



Intelligent Addressable Gas Detection and Alarm Systems

Generating Confidence

maxlogic & mavigard
fire and gas detection systems

About Us

Mavili Elektronik A.S operating in the field of fire and gas detection systems since 1987, offers its products and services internationally in compliance with international standards. The company manufactures accredited products approved by authorized institutions, making them available for use in over **70 countries**, including Turkey.

The company, utilizing state-of-the-art technology, produces innovative and user-friendly solutions in the integration of smart building technologies. It is a solution partner for many leading brands in the fields of **CCTV, IP Camera, VMS/PSIM, Access Control and BMS**, establishing itself as a leader in these areas.

Mavili conducts meticulous project planning with **Maxlogic & Mavigard** brand fire alarm systems for various types of areas, ranging from shopping malls to airports, cargo ships to passenger vessels, large hotel chains to complex living spaces, hospitals, universities, and high-risk structures such as industrial facilities.

The company, demonstrating its expertise in both developing products and implementing them in the field concerning standards and regulations, offers a diverse range of products. This range includes software solutions that provide centralized monitoring and control, emphasizing the company's commitment to compliance with standards and regulations throughout the product development and implementation processes.

Mavili combines the expertise of its specialized workforce, industry experience, and a commitment to developing products tailored to customer needs while developing fire and gas detection systems, which are crucial for ensuring life and property safety. The company places great importance on merging knowledge, sector know-how, and understanding customer requirements to create effective solutions for fire and gas safety.

Mavili, its factories located in Ümraniye and Gebze, along with seven regional directorates, aims to be by the customer's side not only during the pre-sales phase but also after the sale. With a workforce exceeding **250 people**, the company continues to serve this industry by maintaining a presence in various regions.



mavili

Certificates and Licences

- * Mavili Elektronik A.S.'s **ISO 9001** quality management system, which it implements, has been audited by the world-renowned **LPCB (Loss Prevention Certification Board)** organization and is certified for compliance with **ISO 9001:2015**.
- * We have undergone an audit for compliance with the **TS EN ISO/IEC 27001:2017** Information Security Management System, conducted by the certification and surveillance services of DataCert Certification Ltd. The audit has confirmed our compliance, and we have been certified with the **TS EN ISO/IEC 27001:2017** certificate.
- * Our Fire Alarm System products have the **TS EN 54** certification.
- * Our Fire Detection and Alarm System products have been certified by **LPCB** and **Dedal**, receiving **EN 54** and **CPR** certifications. This approval from international accredited organizations further validates the quality of our products.
- * Our services are certified with the **TS 12849** Service Place Competency Certificate and the After Sales Services Competency Certificate.
- * Our Marine type products are certified by **TÜRK LOYDU (SOLAS 74 and FSS)**, and **MED (WHEELMARK)**.
- * The factory located in Gebze has been entitled to the **Zero Waste Certificate** by establishing a Zero Waste Management System in compliance with the Zero Waste Regulation, which came into effect with the publication in the Official Gazette dated 12/07/2019 and numbered 30829.
- * Our products have Customs Union Conformity Certificates (**EAC Certificates**) confirming their compliance with approved regulations within the Eurasian Economic Union region.
- * Certification by **Exveritas** has been obtained, verifying the implementation of quality management systems in the production of explosion-proof products with the **EN ISO/IEC 80079-34** certificate. Additionally, products intended for use in explosive atmospheres have been certified with the **ATEX Type Approval Certificate** for intrinsic safety.
- * Our products have **USAGE LICENSES** issued by the authorized entities in many countries worldwide.

Project Areas

More than **100.000** buildings worldwide are protected by **Maxlogic & Mavigard** fire and gas detection systems.



Shopping Malls



Public Buildings



Residences



Car Parks



Industrial Facilities



Airports



Metro and Railway



Hotels



Court House and Prisons



Hospitals



Educational Institutions



Sea Vehicles

and you may contact us for further information

Right Choice for Carparks...

