



Aprimatic is an international leader specialising in automation for operating doors, windows, gates and barriers of all types.

Membership of the URMET group and over 20 years experience in the sector make Aprimatic the ideal partner for all those requiring automated systems for buildings.

Our history.

Aprimatic has operated internationally in the automation sector since 1985.

We market automated opening and closing systems and a wide range of safety and control equipment and products.

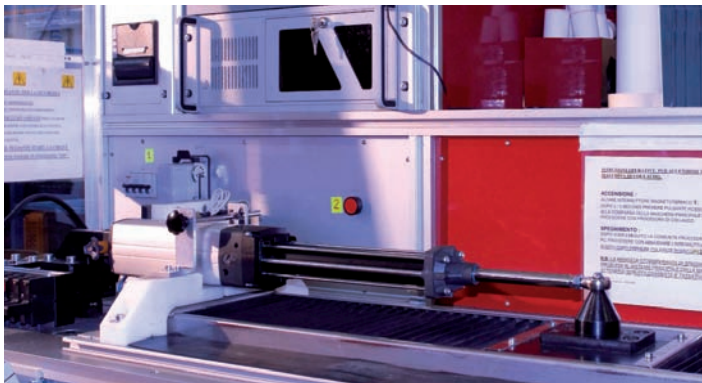
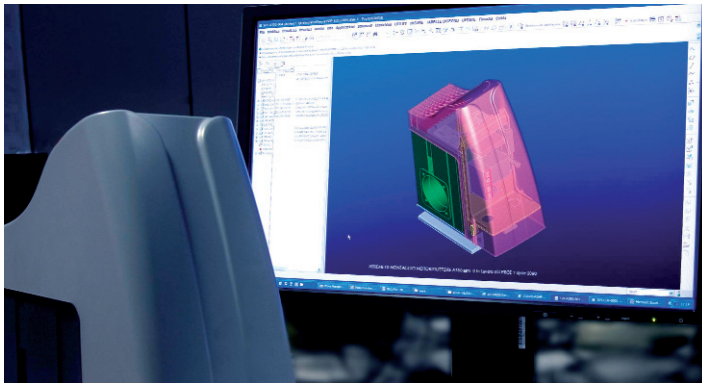
Aprimatic is headquartered at Villafontana di Medicina on the outskirts of Bologna in Italy.

It is a member of the URMET Group, a leading international player in the building automation sector.

Thanks to its experience and expertise, Aprimatic now sets the pace and its products are the standard which others follow.



THE CHAMPION OF AUTOMATION



Our mission.

The Aprimatic mission is to place its experience and expertise at the disposal of all users looking for automated opening and closing systems for domestic and industrial buildings.

Our values.

Experience and expertise.

Our expertise is the fruit of over 20 years of successful operation on the market.

Twenty years ago we were one of the first.

Today, we still are.

Research and development and continuous improvement have always played a strategic role in our corporate growth.

Aprimatic R&D specialists keep our entire range under constant review to ensure that our products incorporate customer feedback and the latest developments needed to anticipate future market requirements.

This forward-looking approach has enabled Aprimatic to acquire increasingly broader expertise and to expand the scope and range of its products.

Today, Aprimatic is the only company in its sector that can supply a complete range of automated opening and closing systems for all applications.

Complete range.

Aprimatic offers a complete range for all product types.

We are your one-stop supplier with a solution to your automation problem, whatever it may be.

Worldwide Certifications.

The quality of Aprimatic products is certified by the most stringent European Union standards.

The quality systems are ISO9001 certified.

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RACING KIT



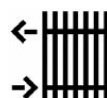
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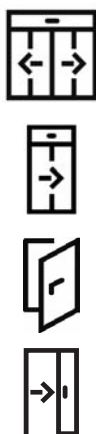
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Easy to buy, quick to install. ALL IN ONE KIT.

Aprimatic optimises your stock with only a few references. Packaging is designed to ensure clear and legible information to make even buying easier. Aprimatic has already identified all the difficulties that may be encountered by installers when working with highly technological solutions and has therefore decided to solve these problems with practical ready-to-use kits. Everything you need ready for assembly discover the advantage of these genuine technological gems to make your installations quick, easy and durable.

2 YEARS WARRANTY.
All Aprimatic kits are covered by a **2-YEAR WARRANTY** for security, safety and durability.

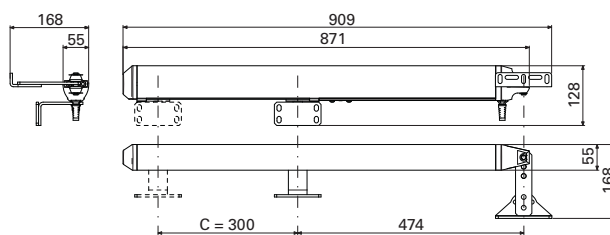


KIT MONTREAL RAIDER 2000 Electro-mechanical kit 24 Vdc for swing gates.

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OPERATOR DIMENSIONS

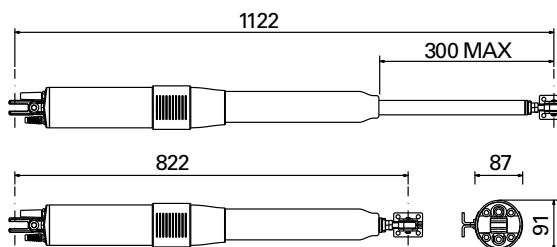


KIT SEPANG RAIDER ONE SMT Electro-mechanical kit 24 Vdc for swing gates.

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OPERATOR DIMENSIONS



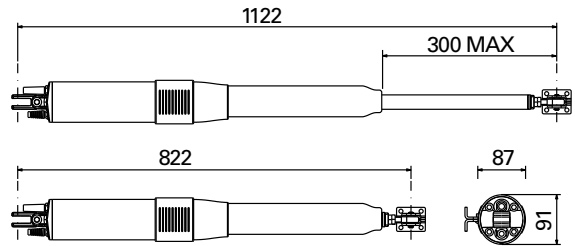
KIT MELBOURNE RAIDER ONE

Electro-mechanical kit 24 Vdc for swing gates.

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OPERATOR DIMENSIONS



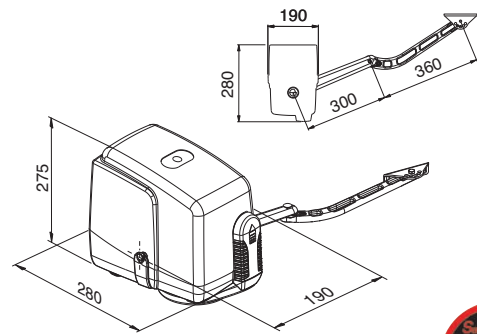
KIT DAYTONA SKIPPER

Electro-mechanical kit 24 Vdc with articulated arm for swing gates.

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OPERATOR DIMENSIONS



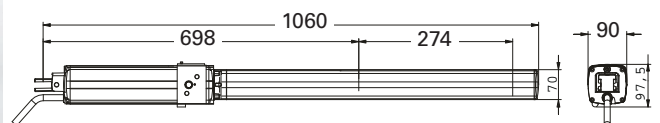
KIT MONACO ZT 4

Hydraulic kit for swing gates.

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OPERATOR DIMENSIONS

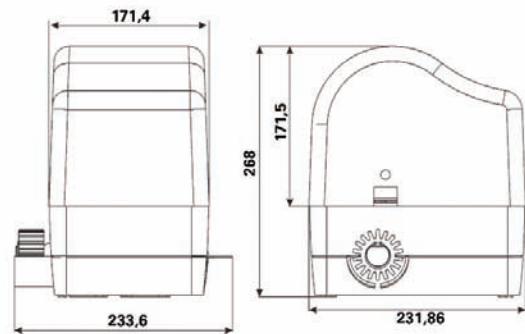


KIT MONZA ONDA 424

Electro-mechanical kit 24 Vdc for sliding gates up to 400 kg.

Pag. 20/21

OPERATOR DIMENSIONS

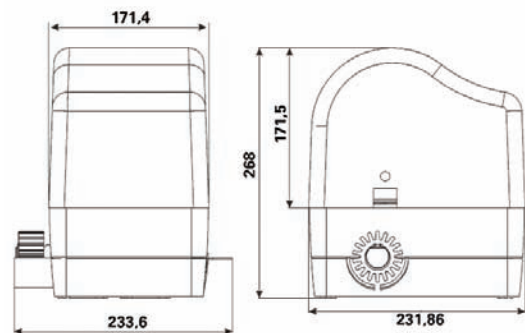


KIT HOCKENHEIM ONDA 624

Electro-mechanical kit 24 Vdc for sliding gates up to 600 kg.

Pag. 22/23

OPERATOR DIMENSIONS

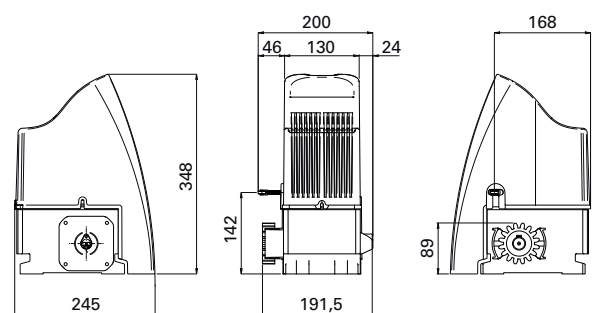


KIT INDIANAPOLIS ONDA 801

Electro-mechanical kit for sliding gates up to 800 kg.

Pag. 24/25

OPERATOR DIMENSIONS

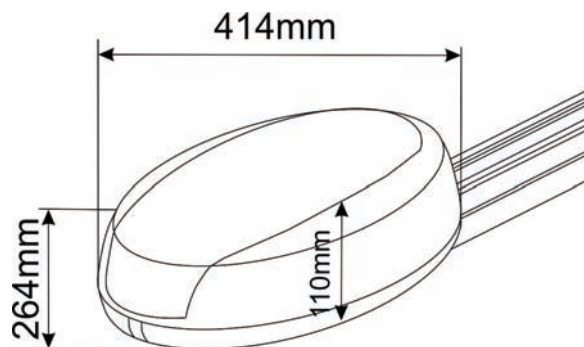


KIT SUZUKA APRIBOX 700 / 1200

Kit for sectional and counterweight, up and over, garage doors.

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OPERATOR DIMENSIONS



LEGEND FOR SYMBOLS USED



Motor power supply



Residential single leaf gate



Residential twin gate



Condominium twin leaf gate



Residential sliding gate



Residential up-and-over door



Gate leaf weight



Gate leaf weight



Anti-crush safety device



Complying with EN12453 section 5.1.1.5 (safety standard)



KIT MONTREAL RAIDER 2000

Low-voltage Kit for swing gates
electro-mechanical operator, residential use.
Self-learning programming.



Complies with the current safety standards as regard to obstacle detection and inversion of movement in accordance with **EN12453** and **EN12445** (*).

Control unit with self-learning programming and possibility of adjusting the parameters through a simple and intuitive menu.

Practical kits brackets included in the operator pack. The brackets can be either welded or fixed by the supplied screws for an easier and quicker installation.

The mechanical limit switches allow an optimal functioning even on gates without mechanical ground stops. The use of an electric lock is recommended for gate leaves longer than 1,8 metres.

The stroke of 400 mm makes the operator also suitable for more complex applications.

The small size and compact shape ensure harmonious aesthetic fusion between gate and automation.

TECHNICAL DATA

POWER SUPPLY	230 Vac - 50/60 Hz
MOTOR POWER SUPPLY	24 Vdc
ABSORBED POWER	100 W each motor
ABSORBED CURRENT	5 A (max.) each motor
MAX. THRUST FORCE	2000 N
PISTON STROKE	400 mm
LINEAR SPEED	20 mm/sec.
OPERATING TEMPERATURE	-20°C to +70°C
MAX. LEAF WIDTH WITHOUT ELECTRIC LOCK	1,8 m
MAX. LEAF WIDTH WITH ELECTRIC LOCK	3,0 m
MAX. LEAF WEIGHT	250 kg (for leaf 3,0 m) 400 kg (for leaf 1,8 m)
ANTI-CRUSH SAFETY DEVICE	Electronic
EMERGENCY RELEASE	Manual
PROTECTION CLASS	IP44

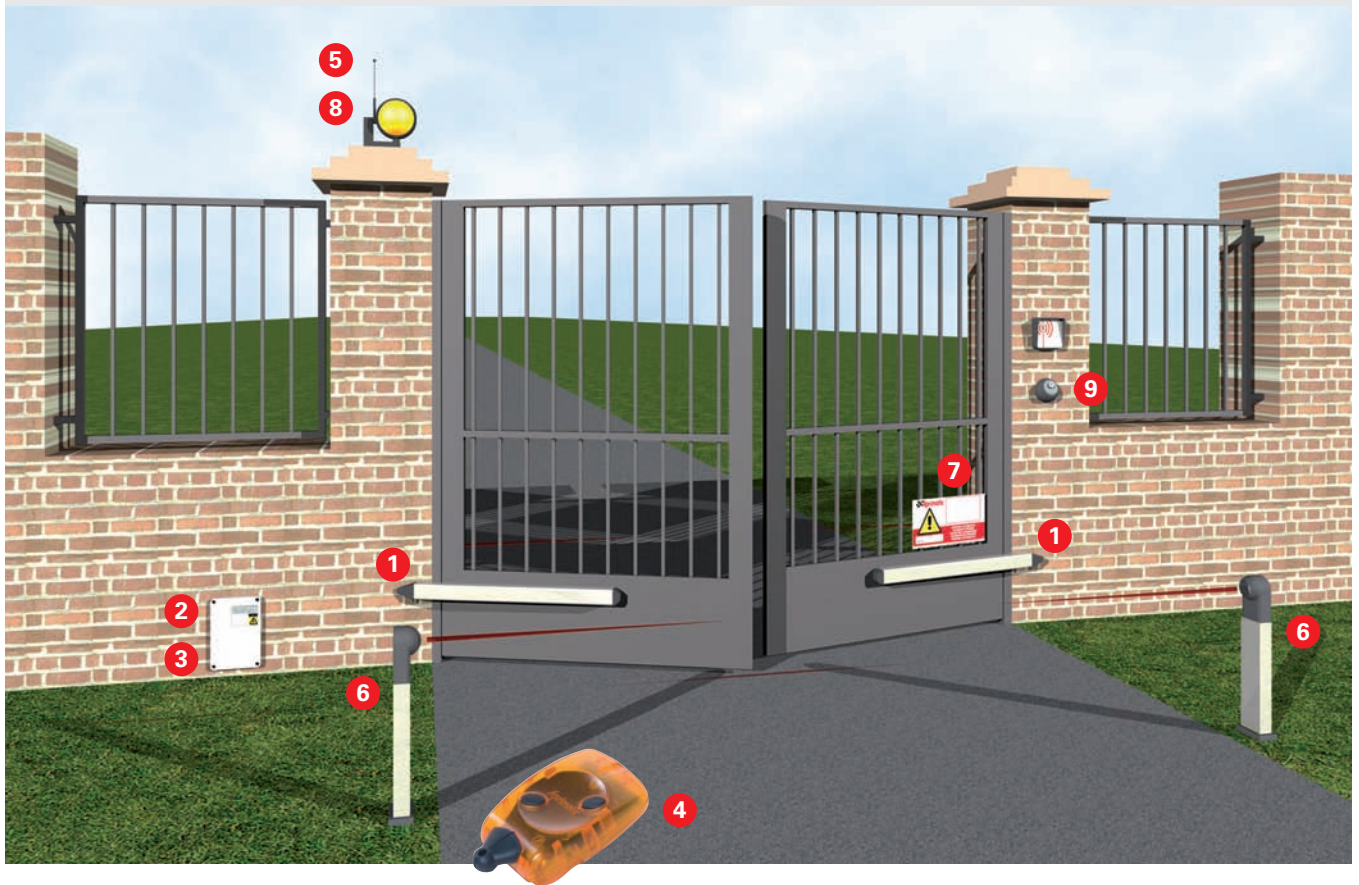
(*) Product certified under ideal installation conditions.





KIT MONTREAL RAIDER 2000

SYSTEM TYPE



DESCRIPTION

KIT Montreal RAIDER 2000

Max. leaf width

1,8 m*

CODE

41027/801

The package contains:

- ① Two RAIDER 2000 operators with hexagonal release keys
- ② Dedicated electronic control unit
- ③ 433,92 Mhz receiver
- ④ TR2 - 433,92 Mhz twin channel transmitter
- ⑤ Antenna 433,92 Mhz with a 4,5 m coaxial cable
- ⑥ ER4N - Pair of photocells
- ⑦ Aprimatic sign plate
- ⑧ Flashing light (optional)
- ⑨ Opening devices (optional)

KIT RACING Montreal RAIDER 2000

(Including 24V flashing light and key-switch) in full coloured box

1,8 m*

41027/800

* For leaf longer than 1,8 meters is recommended the use of an electric lock.

DESCRIPTION OF OPTIONAL ACCESSORIES

CODE

TR2 - 433,92 Mhz twin-channel transmitter

41903/002

ER4N - Pair of photocells

41812/001

CAL - Aluminium column for the ER4N photocells

41812/050

Back up battery

41702/003

ES3 - Electric lock complete with ground striker plate
(for gate leaf longer than 1,8 m up to 3 m) CL series cylinder required

41080/008

CL1 - "DEAD HEAD" single cylinder

41080/005

CL2 - "DEAD HEAD" double cylinder

41080/004

NOTE: For control and safety devices and installation accessories, see section "Electronic devices and installation accessories" in this catalogue (consult the index).



KIT SEPANG RAIDER ONE SMT

Low-voltage, electromechanical operator for swing gates. Residential and condominium use.



Complies with the current safety standards as regard to obstacle detection and inversion of movement in accordance with **EN12453** and **EN12445 (*)**.

Control unit with self learning programming and possibility of setting the parameters through a simple and intuitive menu.

The front mounting features uniball type, allows to adjust gate oscillations. The rear articulated joint allows the adjustment of leaf anomalies.

The rear articulated joint allows the adjustment of leaf anomalies.

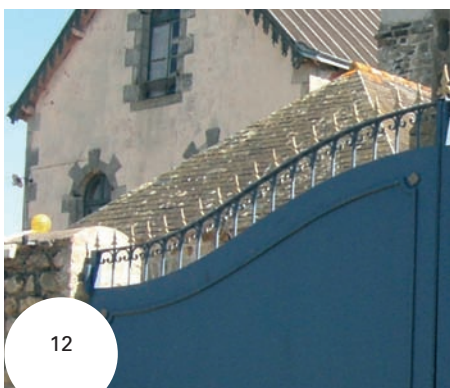
Emergency power supply, in the event of power failure, guaranteed by two optional emergency batteries.

TECHNICAL DATA

POWER SUPPLY	230 Vac - 50/60 Hz
MOTOR POWER SUPPLY	24 Vdc
ABSORBED POWER MAX.	100 W each motor
ABSORBED CURRENT	5,0 A each motor
MAX. THRUST FORCE	2500 N
PISTON STROKE	300 mm
ROD EXIT TIME	16 mm/sec.
90° OPENING TIME	15 sec.
OPERATING TEMPERATURE	-20°C to +70°C
MAX. LEAF WIDTH WITHOUT ELECTRIC LOCK	1,8 m
MAX. LEAF WIDTH WITH ELECTRIC LOCK	3 m
MAX. LEAF WEIGHT	600 kg (for leaf 2 m) 400 kg (for leaf 3 m)
MAX. NUMBER CYCLES	100 cycles/day
ANTI-CRUSH SAFETY DEVICE	Electronic
PROTECTION CLASS	IP44

(*) Product certified under ideal installation conditions.

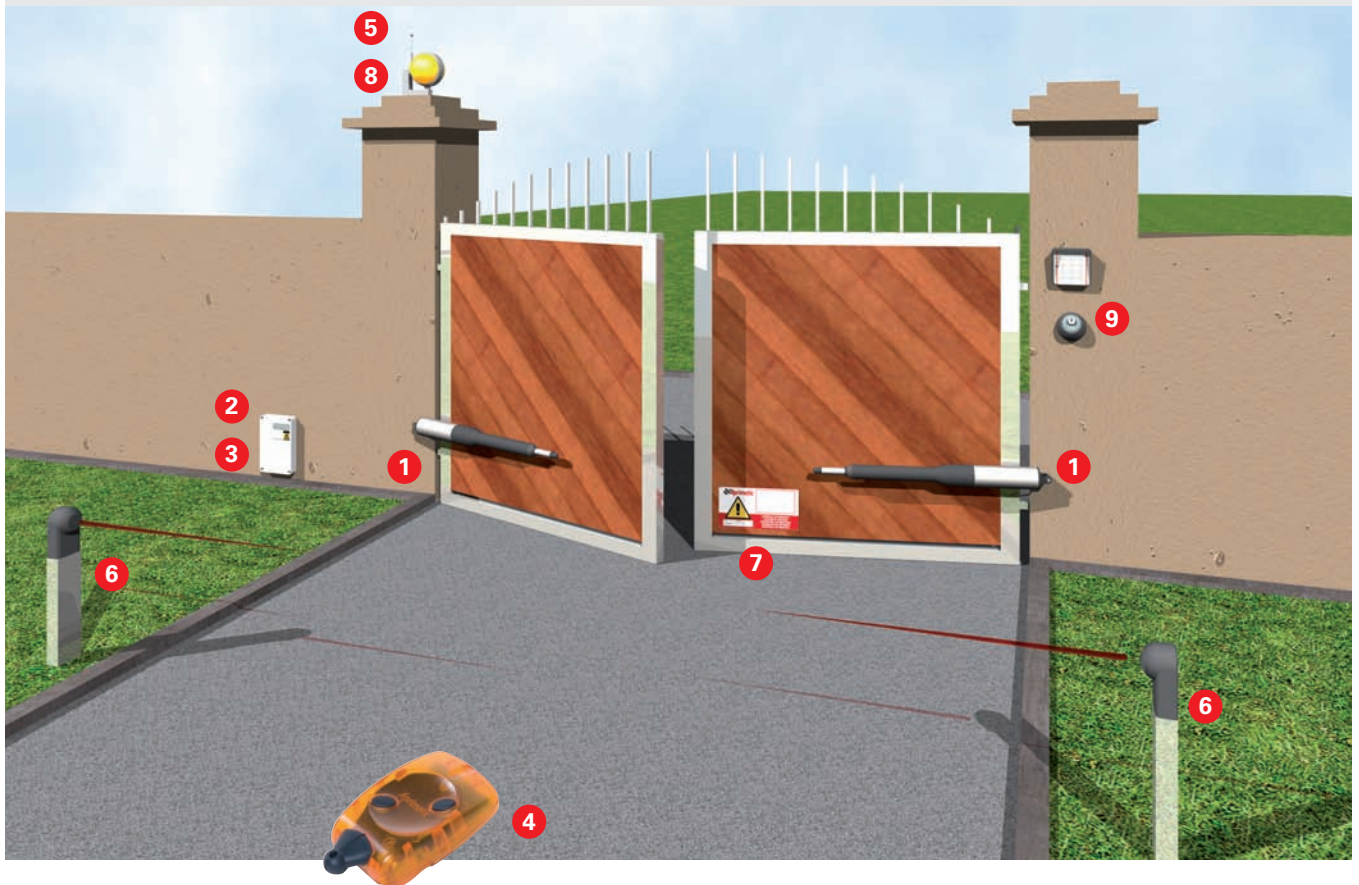
Uniball Bracket





KIT SEPANG RAIDER ONE SMT

SYSTEM TYPE



DESCRIPTION

KIT Sepang RAIDER ONE SMT

Max. leaf width

1,8 m*

CODE

41024/804

The package contains:

- ① Two RAIDER ONE SMT operators
- ② Dedicated electronic control unit
- ③ 433,92 MHz receiver
- ④ TR2 - 433,92 Mhz twin channel transmitter
- ⑤ Antenna 433,92 Mhz with a 4,5 m coaxial cable
- ⑥ ER4N - Pair of photocells
- ⑦ Aprimatic sign plate
- ⑧ Flashing light (optional)
- ⑨ Opening devices (optional)

KIT RACING Sepang RAIDER ONE SMT

(Including 24V flashing light and key-switch) in full coloured box

1,8 m*

41024/803

* For leaf longer than 1,8 meters is recommended the use of an electric lock.

DESCRIPTION OF OPTIONAL ACCESSORIES

CODE

Aluminium cover RAIDER ONE (for one operator)

41024/050

TR2 - 433,92 Mhz twin-channel transmitter

41903/002

ER4N - Pair of photocells

41812/001

CAL - Aluminium column for the ER4N photocells

41812/050

Back up battery

41702/003

ES3 - Electric lock complete with ground striker plate

41080/008

(for gate leaf longer than 1,8 m up to 3 m) CL series cylinder required

CL1 - "DEAD HEAD" single cylinder

41080/005

CL2 - "DEAD HEAD" double cylinder

41080/004

NOTE: For control and safety devices and installation accessories, see section "Electronic devices and installation accessories" in this catalogue (consult the index).



KIT MELBOURNE RAIDER ONE

Low-voltage, electromechanical operator for swing gates.
Condominium use.



Complies with the current safety standards as regard to obstacle detection and inversion of movement in accordance with **EN12453** and **EN12445** (*).

Control unit with self learning programming and possibility of setting the parameters through a simple and intuitive menu.

The front mounting features uniball type, allows to adjust gate oscillations. The rear articulated joint allows the adjustment of leaf anomalies.

Motor with intelligent encoder to control the limit switch fitted as an optional on systems without floor stops.

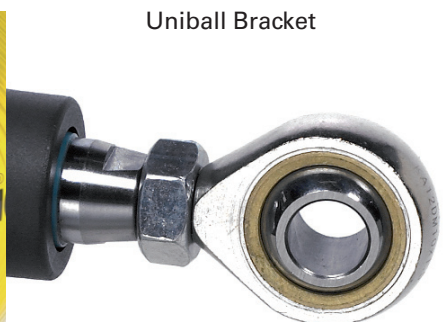
The new Gate Manager diagnostics and programming software is used to display and optimise all operator parameter settings during operation. This is done from a PC fitted with the USB interface card. (Only for Firmware version 1.03 or later).

Service continuity guaranteed, in case of power failure by two optional emergency battery.

TECHNICAL DATA

POWER SUPPLY	230 Vac - 50/60 Hz
MOTOR POWER SUPPLY	24 Vdc
ABSORBED POWER MAX.	120 W each motor
ABSORBED CURRENT	5,0 A each motor
MAX. THRUST FORCE	3000 N
PISTON STROKE	300 mm
ROD EXIT TIME	16 mm/sec.
90° OPENING TIME	15 sec.
OPERATING TEMPERATURE	-20°C to +70°C
MAX. LEAF WIDTH WITHOUT ELECTRIC LOCK	1,8 m
MAX. LEAF WIDTH WITH ELECTRIC LOCK	3,0 m
MAX. LEAF WEIGHT	800 kg (for leaf 2 m) 400 kg (for leaf 3 m)
MAX. NUMBER CYCLES	100 cycles/day
ANTI-CRUSH SAFETY DEVICE	Electronic
PROTECTION CLASS	IP44

(*) Product certified under ideal installation conditions.

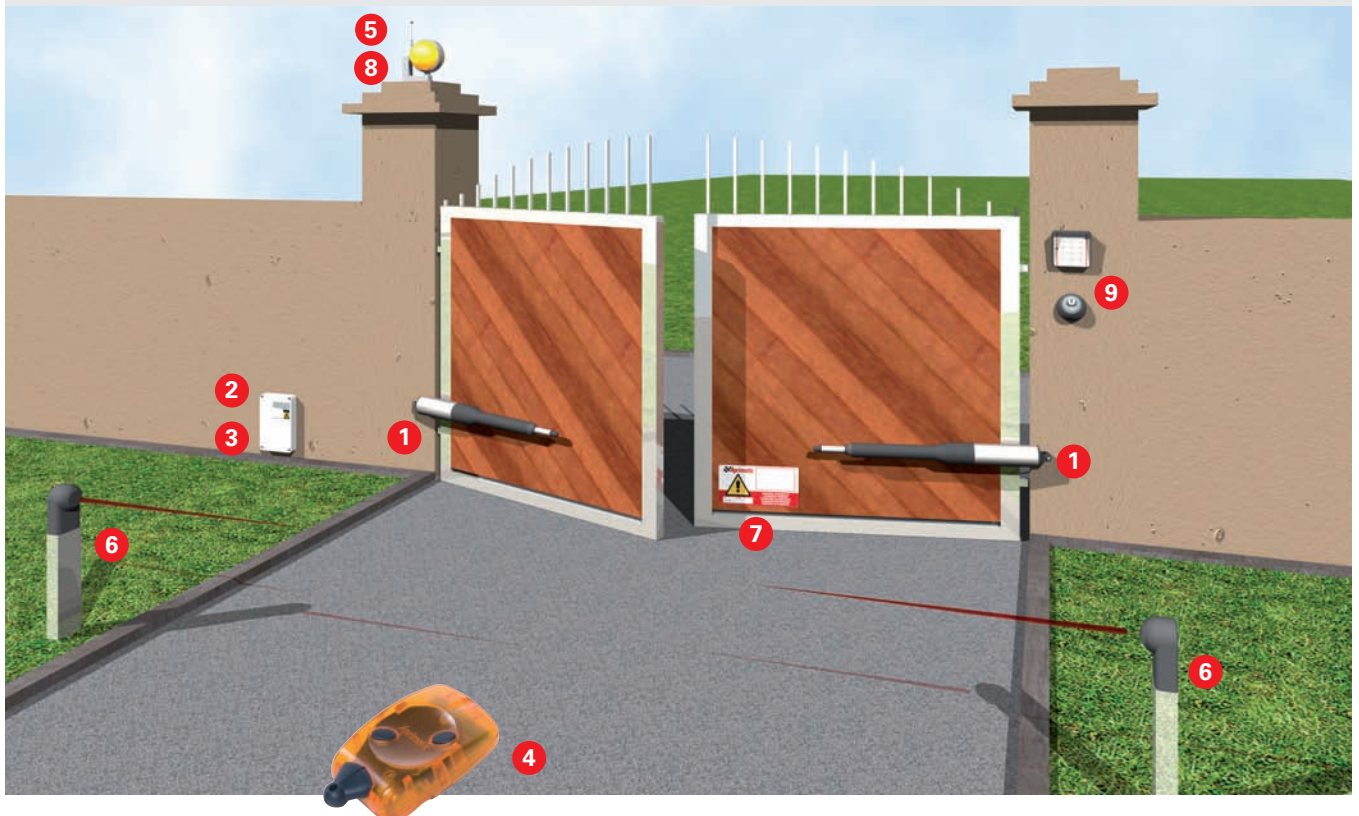


Uniball Bracket



KIT MELBOURNE RAIDER ONE

SYSTEM TYPE



DESCRIPTION

KIT Melbourne RAIDER ONE

Max. leaf width

1,8 m*

CODE

41024/802

The package contains:

- ① Two RAIDER ONE operators
- ② Dedicated electronic control unit
- ③ 433,92 Mhz receiver
- ④ TR2 - 433,92 Mhz twin channel transmitter
- ⑤ Antenna 433,92 Mhz with a 4,5 m coaxial cable
- ⑥ ER4N - Pair of photocells
- ⑦ Aprimatic sign plate

⑧ Flashing light (optional)

⑨ Opening devices (optional)

KIT RACING Melbourne RAIDER ONE

1,8 m*

41024/800

(Including 24V flashing light and key-switch) in full coloured box

6 Wire cable (length 10 m) - needed to connect the operator to the control unit

41024/052

* For leaf longer than 1,8 meters is recommended the use of an electric lock.

DESCRIPTION OF OPTIONAL ACCESSORIES

CODE

Limit switch Kit RAIDER ONE

41024/051

Aluminium cover RAIDER ONE (for one operator)

41024/050

TR2 - 433,92 Mhz twin-channel transmitter

41903/002

ER4N - Pair of photocells

41812/001

CAL - Aluminium column for the ER4N photocells

41812/050

Back up battery

41702/003

ES3 - Electric lock complete with ground striker plate

41080/008

(for gate leaf longer than 1,8 m up to 3 m) CL series cylinder required

CL1 - "DEAD HEAD" single cylinder

41080/005

CL2 - "DEAD HEAD" double cylinder

41080/004

NOTE: For control and safety devices and installation accessories, see section "Electronic devices and installation accessories" in this catalogue (consult the index).



KIT DAYTONA SKIPPER

Low-voltage Kit for swing gates
electro-mechanical operator with articulated arm.
Residential use.



Complies with the current safety standards as regard to obstacle detection and inversion of movement in accordance with **EN12453** and **EN12445 (*)**.

Control unit with self learning programming.

Simple and easy to install, ideal for gates with big pillars and for aluminium, wood and PVC gates.

Allows gate opening up to 120° max.

The operators are equipped with mechanical limit-switches to adjust the stroke.

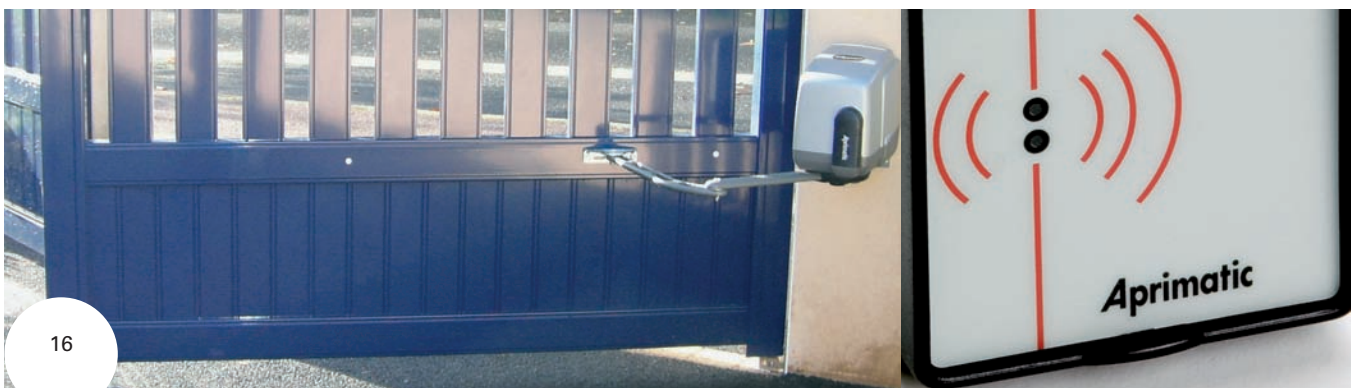
Built-in control unit with self-learning programming and possibility of adjusting the parameters by means of a simple and intuitive menu.

Emergency release positioned on the side of the operator. It can be remotized to allow the release from the outside.

TECHNICAL DATA

EQUIPMENT POWER SUPPLY	230 Vac - 50/60 Hz
MOTOR POWER SUPPLY	24 Vdc
ABSORBED POWER	70 W max. each motor
ABSORBED CURRENT	4 A max. each motor
MAX. THRUST FORCE	150 Nm
90° OPENING TIME	15 sec.
OPERATING TEMPERATURE	-20°C to +70°C
MAX. LEAF WIDTH WITHOUT ELECTRIC LOCK	2,3 m
MAX. LEAF WIDTH WITH ELECTRIC LOCK	3 m
IRREVERSIBLE	Yes
NUMBER OF DAILY CYCLES	80 max.
MAX. LEAF OPENING ANGLE	120°
PROTECTION CLASS	IP44

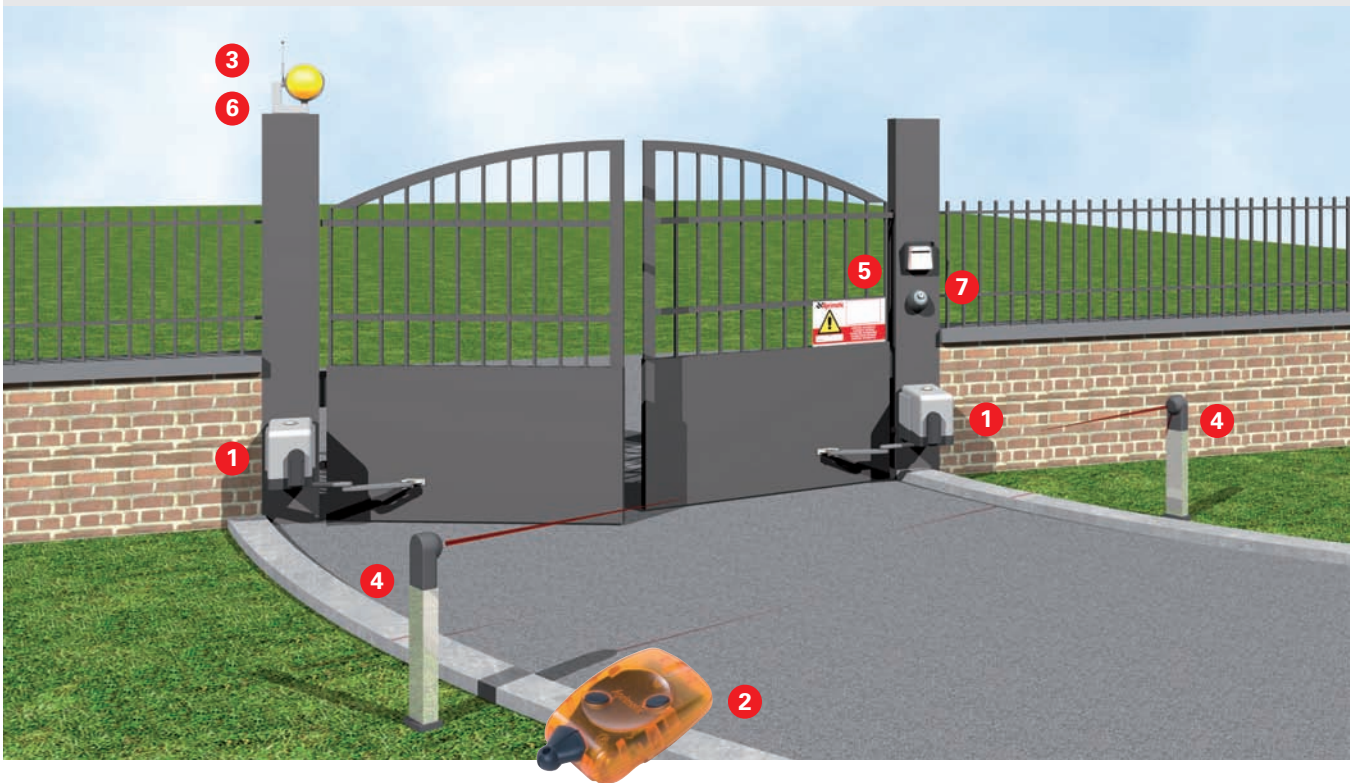
(*) Product certified under ideal installation conditions.





KIT DAYTONA SKIPPER

SYSTEM TYPE



DESCRIPTION	Max. leaf width	CODE
KIT Daytona SKIPPER	2,3 m (without electric lock)* 3,0 m (with electric lock)	41022/802
The package includes:		
<ul style="list-style-type: none"> ① Two SKIPPER 24V, electro-mechanical, non reversible, articulated arms with 1 dedicated control unit 433,92 Mhz radio receiver built-in ② TR 2 - 433,92 Mhz twin-channel transmitter ③ Antenna 433,92 Mhz with a 4,5 m coaxial cable ④ ER4N - Pair of photocells ⑤ Aprimatic sign plate ⑥ Flashing light (optional) ⑦ Opening devices (optional) 		
KIT RACING Daytona SKIPPER (Including 24V flashing light and key-switch) in full coloured box	2,3 m (without electric lock)* 3,0 m (with electric lock)	41022/800
* For leaf longer than 2,3 meters is recommended the use of an electric lock.		

DESCRIPTION OF OPTIONAL ACCESSORIES	CODE
Long Lever (ideal for large pillars)	41022/050
TR2 - 433,92 Mhz twin-channel transmitter	41903/002
ER4N - Pair of photocells	41812/001
CAL - Aluminium column for the ER4N photocells	41812/050
Back up battery	41702/003
ES3 - Electric lock complete with ground striker plate (for gate leaf longer than 1,8 m up to 3 m) CL series cylinder required	41080/008
CL1 - "DEAD HEAD" single cylinder	41080/005
CL2 - "DEAD HEAD" double cylinder	41080/004
CS - External strongbox	41704/002
CSP - Wall-mounted external strongbox	41704/004

NOTE: For control and safety devices and installation accessories, see section "Electronic devices and installation accessories" in this catalogue (consult the index).



KIT MONACO ZT4

Kit for swing gates
for residential and condominium use.
Hydraulic operator for gate leaf up to 3 m.



Anti-crush system with very sensitive bypass valves calibrated during installation. This immediately cuts the hydraulic pressure in the event of obstacles to ensure maximum system safety.

Maximum reliability thanks to the sturdiness of the operator.

Front and rear mountings to enable screw assembly also on wood, PVC and aluminium gates.

Manual key release located on the upper part of the operator in the event of mains power supply failure.

The articulated fork rear flange ensures flexible and sturdy assembly on the pillar.

The neoprene power supply cable is specifically suited to mobile applications in outdoor environments.

TECHNICAL DATA

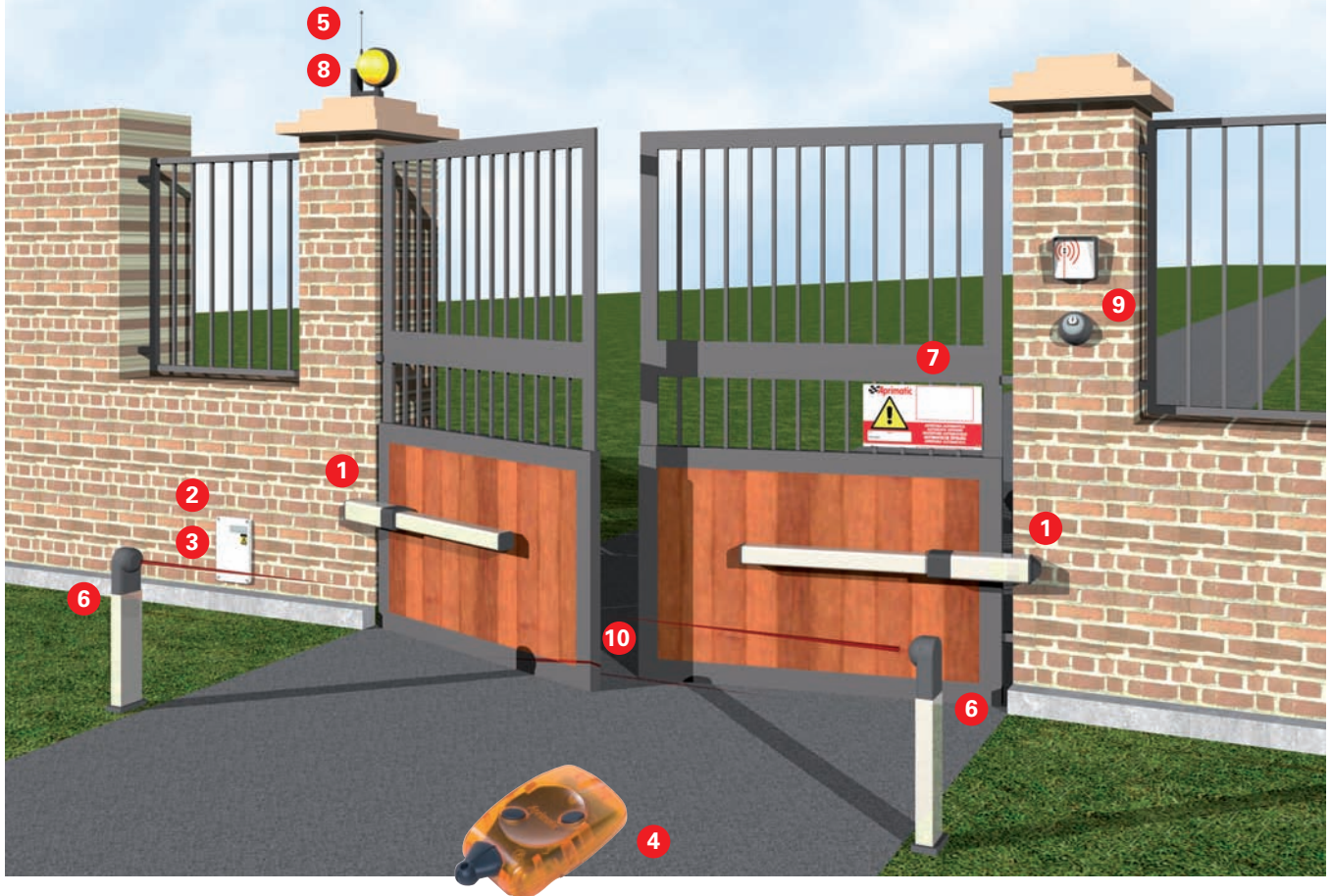
POWER SUPPLY	230 Vac - 50/60 Hz
ABSORBED POWER	250 W
MAX. THRUST FORCE	3850 N
KEY RELEASE	YES
NUMBER OF CYCLES/DAY	200
MAX. LEAF WIDTH	3.0 m with ES3 - 1.8 m (B)
ANTI-CRUSH SYSTEM	YES
STANDARD MAX. ROD STROKE	275 mm
OPENING TIME	15 sec.
OPERATING TEMPERATURE	-20°C to +70°C
OVERLOAD TEMPERATURE	120° C
PROTECTION CLASS	IP55





KIT MONACO ZT4

SYSTEM TYPE



KIT

DESCRIPTION	CODE
KIT Monaco ZT 4	41006/803
The package includes:	
① Two hydraulic ZT4 B operators with hydraulic locking in open/closed position	
② T11 - Control unit	
③ Built-in 433,92 Mhz Unico Memory System SE radio receiver (super-heterodyne version)	
④ TR2 - 433,92 Mhz twin-channel transmitter	
⑤ Antenna 433,92 Mhz with a 4,5 m coaxial cable	
⑥ ER4N - Pair of photocells	
⑦ Aprimatic sign plate	
⑧ Flashing light (optional)	
⑨ Opening devices (optional)	
⑩ Electronic lock (optional)	
KIT RACING Monaco ZT 4 (Including flashing light and key-switch) in full coloured box	41006/801

DESCRIPTION OF OPTIONAL ACCESSORIES	CODE
TR2 - 433,92 Mhz twin-channel transmitter	41903/002
TR4 - 433,92 Mhz four-channel transmitter	41903/004
ER4N - Pair of photocells	41812/001
CAL - Aluminium column for the ER4N photocells	41812/050
ES3 - Electric lock complete with ground striker plate (for gate leaf longer than 1,8 m up to 3 m) CL series cylinder required	41080/008
CL1 - "DEAD HEAD" single cylinder	41080/005
CL2 - "DEAD HEAD" double cylinder	41080/004
ET2N - 24V flashing light	41840/006
PC12E - Key switch for wall mounting	41830/007

NOTE: For control and safety devices and installation accessories, see section "Electronic devices and installation accessories" in this catalogue (consult the index).



KIT ZT44RF

Kit for swing gates with intensive use.
Hydraulic operator suitable for gate leaf up to 4 m.



Unique on the market with
oil flow regulator system.

Double valve flow adjustment device for regulating gate opening and closing speeds.
Compensates for the unbalanced loads created by wind and out of plumb installation of very light and medium heavy gates.

Hydraulic braking system adjustable during installation, to ensure slow wing approach preventing noise and mechanical stress to the structure.

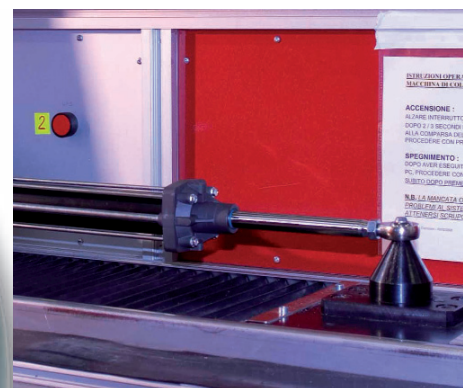
Anti-crush system with very sensitive bypass valves calibrated during installation.
This immediately cuts the hydraulic pressure in the event of obstacles to ensure maximum system safety.

The emergency release system ensures good burglary protection thanks to the personalised key.
It is protected by the upper cover and does not alter the attractive lines of the operator.

The aluminium articulated fork rear flange ensures flexible and sturdy assembly on the pillar.

