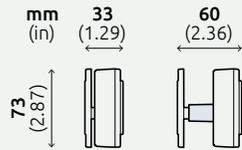


# MACS-MAS

MASTER

in cooperation with



**OVERALL DIMENSIONS**  
89x73x25.5mm

**IP PROTECTION DEGREE**  
IP68

**RELATIVE HUMIDITY**  
0-100%

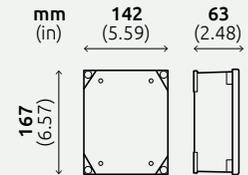
**MATERIAL**  
Technical polymer with fibre glass  
Full potting, UV resistant

**FIXING SYSTEM**  
Single central screw, by means of:  
• with dedicated fixing plate on panel  
• with self-drilling screw on metal surface (post)

**COVERAGE**  
• Up to 120 sensors per communication bus  
(2 bus per single Master)  
• Chains of max. 20 sensors, at pitch of 5.5 metres



## MASTER - SPECIFICATIONS



**POWER SUPPLY**  
From Comm. Board via powered proprietary bus

**FIXING SYSTEM**  
DIN rail support in watertight case

**CONTAINER TYPE**  
Watertight case in aluminium alloy

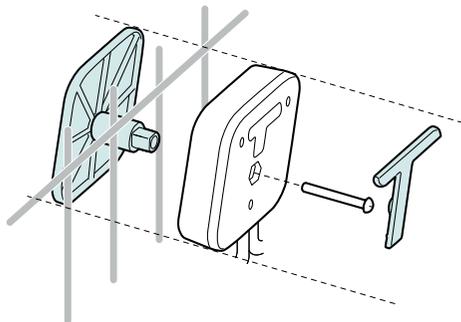
**IP PROTECTION DEGREE**  
IP67

**CONTAINER DIMENSIONS**  
167 x 142 x 63 mm

**CONNECTIONS**  
2 communication buses to sensors, 1 communication bus to Comm. Board

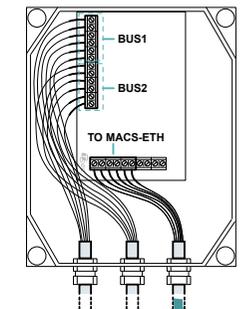
### MACS-S3H sensor. Compact, stylish and practical

The sensor is housed in a technical polymer case with fibre glass featuring a compact and stylish design, which blends in perfectly with aesthetics in combination with practical demands. Indeed the special design enables quick installation of the sensors with a single central screw and fixing plate on various types of fences. The sensors are pre-wired and completely potted in the factory, guaranteeing IP68 protection and minimal installation times. The special internal design of the sensor casing offers optimal resistance to cable strain, while affording strength and reliability of the system itself. The system is compatible with two sensor buses, each for a maximum of 120 sensors. Each of these can be mounted, depending on the size and features of the fence, typically every two panels or at a maximum distance of 5.5 metres from each other. System coverage can reach a maximum of 1200 metres of fencing.



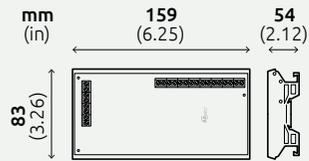
### Master MACS-MAS. NO 230V connection, NO power supply unit, NO backup battery

The control board, known as the Master, can manage up to a maximum of two chains on independent communication buses for a total of 240 sensors. The Master is housed in a compact watertight case. It is installed outside and powered via the cable that connects it to the Comm. Board (located inside the building at a maximum distance of 1000 metres). This configuration eliminates the need for 230V power supply with relative power supply units and external backup battery.



