# FERMAX

## Freund
### Elektronik

# FERMAX

# Resistant

Anti-vandal access control range
**Maximum robustness** IP66 IK09

### REF.5238
## RESISTANT MEMOKEY KIT

**Memokey + Proximity Resistant** is a stand-alone anti-vandal access control unit with integrated keypad and contactless proximity reader that lets you manage up to 600 users.

### REF.5237
## RESISTANT PROXIMITY KIT

**Proximity Resistant** is a stand-alone anti-vandal access reader with capacity for up to 1000 cards due to its connection to external controller (ref.5276).

# Access control

## 1. Access control kits

ref.4905

| 4905 | EM CITYLINE PROXIMITY KIT | | | EM |
|------|---------------------------|---|---|----|
| **Authentication:** Proximity (EM) | | **Aesthetic:** Cityline | **Controller:** Integrated | |
| **Authorisations:** Master card | | **Users:** 400 | | |
| Flush mounted. Includes reader (ref.6992), power supply 12Vac/1A (ref.4802), 5 cards EM (ref.23361) and 1 key fob EM (ref.4515) and S1 flush box (ref.8948) | | | | |
| **Optional** | 5276 MINI STAND-ALONE CONTROLLER* (External controller, 1000 users, remote control IR) | | | |
| | 2306 MANUAL PROGRAMING KEYPAD (Programmer compatible with FERMAX EM cards) | | | |

ref.4906

| 4906 | CITYLINE MEMOKEY KIT | | |
|------|----------------------|---|---|
| **Authentication:** PIN | | **Aesthetic:** Cityline | **Controller:** Integrated |
| **Authorisations:** Master PIN | | **Users:** 100 | |
| Flush mounted. Includes keypad (ref.6991) and power supply 12Vac/1A (ref.4802) and S1 flush box (ref.8948) | | | |

ref.5238

| 5238 | RESISTANT MEMOKEY KIT | | | EM | MIFARE |
|------|------------------------|---|---|----|--------|
| **Authentication:** Pin/Proximity (MIFARE/EM) | | **Aesthetic:** Resistant | **Controller:** Integrated | | |
| **Authorisations:** PIN Master | | **Users:** 600 | | | |
| Includes keypad (ref.5293), power supply 12Vac/1A (ref.4802), 3 cards MIFARE (ref.52750) and 2 key fob MIFARE (ref.52740). Authentication options: PIN only, Proximity only, PIN+Proximity. | | | | | |
| **Optional** | 5276 MINI STAND-ALONE CONTROLLER* (External controller, 1000 Users, remote control IR, secure door) | | | | |

ref.5237

| 5237 | RESISTANT PROXIMITY KIT | | | EM | MIFARE |
|------|--------------------------|---|---|----|--------|
| **Authentication:** Proximity (MIFARE/EM) | | **Aesthetic:** Resistant | **Controller:** External | | |
| **Authorisations:** IR Remote control | | **Users:** 1000 | | | |
| Includes proximity reader (ref.5296), controller with IR remote control (ref.5276), power supply 12Vdc/2A (ref.4813), 3 cards MIFARE (ref.52750) y 2 key fob MIFARE (ref.52740). | | | | | |

ref.5249

| 5249 | RF 868MHZ SYSTEM KIT FOR SHOPS | | |
|------|--------------------------------|---|---|
| **Authentication:** RF | | **Aesthetic:** Other | **Controller:** Integrated |
| **Authorisations:** Prog.button | | **Users:** 500 | |
| It includes receiver (ref.5250), power supply12Vac/1A (ref.4802) and 3 remote controls (ref.5259). | | | |

* Ref. 5276 requires 12Vdc power supply via additional power supply ref. 4813.

