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**Axovia**

# Motorisation solutions for gates

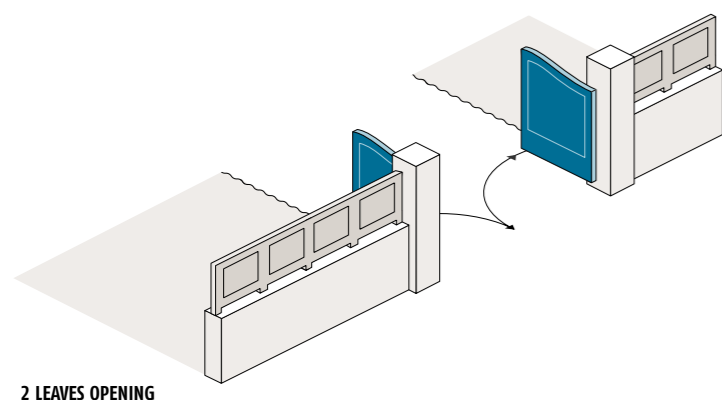
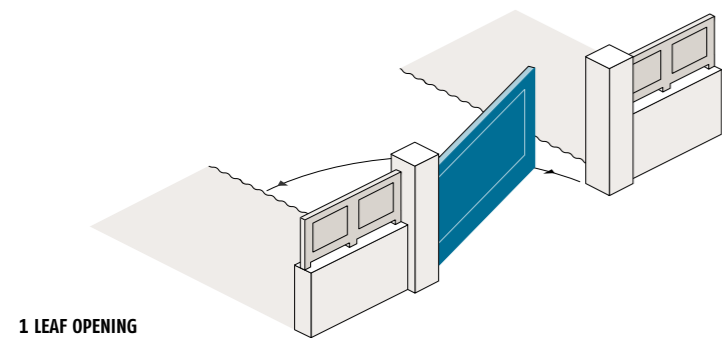


HOME  
MOTION BY

**somfy**<sup>®</sup>

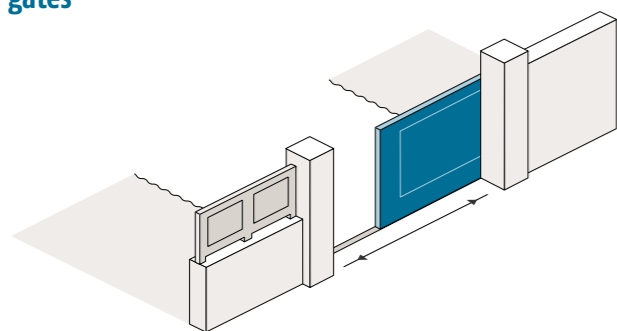
# The different types of gate openings

## Swinging gates



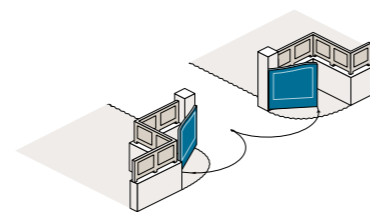
**Advantages:** Traditional gate with a wide choice of finishes in wood, steel, pvc, etc.

## Sliding gates



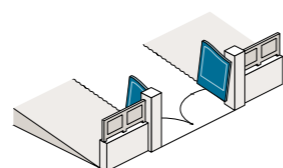
**Advantages:** Saves space in the drive/garden and ideal for installations on a slope.  
**Constraint:** Requires side clearance and a runner rail mounted into masonry.

## Specific gates



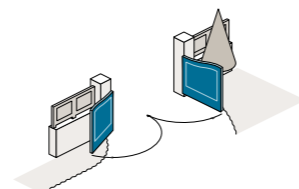
### OUTWARD-SWINGING

**Advantages:** Saves space and allows full use of the drive/garden. When open, the gate must not encroach upon the public road.



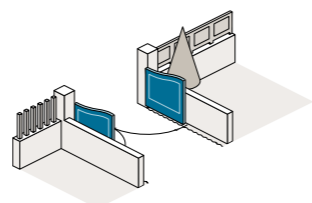
### ON A SLOPING DRIVE

**Advantages:** System fitted with slope regulating hinges.



### FROM 120° TO 150°

**Advantages:** For a wide angle opening of up to 150°, the gate can be mounted on the inside edge of the gate posts to be adapted to all configurations

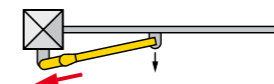


### WITH A SMALL OPENING SPACE

**Advantages:** Economical solution. Minimal space required for installations with a small opening space area.

# The different motorisation systems...

## VISIBLE MOTOR / JACK Swinging gate



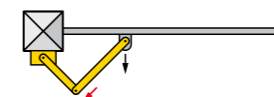
### Advantages

- Economical solution.
- Minimal space required for installations with a small opening space

### Constraints

- Very strong force exerted on the gate.
- Increased installation constraints for the installer compared with arm motorisation.

## VISIBLE MOTOR / ARM Swinging gate



### Advantages

- Adaptable to all types of gates: iron, aluminium, wood, PVC, even the most fragile. Protects the gate structure as it reproduces the natural movement of a manual opening

### Constraints

- Requires greater opening space. The Axovia Multi Pro / Sliding arm solution enables the advantages of an arm system to be retained, while having less than 16 cm of opening space, in comparison to a jack type.

## EMBEDDED MOTOR Swinging gate



### Advantages

- The motor is hidden, so the attractive aesthetics of the gate is retained.

### Constraints

- Longer installation time.
- Masonry stage required to mount the motors.

## SLIDING GATE MOTOR Sliding gate



### Advantages

- Flexible, the motorisation exerts low force, preserving the condition of the gate.
- Economical solution (1 motor instead of 2).