TECHNICAL DATA

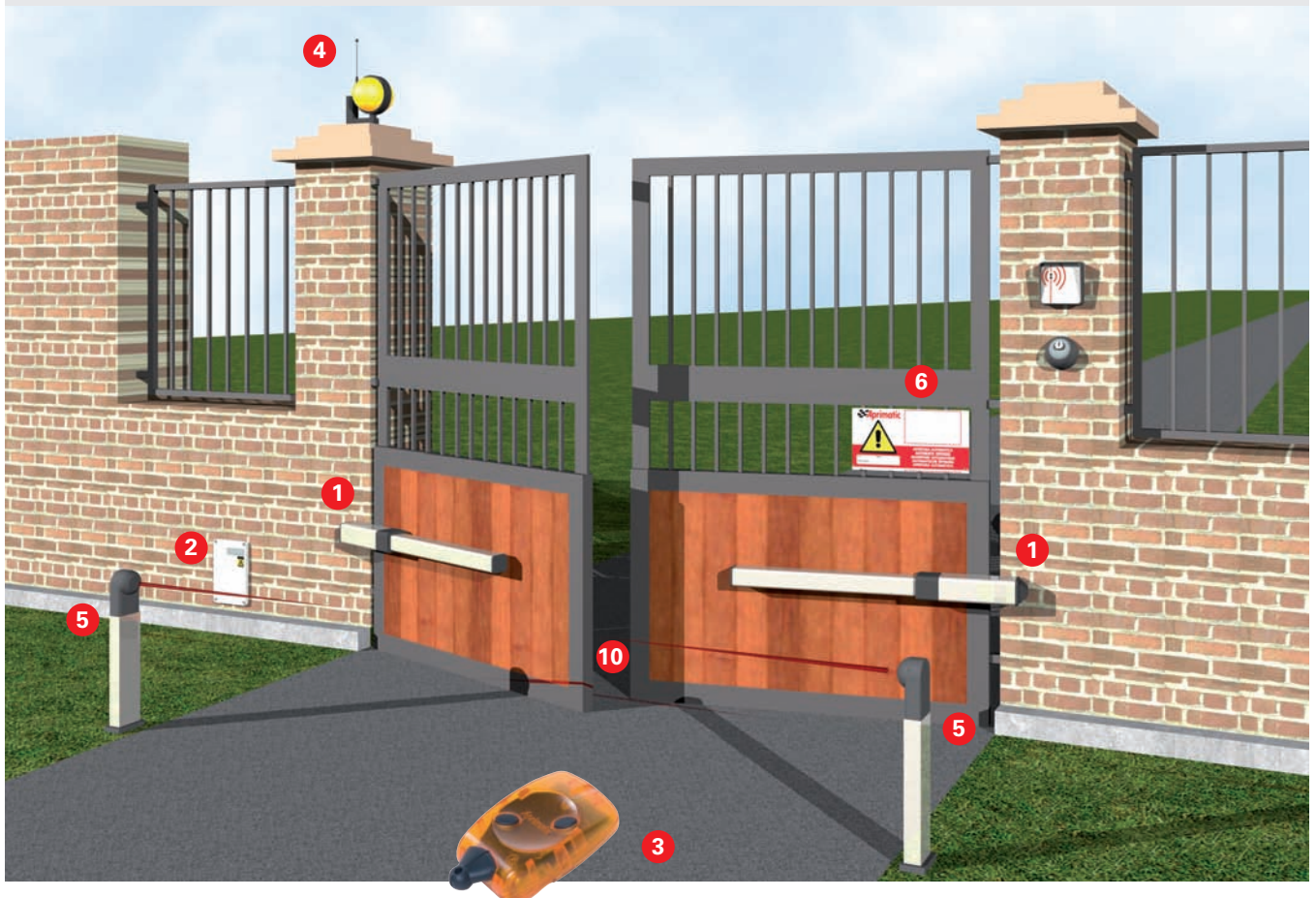
POWER SUPPLY	230 Vac - 50/60 Hz
ABSORBED POWER	250 W
MAX. THRUST FORCE	3850 N
KEY RELEASE	YES
SLODOWN	YES
NUMBER OF CYCLES/DAY	800
MAX. LEAFWIDTH	4.0 m with ES3 - 1.8 m (B, C, A)
ANTI-CRUSH SYSTEM	YES
STANDARD MAX. ROD STROKE	275 mm
OPENING TIME	20 sec.
OPERATING TEMPERATURE	-20°C to +70°C
OVERLOAD TEMPERATURE	120° C
PROTECTION CLASS	IP55





KIT ZT44RF

SYSTEM TYPE



DESCRIPTION

KIT ZT 44 RF

CODE

41009/802

The package includes:

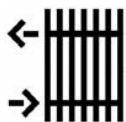
- ① Two hydraulic ZT44 B RF operators with hydraulic locking in open/closed position
- ② T11 - Control unit
- ③ Built-in 433,92 Mhz Unico Memory System SE radio receiver (super-heterodyne version)
- ④ TR2 - 433,92 Mhz twin-channel transmitter
- ⑤ Antenna 433,92 Mhz with a 4,5 m coaxial cable
- ⑥ ER4N - Pair of photocells
- ⑦ Aprimatic sign plate
- ⑧ Flashing light (optional)
- ⑨ Opening devices (optional)
- ⑩ Electronic lock (optional)

DESCRIPTION OF OPTIONAL ACCESSORIES

CODE

TR2 - 433,92 Mhz twin-channel transmitter	41903/002
ER4N - Pair of photocells	41812/001
CAL - Aluminium column for the ER4N photocells	41812/050
ES3 - Electric lock complete with ground striker plate (for gate leaf longer than 1,8 m up to 3 m) CL series cylinder required	41080/008
CL1 - "DEAD HEAD" single cylinder	41080/005
CL2 - "DEAD HEAD" double cylinder	41080/004
ET2N - 24V flashing light	41840/006
PC12E - Key switch for wall mounting	41830/007

NOTE: For control and safety devices and installation accessories, see section "Electronic devices and installation accessories" in this catalogue (consult the index).



KIT MONZA ONDA 424

Low-voltage Kit for sliding gates up to 400 kg.
Residential use.



Complies with the current safety standards as regard to obstacle detection and inversion of movement. Maximum anti-crush safety due to the electronic torque adjustment combined with encoder technology, which also guarantees a gradual approach during the opening and closing movements.

Continuity of operation guaranteed, in the event of a power failure, by a set of optional batteries which may be fitted in the operator casing.

Easy to install, thanks to the eyelets and screws fitted in the foundation plate for a precise positioning of the operator.

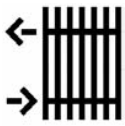
Worm screw gear motor with permanent lubrication, aluminium body and on board electronic control unit.

Emergency release lever with customised key, for use during power supply failures.

TECHNICAL DATA

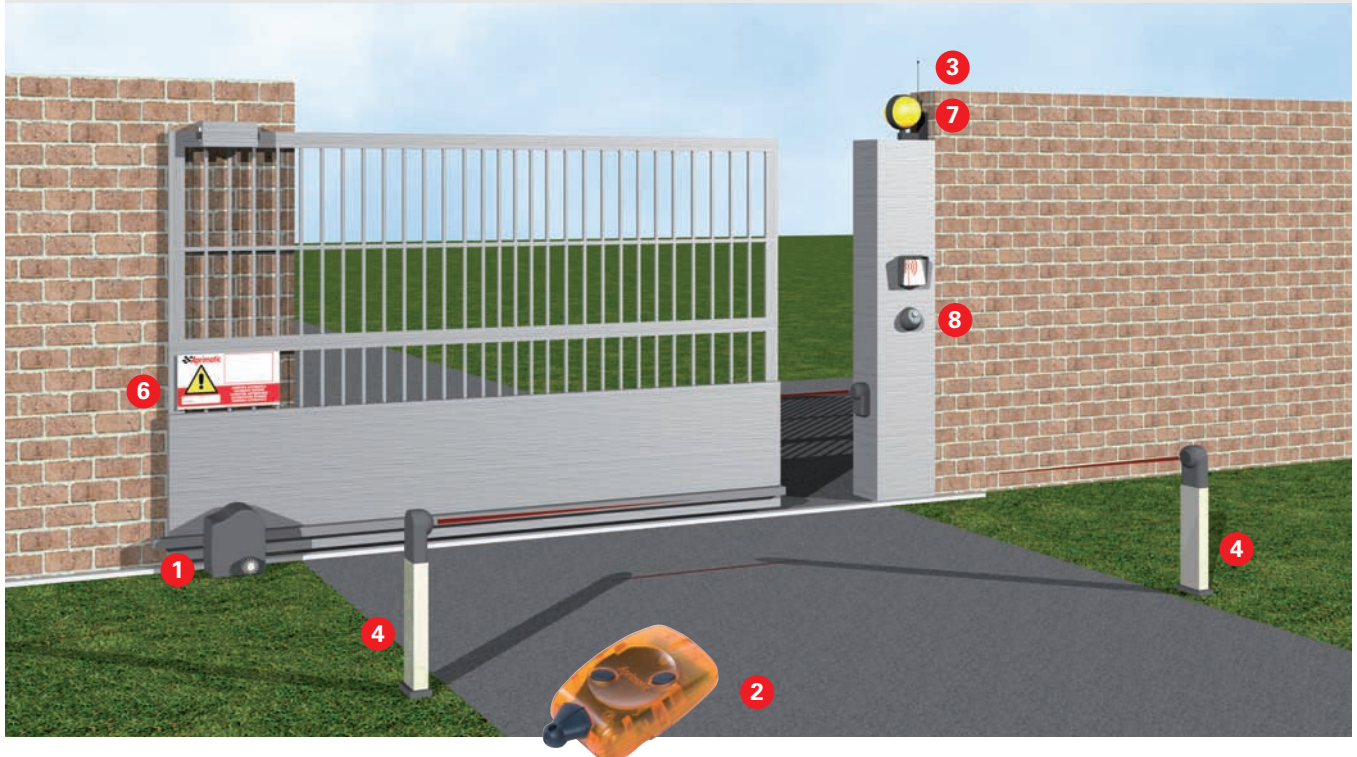
POWER SUPPLY	230 Vac - 50/60 Hz
MOTOR POWER SUPPLY	24 Vdc (with encoder)
ABSORBED POWER	80 W
ABSORBED CURRENT	4,2 A
MAX. THRUST FORCE	450 N
MAX. LINEAR SPEED	10 m/min.
OPERATING TEMPERATURE	-20°C to +55°C
MAX. GATE WEIGHT	400 kg
HEIGHT OF PINION FROM GROUND	70 mm
GEAR MOTOR WEIGHT	4,2 kg
MAX. NO. CYCLES	100 cycles/day
PROTECTION CLASS	IP44





KIT MONZA ONDA 424

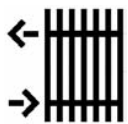
SYSTEM TYPE



DESCRIPTION	COD
KIT Monza ONDA 424	41101/802
The package includes:	
<ul style="list-style-type: none"> ① ONDA 424 operator with on board electronic control unit 433,92 Mhz radio receiver (super-heterodyne version) ② TR2 - 433,92 Mhz twin-channel transmitter ③ Antenna 433,92 Mhz with a 4,5 m coaxial cable ④ ER4N - Pair of photocells ⑤ Customised release key ⑥ Aprimatic sign plate 	
⑦ Flashing light (optional)	
⑧ Opening devices (optional)	
KIT RACING Monza ONDA 424 (Including flashing light and key-switch) in full coloured box	41101/800

DESCRIPTION OF OPTIONAL ACCESSORIES	CODE
TR2 - 433.92 Mhz twin-channel transmitter	41903/002
TR4 - 433.92 Mhz four-channel transmitter	41903/004
ER4N - Pair of photocells	41812/001
CAL - Aluminium column for the ER4N photocells	41812/050
Back up battery	41102/050
Battery charger card	41100/050
ET2N - 24 V flashing light	41840/006
PC12E - Key switch for wall mounting	41830/007
Straight safety edge 1,5 m	41850/002
Straight safety edge 2,0 m	41850/003
Straight safety edge 3,0 m	41850/004
Aprimatic plastic rack with 5 m steel core for use of up to a maximum of 500 kg	41180/052
Aprimatic galvanized rack pitch 4 complete with couplings (5 m)	41180/053

NOTE: For control and safety devices and installation accessories, see section "Electronic devices and installation accessories" in this catalogue (consult the index).



KIT HOCKENHEIM ONDA 624

Low-voltage Kit for sliding gates.
Residential use for gates up to 600 kg,
condominium use for gates up to 400 kg.



Complies with the current safety standards as regard to obstacle detection and inversion of movement. Maximum anti-crush safety due to the electronic torque adjustment combined with encoder technology, which also guarantees a gradual approach during the opening and closing movements.

Continuity of operation guaranteed, in the event of a power failure, by a set of optional batteries which may be fitted in the operator casing.

Easy to install, thanks to the eyelets and screws fitted in the foundation plate for a precise positioning of the operator.

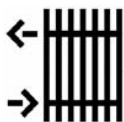
Worm screw gear motor with permanent lubrication, aluminium body and on board electronic control unit.

Emergency release lever with customised key, for use during power supply failures.

TECHNICAL DATA

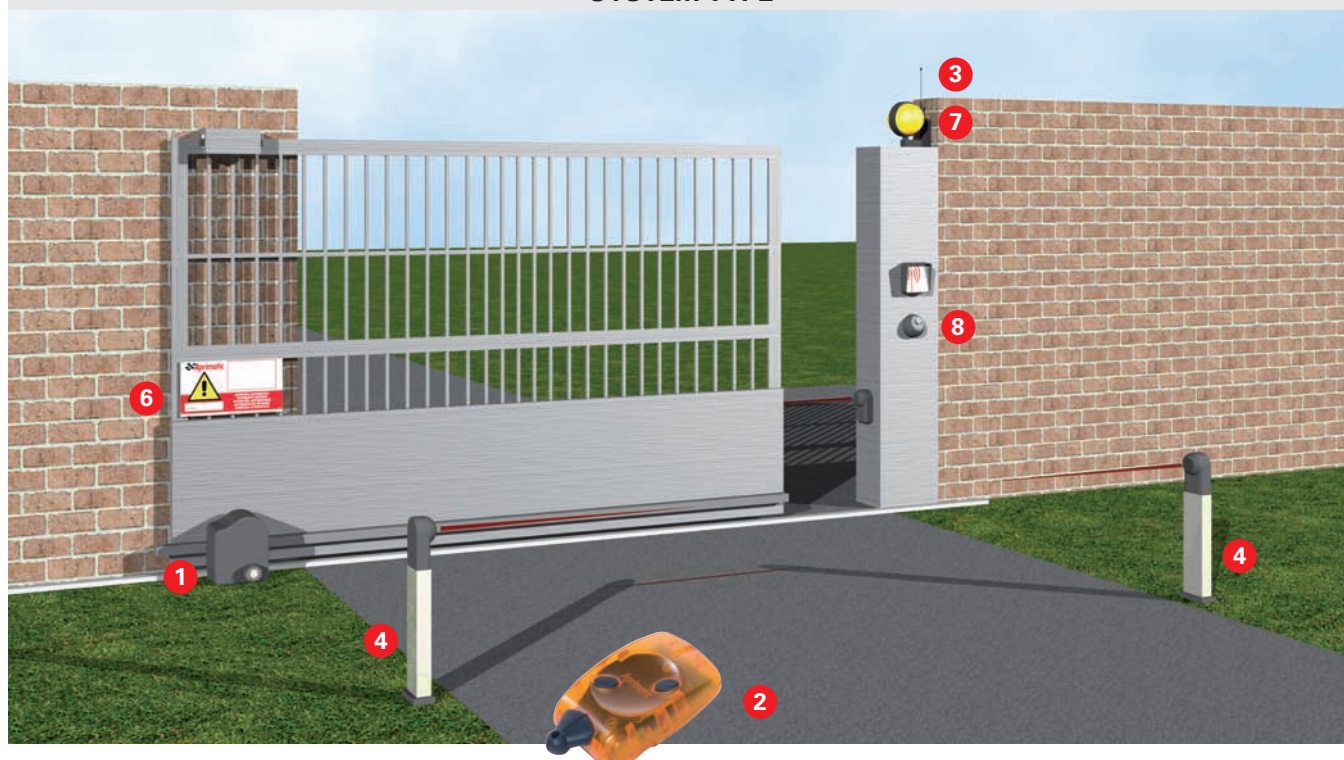
POWER SUPPLY	230 Vac - 50/60 Hz
MOTOR POWER SUPPLY	24 Vdc (with encoder)
ABSORBED POWER	80 W
ABSORBED CURRENT	4,2 A
MAX. THRUST FORCE	650 N
MAX. LINEAR SPEED	10 m/min.
OPERATING TEMPERATURE	-20°C to +55°C
MAX. GATE WEIGHT	600 kg
HEIGHT OF PINION FROM GROUND	70 mm
GEAR MOTOR WEIGHT	4,2 kg
MAX. NO. CYCLES	100 cycles/day
PROTECTION CLASS	IP44





KIT HOCKENHEIM ONDA 624

SYSTEM TYPE



DESCRIPTION

KIT Hockenheim ONDA 624

CODE

41102/8020

The package includes:

- ① ONDA 424 operator with on board electronic control unit
433,92 Mhz radio receiver (super-heterodyne version)
- ② TR2 - 433,92 Mhz twin-channel transmitter
- ③ Antenna 433,92 Mhz with a 4,5 m coaxial cable
- ④ ER4N - Pair of photocells
- ⑤ Customised release key
- ⑥ Aprimatic sign plate
- ⑦ Flashing light (optional)
- ⑧ Opening devices (optional)

KIT RACING Hockenheim ONDA 624

(Including flashing light and key-switch) in full coloured box

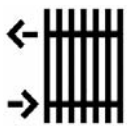
41102/800

DESCRIPTION OF OPTIONAL ACCESSORIES

CODE

TR2 - 433.92 Mhz twin-channel transmitter	41903/002
TR4 - 433.92 Mhz four-channel transmitter	41903/004
ER4N - Pair of photocells	41812/001
CAL - Aluminium column for the ER4N photocells	41812/050
Back up battery	41102/050
Battery charger card	41100/050
ET2N - 24 V flashing light	41840/006
PC12E - Key switch for wall mounting	41830/007
Straight safety edge 1,5 m	41850/002
Straight safety edge 2,0 m	41850/003
Straight safety edge 3,0 m	41850/004
Aprimatic plastic rack with 5 m steel core for use of up to a maximum of 500 kg	41180/052
Aprimatic galvanized rack pitch 4 complete with couplings (5 m)	41180/053

NOTE: For control and safety devices and installation accessories, see section "Electronic devices and installation accessories" in this catalogue (consult the index).



KIT INDIANAPOLIS ONDA 801

Kit for sliding gates up to 800 kg.
Residential and condominium use.



Maximum safety thanks to the on-board electronic control unit with electronic torque adjustment incorporated. Additional card can be connected as an optional for auto-reverse safety system in the event of obstacles.

Reduced noise level and maximum performance for residential use. Maximum reliability thanks to the use of stainless steel gears and a permanent lubrication of the system.

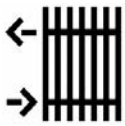
ONDA 801 Z16 gear motor with rack and pinion drive. Pitch 4 pinion and 16 teeth to move 500 kg gate for condominium use and 800 kg gate for residential use.

T22 electronic control unit on board and built-in Unico Memory System radio receiver (super-heterodyne version).

TECHNICAL DATA

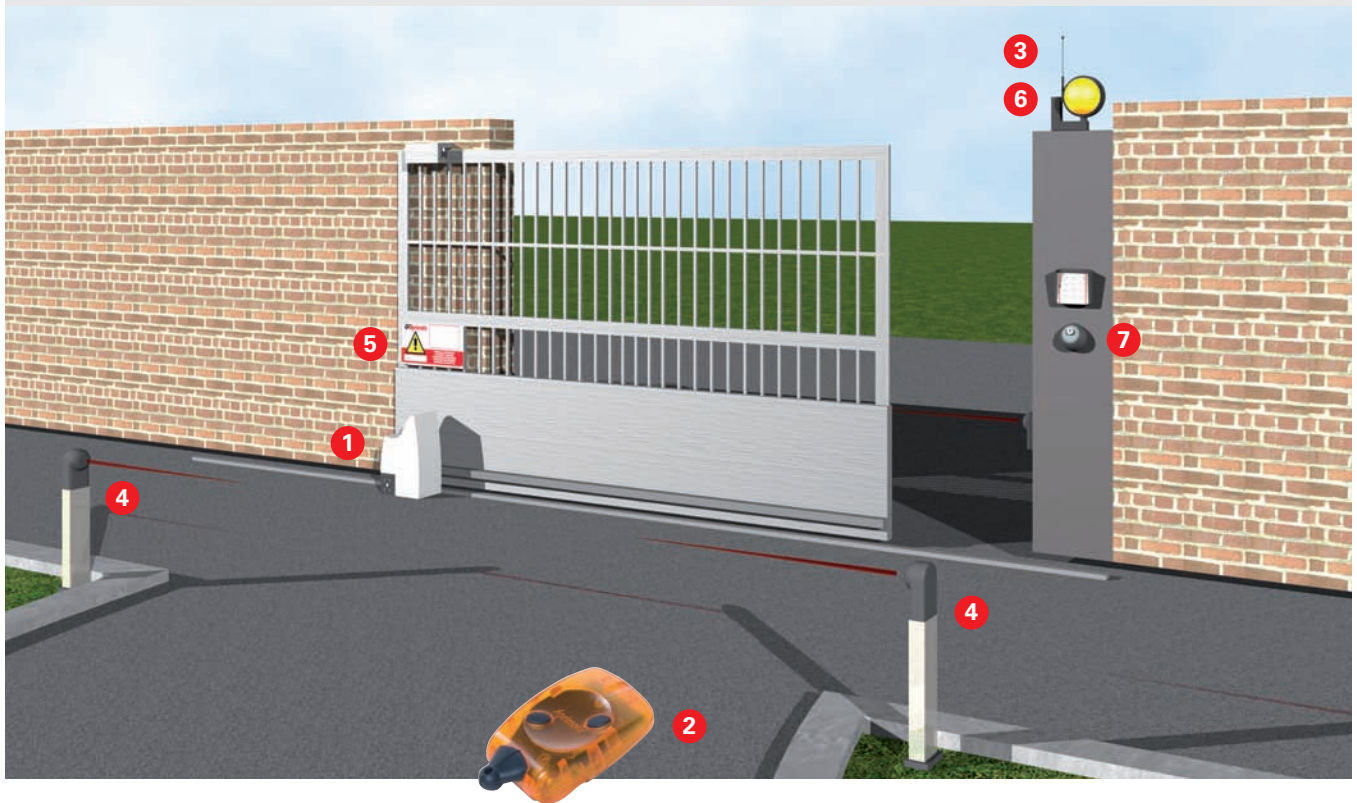
POWER SUPPLY	230 Vac - 50/60 Hz
ABSORBED POWER	260 W
ABSORBED CURRENT	1.6 A
MAX. THRUST FORCE	1250 N (Z16)
OPERATING TEMPERATURE	-20°C to +70°C
LINEAR SPEED	9.5 m/min. (Z16) 12.0 m/min. (Z20)
MAX. WING WEIGHT	800 kg (use residential) 400 kg (use condominium)
WEIGHT	10 kg
OVERLOAD TEMPERATURE	90° C
LUBRICANT TYPE	Shell TIVELA-GL00
PROTECTION CLASS	IP44





KIT INDIANAPOLIS ONDA 801

SYSTEM TYPE



KIT

DESCRIPTION	CODE
KIT Indianapolis ONDA 801	41127/801
The package includes:	
<ul style="list-style-type: none"> ① Onda 801 EZ16 operator with T22 control unit on board and built-in 433,92 Mhz Unico Memory System SE radio receiver (super-heterodyne version), two end-of-run cams mounted on rack, with release key ② TR2 - 433,92 Mhz twin-channel transmitter ③ Antenna 433,92 Mhz with a 4,5 m coaxial cable ④ ER4N - Pair of photocells ⑤ Aprimatic sign plate 	
<ul style="list-style-type: none"> ⑥ Flashing light (optional), ⑦ Opening devices (optional) 	
KIT RACING Indianapolis ONDA 801 (Including flashing light and key-switch) in full coloured box	41127/800

DESCRIPTION OF OPTIONAL ACCESSORIES	CODE
ARC - Auto reverse card	41127/020
PF 501/801 - Foundation plate (pack of 4 pcs)	41126/051
TR2 - 433,92 Mhz twin-channel transmitter	41903/002
ER4N - Pair of photocells	41812/001
CAL - Aluminium column for the ER4N photocells	41812/050
ET2N - 24V flashing light	41840/006
PC12E - Key switch for wall mounting	41830/007
Straight safety edge 1,5 m	41850/002
Straight safety edge 2,0 m	41850/003
Straight safety edge 3,0 m	41850/004
SB 500/800 - Personalised release key	41126/050
Aprimatic galvanized rack Pitch 4 complete with couplings (5 m)	41180/053

NOTE: For control and safety devices and installation accessories, see section "Electronic devices and installation accessories" in this catalogue (consult the index).



KIT SUZUKA APRIBOX 700/1200

Low-voltage Kit for sectional and counterweight, up-and-over, garage doors. Residential use.



Fitted with **mechanical stops** and encoder technology to ensure precise stop at end of stroke and protection against any failures.

Maximum anti-crush safety ensured by on-board electronic control unit with auto-reverse function in case of collision with an obstacle.

KIT APRIBOX 700 and KIT APRIBOX 1200 can also be used to automate counterweight, up-and-over, doors if installed with curved arms.

Slowdown system for gradual approach at the end of opening and closing phases, preventing banging and structural stress.

Timed courtesy light integrated onto the operator to light up the garage during opening and closing.

The belt drive guarantees excellent reliability, wear resistance and silent operation.

In the event of power failure, the continuity of operation is guaranteed by a set of optional batteries which can be fitted in the operator casing.

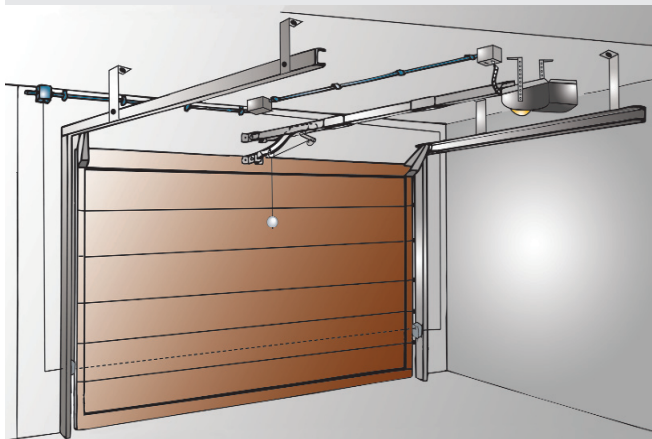
TECHNICAL DATA	APRIBOX 700	APRIBOX 1200
POWER SUPPLY	230 Vac - 50/60 Hz	230 Vac - 50/60 Hz
MOTOR POWER SUPPLY	24 Vcc	24 Vcc
ABSORBED POWER	100 W	100 W
THRUST FORCE LINEAR SPEED	650 N	1200 N
OPERATING TEMPERATURE	-20°C to +55°C	-20°C to +55°C
LINEAR SPEED	Adjustable from 9 to 16 cm/sec.	
DRIVE	Belt	Belt
TOTAL LENGTH (3 m guide)	3000 mm	3000 mm
USEFUL TRAVEL (3 m guide)	2400 mm	2450 mm
MINIMUM INSTALLATION DISTANCE FROM CEILING	40 mm	40 mm
MAX. DOORS SIZE	10 m ²	14 m ²
LIMIT SWITCH	Encoder with mechanical limit switch	



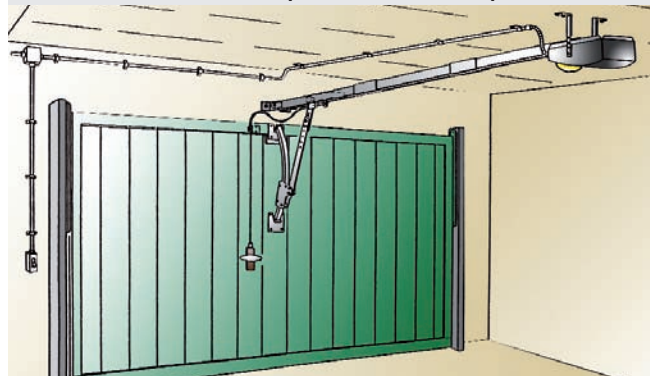


KIT SUZUKA APRIBOX 700/1200

INSTALLATION DIAGRAM FOR SECTIONAL DOORS



INSTALLATION DIAGRAM FOR COUNTERWEIGHT, UP-AND-OVER, DOORS*



* This kind of application is only possible installing the curved arm. The up-and-over door must be perfectly balanced and must have a rigid structure.

DESCRIPTION	Max. door width	CODE
KIT Suzuka APRIBOX 700	10 m ²	41241/800
KIT Suzuka APRIBOX 1200	14 m ²	41241/801
Both packages include: APRIBOX motor On-board electronic control unit 433,92 Mhz super-heterodyne radio receiver TR2 - 433,92 Mhz twin-channel transmitter Aprimatic sign plate		

DESCRIPTION OF APRIBOX ACCESSORIES	CODE
Guide 3 m (1 pcs 3 m)	41241/050
Guide 3 m (2 pcs 1,5 m each)	41241/051
Guide 4 m (1 pcs 1 m and 1 pcs 3 m)	41241/052
Release cable	41241/054

DESCRIPTION OF APRIBOX OPTIONAL ACCESSORIES	CODE
Curved arm for Apribox	41241/056
Battery charge board kit + batteries	41241/055
Ceiling fixing bracket kit (optional)	41241/053
TR2 - 433,92 Mhz twin-channel transmitter	41903/002
ANT433 - 433,92 Mhz antenna with 4,5 m coaxial cable and earth connection	41929/001
ER4N - Pair of photocells	41812/001
ET2N - 24V flashing light	41840/006

NOTE: For control and safety devices and installation accessories, see section "Electronic devices and installation accessories" in this catalogue (consult the index).





SWING GATE AUTOMATION

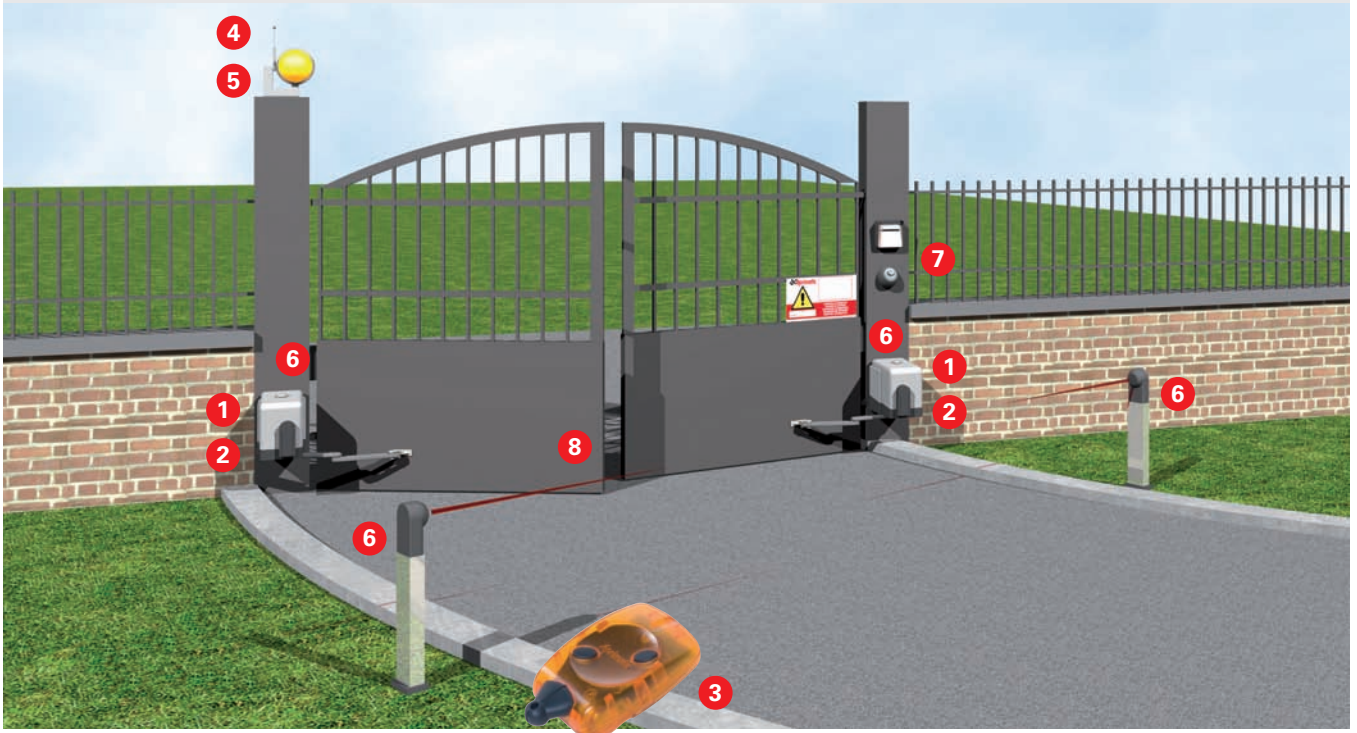
EXTERNAL AUTOMATION						
MODELS	MAX. LEAF WIDTH	FREQUENCY OF USE			CICLES DAY	TECHNOLOGY
		RESIDENTIAL	CONDOMINIUM	CONTINUOS		
	RAIDER 2000	1,8 m	●		50	Electro-mechanical 24 V
	RAIDER 2000	3,0 m*				
	RAIDER ONE SMT	1,8 m		●	100	Electro-mechanical 24 V
	RAIDER ONE	3,0 m*				
	SKIPPER	2,3 m 3,0 m*	●		100	Electro-mechanical 24 V
	FLEXI 300	3 m	●		100	Electro-mechanical 24 V
	ZT 4	1,8 m	●	●	200	Hydraulic
		3,0 m*				
	ZT 44 RF	1,8 m	●	●	800	Hydraulic
		4,0 m*				
	ZT40 4M RF	2,0 m		●	1000	Hydraulic
		4,0 m*				
	ZT 40 7M RF	2,0 m		●	800	Hydraulic
		7,0 m*				
UNDERGROUND AUTOMATION						
	BUNKER	1,8 m	●		50	Electro-mechanical 24 V
		2,5 m*				
	EM 73 N	1,8 m	●		50	Electro-mechanical 24 V
		3,5 m*				
	ZT 70	2,0 m	●	●	300	Hydraulic
		4,0 m*				
	ZT 71	2,0 m	●	●	300	Hydraulic
	ZT 72	4,0 m*				

* It's recommended the use of an electric lock. **See the legend on page 259 for the type of production versions.
NOTE: The above mentioned data refer to carefully installed and regularly maintained products.

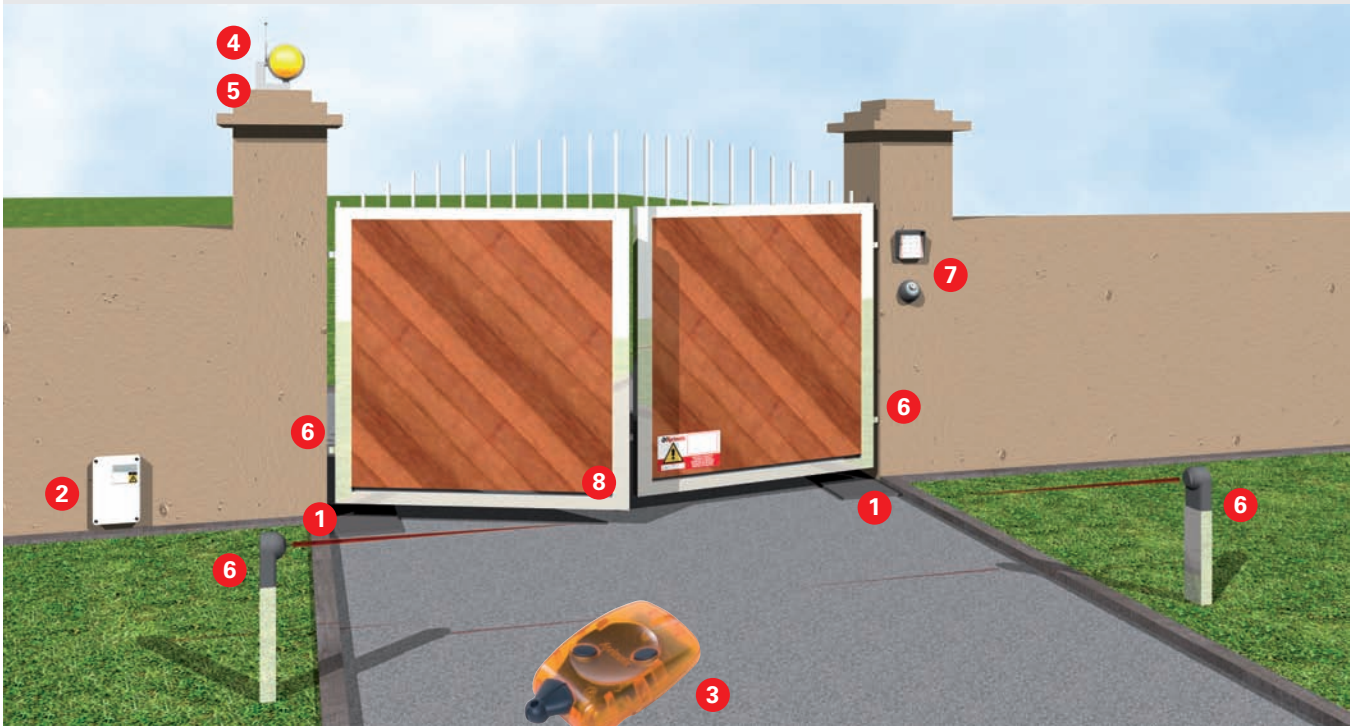


SWING GATE AUTOMATION

SYSTEM TYPE FOR EXTERNAL AUTOMATION



SYSTEM TYPE FOR UNDERGROUND AUTOMATION



- | | |
|---------------------------|--|
| 1 Operator | 5 Flashing lamp |
| 2 Electronic control unit | 6 Pair of photocells |
| 3 Transmitter | 7 Control device: key switch / proximity sensor access control /
electronic key-pad / tamper-proof card / magnetic key reader |
| 4 Antenna 433,92 Mhz | 8 Electric lock |

NOTE: For control and safety devices and installation accessories, see section "Electronic devices and installation accessories" in this catalogue (consult the index).



RAIDER 2000

Low-voltage, electromechanical operator
for swing gates.
Residential use.



Complies with the current safety standards as regard to obstacle detection and inversion of movement in accordance with **EN12453** and **EN12445 (*)**.

Control unit with self-learning programming and possibility of adjusting the parameters through a simple and intuitive menu.

Practical kits brackets included in the operator pack. The brackets can be either welded or fixed by the supplied screws for an easier and quicker installation.

The mechanical limit switches allow an optimal functioning even on gates without mechanical ground stops. The use of an electric lock is recommended for gate leaves longer than 1,8 metres.

The stroke of 400 mm makes the operator also suitable for more complex applications.

The small size and compact shape ensure harmonious aesthetic fusion between gate and automation.

TECHNICAL DATA

POWER SUPPLY	230 Vac - 50/60 Hz
MOTOR POWER SUPPLY	24 Vdc
ABSORBED POWER	100 W
ABSORBED CURRENT	5 A (max.)
MAX. THRUST FORCE	2000 N
PISTON STROKE	400 mm
LINEAR SPEED	20 mm/sec.
OPERATING TEMPERATURE	-20°C to +65°C
MAX. LEAF WIDTH WITHOUT ELECTRIC LOCK	1,8 m
MAX. LEAF WIDTH WITH ELECTRIC LOCK	3,0 m
MAX. LEAF WEIGHT	250 kg (for leaf 3 m) 400 kg (for leaf 1,8 m)
ANTI-CRUSH SAFETY DEVICE	Electronic
EMERGENCY RELEASE	Manual
PROTECTION CLASS	IP44

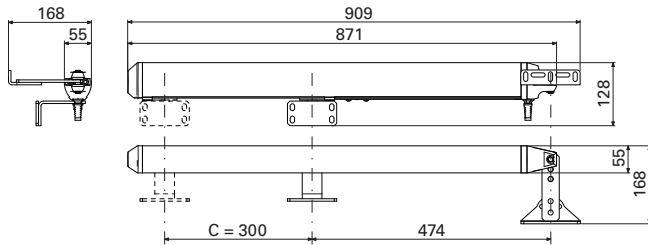
(*) Product certified under ideal installation conditions.



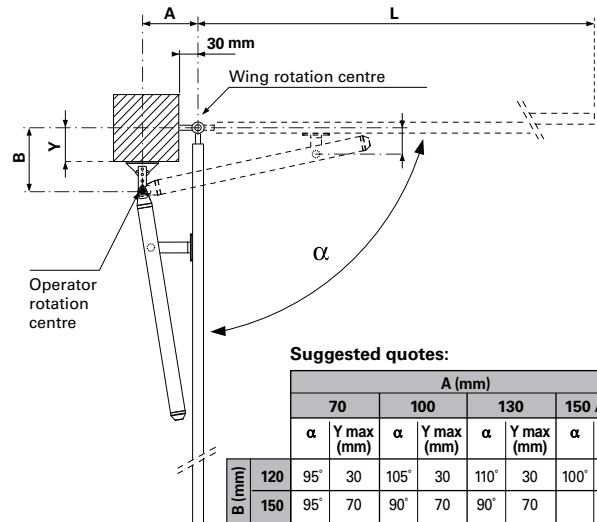


RAIDER 2000

OPERATOR DIMENSIONS



OPERATOR POSITIONING



DESCRIPTION

RAIDER 2000
24V electro-mechanical operator including brackets and mechanical limit switches.

Max. leaf width

1,8 m*

CODE

41027/001

RSK 24-2000 - RAIDER CONTROL UNIT

Electronic control unit for RAIDER 2000 operator without radio receiver.

41600/011

* For leaf longer than 1,8 meters is recommended the use of an electric lock.

DESCRIPTION OF OPTIONAL ACCESSORIES

CODE

433,92 Mhz radio receiver Memory System

41923/009

TR2 - 433,92 Mhz twin-channel transmitter

41903/002

TR4 - 433,92 Mhz four-channel transmitter

41903/004

ER4N - Pair of photocells

41812/001

Kit Antenna 433,92 Mhz for ET2N/ET20N

41929/003

433,92 Mhz antenna

41929/001

PC12E - Key switch for wall mounting

41830/007

CAL - Aluminium column for the ER4N photocells

41812/050

ES3 - Electric lock complete with ground striker plate (for gate leaf longer than 1,8 m up to 3 m) CL series cylinder required

41080/008

CL1 - "DEAD HEAD" single cylinder

41080/005

CL2 - "DEAD HEAD" double cylinder

41080/004

Back up battery

41702/003

IDEAL INSTALLATION

Max. leaf width

1,8 m*

Q.ty

1

CODE

41027/802

The package contains:

Two RAIDER 2000 operators with hexagonal release keys

Dedicated electronic control unit

Aprimatic sign plate

ER4N - Pair of photocells

1

41812/001

Unico 433,92 Mhz Memory System radio receiver with antenna included

1

41923/009

TR2 - 433,92 Mhz twin-channel transmitter

1

41903/002

ET2N - 24V flashing light

1

41840/006

* For leaf longer than 1,8 meters is recommended the use of an electric lock.

NOTE: For control and safety devices and installation accessories, see section "Electronic devices and installation accessories" in this catalogue (consult the index).



RAIDER 2500

Low-voltage, electromechanical operator
for swing gates.
Residential use.



Complies with the current safety standards as regards obstacle detection and inversion of movement.

The stroke of 400 mm makes the operator also suitable for more complex applications.

The mechanical limit switches allow an optimal functioning even on gates without mechanical ground stops.

Practical kits brackets included in the operator pack. The brackets can be either welded or fixed by the supplied screws for an easier and quicker installation.

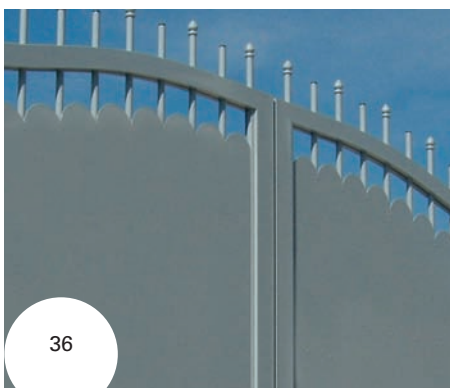
Control unit with self-learning programming and possibility of adjusting the parameters through a simple and intuitive menu.

The small size and compact shape ensure harmonious aesthetic fusion between gate and automation.

The use of an electric lock is recommended for leaves longer than 1,8 metres.

TECHNICAL DATA

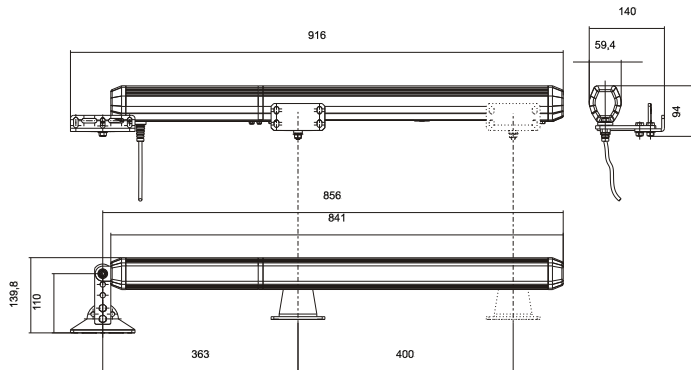
POWER SUPPLY	230 Vac - 50/60 Hz
MOTOR POWER SUPPLY	24 Vdc
ABSORBED POWER	100 W
ABSORBED CURRENT	5 A (max.)
MAX. THRUST FORCE	2500 N
PISTON STROKE	400 mm
LINEAR SPEED	16 mm/sec.
OPERATING TEMPERATURE	-20°C to +65°C
MAX. LEAF WIDTH WITHOUT ELECTRIC LOCK	1,8 m
MAX. LEAF WIDTH WITH ELECTRIC LOCK	3,0 m
MAX. LEAF WEIGHT	300 kg (for leaf 3 m) 500 kg (for leaf 2 m)
ANTI-CRUSH SAFETY DEVICE	Electronic
EMERGENCY RELEASE	Manual
PROTECTION CLASS	IP44



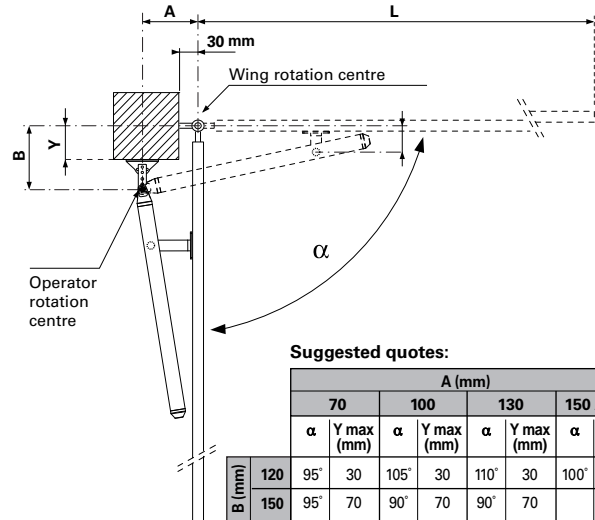


RAIDER 2500

OPERATOR DIMENSIONS



OPERATOR POSITIONING



Suggested quotes:

		A (mm)							
		70		100		130		150 / 190	
B (mm)		α	Y max (mm)	α	Y max (mm)	α	Y max (mm)	α	Y max (mm)
120		95°	30	105°	30	110°	30	100°	30
150		95°	70	90°	70	90°	70		

DESCRIPTION

RAIDER 2500
24V electro-mechanical operator including brackets and mechanical limit switches.

Max. leaf width

1,8 m*

CODE

41026/001

RSK 24-2500 - RAIDER CONTROL UNIT

Electronic control unit for RAIDER 2500 operator without radio receiver.

41600/013

* For leaf longer than 1,8 meters is recommended the use of an electric lock.

DESCRIPTION OF OPTIONAL ACCESSORIES

CODE

433,92 Mhz radio receiver Memory System

41923/009

TR2 - 433,92 Mhz twin-channel transmitter

41903/002

TR4 - 433,92 Mhz four-channel transmitter

41903/004

ER4N - Pair of photocells

41812/001

Kit Antenna 433,92 Mhz for ET2N/ET20N

41929/003

433,92 Mhz antenna

41929/001

PC12E - Key switch for wall mounting

41830/007

CAL - Aluminium column for the ER4N photocells

41812/050

ES3 - Electric lock complete with ground striker plate (for gate leaf longer than 1,8 m up to 3 m) CL series cylinder required

41080/008

CL1 - "DEAD HEAD" single cylinder

41080/005

CL2 - "DEAD HEAD" double cylinder

41080/004

Back up battery

41702/003

IDEAL INSTALLATION

Max. leaf width

1,8 m*

Q.ty

1

CODE

41026/802

SET RAIDER 2500 INT

The package contains:
Two RAIDER 2500 operators with hexagonal release keys
Dedicated electronic control unit
Aprimatic sign plate

ER4N - Pair of photocells

1

41812/001

Unico 433,92 Mhz Memory System radio receiver with antenna included

1

41923/009

TR2 - 433,92 Mhz twin-channel transmitter

1

41903/002

ET2N - 24V flashing light

1

41840/006

* For leaf longer than 1,8 meters is recommended the use of an electric lock.

NOTE: For control and safety devices and installation accessories, see section "Electronic devices and installation accessories" in this catalogue (consult the index).



RAIDER ONE SMT

Low-voltage, electromechanical operator
for swing gates.
Condominium use.



Complies with the current safety standards as regard to obstacle detection and inversion of movement in accordance with **EN 12453** and **EN12445 (*)**.

Built-in control unit with self-learning programming and possibility of adjusting the parameters by means of a simple and intuitive menu.

The front mounting features uniball type, allows to adjust gate oscillations.
The rear articulated joint allows the adjustment of gate anomalies.

The rear articulated joint allows the adjustment of wing anomalies.

Emergency power supply, in the event of power failure, guaranteed by two optional emergency batteries.