# Access control

## 2. Readers and keypads

### INTEGRATED Controller

ref.6992/6957

ref.6991

ref.5293          ref.5250

| 6992 | EM CITYLINE PROXIMITY READER | | | EM |
|---|---|---|---|---|
| **Authentication:** Proximity (EM) | | **Aesthetic:** Cityline | **Controller:** Integrated | |
| **Authorisations:** Master card | | **Users:** 400 | Includes flush box S1 ref. 8948 | |

| 6957 | CITYLINE DESFIRE PROXIMITY READER | NEW | | DESFIRE |
|---|---|---|---|---|
| **Authentication:** Proximity | | **Aesthetic:** Cityline | **Controller:** Integrated | |
| **Authorisations:** Master card | | **Users:** 400 | Includes flush box S1 ref. 8948 | |

| 6991 | CITYLINE MEMOKEY | | |
|---|---|---|---|
| **Authentication:** PIN | **Aesthetic:** Cityline | **Controller:** Integrated | |
| **Authorisations:** PIN Master | **Users:** 100 | Includes flush box S1 ref. 8948 | |

| 5293 | RESISTANT KEYPAD W/PROXIMITY | | EM | MIFARE |
|---|---|---|---|---|
| **Authentication:** PIN/Proximity (MIFARE/EM) | | **Aesthetic:** Resistant | **Controller:** Integrated | |
| **Authorisations:** PIN Master | | **Users:** 600 | | |
| **Optional** | 5276. CONTROLLER MINI* (C.External, 1000 users, control remote IR) | | | |

| 5250 | RF BASIC-2B RECEIVER | | |
|---|---|---|---|
| **Authentication:** RF | **Aesthetic:** Other | **Controller:** Integrated |
| **Authorisations:** Prog.button | **Users:** 500 | |

\* Ref. 5276 requires 12Vdc power supply via additional power supply ref. 4813.

### EXTERNAL Controller

The following devices only have a Wiegand output and require a stand-alone External mini Controller ref. 5276:

ref.6958/6957          ref.5296

ref.5190          ref.5266

| 6958 | CITYLINE WG MIFARE/EM PROXIMITY READER | | EM | MIFARE |
|---|---|---|---|---|
| **Authentication:** Proximity (MIFARE/EM) | | **Aesthetic:** Cityline | **Controller:** External | |

| 6957 | CITYLINE DESFIRE PROXIMITY READER | NEW | | DESFIRE |
|---|---|---|---|---|
| **Authentication:** Proximity (DESFIRE) | | **Aesthetic:** Cityline | **Controller:** External | |
| Includes flush box S1 ref. 8948 | | | | |

| 5296 | EM/MIFARE WIEGAND RESISTANT PROXIMITY READER | | EM | MIFARE |
|---|---|---|---|---|
| **Authentication:** Proximity (EM/MIFARE) | | **Aesthetic:** Resistant | **Controller:** External | |
| Includes flush box S1 ref. 8948 | | | | |

| 5190 | WIEGAND CITYLINE KEYPAD | | |
|---|---|---|---|
| **Authentication:** PIN | **Aesthetic:** Cityline | **Controller:** External |
| Includes flush box S1 ref. 8948 | | |

| 5266 | RF-WIEGAND RECEIVER 12VDC | | |
|---|---|---|---|
| **Authentication:** RF | **Aesthetic:** Other | **Controller:** External |

### Accessories

| | | | |
|---|---|---|---|
| 4533 | DESFIRE USB CARD READER | 5208 | CONTACTLESS PUSHBUTTON SURFACE BOX |
| 4534 | USB PROGRAMMER DESFIRE CARDS | 1076 | MC740 G2 MAGNETIC CONTACT |
| 4813 | POWER SUPPLY DIN6 100-240Vac 12Vdc/2A | 7061 | CITYLINE SURFACE BOX S1 (130X128X33 mm) |
| 67501 | UNIVERSAL LOCK RELEASE 990N-P22 MAX 12-24Vdc/ca | 7062 | CITYLINE SURFACE BOX S2 (130x151x33 mm) |
| 67524 | UNIVERSAL LOCK RELEASE 990A-S 12-24Vdc/ca | 8851 | FLUSH BOX S1 (115x114x45 mm) |
| 5287 | FLUSH MOUNTED PUSHBUTTON (2 WIRES) | 8852 | FLUSH BOX S2 (115x138x45 mm) |
| 5288 | SURFACE MOUNTED PUSHBUTTON (2 WIRES) | 5234 | USB INKEY-MINI FINGERPRINT READER |
| 5207 | CONTACTLESS PUSHBUTTON FLUSH MOUNTED (4 WIRES) | 24661 | USB ADAPTOR TO RS485 |

