectors are connected to loops of Harezmic series fire alarm control panels and operate on Harezmic Very Intelligent Protocol.

### Features

01. Compatible with TS EN 50194 and TS EN 50291
02. Compatible with intelligent analogue addressable fire alarm control panels Power on, gas alarm and fault LED indicators
03. Control of LEDs and buzzer operations with test button
04. Built-in buzzer
05. 5 year sensor life under normal operating conditions
06. Stable sensitivity and high operating performance
07. Requires 24 V DC external power supply
08. Max. 127 gas detectors per loop
09. Can be included in cause-effect configurations
10. Identified as input devices in cause-effect scenarios of Loop Manager software
11. Relay output feature
12. Microprocessor controlled
13. Aesthetic design
14. Produced by use of surface mount technology



### LPG detectors (butane+propane)

LPG is an explosive hydrocarbon gas consisting of butane and propane. It is heavier than air and sinks to floor in case of leakage. Therefore, an LPG detector must be mounted 15-25 cm above floor and 1-2 m horizontally away from the range of possible gas leakage. The Mavigard LPG detectors respond audibly and visually before the leakage reaches 20% LEL.

### Methane (natural gas) detectors

Methane is an explosive hydrocarbon gas. It is lighter than air and rises to ceiling in case of leakage. Therefore, a natural gas detector must be mounted 5-15 cm below ceiling and 1-2 m horizontally away from the range of possible gas leakage. The Mavigard Natural gas detectors respond audibly and visually before the leakage reaches 20% LEL.

### Carbon monoxide detectors

Carbon monoxide is a toxic and explosive gas with density nearly equal to air. Therefore, a carbon monoxide detector must be mounted 1-1.5 m above floor and 1-2 m horizontally away from the range of possible gas leakage. Carbon monoxide detectors should not be mounted outside buildings, behind or inside cupboards, where air circulation is low, in damp or humid places, above fuel burning appliances and places with low or high temperatures. The Mavigard Carbon monoxide detectors respond audibly and visually when the gas concentration reaches 50 ppm (parts of gas per million parts of air).

GAS DETECTORS	
Product code	Description
AGD-1224L/VIP	Addressable LPG (propane+butane) detector, 24 V DC
AGD-1224M/VIP	Addressable methane (natural gas) detector, 24 V DC
AGD-1224C/VIP	Addressable carbon monoxide detector, 24 V DC



## Intelligent analogue addressable monitor and control modules

Monitor and control modules, offering high performance by the VIP communication protocol, can be configured to operate in cause-effect scenario and fire automation can be performed.

Monitor and control modules can cooperate with peripheral systems by making the related identifications in fire scenario. As well as monitoring peripheral systems, the control can be realized by control modules.



**MG-6100 Relay controller, 1-way output**  
**MG-6108 Relay controller, 8-way output**

The modules having volt-free change over normally open and normally close contacts are loop-powered and do not require external power supply.

**MG-6700 Mains relay controller, 1-way output, 250 V AC 8 A**

The module has one relay output with volt-free, unipolar contacts with max. load of 8 A 250 V AC. The relay can operate as normally open or normally close.

**MG-6200 Switch monitor, 1-way input**  
**MG-6208 Switch monitor, 8-way input**

The modules can monitor both volt-free change over normally open and normally close contacts and do not require external power supply.



**MG-6300 Sounder controller, 1-way output**  
**MG-6308 Sounder controller, 8-way output**

The modules continuously monitor the audio-visual warning devices for open and short circuits and require external power supply.

**MG-6400 Zone monitor, 1-way input**  
**MG-6408 Zone monitor, 8-way input**

The modules continuously monitor the detection devices for open and short circuits and require external power supply.

### Features

01. Compatible with EN 54-18
02. Microprocessor-controlled
03. 'Soft' addressable by use of address programmer
04. Easily programmable by Loop Manager
05. LED-indicated activation and fault conditions
06. Loop-powered switch monitors and relay controllers
07. Sounder controller and zone monitor module operating with external power supply
08. Power supply fault monitoring by volt-free changeover contact
09. 8-way input and output module models
10. 8-way sounder controller with internal power supply
11. Aesthetic design
12. Produced by use of surface mount technology



### MODULE TYPES

Product code	Description
MG-6100	Relay controller, 1-way output
MG-6108	Relay controller, 8-way output
MG-6200	Switch monitor, 1-way input
MG-6208	Switch monitor, 8-way input
MG-6300	Sounder controller, 1-way output
MG-6308	Sounder controller, 8-way output
MG-6400	Zone monitor, 1-way input
MG-6408	Zone monitor, 8-way input
MG-6700	Mains relay controller, 1-way output, 250 V AC 8A

### POWER SUPPLY UNITS

Product code	Description
MG-7050	Mavigard SMPS switched mode power supply unit, 2.5A
MG-7080	Mavigard SMPS switched mode power supply unit, 4A
ML-0515	Maxilogic SMPS switched mode power supply Unit, 5A
ML-05110	Maxilogic SMPS switched mode power supply unit, 10A



ML-05110



## Intelligent analogue addressable system accesories

The accessories, designed for intelligent analogue addressable system and which offer high performance, are composed of audio-visual warning devices, manual call points and adress programmer.

### Features

01. Warning devices are compatible with EN 54-3, manual call points are compatible with EN 54-11
02. Microprocessor controlled
03. 'Soft' addressable by use of address programmer
04. Easily programmable by Loop Manager
05. Able to integrate into the cause effect scenarios
06. LED indicated activation
07. Monitoring analogue value
08. Measuring contamination level
09. Aesthetic design
10. Production by surface mount technology



### MG-6500 Short circuit isolator

The module is used for isolation of the loop sector affected by short circuit, thus preserving the healthy operating of the rest of the loop. Connecting one short circuit isolator module per 20 addressable devices is recommended. The module deactivates automatically as soon as short circuit condition ends. The module does not require to be addressed.



### MG-6600 Symphoni SY/C intelligent analogue addressable loop powered sounder (VIP communication module included) MG-6610 SY/AV/C/CL Symphoni AV intelligent analogue addressable loop powered sounder strobe (VIP communication module included)

The sounder is designed for indoor use and gives 100 dB(A) output at 1m with full VIP communication protocol compatibility. The devices are loop-powered and can be included in fire scenarios. MG-6610 has 1 Hz flashing frequency.



### MG-8110 Addressable manual call point, resettable MG-8120 Addressable manual call point, weather-proof (IP67)

The manual call point is activated by breaking film-coated glass. When the glass is broken, the switch, normally resting on glass edge, changes its position and retains till new glass is mounted. The manual call point is equipped with a red LED, which blinks on polling and illuminates continuously on activation. The MG-8120 Addressable manual call points are weather-proof and placed in the IP67 ingress protection class.



### MG-8130 Addressable manual call point with isolator module, resettable

MG-8130 Addressable manual call points has 2 LEDs on it. The red LED illuminates on activation of manual call point and the yellow LED illuminates on short circuit condition on loop. MG-8130 contains the features of both MG-8110 (addressable manual call point, resettable) and MG-6500 (short circuit isolator).



### MG-8200 Address programmer

Analogue addressable detectors, manual call points, modules and addressable sounders are microprocessor-controlled, which allows 'soft' addressing from 1 to 127. The address programmer is used for both address setting and displaying the measured analogue value; this feature allows detecting the pollution level in the smoke detector chamber.

### ACCESSORIES

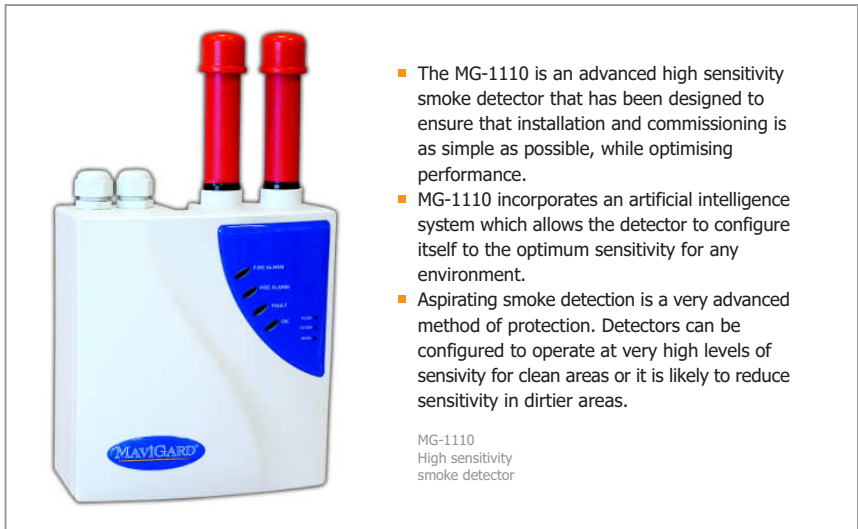
Product code	Description
MG-6500	Short circuit isolator
MG-6600	Loop-powered addressable sounder
MG-6610	Loop-powered addressable sounder beacon
MG-8110	Manual call point, resettable
MG-8120	Manual call point, weather-proof (IP67)
MG-8130	Manual call point, with isolator module, resettable
MG-8200	Address programmer





## MG-1110 Mavigard high sensitivity smoke detector

Mavigard 1110 High sensitivity smoke detector provides reliable aspirating smoke detection in a small package for easy and discreet installation.

