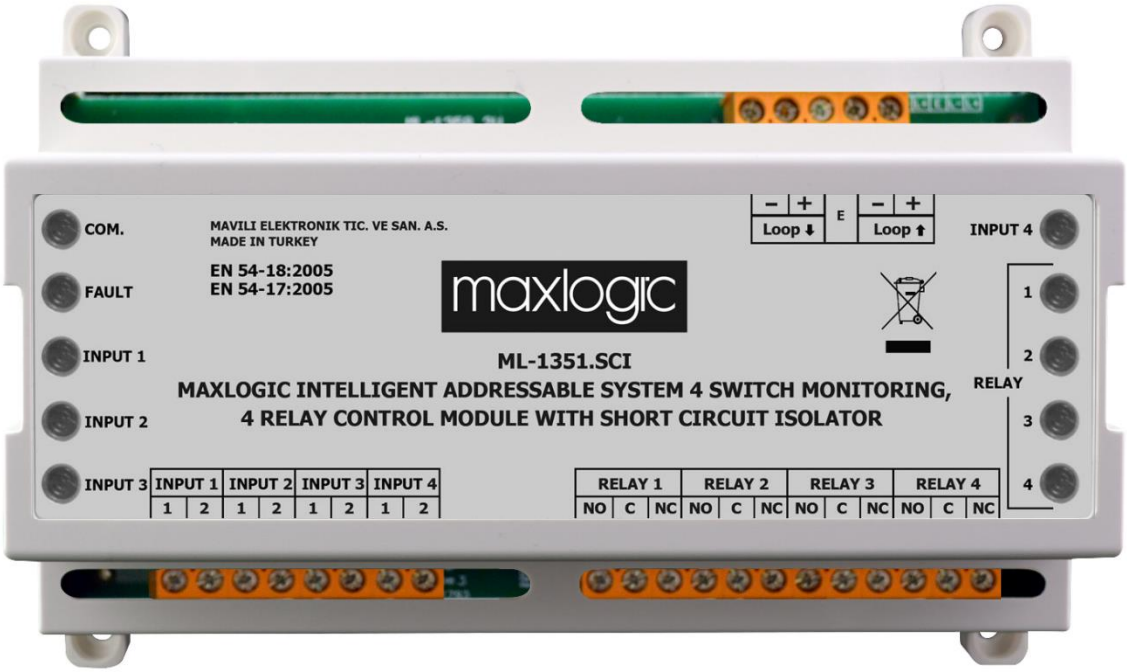
maxlogic & mavigard
fire and gas detection systems

SALES SUPPORT DOCUMENT

ML-1318.X / ML-1328.X / ML-1351.X

MAXLOGIC INTELLIGENT ADDRESSABLE SYSTEM RELAY CONTROL MODULE, 8 OUTPUT / SHORT CIRCUIT ISOLATOR
MAXLOGIC INTELLIGENT ADDRESSABLE SYSTEM SWITCH MONITOR MODULE, 8 INPUT / SHORT CIRCUIT ISOLATOR
MAXLOGİC INTELLIGENT ADDRESSABLE SYSTEM 4 SWITCH MONITOR, 4 RELAY CONTROL MODULE / SHORT CIRCUIT ISOLATOR



ML-1318, ML-1318.SCI (Short Circuit Isolator) I/O module **8 Relay Output**,
ML-1328, ML-1328.SCI (Short Circuit Isolator) I/O module **8 Switch Monitoring Input**,
ML-1351, ML-1351.SCI (Short Circuit Isolator) I/O module **4 Switch Monitoring Input and 4 Relay Output**. It works as **Loop Powered** and it doesnt need for external supply source**.** It is compatible with **MAXLOGIC** series addressable panels. It communicates with **VIP communication protocole**. It can be programmed to be work in **Cause Effect** scenario**.**

Switch Monitoring Inputs:

Switch monitoring inputs uses for monitoring external relay outputs (voltage free). **Event Type** of the switch monitoring inputs that are not be programmed are defaultly set as **fire** and **delay by-pass specification** are defaulty set to **"no".**

These settings can be changed with **Loop Manager+**.

Inputs have normally open (**NO**) and normally close (**NC**) **switch monitoring** specification. NO/NC contact following makes from NO/NC screws on the card. These screws allow separate NO/NC selection of each input. Also in order to activate the Supervise specification, Supervise selection screws are used. In normal circumstances, open circuit and short circuit fault detection is not performed on the loop line, while with the supervisory feature, the open circuit and short circuit conditions of the line can be detected as faults. The desired monitoring method and the selection of the supervisory feature should be made before module energization.

Relay Outputs:
Dry contact (voltage-free) relay outputs capable of withstanding a maximum of **30V DC 1A** current are used to control external systems. If they are to be used in applications drawing high currents, a contactor must be inserted in between; otherwise, the module may be damaged. They normally have normally open (NO) and normally closed (NC) contact positions. The event type of relay outputs that have not been programmed is default to **'fire, fault', delay '0 sec', silencable output**: **'no', and bypass: 'eandt'**. These settings can be changed using the Loop Manager+ software if desired.

INDICATORS

Module has **8 LED** indicators:

- **Communication LED**: It is green. It flashes when the module's address is queried during communication with the control panel.
- **Fault LED:** It is yellow. It flashes at the same rate as the Communication LED when there is any error in the module.
- **Relay Led:** • It is red. It flashes at the same rate as the Communication LED when the corresponding Relay Output is active.
- **Input Led:** It is red. It flashes at the same rate as the Communication LED when the corresponding input is active.