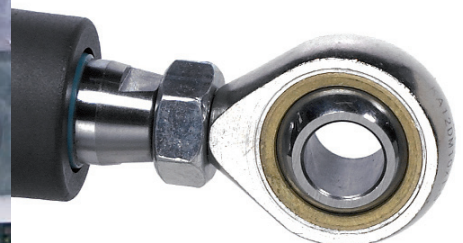
TECHNICAL DATA

POWER SUPPLY	230 Vac - 50/60 Hz
MOTOR POWER SUPPLY	24 Vdc
MAX. ABSORBED POWER	100 W each motor
ABSORBED CURRENT	5 A each motor
MAX. THRUST FORCE	2500 N
PISTON STROKE	300 mm
90° OPENING TIME	15 sec.
OPERATING TEMPERATURE	-20°C to +70°C
MAX. LEAF WIDTH WITHOUT ELECTRIC LOCK	1,8 m
MAX. LEAF WEIGHT	600 kg (for leaf 2 m) 400 kg (for leaf 3 m)
ROD EXIT TIME	16 mm/sec.
MAX. NUMBER CYCLES	100 cycles/day
ANTI-CRUSH SAFETY DEVICE	Electronic
PROTECTION CLASS	IP44

(*) Product certified under ideal installation conditions.



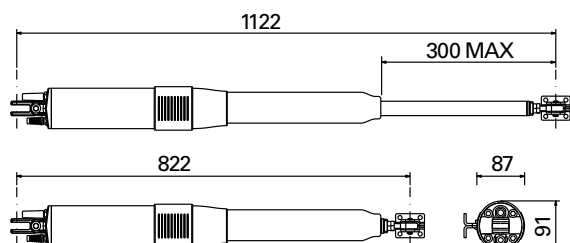
Uniball Bracket



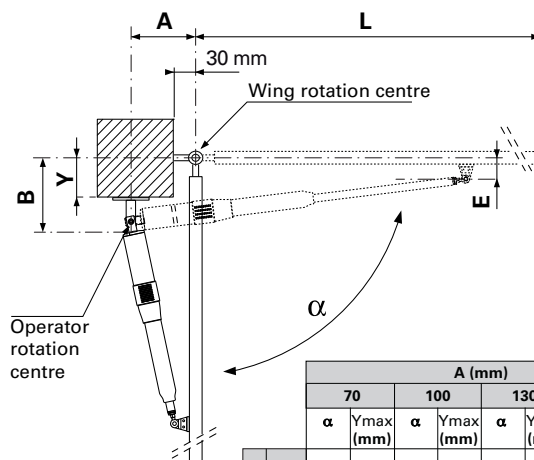


RAIDER ONE SMT

OPERATOR DIMENSIONS



OPERATOR POSITIONING



		A (mm)							
		70		100		130		150	
		α	Y _{max} (mm)	α	Y _{max} (mm)	α	Y _{max} (mm)	α	Y _{max} (mm)
B (mm)	90	100°	10	110°	10	120°	10	115°	10
	120	95°	30	105°	30	110°	30	100°	30
	150	95°	70	90°	70	90°	70		
	170	90°	100	90°	100				
	200	90°	120						

DESCRIPTION

DESCRIPTION	CODE
RAIDER ONE SMT 24 V electro-mechanical operator including brackets	41024/002
RSK 24SMT - RAIDER ONE SMT CONTROL UNIT Electronic control unit for RAIDER ONE SMT operator without radio receiver	41600/010

DESCRIPTION OF OPTIONAL ACCESSORIES

DESCRIPTION OF OPTIONAL ACCESSORIES	COD
Aluminium cover RAIDER ONE	41024/050
433,92 Mhz radio receiver Memory System	41923/009
TR2 - 433.92 Mhz twin-channel transmitter	41903/002
ER4N - Pair of photocells	41812/001
Kit Antenna 433,92 Mhz for ET2N/ET20N	41929/003
433,92 Mhz antenna	41929/001
PC12E - Key switch for wall mounting	41830/007
CAL - Aluminium column for the ER4N photocells	41812/050
ES3 - Electric lock complete with ground striker plate (for gate leaf longer than 1,8 m up to 3 m) CL series cylinder required	41080/008
CL1 - "DEAD HEAD" single cylinder	41080/005
CL2 - "DEAD HEAD" double cylinder	41080/004
Back up battery	41702/003

IDEAL INSTALLATION

IDEAL INSTALLATION	Max. leaf width	Q.ty	CODE
SET RAIDER ONE SMT	1,8 m*	1	41024/805
The package contains: Two RAIDER ONE SMT operators, RSK 24SMT - Dedicated electronic control unit (without radio receiver), Aprimatic sign plate			
ER4N - Pair of photocells		1	41812/001
Unico 433,92 Mhz Memory System radio receiver complete with antenna		1	41923/009
One TR2 433,92 Mhz twin-channel transmitter		1	41903/002
ET2N - 24V flashing light		1	41840/006

* For leaf longer than 1,8 meters is recommended the use of an electric lock.

NOTE: For control and safety devices and installation accessories, see section "Electronic devices and installation accessories" in this catalogue (consult the index).



RAIDER ONE

Low-voltage, electromechanical operator
for swing gates.
Condominium use.



Complies with the current safety standards as regard to obstacle detection and inversion of movement in accordance with **EN 12453** and **EN12445 (*)**.

Built-in control unit with self-learn programming and possibility of adjusting the parameters by means of a simple and intuitive menu.

The front mounting features uniball type, allows to adjust gate oscillations.
The rear articulated joint allows the adjustment of gate anomalies.

Motor with intelligent encoder to control the limit switch fitted as an optional on systems without floor stops.

The new Gate Manager diagnostics and programming software is used to display and optimise all operator parameter settings during operation.
This is done from a PC fitted with the USB interface card. (Only for Firmware version 1.03 or later).

Emergency power supply, in the event of power failure, guaranteed by two optional emergency batteries.

TECHNICAL DATA

POWER SUPPLY	230 Vac - 50/60 Hz
MOTOR POWER SUPPLY	24 Vdc
MAX. ABSORBED POWER	120 W
ABSORBED CURRENT	5 A
MAX. THRUST FORCE	3000 N
PISTON STROKE	300 mm
90° OPENING TIME	15 sec.
OPERATING TEMPERATURE	-20°C to +70°C
MAX. LEAF WIDTH WITHOUT ELECTRIC LOCK	1,8 m
MAX. LEAF WEIGHT	800 kg (for wing 2 m) 400 kg (for wing 3 m)
ROD EXIT TIME	16 mm/sec.
MAX. NUMBER CYCLES	100 cycles/day
ANTI-CRUSH SAFETY DEVICE	Electronic
PROTECTION CLASS	IP44

(*) Product certified under ideal installation conditions.

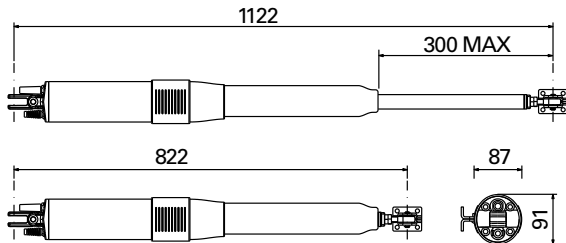
Uniball Bracket



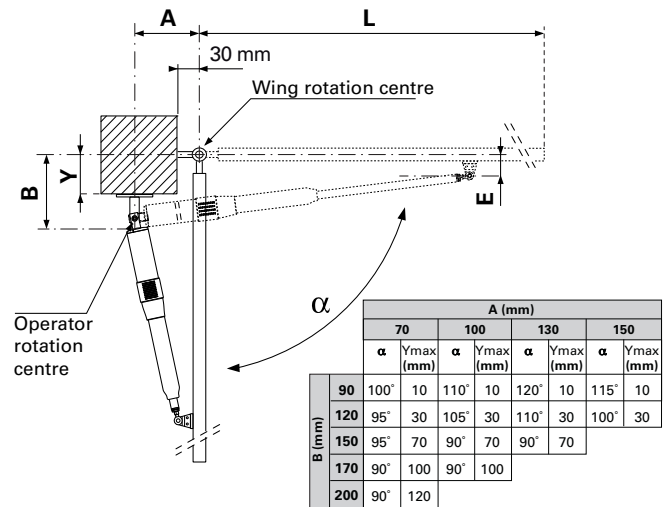


RAIDER ONE

OPERATOR DIMENSIONS



OPERATOR POSITIONING



DESCRIPTION	CODE
RAIDER ONE 24 V electro-mechanical operator including brackets	41024/001
R1 24 - RAIDER ONE CONTROL UNIT Electronic control unit for RAIDER ONE operator without radio receiver	41600/008
6 Wire cable (length 10 m) - needed to connect the operator to the control unit	41024/052

DESCRIPTION OF OPTIONAL ACCESSORIES	CODE
Limit switch kit RAIDER ONE	41024/051
Alluminium cover	41024/050
433,92 Mhz radio receiver Memory System	41923/009
TR2 - 433.92 Mhz twin-channel transmitter	41903/002
ER4N - Pair of photocells	41812/001
Kit Antenna 433,92 Mhz for ET2N/ET20N	41929/003
PC12E - Key switch for wall mounting	41830/007
CAL - Aluminium column for the ER4N photocells	41812/050
ES3 - Electric lock complete with ground striker plate (for gate leaf longer than 1,8 m up to 3 m) CL series cylinder required	41080/008
CL1 - "DEAD HEAD" single cylinder	41080/005
CL2 - "DEAD HEAD" double cylinder	41080/004
Back up battery	41024/053
Interface card for software GATE MANAGER	41024/055

IDEAL INSTALLATION	Max. leaf width	Q.ty	CODE
SET RAIDER ONE INT	1,8 m*	1	41024/806
The package contains: Two RAIDER ONE operators, R1 24 - Dedicated electronic control unit (without radio receiver), Aprimatic sign plate			
6 Wire cable		1	41024/052
ER4N - Pair of photocells		1	41812/001
Unico 433,92 Mhz Memory System radio receiver complete with antenna		1	41923/009
TR2 - 433,92 Mhz twin-channel transmitter		1	41903/002
ET2N - 24 V flashing light		1	41840/006
* For leaf longer than 1,8 meters is recommended the use of an electric lock.			

NOTE: For control and safety devices and installation accessories, see section "Electronic devices and installation accessories" in this catalogue (consult the index).



SKIPPER

Low-voltage, electro-mechanical operator with articulated arm for swing gates. Residential use. Ideal for large pillars.



Complies with the current safety standards as regard to obstacle detection and inversion of movement in accordance with **EN 12453** and **EN12445 (*)**.

Built-in control unit with self-learning programming and possibility of adjusting the parameters by means of a simple and intuitive menu.

Articulated arm fitted with mechanical limit switch to adjust the stroke and prevent the positioning in negative angle. The operators are equipped with mechanical limit-switches to adjust the stroke.

Emergency release positioned on the side of the operator. It can be remotized to allow the release from the outside.

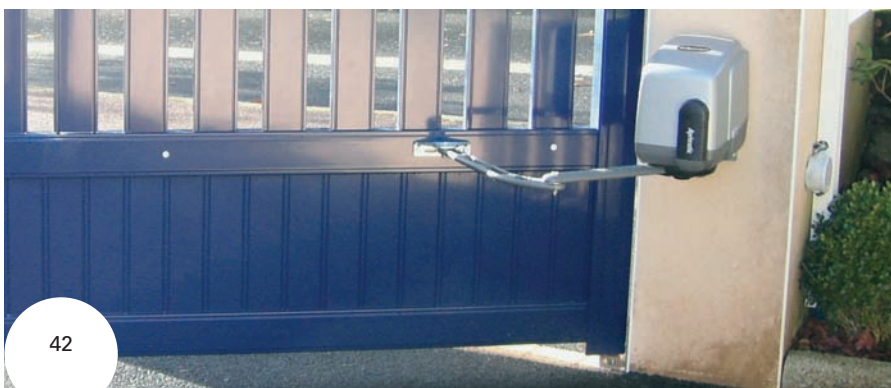
Emergency power supply, in the event of power failure, guaranteed by two optional emergency batteries.

It operates gates having a max leaf length of 3 m (with electric lock).

TECHNICAL DATA

POWER SUPPLY	230 Vac - 50/60 Hz
MOTOR POWER SUPPLY	24 Vdc
ABSORBED POWER	70 W max. each motor
ABSORBED CURRENT	4 A max. each motor
MAX. THRUST TORQUE	150 Nm
OPERATING TEMPERATURE	-20°C to +70°C
MAX. LEAF LENGTH	2,3 m (without electric lock) 3,0 m (with electric lock)
IRREVERSIBLE	Yes
NUMBER OF DAILY CYCLES	80 max.
MAX. LEAF OPENING ANGLE	120°
PROTECTION CLASS	IP44

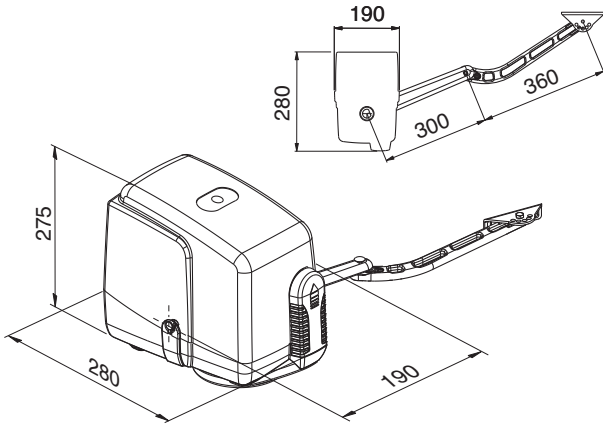
(*) Product certified under ideal installation conditions.



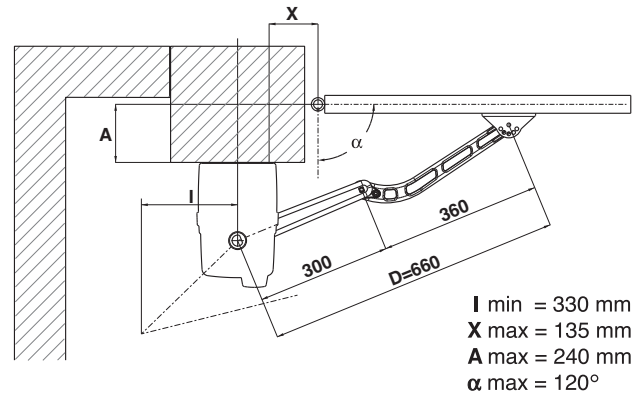


SKIPPER

OPERATOR DIMENSIONS



OPERATOR POSITIONING



DESCRIPTION	Max. leaf width	CODE
SKIPPER Electromechanical operator with articulated arm and built-in control unit and radio receiver	2,3 m (without electric lock)* 3,0 m (with electric lock)	41022/001
SKIPPER SLAVE Electromechanical operator with articulated arm	2,3 m (without electric lock)* 3,0 m (with electric lock)	41022/002

* For leaf longer than 2,3 meters is recommended the use of an electric lock.

DESCRIPTION OF OPTIONAL ACCESSORIES	CODE
Long Lever (ideal for large pillars)	41022/050
TR2 - 433.92 Mhz twin-channel transmitter	41903/002
ER4N - Pair of photocells	41812/001
CAL - Aluminium column for the ER4N photocells	41812/050
433,92 Mhz antenna	41929/001
ES3 - Electric lock complete with ground striker plate for gate leaf longer than 1,8 m up to 3 m) CL series cylinder required	41080/008
CL1 - "DEAD HEAD" single cylinder	41080/005
CL2 - "DEAD HEAD" double cylinder	41080/004
CS - External strongbox	41704/002
CSP - Wall - mounted external strongbox	41704/004
Back up battery	41702/003

IDEAL INSTALLATION	Q.ty	CODE
SKIPPER - Electromechanical operator with articulated arm and built-in control unit	1	41022/001
SKIPPER SLAVE - Electromechanical operator with articulated arm	1	41022/002
ER4N - Pair of photocells	1	41812/001
PC12E - Key switch for wall mounting	1	41830/007
TR2 - 433,92 Mhz twin-channel transmitter	1	41903/002
ET2N - 24V flashing light	1	41840/006

NOTE: For control and safety devices and installation accessories, see section "Electronic devices and installation accessories" in this catalogue (consult the index).



FLEXI 300

Low-voltage, electro-mechanical operator with articulated arm for swing gates. Residential use. Ideal for large pillars.



Built-in control unit with self-learning programming and possibility of adjusting the parameters by means of a simple and intuitive menu.

Articulated arm fitted with mechanical limit switch to adjust the stroke and prevent the positioning in negative angle. The operators are equipped with mechanical limit-switches to adjust the stroke. Emergency manual release at the front.

Emergency power supply, in the event of power failure, guaranteed by two optional emergency batteries.

It operates gates having a max leaf length of 3 m (without electric lock).

TECHNICAL DATA

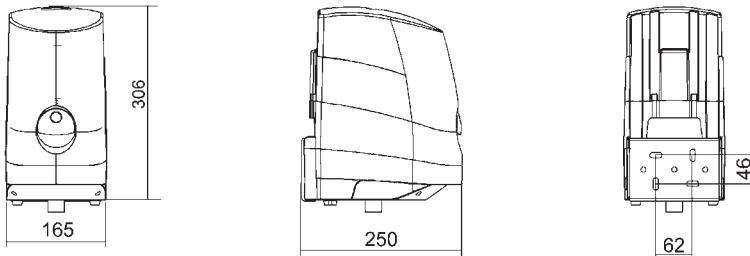
POWER SUPPLY	230 Vac - 50/60 Hz
MOTOR POWER SUPPLY	24 Vdc
ABSORBED POWER	45 W max. each motor
ABSORBED CURRENT	1,87 A max. each motor
MAX. THRUST TORQUE	170 Nm
OPERATING TEMPERATURE	-20°C to +55°C
MAX. LEAF WEIGHT	300 kg
MAX. LEAF LENGTH	3 m
MAX. LEAF OPENING ANGLE	120°
ANTI-CRUSH SAFETY DEVICES	Electronic
PROTECTION CLASS	IP44



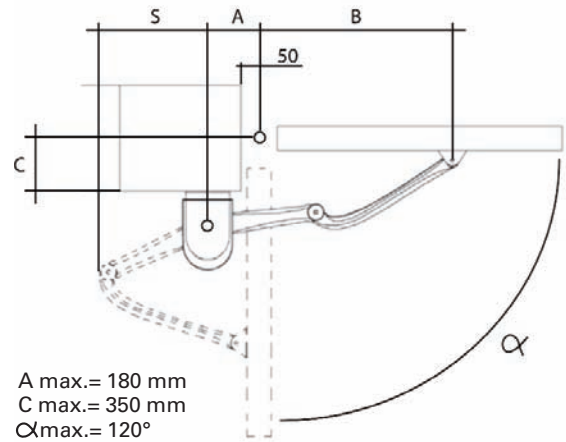


FLEXI 300

OPERATOR DIMENSIONS



OPERATOR POSITIONING



DESCRIPTION

FLEXI 300
Electromechanical operator with built-in control unit and radio receiver 433,92 Mhz

Max. leaf width

3 m*

CODE

41029/001

Arm FLEXI - Articulated arm

41029/054

* For leaf longer than 3 meters is recommended the use of an electric lock.

DESCRIPTION OF OPTIONAL ACCESSORIES

CODE

FLEXI limit stop kit

41029/050

TR2 - 433.92 Mhz twin-channel transmitter

41903/002

TR4 - 433.92 Mhz four-channel transmitter

41903/004

ER412N - Pair of photocells (12V)

41812/007

ET2N - 24V Led flashing light

41840/006

Electric lock for gate leaf longer than 3 m:

ES3 - Electric lock complete with ground striker plate (CL series cylinder required)

41080/008

CL1 - "DEAD HEAD" single cylinder

41080/005

CL2 - "DEAD HEAD" double cylinder

41080/004

CS - External strongbox

41704/002

CSP - Wall - mounted external strongbox

41704/004

FLEXI batteries

41029/051

FLEXI battery charge board

41029/052

DOUBLE LEAF - IDEAL INSTALLATION (max. leaf width 3 m)*

Q.ty

CODE

KIT FLEXI 300 -The package contain:

41029/800

FLEXI 300 - Electromechanical operator with built-in control unit, radio receiver 433,92 Mhz and two Flexi arms (one operator Flexi Master and one operator Flexi Slave)

2

TR2 - 433.92 Mhz twin-channel transmitter

1

ER412N - Pair of photocells (12V)

1

ANT433 - 433,92 Mhz antenna with 4,5 m coaxial cable and earth connection

1

ET2N - 24V led flashing light

1

PC12E - Key switch for wall mounting

1

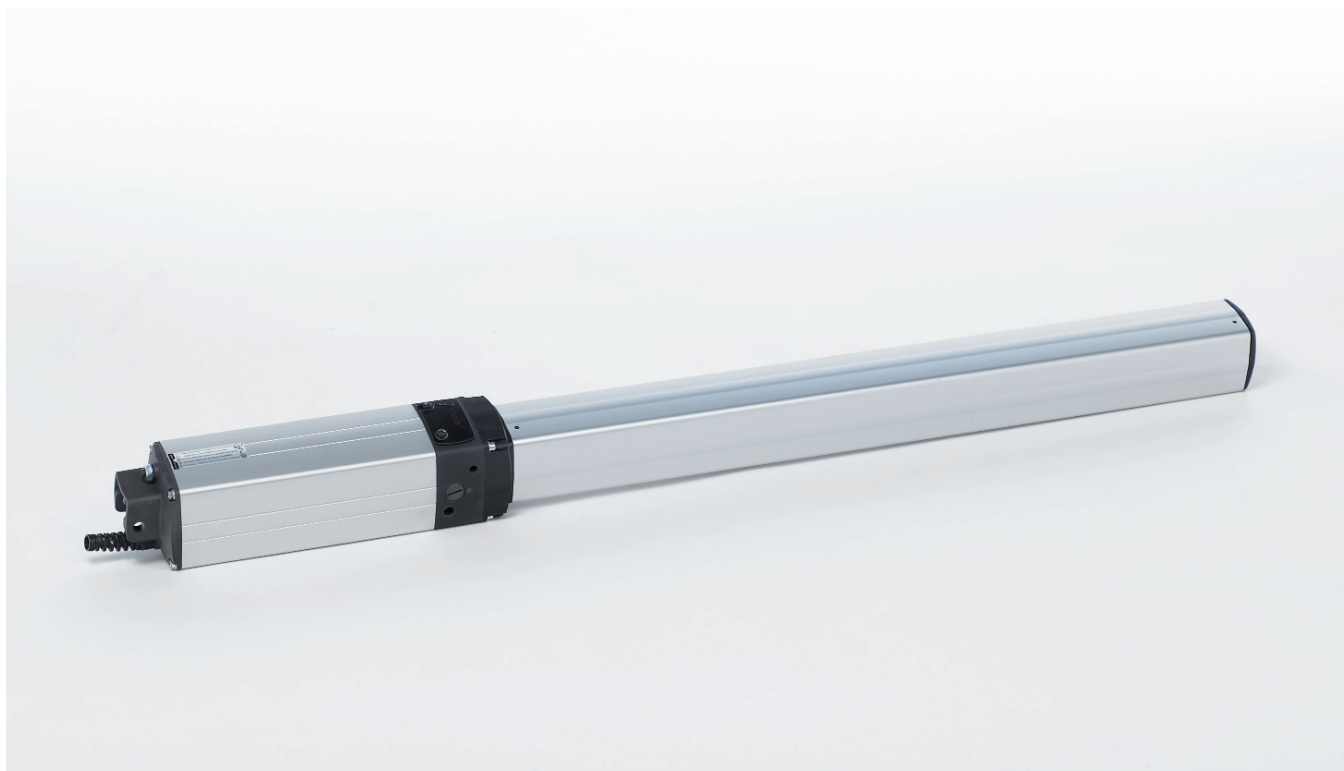
* For leaf longer than 3 meters is recommended the use of an electric lock.

NOTE: For control and safety devices and installation accessories, see section "Electronic devices and installation accessories" in this catalogue (consult the index).



ZT 4

Hydraulic operator for swing gates.
Residential and condominium use.



Versions available:

ZT 4 SF - without lock for leaf length up to 3 m.

ZT B - with lock in opening/closing position for leaf length up to 1,8 m.

Suitable for residential and condominium use with leaf length up to 3 m. Maximum reliability thanks to the sturdiness of the operator.

Anti-crush system with very sensitive bypass valves calibrated during installation. This immediately cuts the hydraulic pressure in the event of obstacles to ensure maximum system safety.

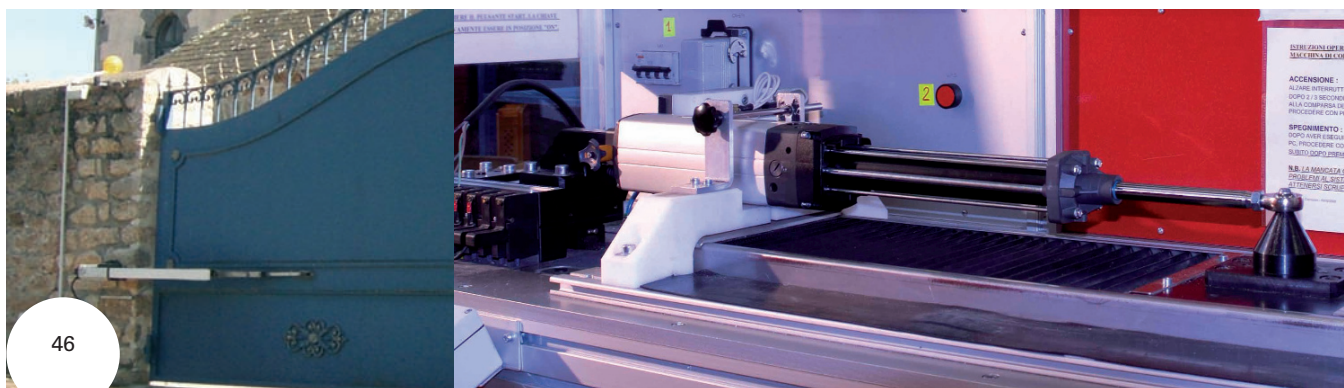
Front and rear mountings to enable screw assembly also on wood, PVC and aluminium gates.

The articulated fork rear flange ensures flexible and sturdy assembly on the pillar.

Manual key release located on the upper part of the operator in the event of mains power supply failure.

The neoprene power supply cable is specifically suited to mobile applications in outdoor environments.

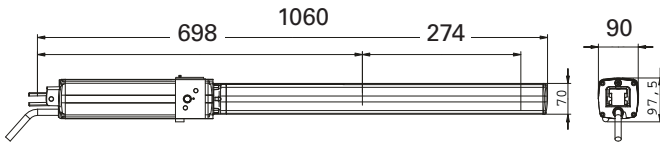
TECHNICAL DATA	ZT 4 B	ZT 4 SF
POWER SUPPLY	230 V - 50 Hz	230 V - 50 Hz
ABSORBED POWER	250 W	250 W
MAX. THRUST FORCE	3850 N	3850 N
ROD ENTRY TIME	17 sec.	17 sec.
ROD EXIT TIME	20 sec.	20 sec.
OPERATING TEMPERATURE	-20°C to +70°C	-20°C to +70°C
MAX. WING WIDTH	1,8 m	3 m (with electro lock)
STANDARD MAX. ROD STROKE	275 mm	275 mm
NUMBER OF CYCLES	200 cycles/day	200 cycles/day
KEY RELEASE	YES	YES
ANTI-CRUSH SYSTEM	YES	YES
OVERLOAD TEMPERATURE	120° C	120° C
PROTECTION CLASS	IP55	IP55



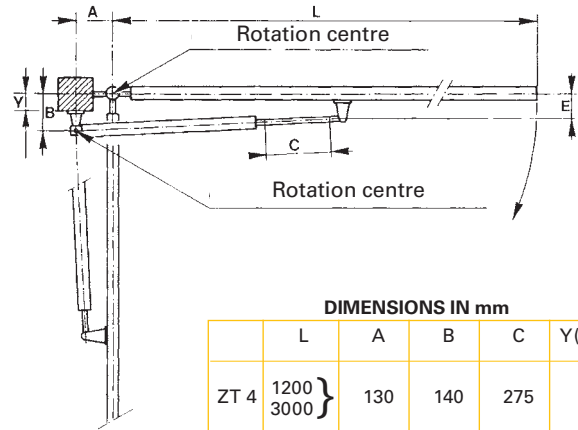


ZT 4

OPERATOR DIMENSIONS



OPERATOR POSITIONING



DIMENSIONS IN mm

	L	A	B	C	Y(max)
ZT 4	1200 3000	130	140	275	80

DESCRIPTION	Max. leaf width	CODE
ZT 4 B Hydraulic operator with lock in opening/closing position, electric lock NOT required	1.8 m	41006/001
ZT 4 SF Hydraulic operator without lock, electric lock required	3.0 m	41006/003
SET ZT 4 B Set composed of: two hydraulic ZT 4 B operators with hydraulic lock in opening/closing position, one T1E electronic control unit	1.8 m	41006/805

DESCRIPTION OF OPTIONAL ACCESSORIES	CODE
Swing 230 - Electronic control unit with 433,92 Mhz radio receiver	41606/001
433,92 Mhz radioreceiver Memory System	41923/009
TR2 - 433.92 Mhz twin-channel transmitter	41903/002
ER4N - Pair of photocells	41812/001
PC12E - Key switch for wall mounting	41830/007
CAL - Aluminium column for the ER4N photocells	41812/050
433,92 Mhz antenna	41929/001
ES3 - Electric lock complete with ground striker plate (for gate leaf longer than 1,8 m up to 3 m) CL series cylinder required	41080/008
CL1 - "DEAD HEAD" single cylinder	41080/005
CL2 - "DEAD HEAD" double cylinder	41080/004

IDEAL INSTALLATION	Q.ty	CODE
SET ZT 4 B	1	41006/805
Set composed of: two hydraulic ZT 4 B operators with hydraulic lock in opening/closing position, one T1E electronic control unit		
ER4N - Pair of photocells	1	41812/001
One TR2 - 433,92 Mhz twin-channel transmitter	1	41903/002
Unico 433,92 Mhz Memory System radio receiver complete with antenna	1	41923/009
ET20N - 230 V flashing light	1	41841/009

NOTE: For control and safety devices and installation accessories, see section "Electronic devices and installation accessories" in this catalogue (consult the index).



ZT 44 RF - ZT 42

Hydraulic operator for swing gates,
with flow adjustment (RF).
Residential, condominium and intensive use.



Double valve flow adjustment device for regulating gate opening and closing speed. Compensates for the unbalanced loads created by wind and out of plumb installation of very light and medium heavy gates.

The hydraulic slowdown system for gate closure can be adjusted during installation to ensure gradual and silent leaf approach and to prevent structural stress.

The anti-crush system with ultra-sensitive bypass valves can be calibrated during installation to limit hydraulic pressure if the gate meets an obstacle, thus ensuring maximum operating safety.

The emergency release system ensures good burglary protection thanks to a personalised key. The system is protected by the top cover and does not spoil the operator's attractive lines.

The rear flange with articulated aluminium fork permits flexible but sturdy assembly on the pillar.

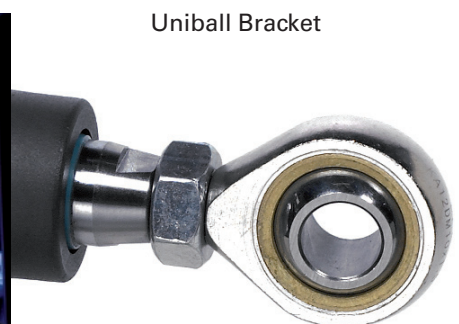
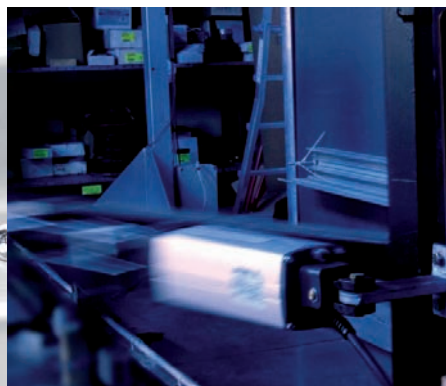
The front mounting features a uniball type ball joint. Its threaded bolt can be used to adjust gate or installation flaws.

The neoprene power supply cable is specially designed for mobile, outdoor installations.

Unique on the market
with flow adjustment device.

TECHNICAL DATA	ZT 42	ZT 44
POWER SUPPLY	230 V - 50 Hz	230 V - 50 Hz
ABSORBED POWER	250 W	250 W
MAX. THRUST FORCE	3850 N	3850 N
VERSIONS	B - SR	B - C - SF RF DS
FLOW ADJUSTMENT	NO	YES
CLOSING SLOWDOWN	YES	YES
CLOSING AND OPENING SLOWDOWN	NO	SF RF DS
OPENING TIME*	13 sec.	20 sec.
OPERATING TEMPERATURE	-20°C to +70°C	-20°C to +70°C
MAX. LEAF WIDTH	1,2 m	4 m
ROD STROKE	190 mm	275 mm
WEIGHT	7,5 kg	8 kg
MAX. CYCLES	800 cycles/day	800 cycles/day
ANTI-CRUSH SYSTEM	Bypass valves	Bypass valves
PROTECTION CLASS	IP55	IP55

*Regulation of the flow adjustment valves can extend opening time.

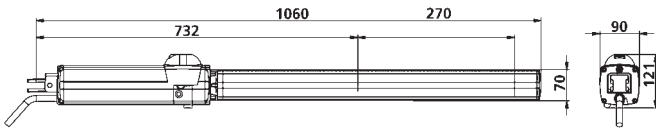


Uniball Bracket

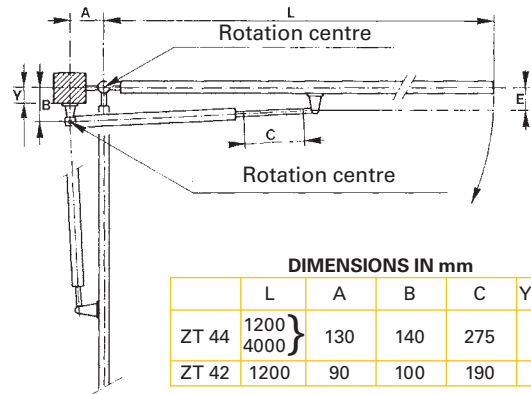


ZT 44 RF - ZT 42

OPERATOR DIMENSIONS



OPERATOR POSITIONING



DIMENSIONS IN mm					
	L	A	B	C	Y (max)
ZT 44	1200 4000	130	140	275	90
ZT 42	1200				

DESCRIPTION	Max. leaf width	CODE
ZT 44 C RF - With flow adjustment valves Hydraulic operator with lock in closed position	1,8 m	41009/005
ZT 44 SF RF DS - With flow adjustment valves Hydraulic operator without lock and with double slowdown	4,0 m	41009/009
ZT 44 B RF - With flow adjustment valves Hydraulic operator with lock in open and closed position	1,8 m	41009/007
ZT 42 B (pedestrian gates) Hydraulic operator with lock in open and closed position	from 0,8 m to 1,2 m	41008/001
ZT 42 SR (pedestrian gates) Hydraulic operator without lock	from 0,8 m	41008/002

NOTE: All operators are equipped with adjustable hydraulic slowdown on closing and a personalised key release system.

DESCRIPTION OF OPTIONAL ACCESSORIES	CODE
Swing 230 - Electronic control unit with 433,92 Mhz radio receiver	41606/001
TR2 - 433.92 Mhz twin-channel transmitter	41903/002
ER4N - Pair of photocells	41812/001
CAL - Aluminium post for ER4N photocell	41812/050
433,92 Mhz antenna	41929/001
Electric lock (for gates with wings longer than 1.8 m): ES3 - Electric lock complete with ground striker plate (for gate leaf longer than 1,8 m up to 3 m) CL series cylinder required	41080/008
CL1 - "DEAD HEAD" single cylinder	41080/005
CL2 - "DEAD HEAD" double cylinder	41080/004

IDEAL INSTALLATION	Max. leaf length	Q.ty	CODE
SET "INT" ZT 44 4M C RF	1,8 m*	1	41009/800
SET "INT" ZT 44 B RF	1,8 m*	or 1	41009/805
SET "INT" ZT 44 4M SF RF (electric lock required)	4,0 m	or 1	41009/801
Every package includes: Two ZT 44 operators, two covers, emergency release key T1E - Electronic control unit			
TR2 - 433.92 Mhz twin-channel transmitter		1	41903/002
Unico 433,92 Mhz Memory System radio receiver complete with antenna		1	41923/009
ET20N - 230 V flashing light		1	41841/009
ER4N - Pair of photocells		1	41812/001
PC12E - Key switch for wall mounting		1	41830/007

* For leaf longer than 1,8 meters is recommended the use of an electric lock.

NOTE: For control and safety devices and installation accessories, see section "Electronic devices and installation accessories" in this catalogue (consult the index).



ZT 40 RF

Hydraulic operator for swing gates,
with flow adjustment (RF).
Intensive and continuous use.



Double valve flow adjustment device for regulating gate opening and closing speed. Compensates for the unbalanced loads created by wind and out of plumb installation of very light and medium heavy gates.

The hydraulic slowdown system for gate closure can be adjusted during installation to ensure gradual and silent gate approach and to prevent structural stress.

The anti-crush system with ultra-sensitive bypass valves can be calibrated during installation to limit hydraulic pressure if the gate meets an obstacle, thus ensuring maximum operating safety.

The emergency release system ensures good burglary protection thanks to a personalised key. The system is protected by the top cover and does not spoil the operator's attractive lines.

The rear flange with articulated aluminium fork permits flexible but sturdy assembly on the pillar.

The front mounting features a uniball type ball joint. A 20 mm screw should be used to adjust any out of plumb installation.

The neoprene power supply cable is specially designed for mobile, outdoor installations.

Unique on the market
with flow adjustment device.

TECHNICAL DATA	ZT 40 4 M	ZT 40 7 M
POWER SUPPLY	230 V - 50/60 Hz	230 V - 50/60 Hz
ABSORBED POWER	250 W	250 W
MAX. THRUST FORCE	5650 N	5650 N
VERSIONS	B - C - SF RF DS	B - C - SF RF DS
FLOW ADJUSTMENT	YES	YES
CLOSING SLOWDOWN	YES	YES
CLOSING AND OPENING SLOWDOWN	SF RF DS	SF RF DS
OPENING TIME*	17 sec.	26 sec.
OPERATING TEMPERATURE	-20°C to +70°C	-20°C to +70°C
MAX. LEAF WIDTH	4 m	7 m
ROD STROKE	275 mm	390 mm
WEIGHT	10 kg	11 kg
MAX. CYCLES	1000 cycles/day	800 cycles/day
ANTI-CRUSH SYSTEM	Bypass valves	Bypass valves
PROTECTION CLASS	IP55	IP55

* Regulation of the flow adjustment valves can extend opening time.



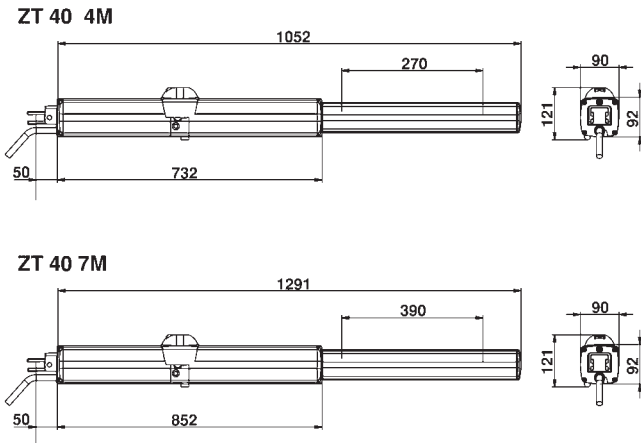
Uniball Bracket



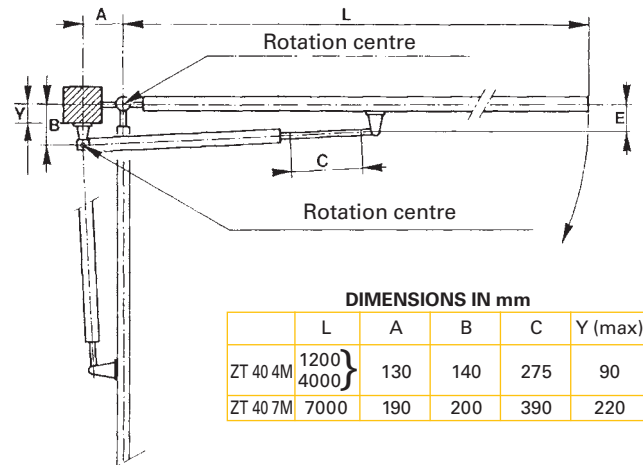


ZT 40 RF

OPERATOR DIMENSIONS



OPERATOR POSITIONING



DIMENSIONS IN mm					
	L	A	B	C	Y (max)
ZT 40 4M	1200	130	140	275	90
ZT 40 7M	7000				

DESCRIPTION	Max. leaf width	CODE
ZT 40 4M C RF - With flow adjustment valves Hydraulic operator with lock in closed position	2,0 m	41007/009
ZT 40 4M SF RF DS - With flow adjustment valves Hydraulic operator without lock	4,0 m	41007/020
ZT 40 4M B RF - With flow adjustment valves Hydraulic operator with lock in open and closed position	2,0 m	41007/016
ZT 40 7M C RF - With flow adjustment valves Hydraulic operator with lock in closed position	2,0 m	41007/012
ZT 40 7M SF RF DS - With flow adjustment valves Hydraulic operator without lock	7,0 m	41007/022
ZT 40 7M B RF - With flow adjustment valves Hydraulic operator with lock in open and closed position	2,0 m	41007/018

All operators are equipped with adjustable hydraulic slowdown on closing and a personalised key release system.
NOTE: it is possible to use the operator ZT40 B-C even on leaves larger than 2,0 m associated with an electric lock.

DESCRIPTION OF OPTIONAL ACCESSORIES	CODE
TR2 - 433.92 Mhz twin-channel transmitter	41903/002
ER4N - Pair of photocells	41812/001
CAL - Aluminium post for ER4N photocell	41812/050
433,92 Mhz antenna	41929/001
Electric lock (for gates with wings longer than 1,8 m): ES3 - Electric lock complete with ground striker plate (for gate leaf longer than 1,8 m up to 3 m) CL series cylinder required	41080/008
CL1 - "DEAD HEAD" single cylinder	41080/005
CL2 - "DEAD HEAD" double cylinder	41080/004

IDEAL INSTALLATION	Q.ty	CODE
ZT 40 4M B RF hydraulic ZT 40 4M B RF operators with lock in open/closed position, electric lock NOT required (max. wing lenght 2,0 m)	2	41007/016
Swing 230 - Electronic control unit with 433,92 Mhz radio receiver		41606/001
ER4N - Pair of photocells	1	41812/001
TR2 433,92 Mhz twin-channel transmitter	1	41903/002
Unico 433,92 Mhz memory System radio receiver complete with antenna	1	41923/009
ET20N - 230 V flashing light	1	41841/009
PC12E - Key switch for wall mounting	1	41830/007

NOTE: For control and safety devices and installation accessories, see section "Electronic devices and installation accessories" in this catalogue (consult the index).



BUNKER

Low-voltage electro-mechanical underground operator for swing gates.
Residential use.



The automation is located underground and therefore does not affect the look of the gate.

Maximum safety thanks to the 24 V power supply.

Anti-crush safety provided by the electronic control unit Bunker 300.

Self-supporting box in die-cast technopolymer fitted with watertight aluminium cover.
Lever system with anti-corrosion galvanic treatment.

BUNKER allows for the gate opening at 110°, if assembled decentralized, and at 180° if aligned with the gate hinges.

Slowdown system supplied as a standard and operated by the control unit.

For a safer operation, BUNKER is fitted with a release device positioned on the gate fixing lever.
Self-supporting aluminium box housing the Bunker control unit.

TECHNICAL DATA

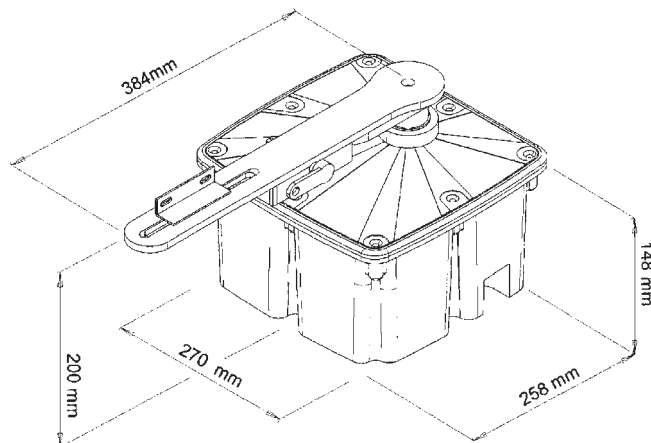
POWER SUPPLY	230 V - 50/60 Hz
MOTOR POWER SUPPLY	24 Vdc
ABSORBED POWER	250 W
ABSORBED CURRENT	10 A
MAX. THRUST FORCE	300 N
OPERATING TEMPERATURE	-20°C to +70°C
WING OPENING ANGLE	110° - 180°
110° OPENING TIME	20 sec.
SLOWDOWN	Yes
MAX. LEAF WIDTH	1,8 m (without electric lock, max. leaf weight 400 kg) 2,5 m (with electric lock, max. leaf weight 200 kg)
PROTECTION CLASS	IP67





BUNKER

OPERATOR DIMENSIONS



DESCRIPTION	Max. leaf width	CODE
BUNKER Irreversible, underground 24 V electro-mechanical operator	1,8 m (max. leaf weight 400 kg)	41061/001
Aluminium box for housing Bunker	2,5 m (max. leaf weight 200 kg)	41061/050

DESCRIPTION OF OPTIONAL ACCESSORIES	CODE
BUNKER 300 - Control unit with 433,92 Mhz radio receiver	41600/021
TR2 - 433.92 Mhz twin-channel transmitter	41903/002
TR4 - 433.92 Mhz four-channel transmitter	41903/004
ER4N - Pair of photocells	41812/001
CAL - Aluminium column for the ER4N photocells	41812/050
Kit Antenna to fixing on body flashing lamp	41929/003
ET2N - 24 V led flashing lamp	41840/006
PC12E - Key switch for wall mounting	41830/007
ES3 - Electric lock complete with ground striker plate (for gate leaf longer than 1,8 m up to 3 m) CL series cylinder required	41080/008
CL1 - "DEAD HEAD" single cylinder	41080/005
CL2 - "DEAD HEAD" double cylinder	41080/004

DOUBLE WING - IDEAL INSTALLATION*	Q.ty	CODE
Operators BUNKER	2	41061/001
Two aluminium box for housing Bunker	2	41061/050
BUNKER 300 - Control unit with 433,92 Mhz radio receiver	2	41600/021
ER4N - Pair of photocells	1	41812/001
TR2 - 433.92 Mhz twin-channel transmitt	1	41903/002
ANT433 - 433,92 Mhz Antenna	1	41929/001
ET2N - 24 V led flashing lamp	1	41840/006
PC12E - Key switch for wall mounting	1	41830/007

* For leaf longer than 1,8 meters is recommended the use of an electric lock.

NOTE: For control and safety devices and installation accessories, see section "Electronic devices and installation accessories" in this catalogue (consult the index).



EM 73N

Low-voltage electro-mechanical underground operator for swing gates.
Residential use.



The automation is located underground and therefore does not affect the look of the gate.

Maximum safety thanks to the 24 V power supply.

Anti-crush safety ensured by simple adjustment of the T4 POWER electronic control unit.

Self-supporting sheet metal container coated in cataphoresis with galvanised base and upper cover housing all drive components consisting of a 24 V motor and a set of galvanised rust-proof levers to enable gate opening at 110°.

EM 73N can be fitted with a separate lever system to enable opening at 140° or a chain pinion system for opening at 180°.

The optional slowdown system for EM 73N enables rapid leaf movement during the operation and slow approach during opening and closing to prevent rebound and noise.

The manual lock for the SB73 emergency release system is available as an optional.

This is a lock with a personalised key to prevent actuation of the leaf emergency release pedal.

The lock can be operated from inside and outside the gate.