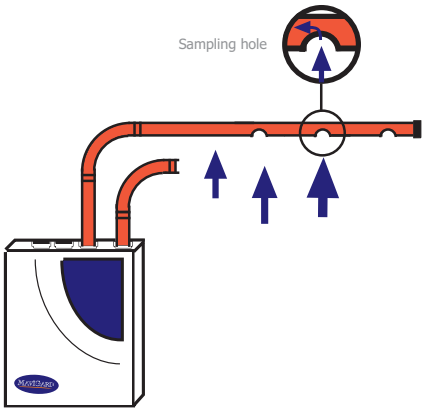


- The MG-1110 is an advanced high sensitivity smoke detector that has been designed to ensure that installation and commissioning is as simple as possible, while optimising performance.
- MG-1110 incorporates an artificial intelligence system which allows the detector to configure itself to the optimum sensitivity for any environment.
- Aspirating smoke detection is a very advanced method of protection. Detectors can be configured to operate at very high levels of sensitivity for clean areas or it is likely to reduce sensitivity in dirtier areas.

MG-1110  
High sensitivity  
smoke detector

**Features**

01. High sensitivity provided by laser based forward light scatter for reliable early warning
02. Up to 100 m of sampling pipe with 10 sampling holes.
03. Undesired alarms from dust are avoided using the Laser dust elimination system technology.
04. Easy commissioning without using PC
05. Special design of laser smoke sensor chamber for aspirating detection



Samples of air are continuously drawn through a network of sampling holes in pipes to a sophisticated detection chamber where the air sample is analysed for the presence of smoke particles using a laser source.

PRODUCT MODELS	
Product code	Description
MG-1100	High sensitivity smoke detector

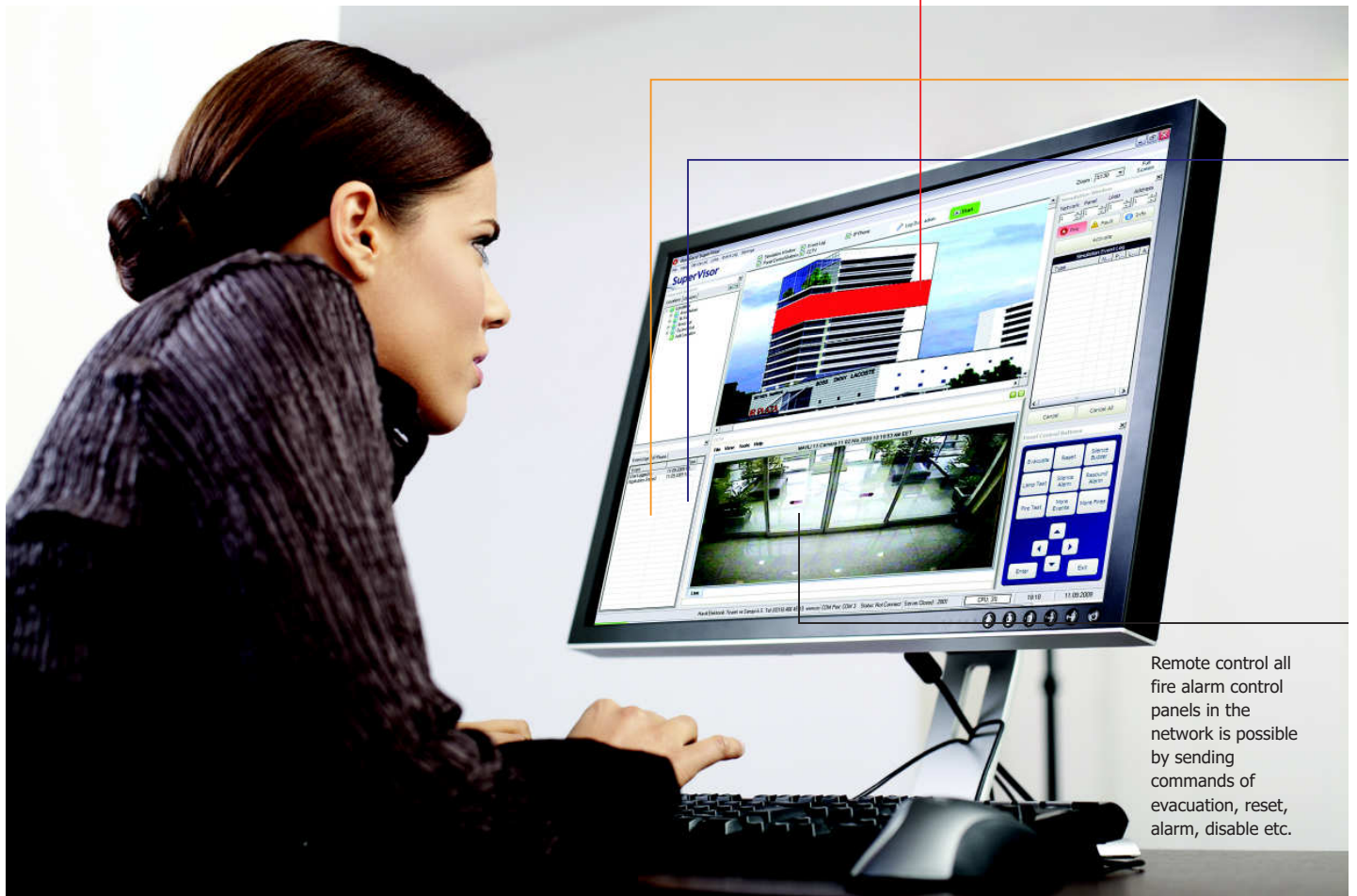
## Supervisor graphic software for monitoring and managing analogue addressable system

### Features

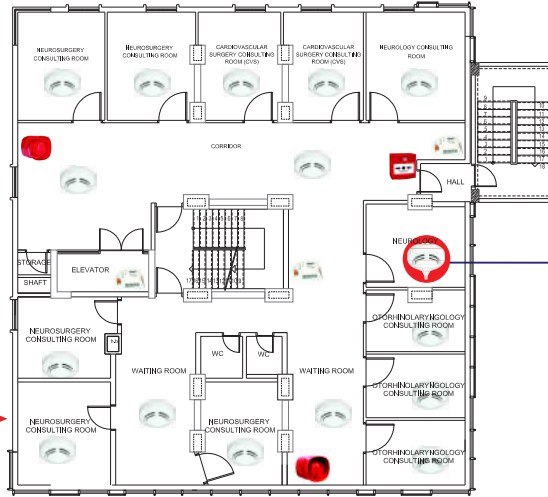
01. By integrating CCTV system, monitoring both CCTV and graphical monitoring of the system simultaneously in the same functional screen
02. Up to 64 panels and/or repeaters operating in a network can be graphically monitored and managed on PC
03. Automatic program start-up with the PC operating system and disabling windows shortcuts
04. Integration of building projects into the monitoring program as maps
05. Fire alarm system configuration based on files created in the loop manager
06. 10 different users can be defined
07. Audible warning according to event type, adjustable event effects on user request
08. Event logging
09. Sending alarm messages to remote PCs in LAN/WAN by use of TCP/IP protocol
10. Three language options: Turkish, English and Russian

Up to 64 panels and/or repeaters operating in a network can be graphically monitored and managed on PC.

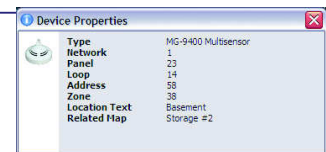
- Supervisor; is a specially designed software which shows fire and fault events and makes possible to monitor and control the fire alarm system as in architectural and graphical way.
- The communication between PC and fire alarm system can be done via either RS-232 or RS-485 and for longer distance GPRS or TCP-IP ports can be used.
- By downloading Supervisor patch file into other computers, it is possible to send fire and fault messages automatically and/or manually via internet, LAN and WAN.



Remote control all fire alarm control panels in the network is possible by sending commands of evacuation, reset, alarm, disable etc.



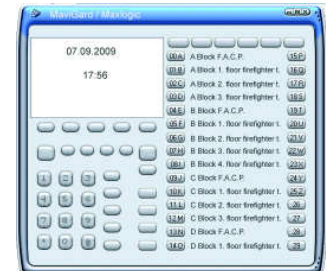
Architectural site plans of the building are defined to the Supervisor graphic software program as maps and all the fire alarm system devices are figured on these maps.



In case of any event, the event location map is shown on screen and detailed alarm information is provided to the user for exact determination.

Event logging for every fire, fault, information and program start-up, user login etc. event.

Back-up, sort by date and event type, print out options are available for event logs which are colour listed.



The communication (i.e. conference call) with firefighter and other telephones is provided by the integrated VOIP (Voice over IP) System

Monitoring camera screens and remote control the camera is possible by integrating CCTV system.