FERMAX

ADGANGSKONTROL

# KITS

THIS GUIDE WILL HELP YOU CHOOSE THE RIGHT PRODUCT FOR YOUR INSTALLATION

## ❶ How will the **user be identified**?

| PROXIMITY | | PIN CODE | | FINGERPRINT | RF |
|---|---|---|---|---|---|
| 6992/6957 EM | 5296 MF/EM | 6991/5190 | 5293 MF/EM | 5233 MF | 5250 |

| EM | MIFARE | RECOMMENDED DESFIRE |
|---|---|---|
| 125KHz | 13,56MHz | 13,56MHz AES 256 |

User identification by **key fobs or cards.**
Standard or enhanced security with AES 256 encryption (DESFIRE).
Also available on certain keypad models.

## ❷ How many **users** will need to be managed?

**100** TO **600** users
See number of users for each reference

→

UP TO **1000**
5276

→

MORE THAN **1000**
5233

## ❸ Which **aesthetic** do you prefer?
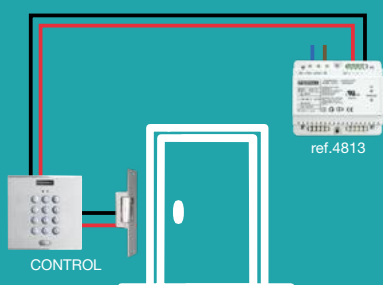
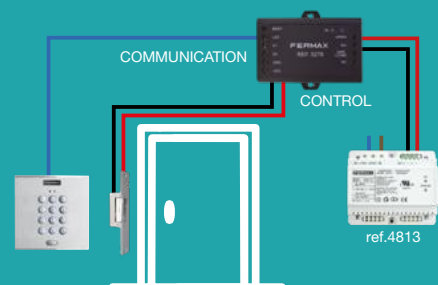| RESISTANT | CITYLINE | SKYLINE |
|---|---|---|
| | | See DUOX PLUS section Integration with video door entry system |

## ❹ Do you need to increase the **security** of the door?

**NO** Devices with internal controller
• They have a relay for a direct control of the electric lock release.
• Number of users according to each equipment.
• Management of the users by card, PIN... master.

ref.4813

CONTROL

**YES** Devices with external controller ref. 5276
• They have communication with the equipment that controls the door: secured door. The keypad/reader does not have wiring to the rear of the door lock.
• Extended number of users: 1000 users.
• User management via IR control.

COMMUNICATION

CONTROL

ref.4813

# Summary

❶ ➜ ❷ ➜ ❸ ➜ ❹

| Authentication | Technology Proximity | Users | Aesthetic | Controller | Ref. | Kit |
|---|---|---|---|---|---|---|
| Proximity | EM | 400 | Cityline | Integrated | 6992 | 4905 |
| Proximity | Desfire | 400 | Cityline | Integrated | 6957 | |
| PIN Code | | 100 | Cityline | Integrated | 6991 | 4906 |
| PIN Code + Proximity | Mifare/EM | 600 | Resistant | Integrated | 5293 | 5238 |
| RF | | 500 | - | Integrated | 5250 | 5249 |
| Fingerprint + Proximity | Mifare | 5.000 | Inkey Mini | Integrated | 5233[1] | |
| Smartphone | Bluetooth | Unlimited | - | Integrated | 2637 | |

| Authentication | Technology Proximity | Users | Aesthetic | Controller | Ref. | Kit |
|---|---|---|---|---|---|---|
| Proximity | EM | 1.000 | Cityline | External (ref. 5276) [2] | 6992 | 4905 |
| Proximity | Desfire | | Cityline | | 6957 | |
| Proximity | EM/Mifare | | Cityline | | 6958 | |
| Proximity | EM/Mifare | | Resistant | | 5296 | 5237 |
| PIN Code | | | Cityline | | 5190 | |
| PIN Code + Proximity | Mifare | | Resistant | | 5293 | 5238 |
| RF | | | - | | 5266 | |
| Fingerprint + Proximity | Mifare | | Inkey Mini | | 5233 | |

[1] Although it has a relay, it is necessary to connect an External relay to control a door release. It is recommended to use ref. 2013 relay.