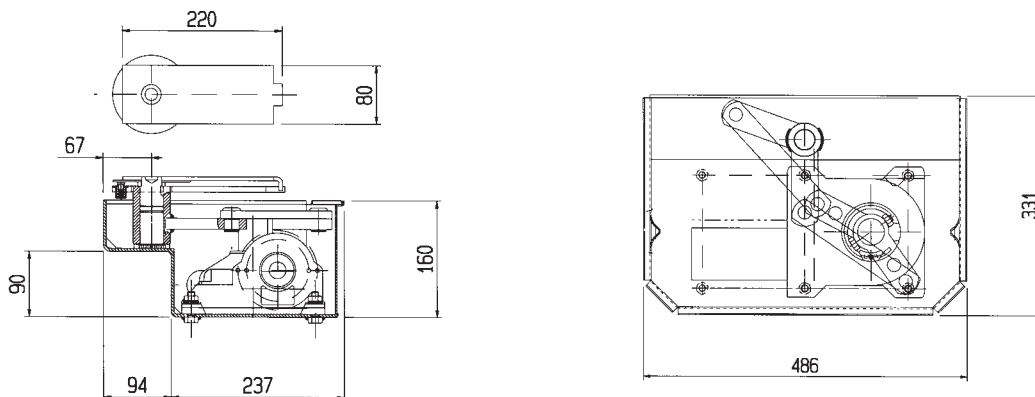
TECHNICAL DATA	
POWER SUPPLY	230 V - 50/60 Hz
MOTOR POWER SUPPLY	24 Vdc
ABSORBED POWER	200 W
ABSORBED CURRENT	10 A
MAX. THRUST FORCE	280 N
OPERATING TEMPERATURE	-20°C to +70°C
WING OPENING ANGLE	110°, 140°, 180°
110° OPENING TIME	20 sec.
SLOWDOWN	Optional
MAX. LEAF WIDTH	1,8 m (without electric lock, max. leaf weight 400 kg) 3,5 m (with electric lock, max. leaf weight 200 kg)
PROTECTION CLASS	IP67





EM 73N

OPERATOR DIMENSIONS



DESCRIPTION	Max. leaf width	CODE
EM 73N Irreversible, underground 24 V electro-mechanical operator	1,8 m (without electric lock, max. leaf weight 400 kg) 3,5 m (with electric lock, max. leaf weight 200 kg)	41060/001
CIA 173 - Underground self-supporting boxes		41060/051

DESCRIPTION OF OPTIONAL ACCESSORIES	CODE
SCB - Buffer battery recharging card. To recharge batteries up to 4.5 A, for use with T4PRO and T4POWER unit	41020/054
TR2 - 433.92 Mhz twin-channel transmitter	41903/002
ER4N - Pair of photocells	41812/001
PC12E - Key switch for wall mounting	41830/007
CAL - Aluminium column for the ER4N photocells	41812/050
433.92 Mhz antenna	41929/001
SB73 - Release lock	41060/052
Slowdown kit for 1st leaf	41060/055
Slowdown kit for 2nd leaf	41060/056
Lever unit for opening up to 140°	41060/053
Chain unit for opening up to 180°	41060/054
Gate leaf support	41060/050
ES3 - Electric lock complete with ground striker plate (for gate leaf longer than 1,8 m up to 3 m) CL series cylinder required	41080/008
CL1 - "DEAD HEAD" single cylinder	41080/005
CL2 - "DEAD HEAD" double cylinder	41080/004

NOTE: On two-leaf gates, the slowdown function requires 1 slowdown kit for 1st leaf and 1 slowdown kit for 2nd leaf if the T4POWER electronic control unit is used or 2 slowdown kits for 2nd leaf if the T4PRO electronic control unit is used.
On single-leaf gates, the slowdown function requires 1 slowdown kit for 1st leaf if the T4POWER electronic control unit is used or 1 slowdown kit for 2nd leaf if the T4PRO electronic control unit is used.

IDEAL INSTALLATION	Q.ty	CODE
EM 73N irreversible underground 24 V electro-mechanical operators	2	41060/001
400 kg underground self-supporting boxes CIA 173	2	41060/051
SB73 - Release lock	2	41060/052
T4 POWER - Electronic control unit	1	41600/001
ER4N - Pair of photocells	1	41812/001
Unico 433.92 Mhz Memory System radio receiver complete with antenna	1	41923/009
TR2 - 433.92 Mhz twin-channel transmitters	1	41903/002
ET2N - 24 V flashing light	1	41840/006

NOTE: For control and safety devices and installation accessories, see section "Electronic devices and installation accessories" in this catalogue (consult the index).



ZT 70

Underground hydraulic operator for swing gates.
Residential and condominium use.



Very low noise levels thanks to the hydraulic brake to slowdown the gate during opening and closing thus preventing rebound and noisy impact.

The automation is located underground and therefore does not affect the look of the gate.

Anti-crush system with very sensitive bypass valves calibrated during installation. This immediately cuts the hydraulic pressure in the event of obstacles to ensure maximum system safety.

The system envisages an easy-maintenance self-supporting box.

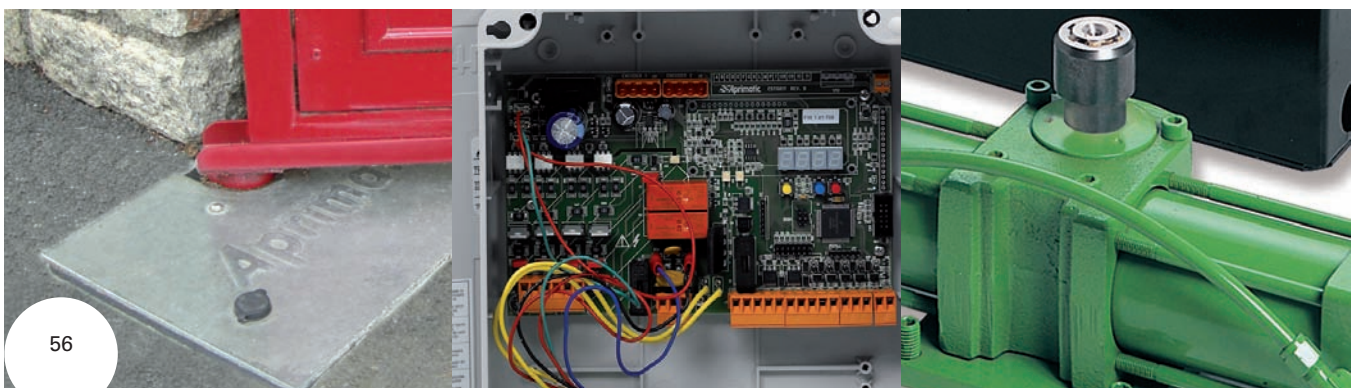
The jack is accessed by removing the stainless steel cover without having to remove the gate leaf.

An easy-to-use manual release device ensures gate functioning in the event of a mains power supply.

CONTROL UNIT ZT 70	B5	SF5*
SINGLE-PHASE POWER SUPPLY	230 V - 50/60 Hz	
ABSORBED POWER	250 W	250 W
OPERATING TEMPERATURE	-20°C to +70°C	
MAX. LEAF WIDTH (m)	2,0	4,0
PUMP CAPACITY (Lt/min)	0,75	0,75
MAX. OPERATING PRESSURE	40 Bar	40 Bar
OIL QUANTITY	1 Lt	1 Lt
OIL TYPE	AprimOil HC 13	
WEIGHT WITH OIL	5 kg	5 kg
PROTECTION RATING	IP54	IP54

* Model listed in the final pages of this section "Other items".

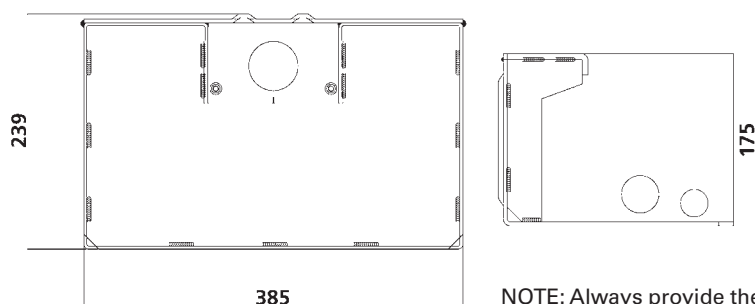
HYDRAULIC JACK	AT 175N	AT 176N
MAX. OPERATING ANGLE	110°	200°
ANGULAR PUMP SPEED FROM 0,6 Lt/min.	6°/s	6°/s
ANGULAR PUMP SPEED FROM 0,75 Lt/min.	7°/s	7°/s
MAX. THRUST FORCE	410 Nm	410 Nm
MAX. LEAF WEIGHT	800 kg	800 kg
MAX. WEIGHT WITH OIL	1 Lt	1,2 Lt
OIL TYPE	AprimOil HC 13	AprimOil HC 13
OIL QUANTITY	12 kg	13 kg
PROTECTION CLASS	IP67	IP67





ZT 70

DIMENSIONS CIA 170 (underground box)



NOTE: Always provide the drain system

DESCRIPTION	Max. leaf width	CODE
ZT 70B5 Hydraulic power unit complete with metal box, twin hydraulic lock: opening and closing, electric lock NOT required	2,0 m	41055/003
ZT 70SF5 Hydraulic power unit complete with metal box, NO hydraulic lock, electric lock required	4,0 m	41055/001
AT 175N single Single hydraulic jack for use with self-supporting box, adjustable slowdown during opening and closing, stainless steel lifting screws	Max. leaf opening 110°	41050/003
AT 176N single Single hydraulic jack for use with self-supporting box, adjustable slowdown during opening and closing, stainless steel lifting screws	Max. leaf opening 200°	41051/002
CIA 170 Self-supporting box for use with single jack, complete with support, sintered bush and splined bush, stainless steel lid and locking plate for jack	Max. leaf weight 800 kg	41005/050

DESCRIPTION OF OPTIONAL ACCESSORIES	CODE
TR2 - 433.92 Mhz twin-channel transmitter	41903/002
ER2N - Pair of photocells	41811/001
PC12E - Key switch for wall mounting	41830/007
CAL - Aluminium column for the ER4N photocells	41812/050
ES3 - Electric lock complete with ground striker plate (for gate leaf longer than 1,8 m up to 3 m) CL series cylinder required	41080/008
CL1 - "DEAD HEAD" single cylinder	41080/005
CL2 - "DEAD HEAD" double cylinder	41080/004
Aprimoil HC13 (1 litre bottle)	41700/013
TRA - Copper pipe diam. 8x1 mm	41056/056

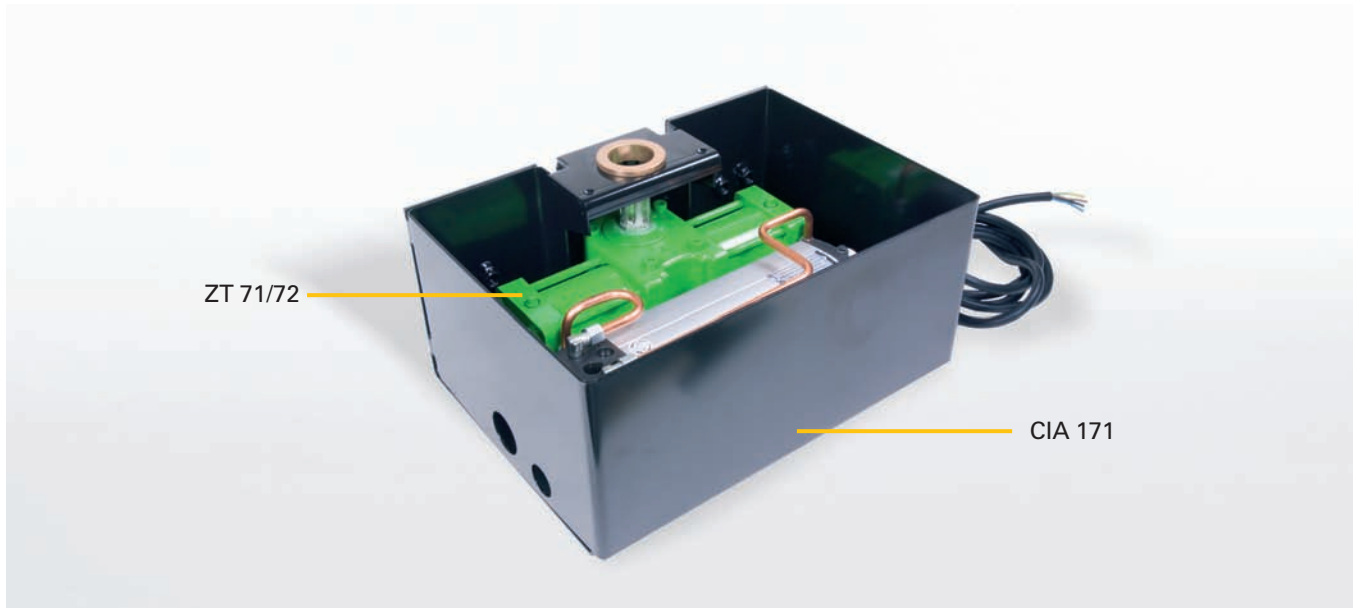
IDEAL INSTALLATION	Q.ty	CODE
AT 175 N - Hydraulic jacks	2	41050/003
ZT 70B5 - Hydraulic control panels	2	41055/003
CIA170 - Self-supporting underground boxes	2	41005/050
Swing 230 - Electronic control unit with 433,92 Mhz radio receiver	1	41606/001
Flexible tube for ZT 70 10 m	1	41056/054
Rack links for flexible tube	2	41056/055
ER4N - Pair of photocells	1	41812/001
TR2 - 433,92 Mhz twin-channel transmitter	1	41903/002
Unico 433,92 Mhz Memory System radio receiver complete with antenna	1	41923/009
ET20N - 230 V flashing light	1	41841/009

NOTE: For control and safety devices and installation accessories, see section "Electronic devices and installation accessories" in this catalogue (consult the index).



ZT 71 - ZT 72

Compact underground hydraulic operator for swing gates.
Residential and condominium use.



Very low noise levels thanks to the hydraulic brake to slowdown the gate during opening and closing thus preventing rebound and noisy impact.

The automation is located underground and therefore does not affect the look of the gate.

Anti-crush system with very sensitive bypass valves calibrated during installation. This immediately cuts the hydraulic pressure in the event of obstacles to ensure maximum system safety.

The system consists of underground self-supporting boxes aligned with the hinges.

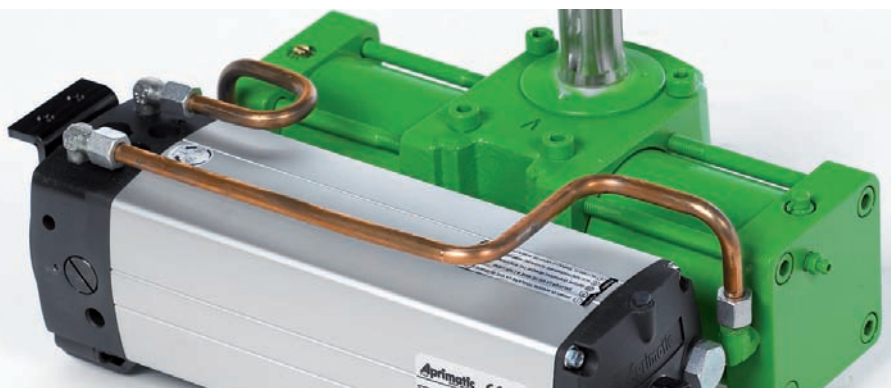
The boxes contain the hydraulic jacks which are connected to the hydraulic pump unit using copper couplings. The pump unit are located in a die-cast aluminium container to protect them against severe weather conditions.

The system envisages an easy-maintenance self-supporting box. The jack is accessed by removing the stainless steel cover without having to remove the gate leaf. An easy-to-use manual release device ensures gate functioning in the event of a mains power supply.

CONTROL UNIT	B4*	B5	SF5*	SF5
SINGLE-PHASE POWER SUPPLY	230 V - 50/60 Hz			
ABSORBED POWER	250 W	250 W	250 W	250 W
OPERATING TEMPERATURE	20°C to +70°C			
MAX. LEAF WIDTH (m)	2,0	2,0	4,0	4,0
PUMP CAPACITY (Lt/min)	0,6	0,75	0,6	0,75
MAX. OPERATING PRESSURE	40 Bar	40 Bar	40 Bar	40 Bar
OIL QUANTITY	1 Lt	1 Lt	1 Lt	1 Lt
OIL TYPE	AprimOil HC 13			
WEIGHT WITH OIL	5 kg	5 kg	5 kg	5 kg
PROTECTION CLASS	IP54	IP54	IP54	IP54

* Model listed in the final pages of this section "Other items".

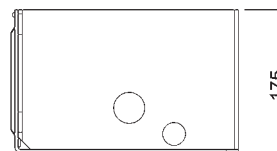
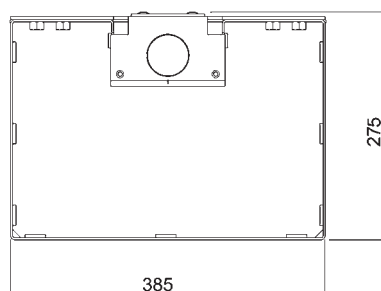
HYDRAULIC JACK	ZT 71 AT 175N	ZT 72 AT 176N
MAX. OPERATING ANGLE	110°	200°
ANGULAR PUMP SPEED FROM 0,6 Lt/min.	6°/s	6°/s
ANGULAR PUMP SPEED FROM 0,75 Lt/min.	7°/s	7°/s
MAX. THRUST FORCE	410 Nm	410 Nm
MAX. LEAF WEIGHT	800 kg	800 kg
MAX. WEIGHT WITH OIL	1 Lt	1,2 Lt
OIL TYPE	AprimOil HC 13	AprimOil HC 13
OIL QUANTITY	12 kg	13 kg
PROTECTION CLASS	IP67	IP67





ZT 71 - ZT 72

DIMENSIONS CIA 171 (underground box)



NOTE: Always plan the rain drainage

DESCRIPTION	Max. leaf width	CODE
ZT 71B5 (ZT 70B5 control unit + AT 175N jack), twin hydraulic lock: opening and closing, adjustable slowdown during opening and closing, electric lock NOT required	2,0 m Max. leaf opening 110°	41056/002
ZT 71SF5 (ZT 70SF5 control unit + AT 175N jack), NO hydraulic lock, adjustable slowdown during opening and closing, electric lock required	4,0 m Max. leaf opening 110°	41056/004
ZT 72B5 (ZT 70B5 control unit + AT 176N jack), twin hydraulic lock: opening and closing, adjustable slowdown during opening and closing, electric lock NOT required	2,0 m Max. leaf opening 200°	41057/002
ZT 72SF5 (ZT 70SF5 control unit + AT 176N jack). NO hydraulic lock, adjustable slowdown during opening and closing, electric lock required	4,0 m Max. leaf opening 200°	41057/004
CIA 171 Self-supporting box for use with jack and control unit, complete with support, sintered bush and splined bush, stainless steel lid and locking screws for jack	Max. leaf weight 800 kg	41056/051

DESCRIPTION OF OPTIONAL ACCESSORIES	CODE
Direct external release	41056/052
Driven external release ZT 71 - ZT 72	41056/053
CS - External strongbox	41704/002
TR2 - 433.92 Mhz twin-channel transmitter	41903/002
ER2N - Pair of photocells	41811/001
PC12E - Key switch for wall mounting	41830/007
CAL - Aluminium column for the ER4N photocells	41812/050
ES3 - Electric lock complete with ground striker plate (for gate leaf longer than 1,8 m up to 3 m) CL series cylinder required	41080/008
CL1 - "DEAD HEAD" single cylinder	41080/005
CL2 - "DEAD HEAD" double cylinder	41080/004
Aprimoil HC13 (1 litre bottle)	41700/013
GRO - Oil refuelling system	41056/050

IDEAL INSTALLATION	Q.ty	CODE
Two ZT 71 B5 systems	2	41056/002
Two CIA 171 underground self-supporting boxes	2	41056/051
Swing 230 - Electronic control unit with 433,92 Mhz radio receiver	1	41606/001
ER2N - Pair of photocells	1	41811 /001
One TR2 - 433,92 Mhz twin-channel transmitter	1	41903/002
Unico 433,92 Mhz Memory System radio receiver complete with antenna	1	41923/009
ET20N - 230 V flashing light	1	41841/009




NOTE: For control and safety devices and installation accessories, see section "Electronic devices and installation accessories" in this catalogue (consult the index).



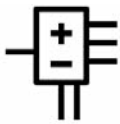
OTHER ITEMS

Underground hydraulic automations
for swing gates.
Residential, condominium and intensive use.

UNDERGROUND AUTOMATION ZT 70

	DESCRIPTION	Remarks	CODE
	AT 175 Adjustable slowdown in opening and closing, hydraulic jack complete of self-supporting box, stainless steel cover, max. leaf weight 800 kg	Max. opening 110°	41050/002
	AT 176 Adjustable slowdown in opening and closing, hydraulic jack complete of self-supporting box, stainless steel cover, max. leaf weight 800 kg	Max. opening 200°	41051/001
	PF 70 Foundation plate for AT 175, AT 176 (cataphoresis treated)		41050/050

NOTE: The operators ZT 71/72 B4/SF4 are equipped with a slower pump comparing to the versions B5/SF5 (see pages ZT 71/72).
This causes a longer opening and closing time.
The image beside the items ZT 71/72 shows the combination of the two separate products ZT 71/72 and CIA 171.



ELETTROSET - ELETTROKIT

SWING GATES ELETTROSET ESB 433.92 MHZ

DESCRIPTION

CODE



- The package includes:
- SWING 230 - Electronic control unit
 - Kit antenna 433.92 Mhz
 - Two TR2 - 433,92 Mhz twin-channel transmitter
 - ET20N - 230 V flashing light
 - ER4N - Pair of photocells
 - PC12E - Key switch for wall mounting
 - Aprimatic sign plate

41605/802

ELETTROKIT EKK - 230 V

DESCRIPTION

CODE



- The package includes:
- Kit antenna 433.92 Mhz
 - Two TR2 - 433,92 Mhz twin-channel transmitter
 - ET20N - 230 V flashing light
 - ER4N - Pair of photocells
 - PC12E - Key switch for wall mounting
 - Aprimatic sign plate

41700/800

ELETTROKIT EKK - 24 V

DESCRIPTION

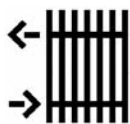
CODE



- The package includes:
- Kit antenna 433.92 Mhz
 - Two TR2 - 433,92 Mhz twin-channel transmitter
 - ET2N - 24 V flashing light
 - ER4N - Pair of photocells
 - PC12E - Key switch for wall mounting
 - Aprimatic sign plate

41700/801



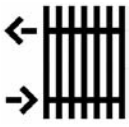


SLIDING GATES

EXTERNAL AUTOMATIONS

	MODELS	MAX- WING WEIGHT	TYPE OF INSTALLATION				CICLES DAY	CLUTCH
			RESIDENTIAL	CONDOMINIUM	INTENSIVE	INDUSTRIAL		
	ONDA 424	400 kg	●				100	Electronic
	ONDA 624	600 kg	●	●			100	Electronic
	ONDA 500E ONDA 501E ONDA 501EN	500 kg Residential	●	●			100	501 Electronic
		300 kg Condominium					200	500 Mechanical
	ONDA 800E ONDA 801E ONDA 801EN	800 kg Residential	●	●			50	801 Electronic
		500 kg Condominium					200	800 Mechanical
	AT 80E	1200 kg Residential	●	●	●		200	Mechanical
		800 kg Inten./Cond.					800	
	ONDA 2000 ONDA 2001	2000 kg Residential		●	●		1000	2001 Electronic
		1000 kg Condominium						2000 Mechanical
	AT 86M	1500 kg			●	●	(intensive use)	Mechanical
	AT 86T	2000 kg			●	●	(intensive use)	Mechanical
	AT 88T	4000 kg			●	●	(intensive use)	Mechanical
	AT 90	8000 kg			●	●	(intensive use)	Mechanical
	AT 92	12000 kg			●	●	(intensive use)	Mechanical

NOTE: The above mentioned data refer to carefully installed and regularly maintained products.



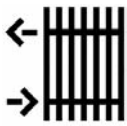
SLIDING GATES

SYSTEM TYPE FOR SLIDING GATES - EXTERNAL AUTOMATION



- 1 Gear motor with built-in electronic control unit with radio receiver on-board
- 2 Transmitter
- 3 Antenna 433,92 Mhz
- 4 Flashing light
- 5 Pair of photocells
- 6 Control device: key switch / proximity sensor access control / electronic key-pad / tamper-proof card / magnetic key reader

NOTE: For control and safety devices and installation accessories, see section "Electronic devices and installation accessories" in this catalogue (consult the index).



ONDA 424

Low-voltage gear motor for sliding gates.
Residential use up to 400 kg.



Complies with the current safety standards as regard to obstacle detection and inversion of movement in accordance with **EN12453** and **EN 12445 (*)**.
Maximum anti-crush safety due to the electronic torque adjustment combined with encoder technology, which also guarantees a gradual approach during opening and closing.

Service continuity guaranteed in case of power failure by an optional emergency battery unit housed in the casing.

Worm screw gear motor with permanent lubrication, aluminium body housing the electronic control unit.

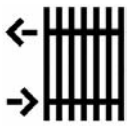
Emergency release lever with customised key, for use during power supply failures.

TECHNICAL DATA

POWER SUPPLY	230 Vac - 50/60 Hz
MOTOR POWER SUPPLY	24 Vdc
ABSORBED POWER	80 W
ABSORBED CURRENT	4,2 A
MAX. THRUST FORCE	450 N
MAX. LINEAR SPEED	10 m/min
OPERATING TEMPERATURE	-20°C to +55°C
MAX. GATE WEIGHT	400 kg
HEIGHT OF PINION FROM GROUND	70 mm
MAX. NO. CYCLES	100 cycles/day
PROTECTION CLASS	IP44

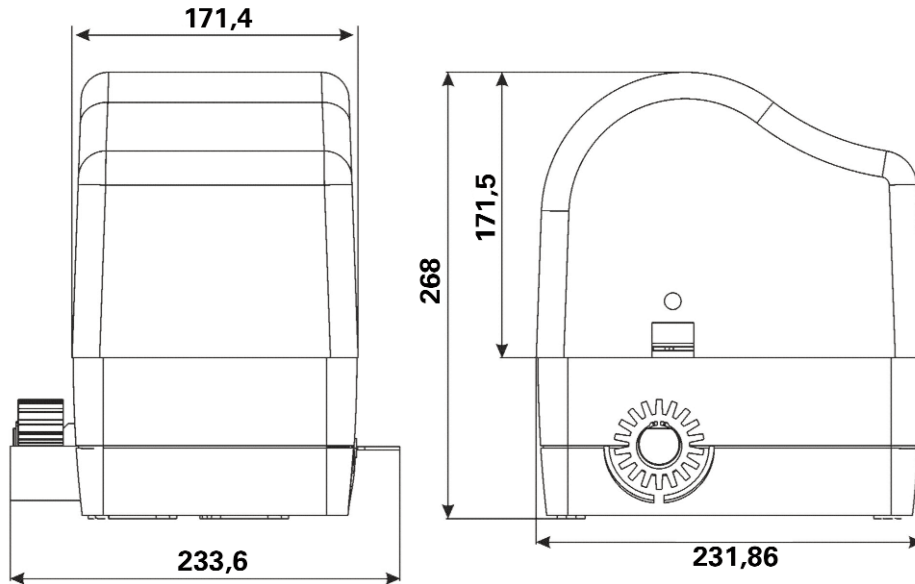
(*) Product certified under ideal installation conditions.





ONDA 424

OPERATOR DIMENSIONS

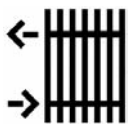


DESCRIPTION	Max. gate width	CODE
ONDA 424 Gear motor with built-in control unit and radio receiver (it needs of rack)	400 kg Residential use	41101/001

DESCRIPTION OF OPTIONAL ACCESSORIES	CODE
TR2 - 433.92 Mhz twin-channel transmitter	41903/002
TR4 - 433.92 Mhz four-channel transmitter	41903/004
ER4N - Pair of photocells	41812/001
PC12E - Key switch for wall mounting	41830/007
CAL - Aluminium column for the ER4N photocells	41812/050
Kit Antenna 433,92 Mhz for ET2N/ET20N	41929/003
433,92 Mhz antenna	41929/001
Straight safety edge 1,5 m	41850/002
Straight safety edge 2,0 m	41850/003
Straight safety edge 3,0 m	41850/004
Aprimatic galvanized rack pitch 4 complete with couplings (5 m)	41180/053
Back up battery	41102/050
Battery charger card	41100/050

IDEAL INSTALLATION	Q.ty	CODE
ONDA 424 gear motor with built-in control unit and radio receiver	1	41101/001
ER4N - Pair of photocells	1	41812/001
TR2 - 433,92 Mhz twin-channel transmitter	1	41903/002
PC12E - Key switch for wall mounting	1	41830/007
ET2N - 24V flashing light	1	41840/006
Aprimatic plastic rack with 5 metre steel core for use of up to a maximum of 500 kg	1	41180/052

NOTE: For control and safety devices and installation accessories, see section "Electronic devices and installation accessories" in this catalogue (consult the index).



ONDA 624

Low-voltage gear motor for sliding gates.
Residential use up to 600 kg,
condominium use up to 400 kg.



Complies with the current safety standards as regard to obstacle detection and inversion of movement in accordance with **EN12453** and **EN 12445 (*)**.

Maximum anti-crush safety due to the electronic torque adjustment combined with encoder technology, which also guarantees a gradual approach during opening and closing.

Service continuity guaranteed in case of power failure by an optional emergency battery unit housed in the casing.

Easy to assemble and install thanks to optimised component layout and the much lower height of the pinion from the ground, and thanks to the eyelets and screws provided with the foundation plates for a precise positioning of the operator.

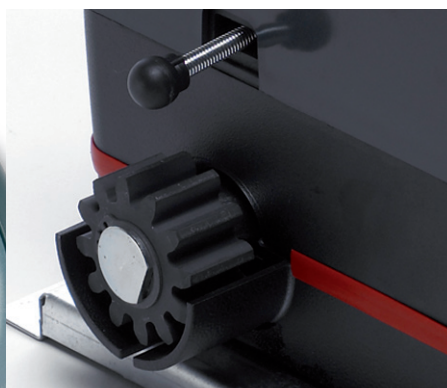
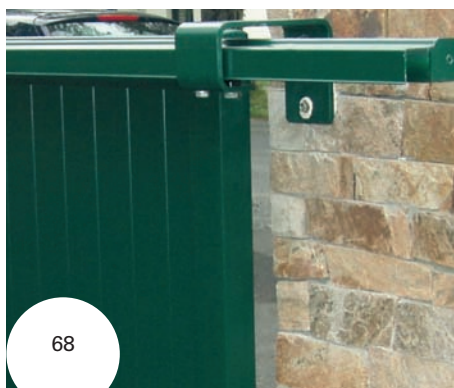
Worm screw gear motor with permanent lubrication, aluminium body housing the electronic control unit. Foundation plate height adjustable by the provided screws.

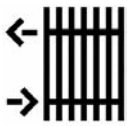
Emergency release lever with customised key, for use during power supply failures.

TECHNICAL DATA

POWER SUPPLY	230 Vac - 50/60 Hz
MOTOR POWER SUPPLY	24 Vdc
ABSORBED POWER	80 W
ABSORBED CURRENT	4,2 A
MAX. THRUST FORCE	650 N
MAX. LINEAR SPEED	10 m/min
OPERATING TEMPERATURE	-20°C to +55°C
MAX. GATE WEIGHT	400 kg
HEIGHT OF PINION FROM GROUND	70 mm
MAX. NO. CYCLES	100 cycles/day
PROTECTION CLASS	IP44

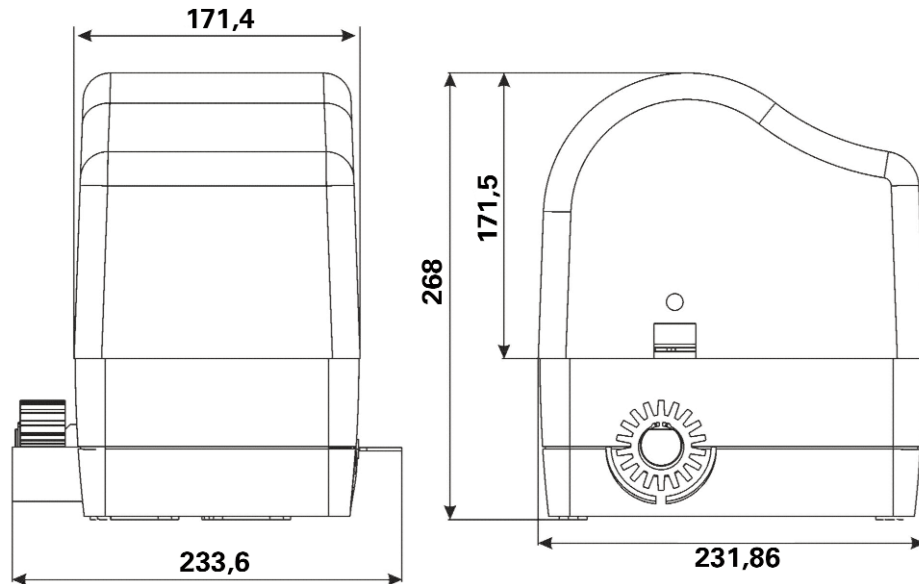
(*) Product certified under ideal installation conditions.





ONDA 624

OPERATOR DIMENSIONS

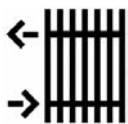


DESCRIPTION	Max. gate width	CODE
ONDA 624 Gear motor with built-in control unit and radio receiver (it needs of rack)	600 kg Residential use	41102/001

DESCRIPTION OF OPTIONAL ACCESSORIES	CODE
TR2 - 433.92 Mhz twin-channel transmitter	41903/002
TR4 - 433.92 Mhz four-channel transmitter	41903/004
ER4N - Pair of photocells	41812/001
PC12E - Key switch for wall mounting	41830/007
CAL - Aluminium column for the ER4N photocells	41812/050
Kit Antenna 433,92 Mhz for ET2N/ET20N	41929/003
433,92 Mhz antenna	41929/001
Straight safety edge 1,5 m	41850/002
Straight safety edge 2,0 m	41850/003
Straight safety edge 3,0 m	41850/004
Aprimatic galvanized rack pitch 4 complete with couplings (5 m)	41180/053
Back up battery	41102/050
Battery charger card	41100/050

IDEAL INSTALLATION	Q.ty	CODE
ONDA 624 gear motor with built-in control unit and radio receiver	1	41102/001
ER4N - Pair of photocells	1	41812/001
TR2 - 433,92 Mhz twin-channel transmitter	1	41903/002
PC12E - Key switch for wall mounting	1	41830/007
ET2N - 24V flashing light	1	41840/006
Aprimatic plastic rack with 5 metre steel core for use of up to a maximum of 500 kg	1	41180/052
Aprimatic galvanized rack pitch 4 complete with couplings (5 m)	1	41180/053

NOTE: For control and safety devices and installation accessories, see section "Electronic devices and installation accessories" in this catalogue (consult the index).



ONDA 500E - 501E - 501EN

Gear motor for sliding gates.
Condominium use up to 300 kg,
residential use up to 500 kg.



The new **ONDA 501EN** equipped with encoder, ensures high safety levels thanks to the obstacle detection and anti-crush function.

ONDA 501EN is conformant to standard EN12445 with no need for optional safety systems such as safety edges.

Anti-crush safety is ensured by a mechanical clutch on the **ONDA 500E**.

Slide 230 electronic control unit, provided by electronic torque control and 433,92 Mhz radio receiver, is integrated in the gear motor.

Unbeatable silent running and functionality for residential applications up to 500 kg.
Maximum reliability from a sturdy gear motor.

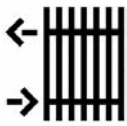
Permanently lubricated worm gear with anodised aluminium body.

Z20 Pinion is available for the application that need of faster operations speed.

TECHNICAL DATA

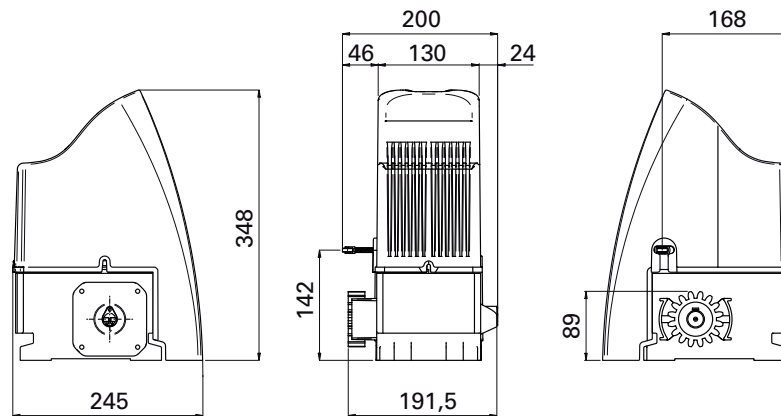
POWER SUPPLY	230 V - 50/60 Hz
ABSORBED POWER	230 W
THRUST FORCE	940 N (Z16) 750 N (Z20)
LINEAR SPEED	9,5 m/min. (Z16) 12,0 m/min. (Z20)
MAX. GATE WEIGHT	500 kg (Z16) 300 kg (Z20)
OPERATING TEMPERATURE	-20°C to +70°C
HEIGHT OF PINION FROM GROUND	70 mm
WEIGHT	10 kg
MAX. N. CYCLES	100 cycles/day
PROTECTION CLASS	IP44





ONDA 500E - 501E - 501EN

OPERATOR DIMENSIONS

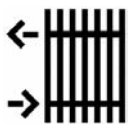


DESCRIPTION	Max. gate width	CODE
ONDA 500 Z16 (it needs rack) Gear motor with mechanical clutch and Z16 pinion, prepared to contain the Slide 230 control unit	500 kg Residential use 300 kg Condominium use	41126/030
ONDA 500E Z16 (it needs rack) Gear motor with mechanical clutch and Z16 pinion, built-in Slide 230 control unit with 433,92 Mhz radio receiver	500 kg Residential use 300 kg Condominium use	41126/028
ONDA 501E Z16 (it needs rack) Gear motor with electronic clutch and Z16 pinion, built-in Slide 230 control unit with 433,92 Mhz radio receiver	500 kg Residential use 300 kg Condominium use	41126/027
ONDA 501EN - E Z16 (it needs rack) Gear motor with encoder and Z16 pinion, built-in Slide 230 control unit with 433,92 Mhz radio receiver	500 kg Residential use 300 kg Condominium use	41126/035

DESCRIPTION OF OPTIONAL ACCESSORIES	CODE
Slide 230 - Electronic control unit with 433,92 Mhz radio receiver	41616/001
PF 501/801 - Foundation plate (pack of 4 pcs)	41126/051
Unico 433,92 Mhz Memory System radio receiver with antenna included	41923/009
TR2 - 433.92 Mhz twin-channel transmitter	41903/002
ER4N - Pair of photocells	41812/001
PC12E - Key switch for wall mounting	41830/007
CAL - Aluminium column for the ER4N photocells	41812/050
433,92 Mhz antenna	41929/001
Straight safety edge 1,5 m	41850/002
Straight safety edge 2,0 m	41850/003
Straight safety edge 3,0 m	41850/004
SB 500/800 - Personalised release key	41126/050
Aprimatic plastic rack with 5 metre steel core for use of up to a maximum of 500 kg	41180/052

IDEAL INSTALLATION	Q.ty	CODE
ONDA 501E Z16 Gear motor with electronic clutch, built-in Slide 230 control unit with 433,92 Mhz radio receiver	1	41126/027
ER4N - Pair of photocells	1	41812/001
TR2 - 433,92 Mhz twin-channel transmitter	1	41903/002
ET20N - 230 V flashing light	1	41841/009
Aprimatic galvanized rack pitch 4 complete with couplings (5 m)	1	41180/053

NOTE: For control and safety devices and installation accessories, see section "Electronic devices and installation accessories" in this catalogue (consult the index).



ONDA 800E - 801E - 801EN

Gear motor for sliding gates.
Condominium use up to 500 kg,
residential use up to 800 kg.



The new **ONDA 801EN** equipped with encoder, ensures high safety levels thanks to the obstacle detection and anti-crush function.

ONDA 801EN is conformant to standard EN12445 with no need for optional safety systems such as safety edges.

Anti-crush safety is ensured by a mechanical clutch on the **ONDA 800E**.

Slide 230 electronic control unit, provided by electronic torque control and 433,92 Mhz radio receiver, is integrated in the gear motor.

Irreversible worm reduction unit with anodized aluminium body.
Steel gears in permanent lubrication.

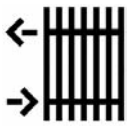
Manual key release in the event of mains power supply failure.

Z20 Pinion is available for the application that need of faster operations speed.

TECHNICAL DATA

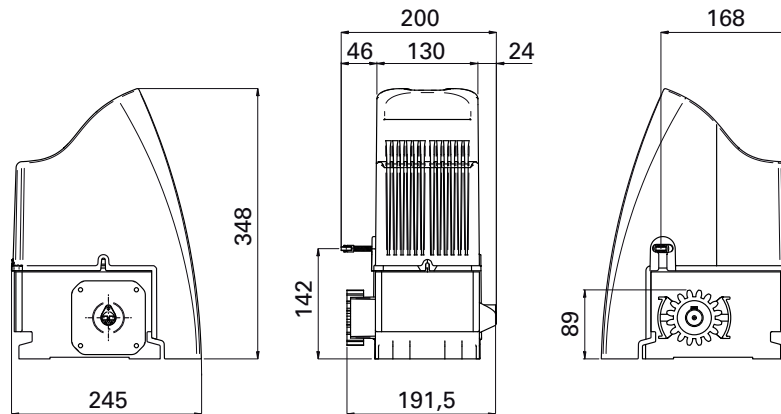
POWER SUPPLY	230 V - 50/60 Hz
ABSORBED POWER	260 W
ABSORBED CURRENT	1.6 A
MAX. THRUST FORCE	1250 N (Z16) 1000 N (Z20)
LINEAR SPEED	9,5 m/min (Z16) 12,0 m/min (Z20)
OPERATING TEMPERATURE	-20°C to +70°C
MAX. GATE WEIGHT	800 kg (Z16) 500 kg (Z20)
OVERLOAD TEMPERATURE	90° C
HEIGHT OF PINION FROM GROUND	70 mm
MAX. NO. CYCLES	50 cycles/day
LUBRICANT TYPE	Shell TIVELA-GL00
PROTECTION CLASS	IP44





ONDA 800E - 801E - 801EN

OPERATOR DIMENSIONS

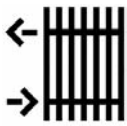


DESCRIPTION	Max. gate width	CODE
ONDA 800 Z16 (it needs rack) Gear motor with mechanical clutch and Z16 pinion, prepared to contain the Slide 230 control unit	800 kg Residential use 500 kg Condominium use	41127/029
ONDA 800E Z16 (it needs rack) Gear motor with mechanical clutch and Z16 pinion, built-in Slide 230 control unit with 433,92 Mhz radio receiver	800 kg Residential use 500 kg Condominium use	41127/031
ONDA 801 Z16 (it needs rack) Gear motor with electronic clutch and Z16 pinion, prepared to contain the Slide 230 control unit	800 kg Residential use 500 kg Condominium use	41127/021
ONDA 801E Z16 (it needs rack) Gear motor with electronic clutch and Z16 pinion, built-in Slide 230 control unit with 433,92 Mhz radio receiver	800 kg Residential use 500 kg Condominium use	41127/023
ONDA 801EN - E Z16 (it needs rack) Gear motor with encoder and Z16 pinion, built-in Slide 230 control unit with 433,92 Mhz radio receiver	800 kg Residential use 500 kg Condominium use	41127/035

DESCRIPTION OF OPTIONAL ACCESSORIES	CODE
Slide 230 - Electronic control unit with 433,92 Mhz radio receiver	41616/001
PF 501/801 - Foundation plate (pack of 4 pcs)	41126/051
Unico 433,92 Mhz Memory System radio receiver with antenna included	41923/009
TR2 - 433,92 Mhz twin-channel transmitter	41903/002
ER4N - Pair of photocells	41812/001
PC12E - Key switch for wall mounting	41830/007
CAL - Aluminium column for the ER4N photocells	41812/050
433,92 Mhz antenna	41929/001
Straight safety edge 1,5 m	41850/002
Straight safety edge 2,0 m	41850/003
Straight safety edge 3,0 m	41850/004
SB 500/800 Personalised release key	41126/050
Aprimatic galvanized rack pitch 4 complete with couplings (5 m)	41180/053

IDEAL INSTALLATION	Q.ty	CODE
ONDA 801E Z16 Gear motor with electronic clutch, built-in Slide 230 control unit with 433,92 Mhz radio receiver	1	41127/023
ER4N - Pair of photocells	1	41812/001
TR2 - 433,92 Mhz twin-channel transmitter	1	41903/002
ET20N - 230 V flashing light	1	41841/009
Aprimatic plastic rack with 5 metre steel core for use of up to a maximum of 500 kg	1	41180/052

NOTE: The lower gate wheels must not be too small for the weight of the structure (the minimum diameter of the wheels is 120 mm).
NOTE: For control and safety devices and installation accessories, see section "Electronic devices and installation accessories" in this catalogue (consult the index).



AT 80E

Gear motor for sliding gates.
Intensive use up to 800 kg,
residential use up to 1200 kg.



Maximum reliability thanks to the steel gears in oil bath.

Maximum safety thanks to the mechanical anti-crush clutch system. Drive coupling and transmission are achieved using a rack pinion.

Oil bath gear motor with irreversible reduction unit eliminating the need for additional locking systems.

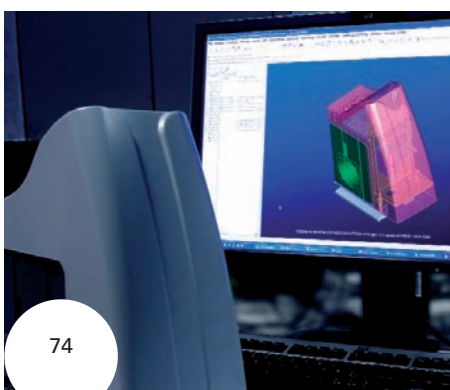
Anti-crush safety is ensured by an adjustable oil bath clutch which reduces the thrust force of the gate in case of obstacles.

AT80 can be secured to the ground with either a pivoting or fixed support. The pivoting support enables functioning even when the guide on the ground is not perfectly levelled thus preventing mechanical stress.

AT80E version, operator with on-board electronic control unit Slide 230 with 433,92 MHz radio receiver and electronic torque control.

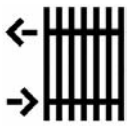
TECHNICAL DATA

POWER SUPPLY	230 V - 50/60 Hz
ABSORBED POWER	330 W
MAX. THRUST FORCE	1400 N (Z16) 1120 N (Z20)
LINEAR SPEED	9,5 m/min (Z16) 12,0 m/min (Z20)
OPERATING TEMPERATURE	-20° +70° C
LUBRICANT QUANTITY	1,25 Lt
LUBRICANT TYPE	AprimOil DN 22
MAX. GATE WEIGHT	1200 kg (Z16) 800 kg (Z20)
HEIGHT OF PINION FROM GROUND	70 mm
MAX. NO. CYCLES	50 cycles/day
PROTECTION CLASS	IP44



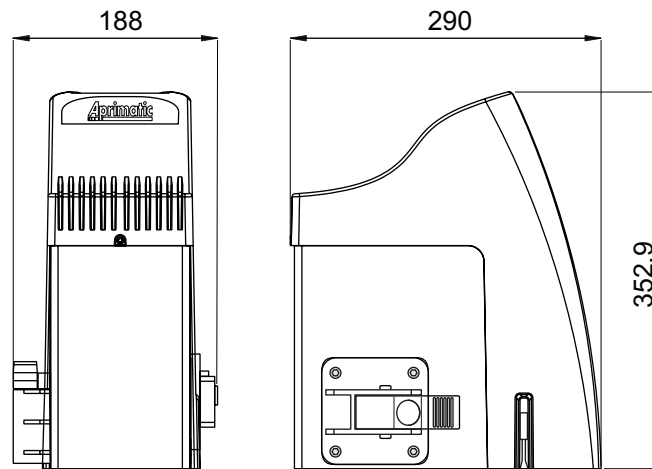
TPR-Remote programmer Slide 230 control unit.





AT 80E

OPERATOR DIMENSIONS



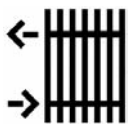
DESCRIPTION	Max. gate width	CODE
AT 80E YZ16 (it needs rack) Gear motor with 16 teeth rack and pitch 4 pinion, built-in Slide 230 control unit with 433,92 Mhz radio receiver	800 kg Intensive use 1200 kg Residential use	41120/023
AT 80 YZ16 (it needs rack) Gear motor with 16 teeth rack and pitch 4 pinion, without control unit, with electro-mechanical limit switch, IF80 fixed installation required	800 kg Intensive use 1200 kg Residential use	41120/021

NOTE: Each installation needs one fixing kit IF80 or IB80.

DESCRIPTION OF OPTIONAL ACCESSORIES	CODE
Slide 230 - Electronic control unit with 433,92 Mhz radio receiver	41616/001
PF80 - Foundation plate (pack 4 pieces)	41120/050
IB80 - Pivoting installation	41120/052
IF 80 - Fixed installation	41120/051
Unico 433,92 Mhz memory System radio receiver with antenna included	41923/009
TR2 - 433.92 Mhz twin-channel transmitter	41903/002
ER2N - Pair of photocells	41811/001
PC12E - Key switch for wall mounting	41830/007
CAL - Aluminium column for the ER4N photocells	41812/050
Straight safety edge 1,5 m	41850/002
Straight safety edge 2,0 m	41850/003
Straight safety edge 3,0 m	41850/004
Aprimatic galvanized rack pitch 4 complete with couplings (5 m)	41180/053
TPR - Remote programmer Slide 230 control unit	41702/004

IDEAL INSTALLATION	Q.ty	CODE
AT 80EYZ16 - Gear motor	1	41120/023
IF 80 - Fixed installation	1	41120/051
ER4N - Pair of photocells	1	41812/001
TR2 - 433,92 Mhz twin-channel transmitter	1	41903/002
ET20N - 230 V flashing light	1	41841/009
Aprimatic galvanized rack pitch 4 complete with couplings (5 m)	1	41180/053

NOTE: For control and safety devices and installation accessories, see section "Electronic devices and installation accessories" in this catalogue (consult the index).



ONDA 2000 - 2001

Gear motor for sliding gates
of 1000 kg to 2000 kg.
Intensive use.



Up to 2000 kg for residential use or up to 1000 kg for condominium use.

Anti-crush safety is ensured by a mechanical clutch on the **ONDA 2000**.

ONDA 2001 - with built-in Slide 230 control unit with 433,92 MHz radio receiver and electronic torque control.

Maximum reliability thanks to the steel gears in permanent lubrication.

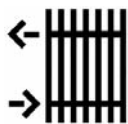
Emergency release lever with customized key, for use during power supply failures.