### SUPERVISOR AND ACCESSORIES

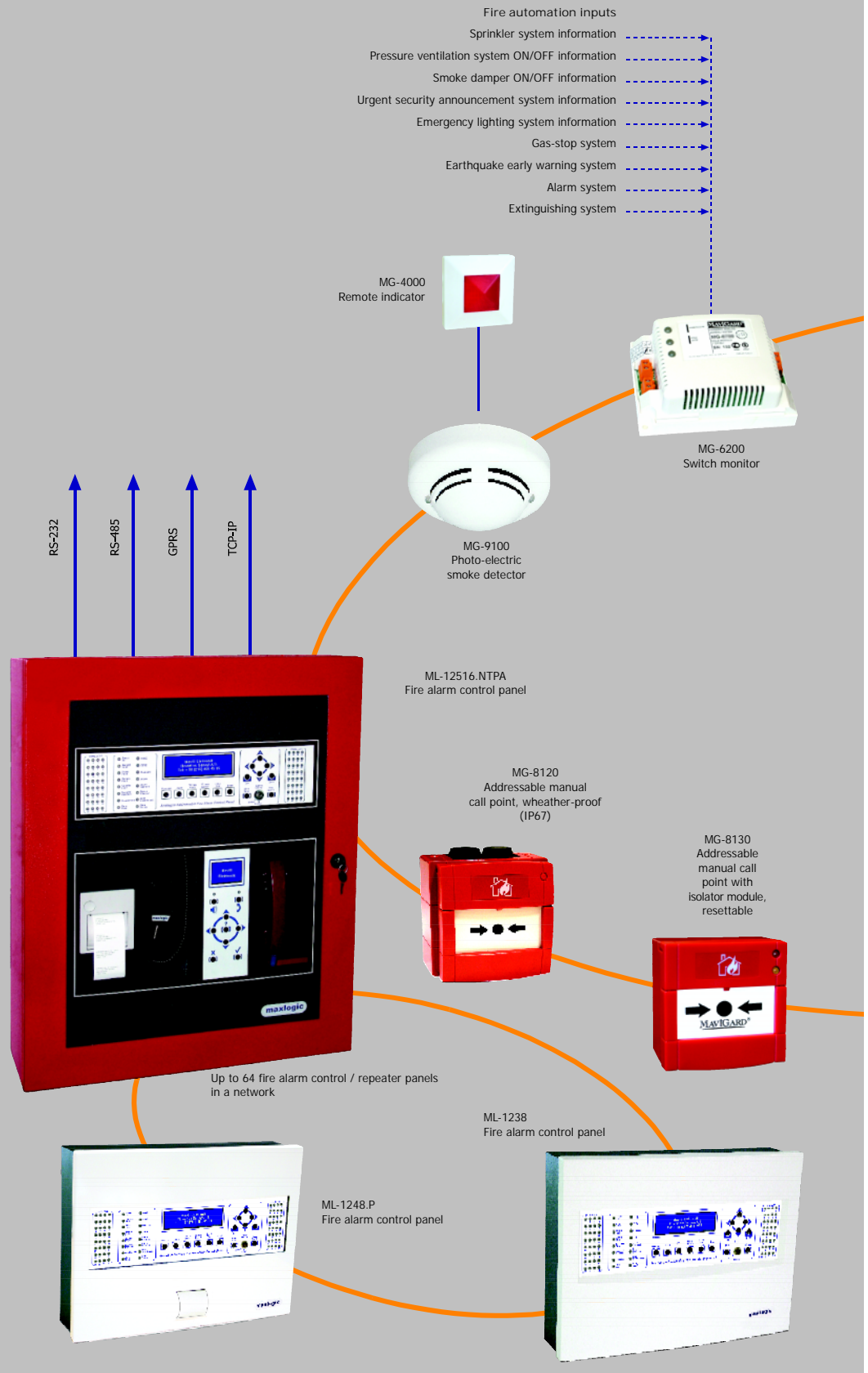
Product code	Description
MHS-1001	Supervisor graphic software for monitoring and managing of 1 panel
MHS-1004	Supervisor graphic software for monitoring and managing of 4 panel
MHS-1008	Supervisor graphic software for monitoring and managing of 8 panel
MHS-1016	Supervisor graphic software for monitoring and managing of 16 panel
MHS-1032	Supervisor graphic software for monitoring and managing of 32 panel
MHS-1064	Supervisor graphic software for monitoring and managing of 64 panel
MHS-2100	USB dongle for supervisor software
MHS-2200	Network alarm software for 10 users
MHS-2300	Network alarm software for 25 users
MHS-2400	Network alarm software for 50 users
MHS-2500	RS-232/USB converter
MHS-2600	PC-Panel distance extender kit for communication cable

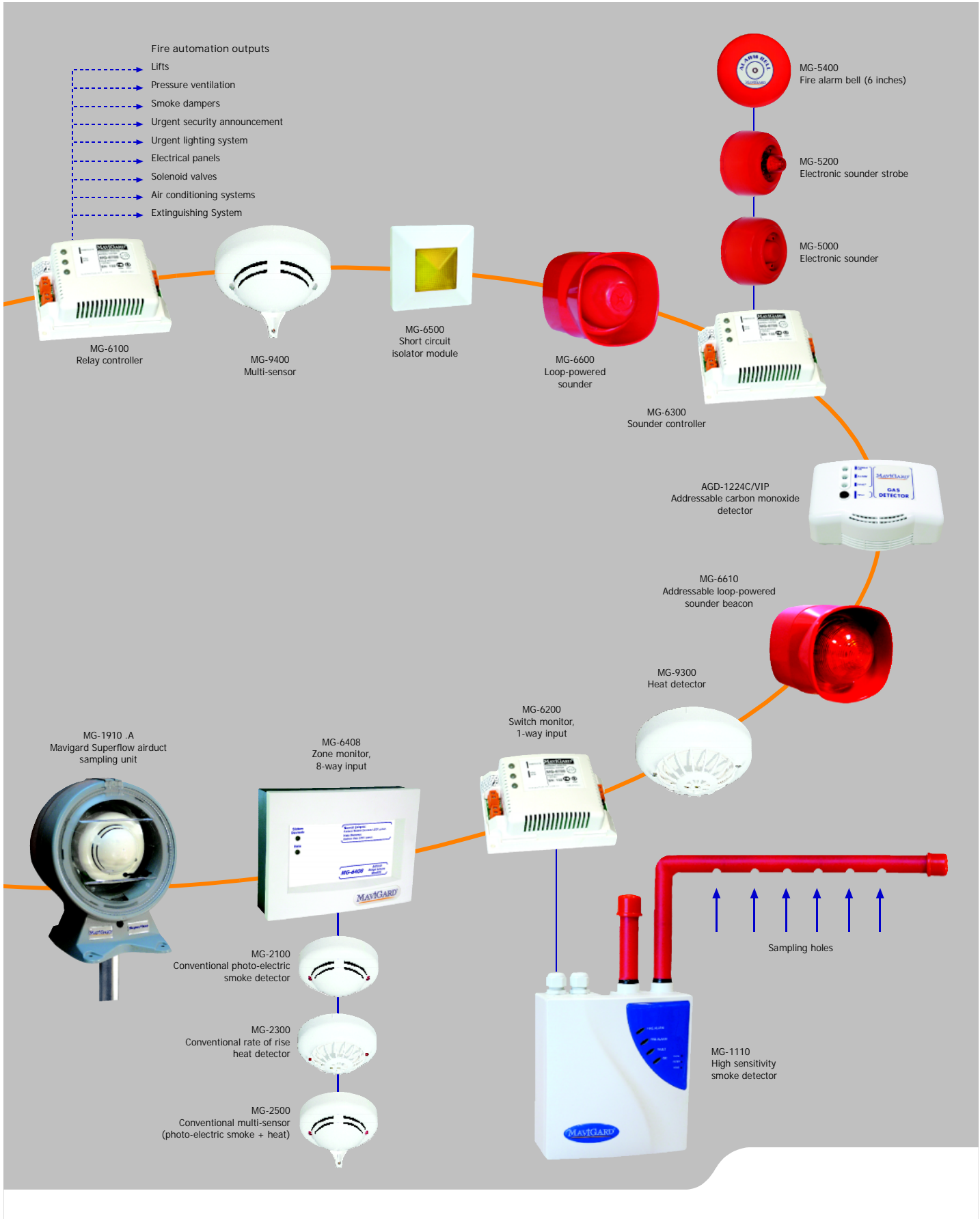
## Mavigard and Maxlogic analogue addressable fire alarm control system capabilities

Mavigard and Maxlogic provide reliable and user-friendly fire alarm control system for most complex sites which is likely to respond all requirements of the area to be protected.