# ... and their programming systems.

## Proximity programming, intuitive and innovative integrated electronics

- Automatic proximity programming: no repair or maintenance work required on the electronic box. A single press of the remote control key will instantaneously memorise the transmitter and initiate the self-learning phase (automatic power, travel stops and speed settings)
- Electronic system built into the motor

## AX 24<sup>NS</sup> control box, control unit for a tailored installation

- Adjustment by digital display: self-learning of the main settings (automatic power and speed regulation). Fine-tuning of the settings using the digital display for accurate parameter setting of the installation (speed and torque of each motor, travel stop, reduced speed opening and closing)
- Information feedback function (feedback to help with diagnosis on your installation)
- Integrated lighting function

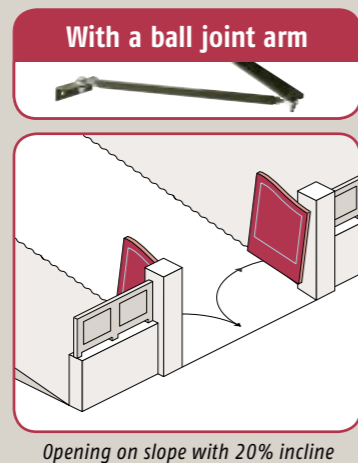
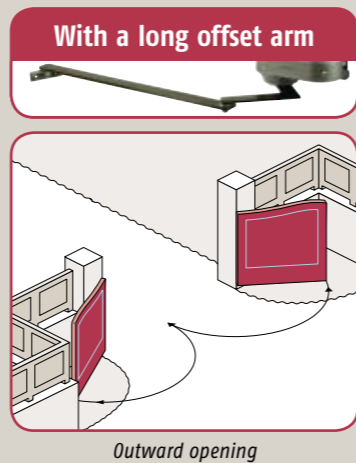
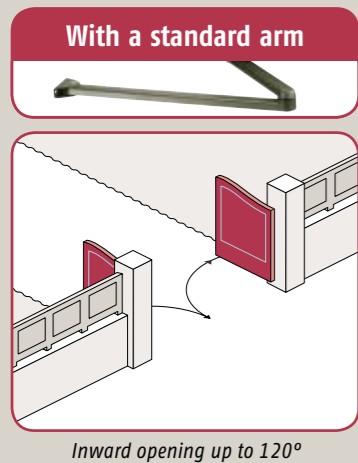
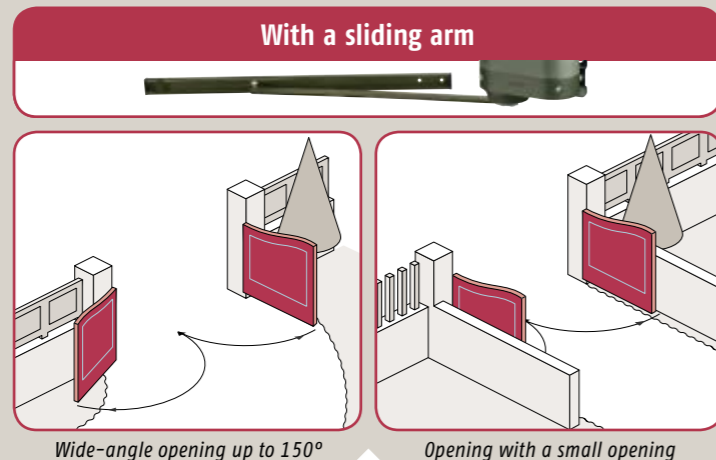


# Axovia Multi Pro<sup>NS</sup>

the universal solution for swinging gates.



A single motor reference and four arms for every type of installation



A design to make installation easier and save you time.

**Easy to mount**

The motors are mounted on the fastening plate supplied in the kit

- Minimal motor handling.
- Easy mounting on uneven surfaces.

**End stops incorporated into the motor**

- No end limit stops required.
- Adjustable gate leaf opening angles.

**Manual unlocking button**

- The gate can be operated manually during installation.

**Simple assembly of the arms**

- No special tools or welding required.

**Mounting fixtures provided**

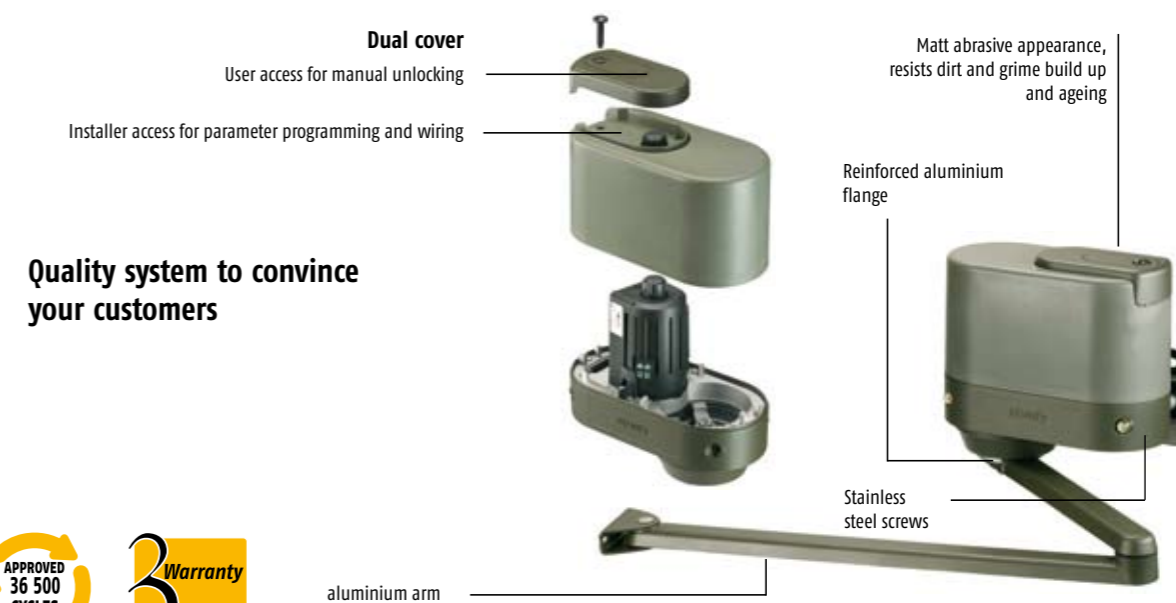
**Simplified programming**

**AX 24<sup>NS</sup> control unit**

**Self-learning of motor settings**

**Simple wiring**

**Digital display**



# Axovia 220A<sup>NS</sup> Pro

Arm motorisation for swinging gates  
Visible mounting

Residential



A motorisation solution for swinging gates designed to meet the expectations of professional installers.



