

MACS - S3H

SENSOR

MACS-MAS

MASTER

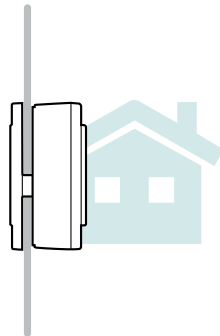
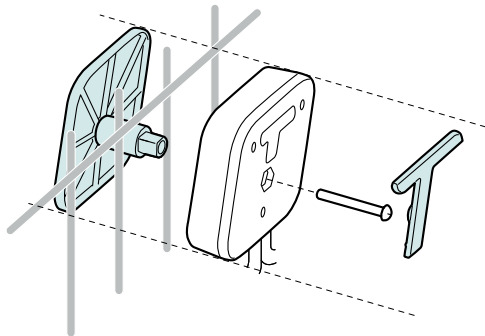
| SENSOR - SPECIFICATIONS | |
|------------------------------|--|
| mm (in) | 33 (1.29) 60 (2.36) |
| 73 (2.87) | |
| OVERALL DIMENSIONS | 89x73x25.5mm 3.5x2.87x1in |
| IP PROTECTION DEGREE | IP68 |
| RELATIVE HUMIDITY | 0-100% |
| OPERATING TEMPERATURE | -40° C / +70° C -40° F / +158° F |
| MATERIAL | Technopolymer with fibre glass Full potting, UV resistant |
| FIXING SYSTEM | Single central screw, by means of: • with dedicated back-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 m 18 ft |



| MASTER - SPECIFICATIONS | |
|------------------------------|---|
| mm (in) | 142 (5.59) 63 (2.48) |
| 167 (6.57) | |
| POWER SUPPLY | From Ethernet Board via powered proprietary bus |
| OPERATING TEMPERATURE | -40° C / +70° C -40° F / +158° F |
| 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 6.57 x 5.59 x 2.48 in |
| CONNECTIONS | 2 communication buses to sensors, 1 communication bus to Ethernet Board |

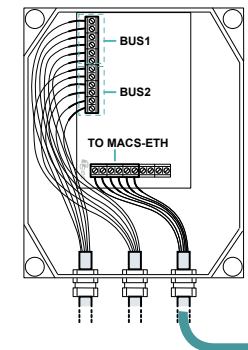
MACS-S3H sensor. Compact, stylish and practical

The sensor is housed in a technopolymer 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 back-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 m | 18 ft from each other. System coverage can reach a maximum of 1200 m | 3937 ft of fencing.



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

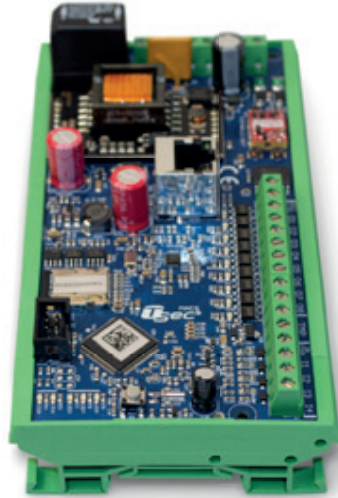
The control board, known as the Master, can manage up to a maximum of two chains on independent communication buses for a total of 240 sensors. The Master is housed in a compact watertight case. It is installed outside and powered via the cable that connects it to the Ethernet Board (located inside the building at a maximum distance of 1000 m | 3281 ft). This configuration eliminates the need for 230V power supply with relative power supply units and external backup battery.



MACS - ETH

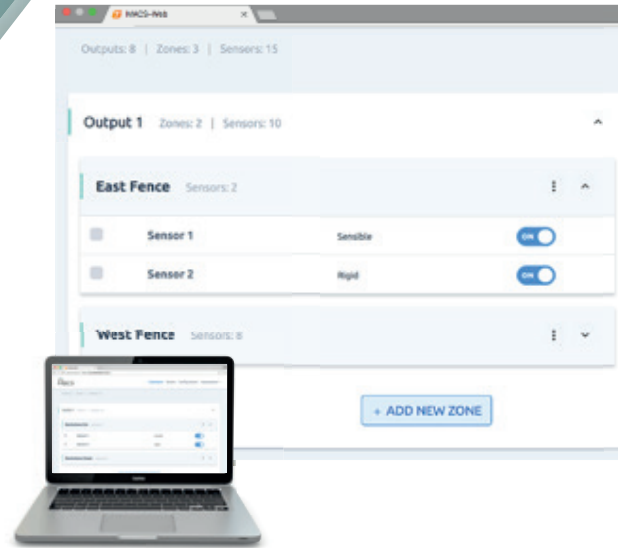
ETHERNET BOARD

| ETHERNET BOARD - SPECIFICATIONS | |
|---------------------------------|--|
| mm (in) | 159 (6.25) 54 (2.12) |
| 83 (3.26) | |
| POWER SUPPLY | 12 Vdc - 3 A |
| OPERATING TEMPERATURE | -20° C / +70° C -4° F / +158° F |
| FIXING SYSTEM | DIN rail support |
| BOARD DIMENSIONS | 159 x 83 mm 6.25 x 3.26 in |
| 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 WEB INTERFACE