ADDRESSING

The module is addressed via software using an addressing device from the loop input. When addressing, the following information should be noted: Address assignment starts from the inputs and proceeds sequentially to the outputs. The address assigned to the module is automatically assigned to the first contact of the "switch monitoring inputs" by the module. The other contacts also automatically receive consecutive addresses. For example, if address 1 is assigned to the ML-1351 module, address 1 is assigned to the first contact of the "Switch Monitoring Input". Addresses 2, 3, and 4 are automatically assigned to the other 3 inputs. The 4 Relay Outputs also receive addresses 5, 6, 7, and 8 in the same sequence.

DEVICE SPECIFICATIONS

- Compliant with EN 54-18 and EN 57-17 standards
- Option for Short Circuit Isolator model
- Ability to monitor external dry contact (potential-free) relay outputs from the switch monitoring inputs as NA/NK
- Ability to assign event type (fire, etc.) and delay to inputs using Loop Manager+ program
- Ability to detect Open Circuit and Short Circuit conditions on inputs with supervisory feature
- Ability to operate 30V DC 1A dry contact (potential-free) Relay Outputs with relay outputs
- Ability to program relay outputs via Loop Manager+ (event type, etc.)
- Microprocessor controlled
- Easy software addressing with addressing device
- LED indicators for input active, relay active, communication, and fault statuses
- Aesthetical Design
- Production with surface mounting technology

TECHNICAL SPECIFICATIONS

Supply Voltage	Loop Powered (18-33V DC)
Quiscient/ Alarm Current	@NO Switch Monitoring- 1,9mA / 2,2mA @NC Switch Monitoring - 2,2mA / 1,5mA
Communication Protocole	VIP / ~1000 baud
Cable Type	1x2x0,8+0,8JH(st)H 1x2x1,0+0,8JH(st)H 1x2x1,5+0,8JH(st)H
Output Contact Capacity	1A@30V DC
Color	White
Weight	225 gr
Dimensions (LxWxD)	158x108x52 mm
Operating Temperature	(-10°C) - (+55°C)
Storage Temperature	(-30°C) - (+60°C)
Relative Humidity	%95 (+40°C uncondensed)

TECHNICAL SPECIFICATIONS FOR SHORT CIRCUIT ISOLATOR MODELS

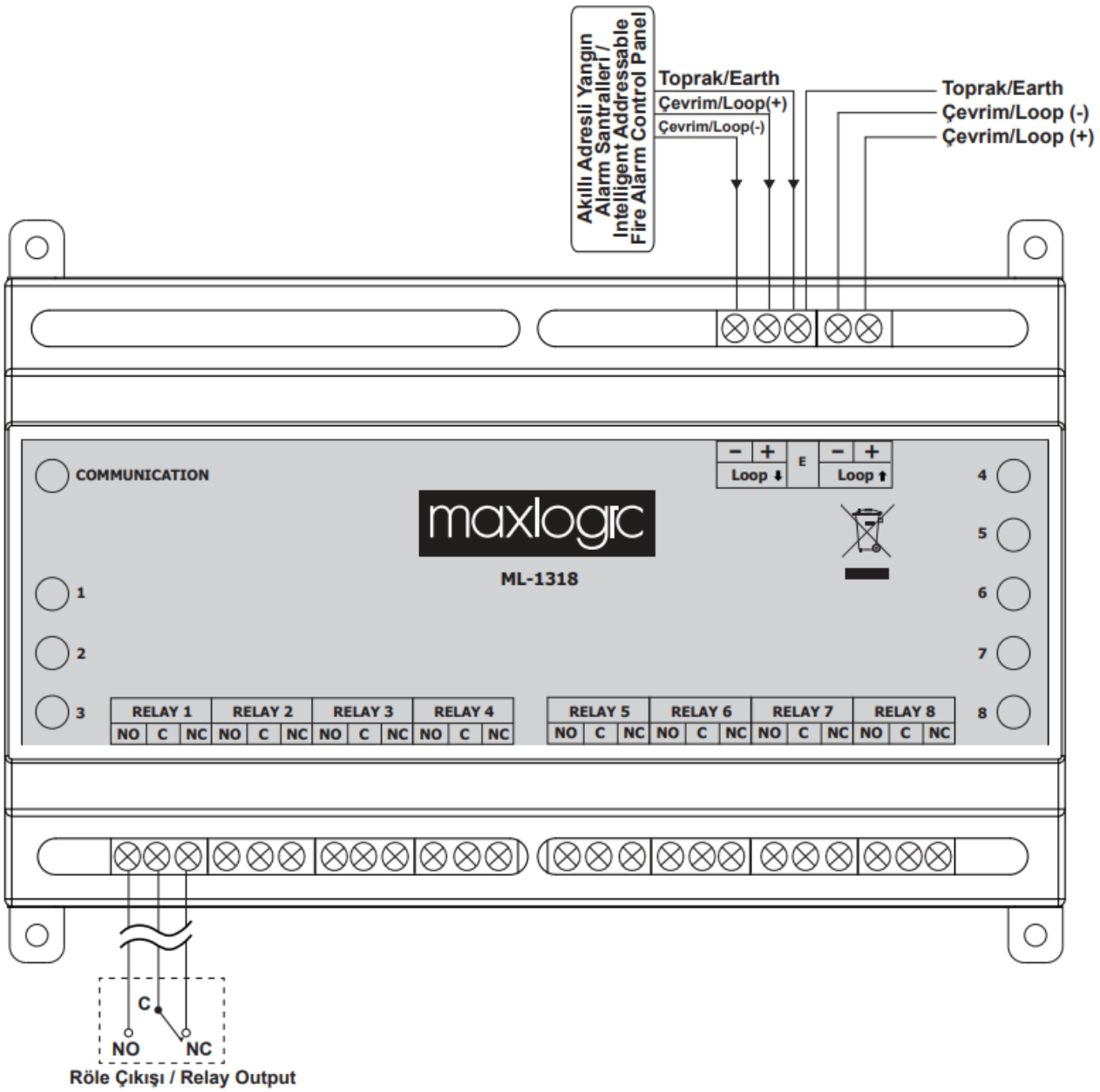
Maximum Voltage (Vmax)	33V
Nominal Voltage (Vnom)	26V
Minimum Voltage (Vmin)	18V
Maximum Switching Current (ISmax)	1A
Maximum Operation Current (ICmax)	1A
Curren that Pass in Short Circuit (ILmax)	< 45 mA
Maximum Contact Resistor (ZCmax)	500 mΩ
Isolation Voltage (VSOmin - VSOmax)	8V - 13V
Normal State Voltage (VSCmin - VSCmax)	8V - 13V