- Fast opening in 10 seconds to 90°, with reduced speed opening and closing.
- Options are available depending on the gate control requirements: the AX24 control unit for enhanced functionality or the integrated electronics with proximity programming as the standard system.
- Robust materials for lasting durability: reinforced aluminium flange, aluminium arm, matt abrasive appearance.
- Dual cover to increase comfort and security for the user:
  - 1<sup>st</sup> cover accessible to the end user for manual unlocking.
  - 2<sup>nd</sup> cover for use by the installer for access to the electrical connections.

**Axovia 220A<sup>NS</sup> Pro / Standard Pack**  
For integrated and innovative electronics



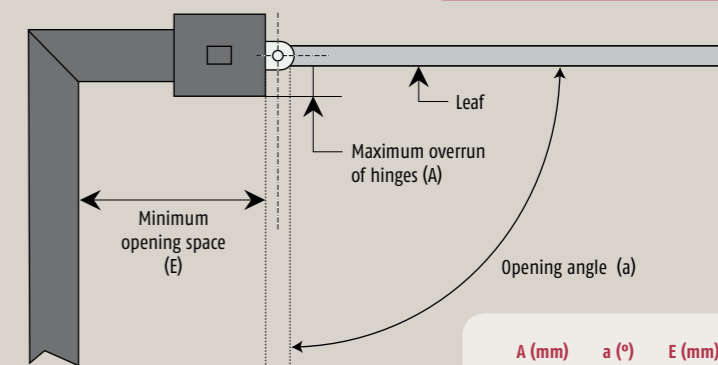
**Axovia 220A<sup>NS</sup> Pro + AX24<sup>NS</sup> control box**  
For an advanced control system



## Technical characteristics

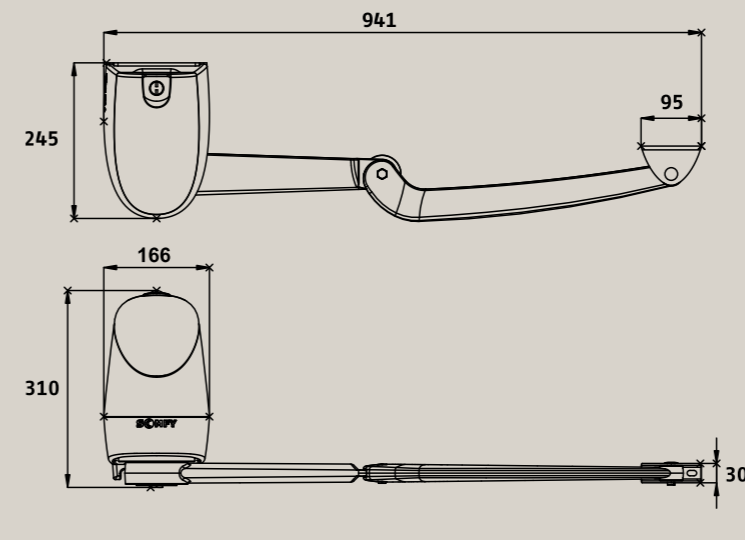
Motor power supply: 24 Vdc  
Max. consumed power: 600 W  
Consumed power on standby: 4.5 W  
Zone lighting outlet: 500 W max.  
Accessory supply outlet: 24 V DC/200 mA  
Max no. of operations/day: 20  
Length of opening time to 90°: 10 sec  
RTS remote control frequency: 433.42 MHz  
Number of remote controls that can be memorised: 16  
Protection factor: IP 55  
Operating temperature: -20° to +60°

## Placement



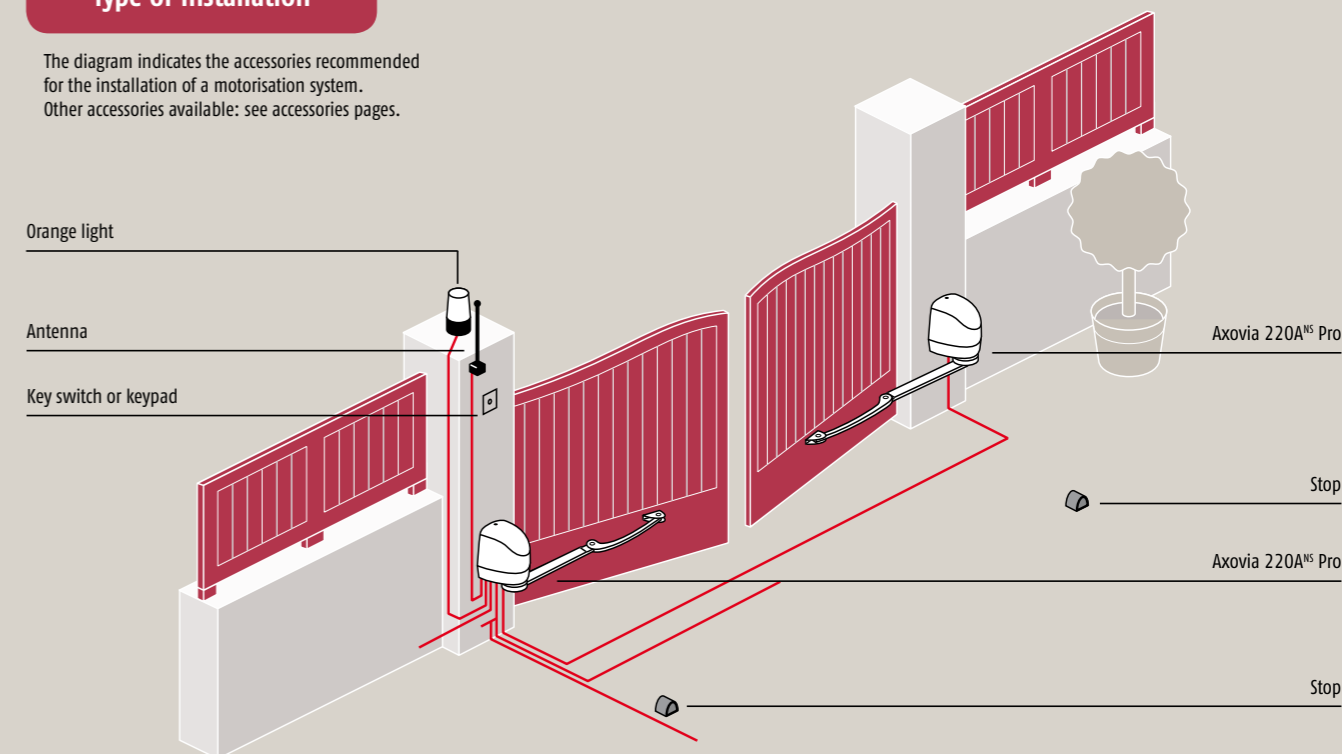
A (mm)	a (°)	E (mm)
0	120°	565
0	110°	555
0	105°	555
50	100°	565
100	95°	555
150	90°	555
200	90°	555
250	90°	555