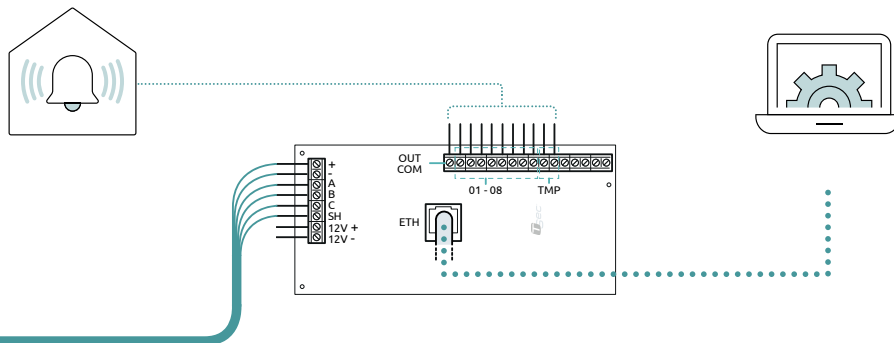
CONTROL WEB INTERFACE



| WEB INTERFACE - SPECIFICATIONS | |
|--------------------------------|--|
| 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 | <ul style="list-style-type: none"> Real-time calibration of parameters with feedback Automatic detection of connected sensors Smart calibration function for adaptation of 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-ETH Ethernet Board. All under control

The Ethernet 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 Ethernet Board, supplied with support and DIN rail, powers the entire system. A 12Vdc 3A power supply unit is required, or alternative option of Ethernet board complete with power supply unit in a metal container with compartment for 12V 17Ah backup battery (MACS-ETH-PS).



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.

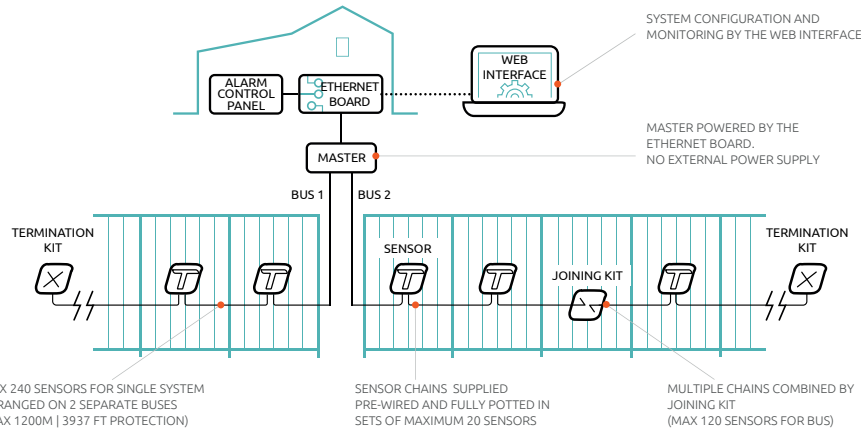


MACS COMPONENTS

SYSTEM SCHEMATIC AND ORDERING CODES



- The system is made up of:
- Ethernet board, installed inside the building
 - Master, installed in the vicinity of the fencing, up to a max. distance of 1000m | 3281 ft from the Ethernet board
 - Pre-wired and fully potted sensor chains



Order codes

| ARTICLE | DESCRIPTION | NOTES |
|----------------------|---|--|
| MACS-S3H | IP68 sensor in reinforced technopolymer, with quick connector | Supplied in pre-wired chains of max. 20 sensors. Customization possible on request |
| MACS-MAS | Control board with 2 independent buses for management of MACS-S3H sensors | Can be ordered in combination with MACS-ETH or MACS-ETH-PS |
| MACS-ETH | Ethernet board with 8 programmable relay outputs + tamper output, Ethernet port, 12 Vdc max 3A power supply | Can be ordered in combination with MACS-MAS |
| MACS-ETH-PS | MACS-ETH + power supply unit in metal BOX | 12V 17Ah battery not included. Can be ordered in combination with MACS-MAS |
| MACS-KIT-CON | Sensor chain connection cable KIT. Case identical to MACS-S3H | Pack of 4 pcs |
| MACS-BOX | IP67 metal box for connection, with cable clamps | |
| MACS-KIT-TERM | Bus chain termination kit. Case identical to MACS-S3H | Pack of 2 pcs |
| MACS-CAB | 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 328 ft or 300m 984 ft |
| MACS-CT | UV resistant ties | Pack of 100 pcs |
| MACS-SC | Chain jointing system with screw connector and IP68 case | |
| MACS-SC-TERM | Chain termination system with screw connector and IP68 case | |