MODELS

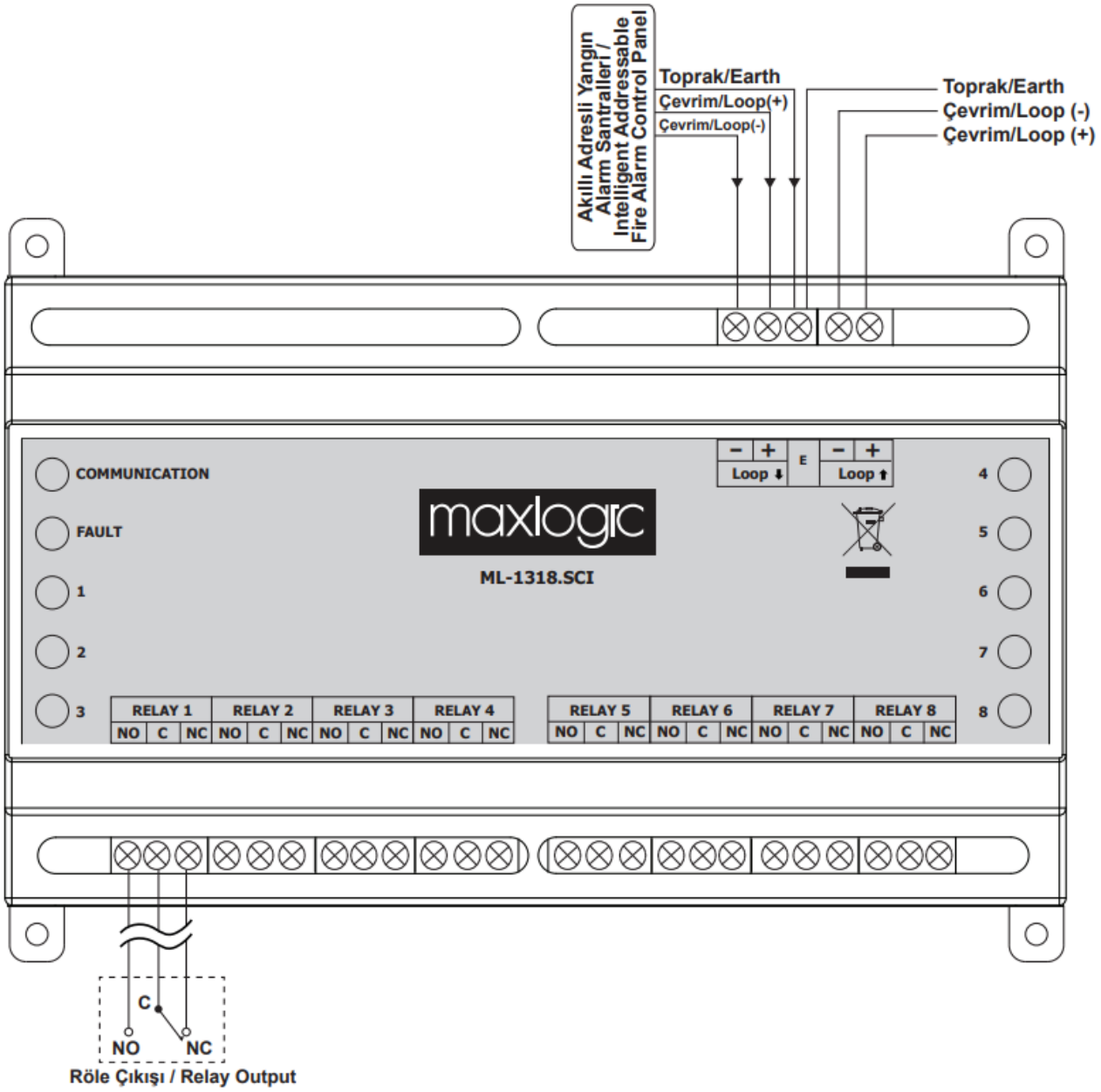
Product	Description
ML-1318	Maxlogic Intelligent Addressable System Relay Control Module, 8 Output
ML-1318.SCI	Maxlogic Intelligent Addressable System Relay Control Module, 8 Output, Short Circuit Isolator
ML-1328	Maxlogic Intelligent Addressable System Switch Monitor Module, 8 Input
ML-1328.SCI	Maxlogic Intelligent Addressable System Switch Monitor Module, 8 Input, Short Circuit Isolator
ML-1351	Maxlogic Intelligent Addressable System 4 Switch Monitor, 4 Relay Control Module
ML-1351.SCI	Maxlogic Intelligent Addressable System 4 Switch Monitor, 4 Relay Control Module, Short Circuit Isolator