## General overall size



## Type of installation

The diagram indicates the accessories recommended for the installation of a motorisation system.  
Other accessories available: see accessories pages.





# Axovia 180B<sup>NS</sup>

Arm motorisation for swinging gates  
Embedded assembly

Residential 

The "invisible" motorisation solution



- Completely embedded in the ground, it retains the aesthetics of the gate.
- Suitable for all types of new or old gates (timber, metal, PVC, etc.)
- Recommended in difficult mounting situations (narrow post, small opening space etc.) due to its compact size
- Flexible when installing, the motor can be mounted under the gate or offset from its centre line.
- Opening in to 90° in 20 sec



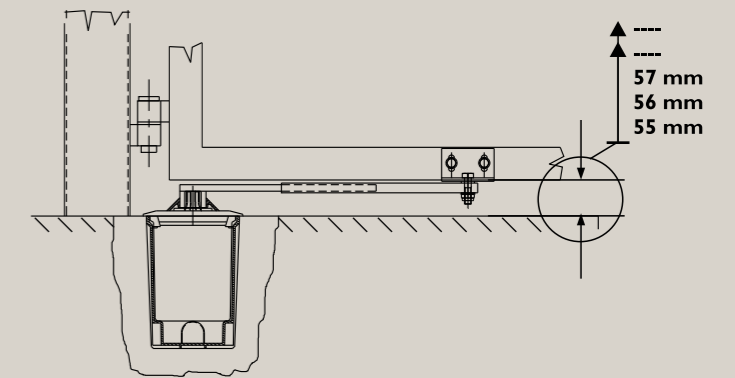
Axovia 180B<sup>NS</sup> / Standard Pack



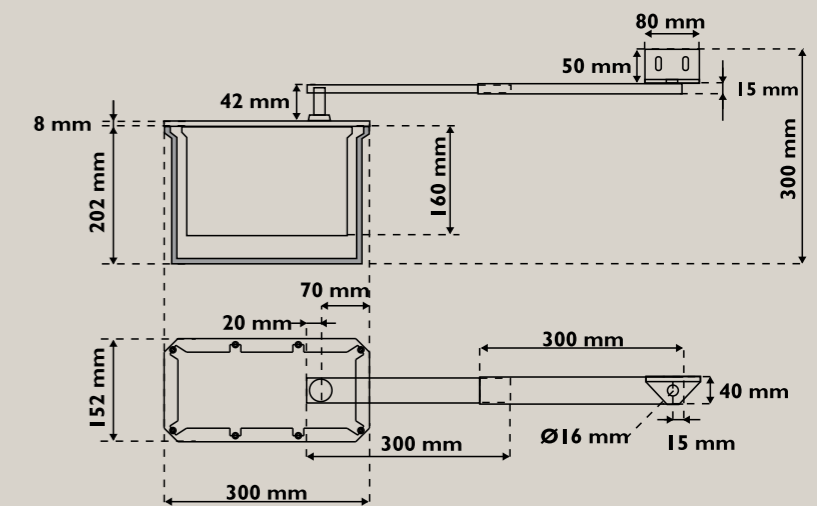
## Technical characteristics

Motor power supply: 24 Vdc  
Maximum intensity: 1 A  
Power consumption: 60 W  
Torque: 175 Nm  
Zone lighting outlet: 500 W max.  
Max no. of operations/day: 20  
Length of opening time to 90°: 20 sec  
RTS remote control frequency: 433.42 MHz  
Number of remote controls that can be memorised: 32  
Protection factor: IP 68  
Operating temperature: -20° to +60°  
Tested over 36,500 cycles