3

Intelligent Addressable Gas Detection and Alarm Systems

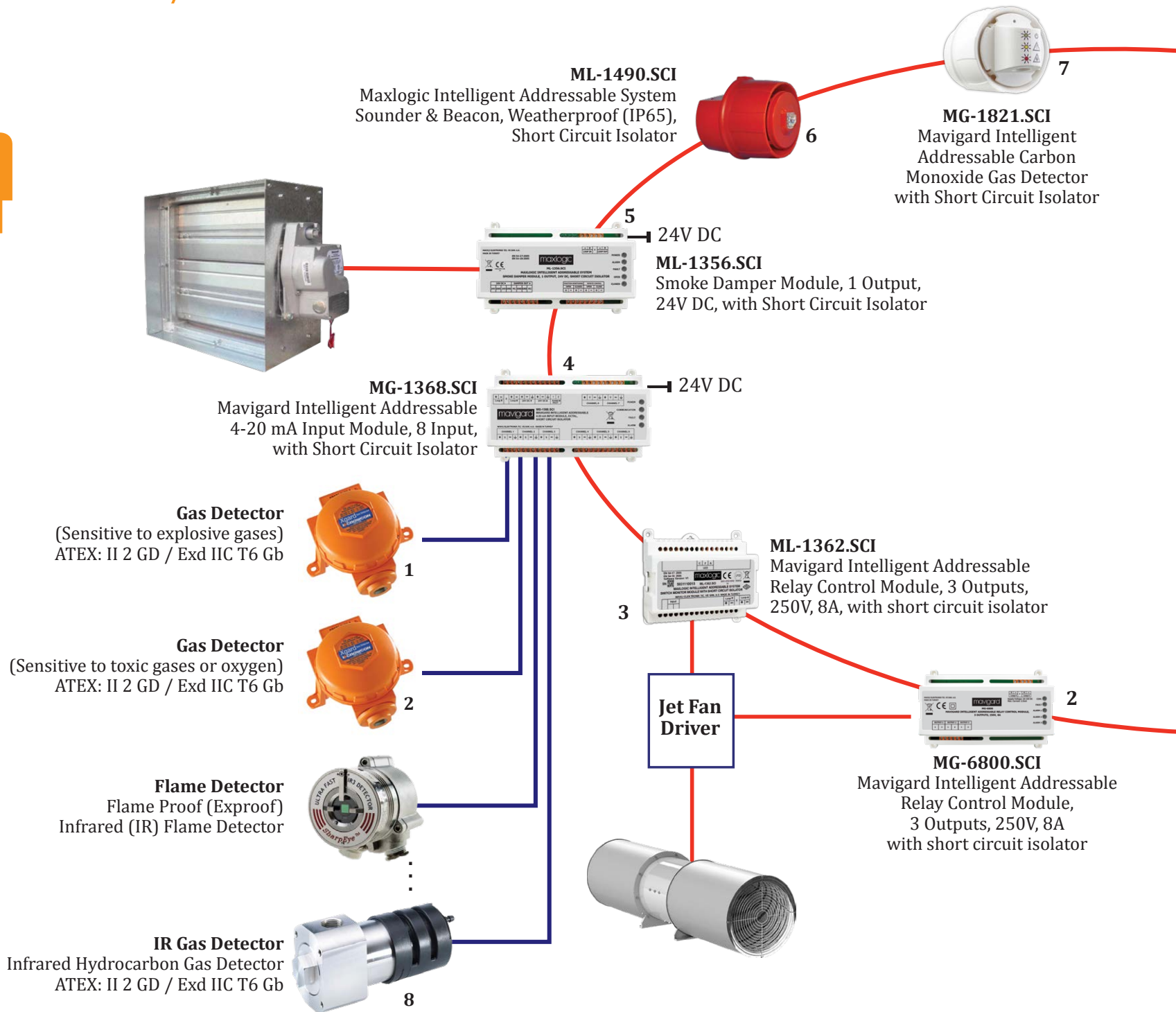
Navigard gas detection systems, preferred in areas containing toxic and flammable gases, are produced with surface mounting technology. The design of each product is meticulously created through user-focused and careful work.

These systems, designed to protect against carbon monoxide and explosive gas leaks, utilize high-tech electrochemical and catalytic sensors for detection.