[2] Ref. 5276 requires 12Vdc power supply via an additional power supply ref. 4813.

# Identifiers

| RECOMMENDED | DESFIRE | | NEW |
|---|---|---|---|
| | KEY FOB | CARD | Add more SECURITY with DESFIRE! |
| | 4532 | 4531 | |



| EM | | | MIFARE | | RF 868Mhz | |
|---|---|---|---|---|---|---|
| KEY FOB | CARD | BRACELET | KEY FOB | CARD | REMOTE CONTROL | |
| 4515 | 23361 | 6949 | 52740 | 52750 | 5259 | 5231 |

ACMAX
FERMAX ACCESS CONTROL SYSTEM

## 3. AC-MAX access control system

Complete system for users management from PC, both locally and remotely by means of a free PC software.

Free software available at www.fermax.com

## ADVANCED FEATURES

• Real-time event logging.  • Remote software management: configuration, registration/cancellation of users, etc.
• Timetable control.   • Anti-passback, occupancy limitation, automations.

## ADVANTAGES

Easy to install and competitive kit format

Assistant that guides the installer through the process of creating their own configuration

Visual management of accesses via IP network with site map

Integrated fingerprint readers which are managed using the same software

Allows events to be registered in customisable formats

## 2 OR 4 DOORS KIT

Pre-wired kit

IP network connection. Capability of OFFLINE operation.

Housing for emergency battery

High resistance metal box with DIN rail

Power supply
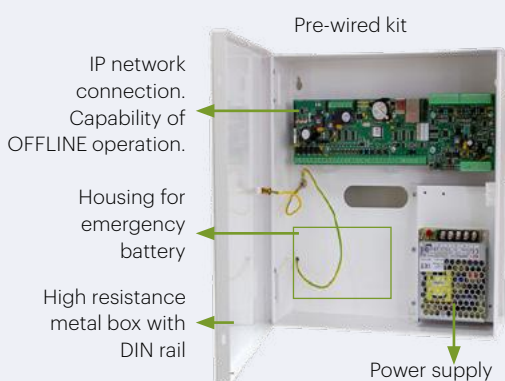
■ Control of 2 or 4 doors. Up to 4 or 8 entry/exit readers. Wiegand/RS-485 connection.

## BASIC SCHEME

Free software.
Includes wizard to guide you through the configuration.
Unlimited 5223/5224 kits.
8192 credentials per kit.
Event logging, reports, etc.
Remote management.