CONNECTION SCHEME

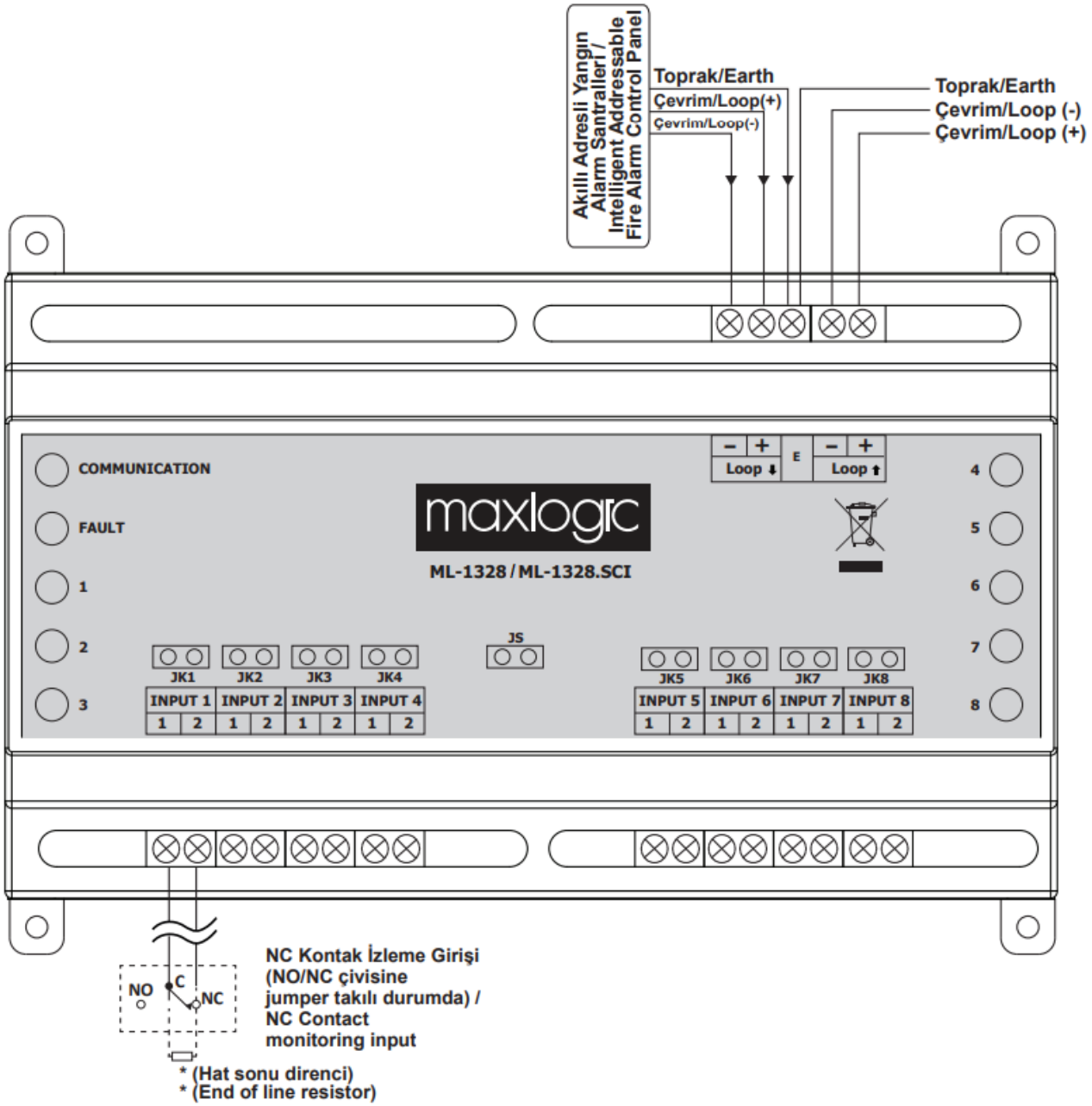
ML-1318



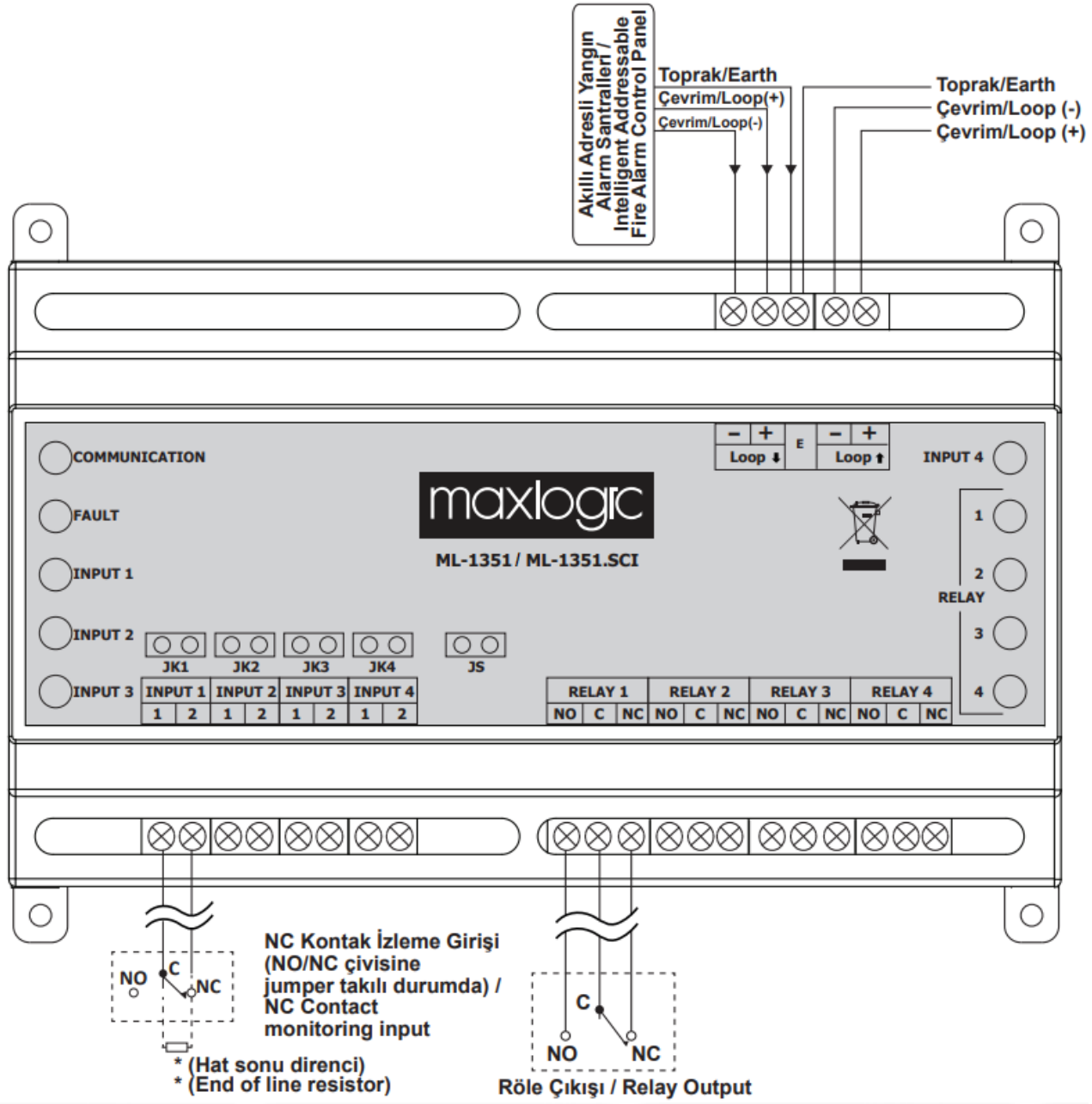
ML-1318.SCI


Akıllı Adresli Yangın Alarm Santralleri / Intelligent Addressable Fire Alarm Control Panel
Toprak/Earth
Çevrim/Loop(+)
Çevrim/Loop(-)
Toprak/Earth
Çevrim/Loop (-)
Çevrim/Loop (+)
COMMUNICATION
FAULT
1
2
3
Loop
E
Loop
maxlogic
ML-1318.SCI
4
5
6
7
8
RELAY 1
RELAY 2
RELAY 3
RELAY 4
RELAY 5
RELAY 6
RELAY 7
RELAY 8
NO C NC
C
NO
NC
Röle Çıkışı / Relay Output