NOTE: Potential risks should be carefully examined for all applications.

TECHNICAL DATA

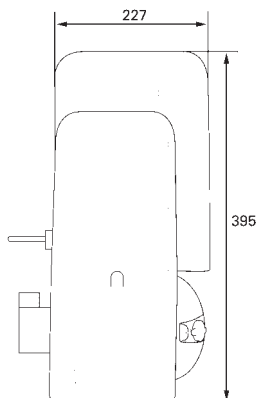
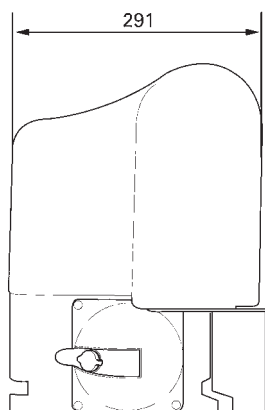
MOTOR POWER SUPPLY	230 V - 50/60 Hz
ABSORBED POWER	700 W
MAX. THRUST FORCE	2570 N
MAX. WING SPEED	9.5 m/min
OPERATING TEMPERATURE	-20°C to +70°C
MAX. GATE WEIGHT	2000 kg
LIMIT SWITCH	Electro-mechanical
PINION	Z16
LUBRICANT TYPE	AprimOil DN 22
PROTECTION CLASS	IP44





ONDA 2000 - 2001

OPERATOR DIMENSIONS

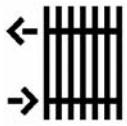


DESCRIPTION	Max. gate width	CODE
ONDA 2000 Z16 (it needs rack) Gear motor with mechanical clutch and 16 tooth pinion, prepared to contain the Slide 230 control unit	2000 kg Residential use 1000 kg Condominium use	41125/007
ONDA 2001E Z16 (it needs rack) Gear motor with built-in Slide 230 control unit with 433,92 Mhz radio receiver, with electronic torque control and 16 tooth pinion	2000 kg Residential use 1000 kg Condominium use	41125/005

DESCRIPTION OF OPTIONAL ACCESSORIES	CODE
Slide 230 - Electronic control unit with 433,92 Mhz radio receiver	41616/001
PF 2000 - Foundation plate	41125/050
Unico 433,92 Mhz Memory System radio receiver with antenna included	41923/009
TR2 - 433.92 Mhz twin-channel transmitter	41903/002
ER4N - Pair of photocells	41812/001
PC12E - Key switch for wall mounting	41830/007
CAL - Aluminium column for the ER4N photocells	41812/050
433,92 Mhz antenna	41929/001
Straight safety edge 1,5 m	41850/002
Straight safety edge 2,0 m	41850/003
Straight safety edge 3,0 m	41850/004
Aprimatic galvanized rack pitch 4 complete with couplings	41180/053

IDEAL INSTALLATION	Q.ty	CODE
ONDA 2001E Z16 Gear motor with built-in Slide 230 control unit, with electronic torque control	1	41125/005
ER4N - Pair of photocells	1	41812/001
TR2 - 433,92 Mhz twin-channel transmitter	1	41903/002
Unico 433,92 Mhz Memory System radio receiver with antenna included	1	41923/009
ET20N - 230V flashing light	1	41841/009
Aprimatic galvanized rack pitch 4 complete with couplings	1	41180/053

NOTE: For control and safety devices and installation accessories, see section "Electronic devices and installation accessories" in this catalogue (consult the index).



AT 86 - AT 88T

Gear motor for industrial sliding gates
up to 4000 kg.
Intensive use.



This operators are designed to meet the challenge of powering heavy sliding gates and situations where heavy-duty and reliability are essential.

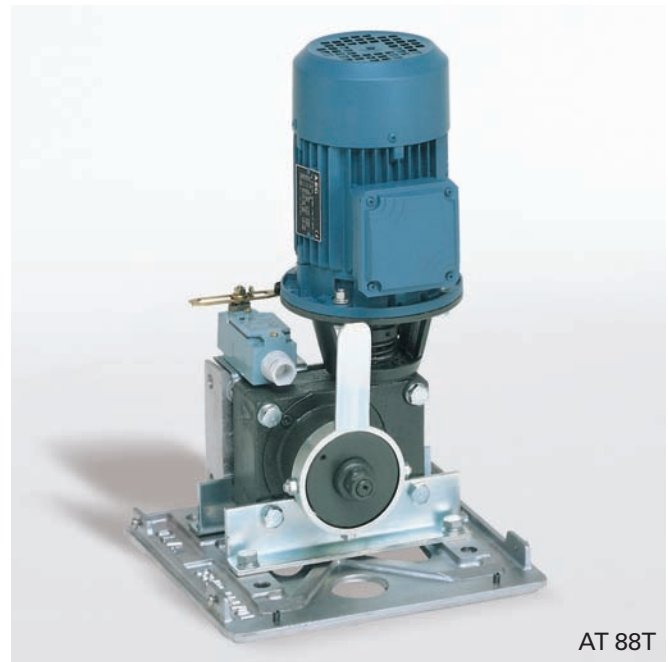
An adjustable dry clutch to protect the drive against damages.

Tooth pinion suitable for module 4 rack.
The zinc plated meter rack available with three slotted holes is complete with support pegs and bolts.
Mechanical limit switch double action by lever.

The electromechanical drive comprises a fully ventilated motor.

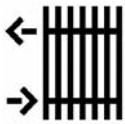
Mechanical emergency release by lever for manual operation in case of power failure.

The motoreductor is constructed in stainless steel, equipped of door with opening to key.



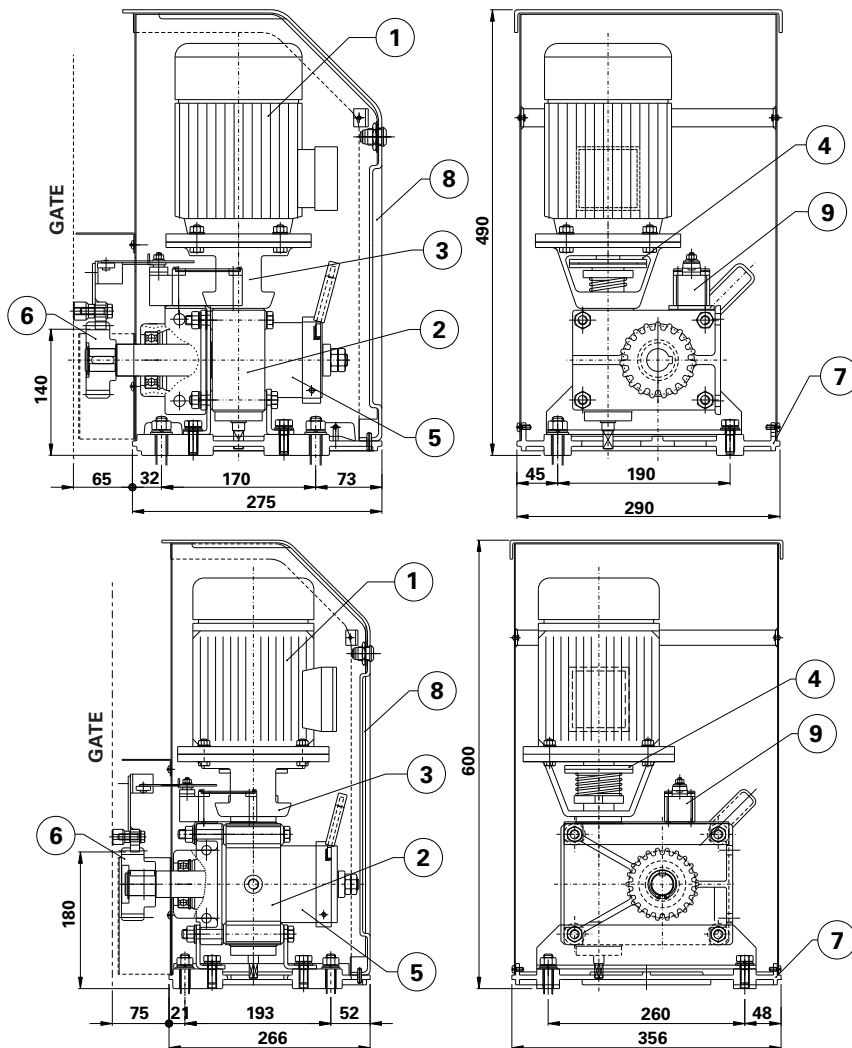
AT 88T

TECHNICAL DATA	AT 86M	AT 86T	AT 88T
POWER SUPPLY	Single-phase 230 V - 50/60 Hz	Three-phase 220/380 V - 50/60 Hz	Three-phase 220/380 V - 50/60 Hz
ABSORBED POWER	0,37 Kw	0,37 Kw	0,96 Kw
MAX. ABSORPTION	2,8 A	1,11 A (at 380 V)	2,6 A (at 380 V)
MOTORTURNS/PINION RPM g/1'	1400/36	1400/36	1400/33
DRIVE FORCE m/min.	9	9	9
PINION MODULE	4 mm	4 mm	4 mm
OPERATINGTEMPERATURE	-15° +60° C	-15° +60° C	-15° +60° C
MAX. GATE WEIGHT	kg 1500	kg 2000	kg 4000
LUBRICATIONTYPE	APRIMOIL CT614	APRIMOIL CT614	APRIMOIL CT614
PROTECTION CLASS	IP44	IP44	IP44



AT 86 - AT 88T

OPERATOR DIMENSIONS



MAIN OPERATOR ITEMS FOR AT 86 MOTOREDUCTOR :

- 1- Motor
- 2- Worm reduction unit
- 3- Bell type coupling between the motor and the reduction unit
- 4- Adjustable single disk dry clutch
- 5- Release device a rotating lever at 90° for emergency operation
- 6- Pinion
- 7- Base of the operator
- 8- Cabinet in stainless steel
- 9- Mechanical limit switch

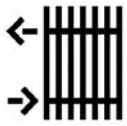
MAIN OPERATOR ITEMS FOR AT 88T MOTOREDUCTOR :

- 1- Motor
- 2- Worm reduction unit
- 3- Bell type coupling between the motor and the reduction unit
- 4- Adjustable single disk dry clutch
- 5- Release device a rotating lever at 90° for emergency operation
- 6- Pinion
- 7- Base of the operator
- 8- Cabinet in stainless steel
- 9- Mechanical limit switch

DESCRIPTION	CODE
AT 86M - Single-phase gear motor (foundation plate included)	41133/001
AT 86T - Three-phase gear motor (foundation plate included)	41134/002
AT 88T - Three-phase gear motor (foundation plate included)	41124/001

DESCRIPTION ACCESSORIES	CODE
AT 88E - Electronic control unit supplied in a sealed Aprimatic (IP55) container and 4 functioning levels: automatic, semi-automatic, rapid automatic (0.5 sec. pause for parking access) and dead man, suitable for an operator with max. power of 1200 W (1.5 Hz), three-phase (230/380 V - 50/60 Hz) or single-phase (230 V - 50/60 Hz)	41615/005
RRSE - Unico 433.92 Mhz Memory System radio receiver	41923/009
TR2 - 433.92 Mhz twin-channel transmitter	41903/002
ANT433 - 433,92 Mhz antenna	41929/001
PC12E - Key switch for wall mounting	41830/007
ET22 - 230 V flashing light	41841/001
ER2N - Pair of modulated infra-red photocells	41811/001
CZ - Aprimatic galvanized rack pitch 4 complete with couplings (5 m)	41180/053
CF1M - Straight safety edge 1,5 m	41850/002
CF2M - Straight safety edge 2,0 m	41850/003
CF3M - Straight safety edge 3,0 m	41850/00

NOTE: For control and safety devices and installation accessories, see section "Electronic devices and installation accessories" in this catalogue (consult the index).



AT 90T - AT 92T

Gear motor for industrial sliding gates
up to 12000 kg.
Intensive use.



This operators are designed to meet the challenge of powering heavy sliding gates and situations where heavy-duty and reliability are essential.

An adjustable dry clutch to protect the drive against damages.

Toothed wheel for 5 mm rack module (Mod. AT 90T) and 8 mm rack module (Mod. AT 92T).
Rack available in 1m elements with adjustment slots and gate fixing spacers.
Two-way lever mechanical limit switch.

The electromechanical drive comprises a fully ventilated motor.

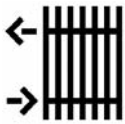
Mechanical emergency release by lever for manual operation in case of power failure (Mod. AT 90T).

The motoreductor is constructed in stainless steel, equipped of door with opening to key.



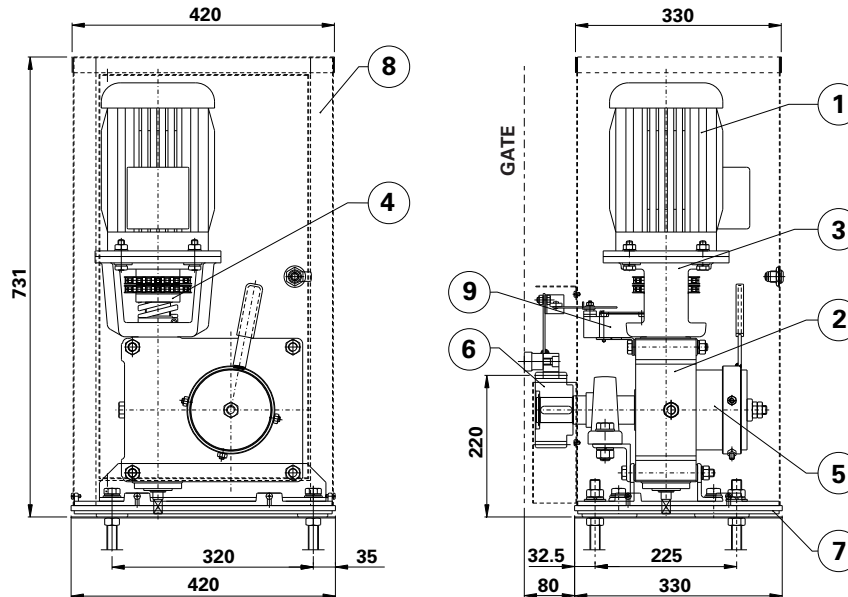
AT 90T

TECHNICAL DATA	AT 90T	AT 92T
POWER SUPPLY	Three-phase 220/380 V - 50/60 Hz	Three-phase 220/380 V - 50/60 Hz
ABSORBED POWER	1,85 Kw	3 Kw
MAX. ABSORPTION	4,27 A (at 380 V)	5,2 A (at 380 V)
MOTORTURNS/PINION RPM g/1'	1400/23	1400/23
DRIVE FORCE m/min.	8	8
PINION MODULE	5 mm	8 mm
OPERATINGTEMPERATURE	-15° +60° C	-15° +60° C
MAX. GATE WEIGHT	kg 8000	kg 12000
LUBRICATIONTYPE	IP ATHESIA GREASE EPO	IP ATHESIA GREASE EPO
PROTECTION CLASS	IP44	IP44



AT 90T - AT 92T

OPERATOR DIMENSIONS



MAIN OPERATOR ITEMS FOR AT 90T - AT 92T MOTOREDUCTOR :

- 1- Motor
- 2- Worm reduction unit
- 3- Bell type coupling between the motor and the reduction unit
- 4- Adjustable single disk dry clutch
- 5- Release device a rotating lever at 90° for emergency operation
- 6- Pinion
- 7- Base of the operator
- 8- Cabinet in stainless steel
- 9- Mechanical limit switch

DESCRIPTION

DESCRIPTION	CODE
AT 90T -Three-phase gear motor (foundation plate included)	41134/001
AT 92T -Three-phase gear motor (foundation plate included)	41134/003
8382L - Three-phase electronic control unit	41637/001

DESCRIPTION ACCESSORIES

DESCRIPTION ACCESSORIES	CODE
RRSE - Unico 433.92 Mhz Memory System radio receiver	41923/009
TR2 - 433.92 Mhz twin-channel transmitter	41903/002
ANT433 - 433,92 Mhz antenna	41929/001
PC12E - Key switch for wall mounting	41830/007
ET22 - 230 V flashing light	41841/001
ER2N - Pair of modulated infra-red photocells	41811/001
CZ - 5 module galvanised steel rack (1 metre with connections)	41180/061
CZ - 8 module galvanised steel rack (1 metre with connections)	41180/062
CF1M - Straight safety edge 1,5 m	41850/002
CF2M - Straight safety edge 2,0 m	41850/003
CF3M - Straight safety edge 3,0 m	41850/004

NOTE: For control and safety devices and installation accessories, see section "Electronic devices and installation accessories" in this catalogue (consult the index).






>>>>>>>>>> COUNTERWEIGHT UP AND OVER >>>>
SECTIONAL AND FOLDING DOORS





COUNTERWEIGHT UP-AND-OVER SECTIONAL AND FOLDING DOORS

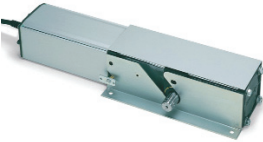
AUTOMATIONS FOR COUNTERWEIGHT UP-AND-OVER DOORS

	MODELS	MAX. DOOR DIMENSIONS	FREQUENCY OF USE		CICLES DAY	SAFETY	TECHNOLOGY
			Residential	Intensive			
	ALZO	3,5 x 3,0 m	●		50	RC e A*	Electro-mechanical
	TWIN ALZO	5,0 x 3,0 m	●		50	RC e A*	Electro-mechanical
	AT 50	3,5 x 3,0 m	●	●	150	By-pass valves	Hydraulic
	TWIN AT 50	5,0 x 3,0 m	●	●	150	By-pass valves	Hydraulic

AUTOMATIONS FOR SECTIONAL AND COUNTERWEIGHT UP-AND-OVER DOORS

	APRIBOX 700***	10 m ²	●		30	A*	Electro-mechanical
	APRIBOX 1200***	14 m ²	●		30	A*	Electro-mechanical

AUTOMATIONS FOR FOLDING DOORS

	AT 56	1,5 m		●	150	By-pass valves	Hydraulic
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* RC electronic torque control; A anti-crush system.

** Model selection depends on the force needed to handle the door and not on dimensions.

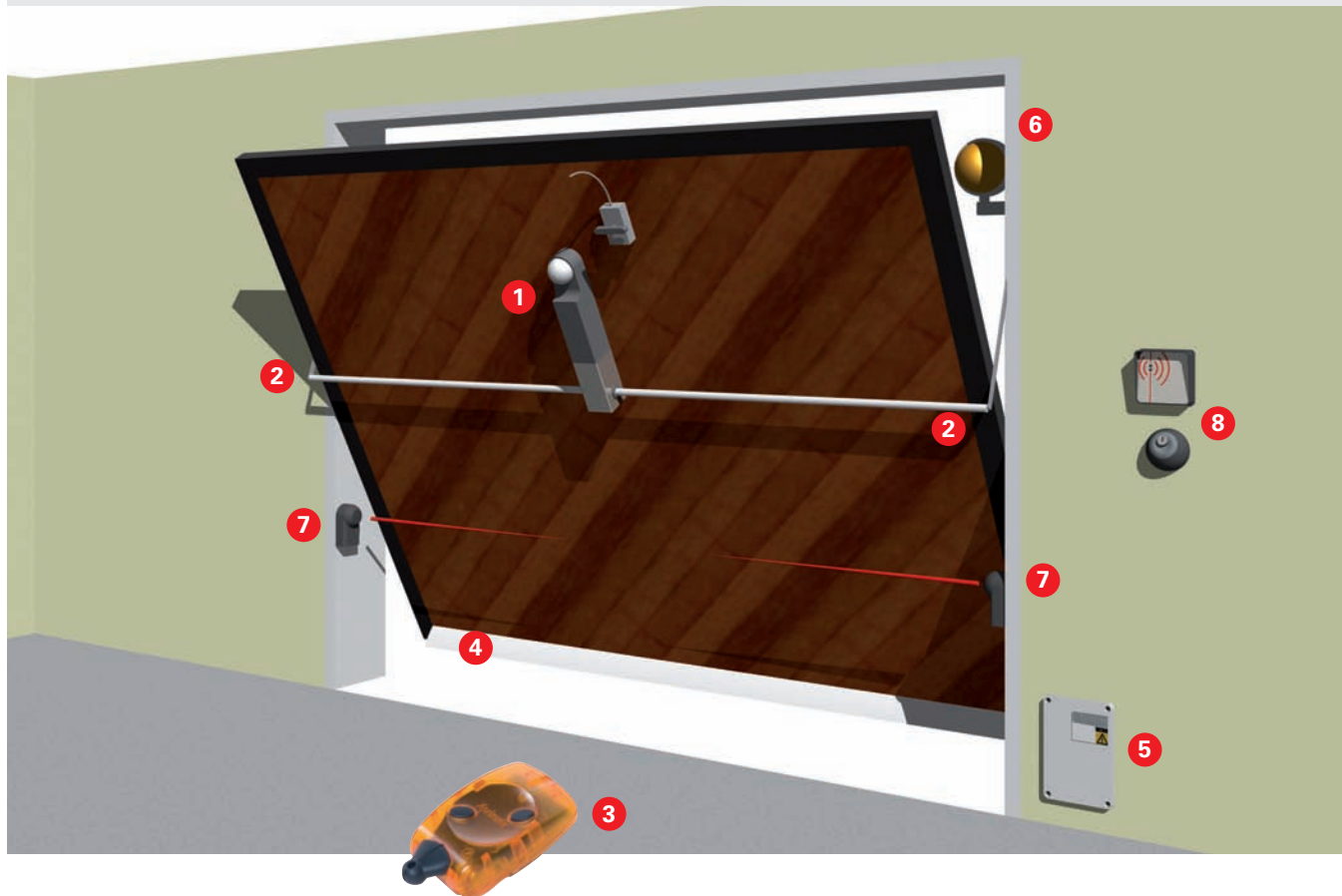
*** Can be used on counterweight up-and-over doors if fitted with curved arm.

NOTE: The above mentioned data refer to carefully installed and regularly maintained products.

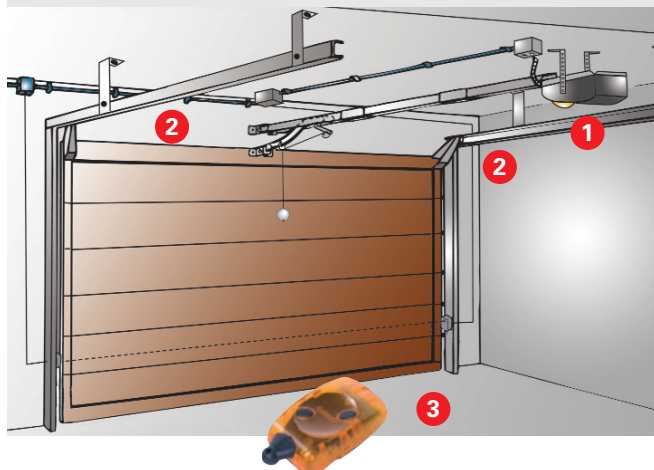


COUNTERWEIGHT UP-AND-OVER SECTIONAL AND FOLDING DOORS

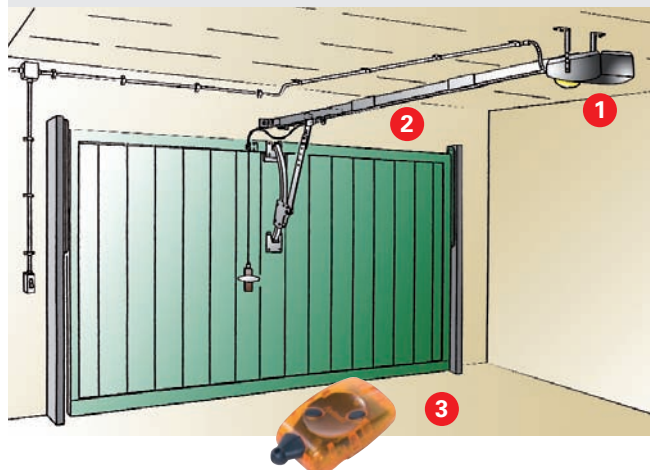
WIRING DIAGRAM



INSTALLATION LAYOUT FOR SECTIONAL DOORS



INSTALLATION LAYOUT FOR COUNTERWEIGHT UP-AND-OVER DOORS



- 1 Operator
- 2 Curved arm
- 3 Transmitter
- 4 Safety edge

- 5 Electronic control unit
- 6 433,92 Mhz Antenna and flashing light
- 7 Pair of photocells
- 8 Opening devices

NOTE: For control and safety devices and installation accessories, see section "Electronic devices and installation accessories" in this catalogue (consult the index).



ALZO

Electro-mechanical operator for counterweight up-and-over doors.
Residential use.



Irreversible reduction unit, it keeps the up-and-over door closed even without electric lock.

External emergency release (optional) for access to the garage in the event of a power failure.

Carefully selected top quality materials.

Drive components in steel, gear motor body in die-cast aluminium, and equipment cover in ABS.
IP 44 protection rating.

Maximum anti-crush safety thanks to an on-board electronic control with electronic torque control and (switchable) anti-crush system.

Timed courtesy light incorporated in the operator to light the garage during door opening and closing.

Slowdown system for gradual approach at the end of opening and closing movements, preventing banging and unnecessary structural stress.

This is one of the best operators on the market in terms of performance.

The torsional force of 450 Nm that it develops makes it suitable for automating counterweight up-and-over doors of the following sizes:

- 3.5 x 3 m using just one motor;
- 5 x 3 m or with pedestrian door using two motors.

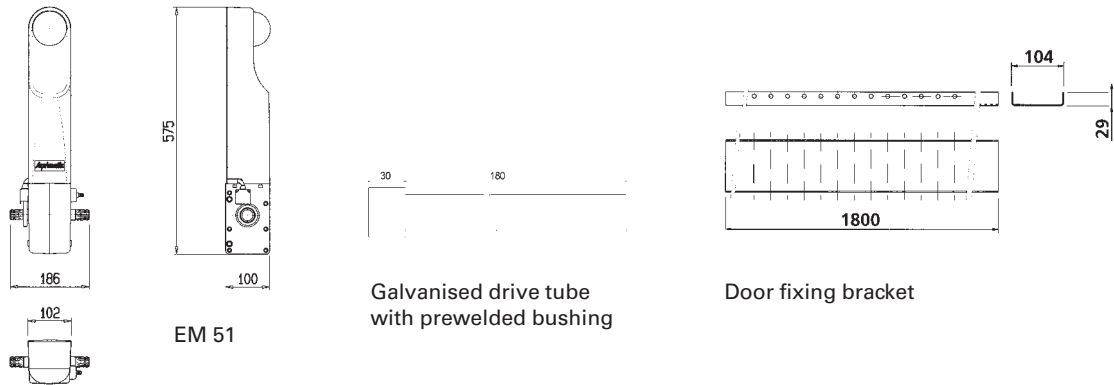
TECHNICAL DATA

POWER SUPPLY	230 V - 50/60 Hz
ABSORBED POWER	250 W
ABSORBED CURRENT	1,6 A
NOMINAL TORQUE	450 Nm
OPERATING TEMPERATURE	-20°C to +70°C
OPENING TIME	17 sec.
OVERLOAD TEMPERATURE	150° C
INTERMITTENT USE	50%
PROTECTION CLASS	IP44



ALZO

OPERATOR DIMENSIONS



DESCRIPTION	Max. door width	CODE
Operator ALZO with T3EC - Electronic control unit on board Aprimatic sign plate	3,5 x 3,0 m	41210/002

DESCRIPTION OF OPTIONAL ACCESSORIES	CODE
TR2 - 433.92 Mhz twin-channel transmitter	41903/002
ANT433 - 433.92 Mhz antenna with 4,5 m coaxial cable and earthing connection	41929/001
ET2N - 24V flasher light	41840/006
PS - Start button (pack of 10 pieces)	41210/070
TZ - Galvanized tube, 1,8 m, Ø 25 mm x 3, with prewelded bushes	41210/068
SS EM 51 - Single external emergency release	41210/054
SD EM 51 - Double external emergency release	41210/055
CF3MS - 3,0 m safety edge (thin type for garage doors)	41850/001
Pair of straight telescopic arms	41201/052
Pair of curved telescopic arms	41201/051
ST126 - Door panel fixing bracket, length 126 cm (as alternative to ST180)	41210/066
PST - Extension for door panel fixing bracket	41210/067
Kit antenna for fixing on body flashing -lamp	41929/003

SINGLE MOTOR ideal installation (max. door size 3.5x3 m)	Q.ty	CODE
Operator ALZO with T3EC - Electronic control on board	1	41210/002
RR SE - 433.92 Mhz single super-heterodyne receiver	1	41923/009
TR2 - 433.92 Mhz twin-channel transmitter	1	41903/002
Pair of plasma cut, quick fit curved arms (5 mm thick)	1	41210/058
HARDWARE KIT Two TZ - Galvanized tubes, 1,8 m, Ø 25 mm x 3, with prewelded bushes ST180 - Door fixing bracket, length 180 cm	1	41210/062

DOUBLE MOTOR ideal installation (max. door size 5x3 m)	Q.ty	CODE
Operator ALZO with T3EC - Electronic control on board	1	41210/002
Slave operator ALZO Including a pair of 20 cm tubes with splined bush	1	41210/001
Pair of quick fit straight arms	1	41210/069
ST180 - Door fixing bracket, length 180 cm	2	41210/061
RR SE - 433.92 Mhz single super-heterodyne receiver	1	41923/009
TR2 - 433.92 Mhz twin-channel transmitter	1	41903/002

NOTE: The installation of Alzo requires a rebalancing of the door (see the instruction).

NOTE: For control and safety devices and installation accessories, see section "Electronic devices and installation accessories" in this catalogue (consult the index).



AT 50

Hydraulic operator for counterweight up-and-over doors.
Residential, condominium
and intensive use.



The anti-crush system with ultra-sensitive bypass valves can be calibrated during installation to limit hydraulic pressure if the gate meets an obstacle, thus ensuring maximum operating safety.

Ideal for heavy duty applications and large up-and-over doors.

Double open and closed position locking to secure the door's stopping position with no need for other locks.

The AT 50 is easy to install without having to modify the door.

The AT 50's spheroidal cast-iron body makes it extremely resistant to knocks and operating stress.

The internal oil seal rings ensure that the hydraulic system is leak-proof.

Low noise and consistent performance are guaranteed by polyurethane gaskets and PTE guide rings.

TECHNICAL DATA

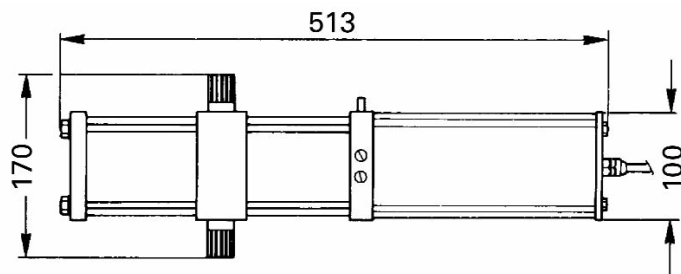
POWER SUPPLY	230 V - 50/60 Hz
ABSORBED POWER	250 W
NOMINAL TORQUE AT 40 bar/Nm	320 N
OPERATING TEMPERATURE	-20°C to +70°C
OPENING TIME	18 sec.
MAX. OPERATING PRESSURE	40 bar
PUMP CAPACITY	1 Lt/min. (AT 50) 0,75 Lt/min. (ZT 50)
QUANTITY OF OIL	1,3 Lt
WEIGHT WITH OIL	13 kg
TYPE OF OIL	AprimOil HC 13
SHAFT ROTATION ANGLE	~200°
SLOWDOWN	Optional
PROTECTION CLASS	IP53





AT 50

OPERATOR DIMENSIONS



DESCRIPTION	Max. door width	CODE
Operator AT 50B5	3,5 x 3 m	41200/001
Operator AT 50B7	3,5 x 3 m	41200/005

DESCRIPTION OF OPTIONAL ACCESSORIES	CODE
AT 50 slowdown limit switch set	41201/050
SS AT 50 - External emergency release for single AT 50	41200/050
SD AT 50 - External emergency release for double AT 50	41200/051
CF3MS - 3,0 m safety edge (thin type for garage doors)	41850/001
Pair of curved telescopic arms	41201/051
Pair of straight telescopic arms	41201/052
Pair of 20 cm tubes with prewelded splined bushes	41201/055
T3 - Connector for courtesy light	41210/072

SINGLE MOTOR ideal installation (max. door size 3.5x3 m)	Q.ty	CODE
Operator AT 50B7	1	41200/005
T3E - Electronic control	1	41625/003
RR SE - 433.92 Mhz single super-heterodyne radio receiver	1	41923/009
TR2 - 433.92 Mhz twin-channel transmitters	1	41903/002
Pair of quick fit straight arms	1	41210/069
TZ - Galvanized tube, 1,8 m, Ø 25 mm x 3, with prewelded bushes	2	41210/068
Pair of tubular upright supports 30x15x1,5 mm - 2,5 m bars	1	41201/056

DOUBLE MOTOR ideal installation (max. door size 5x3 m)	Q.ty	CODE
Two operators AT 50B7	2	41200/005
T3E - Electronic control	1	41625/003
RR SE - 433.92 Mhz single super-heterodyne radio receiver	1	41923/009
TR2 - 433.92 Mhz twin-channel transmitters	1	41903/002
Pair of quick fit straight arms	1	41210/069
Pair of 20 cm tubes with prewelded splined bushes	1	41201/055
Pair of tubular upright supports 30x15x1,5 mm - 2,5 m bars	2	41201/056

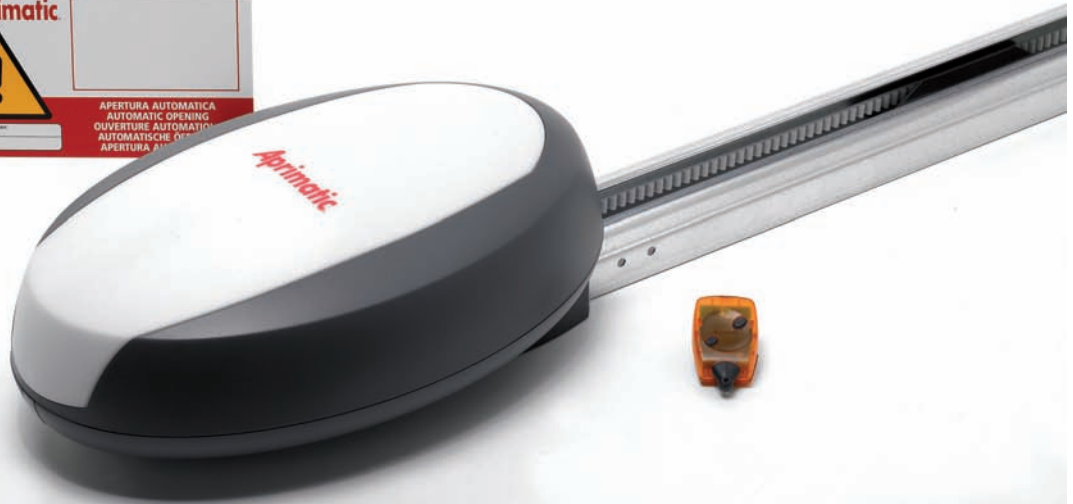
NOTE: The installation of AT50 requires a rebalancing of the door (see the instruction).

NOTE: For control and safety devices and installation accessories, see section "Electronic devices and installation accessories" in this catalogue (consult the index).



APRIBOX 700/1200

Low-voltage electro-mechanical operator
for sectional and counterweight, up-and-over, garage doors.
Residential use.



Fitted with **mechanical stops** and encoder technology to ensure precise stop at end of stroke and protection against any failures.

Maximum anti-crush safety ensured by on-board electronic control unit with auto-reverse function in case of collision with an obstacle.

APRIBOX 700 and APRIBOX 1200 can also be used to automate counterweight, up-and-over, doors if installed with curved arms.

Slowdown system for gradual approach at the end of opening and closing phases, preventing banging and structural stress.

Timed courtesy light integrated onto the operator to light up the garage during opening and closing.

The belt drive guarantees excellent reliability, wear resistance and silent operation.

In the event of power failure, the continuity of operation is guaranteed by a set of optional batteries which can be fitted in the operator casing.

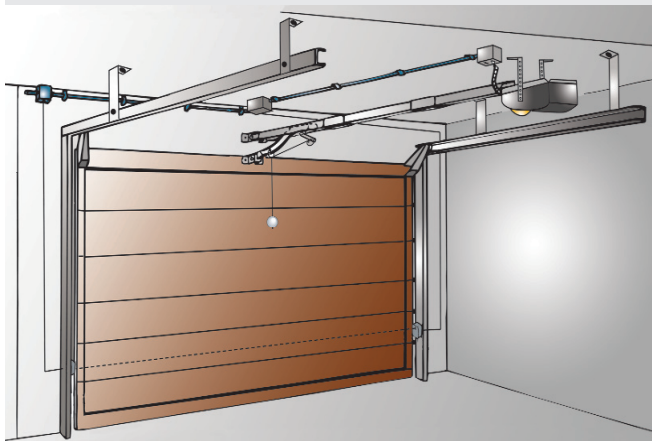
TECHNICAL DATA	APRIBOX 700	APRIBOX 1200
POWER SUPPLY	230 Vac - 50/60 Hz	230 Vac - 50/60 Hz
MOTOR POWER SUPPLY	24 Vcc	24 Vcc
ABSORBED POWER	100 W	100 W
THRUST FORCE LINEAR SPEED	650 N	1200 N
OPERATING TEMPERATURE	-20°C to +55°C	-20°C to +55°C
LINEAR SPEED	Adjustable from 9 to 16 cm/sec.	
DRIVE	Belt	Belt
TOTAL LENGTH (3 m guide)	3000 mm	3000 mm
USEFUL TRAVEL (3 m guide)	2400 mm	2450 mm
MINIMUM INSTALLATION DISTANCE FROM CEILING	40 mm	40 mm
MAX. DOORS SIZE	10 m ²	14 m ²
LIMIT SWITCH	Encoder with mechanical limit switch	



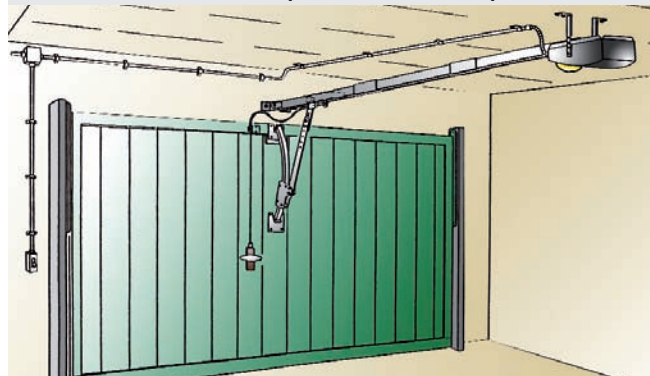


APRIBOX 700/1200

INSTALLATION DIAGRAM FOR SECTIONAL DOORS



INSTALLATION DIAGRAM FOR COUNTERWEIGHT, UP-AND-OVER, DOORS*



* This kind of application is only possible installing the curved arm. The up-and-over door must be perfectly balanced and must have a rigid structure.

COUNTERWEIGHT
UP-AND-OVER

DESCRIPTION	Max. door width	CODE
KIT APRIBOX 700	10 m ²	41241/800
KIT APRIBOX 1200	14 m ²	41241/801
Both packages include: APRIBOX motor On-board electronic control unit 433,92 Mhz super-heterodyne radio receiver TR2 - 433,92 Mhz twin-channel transmitter Aprimatic sign plate		

DESCRIPTION OF APRIBOX ACCESSORIES	CODE
Guide 3 m (1 pc 3 m)	41241/050
Guide 3 m (2 pcs 1,5 m each)	41241/051
Guide 4 m (1 pc 1 m and 1 pc 3 m)	41241/052
Release cable	41241/054

DESCRIPTION OF APRIBOX OPTIONAL ACCESSORIES	CODE
Curved arm for Apribox	41241/056
Battery charge board kit + batteries	41241/055
Ceiling fixing bracket kit (optional)	41241/053
TR2 - 433,92 Mhz twin-channel transmitter	41903/002
ANT433 - 433,92 Mhz antenna with 4,5 m coaxial cable and earth connection	41929/001
ER4N - Pair of photocells	41812/001
ET2N - 24V flashing light	41840/006

COUNTERWEIGHT UP-AND-OVER DOOR - Ideal installation	CODE
KIT APRIBOX 1200	41241/801
Curved arm for Apribox	41241/056
Guide 3 m (1 pc 3 m)	41241/050
Release cable	41241/054

NOTE: For control and safety devices and installation accessories, see section "Electronic devices and installation accessories" in this catalogue (consult the index).



AT 56

Hydraulic operator for folding doors.
Residential, condominium and intensive use.

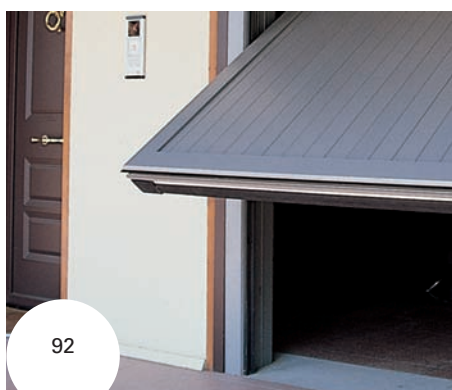


Anti-crush system with very sensitive by pass valves calibrated during installation.

This immediately cuts the hydraulic pressure in the event of obstacles to ensure maximum safety.

TECHNICAL DATA

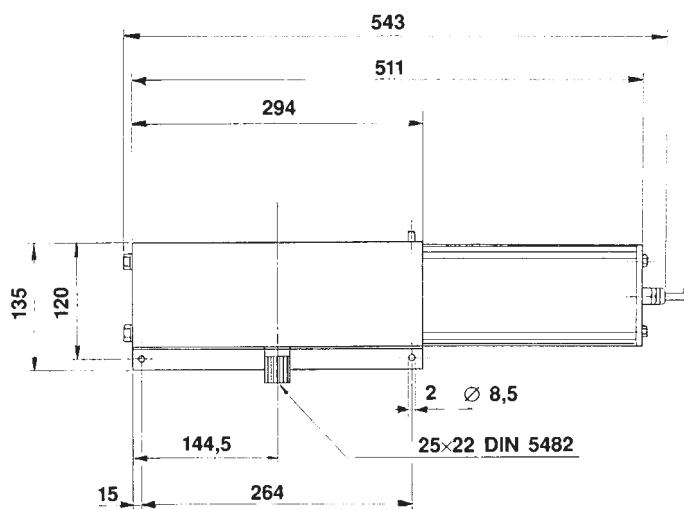
MOTOR POWER SUPPLY	230 V - 50/60 Hz
ABSORBED POWER	250 W
MAX. THRUST FORCE	320 N
OPERATING TEMPERATURE	-20°C to +70°C
MAX. LEAF LENGTH	1,5 m
ANTI-CRUSH SAFETY	By pass valves
NUMBER OF DAILY CYCLES	50
NUMBER OF CYCLES/HOUR	10
LUBRICATION TYPE	AprimOil DN 22
PROTECTION CLASS	IP44





AT 56

OPERATOR DIMENSIONS

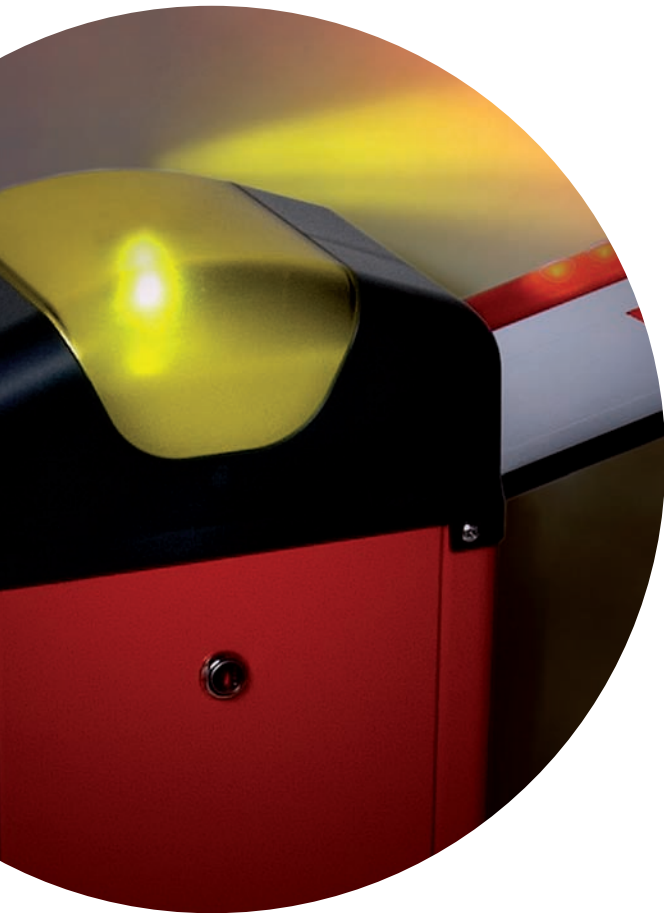


DESCRIPTION	Max. leaf width	CODE
AT 56 B7 RH Operator with hydraulic lock in opening and closing	2,0 m	41400/002.0
AT 56 B7 SH Operator with hydraulic lock in opening and closing	2,0 m	41400/011.1
AT 56 SF7 DH Operator without hydraulic lock, electric lock required	2,0 m	41400/003.0
AT 56 SF7 SH Operator without hydraulic lock, electric lock required	2,0 m	41400/012.1
Swing 230 - Electronic control unit with built in radio receiver		41606/001
NOTE: Minimum configuration operator + telescopic arm.		

DESCRIPTION OF OPTIONAL ACCESSORIES	CODE
Telescopic arm (complete of plates and mechanical stops)	41400/050
Universal external emergency single release	41200/050
TR2 - 433,92 MhzTwin channel transmitter	41903/002
ER4N - Pair of photocells	41812/001
PC12E - Key switch for wall mounting	41830/007
ET 20N - 230V flashing light	41841/009
433,92 Mhz antenna	41929/001

IDEAL INSTALLATION	Q.ty	CODE
AT 56 B7 RH	1	41400/002.0
Swing 230 - Electronic control unit with built in radio receiver	1	41606/001
Telescopic arm	1	41400/050
Universal external emergency single release	1	41200/050
TR2 - 433,92 MhzTwin channel transmitter	1	41903/002
ER4N - Pair of photocells	1	41812/001
ET 20N - 230V flashing light	1	41841/009



NOTE: For control and safety devices and installation accessories, see section "Electronic devices and installation accessories" in this catalogue (consult the index).





TRAFFIC BARRIERS AND CLOSING SYSTEMS FOR INDUSTRIAL BUILDINGS

TRAFFIC BARRIERS AUTOMATIONS

MODELS	MAX. BEAM LENGTH	OPENING TIME	CONDITIONS OF USE			FREQUENCY OF USE	BEAM TYPE
			Residential	Condominium	Intensive		
 PATROL	4,5 m	5,0 s max.	●	●		80 %	90x25 - Ø80 85x51
 ZT 64	4,5 m	5,0 s	●	●	●	70 %	90x25
 ZT 60	6,5 m	11,0 s	●	●		70 %	100x50
 HARRIER LUX	E25 = 2,5 m E40 = 4,0m E50 = 5,0 m E60 = 6,0 m	1,8 s 2,5 s 6,0 s 9,5 s				●	100 % 90x25 - Ø80
 HARRIER E	E25 = 2,5 m E40 = 4,0m E50 = 5,0 m E60 = 6,0 m	1,8 s 2,5 s 6,0 s 9,5 s				●	100 % 90x25 - Ø80
 HARRIER X	X25 = 2,5 m X40 = 4,0m X50 = 5,0 m X60 = 6,0 m	1,8 s 2,5 s 6,0 s 9,5 s				●	100 % 90x25 - Ø80
 AT 166 AT 167	AT166 = 4,0 m AT167 = 6,0 m	2,5 s 9,5 s				●	100 % 90x25 - Ø80
 AT 168 AT 170	AT168 = 7,0 m AT170 = 10,0 m	9,5 s 17 s		●	●	100 %	100x50

NOTE: The above mentioned data refer to carefully installed and regularly maintained products.