- ▶ All devices in the system are manufactured using Surface Mounting Technology (SMT).
- ▶ Remote monitoring and control are achieved through the Maxlogic SPRVSR+ software.
- ▶ The system's operating status is indicated through LED indicators.
- ▶ It is suitable for use with industrial gas detectors thanks to the 4-20mA module.
- ▶ The panel includes test and disable functions.
- ▶ The panel have dry contact outputs and a general fault relay output for separate levels (Alarm1, Alarm2, Alarm3). Additionally, there are a total of 4 powered sounder outputs, including alarm levels.
- ▶ Compatible with Sink/Source operational structure.
- ▶ Monitoring of sensors, field devices that provide a 4-20mA output commonly used in industrial automation and automatic control systems, is also possible within the system.
- ▶ With the inclusion of detectors/sensors providing a 4-20mA analog output into the system, it becomes possible to transmit information such as alarms, short circuits, and line disruptions to the panel
- ▶ Communication with all devices in the loop is completed within a maximum of 10 seconds.

Intelligent Addressable Gas Detection and Alarm Systems Scheme



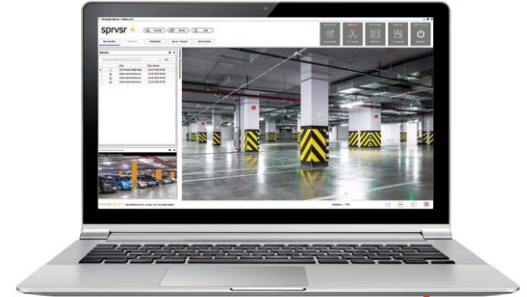
- ▶ The panel connect up to **127 devices** in one loop and can be expanded to 8 loops, reaching a capacity of 1016 devices.
- ▶ Up to 64 panels can operate on the network using the **CANBus** communication protocol.
- ▶ A total of **65.024** devices can be monitored in a network structure.
- ▶ Any panel within the network can be monitored and controlled from other panels.
- ▶ The measurement range of the intelligent addressable carbon monoxide (**CO**) detector is **0-500 ppm**, and the sensor sensitivity is **1 ppm**.
- ▶ The intelligent addressable butane-propane (**LPG**) detector has a measurement range of **0% to 100% LEL (Lower Explosive Limit)**, and the sensor sensitivity is **1% LEL**.
- ▶ The carbon monoxide detectors have three alarm levels: **30 ppm, 60 ppm, and 150 ppm**.
- ▶ The LPG detectors have three alarm levels: **20% LEL, 40% LEL, and 100% LEL**.

ML-1480.SCI
Maxlogic Intelligent
Addressable System Beacon,
Weatherproof (IP65),
Short Circuit Isolator

ML-2490
Conventional Sounder Beacon,
Weatherproof (IP65)

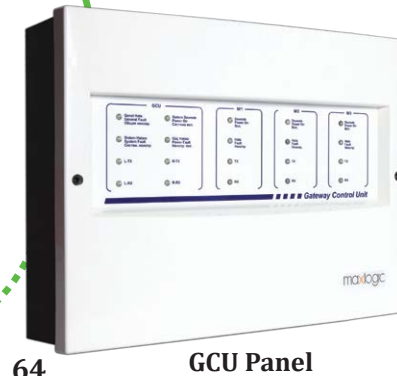
MG-1822.SCI
Mavigard Intelligent
Addressable Gas
Detector LPG, with
short circuit isolator

SPRVSR+ Graphical Monitoring
and Management Software



MG-4228
Mavigard Intelligent Addressable
Gas Control Panel, 8 Loops

ML-1361.SCI
Maxlogic Intelligent Addressable
Relay Control Module, 1 Output
with short circuit isolator



MG-4220.N
Mavigard Intelligent Addressable Gas
Control Panel, without Loop, Network

GCU Panel

- ▶ Communication within the network can be facilitated through integration with the GCU panel or SGC module, using **TCP/IP, GPRS, or RS-232/RS-485 protocols**.
- ▶ Integration with a Building Management System (**BMS**) can be accomplished by sharing information from the **MODBUS** outputs through software.
- ▶ It is possible to create **40 virtual zones, activating 120 relay control modules** in the process.
- ▶ Up to **1000 scenarios (Cause/Effect)** can be created for each panel.
- ▶ There is an **RS-232** computer connection port input for configuring and creating scenarios for the panel.
- ▶ The **LCD** screen on the front panel of the central unit allows real-time monitoring of loop status, address, zone, unit, and instantaneous and average concentration of measured gases.
- ▶ There are **yellow, red, and green LED** indicators for monitoring alarm levels (**Alarm 1, 2, and 3**) and the operational status of detectors.