ML-1328 / ML-1328.SCI



ML-1351 / ML-1351.SCI



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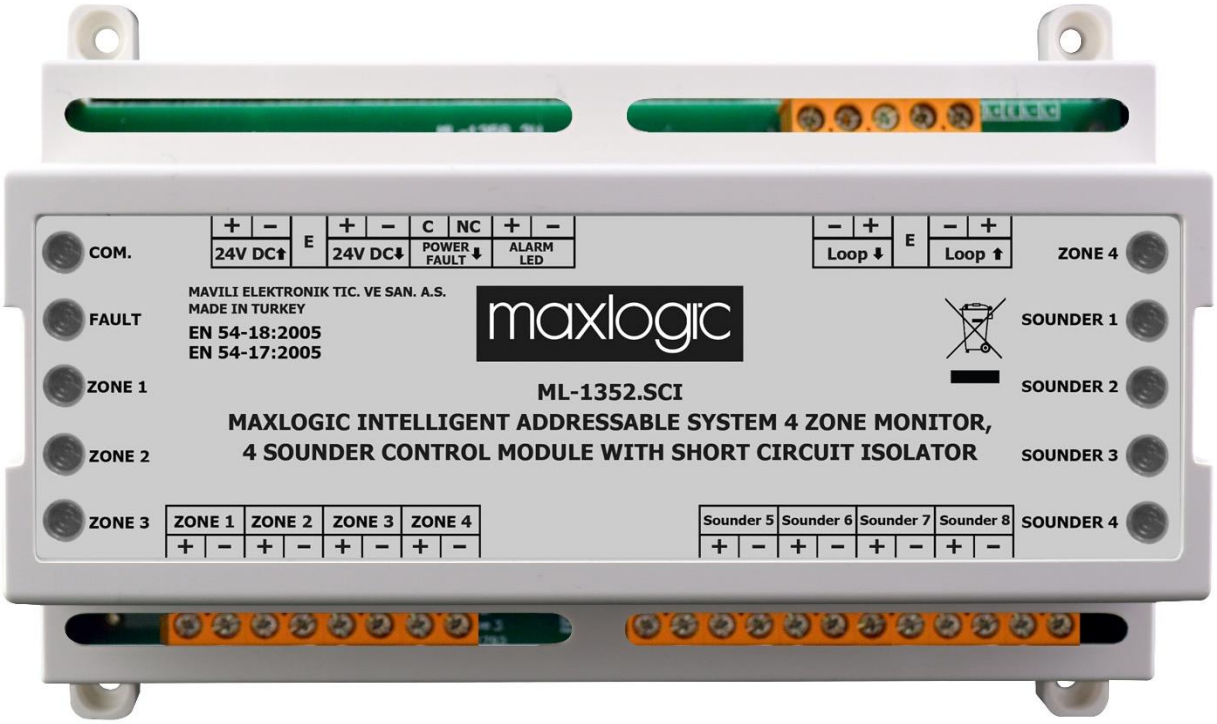
SALES SUPPORT DOCUMENTS

ML-1338.X / ML-1348.X / ML-1352.X
MAXLOGIC INTELLIGENT ADDRESSABLE SOUNDER CONTROL MODULE, 8 OUTPUTS / SHORT CIRCUIT ISOLATOR
MAXLOGIC INTELLIGENT ADDRESSABLE ZONE MONITOR MODULE, 8 INPUTS / SHORT CIRCUIT ISOLATOR
MAXLOGIC INTELLIGENT ADDRESSABLE 4 ZONE MONITOR / 4 SOUNDER CONTROL MODULE / SHORT CIRCUIT ISOLATOR



ML-1338, ML-1338.SCI (Short Circuit Isolated) I/O module with **8 Sounder Outputs,**
ML-1348, ML-1348.SCI (Short Circuit Isolated) I/O module with **8 Zone Monitoring Inputs,**
ML-1352, ML-1352.SCI (Short Circuit Isolated) I/O module with **4 Zone Monitoring Inputs and 4 Sounder Outputs**. The modules require an external power supply of **18-30V DC**. Relay outputs indicating fault conditions of the external power supply can be monitored. They can be programmed to operate in cause-and-effect scenarios.

Zone Monitoring Inputs

Zone monitoring inputs are used to connect and monitor conventional type detectors and buttons in the system. **Up to 20 conventional detectors and**, according to **EN 54-14 standard**, a maximum of **32 buttons** can be connected. They are monitored for short circuit and open circuit conditions. The event type of zone inputs that have not been programmed is default to "fire", and the delay bypass feature is set to "NO". These settings can be changed using the Loop Manager+ program if desired.

Power Fault Input
Communication with the NC, NO pins of the ML-0515 Power Supply fault relay output is established. All fault information occurring in the power supply is detected by the module and reported to the Addressable panel as Power Fault.

24V DC Input/Output
Connection is made with the 24V output of the ML-0515 Power Supply. In case of multiple modules being connected, connection can be established from the 24V DC output of one module to the input of another module. It is used to meet the power requirements for sounder circuits.

Alarm LED Output
It becomes active when an alarm condition is detected at any zone input. It is used to activate the parallel indicator lamp MG-4000.A.

Sounder Output
Each sounder output on the module has a power of 24V DC 500 mA. Sounder circuits are monitored for short circuit and open circuit conditions. The event type of sounder outputs that have not been programmed is default to "fire, evacuation, alert", with a delay of "0 sec", a non-silenceable output, and a bypass feature set to "yes". These settings can be changed using the Loop Manager+ program if desired.

INDICATORS

Module has 8 LED indicators:

- **Communication LED:** Green. Flashes when the module's address is queried during communication with the control panel.
- **Fault LED:** Yellow. Flashes at the same rate as the Communication LED when there is any error in the module or a fault in the power supply.
- **Zone LED:** Red. Remains constantly lit when an Alarm condition is detected at the respective Zone input.
- **Sounder LED:** Red. Remains constantly lit when the corresponding Sounder output is active.

ADDRESSING

The module is addressed via software using an addressing device from the loop input. Power must be supplied to the module for addressing to take place. During the addressing process, the following information should be noted: Only one address is assigned to the module. Addressing is done automatically in a sequential manner from inputs to outputs.

The address assigned to the module is automatically assigned to the first "zone monitoring" input. The other inputs also automatically receive consecutive addresses. For example, if address 1 is assigned to the ML-1352 module, address 1 is assigned to the first "zone monitoring" input. Addresses 2, 3, and 4 are automatically assigned to the other 3 inputs. The other 4 sounder outputs also receive addresses 5, 6, 7, and 8 in the same sequence.