### Features

01. Modular structure which is able to set up and expand the fire alarm system from 1 loop to 16 loops 64 control panels / repeater panels networking
02. 16 loops x 127 addresses x 64 panels makes overall 130,048 devices to be able to integrate into the fire alarm system and work under same network
03. Integration with other security systems
04. Integration of conventional systems and zones to the analogue addressable system
05. Loop Manager software can run under Windows
06. Graphical system monitoring on PC by Supervisor software Program
07. Programmable panel inputs and outputs
08. Device-based and event-based cause-effects
09. Polling data parity check





## SD64+ series conventional fire alarm control panel and TP64+ series conventional repeater panels

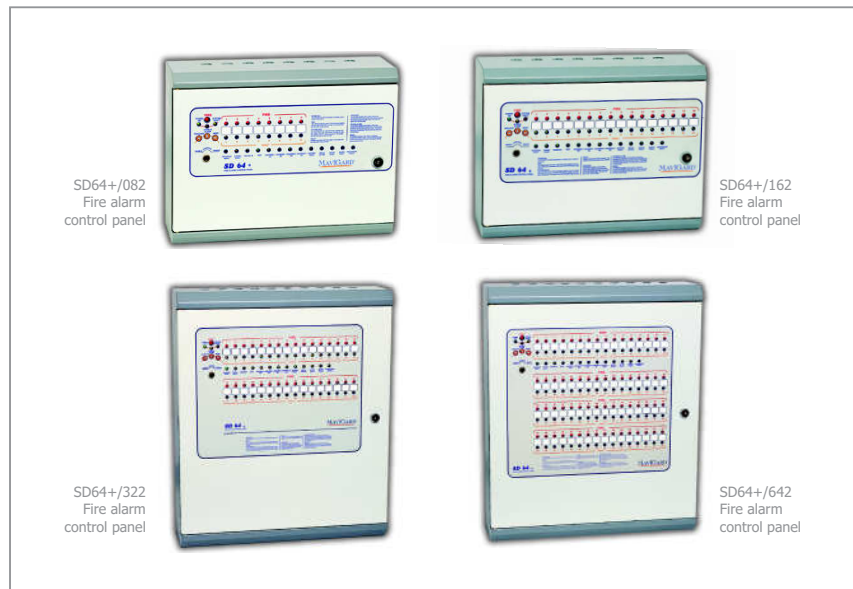
Programmable and microprocessor-controlled fire alarm control panels and repeater panels.

### Fire alarm control panel features

01. Compatible with EN 54-2 and EN 54-4
02. 8, 16, 32 or 64 zone capacity
03. Microprocessor-controlled
04. 2 sounder outputs, fire and fault relay outputs
05. PCBs protected with metal case
06. Protection from electromagnetic interference
07. Soft touch buttons
08. Zonal Fire and Fault LED indicators
09. Button control key to prevent unauthorised access
10. Piezoelectric buzzer and 16 fault indicators
11. Switched mode power supply (SMPS) microprocessor-controlled
12. Zone Test and Zone Disable functions
13. Delayable sounder output activation

### Repeater panel features

01. Compatible with EN 54-2 and EN 54-4
02. Controlling fire alarm control panels in a network
03. Switched mode power supply (SMPS) microprocessor-controlled
04. Zonal fire and fault LED indicators
05. Microprocessor-controlled



### Control panel

- Zones can be disabled in SD64+ series depending on the user choice and/or system can be switched to Test Mode. Test Mode allows the system to be tested single-handed. On the Test Mode, fire alarm signal automatically resets after few seconds to eliminate the need for returning to the panel to reset the system.
- A delay time of 2 minutes can be set for sounder outputs. Delay Active LED indicator on the front panel illuminates when panel sounder outputs are on the Delay Mode.
- SD64+ series fire alarm control panels are supplied with microprocessor-controlled switched mode power supply. Panels have an electronic charger circuit limiting the ampere level, providing continuous monitoring of the charge level and automatic cut facility, when charging is finished. If the battery voltage falls under operating level, panel automatically switches off.
- A relay output can be assigned to every zone by installing an optional relay module.

### Repeater panel

- If "Ftp Cat6" Network cable are used, network cable length between two panels can be up to 500m.
- RS-485 Communication protocol is used for network communication.
- Up to 8 TP64+ Conventional repeater panels can be assembled into a network with a SD64+ series fire alarm control panel.
- Repeater panel buttons provide complete control of repeater as well as fire alarm control panels.

### PANEL MODELS

Product capacity	Zone capacity
SD64+/082	8
SD64+/162	16
SD64+/322	32
SD64+/642	64

### REPEATER PANEL MODELS

Product capacity	Zone capacity
TP64+/083	8
TP64+/163	16
TP64+/323	32
TP64+/643	64

### RELAY MODULE TYPES

Product code	Description
MGY-2300	8-way relay output module for SD64+ series panels
MGY-2301	16-way relay output module for SD64+ series panels



## MC series conventional fire alarm control panels

Designed for providing economical solutions for small site applications. The MC series conventional fire alarm control panels contain both stylish exterior design and SMT (Surface Mount Technology) production techniques.



### Fire alarm control panel features

01. Compatible with EN 54-2 and EN 54-4
02. Designed for small and medium site applications
03. Some models used with 24 V DC 1.5A external power supplies
04. 2 or 4 zone options
05. Up to 32 units of standard conventional fire detector can be connected to a fire zone
06. 1 unit of 24 V DC 500mA automatic-fuse protected and supervised sounder output
07. 16 units of MG-5000 Electronic sounder or 8 units of MG-5200 sounder strobe can be connected to the sounder output
08. 1 unit of fire relay with volt-free changeover contacts rated 1A 30 V DC, NC/NO
09. By the help of "Zonal Test" function, detector tests can be done by single person
10. The desired zones of the panel can be disabled by use of "Disable" function
11. Simplicity and clear understanding of control buttons and indicators
12. Easy cable entries from both above and back sides

- The MC series panels offer 2 or 4 zone options which can operate with either 220 V AC 50Hz or 24 V DC 1.5A external power supply models.
- For each fire alarm zone; up to 32 units of standard conventional fire detector and unlimited manual call points can be connected.
- The MC panel has supervised fire zones and sounder output. which make easy to tracked some faults such as open circuit and short circuit faults.
- The desired zones of the panel can be set to Disable and/or Test Mode so that the panel is to be tested by single person.
- By using "lamp test" button it is easy to check all the LEDs whether they are working properly or not.

### PANEL MODELS

Product code	Zone capacity	Main power supply
MC-2	2	230 V AC 50Hz
MC-4	4	230 V AC 50Hz
MC-2M	2	24 V DC, 1.5A
MC-4M	4	24 V DC, 1.5A



## MP-8 series conventional fire alarm control panels

Designed for providing economical solutions for small site applications. The MP-8 series conventional fire alarm control panels contain both stylish exterior design and SMT (Surface Mount Technology) production techniques.

### Fire alarm control panel features

01. Compatible with EN 54-2 and EN 54-4
02. 2, 4, 8-zone options
03. Designed for small and medium site applications
04. Compatible with all popular conventional fire detectors
05. Fire and fault situations in zones are indicated by Zonal Fire and Fault LED indicators and Piezoelectric buzzer
06. 1 unit of automatic-fuse protected supervised sounder output and 1 unit of 24 V DC 500mA auxiliary power supply output
07. 1 unit of fault relay with volt-free changeover contacts rated 1A 30 V DC, NC and 1 unit of fire relay with volt-free changeover contacts rated 1A 30 V DC, NO
08. Simplicity and clear understanding of control buttons and indicators
09. Optional repeater panels
10. LED test by use of single button
11. Button control key to prevent unauthorised access
12. Easy cable entries from both above and back sides
13. Microprocessor controlled



MP-8 Fire alarm panels

- Each fire zone can host max. 20 fire detectors and unlimited number of manual call points. Optional repeater panel can be connected.
- By use of optional MS-MP relay modules, a different relay output can be assigned to each zone.
- Fire zones and sounder output are supervised and monitored for open and short circuits, indicated on the front panel.
- Panels have a microprocessor controlled electronic charger circuit limiting the ampere level, providing continuous monitoring of the charge level and automatic cut facility, when charging is finished.

PANEL MODELS	
Product code	Zone capacity
MP-82	2
MP-84	4
MP-88	8

MODULE TYPES	
Product code	Description
MGY-2302	Mavigard spares for MS/MP series conventional panels, 8-way conventional relay output module
MGY-2305	Repeater panel driver board





## MS-64 series conventional control panel

Designed for providing economical solutions for small site applications. The MS-64 series conventional fire alarm control panels contain both stylish exterior design and SMT (Surface Mount Technology) production techniques.



### Fire alarm control panel features

01. Compatible with EN 54-2 and EN 54-4
02. High and stable operation performance
03. 8, 16, 32 or 64 zone models
04. 24 V DC operation voltage
05. PCBs produced using surface mount technology
06. Stylish exterior design
07. Microprocessor controlled design
08. Compatible with all popular conventional fire detectors
09. Optional repeater panels
10. Zone Test and Zone Disable Modes
11. Detailed information on fault events by LED indicators and seven segment display
12. 2 units of automatic-fuse protected supervised sounder output and 1 unit of 24 V DC 500mA auxiliary power supply output
13. 1 unit of fault relay with volt-free changeover contacts rated 1A 30 V DC, NC and 1 unit of fire relay with volt-free changeover contacts rated 1A 30 V DC, NO
14. LED test by use of single button
15. Button control key to prevent unauthorised access

- Fire alarm and fault events can easily be seen by user with the LED indicators and seven segment display.
- Each fire zone can host max. 20 fire detectors and unlimited number of manual call points. The sounder output can host max. 16 MG-5000 Sounders or 8 MG-5200 Sounder strobes.
- Conventional zones and sounder lines are continuously monitored for open and short circuits, indicated on the front panel.
- Zones can be set to Disable and Test Modes. On the Test Mode, manually initiated fire alarm is reset automatically after a few seconds; this allows testing zones by one person without need for returning to the panel for reset.
- Optional repeater panel can be connected.
- By use of optional MS-MP Relay modules, a different relay output can be assigned to each zone.