## Placement

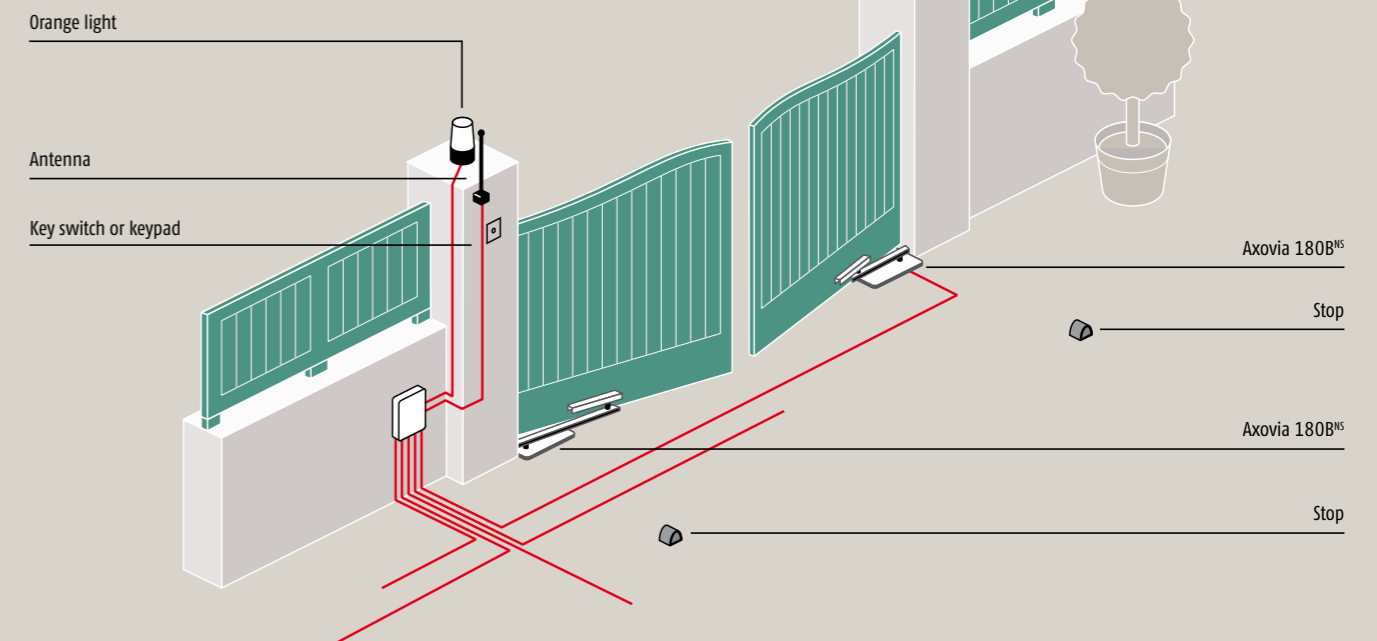


## General overall size



## Type of installation

The diagram indicates the accessories recommended for the installation of a motorisation system.  
Other accessories available: see accessories pages.



# Axovia 400C<sup>NS</sup>

Rack and pinion motorisation for sliding gates  
Visible mounting

Residential



The motorisation solution for sliding gates

- Suitable for all types of new or old gates (wood, metal, PVC, etc.).
- Silent operation due to the nylon rack.
- Partial opening feature of approximately 1.25 m (pedestrian access).
- Maximum security: The Axovia 400C<sup>NS</sup> complies with the standards without the requirement of additional accessories.
- Integrated electronics with a proximity programming system.
- Internal unlocking handle allowing the gate to be opened manually when required.



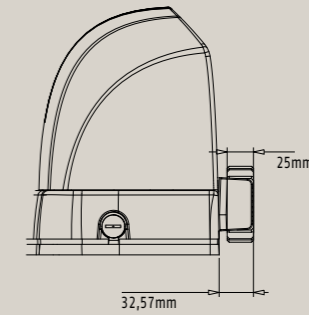
Aluminium pinion module  
4-16 teeth



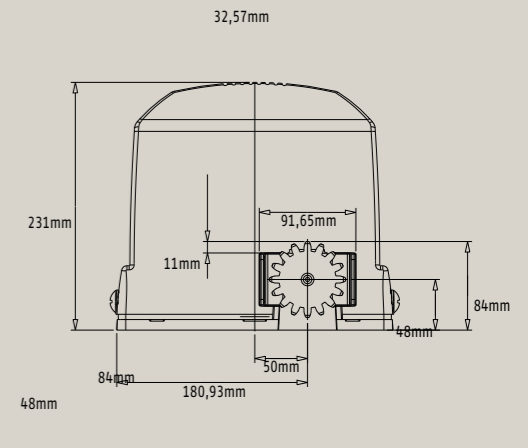
Unlocking handle

## Technical characteristics

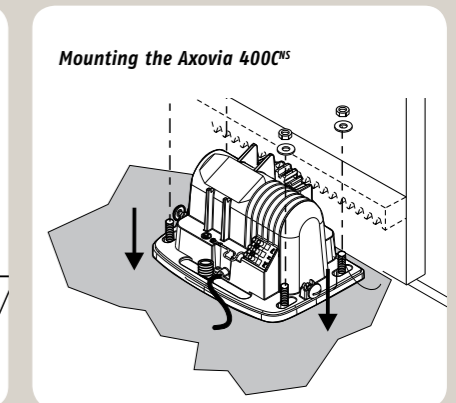
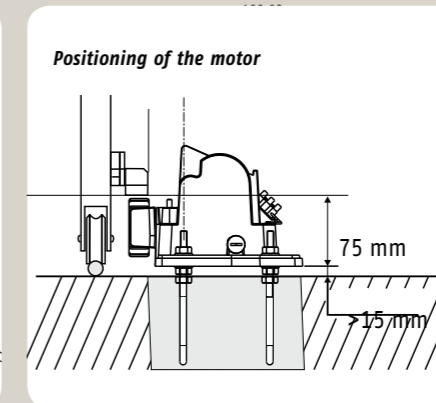
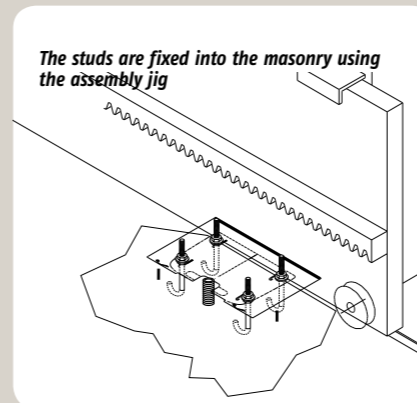
- Motor power supply: 24 V
- Consumption on standby: 4.5 W
- Motor capacity: 300 W
- Zone lighting outlet: 500 W max.
- Pinion: 4-16 teeth module
- Number of remote controls that can be memorised: 16
- Max. number of cycles recommended: 20 cycles/day
- RTS remote control frequency: 433.42 MHz
- Protection factor: IP 54
- Operating temperature: -20° to +60°
- Thermal protection: 100°C