LOCAL AND REMOTE MANAGEMENT

Network TCP/IP

Cat5/Cat6 Ethernet

2 DOORS KIT ref.5223

4 DOORS KIT ref.5224

RS-485

Wiegand

ref.5225   ref.5225   ref.5190   ref.5190   ref.5296   ref.5296

# Access control acmax

FERMAX ACCESS CONTROL SYSTEM
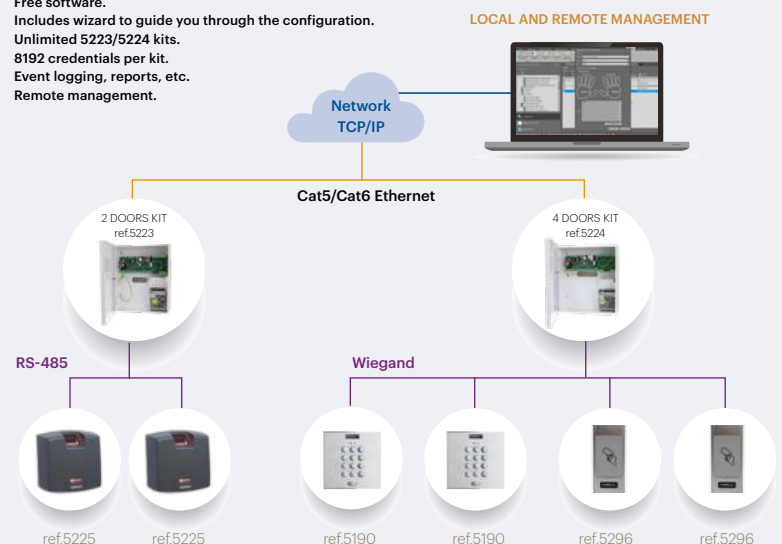
## AC-MAX LT 2.0 Software

One single free software with all common required functions already built-in: system configuration, management of users, roles and credentials, log of events, reports, integration of CCTV cameras, occupancy limit&count,..

"ST version" also available, with advanced functionalities.

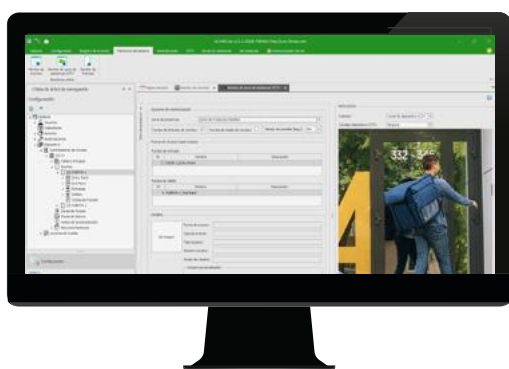**Available languages:** Spanish, English, Portuguese, French, German, Dutch.

| SOFTWARE FEATURES | LT 2.0 |
|---|---|
| CAPACITY | |
| Licences required | NO |
| No. of doors | No limits |
| No. of users/central | 8.192 |
| No. of central units | No limits |
| No. of relays | No limits/ 128 per controller |
| No. of sensors | No limits/ 128 per controller |
| No. of events | 8.000.000 |
| BASIC FUNCTIONS | |
| Configuration Wizard | Yes |
| Real time event monitoring | Yes |
| Reports | Yes |
| Built-in fingerprint enrolment | Yes |
| Site Map | No* |
| Software remote door opening | Yes |
| Local Antipassback | Yes |
| Different operator profiles | Yes |
| Access Zones | Yes |
| Occupancy limit | Yes |
| Occupancy count | Yes |
| List of persons in a zone | Yes |
| Alarm zones | Yes |
| Automations | Yes (8 modes) |
| Credential expiry date | Yes |
| Different credentials per user | Yes |

| SOFTWARE FEATURES | LT 2.0 |
|---|---|
| ADVANCED FUNCTIONS | |
| Limited number of accesses per user | No |
| Global Antipassback | No* |
| Perimetral zones | No* |
| Client/Server installation | Yes |
| Multi company partition | No** |
| Different projects management | Yes |
| Internet remote management | Yes |
| Time & Attendance | Basic |
| Basic visit management | No* |
| Design/Print prox cards | No* |
| Advanced authorization | No* |
| Authentication policies | Yes |
| Asset management | No* |
| Email alerts | No* |
| Fire Alarm inputs | No* |
| INTEGRATION | |
| External Database | Yes |
| CCTV video stream reception | Yes |
| API | Free |
| Lift Control | No* |

\* Check availability with ST 2.0 version
\*\*Available in ST 2.0 version and requires a licence.