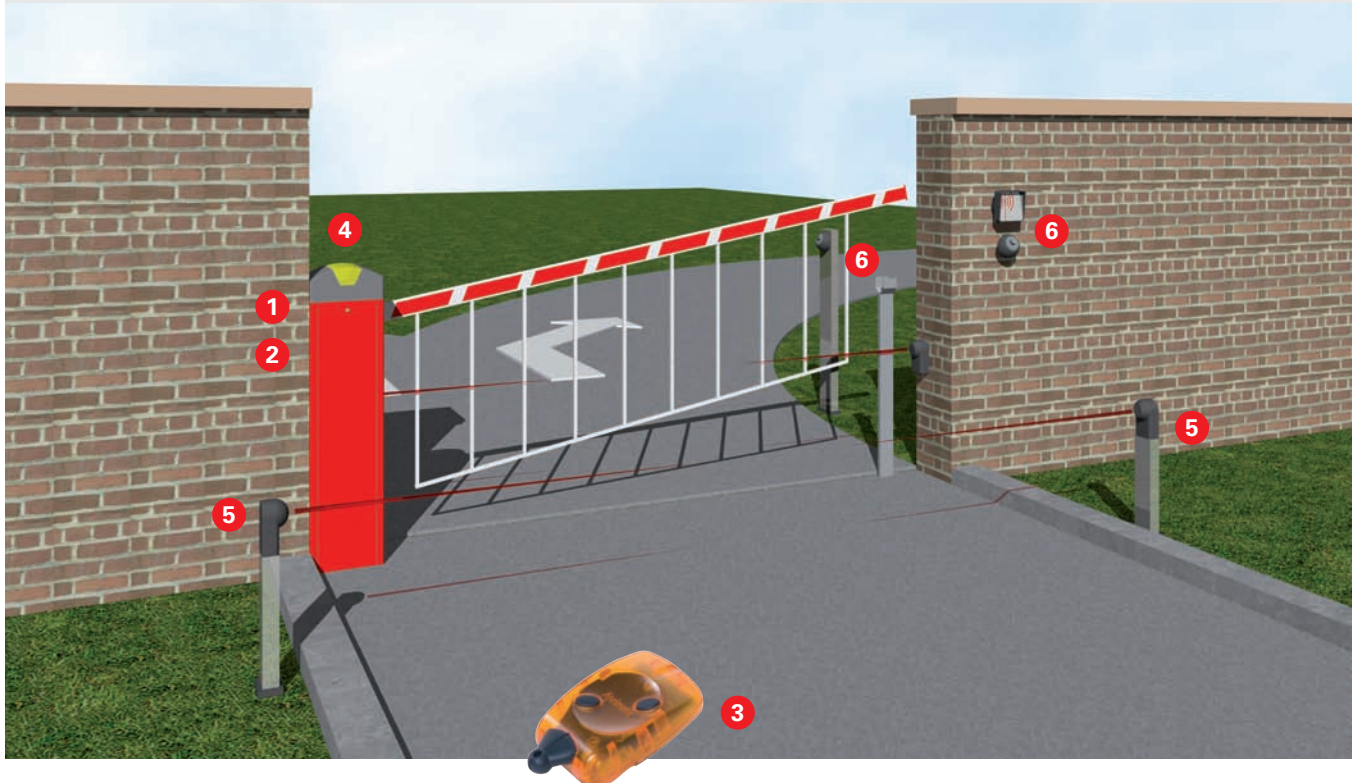


TRAFFIC BARRIERS AND CLOSING SYSTEMS FOR INDUSTRIAL BUILDINGS

SYSTEM TYPE FOR TRAFFIC BARRIERS



SYSTEM TYPE FOR TRAFFIC BARRIERS (barrier with skirt)



- 1 Traffic barrier
- 2 Electronic control unit
- 3 Transmitter
- 4 Flashing light
- 5 Pair of photocells
- 6 Control device: key switch / proximity sensor access control / electronic key-pad / tamper-proof card / magnetic key reader



PATROL

Electro-mechanical 24V barrier
for passage spans of 2 m to 4,5 m.
Residential and condominium use with duty cycle 80%.



User friendly electronics: easy programming, to set and control, thanks to the provided display.

Easy to install and setup: all you have to do is balance the compression spring. A spring type is available for each barrier length. Only one model for right and left barrier.

Compact size and latest generation design: stretched and narrow shape, with a cover integrating the flashing light.

Intended use: small / medium car park for private and industrial use.

Technical solutions:

1. Super smooth action thanks to the spring-loaded balancing system.
2. Strong construction featuring a steel load-bearing framework.
3. Safe, easy to release system with personalized key.
4. The electronic control unit is housed in a protective plastic casing with easy access for wiring and programming.
5. Built-in flashing lamp.
6. Slowdown adjustable.
7. Ready for master-slave operation to control twin barriers.
8. Long service life guaranteed by the safety slow down function where microswitch control prevents forcing of mechanical components if the system is incorrectly programmed.

TECHNICAL DATA

POWER SUPPLY	230 V - 50/60 Hz
MOTOR POWER SUPPLY	24 Vcc
MAX. ABSORBED POWER	150 W
MAX. ABSORBED CURRENT	1 A
MAX. TORQUE	500 Nm
OPENING TIME	5 sec. max.
OPERATING TEMPERATURE	-20°C to +70°C
BEAM LENGTH	From 2,0 to 4,5 m max.
SLOWDOWN	YES (adjustable)
ANTI-CRUSH	YES
PROTECTION CLASS	IP44



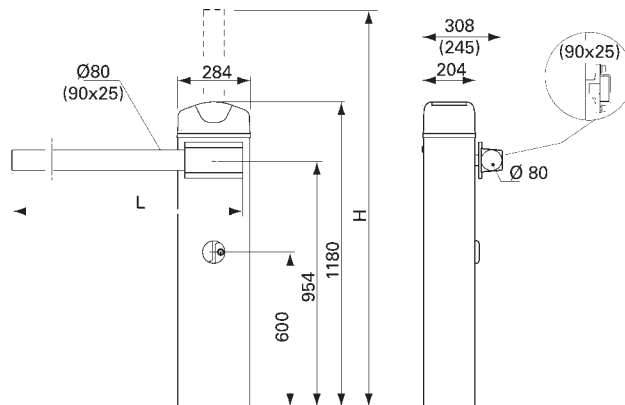
Easy access to control unit
for wiring and programming.





PATROL

OPERATOR DIMENSIONS



DESCRIPTION	CODE
PATROL with control unit and plug-in radio receiver	41540/001

DESCRIPTION NECESSARY ACCESSORIES	CODE
PF PATROL Base plate	41540/050
Stainless steel securing flange for 85x51 beam	41524/056
Stainless steel securing flange for 90x25 beam	41540/051
Stainless steel securing flange for Ø 80 beam	41540/052
Card for double Patrol operation "master/slave" (one for each barrier)	41540/053
BEAM 90x25:	
- Beam length 2,0 m (for spring combination see table)	41518/001
- Beam length 2,5 m (for spring combination see table)	41518/002
- Beam length 3,0 m (for spring combination see table)	41518/003
- Beam length 3,5 m (for spring combination see table)	41518/004
- Beam length 4,0 m (for spring combination see table)	41518/005
- Beam length 4,5 m (for spring combination see table)	41518/006
BEAM Ø 80:	
- Beam length 3,0 m (for spring combination see table)	41522/001
- Beam length 6,0 m (for spring combination see table)	41522/002
BEAM 85x51 with light kit mounted:	
- Beam length 3,0 m (for spring combination see table)	41524/803
- Beam length 3,5 m (for spring combination see table)	41524/804
- Beam length 4,0 m (for spring combination see table)	41524/805
- Beam length 4,5 m (for spring combination see table)	41524/806
85x51 profile beam shearing protection kit	41540/054

DESCRIPTION OF OPTIONAL ACCESSORIES	CODE
TR2 - Twin-channel transmitter 433,92 Mhz	41903/002
FC1 - Fork support for beam	41503/052
PP - Swinging tip support	41504/055
Battery Kit	41024/053
PC12E - Key switch for wall mounting	41830/007
CPC - Key switch column (height 110 cm)	41830/055
Aprimatic beam stickers (pack of 50 stickers)	41590/106
SKIRT only for 85x51 and 90x25 beams:	
Vertical skirt module (height 69 cm, number of vertical modules to order = beam length x 2)	41504/051
Horizontal skirt module (wheel base distance 46 cm, number of horizontal modules to order = number of vertical modules -1)	41504/052

SPRING SELECTION TABLE	Length of beam (m)					
	2	2,5	3	3,5	4	4,5
90x25 and 85x51 beam	Green	Green	Blue	Blue	Blue	Yellow
90x25 and 85x51 beam with swing support	Green	Green	Blue	Blue	Blue	Yellow
90x25 and 85x51 beam with skirt		Green	Blue	Red		
Rounded beam Ø 80	Green	Green	Blue	Blue	Blue	Yellow

DESCRIPTION	CODE
SPRINGS:	
Patrol "Green" spring	41514/053
Patrol "Blue" spring	41514/054
Patrol "Red" spring	41514/055
Patrol "Yellow" spring	41514/056

NOTE: For control and safety devices and installation accessories, see section "Electronic devices and installation accessories" in this catalogue (consult the index).



ZT 64

Hydraulic barrier for vehicular spans of up to 4.5 m.
Residential and condominium use with duty cycle 80%.



High quality barrier for intensive applications.

Maximum safety guaranteed by the adjustable anti-crush system with ultra-sensitive bypass valves.

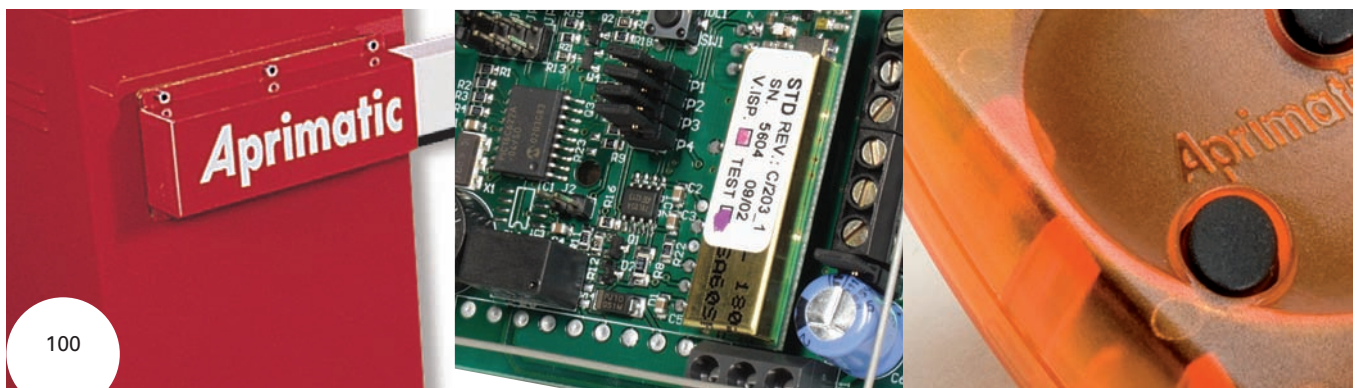
Hydraulic system and helical spring balancing for smooth and adjustable movement.

Double hydraulic locking prevents reverse movement when the barrier is closed and also allows to stop the barrier in intermediate positions.

Lightweight aluminium alloy beam with rubber safety strip to prevent knocks and scratches.

TECHNICAL DATA

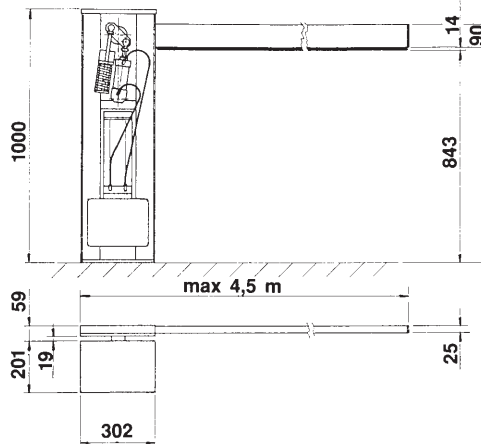
POWER SUPPLY	230 V - 50/60 Hz
ABSORBED POWER	250 W
ABSORBED CURRENT	1,6 A
MAX. TORQUE	240 Nm
OVERLOAD DEVICE	130°C
OPENING TIME	5 sec.
OPERATING TEMPERATURE	-20°C to +70°C
WEIGHT WITH OIL	50 kg
QUANTITY OF OIL	1,6 Lt
TYPE OF OIL	AprimOil HC 13
MAX. OPERATING PRESSURE	40 bar
PUMP CAPACITY	1 Lt/min.
ROTATION ANGLE	90°
BEAM LENGTH	3,0 m-3,5m-4,0 m-4,5 m
PROTECTION CLASS	IP54



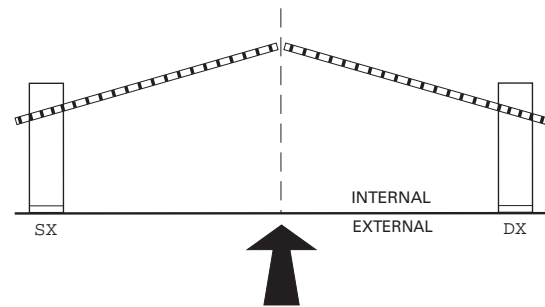


ZT 64

OPERATOR DIMENSIONS



DEFINITION OF RIGHT AND LEFT HAND BARRIERS



When entering through the barrier, RH barriers open clockwise while LH barriers open anti-clockwise.

DESCRIPTION	Max. beam length	CODE
ZT 64 RH, on-board T3 control unit	4,5 m	41504/002.0
ZT 64 LH, on-board T3 control unit	4,5 m	41504/002.1
ZT 64 RH slave	4,5 m	41504/001.0
ZT 64 LH slave	4,5 m	41504/001.1
ZT 64 Stainless steel RH slave	4,5 m	41504/700.0
ZT 64 Stainless steel LH slave	4,5 m	41504/700.1

NOTE: All models are equipped with double hydraulic locking and a 90x25 cm beam fixing bracket.

DESCRIPTION OF OPTIONAL ACCESSORIES	CODE
PF 64 - Base plate	41504/056
TR2 - 433.92 Mhz twin-channel transmitter	41903/002
PC12E - Key switch for wall mounting	41830/007
CPC - Key switch column (height 110 cm)	41830/055
FC2 - Fork for 2 m to 4.5 m beams	41504/053
PP - Swinging tip support	41504/055
MG90 - Join clamp for 90x25 beam	41504/054
SBS 64 - Articulated beam set	41504/057
SKIRT only for 90x25 beam:	
- Vertical skirt module (height 69 cm, number of vertical modules to order = beam length x 2)	41504/051
- Horizontal skirt module (wheel base distance 46 cm, number of horizontal modules to order = number of vertical modules - 1)	41504/052
Aprimatic beam stickers (pack of 50 stickers)	41590/106

IDEAL INSTALLATION	Q.ty	CODE
ZT 64 RH on-board T3 control unit	1	41504/002.0
PF 64 - Column base plate	1	41504/056
ER4N - Pair of photocells	1	41812/001
One TR2 - 433,92 Mhz twin-channel transmitter	1	41903/002
Unico 433,92 Mhz Memory System radio receiver with antenna included	1	41923/009
ET20N - 230V flashing light	1	41841/009
Necessary accessory 90x25 beam:		
- 3,0 m beam	1	41518/003
- 3,5 m beam	or 1	41518/004
- 4,0 m beam	or 1	41518/005
- 4,5 m beam	or 1	41518/006

NOTE: For control and safety devices and installation accessories, see section "Electronic devices and installation accessories" in this catalogue (consult the index).



ZT 60

Hydraulic barrier for vehicular spans of 5 to 6.5 m.
Residential and condominium with duty cycle 70%.



High quality barrier for intensive applications.

Maximum safety guaranteed by the adjustable anti-crush system with ultra-sensitive bypass valves.

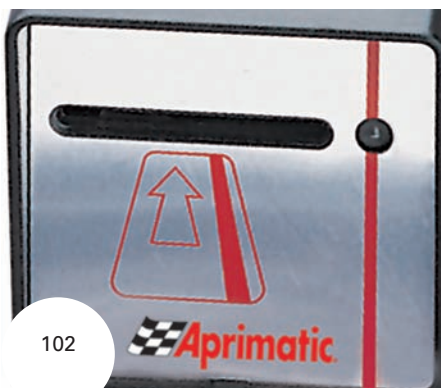
Hydraulic system and helical spring balancing for smooth and adjustable movement.

Double hydraulic locking prevents reverse movement when the barrier is closed and also allows to stop the barrier in intermediate positions.

Lightweight aluminium alloy beam with rubber safety strip to prevent knocks and scratches.

TECHNICAL DATA

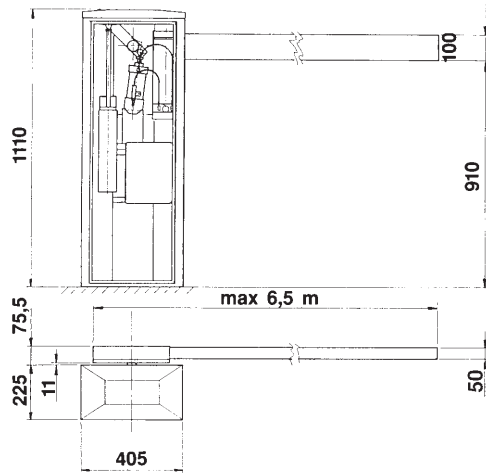
POWER SUPPLY	230 V - 50/60 Hz
ABSORBED POWER	250 W
ABSORBED CURRENT	1,6 A
MAX. TORQUE	230 Nm
OVERLOAD DEVICE	130°C
OPENING TIME	11 sec.
OPERATING TEMPERATURE	-20°C to +70°C
WEIGHT WITH OIL	85 kg
QUANTITY OF OIL	1,6 Lt
TYPE OF OIL	AprimOil HC 13
MAX. OPERATING PRESSURE	40 bar
PUMP CAPACITY	1 Lt/min.
ROTATION ANGLE	90°
BEAM LENGTH	5,0 m - 5,5 m - 6,0 m - 6,5 m
PROTECTION CLASS	IP54



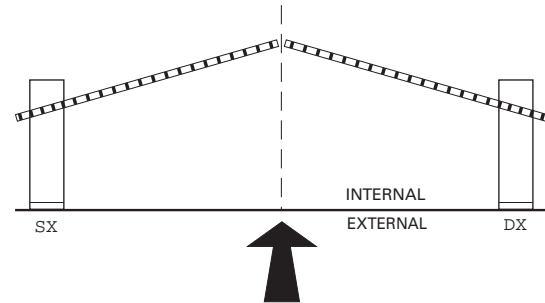


ZT 60

OPERATOR DIMENSIONS



DEFINITION OF RIGHT AND LEFT HAND BARRIERS



When entering through the barrier, RH barriers open clockwise while LH barriers open anti-clockwise.

DESCRIPTION	Max. beam length	CODE
ZT 60 RH, on-board T3 control unit	From 5 m to 6,5 m	41503/002.0
ZT 60 LH, on-board T3 control unit	From 5 m to 6,5 m	41503/002.1
ZT 60 RH slave	From 5 m to 6,5 m	41503/001.0
ZT 60 LH slave	From 5 m to 6,5 m	41503/001.1
ZT 60 stainless steel RH slave	From 5 m to 6,5 m	41503/700.0
ZT 60 stainless steel LH slave	From 5 m to 6,5 m	41503/700.1

NOTE: All models are equipped with double hydraulic locking and a 90x25 beam fixing bracket.

DESCRIPTION OF OPTIONAL ACCESSORIES	CODE
PF 60 - Base plate	41503/053
TR2 - 433.92 Mhz twin-channel transmitter	41903/002
PC12E - Key switch for wall mounting	41830/007
CPC - Key switch column for PC12E (height 110 cm)	41830/055
AT 60 - Balancing spring for 6,5 m beam	41500/114
FC1 - Fork for 5 m to 6,5 m beam	41503/052
PFF FC60 - Fork base plate	41812/051
PP - Swinging tip support	41504/055
MG100 - Join clamp for 100x50 beam	41503/054
Aprimatic beam stickers (pack of 50 stickers)	41590/106

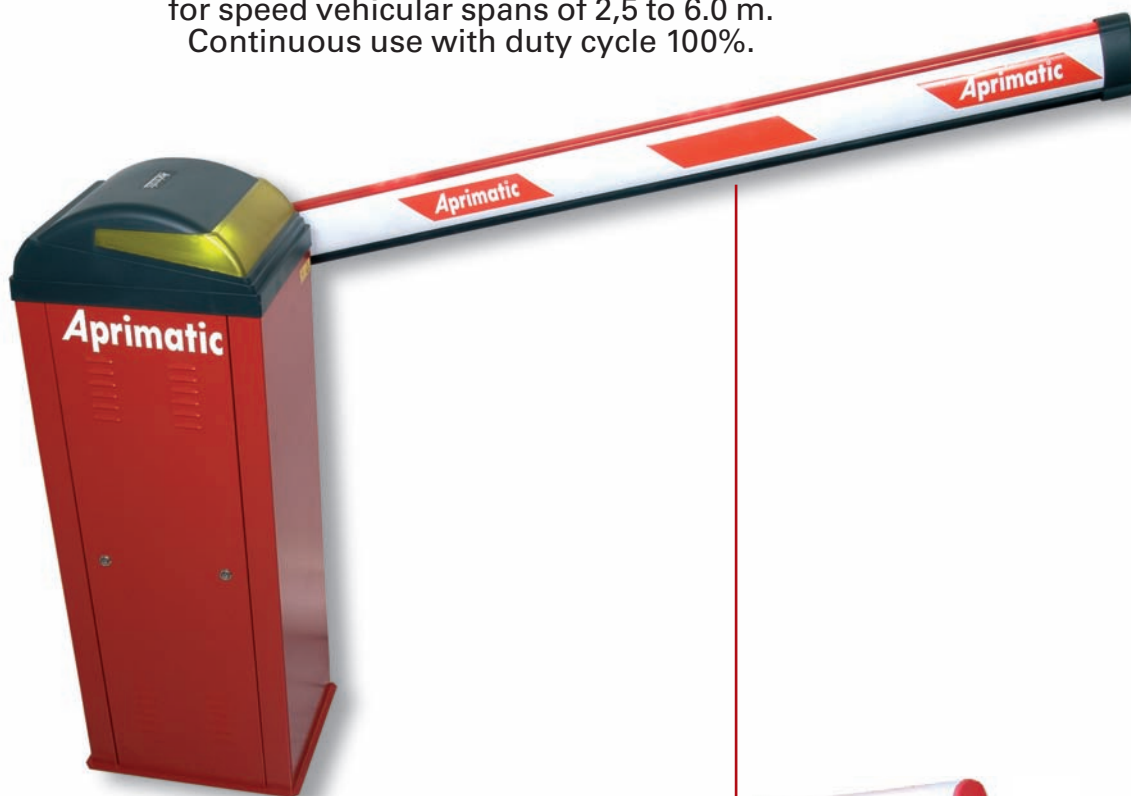
IDEAL INSTALLATION	Q.ty	CODE
ZT 60 RH - On-board T3 control	1	41503/002.0
PF 60 - Column base plate	1	41503/053
ER4N - Pair of photocells	1	41812/001
One TR2 - 433,92 Mhz twin-channel transmitter	1	41903/002
Unico 433,92 Mhz Memory System radio receiver with antenna included	1	41923/009
ET20N - 230 V flashing light	1	41841/009
Necessary accessory 100x50 beam:		
- 5,0 m beam	1	41519/006
- 5,5 m beam	or 1	41519/007
- 6,0 m beam	or 1	41519/008
- 6,5 m beam	or 1	41519/009
AT 60 balancing spring	1	41500/114

NOTE: For control and safety devices and installation accessories, see section "Electronic devices and installation accessories" in this catalogue (consult the index).



HARRIER LUX

Electro-mechanical barriers
for speed vehicular spans of 2,5 to 6.0 m.
Continuous use with duty cycle 100%.



Stell barrier designed for continuous use, 1500 cycles per day.
Two versions available: with stainless steel and red epoxy painted body.

Plastic case with built-in flashing lamp.

Same code for right and left hand barrier, the installer can change it very easily during installation.

4 barrier models (mod. E), equipped with Traffic control unit with safety photocell test and electronic torque control.

Both 90 x 25 mm, beam and round Ø 80 mm beam are available.

Double microswitch for opening and closing manoeuvres.

Kinematical glipho, guarantees the mechanical slowing down.

TECHNICAL DATA	LUX E25	LUX E40	LUX E50	LUX E60
POWER SUPPLY	230 Vac - 50/60 Hz	230 Vac - 50/60 Hz	230 Vac - 50/60 Hz	230 Vac - 50/60 Hz
ABSORBED POWER	0,18 kW	0,18 kW	0,18 kW	0,18 kW
ABSORBED CURRENT	1,6 A	1,6 A	1,6 A	1,55 A
MAX. TORQUE	40 Nm	70 Nm	120 Nm	160 Nm
OPENING TIME	1,8 s	2,5 s	6,0 s	9,5 s
MAX. BEAM LENGTH	2,5 m	4,0 m	5,0 m	6,0 m
OPERATING TEMPERATURE	-15° to +60° C	-15° to +60° C	-15° to +60° C	-15° to +60° C
PROTECTION CLASS	IP44	IP44	IP44	IP44





HARRIER LUX

DESCRIPTION	Max. beam length	CODE
HARRIER LUX E25 with integrated Traffic control unit	2,5 m	41514/021
HARRIER LUX E40 with integrated Traffic control unit	4,0 m	41514/022
HARRIER LUX E50 with integrated Traffic control unit	5,0 m	41514/024
HARRIER LUX E60 with integrated Traffic control unit	6,0 m	41514/023

DESCRIPTION OF OPTIONAL ACCESSORIES	CODE
PF HARRIER - Base plate	41514/050
Stainless steel securing flange for 90x25 beam	41514/051
Stainless steel securing flange for Ø 80 beam	41514/052
BEAM 90x25:	
- Beam length 2,5 m (for spring combination see table)	41518/002
- Beam length 3,0 m (for spring combination see table)	41518/003
- Beam length 3,5 m (for spring combination see table)	41518/004
- Beam length 4,0 m (for spring combination see table)	41518/005
- Beam length 4,5 m (for spring combination see table)	41518/006
BEAM Ø 80:	
- Beam length 3,0 m (for spring combination see table)	41522/001
- Beam length 6,0 m (for spring combination see table)	41522/002
Telescopic beam from 4,5 m to 6 m (for spring combination see table)	41523/001
SPRINGS:	
- Harrier "Green" spring	41514/053
- Harrier "Blue" spring	41514/054
- Harrier "Red" spring	41514/055
- Harrier "Yellow" spring	41514/056

DESCRIPTION OF OPTIONAL ACCESSORIES	CODE
TR2 - 433.92 Mhz twin-channel transmitter	41903/002
RR SE - 433,92 Mhz Radioreceiver Memory System	41923/009
FC Harrier - Fork support for 2 m to 6,0 m beams	41514/057
PP - Swinging tip support	41504/055
CPC - Key switch column for PC12E (height 110 cm)	41830/055
Aprimatic beam stickers (pack of 50 stickers)	41590/106
SBS - Articulated beam set Harrier E (for 90x25 beam)	41522/055
SKIRT only for 90x25 beam:	
Vertical skirt module (height 69 cm, number of vertical modules to order = beam length x 2)	41504/051
Horizontal skirt module (wheel base distance 46 cm, number of horizontal modules to order = number of vertical modules - 1)	41504/052

SPRING SELECTION TABLE	Length of beam (m)									
	2	2,5	3	3,5	4	4,5	5	5,5	6	
90x25 beam with impact protection rubber	E25/E40	E25/E40	E40	E40	E40/E50	E50				
90x25 beam with rubber and swing support	E25/E40	E25/E40	E40	E40	E40/E50	E50				
90x25 beam with skirt		E40	E40/E50	E50	E50	E60				
Rounded beam Ø 80	E25/E40	E25/E40	E40	E40	E40/E50	E50	E50/E60	E60	E60	
Rounded telescopic beam						E50	E50/E60	E60	E60	

NOTE: For control and safety devices and installation accessories, see section "Electronic devices and installation accessories" in this catalogue (consult the index).



HARRIER

Electro-mechanical barriers
for speed vehicular spans of 2,5 to 6.0 m.
Continuous use with duty cycle 100%.



Stell barrier designed for continuous use, 1500 cycles per day.
Two versions available: with stainless steel and red epoxy painted body.

Same code for right and left hand barrier, the installer can change it very easily during installation.

4 barrier models for each version (mod. E and mod. X), equipped with Traffic control unit with safety photocell test and electronic torque control.

Both 90x25 mm beam and round Ø 80 mm beam are available.

Double microswitch for opening and closing manoeuvres:

Kinematical glipho, guarantees the mechanical slowing down.

TECHNICAL DATA	X25-E25	X40-E40	X50-E50	X60-E60
POWER SUPPLY	230 Vac - 50/60 Hz	230 Vac - 50/60 Hz	230 Vac - 50/60 Hz	230 Vac - 50/60 Hz
ABSORBED POWER	0,18 kW	0,18 kW	0,18 kW	0,18 kW
ABSORBED CURRENT	1,6 A	1,6 A	1,6 A	1,55 A
MAX. TORQUE	40 Nm	70 Nm	120 Nm	160 Nm
OPENING TIME	1,8 s	2,5 s	6,0 s	9,5 s
MAX. BEAM LENGTH	2,5 m	4,0 m	5,0 m	6,0 m
OPERATING TEMPERATURE	-15° +60° C	-15° +60° C	-15° +60° C	-15° +60° C
PROTECTION CLASS	IP44	IP44	IP44	IP44





HARRIER

DESCRIPTION	Max. beam length	CODE
HARRIER E25 with integrated Traffic control unit	2,5 m	41514/001
HARRIER E40 with integrated Traffic control unit	4,0 m	41514/002
HARRIER E50 with integrated Traffic control unit	5,0 m	41514/004
HARRIER E60 with integrated Traffic control unit	6,0 m	41514/003
HARRIER X25 STAINLESS STEEL with integrated Traffic control unit	2,5 m	41514/701
HARRIER X40 STAINLESS STEEL with integrated Traffic control unit	4,0 m	41514/702
HARRIER X50 STAINLESS STEEL with integrated Traffic control unit	5,0 m	41514/704
HARRIER X60 STAINLESS STEEL with integrated Traffic control unit	6,0 m	41514/703

DESCRIPTION OF OPTIONAL ACCESSORIES	CODE
PF HARRIER - Base plate	41514/050
Stainless steel securing flange for 90x25 beam	41514/051
Stainless steel securing flange for Ø 80 beam	41514/052
BEAM 90x25:	
- Beam length 2,5 m (for spring combination see table)	41518/002
- Beam length 3,0 m (for spring combination see table)	41518/003
- Beam length 3,5 m (for spring combination see table)	41518/004
- Beam length 4,0 m (for spring combination see table)	41518/005
- Beam length 4,5 m (for spring combination see table)	41518/006
BEAM Ø 80:	
- Beam length 3,0 m (for spring combination see table)	41522/001
- Beam length 6,0 m (for spring combination see table)	41522/002
Telescopic beam from 4,5 m to 6 m (for spring combination see table)	41523/001
SPRINGS:	
- Harrier "Green" spring	41514/053
- Harrier "Blue" spring	41514/054
- Harrier "Red" spring	41514/055
- Harrier "Yellow" spring	41514/056

DESCRIPTION OF OPTIONAL ACCESSORIES	CODE
TR2 - 433.92 Mhz twin-channel transmitter	41903/002
RR SE - 433,92 Mhz Radioreceiver Memory System	41923/009
FC Harrier - Fork support for 2 m to 6,0 m beams	41514/057
PP - Swinging tip support	41504/055
CPC - Key switch column for PC12E (height 110 cm)	41830/055
Aprimatic beam stickers (pack of 50 stickers)	41590/106
SBS - Articulated beam set Harrier X (for 90x25 beam)	41522/053
SBS - Articulated beam set Harrier E (for 90x25 beam)	41522/055
SKIRT only for 90x25 beam:	
Vertical skirt module (height 69 cm, number of vertical modules to order = beam length x 2)	41504/051
Horizontal skirt module (wheel base distance 46 cm, number of horizontal modules to order = number of vertical modules - 1)	41504/052

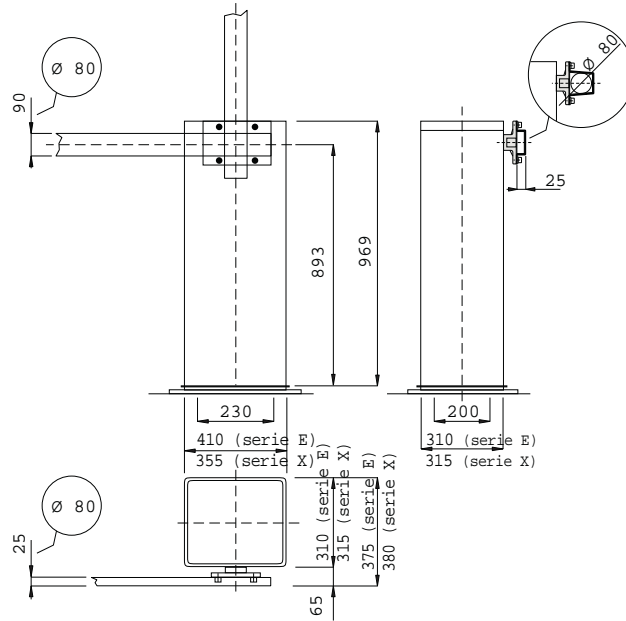
SPRING SELECTION TABLE	Length of beam (m)									
	2	2,5	3	3,5	4	4,5	5	5,5	6	
90x25 beam with impact protection rubber	E25/E40	E25/E40	E40	E40	E40/E50	E50				
90x25 beam with rubber and swing support	E25/E40	E25/E40	E40	E40	E40/E50	E50				
90x25 beam with skirt		E40	E40/E50	E50	E50	E60				
Rounded beam Ø 80	E25/E40	E25/E40	E40	E40	E40/E50	E50	E50/E60	E60	E60	
Rounded telescopic beam						E50	E50/E60	E60	E60	

NOTE: For control and safety devices and installation accessories, see section "Electronic devices and installation accessories" in this catalogue (consult the index).

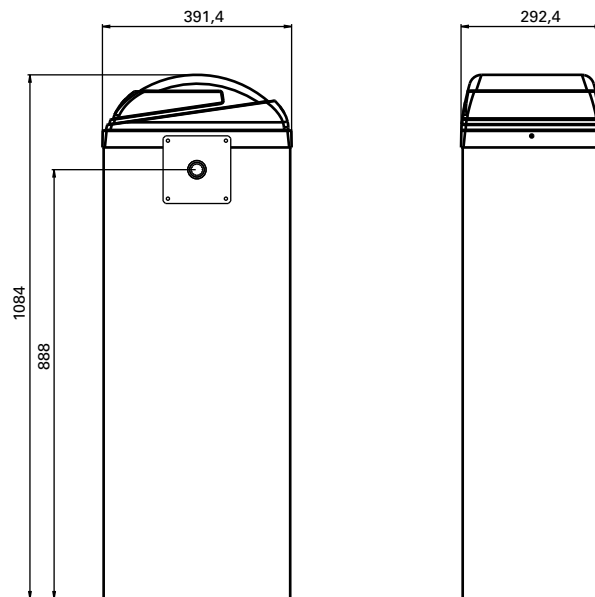


HARRIER - HARRIER LUX

DIMENSIONS HARRIER



DIMENSIONS HARRIER LUX



Easy changing of opening direction.

A few simple operations are all that is required to change the Harrier barrier opening direction from R/H to L/H. The TRAFFIC control unit simplifies this operation even further. A single jumper reverses the OPEN/CLOSE commands of the motor and OPENING/CLOSING limit switches without having to modify the wiring.



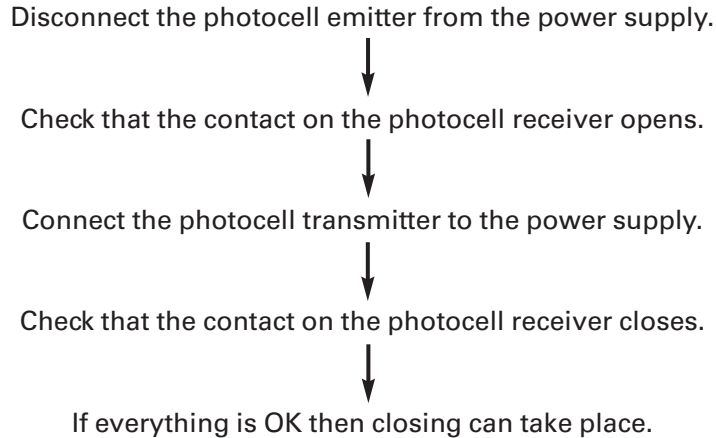


HARRIER - HARRIER LUX

New photocell test function.

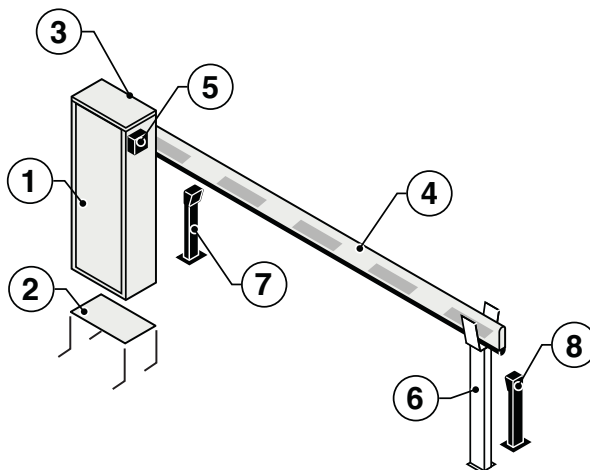
To improve the safety of the automation, the TRAFFIC control unit, has been equipped by a new safety device test function. A photocell function test is performed before any closing operation. The beam will close only if the test is successful.

SAFETY TEST PROTOCOL



The receiver and transmitter photocells must be powered separately in order to get a reliable test result. To this end the TRAFFIC control unit is equipped with an extra terminal. This function can also be used with ER-REF polarised light reflective photocells. These photocells are already equipped with a special input for this test.

STANDARD CONFIGURATION



- 1- Harrier barrier
- 2- Base plate
- 3- Fixing bracket 90x25
Fixing bracket Ø 80
- 4- Beam
- 5- Key switch
- 6- Fork support
- 7- Photocell column
- 8- Photocells or polarised reflec. photocells

IDEAL INSTALLATION	CODE
HARRIER E 50 with integrated Traffic control unit	41514/004
Beam 90x25 length 4,5 m	41518/006
Stainless steel securing flange for 90x25 beam	41514/051
Harrier "Red" spring	41514/055
PF Harrier - Base plate	41514/050
EK433 - Elettrokit 433,92 Mhz - 24 V	41700/801



AT 166 - AT 167

Electro-mechanical barriers
for large industrial car parks.
Continuous use.



The patented mechanical movement and the use of innovative materials, guarantees constant reliability in time, with intensive use.

Versatility: the same barrier can be installed to open on the right or left.
Just a few simple operations are required to change sides.

Easy to service: all the components are easy to reach, and by just unscrewing four bolts you can replace the electro-mechanical unit.

The materials used include: stainless steel, ABS, aluminium and titanium-coated aluminium.

The barrier is made of stainless steel and ABS so it is rustproof and able to withstand exposure to atmospheric agents, with no costly maintenance.

Easy to instal.
The installation is simple, thanks to the template supplied.

Intensity of use: self-ventilated motor coupled to a self-locking worm-screw reducer running in an oil bath.
Oscillating link block transmission.
Emergency manual operation.

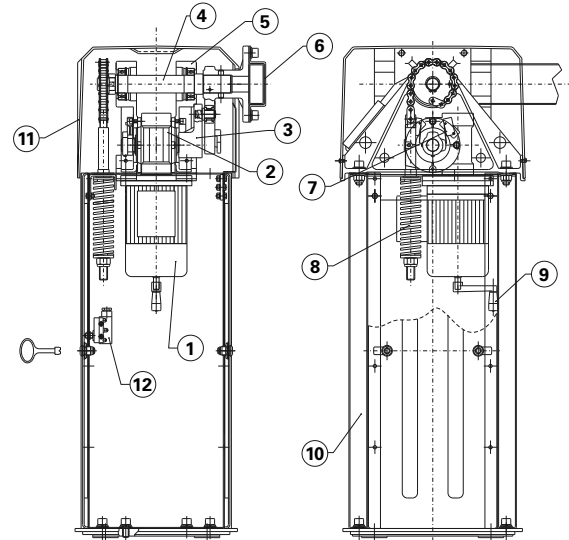
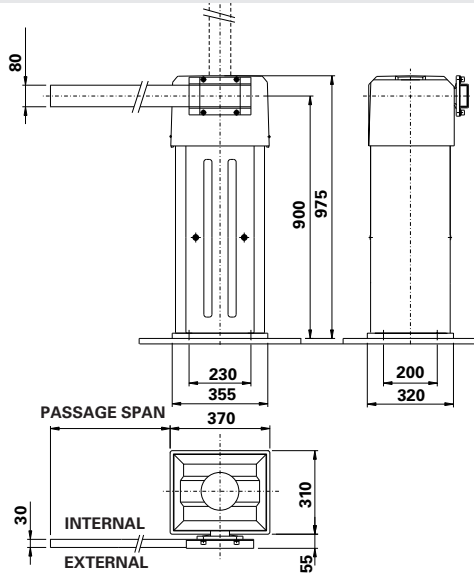
TECHNICAL DATA	AT 166M	AT 166T	AT 167M	AT 167T
POWER SUPPLY	Single-phase 230 V - 50/60 Hz	Three-phase 220/380 V - 50/60 Hz	Mono-phase 220 V - 50/60 Hz	Three-phases 220/380 V - 50/60 Hz
ABSORBED POWER	0,18 Kw	0,18 Kw	0,18 Kw	0,18 Kw
MAX. ABSORBED CURRENT	1,6 A	0,74 A (at 380 V)	1,55 A	0,74 A (at 380 V)
MAX. TORQUE (dinamic)	8,4 da Nm	12 da Nm	19,2 Nm	12 Nm
SPRING	Green	Green	Red	Red
OPENING TIME	2,5 sec.	2,5 sec.	9,5 sec.	9,5 sec.
MAX. BEAM LENGTH	4 m*	4 m*	6 m*	6 m*
OPERATING TEMPERATURE	-15° to +60° C	-15° to +60° C	-15° to +60° C	-15° to +60° C
PROTECTION CLASS	IP44	IP44	IP44	IP44
LUBRICATION TYPE	ShellTivela S320	ShellTivela S320	ShellTivela S320	ShellTivela S320

*Max. beam length without skirt.



AT 166 - AT 167

DIMENSIONS AND BARRIER LAYOUT (right)



MAIN OPERATOR ITEMS:

- | | |
|---|---|
| 1- Single-phase or three-phase motor fully ventilated | 7- Limit switch |
| 2- Irreversible worm reduction unit | 8- Balance spring |
| 3- Crank and slotter link drive | 9- Handle for manual operation |
| 4- Driving shaft | 10- Barrier cabinet in stainless steel with lockable door |
| 5- Ball bearing shaft support | 11- Junction box with terminal strip |
| 6- Socket for alubar | 12- Power cut off device for manual operation |

NOTE: The barriers are supplied in the right hand configuration; you can change it during the installation.

DESCRIPTION	CODE
AT 166M - Single-phase barrier RH	41513/002
AT 166T - Three-phase barrier RH	41513/008
AT 167M - Single-phase barrier RH	41513/001
AT 167T - Three-phase barrier RH	41513/007

DESCRIPTION OF OPTIONAL ACCESSORIES	CODE
TRAFFIC - Control unit for mono-phase barriers	41638/001
CB 8382 L - Control unit (0,75 Kw) for three-phase barriers	41637/002
Beam Ø 80 mm length 3,00 m	41522/001
Beam Ø 80 mm length 6,00 m	41522/002
Securing flange for beam Ø 80 mm profile	41514/052
Beam 80x30 mm length 3,00 m	41522/003
Beam 80x30 mm length 6,00 m	41522/004
Securing flange for beam 80x30 mm profile	41522/050
Beam 90x25 mm length 3,00 m	41518/003
Beam 90x25 mm length 3,50 m	41518/004
Beam 90x25 mm length 4,00 m	41518/005
Beam 90x25 mm length 4,50 m	41518/006
Securing flange for beam 90x25 mm profile	41514/051
SKIRT only for 90x25 beam:	
Vertical skirt module (height 69 cm, number of vertical modules to order = beam length x 2)	41504/051
Horizontal skirt module (wheel base distance 46 cm, number of horizontal modules to order = number of vertical modules - 1)	41504/052
FC - Fork support	41514/057
PP - Swinging tip	41513/050.E
SBS - Articulated beam set 90° (for beam 80x30 mm profile)	41522/054
SBS - Articulated beam set 90° (for beam 90x25 mm profile)	41522/055
RR SE - 433,92 Mhz Radioreceiver Memory System	41923/009
TR2 - 433.92 Mhz twin-channel transmitter	41903/002
ET20N - 230 V flashing lamp	41841/009
PC12E - Key switch for wall mounting	41830/007
ER4N - Pair of photocells	41812/001

NOTE: For control and safety devices and installation accessories, see section "Electronic devices and installation accessories" in this catalogue (consult the index).



AT 168 - AT 170

Electro-mechanical barriers
for large industrial car parks.
Continuous use.



The patented mechanical movement and the use of innovative materials, guarantees constant reliability in time, with intensive use.

Versatility: the same barrier can be installed to open on the right or left. Just a few simple operations are required to change sides.

Easy to service: all the components are easy to reach, and by just unscrewing four bolts you can replace the electro-mechanical unit.

The materials used include: stainless steel, ABS, aluminium and titanium-coated aluminium.

The barrier is made of stainless steel and ABS so it is rustproof and able to withstand exposure to atmospheric agents, with no costly maintenance.

Easy to instal.
The installation is simple, thanks to the template supplied.

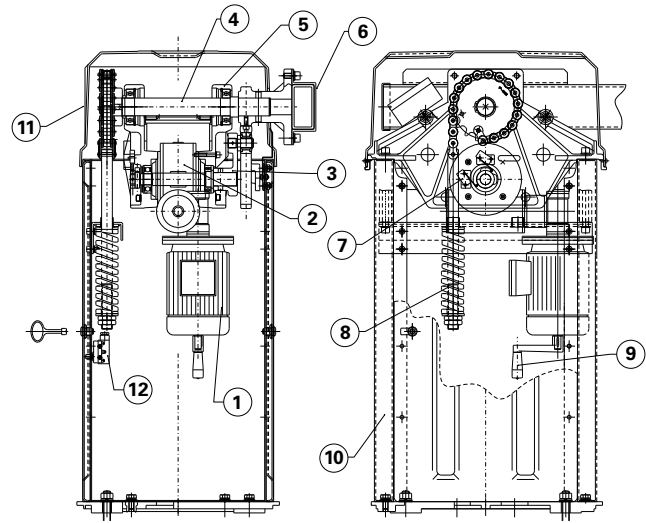
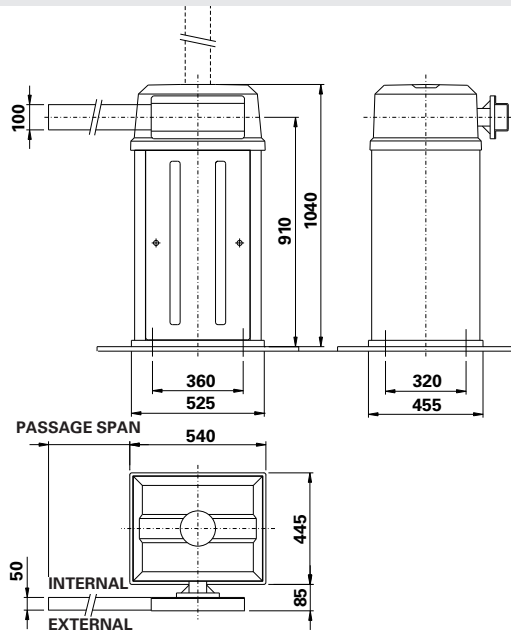
Intensity of use: self-ventilated motor coupled to a self-locking worm-screw reducer running in an oil bath. Oscillating link block transmission. Emergency manual operation.

TECHNICAL DATA	AT 168M	AT 168T	AT 170T
ALIMENTAZIONE	Single-phase 220 V - 50/60 Hz	Three-phase 220/380 V - 50/60 Hz	Three-phase 220/380 V - 50/60 Hz
ABSORBED POWER	0,37 Kw	0,37 Kw (at 380 V)	0,37 Kw (at 380 V)
MAX. ABSORBED CURRENT	2,8 A	1,07 A (at 380 V)	1,07 A (at 380 V)
MAX. TORQUE (dynamic)	23 da Nm	30 da Nm	38 da Nm
SPRING	Blue	Blue	Red (NR2)
OPENING TIME	9,5 sec.	9,5 sec.	17 sec.
MAX. BEAM LENGTH	7 m	7 m	10 m
OPERATING TEMPERATURE	-15° to +60° C	-15° to +60° C	-15° to +60° C
PROTECTION CLASS	IP44	IP44	IP44
LUBRICATION TYPE	ShellTivela S320	ShellTivela S320	ShellTivela S320



AT 168 - AT 170

DIMENSIONS AND BARRIER LAYOUT (right)



MAIN OPERATOR ITEMS:

- 1- Single-phase or three-phase motor fully ventilated
- 2- Irreversible worm reduction unit
- 3- Crank and slotter link drive
- 4- Driving shaft
- 5- Ball bearing shaft support
- 6- Socket for alubar

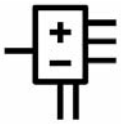
- 7- Limit switch
- 8- Balance spring
- 9- Handle for manual operation
- 10- Barrier cabinet in stainless steel with lochable door
- 11- Junction box with terminal strip
- 12- Power cut off device for manual operation

NOTE: The barriers are supplied in the right hand configuration; you can change it during the installation.