## General overall size

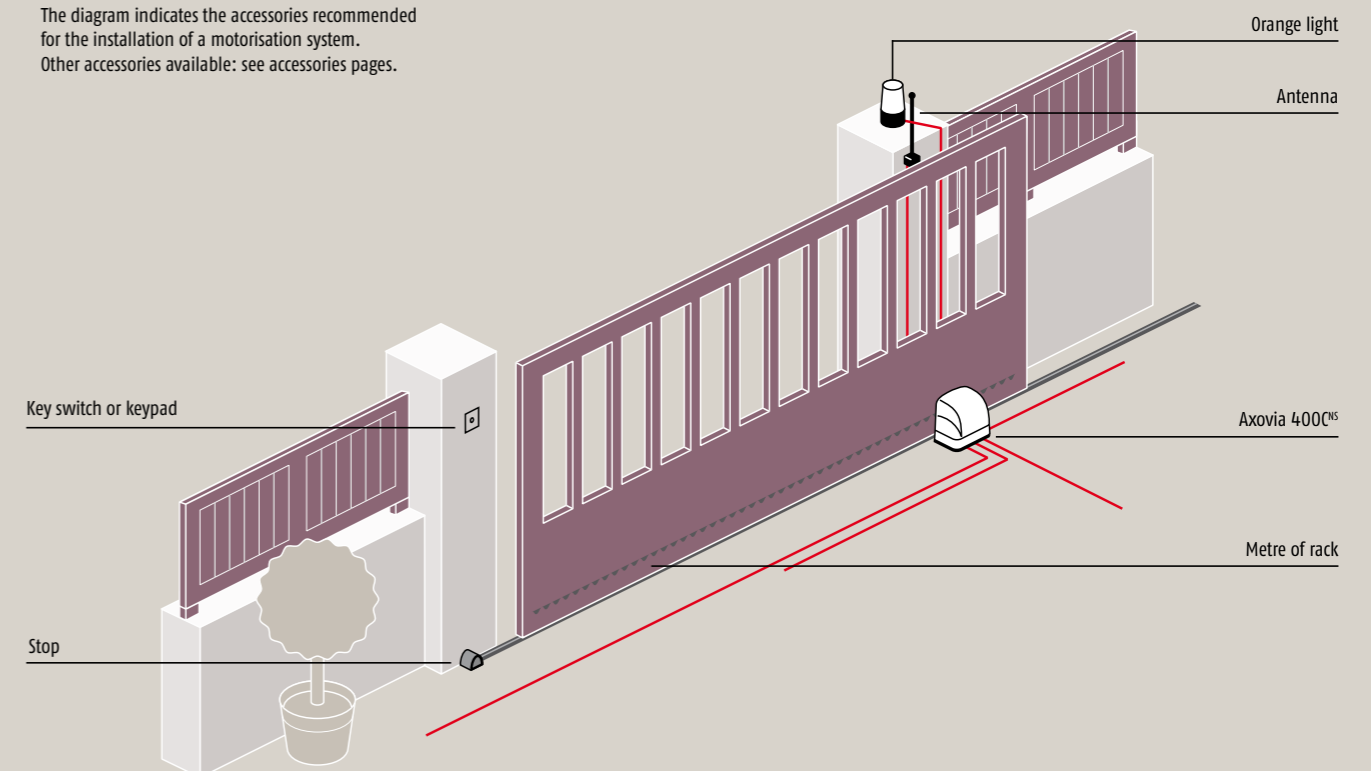


## Placement



## Type of installation

The diagram indicates the accessories recommended for the installation of a motorisation system.  
Other accessories available: see accessories pages.



## Complete solution

Axovia 400C / Standard Pack



## Motor + rack and pinion solution

Axovia 400C / Motor head  
without rack and pinion  
For a simple solution



Top fastening rack

or

Bottom fastening rack



# AX24<sup>NS</sup>

## Control system

Residential or commercial



The AX24<sup>NS</sup> control system improves performance with ultra-accurate settings of all the parameters.

■ **The main settings on the AX24<sup>NS</sup> are learned automatically:** automatic regulation of power and speed, taking into account the weight of the gate and its wind resistance.

■ **The settings are fine-tuned using a digital display.**

The AX24<sup>NS</sup> unit enables accurate settings of:

- the speed and torque of each motor,
- the time delay and staggered opening /closing of the leaves,
- the reduced speed opening and closing,
- the automatic reclosing time (0 to 99 sec),
- the length of time the travel range is lit up (0 to 10 min.),
- the position of the pedestrian opening,
- electrical strike.

It also self-tests the photo-electric cells and sensor strip for optimum safety.

■ **“Lighting” function:** integrated 500 W lighting receiver to connect an external lighting system.

■ **“Feedback” function:** information relating the last 10 registered faults is memorised and can be recalled on the digital display to assist with diagnosis.

■ **“Backup operation” functions:** possibility to connect a battery backup for up to 10 opening and closing cycles in 24 hours (as an optional extra).

Use in private residential or collective housing.

Complies with European standard EN12453.

Simple to wire.

Static terminal blocks.

Cable glands.