6 **Safe Choice
for Gas Control...**



Intelligent Addressable Gas Control Panels

Mavigard Intelligent Addressable Gas Control Panels are panels manufactured with surface mounting technology, designed for use in areas such as parking lots and tunnels that may contain toxic and flammable gases, posing potential hazards.



MG-4228
Mavigard Intelligent Addressable
Gas Control Panel, 8 Loops

- ▶ Programmable with three different alarm output levels for emergency situations
- ▶ Creating a network using the CAN protocol
- ▶ Software support for configuration processes 1000 automation (cause-effect) scenarios
- ▶ 1000 programmable zones
- ▶ Event Log Memory
- ▶ Prioritizing the display of gas alarms
- ▶ 4 programmable remote control inputs
- ▶ Advanced control/display features with a 240x64 LCD screen
- ▶ Monitoring and control convenience with the graphical monitoring and management software, SPRVSR+

PANEL MODELS

Product code	Description
MG-4220.N	Mavigard Intelligent Addressable Gas Control Panel, 0 Loop, Network
MG-4230.N	Mavigard Intelligent Addressable Gas Control Panel, 0 Loop, Network, Printer
MG-4221	Mavigard Intelligent Addressable Gas Control Panel, 1 Loop
MG-4222	Mavigard Intelligent Addressable Gas Control Panel, 2 Loop
MG-4223	Mavigard Intelligent Addressable Gas Control Panel, 3 Loop
MG-4224	Mavigard Intelligent Addressable Gas Control Panel, 4 Loop
MG-4225	Mavigard Intelligent Addressable Gas Control Panel, 5 Loop
MG-4226	Mavigard Intelligent Addressable Gas Control Panel, 6 Loop
MG-4227	Mavigard Intelligent Addressable Gas Control Panel, 7 Loop
MG-4228	Mavigard Intelligent Addressable Gas Control Panel, 8 Loop

PANEL and SOFTWARE MODELS

Product code	Description
MG-4231.P	Mavigard Intelligent Addressable Gas Control Panel, 1 Loop, Printer
MG-4232.P	Mavigard Intelligent Addressable Gas Control Panel, 2 Loop, Printer
MG-4233.P	Mavigard Intelligent Addressable Gas Control Panel, 3 Loop, Printer
MG-4234.P	Mavigard Intelligent Addressable Gas Control Panel, 4 Loop, Printer
MG-4235.P	Mavigard Intelligent Addressable Gas Control Panel, 5 Loop, Printer
MG-4236.P	Mavigard Intelligent Addressable Gas Control Panel, 6 Loop, Printer
MG-4237.P	Mavigard Intelligent Addressable Gas Control Panel, 7 Loop, Printer
MG-4238.P	Mavigard Intelligent Addressable Gas Control Panel, 8 Loop, Printer
MG-12015	Mavigard Intelligent Addressable Gas Control Panel Network Card
MG-1620	Mavigard Intelligent Addressable Gas Loop Manager
ML-1010	Maxlogic Intelligent Addressable Address Programmer

Right Choice for Intelligent Gas Detection Automation...



Intelligent Addressable Gas Detectors

Mavigard Intelligent Addressable Gas Detectors are designed to detect CO and LPG gases in parking lots, tunnels, and loading areas, providing audible and visual notifications for safety purposes.

The detectors utilize electrochemical sensors to detect gas.



MG-1821.SCI
Mavigard Intelligent Addressable
Gas Detector Carbonmonoxide
With Short Circuit Isolator



MG-1822.SCI
Mavigard Intelligent
Addressable Gas Detector, LPG
With Short Circuit Isolator

- ▶ Compliant with EN 50545-1 standarts
- ▶ Audible and Visual notification
- ▶ Sending signals to the panel for Alarm 1, Alarm 2, and Alarm 3 danger levels.
- ▶ Control through addressable gas panel
- ▶ For the carbon monoxide (CO) detector, three different alarm levels have been defined as follows: Alarm 1 = 30 ppm, Alarm 2 = 60 ppm, Alarm 3 = 150 ppm.
- ▶ For the LPG detector, three distinct alarm levels have been defined as follows: Alarm 1 = 20% LEL, Alarm 2 = 40% LEL, Alarm 3 = 100% LEL.
- ▶ The capability to adjust alarm threshold levels is available.

