



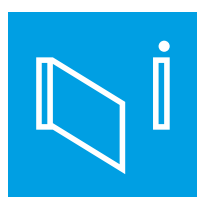
FROG-X

The ultimate underground motor,
reinvented.





FROG-X is the ideal underground motor for automating swing gates in residential and industrial settings. Fast, silent, invisible.



FROG-X CHARACTERISTICS

- **FAST AND SILENT**
24V brushless motor with speed up to 10 seconds for 90° opening
- **POWERFUL AND RELIABLE**
For gate leaves up to 4 meters and 400 kg, with MCBF 250,000 cycles, ideal for both residential and industrial settings.
- **STRESS-RESISTANT**
All-metal frame and gears made of hardened and tempered carbon steel, and high quality steel gate leaf support pin.
- **WEATHER RESISTANT**
Aluminum motor casing with IP67 protection rating.
- **ADVANCED ELECTRONICS**
Control panel with smart configuration through CAME KEY and advanced functions
- **COMPATIBLE WITH FOUNDATION BOXES OF PREVIOUS MODELS**
It can also be installed in conjunction with existing FROG foundation boxes.

A BRUSHLESS MOTOR TESTED TO WITHSTAND

FROG-X was developed with the goal of achieving a universal motor capable of operating under any conditions.

The absence of brushes ensures silent operation and reliability over time because there are no components subject to wear and tear.

In addition, the motor is equipped with the innovative star coupling for connection to the worm screw, specially designed to increase the system's efficiency.

The motor and each of its components have undergone rigorous testing to ensure that all parameters are met: in CAME's Central Laboratory, FROG-X has continuously performed thousands of operations to certify an incredible MCBF of 250,000 cycles.

Thanks to a maximum torque of **300 Nm**, the motor moves gate leaves up to **4 meters in length and 400 kg** in weight taking only **10 seconds** to open them to 90°.



THE NEW FOUNDATION BOX

The FROG-X foundation box has been developed to meet the highest weather resistance standards and the most extreme environmental conditions.

It is compatible with all motors in the FROG series, and is also equipped with 4 slots for lateral fastening.

The gate leaf support pin is made entirely of high-quality steel and is secured by special reinforced welding that provides exceptional resistance to stress, torsion and wear.

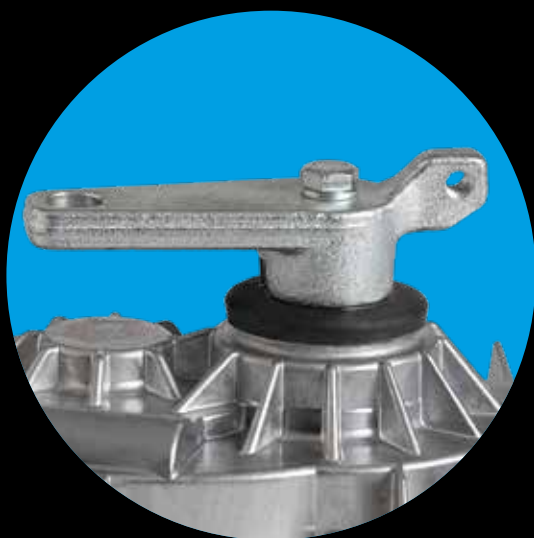


FROG-X THE OPERATOR

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FROG-X represents the evolution of the historic FROG motor while inheriting its inimitable qualities that have made it the underground motor par excellence. In addition, Brushless technology ensures exceptional reliability and extends the average life of the system significantly, while making FROG-X virtually free from malfunctions.



New motor arm attachment to the shaft for easier disassembly.



New DIN key release with improved mechanics that ensures smoother operation and eliminates the risk of malfunction.



NEW 180° OPENING ACCESSORY

With gear transmission for smoother gate leaf movement.

The pin and gears are specifically designed to withstand high speeds and high loads to open gates up to 3.5 meters in length and 400 kg in weight.

Hardened and tempered carbon steel
slow-moving crown gear

Permanent
grease lubrication

Star coupling for connection
between the motor and the worm gear



Perimeter
seal

Brushless
motor

Steel
gears

IP67 die-cast aluminum
enclosures

IP67 watertight power
connection



THE MOST ADVANCED CONTROL PANEL

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FROG-X, combined with the ZLB24SA electronic board, is the most advanced and complete solution for underground automations. The board is equipped with a special tilting removable housing that allows for easier and safer wiring and has an impact-resistant ABS cover.