#### PANEL MODELS

Product code    Zone capacity

MS-6408	8
MS-6416	16
MS-6432	32
MS-6464	64

#### MODULE TYPES

Product code    Description

MGY-2302	Mavigard Spares for MS/MP series conventional panels, 8-way conventional relay output module
MGY-2303	Mavigard Spares for MS/MP series conventional panels, 16-way conventional relay output module
MGY-2305	Repeater panel driver board



## MGRP-64 Conventional common repeater panel

Using at least one MGRP-64 Repeater panel enables to configure up to 32 fire alarm control panels and/or repeater panels in large site conventional fire alarm applications. MGRP-64 series repeater panels has a stylish exterior appearance and produced by using surface mount technology.

### Repeater panel features

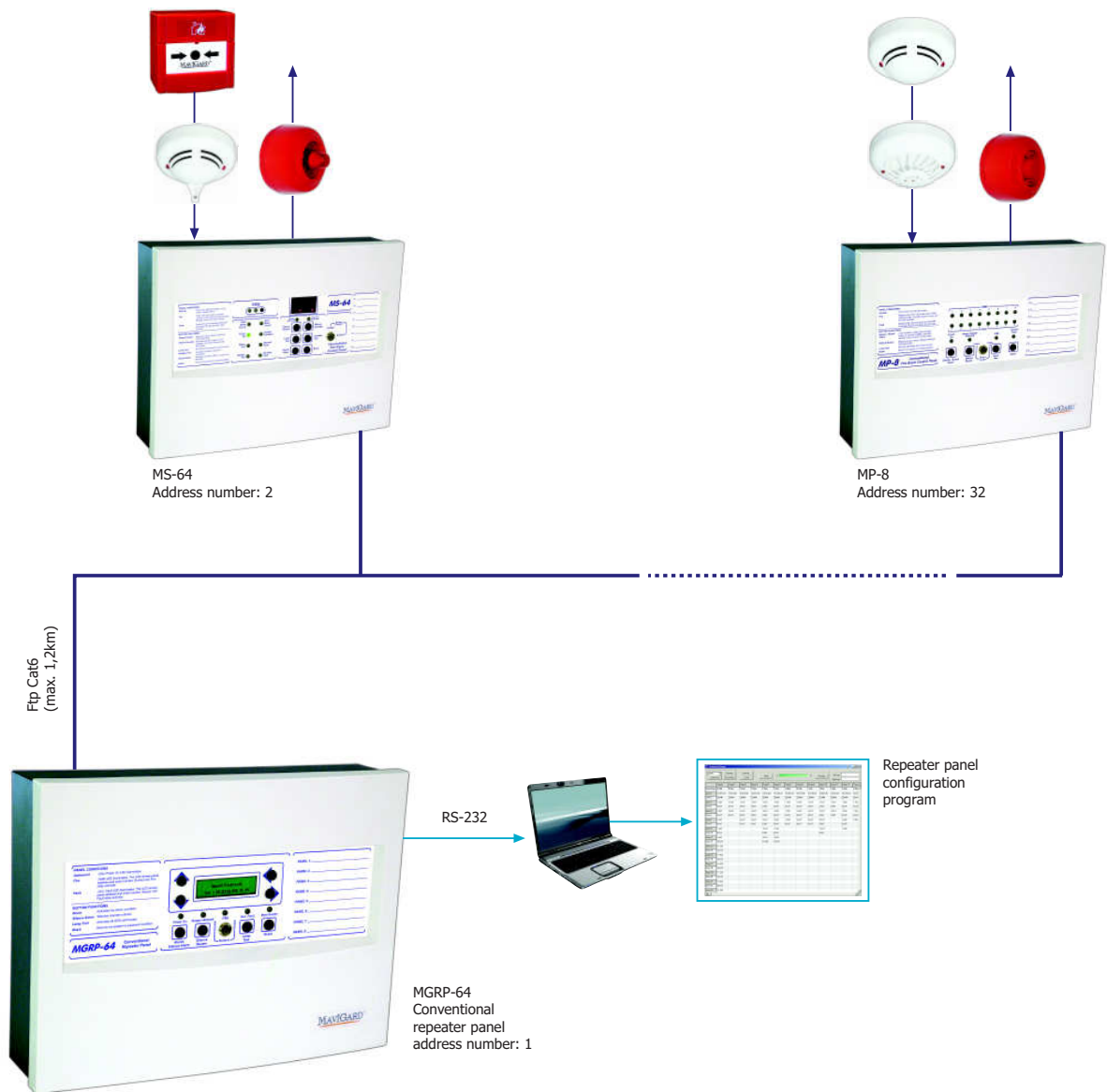
01. Compatible with EN 54-2 and EN 54-4
02. High and stable operation performance
03. 64 repeater zone capacity
04. 24 V DC operation voltage
05. PCB produced using surface mount technology
06. Stylish exterior design
07. Microprocessor controlled
08. Compatible with MP-8 and MS-64 model conventional fire alarm control panels
09. Polling entire network in every 0.5 seconds
10. RS-485 communication protocol
11. Network cable length up to 1200 metres
12. Storage of latest 50 events in the memory and display priority to fire events
13. Single-button test of LEDs and LCD
14. Button enable/disable key to prevent unauthorised access



MGRP-64 Repeater panel

- Using at least one MGRP-64 Repeater panel, 32 conventional fire alarm control panels/repeater panels can be assembled in one system.
- Fire alarm control panels require MGY-2305 Repeater panel driver board to communicate with each other in the network.
- LCD (2 x 16 character) and LEDs in front of the repeater panel enable easy representation of the details of fire and fault alarm status from other fire alarm control panels in the network
- Using MGRP-64 Repeater panel, all fire alarm control panels can be reset, put to alarm and silenced alarm condition by use of the repeater panel buttons.
- A control panel newly added to the network is automatically detected and included in network structure. If any control panel is removed from the network, repeater panel displays "Disconnected Panel" fault.
- All fire and/or fault events of panels in the network structure are displayed as "Panel Number" and "Zone Number" format. While creating the network, panel names and zone names are saved by a software program specially developed and these records are sent separately, in addition to the Panel Number and Zone Number information.






REPEATER PANEL MODELS	
Product code	Zone capacity
MGRP-64	64

MODULE TYPES	
Product code	Description
MGY-2305	Repeater panel driver board



**MGY-2305 Repeater panel driver board**  
 MGY-2305 Repeater panel driver board must be used for each fire alarm control panel in the network structure.  
 MGY-2305 Repeater panel driver boards are produced by use of surface mount technology.

## MG / MGR-2000 series conventional fire detectors

Produced by use of surface mount technology providing highly stable and sensitive detection.

### Features

01. Compatible with EN 54-5 and EN 54-7
02. Stable sensitivity
03. MGR models with relay output
04. Twin fire alarm indicators for 360° viewing
05. Protection from electromagnetic interference
06. Clamps terminals to ensure firm contact with the base
07. PCB protected by metal case
08. MG-3500 Conventional mounting base compatible
09. MG-3600 Recessed mounting base compatible
10. MG-3700 series surface mounting back box compatible
11. Remote indicator output
12. In MGR series normally close relay output as standard (normally open relay is also available)



The chamber is protected from dust, insects and other external interferences.

### MG-2100 Photo-electric smoke detector

#### MGR-2100 Photo-electric smoke detector with relay output

Photo-electric smoke detector has an infrared photoelectric smoke detection chamber which utilises the infrared light scatter sensing principle.



### MG-2200 Ionisation smoke detector

#### MGR-2200 Ionisation smoke detector with relay output

Ionisation smoke detector has twin room ionisation chamber to prevent the interference of excessive humidity and heat.

Heat detectors detects temperature change by temperature-sensitive thermistors. Design of the detector provides fast response to heat rise.



### MG-2300 Rate of rise heat detector

#### MGR-2300 Rate of rise heat detector with relay output

The detector can function either as a fixed heat or rate of rise heat detector. Fire alarm signal is generated in case of 30°C /min or higher heat rise and/or on reaching the threshold of 60°C.

### MG-2400 Fixed heat detector

#### MGR-2400 Fixed heat detector with relay output

The fire alarm signal is generated on reaching the threshold of 60°C.



### MG-2500 Multi-sensor

#### MGR-2500 Multi-sensor with relay output

#### (Photo-electric smoke detector + heat detector)

Multi-sensor has an infrared photoelectric smoke detection chamber utilising the infrared light scatter sensing principle and a temperature-sensitive thermistor. The detection chamber is protected from dust, insects and other external interferences. Design of the detector provides fast response to smoke and heat rise.