# Access control

**acmax**
FERMAX ACCESS CONTROL SYSTEM

## KITS

ref.5223

ref.5224

ref.5296

| 5223 | 2-DOOR AC-MAX CONTROLLER KIT |
|------|------------------------------|
| | Includes metal box with power supply, an IP controller unit and a 2 door expander. Dimensions: 295x285x90. Power supply: 3,6 A. |
| 5224 | 4-DOOR AC-MAX CONTROLLER KIT |
| | Includes metal box with power supply, an IP controller unit and a 4 door expander. Dimensions: 325x305x100. Power supply: 5,4 A. |
| 5296 | RESISTANT PROXIMITY READER |

For projects with more than 4 doors: just connect the desired number of kits to the same IP network. They are managed from a single software by IP.

## ACCESSORIES

| 6957 DESFIRE CITYLINE READER | 6958 MIFARE CITYLINE READER | 5293 PROX. RESISTANT KEYPAD | 5190 CITYLINE KEYPAD | 5266 RF RECEIVER | 5225 FINGERPRINT READER |
|---|---|---|---|---|---|
| Wiegand | | Wiegand | Wiegand | Wiegand | RS-485 |

ref.5222

ref.5201

ref.1608/5204

| 5222 | LIFT CONTROL 8 FLOOR KIT |
|------|--------------------------|
| | The 5222 kit includes a 5221 licence for the control of up to 8 plants. This kit can accommodate a maximum of 2x additional ref. 5201. From the ninth floor upwards, include one 5201 + 5221 for each additional 8 floors. |
| 5201 | EXPANDER 8 INPUTS / 8 OUTPUTS (EXP8-IO) |
| 5221 | L.C. 8 FLOORS LICENCE Extension |
| 5209 | METAL BOX FOR LIFT CONTROL |
| 1608 | AC-MAX LICENCE DONGLE (KEY6-USB) |
| 5204 | DESKTOP PROXIMITY READER AC-MAX (KEY3-USB) |

| MIFARE | | RF 868Mhz | DESFIRE | |
|--------|--------|-----------|---------|--------|
| KEY FOB | CARD | REMOTE CONTROL | KEY FOB | CARD |
| 52740 | 52750 | 5259 | 5231 | 4532 | 4531 |