With this mechanism, it is also possible to conveniently install, directly under the board, additional modules (such as RGSM module or SMA module).

In addition, the box is equipped with the traditional 4 holes for wall mounting and also allows quick mounting via DIN rail.

CONFIGURATION VIA SMARTPHONE

Through Wi-Fi connection with CAME KEY, users can greatly reduce installation and setup time by using the wizard via smartphone.

Simply plug CAME KEY into the appropriate socket on the control panel and launch the CONNECT Setup App on the smartphone to access advanced functions:

- Guided set up for quick and simple commissioning.
- Access to all automation parameters, which are organized by type.
- Automations management, operations and maintenance control organized by customer.
- Quick radio controls configuration via QR code
- Update firmware on the control board for new features.
- Configurations backup to CONNECT.



GUIDED CONFIGURATION WITH AUTO-SETUP

The graphical display allows all configurations to be made in 13 different languages using the 4 control keys. The two available guided procedures make the installer's work much easier.

Through these special functions, it is simply a matter of following the instructions on the display to properly perform both the commissioning of the automation and the impact tests.

In fact, based on the gate leaf length and weight setting, all the relevant speed, acceleration and deceleration parameters are automatically configured.

The installer can also set a password to protect access to the menu and prevent unauthorized persons from changing configurations.



ABS ENCLOSURE

TOROIDAL TRANSFORMER

CONNECTION TO THE LINE
protected by fuse

QUICK PLUG-IN CONNECTORS

GRAPHIC DISPLAY

CAME KEY/GATEWAY CONNECTOR

MEMORY ROLL
for saving the configurations

PROTECTION
of the shockproof ABS board



The plastic box is equipped with DIN BAR mounting system and is pre-arranged for installing the antenna.

The tilting stand, allows easy and quick handling of wiring and accessories.



ADAPTIVE SPEED AND TORQUE TECHNOLOGY

FROG-X guarantees maximum efficiency and low maintenance costs, through its continuous torque adaptation system (AST).

The board monitors running speed, acceleration and deceleration ramps, and current consumption at all times.

The torque adaptation system constantly evaluates weight and friction in order to detect obstacles and maintain speed at the set level.

Continuous torque adaptation allows the motor to be always updated on possible friction variations so that it can work perfectly at any latitude, in any weather condition.



NO MORE FALSE OBSTACLES

The adaptive speed and torque technology ensures greater safety in case of obstacles, as well as the correct detection of friction problems (caused by dirt or small stones) that could cause a motor block and require technical intervention.

No loss of time for the installer, great satisfaction for the customer.



MAIN CHARACTERISTICS

- Integrated TIMER management with automatic DST (Day Saving Time)
- Compatibility with all CAME radio codes, managing up to 1000 users.
- Power supply 230 volts / 120 volts AC 50/60Hz
- CXN BUS inputs
- RSE card connector
- Compatibility with wireless accessories RIO System 2.0
- Inputs configurable as resistive 4 wired safety inputs
- B1-B2 output for auxiliary commands
- Separate inputs for commands:
 - Total stop
 - Opening
 - Partially open
 - Closing
 - Step by step
 - Sequential

ZLB24SA WITH CXN BUS TECHNOLOGY

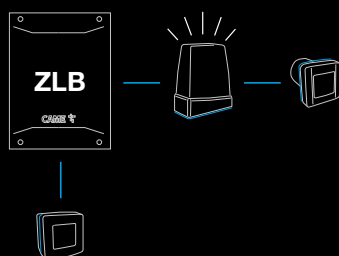
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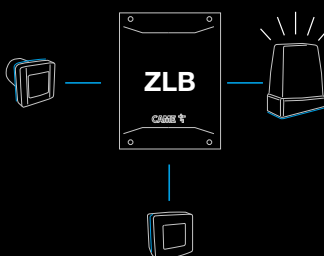
With the CXN line of accessories with BUS technology, installation can be completed more easily and quickly. Each individual accessory can be configured after completing installation and setting the address of each device. It is also possible to obtain a complete diagnosis on each device. The new ZLB24SA control panel allows FROG-X to connect both conventional and non-polarized 2-wire accessories.