## MACS - ETH COMM. BOARD

### COMM. BOARD - SPECIFICATIONS



**POWER SUPPLY**  
12 Vdc - 3 A

**FIXING SYSTEM**  
DIN rail support

**BOARD DIMENSIONS**  
159 x 83 mm

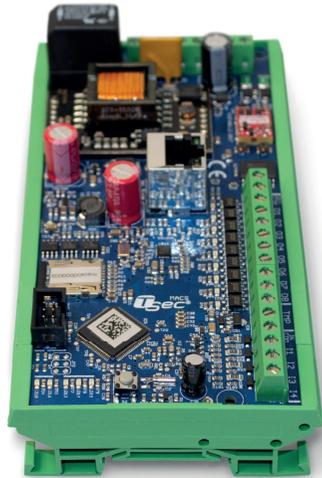
**DIGITAL INPUTS**  
4 digital inputs

**NC OUTPUTS - NUMBER**  
8 + 1 tamper

**NC OUTPUTS - TYPE**  
Relay OptoMOS: 60Vmax, 400mA, Contact resistance < 2 ohm

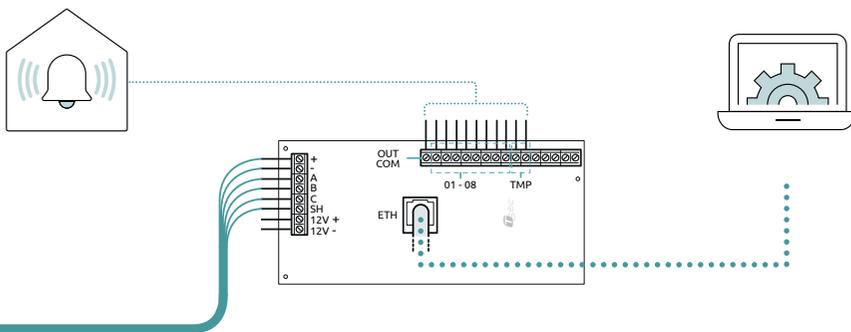
**COMMUNICATION**  
Ethernet port

**DIGITAL MEMORY**  
Up to 10000 events

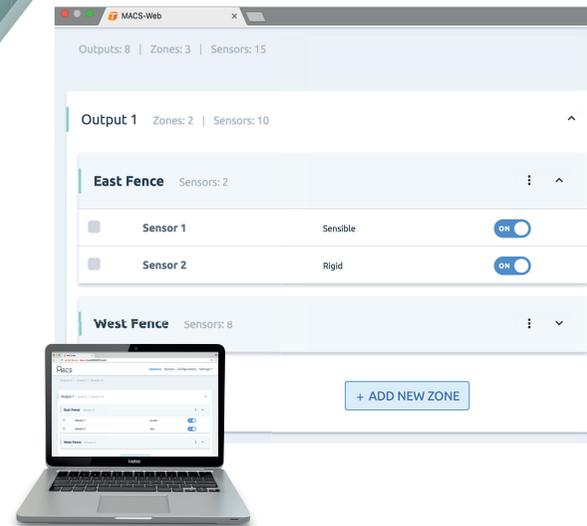


### MACS-ETH Comm. Board. All under control

The Comm. Board has 8 configurable relay outputs + 1 tamper relay for interfacing the MACS system with an alarm control panel. This is connected to the network via the Ethernet port to enable programming and control of the system via the web interface. All system elements communicate in authenticated and encoded mode thanks to sophisticated security architecture based on cryptochip. The Comm. Board, supplied with support and DIN rail, powers the entire system. A 12Vdc 3A power supply unit is required, or alternative option of Comm. board complete with power supply unit in a metal container with compartment for 12V 17Ah backup battery (MACS-ETH-PS).



## MACS WEB INTERFACE CONTROL WEB INTERFACE



**CONNECTIONS**  
Control via Web browser with Ethernet connection to MACS-ETH board

**NUMBER OF ZONES**  
Up to 32 zones with no limitation on number of sensors present and free programming to an output

**ALARMS**  
Pre-alarm / Alarm / Tamper / Fault

**PROGRAMMING**

- Real-time calibration of parameters with feedback
- Automatic detection of connected sensors
- Smart calibration function for adaptation to fencing
- Free association of sensors and outputs

**USER MANAGEMENT**  
Up to 10 users with different credentials and authorizations

**SECURITY**  
Encoded information transit and communication

### MACS Web interface. Easy and intuitive

The smart programming interface provides the installer with exceptional flexibility in programming, with the option of setting system, output, zone and individual sensor parameters. Programming is facilitated by real-time feedback on sensor detections. THE USER can also consult a log of the last 10000 system events with relative data on the sensor that triggered the alarm.

 Climbing alarm

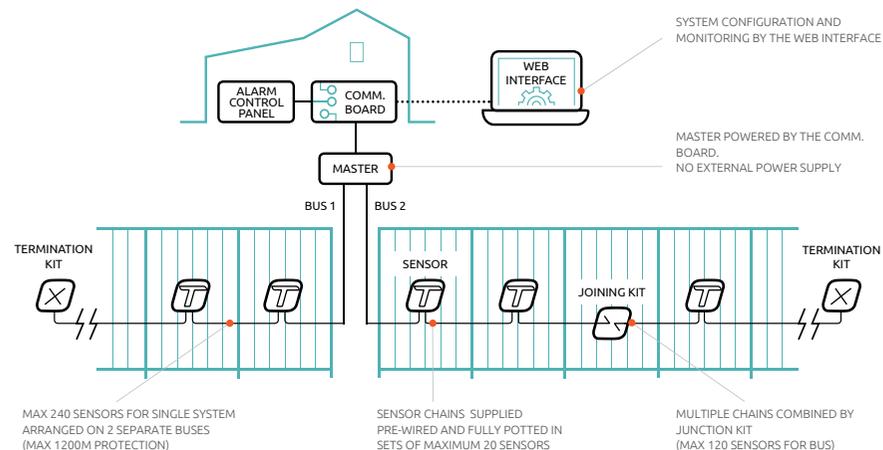


## MACS COMPONENTS

SYSTEM SCHEMATIC AND ORDERING CODES



- The system is made up of:
- Comm. board, installed inside the building
  - Master, installed in the vicinity of the fencing, up to a max. distance of 1000m from the Comm. board
  - Pre-wired and fully potted sensor chains



### Order codes

ARTICLE	DESCRIPTION	NOTES
<b>MACS-S3H</b>	IP68 sensor in reinforced technical polymer, with quick connector	Supplied in pre-wired chains of max. 20 sensors. Customization possible on request
<b>MACS-MAS</b>	Control board with 2 independent buses for management of MACS-S3H sensors	Can be ordered in combination with MACS-ETH or MACS-ETH-PS
<b>MACS-ETH</b>	Comm. board with 8 programmable relay outputs + tamper output, Ethernet port, 12 Vdc max 3A power supply	Can be ordered in combination with MACS-MAS
<b>MACS-ETH-PS</b>	MACS-ETH + power supply unit in metal BOX	12V 17Ah battery not included. Can be ordered in combination with MACS-MAS
<b>MACS-KIT-CON</b>	Sensor chain connection cable KIT. Case identical to MACS-S3H	Pack of 4 pcs
<b>MACS-BOX</b>	IP67 metal box for connection, with cable clamps	
<b>MACS-KIT-TERM</b>	Bus chain termination kit. Case identical to MACS-S3H	Pack of 2 pcs
<b>MACS-CAB</b>	Connection cable between MACS-MAS and MACS-ETH or for chain extension. External sheath in PVC resistant to adverse weather and UV rays.	Available in reels of 100m or 300m
<b>MACS-CT</b>	UV resistant ties	Pack of 100 pcs