DESCRIPTION	CODE
AT 168M - Single-phase barrier RH	41513/005
AT 168T - Three-phase barrier RH	41513/003
AT 170T - Three-phase barrier RH	41513/011
CB 8220 L - Control unit for mono-phase barriers	41636/001
CB 8221 L - Control unit for mono-phase barriers (for "master/slave" configuration)	41636/002
CB 8382 L - Control unit for three-phase barrier	41637/002

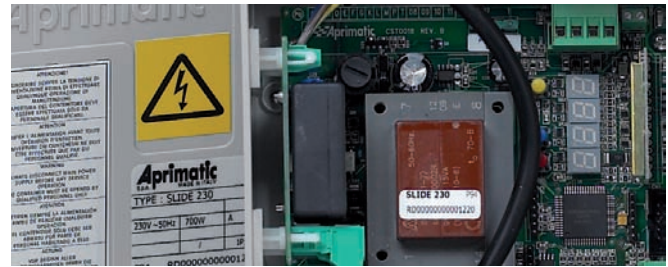
DESCRIPTION OF OPTIONAL ACCESSORIES	CODE
Beam 100x50 mm lenght 4,00 m	41519/004
Beam 100x50 mm lenght 4,50 m	41519/005
Beam 100x50 mm lenght 5,00 m	41519/006
Beam 100x50 mm lenght 5,50 m	41519/007
Beam 100x50 mm lenght 6,00 m	41519/008
Beam 100x50 mm lenght 6,50 m	41519/009
Beam 100x50 mm lenght 7,00 m	41519/010
Securing flange for beam 100x50 mm profile	41522/052
FC - Fork support	41514/057
PP - Swinging tip	41513/050.E
RR SE - 433,92 Mhz Radioreceiver Memory System	41923/009
TR2 - 433.92 Mhz twin-channel transmitter	41903/002
ET20N - 230 V flashing lamp	41841/009
PC12E - Key switch for wall mounting	41830/007
ER4N - Pair of photocells	41812/001
Barrier configuration from 7,00 to 10,00 m (for AT 170T model only)	
100x50 mm flange plus stainless steel extension for roads wider than 7 m (with 3 m beam)	41522/056
Barrier length from 4,00 to 7,00 m (to combine on passage span when barrier will be installed)	41519/010
Complete tie rod for barrier profile	41513/051.E





ELECTRONIC CONTROL UNITS

Aprimatic electronic control units guarantee reliability and a long working life thanks to careful design and use of only the best components. These units feature the latest technology and fulfil a wide range of functions. Prestigious external laboratories undertake the conformity testing necessary for CE marking, and certify that all units conform to European standards on electrical safety and electromagnetic compatibility.



GENERAL FEATURES

Top quality electronic and electro-mechanical components and careful circuit design for exceptional interference immunity, well above that required by applicable standards.

Built-in spike filters on the control cards for protection against mains disturbances.

Voltage stabilisers dedicated to the logic circuits and power on/ reset circuits to protect against fluctuations and transient power failures.

Zero-crossing power triacs to minimise interference and to guarantee perfect functioning and a long working life.

Short circuit and overload protection fuses for transformers, motors and 24 Vdc accessories.

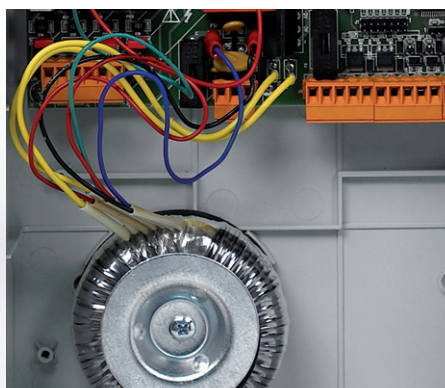
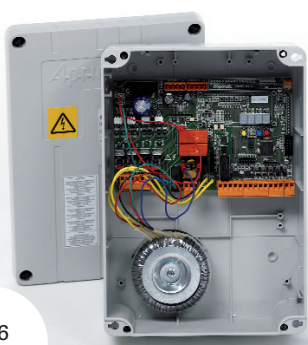
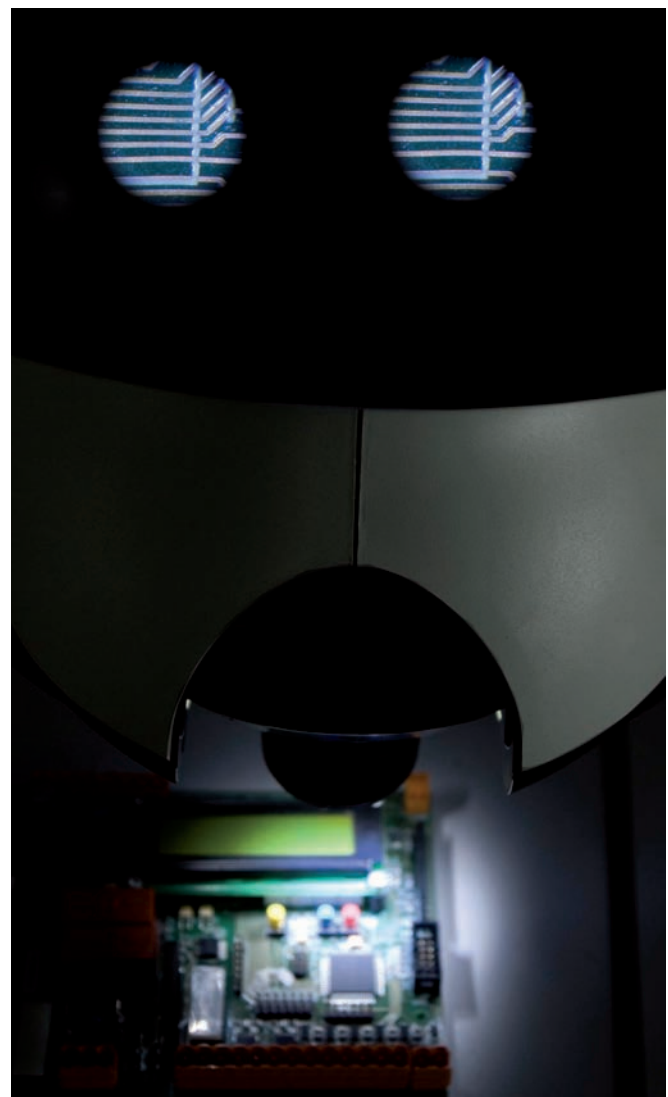
Control cards, circuits, power components and heat sinks all dimensioned to guarantee trouble-free functioning even in continuous use at maximum nominal power.

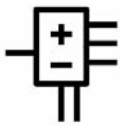
Status indicator LEDs for all inputs to permit quick and easy diagnostics.

Compact card size to leave plenty of room for wiring and to ensure easy installation and maintenance.

Numbered and mechanically polarised pull-out terminal boards to guarantee easy wiring and sure connections. Plug-in connectors for easy installation of receivers and optional cards.

Lockable control boxes with keys and IP55 seals for effective weatherproofing.





ELECTRONIC CONTROL UNITS


CONTROL UNITS

DESCRIPTION	CODE
 <p>SWING 230 - Electronic control unit for swing gates with one/two electromechanical or hydraulic 230 Vac operators, electronic slowdown system and torque adjustment, 433,92 Mhz radio receiver, compatible with all models Aprimatic radio receiver</p>	41606/001
 <p>SLIDE 230 - Electronic control unit for sliding gates with electromechanical 230 Vac operator and 433,92 Mhz radio receiver, compatible with all models Aprimatic radio receiver</p>	41616/001
 <p>T3E - Electronic control unit for up-and-over doors and barriers with one or two 230 Vac electro-mechanical or hydraulic operators</p>	41625/003
 <p>T4 POWER - Electronic control unit for swing gates with one or two 24 Vdc electro-mechanical operator</p>	41600/001
 <p>T4 PRO - Professional electronic control unit for swing gates with one or two 24 Vdc electro-mechanical operators, functions programmable with the Apritool Programmer</p>	41600/002
 <p>TRAFFIC - Electronic control unit for barriers 230 Vac electro-mechanical operators (Harrier - Harrier Lux series)</p>	41638/001

Depending on stock availability

ELECTRONIC DEVICES

ANTI-CRUSH CARDS

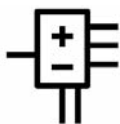
DESCRIPTION	CODE
 <p>Autoreverse anti-crush card for ONDA 501, ONDA 801 and ONDA 2001 operators, to use exclusively with T2E and T22 electronic control units.</p>	41127/020

OPTIONAL CARDS

DESCRIPTION	CODE
AP - Partial opening control card for use with T2E electronic control units	41706/004
Light Card - To control courtesy lights and pre-flashing for ET20 and ET22 flashing light, to use with all electronic control units	41841/050

ACCESSORIES

DESCRIPTION	CODE
FR 220 - Main filter for electronic control unit	41706/009



ELECTRONIC CONTROL UNITS

TECHNICAL SPECIFICATIONS OF ELECTRONIC CONTROL UNITS

TECHNICAL SPECIFICATIONS	SWING 230	SLIDE 230	T3E	T4 POWER
Power supply	Single phase 230 Vca (6% - 10%) - 50/60 Hz			
Motor voltage	230 Vac	230 Vac	230 Vac	24 Vdc
Operating temperature	-20° +70° C	-20° +70° C	-20° +70° C	-20° +70° C
Storage temperature	-40° +85° C	-40° +85° C	-40° +85° C	-40° +85° C
Relative humidity	90% max. (non condensing)			
Protection rating	IP55	IP55	IP55	IP55

INPUTS				
Open / Start	Yes	Yes	Yes	Yes
Close	Yes (4)	Yes (4)	Yes	-
Pedestrian start / Partial open	Yes	Yes (1)	-	Yes
Stop	Yes	Yes	Yes	Yes
Standard safety (photocell)	Yes	Yes	Yes	Yes
Additional safety	Yes	Yes	Yes	Yes
Limit switch	-	Yes	Yes	-

OUTPUTS				
Motor	2	1	1	2
Flashing units	Yes	Yes	Yes	Yes
Function indicator	Yes	Yes	Yes	Yes
Electric lock	Yes	-	-	Yes
Courtesy light	Yes	Yes	Yes	Yes (3)
24 Vdc accessories power	1 A	1 A	300 mA	500 mA

SPECIAL FUNCTIONS				
End of stroke slowdown	-	-	Yes	Yes (2)
Electronic slowing	Yes	Yes	-	-
Anti-crush	-	Yes	Yes	Yes
Electronic torque control	Yes	Yes	-	-
Motor braking	Yes	Yes	-	-
Built-in 433.92 Mhz super-heterodyne radio receiver	Yes	Yes	-	-

FUNCTIONING LOGIC				
Standard automatic	Yes	Yes	Yes	Yes
Super automatic	Yes	Yes	-	-
Automatic with Stop	-	Yes	-	-
Semiautomatic with Stop	Yes	Yes	Yes	Yes
Semiautomatic Open/Close	-	-	Yes	-
Dead man	Yes	Yes	Yes	-

ADJUSTMENTS				
Operation time	Yes	Yes	Yes	-
Pause time	Yes	Yes	Yes	Yes
Gate closing delay	Yes	-	-	Yes
Braking delay	-	Yes	-	-
Torque	-	Yes	-	-
Slowdown	Yes	Yes	Yes	Yes
Anti-crush	- (5)	- (5)	Yes	Yes

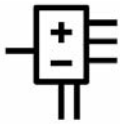
(1) With optional "AP Card"

(2) With optional "LS Card"

(3) With optional "Light Card"

(4) On pedestrian input (only for particular function)

(5) For these control unit the anti-crush is not necessary



ELECTRONIC CONTROL UNITS

TECHNICAL SPECIFICATIONS OF PROFESSIONAL ELECTRONIC CONTROL UNITS

TECHNICAL SPECIFICATIONS	TRAFFIC	T4 PRO
Power supply	Single phase 230 Vca (6% - 10%) - 50 Hz	
Motor voltage	230 Vac	24 Vdc
Operating temperature	-20° +70° C	-20° +70° C
Storage temperature	-40° +85° C	-40° +85° C
Relative humidity	90% max. (non condensing)	90% max.
Protection rating	IP55	IP55

INPUTS

Open / Start	Yes	Yes
Close	Yes	Yes
Pedestrian start / Partial open	Yes (with Park and Park Special logic)	Yes
Stop	Yes	Yes
Standard safety (photocell)	Yes	Yes
Additional safety	Yes	Yes
Limit switch	Yes	Yes
Auxiliary safety test	Yes	-
Photocell safety test	Yes	-

OUTPUTS

Motor	1	2
Flashing units	Yes (24 V)	Yes
Function indicator	Yes	Yes
Electric lock	-	Yes
Courtesy light	-	Yes (1)
24 Vdc accessories power	1 A	500 mA

(1) With optional "Light Card"

SPECIAL FUNCTIONS

End of stroke slowdown	Yes	Yes
Anti-crush	-	Yes
Electronic torque control	Yes	-
Built-in 433.92 Mhz super-heterodyne radio receiver	Yes	-

LOGIC

Standard automatic	Yes	Yes
Special automatic	-	Yes
Super automatic	Yes	Yes
Semiautomatic Open / Close	Yes	Yes
Semiautomatic with Stop	Yes (Park logic)	Yes
Semiautomatic with Revers	-	Yes
Dead man	Yes	Yes
Traffic light	Yes	Yes
Diagnostics	-	Yes
Parking Plus	Yes	Yes
Timer	Yes	-

ADJUSTMENTS

Gate opening delay	-	Yes
Gate closing delay	-	Yes
Slowdown	Yes	Yes
Pause time	Yes	Yes
Operation time	Yes	Yes
Braking delay	Yes	-
Anti-crush	-	Yes
Pedestrian opening	Yes	-
Pre-flashing	Yes	-
Opening direction	Yes	-

NOTE: The adjustments and settings on professional electronic control units are digital and can be made quickly and easily with the Apritool programmer.



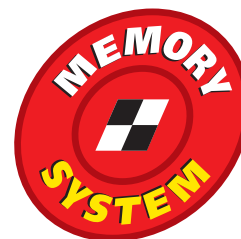
ACCESS CONTROL

Memory System 433,92 / 40,685 Mhz.

MEMORY SYSTEM is the perfect radio access control solution for residential, condominium, company, car-park, club, pleasure port and other group applications.

Technology, design and special dedicated access control functions make Memory System an indispensable tool for advanced installers to win new customers by guaranteeing maximum security.

Memory System's access management functions make it far more than just another remote opening system and allow installations to be managed with far greater professionalism and skill.



TR2 - TR4 and 14 KEY ROLLING CODE REMOTE CONTROLS

- A single code set from 72,000,000,000,000 possible combinations guarantees maximum security.
- Attractive, stylish design in red and clear orange, and excellent ergonomics.



UNICO MEMORY SYSTEM RADIO RECEIVERS

Memory System radio receivers represent a unique hardware and software solution and can be expanded with up to 4 channels. They are suitable for all installation types and all access control requirements.

- 24Vdc /Vac power supply, low consumption (max. 20mA in standby).
- 104 dBm sensitivity, range from 40 to 120 m, front end radio frequency input filter.
- Hopping / rolling code decoding system.
- Radio code self-teaching, beeper and flasher for code recognition.
- Standard pull-out memory module for up to 496 different codes. Optional module for over 2000 codes.
- Standard relay output and relay modules for up to 3 expansion channels with 4 functioning logics: pulse, hold, step-by-step, and timer with programmable 1-255 second duration.



APRITOOL HAND HELD PROGRAMMER

A portable hand held programmer for personalising installer codes, renewing, disabling and cancelling codes even by radio, selectively disabling active channels for each individual code, programming access control functions (base, easy, special, super), maintaining data in receiver memory modules and downloading updates on to your PC.



APRIBASE1 PROGRAMMING BASE

A programming base for remote controls, radio receivers and memory modules.

For use in conjunction with Apricot Manager software or the Apritool programmer.

Complete with serial cable for connection to a PC or to the Apritool programmer.



APRICOT MANAGER ACCESS MANAGEMENT SOFTWARE

Apricot Manager software allows installers to make full, simple and intuitive use of all Memory System access management functions (user identification, lost code cancellation, hierarchic access control, etc.).

The program's powerful database also allows you to archive all installation data for easier maintenance and warranty management etc.


















ACCESS CONTROL

Remote Controls and Radio Receiver.

MEMORY SYSTEM 433.92 Mhz

DESCRIPTION		CODE
	TR2 - 433.92 Mhz two channel rolling code remote control	41903/002
	TR4 - 433.92 Mhz four channel rolling code remote control	41903/004
	TR2 Black - 433.92 Mhz four channel rolling code remote control	41903/015
	TR4 Black - 433.92 Mhz four channel rolling code remote control	41903/016
	TR14 - 433.92 Mhz 14 channel remote control with function keys that can be customized using the Apricot RC Customizer	41903/014
	RR SR - 433.92 Mhz Memory System Unico radio receiver (super reactive version) with built-in antenna	41923/010
	RR SE - 433.92 Mhz Memory System Unico radio receiver (narrow band super-heterodyne version) with built-in antenna	41923/009
	ANT433 - 433.92 Mhz antenna with 4,5 m coax cable and earth connection	41929/001

COMMON ACCESSORIES

	CA41 - Expansion relay module for one extra channel	41923/052
	CA43 - Expansion relay module for 3 additional channels	41923/053
	MM1 - Pull-out memory module for up to 496 codes (standard in Memory System radio receivers)	41923/050
	MM2 - Optional pull-out memory module for up to 2032 codes	41923/051
	CR44 - IP44 container for external installation (narrow band super-heterodyne version) with built-in antenna	41923/059

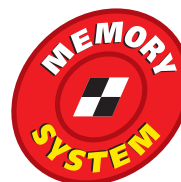


ACCESS CONTROL

Hand-held programmers.

CODER AND PROGRAMMING BASE FOR REMOTE CONTROLS AND RADIO RECEIVERS

Personalise installer codes and installation codes.
 Select access management functions.
 Select radio receiver output channel functions: pulse, hold, step-by-step and timer with 1-255 s programmable duration.
 Program codes in memory modules or internal buffers.
 Program remote controls with personalisation of read codes.
 Identify, read, edit and transfer data to and from memory modules.
 Cancel and disable memory module codes.
 Edit memory module function parameters.
 Program remote controls to duplicate, replace and disable codes by radio.
 Transfer data to and from PC.



APRIBASE 1



HAND-HELD CODER

DESCRIPTION	CODE
APRITOOOL - Hand held must always be combined with APRIBASE 1	41930/005
APRIBASE 1 - Programming base for memory modules and remote controls, complete with mains power supply and battery charger, requires Apricot Manager software or Apritool	41930/001
APRIBASE 1 - Special version with optional installer code for using more than one programming base with the same installer code	41930/004

PROGRAMMER FOR PROFESSIONAL CONTROL UNITS

Program the control unit directly:

Simulate inputs.
 Select functioning logic.
 Adjust functioning parameters.
 Set functioning options.

Program internal memories:

Select functioning logic.
 Adjust functioning parameter values.
 Set functioning options.
 Transfer data to and from control units.
 Transfer data to and from internal memories.



DESCRIPTION	CODE
APRITOOOL - Hand held programmer complete with mains power supply and battery charger and connection cable for T2PRO, T3PRO and T4PRO control units	41930/014

CODER-PROGRAMMER

Combines the functions of coder and programmer in a single universal tool.



DESCRIPTION	CODE
APRITOOOL hand held coder-programmer complete with mains power supply and battery charger and connection cable for T2PRO, T3PRO and T4PRO control units, must always be combined with APRIBASE 1	41930/015



ACCESS CONTROL

Software Apricot.

APRICOT MANAGER

Apricot Manager software allows full use of all Memory System access management functions simply and easily. It is also an extremely useful tool for installers to archi customer and installation data and facilitate maintenance and warranty management, etc..

No special computer experience is required to use Apricot Manager.

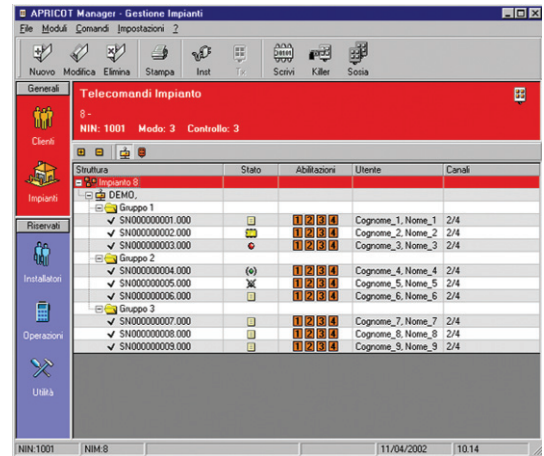
Its simple Window-based user interface makes all operations simple and intuitive.

Apricot Manager comes on a self-installing CD-ROM for PCs running Windows 95, 97, 2000 or NT operating systems.

The software prevents operators from performing illegal operations or operations that could damage archived data.

Program access is protected by a user-definable password.

Software installation is protected by an individual user number.



DESCRIPTION



Apricot Manager version 2.00 Multilanguage - Access management software, self-installing CD-ROM for PCs running Windows 95, 97, 2000 or NT operating systems, must always be combined with APRIBASE 1

CODE

41930/008

Apricot Manager version Windows XP Multilanguage - Access management software, self-installing CD-ROM for PCs running Windows 95, 97, 2000, NT, XP perating systems, must always be combined with APRIBASE 1

41930/009

PREVIOUS VERSIONS AND UPDATES

DESCRIPTION

Apricot Manager update to version 1.10, FD for updating any previous version to version 1.10

CODE

41930/007

Apricot Manager version 1.04 - Access management software, self-installing CD-ROM for PCs running Windows 95, 97, 2000 or NT operating systems, must always be combined with APRIBASE 1 - being phased out

41930/003

Depending on stock availability



ACCESS CONTROL

27.195 Mhz Remote Controls and Radio Receivers.

2 AND 4 KEY DIP-SWITCH REMOTE CONTROLS

The elegant TGM series remote controls have been specially designed for Aprimatic by Giugiaro.

A practical hole in the case allows you to attach the units to key rings.

A function LED lights to confirm transmission of the signal.

The range includes the TG2M two channel and TG4M four channel remote controls with an average line of sight range of 50 to 100 m.



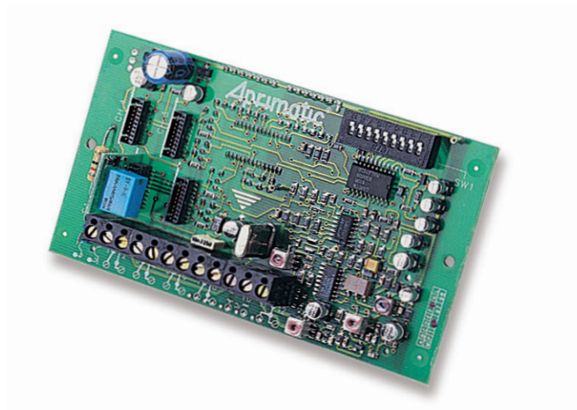
2 AND 4 KEY DIP-SWITCH REMOTE CONTROLS





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DESCRIPTION	CODE
 TG2M - 27.195 Mhz two channel dip-switch remote control	41902/003
 TG4M - 27.195 Mhz four channel dip-switch remote control	41902/004
 RG/I - Single channel plug-in radio receiver; antenna required	41922/002
 RG - Modular radio receiver with CA2 card upgradeable to 4 channels; antenna required	41922/003

ACCESSORIES

DESCRIPTION	CODE
CA2 - Relay expansion card (pack of 6 pcs)	41706/007
CA2T - Timed CA2 module	41923/060
AFO30 - 27.195 Mhz pen antenna, installable on flasher units, radio receivers and control units (pack of 6 pcs)	41929/006
ASQ30 - 27.195 Mhz jointed antenna for external wall-mounting (pack of 6 pcs)	41929/007



ACCESS CONTROL

Further access control management systems.

PROXIMITY SENSOR

PR5

Proximity sensor access control. Operated with a practical key-ring Tag or ISO badge. Easy to install even on existing systems as a replacement for Aprimatic CT/3 and LB/4 readers, because fitted on the same mechanism.

READING DISTANCE: max 5 cm.




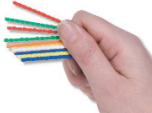
DECODER CONNECTION: Bus 2-3 lead



TAG

Practical key-ring TAG reading distance 5-8 cm.



DESCRIPTION		CODE
	PR5 - Proximity sensor access control	41820/001
	TAG - Key-ring TAG*, reading distance 5-8 cm	41820/051
	ISO Badge*	41820/053
	Colour coder - It allows to mark with different colours the key-ring TAG to recognize them between they	41820/052

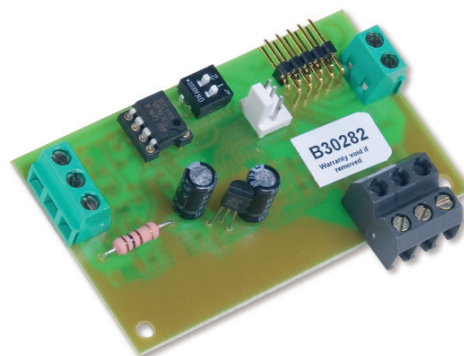
* For multiple purchases, always think one TAG more to dedicate like Master.

DECODER

DEC/A

Decoder card with 256 codes for access control systems. Installed by plugging-in to Aprimatic control units. Compatible with PR5 proximity sensor; with CT3 keypad and with LB4 magnetic card reader. Replaces the previous range of Aprimatic decoders (DC/3 and DB/4).

TECHNICAL DATA	
POWER SUPPLY	24 Vcc ± 15%
INSTALLATION	Plug-in
NUMBER OF STORED CODES	256
CONNECTION TO READER	Bus 2-3 fili
DIMENSIONS	mm 105x65x30




DESCRIPTION	CODICE
DEC/A - Access control decoder with 256 codes	41820/050







ACCESS CONTROL

KEYPADS




DESCRIPTION	CODE
 CT3 - Electronic keypad with stainless steel keys for over 2 billion possible combinations, data transmission along a serial cable between the keypad and the decoding card ensures tamper-proof protection	41800/001

MAGNETIC CARD AND KEY READER

DESCRIPTION	CODE
 LB4 - Tamper-proof magnetic card reader with over 2 billion possible combinations, data transmission along a serial cable between the card reader and the decoding card ensures tamper-proof protection	41821/001
 SB4/C - Coded magnetic card (badge)	41821/048
Card holder for SB4/C magnetic cards (pack of 50 pcs)	41821/051
 LM1 - Magnetic key reader	41822/001
 CM1/C - Coded magnetic key	41822/050

Depending on stock availability

TAMPER-PROOF KEY SWITCH

DESCRIPTION	CODE
 PM12 - Two contact metal key switch for wall-or post-mounting	41830/006
 PC12 - Two contact key switch, accessories are available for recessed post-and wall-mounting and for external wall-and post-mounting	41830/005
 PC12E - Two contact key switch, accessories are available for recessed post-and wall-mounting and for external wall-and post-mounting	41830/007

Depending on stock availability

OPTIONAL ACCESSORIES FOR PR5; CT3; LB4; LM1 E PC12 (for pictures see "Installation Accessories")

DESCRIPTION	CODE
Plastic container for recessed wall-mounting (pack of 6 pcs)	41830/053
PC12 - Metal container to be welded	41830/050
Metal container for welding (pack of 8 pcs)	41830/054
Bracket for metal pillar connection complete with screws (pack of 6 pcs)	41830/052
Galvanized post for PC12E (height 110 cm)	41830/055
Galvanized post for PC12 (height 110 cm)	41830/051
Post base plate (pack of 4 pcs)	41812/051



ACCESS CONTROL

FLASHING LAMPS

Yellow flashing lamps are always clearly visible even from a distance and in all weather conditions. They are made from robust polycarbon materials for excellent resistance to knocks.



DESCRIPTION	CODE
ET 2N - 24 V LED flashing lamp	41840/006
ET 20N - 230 V single flashing lamp	41841/009
ET 22 - 230 V double flashing lamps	41841/001
Kit antenna 433,92 Mhz for ET2N e ET20N	41929/003

MAGNETIC DETECTION DEVICES



DESCRIPTION	CODE
230 V single channel magnetic detector	41801/004
230 V double channel magnetic detector	41801/005

STRAIGHT SAFETY EDGES

Straight safety edges comprise an aluminium body and a rubber profile containing a steel cable obstacle detection system.



DESCRIPTION	CODE
CF1M - Straight safety edge, 1,5 m	41850/002
CF2M - Straight safety edge, 2,0 m	41850/003
CF3M - Straight safety edge, 3,0 m	41850/004
CF3MS - Straight safety edge, 3,0 m (slim profile for garage doors)	41850/001



RADIO BAND

This system lets safety edges on automatic gates send signals via radio. The Radio Band system has a constant dialogue between emitter and receiver at a frequency of 868 Mhz, with continuous auto-test. Each receiver manages as many as 6 transmitters.



DESCRIPTION	CODE
TBX 868 MHz - Radio Band Transmitter	41906/001
RU 868 MHz - Radio Band Receiver	41926/001

OPTIONAL POWER SUPPLIES

DESCRIPTION	CODE
 AL1 - 12 / 24Vdc 500 mA power supply for the independent control of electric locks, relays, CT3 keypad or LB4 card reader with plug-in for the decoder cards DC/3 and DB/4	41703/002
 24 Vdc 250 mA power supply for safety devices and accessories 50 mm Ø x 30 mm h, can be installed in 3 module wall boxes	41703/001



ACCESS CONTROL

PHOTOCELLS

ER-REF - POLARISED REFLECTION PHOTOCELL FOR GATE AUTOMATION

Rapid to install (wall-mounted or on a supporting column) as it only requires wiring to one side of the gate.

The round reflector must be installed on the other side at the same height as the photocell.

Extremely reliable, as it is able to detect highly reflecting objects, such as mirrors or shiny surfaces.

Alignment of the photocell is very easy: thanks to the analogic alignment LED, it is easy to detect the best position.

There is an optional guard to protect the reflector against knocks and splashes.



TECHNICAL DATA

POWER SUPPLY (set with a jumper)	24 Vdc / Vac
MAX. ABSORBED POWER	3 W
MAX. RECEIVER RELAY SWITCHING RANGE	1 A a 24Vdc for resistive loads 0,5A a 24Vdc for non-resistive loads
ACTIVATION TIME	20 m sec.
MAX. WORKING TIME	12 m nominal
OPERATING TEMPERATURE	-15°C to +70°C
RELATIVE HUMIDITY	< 90% non condensing
LIGHT REJECTION	20000 lux
PROTECTION CLASS	IP45
APPLICATION FIELD	Using only protected environment

DESCRIPTION

ER-REF - Polarised reflection photocell

Round reflector guard

CODE

41810/002

41810/050

ER2N - PHOTOCELLS FOR RECESSED MOUNTING

ER2N photocells are adjustable to guarantee perfect alignment.

The modulated infra-red receiver and transmitter are immune to interference by sunlight and intense direct light.



DESCRIPTION

ER2N - Modulated infra-red photocells, 24 Vdc/Vac power supply, recessed or post-or welded box-mounting, reading distance of up to 40 m

CODE

41811/001

DESCRIPTION ACCESSORIES

Galvanized post for ER2N photocells (height 51 cm)

Bracket for metal pillar connection complete with screws (pack of 6 pcs)

Plastic container for recessed wall-mounting (pack of 6 pcs)

Metal container for welding (pack of 8 pcs)

Post base plate (pack of 4 pcs)

CODICE

41811/050

41830/052

41830/053

41830/054

41812/051



ACCESS CONTROL

PHOTOCELLS

ER4N - MINI PHOTOCELLS FOR WALL - MOUNTING

ER4N photocells, with a maximum range of 20 metres, are designed for wall-mounting and do not require masonry work.

The photocells are self-aligning and do not require adjustment.

The modulated infra-red receiver and transmitter are immune to interference by sunlight and intense direct light.



DESCRIPTION

ER4N - Modulated infra-red photocells, 24 Vdc/Vac power supply, wall or post mounting, reading distance up to 20 m

CODE

41812/001

ER180B - BATTERY-POWERED PHOTOCELL FOR WALL MOUNTING:

ER180B photocell are equipped by adjustable optic of 180°.

The TX Transmitter is powered by two battery of 1,5 V (2 pcs model AAA or LR03) with a maximum life of 30 months.

The RX Receiver, however, is powered by 12-24 Vac/dc through the electronic control unit of the system.



DESCRIPTION

ER180B - Battery-powered photocell (12-24Vac/dc), for wall mounting, range of 20 meters

CODE

41817/001






OPTIONAL ACCESSORIES ER-REF / ER4N (for pictures see "Installation Accessories")

DESCRIPTION	ER-REF	ER4N	CODE
Galvanized post for ER4N photocell	●	●	41812/052
Aluminium post for ER4N photocell (height 44 cm)	●	●	41812/050
Post base plate (pack of 4 pcs)	●	●	41812/051
ER4N - Fixing plates (pack of 10 pcs)	●	●	41812/054









INSTALLATION ACCESSORIES





INSTALLATION ACCESSORIES AND CONTROL DEVICES

DESCRIPTION		CODE
	Plastic container to be cemented in (pack of 6 pcs)	41830/053
	Metal container to be welded (pack of 8 pcs)	41830/054
	PC12 - Metal container to be welded	41830/050
	ER4N - Fixing plates (pack of 10 pcs)	41812/054
	Bracket for metal pillar connection complete with screws (pack of 6 pcs)	41830/052

POSTS AND INSTALLATION ACCESSORIES

DESCRIPTION		CODE
	Aluminium post for ER4N photocell (height 44 cm)	41812/050
	Aluminium post for PC12E key switch (height 110 cm)	41830/055
	Galvanised post for PC12 (height 110 cm)	41830/051
	Galvanized post for ER4N photocells	41812/052
	Galvanized post for ER2N photocells (height 51 cm)	41811/050
	Post base plate (pack of 4 pcs)	41812/051

ELECTRIC LOCK AND INSTALLATION ACCESSORIES

DESCRIPTION		CODE
	ES3 - Electric lock complete with ground striker plate (requires CL1 or CL2)	41080/008
	CL1 - Single wing cylinder (keys included)	41080/005
	CL2 - Double wing cylinder (keys included)	41080/004
	CB3 - Counterhousing for ES3	41080/001

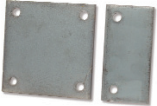



INSTALLATION ACCESSORIES





ELECTRIC LOCK AND INSTALLATION ACCESSORIES

DESCRIPTION		CODE
	Welding plate for vertical fitting of ES3	41080/003
	Welding plate for horizontal fitting of ES3	41080/002

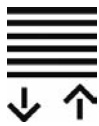
INSTALLATION ACCESSORIES FOR OPERATORS

DESCRIPTION		CODE
ACCESSORIES FOR EXTERNAL OPERATORS:		
	Front and back bolt-on fixing plates	41007/051
	Rear fixing bracket for cementing in	41007/050

ACCESSORIES FOR UNDERGROUND OPERATORS:

	TRA - Copper pipe, ext. Ø 8 mm (order length required)	41056/056
	Telescopic arms for AT 75, 10 mm	41005/051
	Metal box for hydraulic power unit	41056/059
	HC13 - Aprimoil (1 litre container)	41700/013





TUBULAR MOTORS

Tubular motors for rolling shutters and sun-blinds.



Aprimatic range of tubular motors for rolling shutters and sun blinds is extremely reliable, fast, and silent and offers performance to satisfy even the most demanding users.

Motors can be driven via ADI control units to create fully automatic, radio controlled systems.

A wide range of adapters and installation accessories satisfies the requirements of all types of application.

Three rolling shutter automation kits are available, covering 30kg, 60kg and 90kg shutters, complete with installation accessories.

45, 59 and 92 Series motors are also available in M versions with emergency manual operation in the event of a power failure.

Motors come complete with a 1,9 m electrical power cable. A simple device enables easy and precise adjustment of limit switches.

New Serie 92 motors, the best solution to motorize grilles and metal shutters (max. weight up to 350 kg).

TECHNICAL DATA

SERIES	MODEL	CONSUMPTION (S without emergency operation) (M with emergency operation)	POTENZA (Nm)	(W)	SPEED (rpm)	DIAMETER (Ø mm)
35	35S-10/17	10	121	17	35	
	35S-6/28F	6	121	28	35	
45	45S-20 - 45M-20	20	145	15	45	
	45S-20/26 - 45M-20/26	20	170	26	45	
	45S-30 - 45M-30	30	191	15	45	
	45S-50 - 45M-50	50	191	12	45	
59	59S-80 - 59M-80	80	298	15	60	
	59S-100 - 59M-100	100	305	12	60	
	59S-120 - 59M-120	120	305	9	60	
92	92S-230 - 92M-230	230	602	12	92	

ROLLER KIT REVOLUX



KIT DESCRIPTION (Motor without emergency operation)

KIT DESCRIPTION (Motor without emergency operation)	Max. weight*	CODE
ROLLER KIT 30 kg	Ø 60 mm / 35 kg	43302/802
ROLLER KIT 60 kg	Ø 60 mm / 56 kg	43302/803
ROLLER KIT 90 kg	Ø 60 mm / 90 kg	43302/804

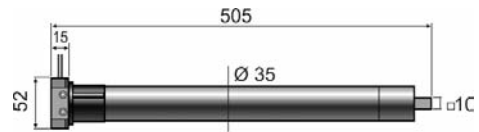
Both packs include:

Tubular motor, adapter for standard Ø 60 mm octagonal tube, bracket with Ø 10 mm pin for fitting to existing brackwork, end piece with adjustable round pin for Ø 60 mm octagonal tubes, square pin and bracket kit Ø 10 mm



TUBULAR MOTORS

35 SERIES TUBULAR MOTORS without emergency operation



DESCRIPTION (Motor without emergency operation)	Max. weight*	CODE
35S-10/17	Ø 40 mm / 20 kg	43300/001
35S-6/28F (Suitable only for round tube Ø 40 mm)	Ø 40 mm / 20 kg	43300/002

DESCRIPTION OF ACCESSORIES FOR SERIES 35

ADAPTERS:



Adapter for Ø 40 mm octogonal tube

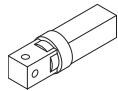
43380/087



Adapter for Ø 40 mm round tube

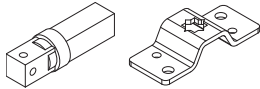
43380/115

INSTALLATION ACCESSORIES:



Square pin

43380/077



Kit with square and bracket

43380/082



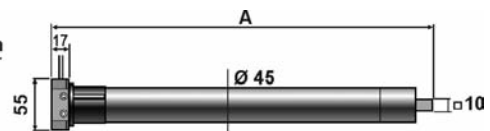
Standard support

43380/091

SERIES 45 TUBULAR MOTORS without emergency operation



Mod.	A mm
20	466
20/26	536
30	536
50	536

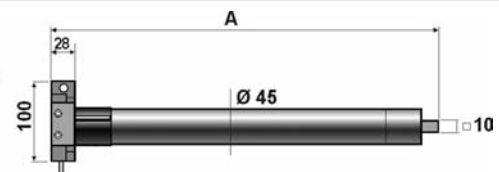


DESCRIPTION (Motor without emergency operation)	Max. weight*	CODE
45S-20	Ø 60 mm / 35 kg	43302/001
45S-30	Ø 60 mm / 55 kg	43302/002
45S-50	Ø 60 mm / 88 kg	43302/003
45S-20/26	Ø 60 mm / 35 kg	43302/004

SERIES 45 TUBULAR MOTORS with emergency operation



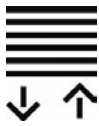
Mod.	A mm
20	628
20/26	698
30	698
50	698



DESCRIPTION (Motor with emergency operation)	Max. weight *	CODE
45M-20	Ø 60 mm / 35 kg	43310/005
45M-30	Ø 60 mm / 55 kg	43310/006
45M-50	Ø 60 mm / 88 kg	43310/007
45M-20/26	Ø 60 mm / 35 kg	43310/008

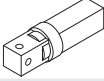





* See table page 140.




NOTE: All the above mentioned motors can be combined with ADI control units. See section "ADI Modules" in this catalogue (look up in this index).



TUBULAR MOTORS



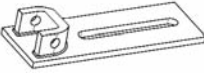
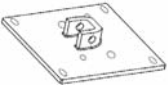


DESCRIPTION OF ADAPTERS FOR SERIES 45 (CMS-SMS) MOTORS		CODE
	60 mm OCTAGONAL (for motors 45S-50, 45M-50)	43380/156
	70 mm OCTAGONAL (for motors 45S-20/30, 45M-20/30)	43380/061
	70 mm OCTAGONAL (for motors 45S-50, 45M-50)	43380/161
	70 mm OGIVE	43380/064
	78 mm OGIVE	43380/059
	50 mm ROUND	43380/063
	BONFANTI/GAVIOTA	43380/058
	ZF54 Adapter	43380/060
	ZF64 Adapter	43380/062
	DEPRAT 62 Adapter	43380/065

DESCRIPTION OF INSTALLATION ACCESSORIES FOR SERIES 45 SMS		CODE
	Square pin Revolux 45S	43380/078
	Kit with square pin and bracket Revolux 45S	43380/083
	Standard support Revolux 45S	43380/092
	Standard support rapid Revolux 45S	43380/124
	Support kit for screwed holes and square pin Revolux 45S	43380/107
	Kit standard support with readed holes and square pin Revolux 45S	43380/108

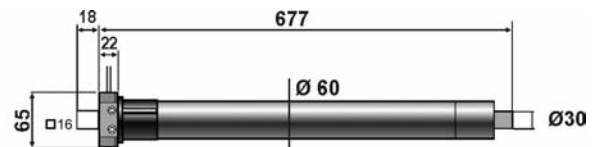
DESCRIPTION OF INSTALLATION ACCESSORIES FOR SERIES 45 CMS		CODE
	Square pin Revolux 45M	43380/079
	Kit with square pin and bracket Revolux 45M	43380/084
	Eyelet exagonal kit 7 mm	43380/116



TUBULAR MOTORS

DESCRIPTION OF INSTALLATION ACCESSORIES COMMON FOR SERIES 45 SMS and CMS	CODE
 Adjustable square bracket Revolux 45S and 45M	43380/057
 Support with release Revolux 45S and 45M	43380/068
 Plane support for squared pin Revolux 45S and 45M	43380/109
 Adjustable square bracket Revolux 45S and 45M	43380/110
 Wall support Revolux 45S and 45M	43380/111
 Chest bracket 1 position Revolux 45S and 45M	43380/102
 Chest bracket 2 positions Revolux 45S and 45M	43380/101

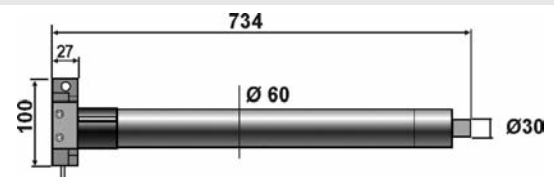
SERIES 59 TUBULAR MOTORS without emergency operation



DESCRIPTION (Motor without emergency operation)

DESCRIPTION (Motor without emergency operation)	Max. weight *	CODE
59S-80	Ø 70 mm / 105 kg	43320/001
59S-100	Ø 70 mm / 139 kg	43320/002
59S-120	Ø 70 mm / 150 kg	43320/003

SERIES 59 TUBULAR MOTORS with emergency operation






DESCRIPTION (Motor with emergency operation)

DESCRIPTION (Motor with emergency operation)	Max. weight *	CODE
59M-80	Ø 70 mm / 105 kg	43330/001
59M-100	Ø 70 mm / 139 kg	43330/002
59M-120	Ø 70 mm / 150 kg	43330/003

* See table page 140.


DESCRIPTION OF ADAPTERS FOR SERIES 59 (CMS-SMS) MOTORS

DESCRIPTION OF ADAPTERS FOR SERIES 59 (CMS-SMS) MOTORS	CODE
 70 mm OCTAGONAL	43380/088
 78 mm OGIVE	43380/104
 85 mm OGIVE	43380/105

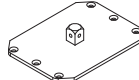
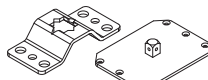


TUBULAR MOTORS



DESCRIPTION OF INSTALLATION ACCESSORIES FOR SERIES 59 SMS CODE

	Standard support bracket Revolux 59S	43380/085
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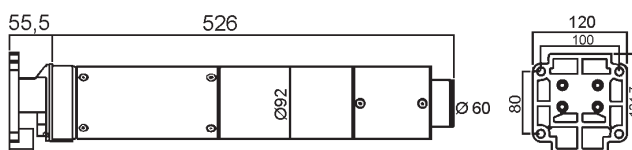
DESCRIPTION OF INSTALLATION ACCESSORIES FOR SERIES 59 CMS CODE

	Square pin Revolux 59M	43380/081
	Kit with square pin and bracket Revolux 59M	43380/086

DESCRIPTION OF INSTALLATION ACCESSORIES COMMON FOR SERIES 59 SMS and CMS CODE

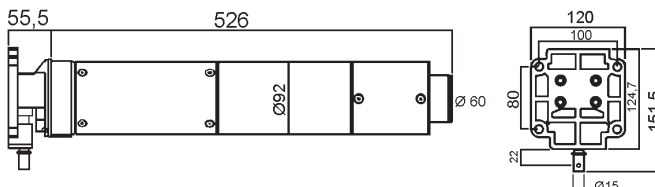
	Adjustable square bracket Revolux 59S e 59M	43380/099
	Wall support Revolux 59S e 59M	43380/100

SERIES 92 TUBULAR MOTORS without emergency operation



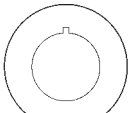
DESCRIPTION (Motor without emergency operation)	Max. weight *	CODE
92S-230	Ø 92 mm / 350 kg	43340/001

SERIES 92 TUBULAR MOTORS with emergency operation



DESCRIPTION (Motor with emergency operation)	Max. weight *	CODE
92M-230	Ø 92 mm / 350 kg	43345/001

DESCRIPTION OF ACCESSORIES FOR SERIES 92 CODE

	108 mm ROUND	43380/118
	97 mm ROUND	43380/125



TUBULAR MOTORS

DESCRIPTION OF ACCESSORIES COMMON TO ALL SERIES	CODE
 Ø 60 mm octagonal tube (in 3 m bars)	43380/094
 Ø 70 mm octagonal tube (in 3 m bars)	43380/095
 Masonry camp	43380/066
 45° 2 holes articulation with 7 mm hexagonal rod eyelet L = 400 mm *	43380/071
 45° articulation with joint **	43380/093
 90° 4 holes articulation with 7 mm hexagonal rod eyelet L = 250 mm *	43380/072
 Linear joint **	43380/106
 Articulated joint **	43380/089
 Hook for steel rod L = 81 mm **	43380/090
 Hook for steel rod L = 108 mm **	43380/112
 Rod for emergency manual operation *	43380/096
 Rod with hook and articulated handle L = 150 mm *	43380/070
 End piece with adjustable round pin for Ø 60 mm octagonal tubes	43380/097
 End piece with adjustable round pin for Ø 70 mm octagonal tubes	43380/098
 End piece for Ø 60 mm octagonal tubes	43380/113
 End piece for Ø 70 mm octagonal tubes	43380/114
 Safety spring for 14 mm profil	43380/050
 Pair of rings for Ø 60 mm octagonal safety spring	43380/051
 Pair of rings for Ø 70 mm octagonal safety spring	43380/052
 Burglar-proof spring for octagonal pipe Ø 60 mm	43380/073
 Burglar-proof spring for octagonal pipe Ø 70 mm	43380/076

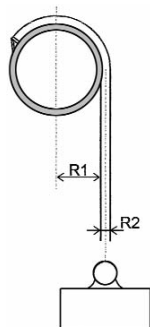
* Accessories dedicated to tubular motors 45 and 59 series with emergency operation.

** Accessories dedicated to tubular motors 59 serie only.



AUTOMATION FOR ROLLING SYSTEMS

Guide to automations for rolling systems.



$$\text{WEIGHT} = \frac{\text{Nominal torque (Nm)}}{\text{Lifting radius (m)}}$$

The nominal torque in Nm (Newton per meter) is indicated on the product label. Lifting radius is the sum between rolling tube radius (see R1 reported on the picture) and half thickness of the rolling shutter (see R2 reported on the picture).

EXAMPLE IN METER

Coppia nominale del motore 45 Nm
 Diametro tubo 60 mm per cui R1 = 30 mm (0,030 m)
 Spessore della tapparella 10 mm per cui R2 = 5 mm (0,005 m)

$$\text{WEIGHT} = \frac{45 \text{ Nm}}{0,030 \text{ m} + 0,005} = \frac{45 \text{ Nm}}{0,035 \text{ m}} = 1285 \text{ N}$$

$$1285 \text{ N} = 131 \text{ kg} \quad \text{WEIGHT} = \frac{1285 \text{ Nm}}{9,81} = 131 \text{ kg}$$



The motor installed on this tube can lift 131 kg. Due to safety coefficients used on window frames and rolling shutter (about 50%), it results that the max. lifting weight allowed is 65 kg.

These tables help choosing the tubular motor depending on the diameter of rolling tube and the weight of rolling shutter. The rolling shutter weight is obtained multiplying the surface for the weight per m² of material used.

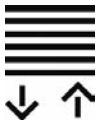
WARNING

Weights reported inside the table are calculated with safety coefficient of 50% (considering friction, increasing of roller shutter external diameter, etc.).

It is strongly recommended not to over-dimension or under-dimension the tubular motor!