CONNECTION IN BUS MODE

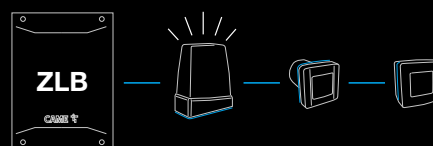
MIXED Connection



STAR Connection



CHAIN Connection



COMPATIBLE WITH ALEXA

Thanks to the optional Wi-Fi gateway that can be plugged directly onto the electronic board, FROG-X can connect to any router to enable remote management.

In addition to the Automation App that enables users to control the automation from a smartphone, it is also possible to use Amazon Alexa voice commands, to open and close the gate, stop it, or know its status.



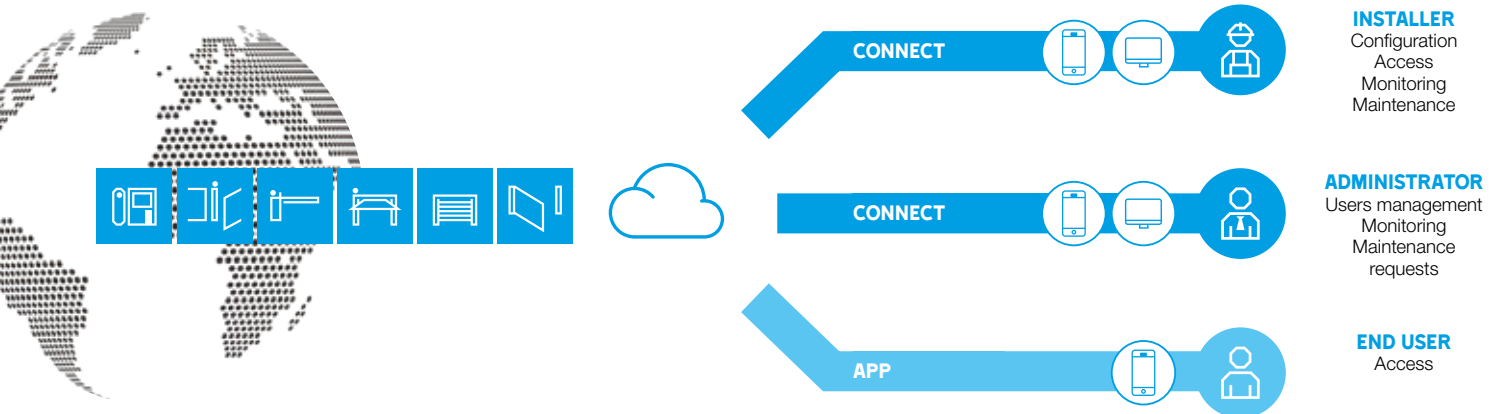
Download the AUTOMATION app from Google Play and the App Store



CONNECT

CONNECT is the CAME technology that allows to manage automations that improve the quality of life. The automations connected over the Internet offer added value for the user and open up new horizons for the installer's business.

CAME has chosen to develop internally the technologies necessary to manage data flow and protection. No external agency processes the information, no server is located in remote locations around the world. An innovative technological heart, to ensure high security and reliability. CAME has invested in research and development with the aim of simplifying the installer's work, improving user experience and offering new digital services.



INSTALLER
Configuration
Access
Monitoring
Maintenance

ADMINISTRATOR
Users management
Monitoring
Maintenance requests


END USER
Access

CONNECT AT THE INSTALLER'S AND ADMINISTRATOR'S SERVICE

Connected automations can be managed remotely via PC or smartphone. The CONNECT platform enables the automatic programming of transmitters, the management of customers and systems installed, the status of devices and scheduled maintenance. CONNECT allows the installer to offer a complete 24/7 service becoming the trusted partner for his customer.

CONNECT AT THE END USER'S SERVICE

Through the free Apps that can be installed on any Android or iOS smartphone, the user can control the devices remotely.

 **PLATFORM FOR PC**
came.com/connect

 **SMARTPHONE APPS**
CONNECT SetUp

  **SMARTPHONE APPS**
CAME Automation

CONNECT MEANS

INTERNET
connection
via CAME gateways

COMPATIBILITY
with new quick-coupling
gateways

CONFIGURATION
and setup from smartphone with
KEY CAME

REMOTE
control for the user
through Apps

CAME KEY

CAME.COM

YOUR NEW WORK TOOL

CAME KEY makes all automation installation, programming and management steps easier and faster.