### MG-3500 Conventional mounting base

The bases are compatible with MG/MGR-2000 series conventional detectors. Remote indicator output is standard for MG series detectors. MG-3500 Conventional mounting bases has Ni-Cd coated corrosion-proof clamp type contacts and clamp terminals ensure firm contact with the base.





#### MG-3600 Recessed mounting base

Recessed mounting base is used for mounting conventional as well as analogue addressable detectors on false ceilings of various types (metal, plaster etc.). The base allows creating more aesthetic architectural applications. Bases are produced from ABS and have the same colour as detectors. Bases are flush-mounted into ceiling with two clamps and stainless steel screws.



#### MG-3700 Surface mounting back box

MG-3700 Surface mounting back box is used in harsh weather conditions, especially at marine usage, for surface mounting applications.



MG-3600 Recessed mounting base is compatible with the use on false ceilings of various types and creates much more aesthetic view in applications.

#### STANDARD CONVENTIONAL FIRE DETECTOR MODELS

Product code	Description
MG-2100	Photo-electric smoke detector
MG-2200	Ionisation smoke detector
MG-2300	Rate of rise heat detector
MG-2400	Fixed heat detector
MG-2500	Multi-sensor (photo-electric smoke detector + fixed heat detector)

#### CONVENTIONAL FIRE DETECTOR MODELS WITH RELAY OUTPUT

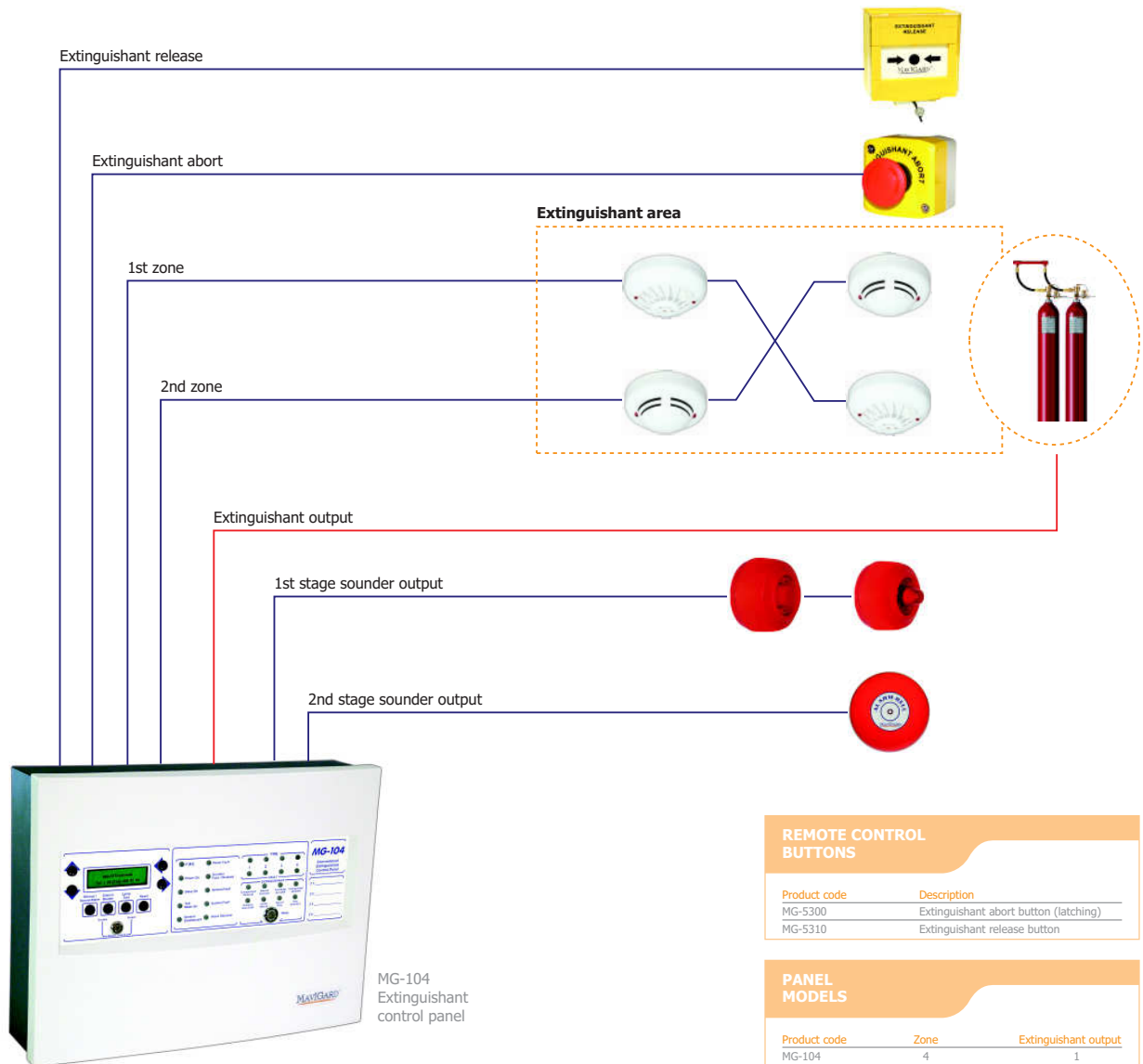
Product code	Description
MGR-2100	Photo-electric smoke detector with relay output
MGR-2200	Ionisation smoke detector with relay output
MGR-2300	Rate of rise heat detector with relay output
MGR-2400	Fixed heat detector with relay output
MGR-2500	Multi-sensor (photo-electric smoke detector + fixed heat detector) with relay output

#### ACCESSORIES

Product code	Description
MG-3500	Conventional mounting base
MG-3600	Recessed mounting base
MG-3700	Surface mounting back box







## Marine approved fire alarm control systems

All marine products are Lloyd certified and can be used in all sea vehicles.

### Conventional system features

01. 8, 16, 32 or 64 zone capacity
02. Microprocessor controlled
03. Stable-sensitivity

### Analogue addressable system features

01. 1, 2, 4 or 8 loops
02. Microprocessor controlled
03. 1000 event log memory
04. Communication interrupt for fast fire alarm identification in 1.5 sec.
05. Cause-effect programming

### Extinguishant control panel features

01. 4 extinguishant zones, 1 extinguishant output
02. Extinguishant-related front panel LEDs and LCD screen provide full system information
03. Programmable extinguishant release duration
04. The Extinguishant release output can control valves and actuators.



- Mavigard marine series analogue addressable fire alarm systems have been tested according to SOLAS 74 and FSS (Fire Safety System) for compliance with marine conditions. The marine systems are TURK LOYDU certified.

### MARINE ADDRESSABLE FIRE ALARM CONTROL SYSTEM

#### HAREZMIC SERIES FIRE ALARM CONTROL PANEL & REPEATERS

Product code	Description
MG-7100/M	FACP, 1 loop, 127 Addresses
MG-7200/M	FACP, 2 Loops, 254 Addresses
MG-7400/M	FACP, 4 Loops, 508 Addresses
MG-7800/M	FACP, 8 Loops, 1016 Addresses
MG-7000/M	Repeater panel

#### HAREZMIC SERIES ANALOGUE ADDRESSABLE FIRE DETECTORS

Product code	Description
MG-9100/M	Photo-electric smoke detector
MG-9200/M	Ionisation smoke detector
MG-9300/M	Heat detector
MG-9400/M	Multi-sensor

#### HAREZMIC SERIES ACCESSORIES

Product code	Description
MG-6500/M	Short circuit isolator
MG-6600/M	Loop-powered addressable sounder
MG-7080/M	MSM-4 (SMPS) switched mode power supply
MG-7090/M	Network interface card
MG-8110/M	Addressable manual call point,(resetable)
MG-8120/M	Addressable manual call point, weather-proof (IP67)

#### HAREZMIC SERIES INTERFACE MODULES

Product code	Description
MG-6100/M	Relay controller
MG-6200/M	Switch monitor
MG-6300/M	Sounder controller
MG-6400/M	Zone monitor
MG-6700/M	Mains relay controller, 250 V AC, 8A







### MG-3700/M Marine back box

Specially designed for marine applications, marine back box is used at media with harsh weather conditions. The box is compatible with all Mavigard marine conventional and analogue addressable fire detectors.