PRODUCT SPECIFICATION

- Compliant with EN 54-18 and EN 57-17 standards
- Option for Short Circuit Isolated model
- Ability to connect up to 20 conventional detectors and, according to EN 54-14, a maximum of 32 conventional buttons
- Capability to provide 24V DC 500mA power for sounder outputs
- External power requirement for sounder outputs
- Ease of programming inputs and outputs using Loop Manager+ program (event type, delay assignment, etc.)
- Ability to detect and transmit all faults occurring in the power supply to the panel
- Microprocessor controlled
- Easy software addressing with addressing device
- LED indicators for Zone input, sounder output, communication, and fault statuses
- Aesthetic design
- Production with surface mounting technology

TECHNICAL SPECIFICATION

Supply Voltage	External PSU 18-33V DC
Quiscient/ Alarm Current: (When 2 zones activated at the same time)	**PSU:** 25mA/72mA@30V DC 21mA/57mA@24V DC 18,5mA/46mA@18V DC
Communication Protocole	VIP / ~1000 baud
Cable Type	1x2x0,8+0,8JH(st)H / 1x2x1,0+1,0JH(st)H / 1x2x1,5+1,5JH(st)H
Zone Input Capacity	20 pcs conventional detectors/ Max. 32 pcs button
Color	White
Weight	225 gr
Dimensions(LxWxD)	158x108x52 mm
Operating Temperature	(-10°C) - (+55°C)
Storage Temperature	(-30°C) - (+60°C)
Relative Humidity	%95 (+40°C'de uncondensed)

TECHNICAL SPECIFICATIONS FOR SHORT CIRCUIT ISOLATOR MODELS

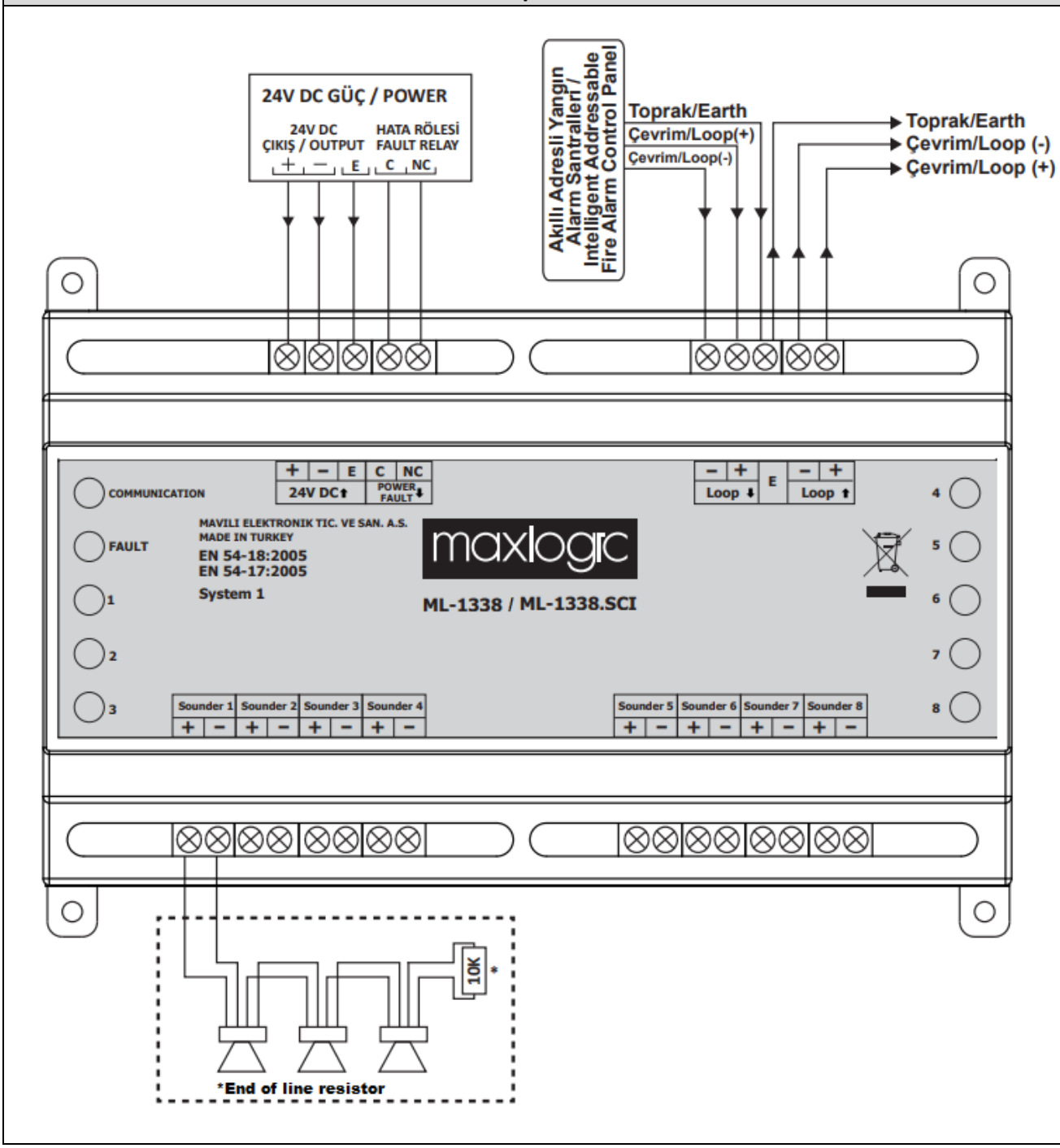
Maximum Voltage (Vmax)	33V
Nominal Voltage (Vnom)	26V
Minimum Voltage (Vmin)	18V
Maximum Switching Current (ISmax)	1A
Maximum Operation Current (ICmax)	1A
Curren that Pass in Short Circuit (ILmax)	< 45 mA
Maximum Contact Resistor (ZCmax)	500 mΩ
Isolation Voltage (VSOmin - VSOmax)	8V - 13V
Normal State Voltage (VSCmin - VSCmax)	8V - 13V