By exploiting the WiFi communication between CAME KEY and smartphones, the device serves as an interface between the control board and the CAME SetUp APP.

- Update firmware on the control board for new features.
- Manage all automation parameters, which are organized by type.
- Check maneuvers for scheduled maintenance.
- Remote controls and cards management via QR code.
- Keypad code configuration.



Smartphone Apps
CONNECT SetUp

QUALITY FOR CAME

IS THE GUIDING PRINCIPLE OF EVERYTHING.

FROG-X is completely made in Italy and, like all CAME automation solutions, is the result of our smart production model that includes the digitization of each phase, integrating a complete series of tests on 100% of the products.

- Low speed opening test
- High speed opening test
- Angular speed and absorption test
- Electrical safety test
- Ground conductor test
- High voltage insulation test
- Control panel test
- Test with control panel switched on with 230 V AC power supply

SERVICE



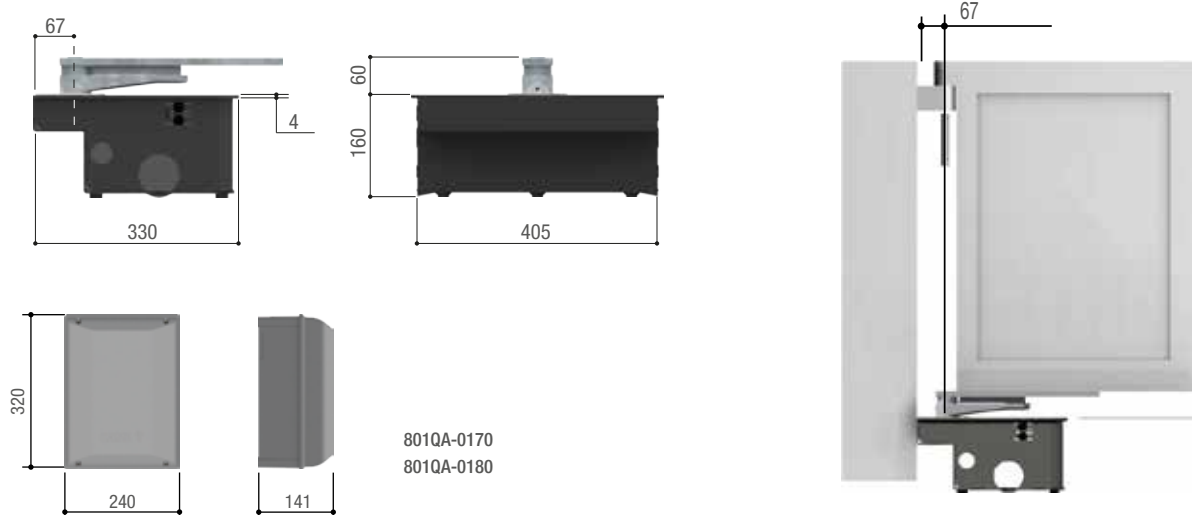
ENGINEERING

TESTING ONE BY ONE



PRODUCTION

THE COMPLETE RANGE



801QA-0170
801QA-0180

OPERATIONAL LIMITS

MODELS	801MI-0030				
Max. leaf width (m)	4	3.5	3	2.5	2.5
Max leaf weight (Kg)	400	500	600	700	800

TECHNICAL FEATURES

MODELS	801MI-0030
Protection rating (IP)	67
Power supply (V - 50/60Hz)	24
Motor power supply (V DC)	24
Max current draw (mA)	15
Power (W)	125
Torque (Nm)	300
Opening time at 90° (s)	10 to 18
Cycles/hour	CONTINUOUS SERVICES
Operating temperature (°C)	-20 to +55

● 24 V DC

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CAME 
MORE THAN TECHNOLOGY

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We are a leading multinational supplier of integrated high-tech solutions for automating residential, public and urban settings which generate intelligent spaces for the wellbeing of people.

- GATES AUTOMATION
- AUTOMATIC BARRIERS
- GARAGE DOORS AND INDUSTRIAL CLOSURES AUTOMATION
- VIDEO ENTRY SYSTEMS
- HOME CLIMATE CONTROL
- SHUTTERS, BLINDS AND AWNINGS AUTOMATION
- ACCESS CONTROL SOLUTIONS
- TURNSTILES AND SPEEDGATES
- BOLLARDS AND ROADBLOCKERS
- PARKING SYSTEMS