MODELS

Product code	Description
MG-1821	Mavigard Intelligent Addressable Gas Detector Carbonmonoxide
MG-1821.SCI	Mavigard Intelligent Addressable Gas Detector Carbonmonoxide With Short Circuit Isolator
MG-1822	Mavigard Intelligent Addressable Gas Detector, LPG
MG-1822.SCI	Mavigard Intelligent Addressable Gas Detector, LPG, With Short Circuit Isolator

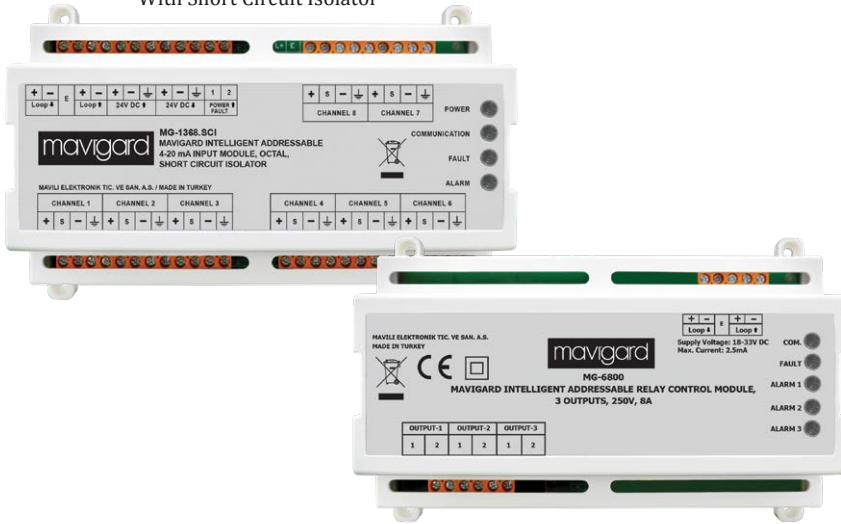
Superior Management and Control...



Intelligent Addressable Control Modules

Intelligent Addressable Control Modules, offering superior operational performance with the VIP communication protocol, can be programmed to operate in cause-effect scenarios for the implementation of fire automation.

MG-1368.SCI
Mavigard Intelligent Addressable
4-20 mA 8 Input Module
With Short Circuit Isolator



MG-6800
Mavigard Intelligent Addressable
Relay Control Module, 3 Outputs, 250V, 8A

- ▶ Compatible with EN 54-18 and EN 54-17 standards
- ▶ Short-circuit isolator model option
- ▶ Communication, Fault, Alarm 1, Alarm 2, and Alarm 3 LED indicators in the relay control module
- ▶ Power, Communication, Fault, and Alarm LED indicators in the eight-input module
- ▶ Modules are addressed via software using the addressing device.
- ▶ MG-1368 module allows connection to 8 separate devices with 8 separate 4-20 inputs.
- ▶ The MG-1368 4-20mA input module is designed for monitoring alarm and fault conditions of detectors that provide 4-20mA output (such as industrial gas detectors, flame detectors used in industrial automation and automatic control systems, etc.).
- ▶ The MG-6800 relay control module contains 3 dry contact relay outputs to trigger relay outputs in case of an alarm, and it has 3 different LED indicators for 3 different alarm levels.

MODULE MODELS

Product code	Description
MG-6800	Mavigard Intelligent Addressable Relay Control Module, 3 Outputs, 250V, 8A
MG-6800.SCI	Mavigard Intelligent Addressable Relay Control Module, 3 Outputs, 250V, 8A with short circuit isolator
MG-1368	Mavigard Intelligent Addressable 4-20 mA 8 Input Module
MG-1368.SCI	Mavigard Intelligent Addressable 4-20 mA 8 Input Module With Short Circuit Isolator

Selected Samples from Our References



www.mavili.com.tr/en

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