### Technical characteristics

Power supply: 230 VAC – 50/60 Hz

Max. motor power: AX24 = 24 VDC – 150 W

Accessories power supply: 24 VDC

Maximum accessories current (cells, keypads, sensor strips): 1.2 A

Strike: 24 V 1.5 A – 12 V 3 A

Orange light: 24 V, 2 x 15 VA

Auxiliary outlet: Contact NO, 250 VAC 500 VA

Use category: 5

RTS remote control frequency: 433.42 MHz

Operating temperature: -10°C to +50°C

### AX24<sup>NS</sup> Control box

For Axovia 220A<sup>NS</sup>, Axovia MultiPro<sup>NS</sup>, and Axovia 180B<sup>NS</sup>



Self-learning of motor settings

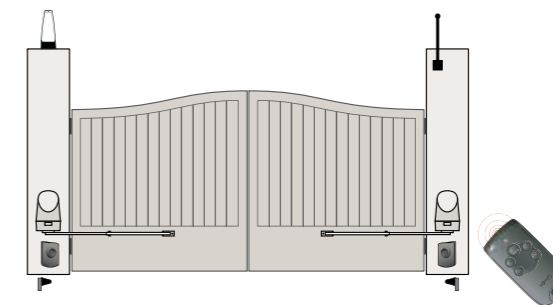


Simple to wire



Digital display

## Radio remote controls



### KEYTIS 2<sup>NS</sup> RTS

RTS 2-channel remote-control. Stored in the car or hung up with the house keys, it controls the garage door and the gate. Supplied with 4 coloured clips to allow customisation of the remote control (black, brown, blue, green).

**Secure rolling code**

**Range:** 30 metres average

**Frequency:** 433,42 MHz

**Power supply:** Lithium batteries, model 2032 (also compatible with model 2430)

**Battery life:** 2 years (for approximately 6 opening/closing operations per day)

**Operating temperature:** -20°C to +60°C

**Protection factor:** IP40

**Size:** 69 x 41,5 x 13,7 mm



### KEYTIS 4<sup>NS</sup> RTS

RTS 4-channel remote-control. Stored in the car or hung up with the house keys, it controls the garage door and the gate and an additional 2 automatic controls of your choice (lighting, roller shutters, etc.).

**Locking function:** prevents accidental button press

**Anti-theft function:** confidential 4-digit code

«Battery low» indicator

**Supplied with 4 coloured clips** to allow customisation of the remote control (black, brown, blue, green)

**Secure rolling code**

**Range:** 30 m average

**Frequency:** 433,42 MHz

**Power supply:** Lithium batteries, model 2430 (also compatible with model 2032)

**Battery life:** 2 years (for approximately 8 opening/closing operations per day)

**Operating temperature:** -20°C to +70°C

**Protection factor:** IP40

**Size:** 84 x 43 x 16 mm



### TELIS 4 PATIO RTS

RTS 5-channel radio remote-control. It can be used to controls individual, zonal or groups of products.

**Secure rolling code**

**Range:** 200 m in open air and 20 m through 2 reinforced concrete walls

**Frequency:** 433,42 MHz

**Colours:** blue/white

**Protection factor:** IP44

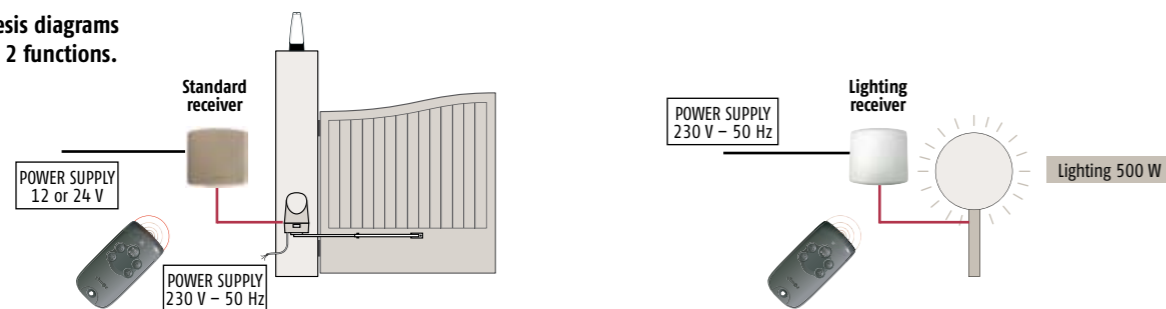
**Impact and water-resistant**

**Supplied with wall bracket**

**Size:** 145 x 49 x 22 mm

## Receivers

### Synthesis diagrams of the 2 functions.



#### STANDARD WEATHERPROOF RTS RECEIVER

With a 12 or 24 V power supply, this receiver can control up to 2 automatic controls. The connection between the motor and the receiver is made by a dry contact. The unit is housed in a weatherproof box.

**Power supply:** 24 Vdc / 20 to 28 Vac

**Number of relays:** 2

**Number of programmable remote controls:** 16 per relay (32 in total)

**Option for an antenna to be connected to increase radio range**

**Protection factor:** IP55

**Size:** 80 x 80 x 45 mm

**Operating temperature:** -20°C to +70°C



#### 500 W LIGHTING RECEIVER

With a 230 V power supply, the receiver can control one or more electrical appliances with a maximum total power output of 500 W (e.g. lighting, fan, sprinkler, network of connectors, etc.).

**Supply voltage:** 230V-50Hz

**Output voltage:** 230V

**Number of relays:** 1

**Number of channels able to be memorised:** 12

**Maximum output power:** 500W

**Operating temperature:** -30°C to +60°C

**Size:** 80 x 80 x 45 mm

**Protection factor:** IP55

## Additional control accessories



#### RTS RADIO KEYPAD

Access control device used to ensure secure entry. The radio keypad can control up to 2 gate and garage door applications by entering a PIN code.

**Simple installation:** no wiring required

**Simplicity of use:** illuminated keys, a different code for up to 5 users, "Battery low" indicator

**Power supply:** lithium battery model 2450 included with the keypad.

**Security guaranteed:** 4, 5 or 6 digit PIN code (2 million possibilities), reliability of RTS technology

**Number of channels:** 2

**Size:** 105 x 75 x 25 mm

**Frequency:** 433,42 MHz

**Range:** 30 metres

**Operating temperature:** -20°C to +60°C

**Protection factor:** IP54, tropicalised electronic components



#### WIRED KEYPAD

Access control device used to ensure secure entry to a property. The wired keypad can control up to 2 gate and garage door applications by entering a PIN code.