## MARINE CONVENTIONAL FIRE ALARM CONTROL SYSTEM

### SD64+ SERIES FIRE ALARM CONTROL PANEL & REPEATERS

Product code	Description
SD64+/082/M	FACP, 8 zones, 24 V DC
SD64+/162/M	FACP, 16 zones, 24 V DC
SD64+/322/M	FACP, 32 zones, 24 V DC
SD64+/642/M	FACP, 64 zones, 24 V DC
TP64+/083/M	Repeater panel, 8 zones, 24 V DC
TP64+/163/M	Repeater panel, 16 zones, 24 V DC
TP64+/323/M	Repeater panel, 32 zones, 24 V DC
TP64+/643/M	Repeater panel, 64 zones, 24 V DC

### CONVENTIONAL MANUAL CALL POINT

Product code	Description
MG-5100/M	Manual call point with break-glass
MG-5120/M	Manual call point, resettable

### MG&MGR-2000 SERIES FIRE DETECTORS

Product code	Description
MG-2100/M	Photo-electric smoke detector
MG-2200/M	Ionisation smoke detector
MG-2300/M	Rate of rise heat detector
MG-2400/M	Fixed heat detector
MG-2500/M	Multi-sensor (smoke+heat)
MGR-2100/M	Photo-electric smoke detector with relay output
MGR-2200/M	Ionisation smoke detector with relay output
MGR-2300/M	Rate of rise heat detector with relay output
MGR-2400/M	Fixed heat detector with relay output
MGR-2500/M	Multi-sensor (smoke+heat) with relay output

## LOYD CERTIFIED, MARINE TYPE FIRE EXTINGUISHANT SYSTEM

### MARINE ACCESSORIES

Product Code	Description
MG-3500/M	Conventional mounting base
MG-3600/M	Recessed mounting base
MG-3700/M	Marine back box
MG-4000/M	Remote indicator
MG-5000/M	Electronic sounder, red, 12/24 V DC
MG-5200/M	Sounder strobe, red, 12/24 V DC
MG-5400/M	Electronic alarm bell (6 inch)

### FIRE EXTINGUISHANT CONTROL PANEL & ACCESSORIES

Product code	Description
MG-104/M	Fire extinguishant control panel, 4 detection zone, 1 extinguishant zone
MG-5300/M	Extinguishant abort button (latching)
MG-5310/M	Extinguishant release button



## MG-400 series industrial type combined gas and fire alarm control panel

Advanced programmability and high performance make the panel widely applicable for both industrial and home use. MG-400 series panels offer high performance with use in automations

### Combined gas and fire alarm control panel features

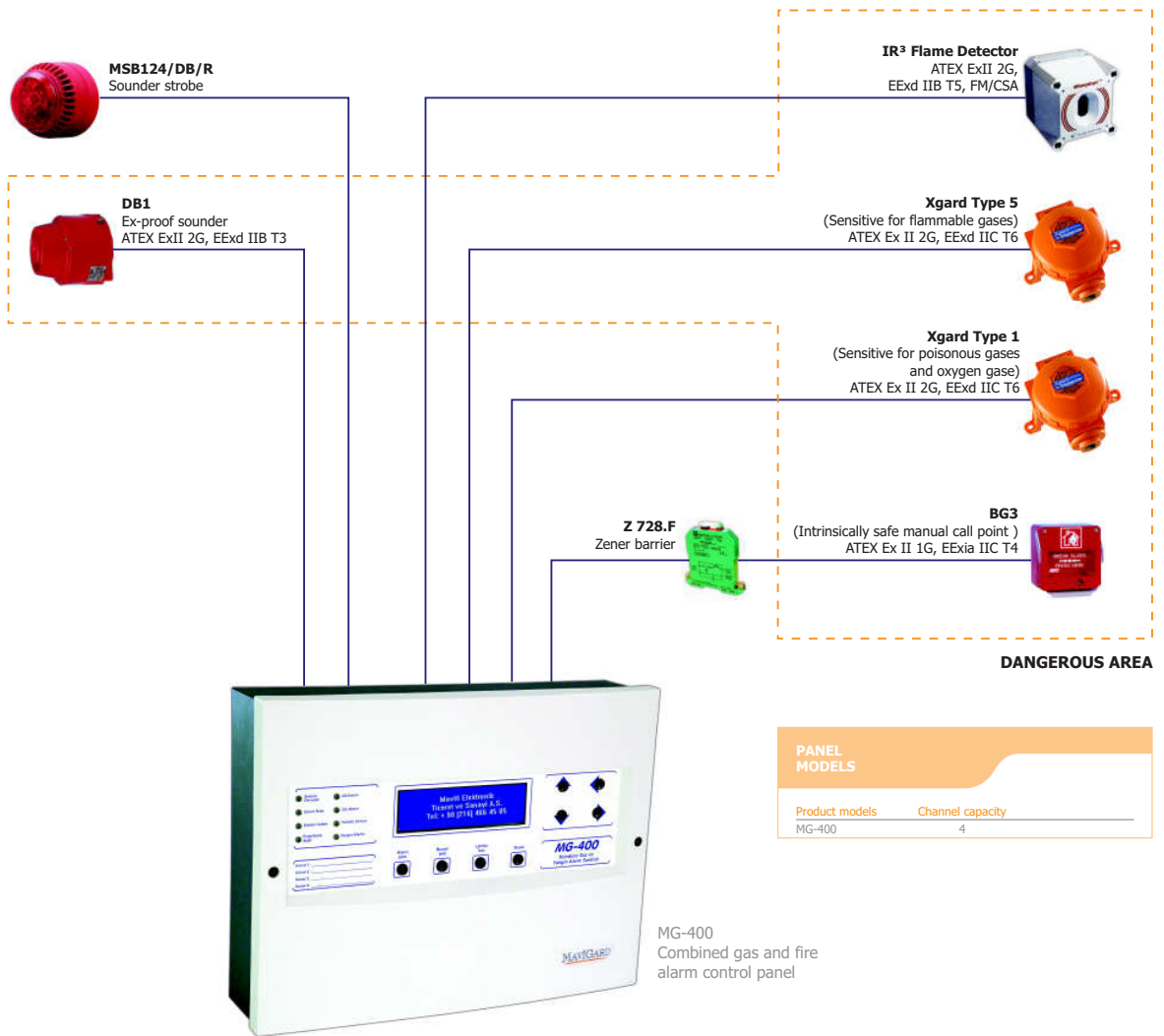
01. 4 channels
02. Industrial gas detectors compatible
03. 4-20 mA converter compatible
04. Adjustable high and low alarm thresholds
05. Sending signals to difeerent systems by high alarm relay, low alarm relay and fault relays.
06. Remote control
07. Configurable latching/non-latching relays
08. Relays can be set as NO or NC
09. Configurable latching/non-latching sounder outputs
10. 2- and 3-wire detectors compatible
11. Sink and Source option for channels
12. Password-protected access levels



MG-400 Combined gas and fire alarm control panel

- The panel has 4 channels, each capable of hosting max. 1 gas detector or 20 conventional fire detectors.
- Large graphic 64 x 240 pixel LCD with adjustable blue backlight facilitates displaying system information, including gas detector measurements, alarm conditions and faults.
- Channels can be disabled on user request, sounder outputs and relays can be tested, gas detectors can be zeroed and calibrated from the panel menu.
- It is possible to enter zone location text for panels and detectors.
- Channel measurement unit can be set to '%LEL', 'PPB', 'PPM', '%VOL' or 'FIRE'.
- Panels can be set to ignore channel measurements made just after energising of the panel for certain time. The time is adjustable from the panel menu. This feature prevents false alarms during the first minutes of panel operation, when gas detectors do not make stable measurements yet.
- High and low alarm dependence on either rise or decrease of gas density and threshold levels are adjustable from the panel menu.





PANEL MODELS	
Product models	Channel capacity
MG-400	4

MG-400  
Combined gas and fire  
alarm control panel

## ML-4218 series conventional gas alarm control panels

ML-4218 series conventional gas alarm control panels, offering high and stable performance are produced by use of surface mount technology with stylish exterior design and programmability.

### Gas alarm control panel features

01. Adjustable delay time for sounder outputs
02. Zonal gas and fault LED indicators
03. Supervised conventional zone inputs and sounder outputs
04. Password-protected access levels
05. Remote control
06. Configurable latching gas alarm option
07. Zone test and disable function
08. Possibility of assigning delay time to zones

### PANEL MODELS

Product code	Zone capacity
ML-4218	8



ML-4218 Gas alarm control panel

- Gas alarm control panel indicates both of the 2-level alarm output of the gas detectors. Zone LEDs illuminate blink for 1st level alarm and illuminate continuously for 2nd level alarm.
- A different relay output is available for each alarm stage. For 8 zones, 16 relay outputs are available in total.
- 2 x 16 character LCD with backlight and LED indicators for faults and system conditions allow comprehensive presentation of information on operating of the system.
- Volt free change over contact outputs are available in gas alarm control panel in order to control other devices and to send signal to other systems.
- Some features of panel can be controlled by remote control inputs. System can be switched into alarm and fault mode, alarm mode can be deactivated and system can be reset by using the remote control inputs.

## GD2R series gas detectors

New GD2R series gas detectors presents more sensitive ELECTROCHEMICAL sensor and having 2-stage alarm outputs make easy to create flexible automation according to the gas concentration in the medium.

### GD2R series electrochemical sensor, 2-alarm level output gas detectors

Gas detector which incorporates electrochemical sensor have 5 year sensor life under normal operating condition, meaning that they have such stable sensisitivity and high operating performance. When gas concentration reaches to alarm threshold in the medium, gas detector gives off visual and audial warnings. Gas detectors have 2-level alarm output. When the gas in the ambient reaches to the level of 50 ppm (parts per million), gas detector gets into 1st level alarm level. If gas concentration reaches to the level of 200 ppm, then gas detector gets into 2nd level alarm. If gas concentration in the ambient descends to 50 ppm, CO gas detector automatically turns back to its normal operating condition.