# Access control

## DIAGRAM. **KITS**
### WITH INTEGRATED CONTROLLER

**KEYPAD**
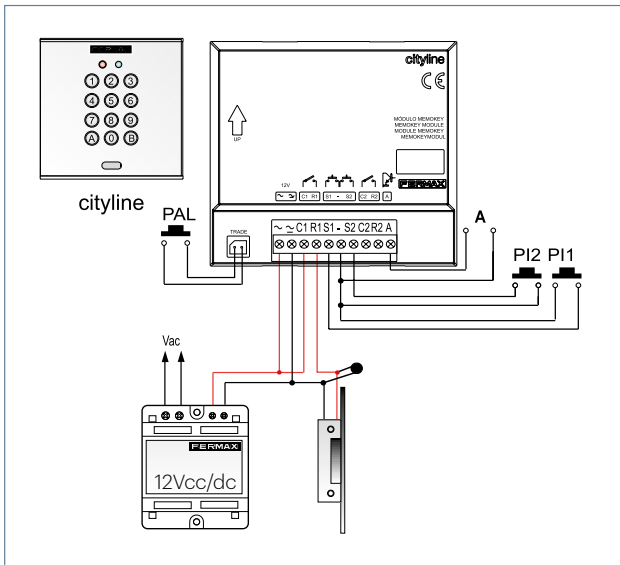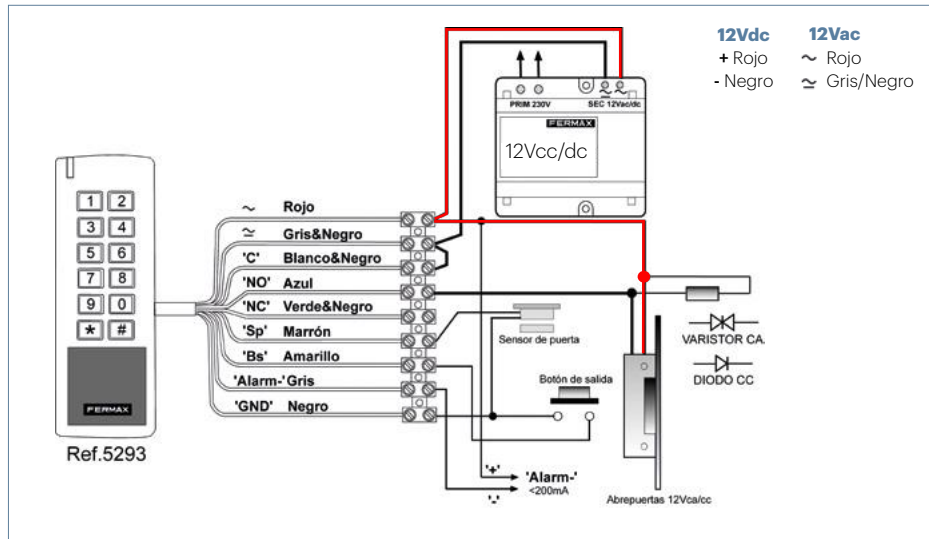


**PROXIMITY**
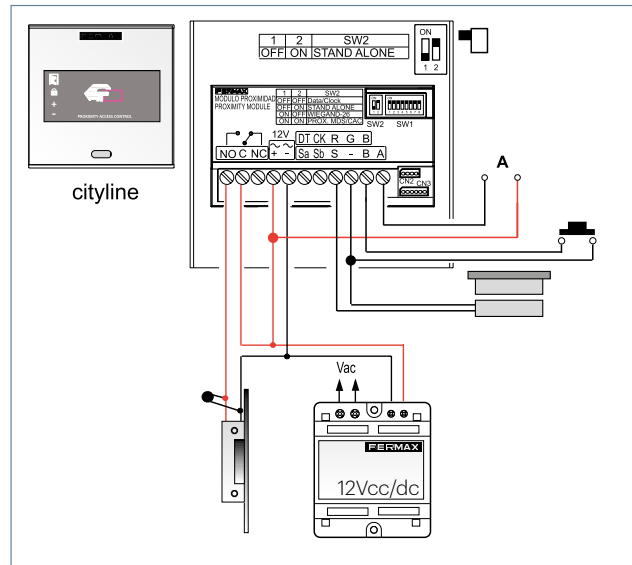


**FINGERPRINT**
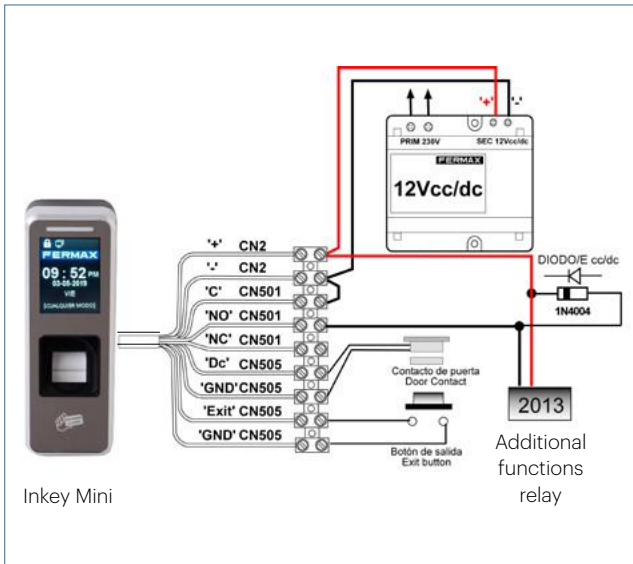
# Access control

## DIAGRAM. **KITS**

### RESISTANT KEYPAD WITH INTEGRATED CONTROLLER



| | 12Vdc | | 12Vac |
|---|---|---|---|
| + | Rojo | ~ | Rojo |
| - | Negro | ≃ | Gris/Negro |

12Vcc/dc

| | |
|---|---|
| ~ | Rojo |
| ≃ | Gris&Negro |
| 'C' | Blanco&Negro |
| 'NO' | Azul |
| 'NC' | Verde&Negro |
| 'Sp' | Marrón |
| 'Bs' | Amarillo |
| 'Alarm-' | Gris |
| 'GND' | Negro |