**Illumination of keys**

**Materials:** metal, vandal-resistant

**Weatherproof**

**Buzzer function:** audible beep whenever a key is pressed

**Power supply:** 10,5 to 48 Vdc / 9 to 32 Vac

**Number of relays:** 2 control relays, 1 dry contact NO/NC

**Consumption when idle:** 8 mA

**Consumption with 1 relay:** 23 mA

**Consumption with 2 relays:** 42 mA

**Number of user codes:** 50 per relay

**Cable length:** 3 metres

**Size:** 110 x 92 x 16 mm

**Operating temperature:** -20°C to +70°C



#### RTS RADIO PUSH BUTTON

This is a two-channel interior radio switch, which can control the gates/garage door and lighting independently or simultaneously.

The push button is wireless and therefore very easy to install.

**Power supply:** Lithium battery, model 2032 (also compatible with model 2430)

**Number of relays:** 2

**Frequency:** 433,42 MHz

**Autonomy:** 2 years

(for approximately 6 opening/closing operations per day)

**Operating temperature:** -20°C to +60°C

**Protection factor:** IP54

**Size:** 105 x 75 x 25 mm



#### WIRED KEY CONTACT

This switch can be used as a secure option to open the gate partially (pedestrian access) or fully using a key. Surface mounted at the entrance of the property, The key switch is weatherproof (IP54) and supplied with 2 keys.

**Max switching current:** 1A

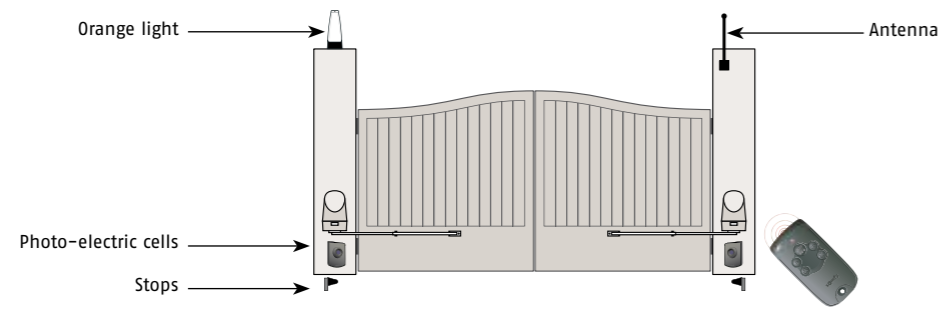
**Number of contacts:** 2

**Size:** 105 x 75 x 25 mm

**Protection factor:** IP54



## Safety accessories



### 24 V ORANGE LIGHT

This emits a flashing light to indicate that the gate is opening or closing. Small and discrete, fixed on the gate post, it fits perfectly into the gate environment. While operating in automatic mode, this accessory is compulsory.

**Power supply:** 24V  
**Type of lamp:** 24V E14  
**Size:** 174 x 77 x 60 mm  
**Consumption:** 10W

**Type of connector:** bornier rapide  
**Protection factor:** IP54  
**Operating temperature:** -20°C to +60°C

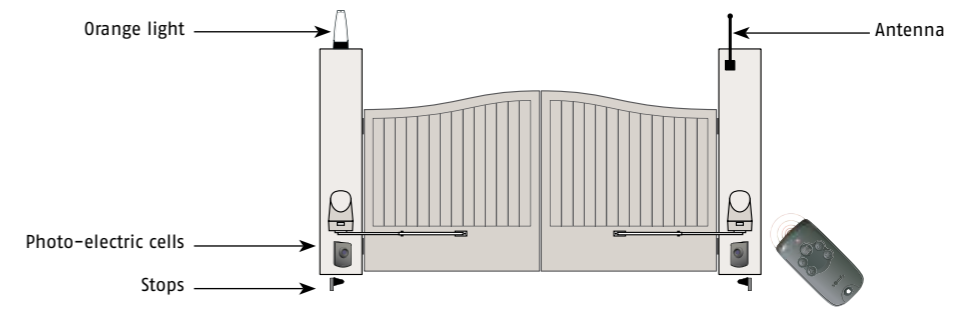


### SET OF PHOTO-ELECTRIC CELLS

While operating in automatic mode, this accessory is compulsory. Surface mounted on each gate post, an invisible infra-red beam (maximum range 10 m) is sent from the transmitter cell to the receiver cell. Two sets of cells may be combined for additional safety (one on either side of the gate system).

**Consumption:** 80mA  
**Transmission wave length:** 880mm  
**Protection factor:** IP54  
**Pack size:** 90 x 60 x 28 mm

**Range:** 10 m  
**Output contact:** 1 NF - 1 NO  
**Operating temperature:** -20°C to +60°C



### BACKUP BATTERY FOR AXOVIA

The battery backup pack enables the gate to be operated in the event of a power cut. The battery is fully recharged in 48 hrs and provides 10 operating cycles (opening/closing) over 24 hrs.

**Voltage:** 9,6Vdc  
**Capacity:** 750 mAh  
**Type of connector:** moulded plug-in  
**Size:** 97 x 57 x 15 mm



### EXTERIOR KEY RELEASE FOR AXOVIA 220A<sup>NS</sup> / MULTIPRO<sup>NS</sup>

Fixed on the overlapping leaf and unlocked by the key, the system slides until the motor arm fastener is detached from the gate and allows the pedestrian leaf to open.

**Supplied with 3 keys.**  
**Pack dimensions:** 290 x 60 x 115 mm



### EXTERNAL RELEASE FOR AXOVIA 220A<sup>NS</sup> / MULTIPRO<sup>NS</sup>

Operating as a fixed-position key contact, the system releases the sliding motor and allows the gate to open.

**Comes with 3 keys.**  
**Number of contacts:** 2  
**Protection factor:** IP54

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