MODELS

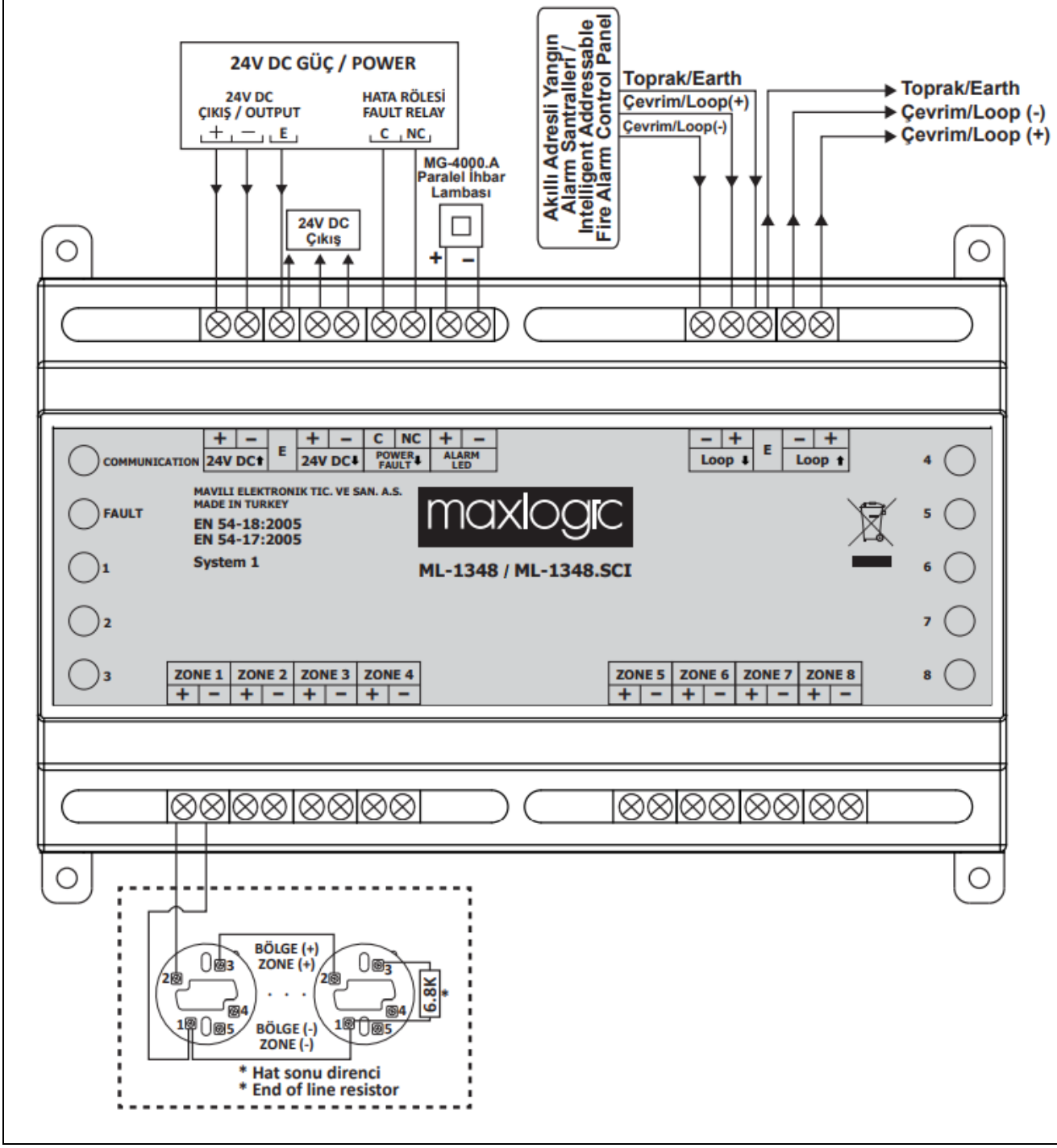
Product	Description
ML-1338	Maxlogic Intelligent Addressable System Sounder Control Module, 8 Output
ML-1338.SCI	Maxlogic Intelligent Addressable System Sounder Control Module, 8 Output, Short Circuit Isolator
ML-1348	Maxlogic Intelligent Addressable System Zone Monitor Module, 8 Input
ML-1348.SCI	Maxlogic Intelligent Addressable System Zone Monitor Module, 8 Input, Short Circuit Isolator
ML-1352	Maxlogic Intelligent Addressable System 4 Zone Monitor, 4 Sounder Control Module
ML-1352.SCI	Maxlogic Intelligent Addressable System 4 Zone Monitor, 4 Sounder Control Module, Short Circuit Isolator

CONNECTION SCHEME

ML-1338 / ML-1338.SCI



ML-1348 / ML1348.SCI



ML-1352 / ML-1352.SCI