Ref.5293

Sensor de puerta
Botón de salida
VARISTOR CA.
DIODO CC
'Alarm-' <200mA
Abrepuertas 12Vca/cc

### WITH MINI EXTERNAL CONTROLLER



| 1 | 2 | SW2 |
|---|---|---|
| ON | OFF | WIEGAND-26 |

Ref. 7440
Ref. 6992
Ref.7461

12Vcc/dc
12Vcc/dc



| | | |
|---|---|---|
| Yelow / Amarillo | 'BEEP' | |
| Brown / Marrón | 'LED' | |
| White / Blanco | 'D1' | |
| Green / Verde | 'D0' | |
| Negro / Black | 'GND' | |
| Red / Rojo | '+DC' | |

Ref.5293   Ref.5296

12Vcc/dc
12Vcc/dc
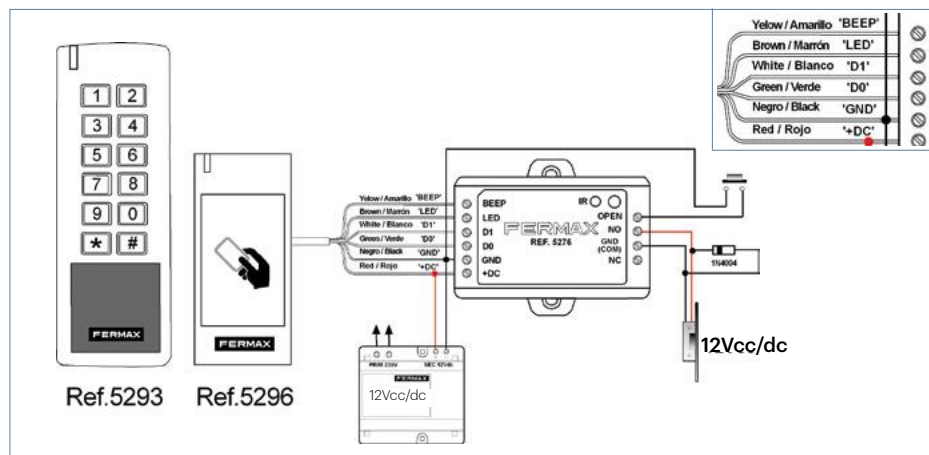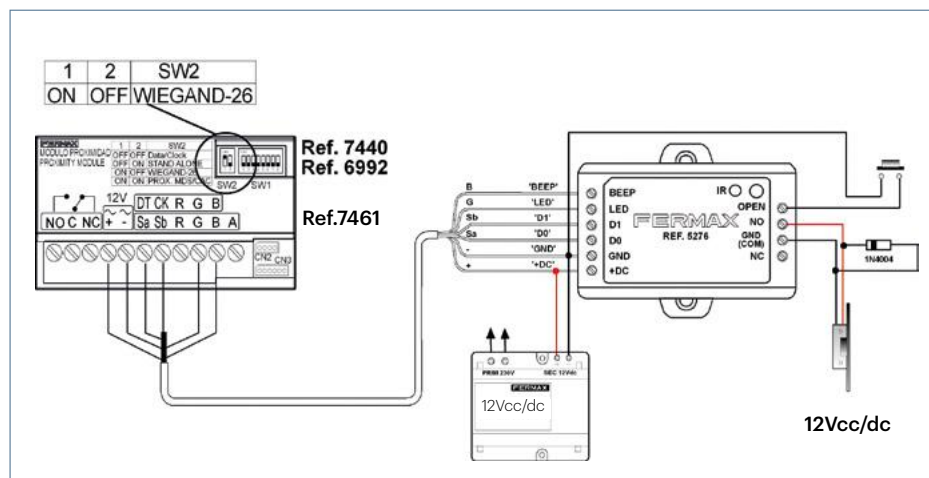
# Access control

## DIAGRAM. **AC-MAX**

# FERMAX

# www.freund.dk