### GAS DETECTOR MODELS

Product code	Description
GD2R-12EC	Carbon monoxide gas detector (CO), 12 V DC, 2-level alarm output, electrochemical
GD2R-24EC	Carbon monoxide gas detector (CO), 24 V DC, 2-level alarm output, electrochemical
GD2R-220EC	Carbon monoxide gas detector (CO), 220 V AC, 2-level alarm output, electrochemical
GD2R-220LEC	Combined LPG (butane+propane) and carbon monoxide detector 220 V AC, 2-level alarm output, electrochemical
GD2R-220MEC	Combined methane (natural gas) and carbon monoxide detector 220 V AC, 2-level alarm output, electrochemical



## GD / GDR / TGDR series gas detectors

User-friendly Mavigard gas detectors provide wide applicability and reliable gas safety.



### Features

01. Compatible with EN 50194 and EN 50291
02. Power on, gas alarm and fault LED indicators
03. LED and buzzer test button
04. Built-in buzzer
05. 5 year sensor life under normal operating conditions
06. Stable sensitivity and high functioning performance
07. Compatible with Mavigard conventional fire and gas alarm control panels
08. Models with relay output are compatible with most of the fire alarm and security control panels
09. Microprocessor controlled

### GAS DETECTOR MODELS

Product code	Description
GDR-1224L	LPG (butane+propane) detector,12/24 V DC, with relay
GD-220L	LPG (butane+propane) detector, 220 V AC
GDR-220L	LPG (butane+propane) detector, 220 V AC, with relay
GDR-1224M	Methane (natural gas) detector,12/24 V DC, with relay
GD-220M	Methane (natural gas) detector, 220 V AC
GDR-220M	Methane (natural gas) detector, 220 V AC, with relay
GDR-1224C	Carbon monoxide (CO) detector,12/24 V DC, with relay
GD-220C	Carbon monoxide (CO) detector, 220 V AC
GDR-220C	Carbon monoxide (CO) detector, 220 V AC, with relay

### LPG and methane detectors

LPG (butane+ propane) and methane (natural gas) are explosive hydrocarbon gases. The LPG and methane detectors respond audibly and visually before the leakage reaches 20% LEL (lower explosive limit).

### Carbon monoxide (CO) detectors

Carbon monoxide is a toxic and explosive gas. The Mavigard carbon monoxide detectors respond audibly and visually when the gas concentration reaches 50 ppm (parts of gas per million parts of air).



### Ceiling type methane (natural gas) detectors

TGDR-1224M Ceiling type gas detectors have the same appearance and dimensions of Mavigard fire detectors. Detector base also required for the ceiling type gas detectors that is used for mounting.

### METHANE (NATURAL GAS) DETECTOR AND ACCESSORIES

Product code	Description
TGDR-1224M	Methane (natural gas) detector, 12/24 V DC, with relay
MG-3500	Conventional detector base
MG-3600	Recessed mounting base



## Accessories for fire and gas alarm control systems

These accessories are common products for all intelligent analogue addressable fire alarm systems and conventional fire alarm systems with Mavigard and Maxlogic brands.

### Features

01. Electronic sounders and electronic sounder strobes are compatible with EN 54-3, manual call points are compatible with EN 54-11 and power supply units are compatible with EN 54-4
02. Electronic sounders and sounder strobes provide 105 dB(A) @ 24 V DC max. audible signal power
03. Electronic fire alarm bells having 150 mm diameter provide strong audio power



### MG-5100 Conventional manual call point with break-glass

The MG-5100 MCP is activated by manual breaking of the film-coated glass which does not harm fingers. When the glass is broken, the switch, normally resting on glass edge, changes position.



### MG-5120 Conventional manual call point, resettable

The MCP is activated by manual pressing on the flexible plastic cover. The switch, normally resting on flexible plastic cover, changes position and retains it until it is brought into its initial position. MG-5130 MCP is weather-proof (IP67) and can be used in outdoor applications.



### MG-4000 Remote indicator

Remote indicators facilitate identifying the alarm location by matching the triggered detector placed above false ceiling or rooms.



### Power supply units

Switched mode power supplies have models with 24 V DC, 2.5A, 4A, 5A ve 10A output currents. The power supplies are microprocessor controlled and perform continuous fault monitoring (earth, batteries, 24 V DC, 220 V mains fail etc.).



### MG-5000 Electronic sounder

### MG-5200 Electronic sounder strobe

The maximum audible signal power of the sounder is 105 dB(A) 24 V DC at 1 m. and the sounders are for indoor use. The strobe has 3 W power and a flash rate of 150/min.



### MG-5400 Fire alarm bell (6 inches)

The bell is designed to meet requirements of superior performance with low current consumption. A built-in varistor suppression element is incorporated to micro-motor unit of the bell to reduce EMI and RFI effects.

ACCESSORIES MODELS	
Product code	Description
MG-4000	Remote indicator
MG-4100	Remote indicator mounting box
MG-5100	Manual call point, break-glass
MG-5120	Manual call point, resettable
MG-5130	Manual call point, weather-proof (IP67)
MG-5000	Electronic sounder, red, 12 / 24 V DC
MG-5200	Electronic sounder strobe, red, 12 / 24 V DC
MG-5400	Electronic fire bell, red, 24 V DC, 150mm
MG-7050	Mavigard SMPS switched mode power supply unit 2.5A
MG-7080	Mavigard SMPS switched mode power supply unit 4A
ML-0515	Maxlogic SMPS switched mode power supply unit, 5A
ML-05110	Maxlogic SMPS switched mode power supply unit, 10A



## MG-1910 Mavigard superflow airduct sampling unit

MG-1910 Mavigard superflow airduct sampling unit is used to detect smoke in ventilation ducts and combines a smoke detector and an adaptor system where both venturi pipe and housing are specially designed for optimum airflow through the smoke detector.



- The system fulfills all the requirements for safe fire detection with airflow speeds from 0.2 m/s to 20 m/s.
- **Air sampling tube:** Material aluminium and the length is 0.6 m (dia)

Mavigard Superflow Models	
Product code	Description
MG-1910.A	Mavigard superflow airduct sampling unit, with 60cm venturi pipe and addressable photo-electric smoke detector
MG-1910.K	Mavigard superflow airduct sampling unit, with 60cm venturi pipe and conventional photo-electric smoke detector

MG-1910  
Mavigard superflow

### Features

01. ABS constructed with IP 54 rating
02. Simple installation
03. Foolproof pipe mounting, cannot be fitted incorrectly
04. Complete with pre-assembled cable entries
05. Test hole in cover

## ML-0130 Smoke test spray

Smoke detector tester is a functional tester for ionisation and optical smoke detectors.



- ML-0130 Smoke test spray is a hand-held functional tester for photo-electric and ionisation smoke detectors.
- An easy and quick spray from ground level forms a safe, reliable and economical method of testing.

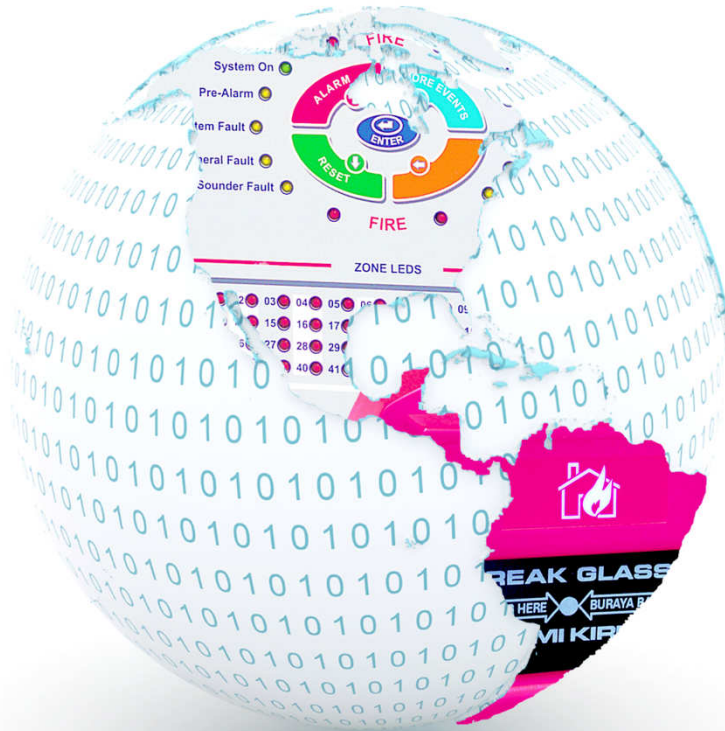
Product Models	
Product code	Description
ML-0130	Smoke test spray

ML-0130  
Smoke test spray

### Features

01. UL listed
02. Non-flammable and non-toxic
03. No silicon content, ozone friendly with no CFCs
04. Sensor safe; does not damage plastic casing or internal circuitry





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