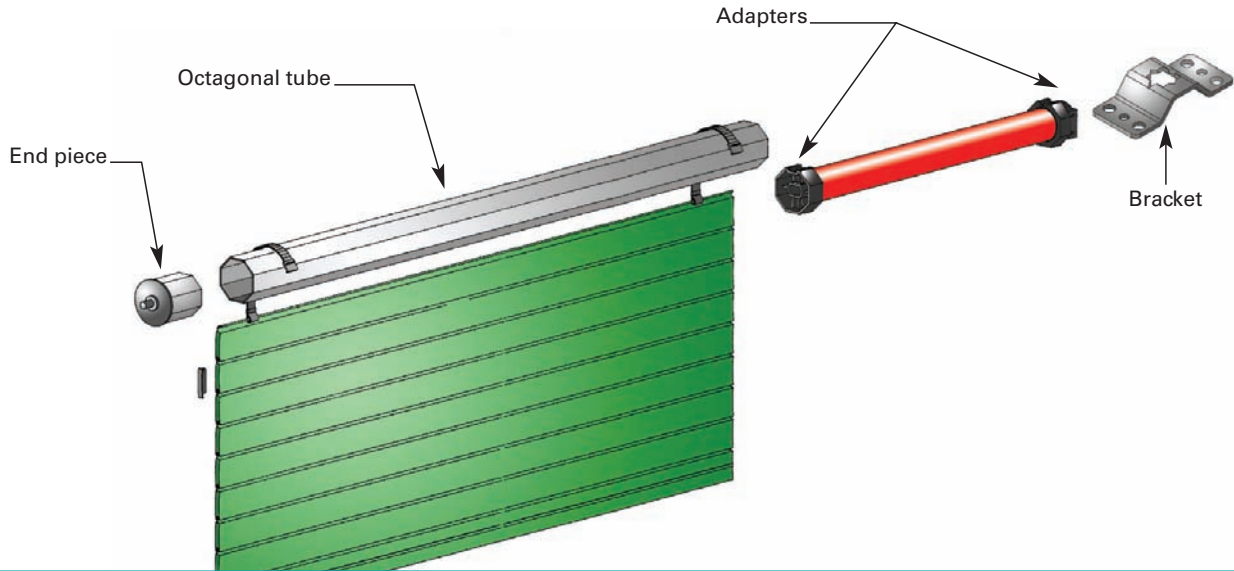
MATERIAL	WEIGHT FOR m ²
PVC	~ kg 5,0
WOOD	~ kg 10,0
INSULATED ALUMINIUM	~ kg 4,0
INSULATED STEEL	~ kg 10,0
"SICOFER" ARMoured STEEL	~ kg 16,0

OCTAGONAL TUBE Ø 40 mm		OCTAGONAL TUBE Ø 60 mm		OCTAGONAL TUBE Ø 70 mm	
20 kg	REVOLUX 35S-10	88 kg	REVOLUX 45-50	150 kg	REVOLUX 59-120
		55 kg	REVOLUX 45-30	130 kg	REVOLUX 59-100
		35 kg	REVOLUX 45-20	105 kg	REVOLUX 59-80
				85 kg	REVOLUX 45-50
				50 kg	REVOLUX 45-30
				30 kg	REVOLUX 45-20



AUTOMATION FOR ROLLING SYSTEMS

The figure is shown only for the purposes of identifying the parts/accessories needed to automate a rolling shutter.



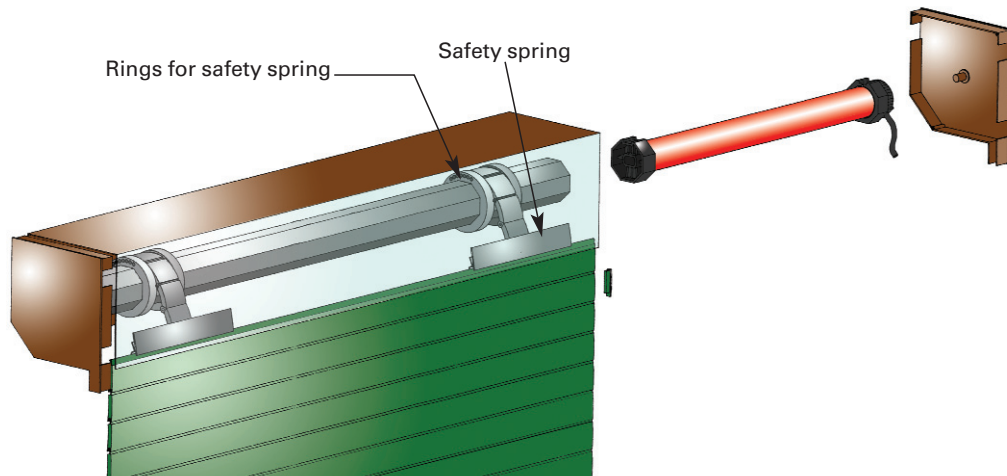
Minimum configuration - Tubular motor with no emergency operation

Rif.	Component	Notes	Page
1	Tubular motor	Series 35 motors Series 45 motors Series 59 motors	For 35 series see page 135 For 45 series see page 135 For 59 series see page 137
2	Motor fixing accessories		pages 135 - 136 - 137 - 138
3	Tube adapters		pages 135 - 136 - 137

Optional accessories

Rif.	Component	Notes	Page
4	Octagonal tube		page 139
5	Tube end piece with adjustable round pin		page 139

TUBULAR MOTOR WITH ROLLING SHUTTER FITTED IN BOX





AUTOMATION FOR SUN BLINDS

Guide to automation for sun blinds.

STANDARD ARM WITH 50 mm ROUND PIN ROLLER

NUMBER OF ARMS	PROJECTION IN METERS					
	1,5	2	2,5	3	4	5
2	20	30	30	30	30	50
4	30	30	30	50	50	-
6	30	30	50	50	-	-
8	50	50	-	-	-	-

STANDARD ARM WITH 70 mm ROUND PIN ROLLER

NUMBER OF ARMS	PROJECTION IN METERS					
	1,5	2	2,5	3	4	5
2	20	30	30	30	50	50
4	30	30	30	50	50	80
6	30	50	50	50	80	100
8	50	50	80	80	-	-

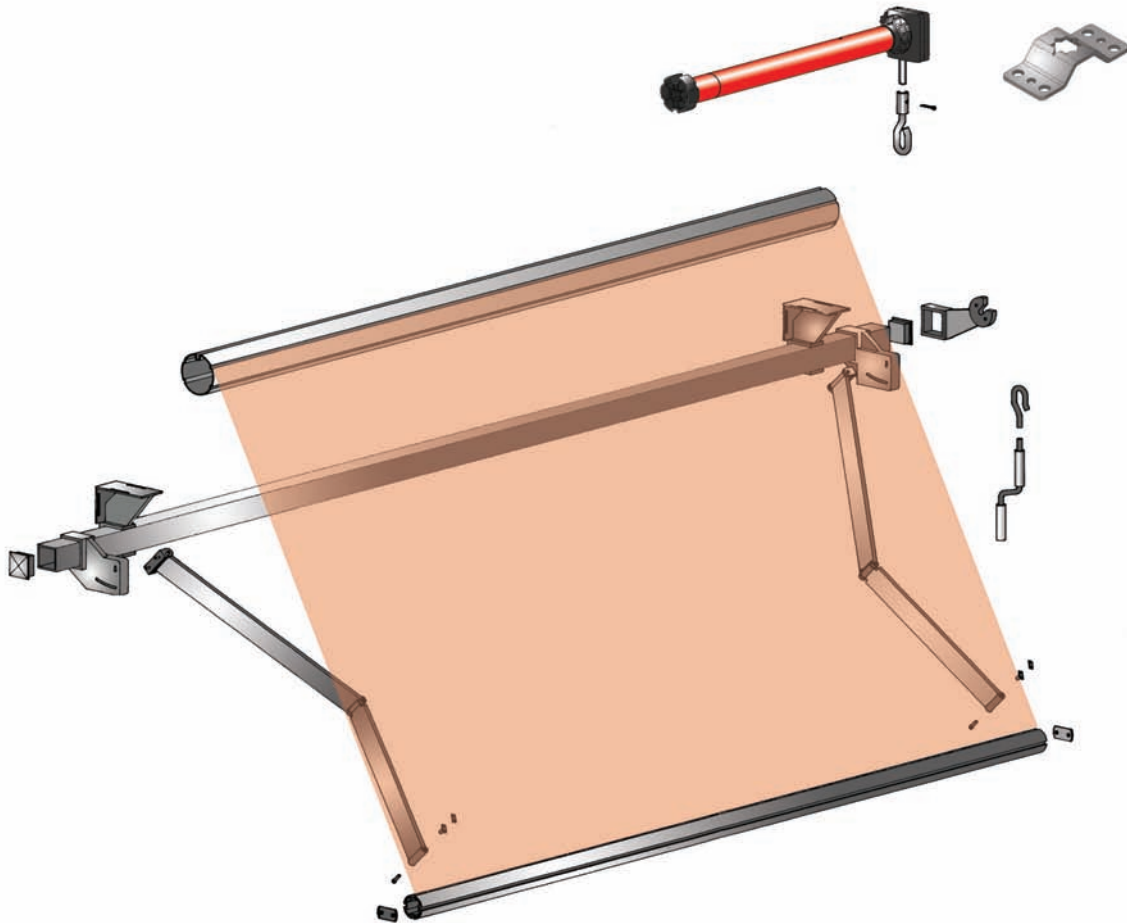
STANDARD ARM WITH 78 mm ROUND PIN ROLLER

NUMBER OF ARMS	PROJECTION IN METERS					
	1,5	2	2,5	3	4	5
2	20	30	30	50	50	80
4	30	50	50	50	50	80
6	50	50	50	80	100	120
8	80	80	80	80	120	-



AUTOMATION FOR SUN BLINDS

TUBULAR OPERATOR FOR SUN BLINDS



Minimum configuration - Tubular motor with emergency operation

Rif.	Component	Notes	Page
1	Tubular motor	Series 45 motors Series 59 motors	For 45 series page 135 For 59 series page 137
2	Motor fixing accessories		pages 135 - 136 - 137 - 138
3	Tube adapters		pages 136 - 137 - 138
4	Emergency operation accessories		page 136 - 138

Optional accessories

Rif.	Component	Notes	Page
5	Rod for emergency manual operation		page 139

Description of ideal installation

Description of ideal installation	CODE
ROLLER KIT 60 kg	43302/803
M230 HR - Electronic control unit for rolling shutter 230 V	43665/004
TR2 - 433,92 Mhz twin-channel transmitter	41903/002



ROLLI 140

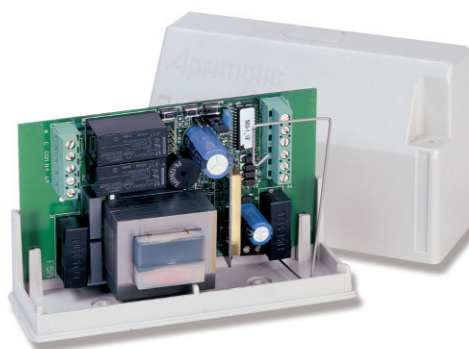
Operator for rolling shutters,
residential use.



ROLLI 140 (reversible) for rolling shutters with 48/60 mm shaft and 200/220 mm spring holders is the economical version for quick and easy installation. An electronic brake is available as accessory. **Mechanical limit switch adjustment.**

M230S is an electronic control unit with an integrated receiver compatible with all Aprimatic 433,92 Mhz remote control, easy to install and program. It can be connected to control, safety and security devices (max accessory absorption: 300 mA) and comes with 4 logic systems for working and pause time control and programming.

External tamper-proof boxes available for wall and recess-mounting.



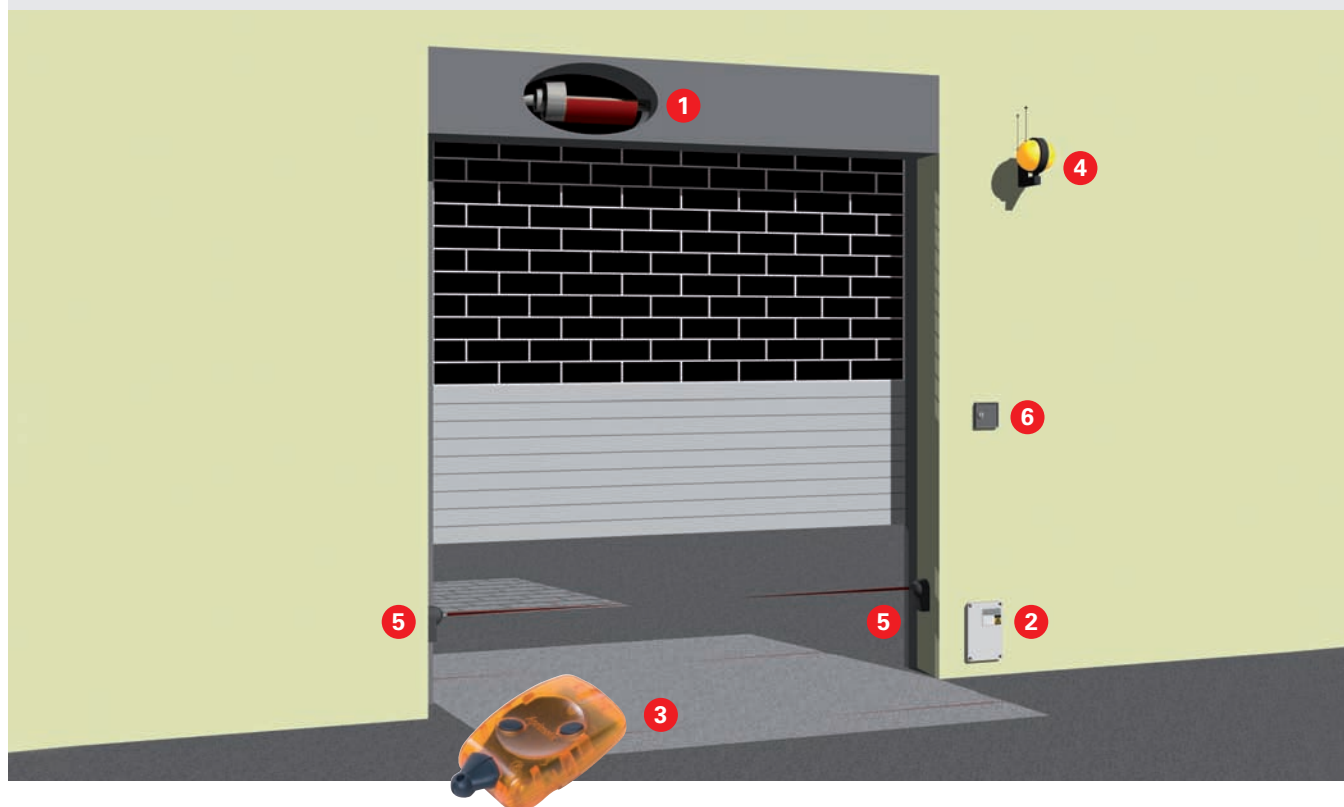
TECHNICAL DATA	ROLLI 140
POWER SUPPLY	230 V - 50/60 Hz
ABSORBED CURRENT	1,8 A
ABSORBED POWER	400 W
MAX. TORQUE	135 Nm
MAX. LIFTING FORCE	140 kg
RPM	10 n
CAPACITOR	14 μ F
OPERATING TEMPERATURE	-20° to +50° C
MAX. SHUTTER HEIGHT	6 m
PROTECTION CLASS	IP30





ROLLI 140

WIRING DIAGRAM



- 1** Gear motor
- 2** Electronic control unit
- 3** Transmitter

- 4** Flashing lamp
- 5** Pair of photocells
- 6** Control unit: key switch / proximity sensor access control / electronic key-pad / tamper-proof card / magnetic key reader

DESCRIPTION	CODE
ROLLI 140 - Gear motor 140 kg without electric brake	43354/001
ROLLI 140E - Gear motor 140 kg with electric brake	43354/002
EF - Electric brake (5 meters)	43354/050

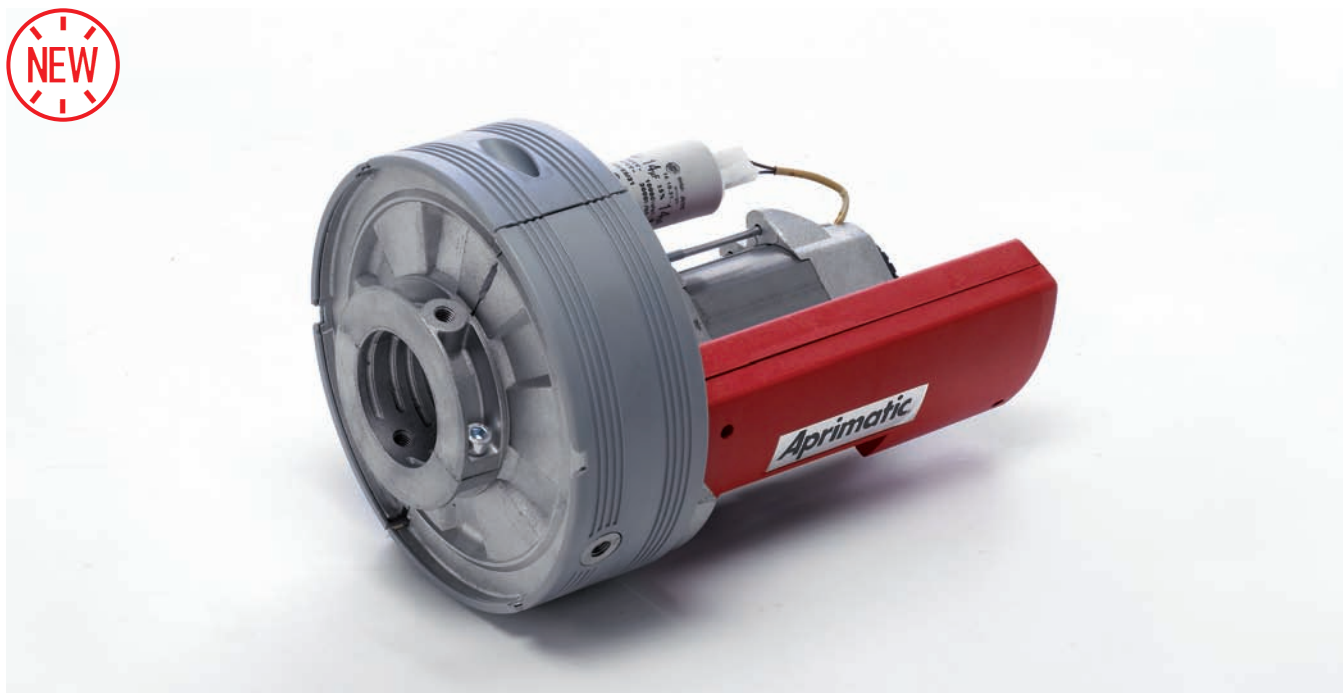
DESCRIPTION	CODE
CS - External strongbox (with up/down and brake release buttons)	41704/002
CSP - ROLLI wall-mounted external strong box	41704/004
ROLLI wall-mounted selector (with up/down button)	41704/005
ER4N - Pair of photocells	41812/001
433,92 Mhz antenna	41929/001
PM12 - Metal key switch (wall mounted)	41830/006
M 230S - Electronic control unit for rolling shutters	43665/015
TR2 - 433,92 Mhz twin-channel transmitter	41903/002
ET20N - 230 V flashing lamp	41841/009
Kit antenna for installation on the flashing lamp	41929/003

DESCRIPTION	CODE
KIT ROLLI 140 kg	43354/800
The package includes:	
ROLLI 140 - Gear motor with electronic brake	
M 230S - Electronic control unit for rolling shutters	
TR2 - 433,92 Mhz twin-channel transmitter	



ROLLI 180

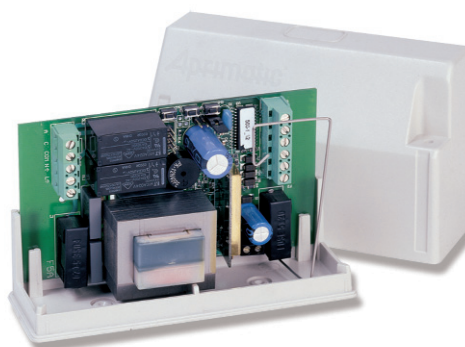
Operator for rolling shutters,
residential use.



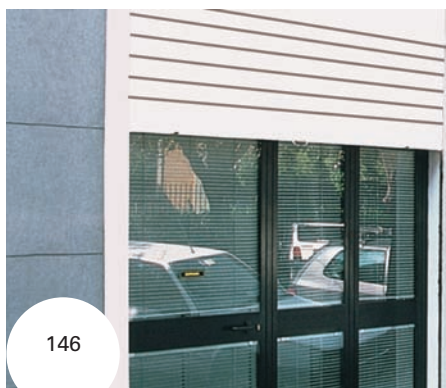
ROLLI 180 (reversible) for rolling shutters with 48/60 mm shaft and 200/220 mm spring holders is the economical version for quick and easy installation. An electronic brake is available as accessory. **Mechanical limit switch adjustment.**

M230S is an electronic control unit with an integrated receiver compatible with all Aprimatic 433,92 Mhz remote control, easy to install and program. It can be connected to control, safety and security devices (max accessory absorption: 300 mA) and comes with 4 logic systems for working and pause time control and programming.

External tamper-proof boxes available for wall and recess-mounting.



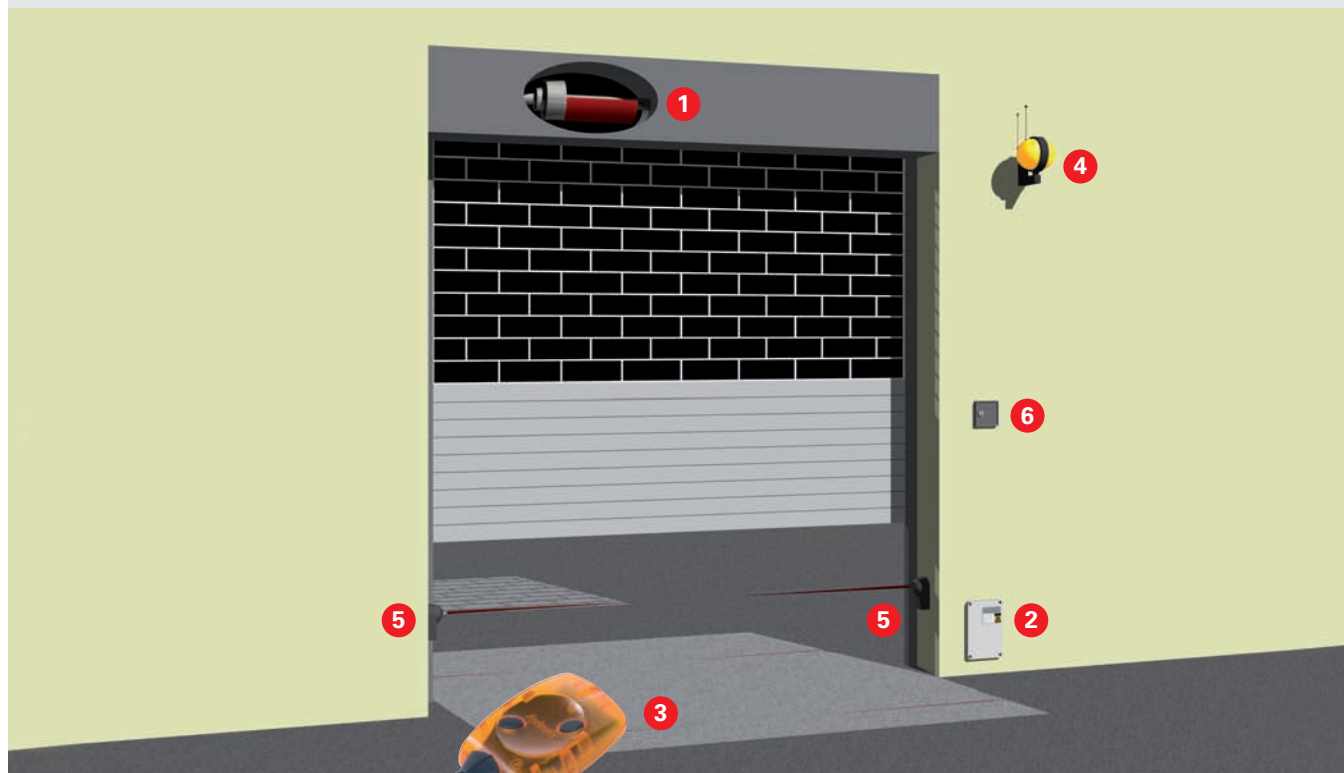
TECHNICAL DATA	ROLLI 180
POWER SUPPLY	230 V - 50/60 Hz
ABSORBED CURRENT	2,8 A
ABSORBED POWER	600 W
MAX. TORQUE	175 Nm
MAX. LIFTING FORCE	180 kg
RPM	10 n
CAPACITOR	14 μ F
OPERATING TEMPERATURE	-20° to +50° C
MAX. SHUTTER HEIGHT	6 m
PROTECTION CLASS	IP30





ROLLI 180

WIRING DIAGRAM



1 Gear motor

2 Electronic control unit

3 Transmitter

4 Flashing lamp

5 Pair of photocells

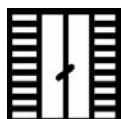
6 Control unit: key switch / proximity sensor access control / electronic key-pad / tamper-proof card / magnetic key reader

DESCRIZIONE	CODE
ROLLI 180 - Gear motor 180 kg without electric brake	43354/003
ROLLI 180E - Gear motor 180 kg with electric brake	43354/004
EF - Electric brake (5 meters)	43354/050

DESCRIPTION	CODE
CS - External strongbox (with up/down and brake release buttons)	41704/002
CSP - ROLLI wall-mounted external strong box	41704/004
ROLLI wall-mounted selector (with up/down button)	41704/005
ER4N - Pair of photocells	41812/001
433,92 Mhz antenna	41929/001
PM12 - Metal key switch (wall mounted)	41830/006
M 230S - Electronic control unit for rolling shutters	43665/015
TR2 - 433,92 Mhz twin-channel transmitter	41903/002
ET20N - 230 V flashing lamp	41841/009
Kit antenna for installation on the flashing lamp	41929/003

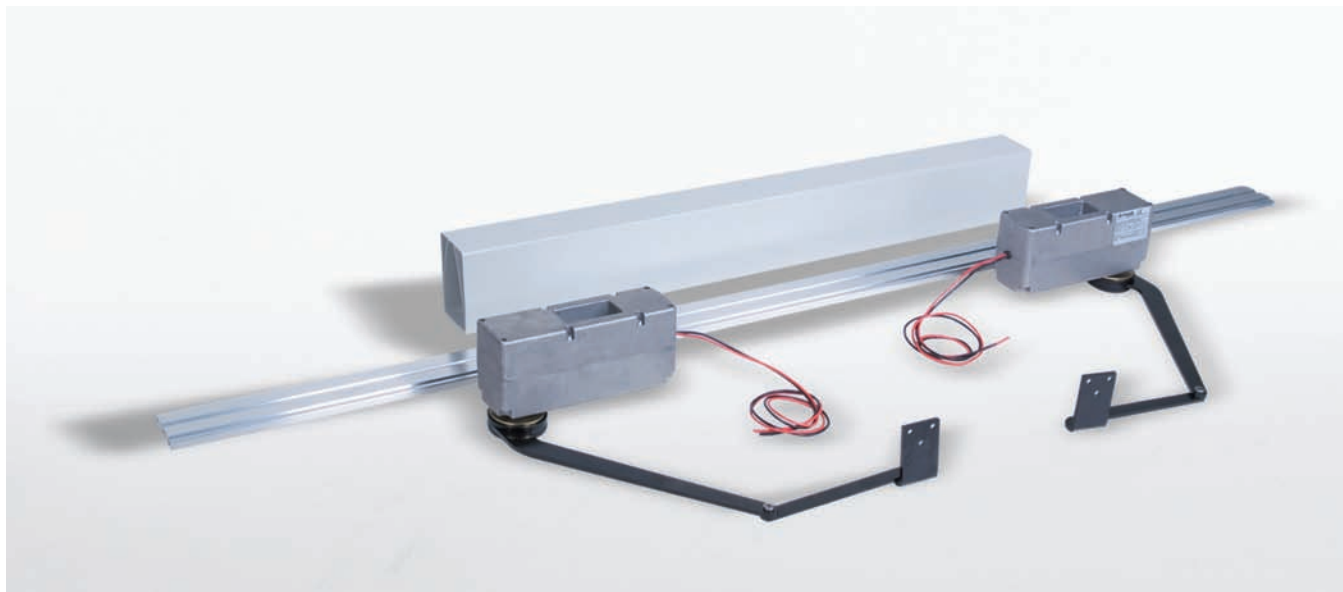


>>> AUTOMATIONS FOR SIDE-HUNG SHUTTERS >>>
AND WINDOWS



BUONGIORNO

Electro-mechanical operator
for side-hung shutters.



Maximum flexibility.

Buongiorno is an automation for side-hung shutters. It can be used for applications with any type of window including those fitted with security grates and mosquito nets.

It consists of an aluminium beam which acts as a support for the gear motor (two in the event of two wings) and a PVC guard.

The beam and guard can be cut to size to enable application with shutters of varying sizes.

Buongiorno is easy to install without having to modify the shutters or carry out masonry work, even with existing shutters.

Absolute convenience.

Buongiorno enables you to open and close the shutters in your home without having to open the windows, simply by pressing a button.

Buongiorno is ideal for opening and closing your shutters, in winter, in cold weather, in summer, even if your windows have mosquito screens or are difficult to reach.

Security and durability.

Buongiorno is fitted with an electronic clutch which behaves intelligently depending on the absorbed current.

The shutter stops if it meets an obstacle during movement thus protecting the user and the gear motor.

Thanks to this device, the installer does not have to make any limit switch adjustments.

In the event of mains power supply failure the user can open or close the shutter immediately without having to unlock it.

An electric lock can also be fitted for greater security.

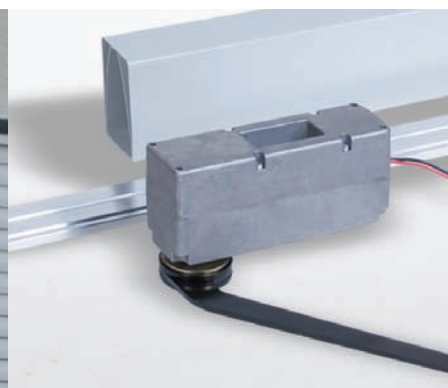
TECHNICAL DATA

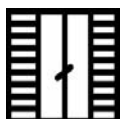
POWER SUPPLY	230 Vac
MOTOR VOLTAGE	24 Vdc
MOTOR POWER	4,2 W
MAX. TORQUE	40 Nm
ELECTRIC LOCK	Internal
CLUTCH	Mechanical
OPERATING TIME	18 sec. for 180°

INSTALLATION REFERENCE DATA

	1 LEAF	2 LEAF
MIN. WINDOW WIDTH	43 cm	86 cm
MAX. WINDOW WIDTH	80 cm	155 cm
MAX. WING AREA	1,8 m ²	1,75 m ² x 2
MAX. WING WEIGHT	80 kg	50 kg x 2

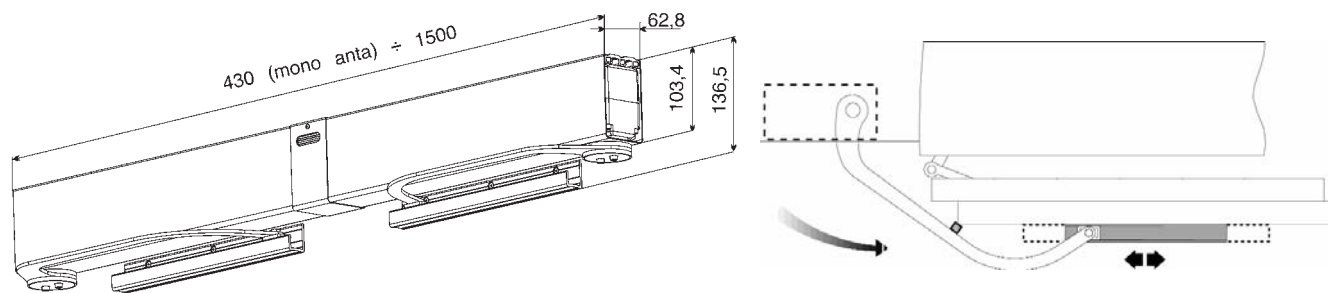
NOTE: The weight includes possible friction.





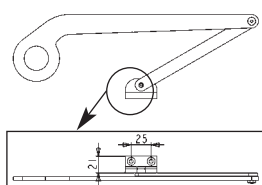
BUONGIORNO

OPERATOR DIMENSIONS

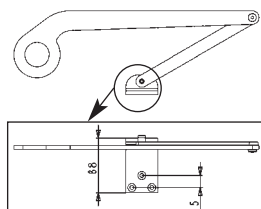


LEVERS

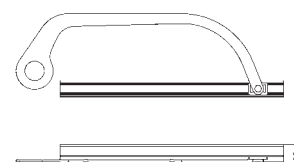
R - ARTICULATED ARM



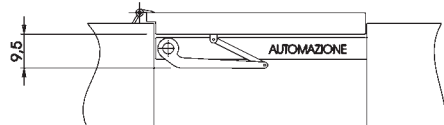
T - ARTICULATED ARM



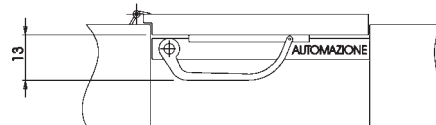
SLIDING ARM



ARTICULATED ARM



SLIDING ARM



DESCRIPTION OF OPTIONAL ACCESSORIES	Notes	CODE
Sliding arm	Standard two-handed lever	43400/055
RH "R" Articulated arm	Compact RH lever	43400/052
LH "R" Articulated arm	Compact LH lever	43400/053
R/H "T" Articulated arm	Compact RH lever with heavy duty bracket	43400/056
LH "T" Articulated arm	Compact LH lever with heavy duty bracket	43400/057
BUONGIORNO Electric lock unit	Electric security lock driven by control unit	43400/059
Bracket KIT for BUONGIORNO reverse application	Accessories for installation at the base of the window	43400/054

SINGLE WING Description of Ideal Installation

CODE

BUONGIORNO single wing KIT

43400/802

The package includes:

BUONGIORNO single wing automation
Two T articulated arms (RH and LH)
Cover L = 800 mm

DOUBLE WING Description of Ideal Installation

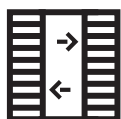
CODE

BUONGIORNO double wing KIT

43400/801

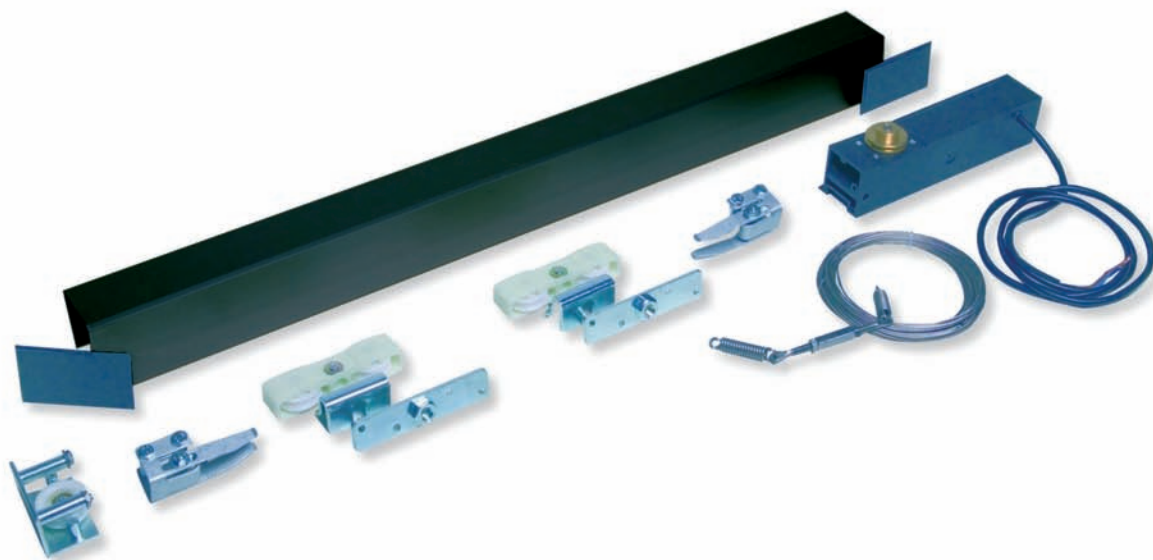
The package includes:

BUONGIORNO double wing automation
Two T sliding arms (RH and LH)
Cover L = 1500 mm



APRITOP

Electro-mechanical operator for shutters and sliding window gratings.



24 V electro-mechanical operator designed to move shutters and sliding doors.

Complete with aluminium support track, wing support carriages, drive cable and pulleys, 230 Vac to 24 Vdc transformer control unit.

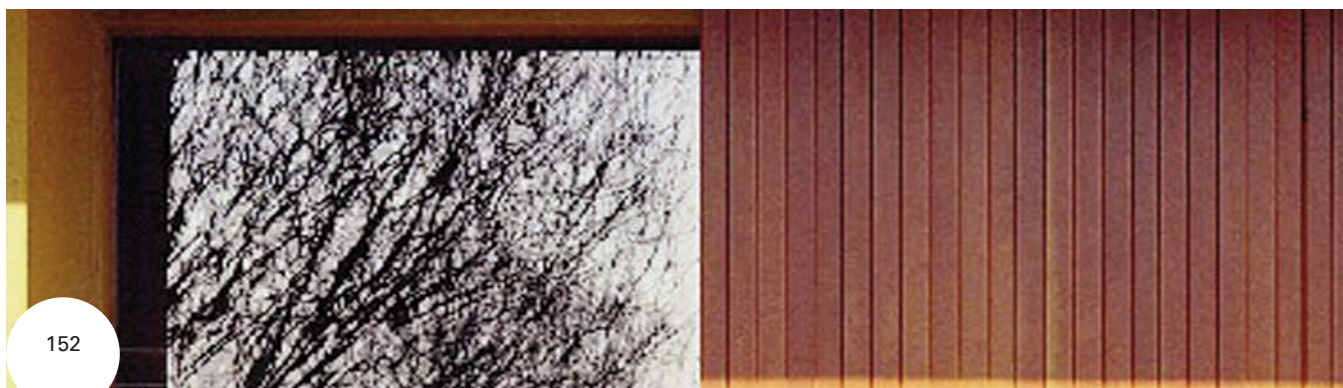
Control switch, wind-rain detection unit connection and remote control units also available.

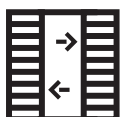
The distinguishing feature of Apritop is the silent movement, thanks to the special type of track and the large-diameter ball bearings.

The elegant lines of Apritop are ensured by the small size of the track and the bronze anodised aluminium cover.

TECHNICAL DATA

MAX. LENGTH FOR SINGLE WING	2.900 mm
MAX. LENGTH FOR DOUBLE WING	1450 mm
MAX. DRIVE WEIGHT	120 kg
LIMIT SWITCH	Electronic, current absorption adjustable by control unit
OPERATING SPEED	0,08 m/sec.

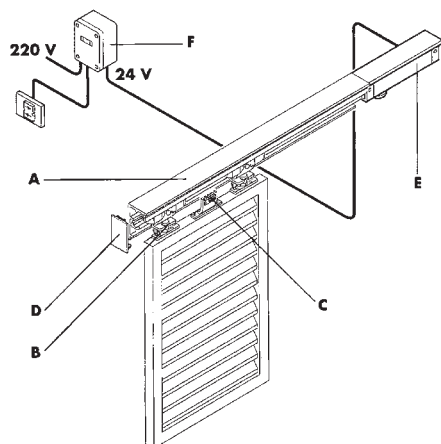




APRITOP

WIRING DIAGRAM

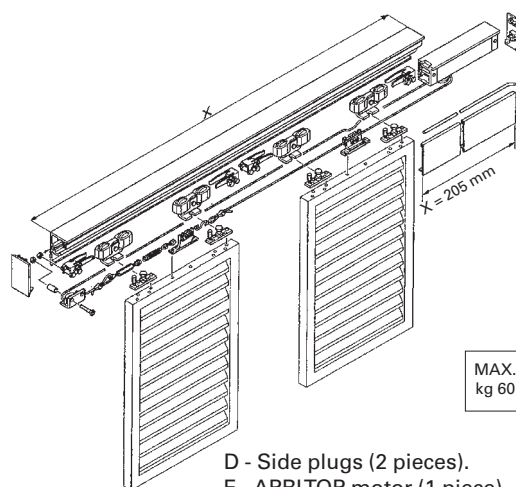
SINGLE WING automation



MAX.
kg 120

- A - Track and protection guard (1 piece).
- B - Carriages and limit switch (1 piece).
- C - 1 wing movement kit.

DOUBLE WING automation

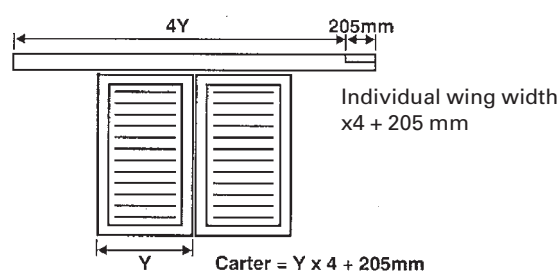
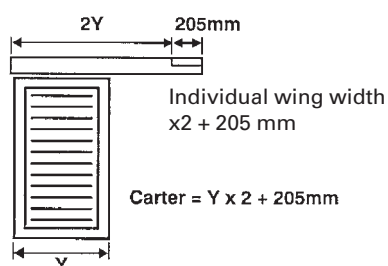


MAX.
kg 60

MAX.
kg 60

- D - Side plugs (2 pieces).
- E - APRITOP motor (1 piece).
- F - CV1 control unit (1 piece).

CALCULATING THE LENGTH OF TRACKS/COVERS TO ORDER



DESCRIPTION

APRITOP 24 V OPERATOR

CODE

43402/001

DESCRIPTION OF ACCESSORIES

Track guard 2000 mm

43402/052

Track guard 3000 mm

43402/053

Track guard 4000 mm

43402/054

Track guard 6000 mm

43402/055

Pack of carriages for 1 wing

43402/056

Pack of carriages for 2 wings

43402/057

Pack of movement mechanisms for 1 wing

43402/058

Pack of movement mechanisms for 2 wings

43402/059

Pair of PVC side plugs

43402/060

DOUBLE WING Description of Ideal Installation

Q.ty

CODE

APRITOP 24 V Operator

1

43402/001

CV1-N - Control unit

1

43660/002

Track guard 4000 mm

1

43402/054

Pack of carriages for 2 wings

1

43402/057

Pack of movement mechanisms for 2 wings

1

43402/059

Pair of PVC side plugs

1

43402/060



APRILUX

Chain operator for dormer windows
and skylights.



Aprilux is an electro-mechanical chain operator with an internal magazine in a nylon casing.

It is suitable for dormer windows and skylights.

Stroke is adjustable from 90 to 330 mm 230 Vac power supply.

Can be connected in parallel with a connection cable.

The chain is rust-proof thanks to the Dacromet coating.

Maximum versatility thanks to an adjustable stroke ranging from 90 to 330 mm.

The ideal solution for operating dormer windows and skylights.

TECHNICAL DATA

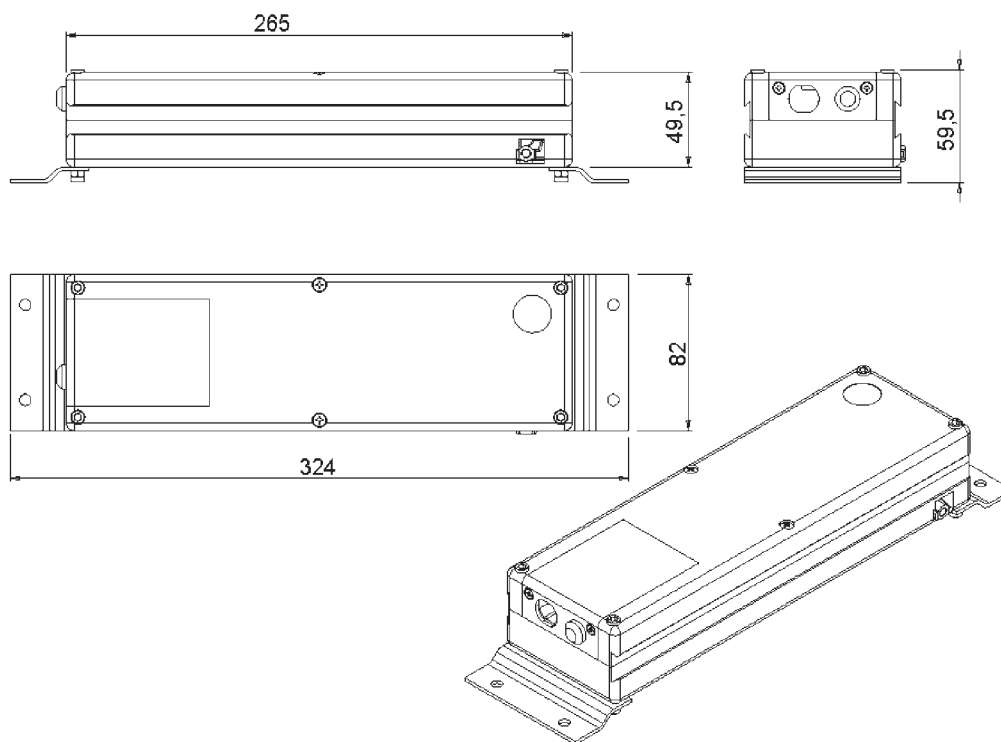
POWER SUPPLY	230 Vac
ABSORBED POWER	150 W
ABSORBED CURRENT	0,8A in ac
MAX. THRUST FORCE	150 N
PULL FORCE	300 N
ADJUSTABLE STROKE	From 90 to 330 mm
OPERATING SPEED	40 mm/sec.
FRONT ADJUSTMENT	Max. 10 mm
PARALLEL CONNECTION	YES
FREQUENCY	50 Hz
OVERLOAD PROTECTION	100° C
CAPACITOR	4 µ F
RELAY INCORPORATED	YES
WARNING LIGHT	YES
CONNECTION CABLE	YES
PROTECTION CLASS	IP20





APRILUX

OPERATOR DIMENSIONS





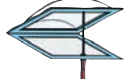

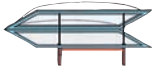
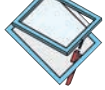


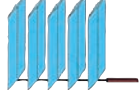
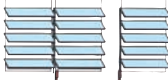
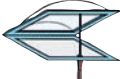


DESCRIZIONE	CODE
APRILUX Black	43503/012
APRILUX White	43503/011





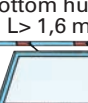



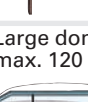
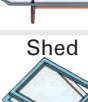
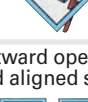


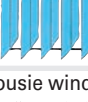
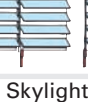


INDUSTRIAL APPLICATIONS

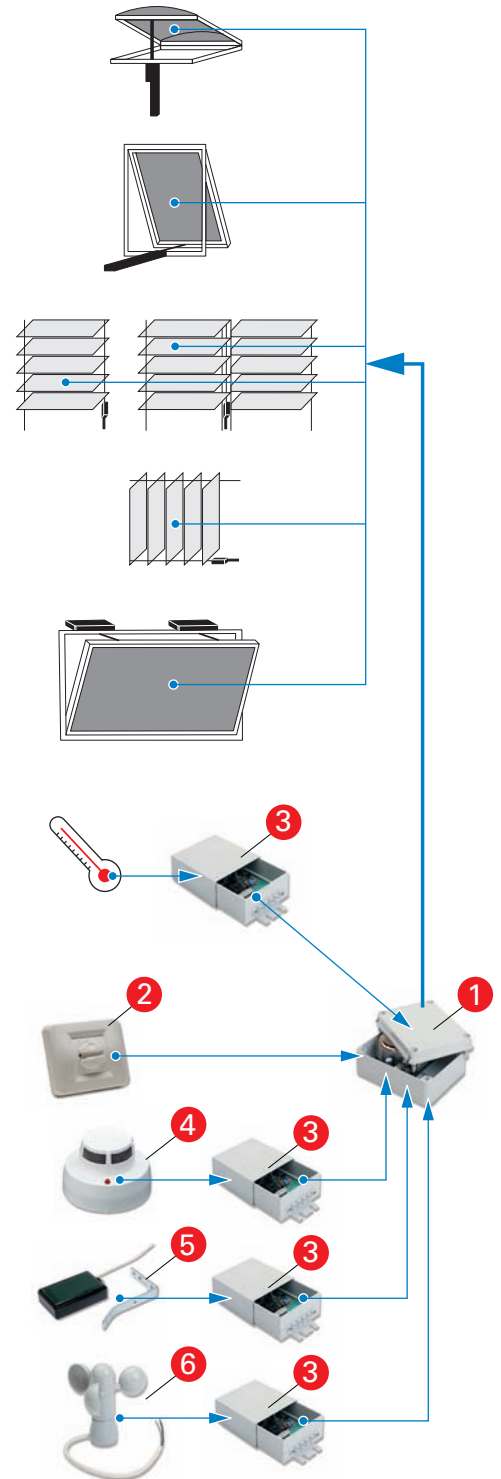
	O2M	VARIA	VARIA T	ST 450 N	ARK
Outward opening 	•	•		•	•
Bottom hung 	•	•			
Bottom hung L > 1,6 m 			•		
Tilted 		•		•	•
Small dome 	•			•	•
Aligned Small dome L < 1m 				•	•
Large dome max. 120 kg 					•
Shed 	•	•		•	•
Outward opening and aligned shed 	•	•		•	•
Large outward opening and shed L > 1,6 m 			•		•
Vertical sunblinds 				•	•
Jalousie windows 				•	•
Skylights 	•			•	•



INDUSTRIAL APPLICATIONS

	APRILINEARE	APRILINEARE DUO SYSTEM	APRILINEARE TRY SYSTEM	SERIE 520 INDUSTRIAL
Outward opening 	•	•	•	•
Bottom hung 				•
Bottom hung L > 1,6 m 				•
Tilted 	•	•		•
Small dome 	•			•
Aligned Small dome L < 1m 	•	•	•	•
Large dome max. 120 kg 		•		•
Shed 	•	•	•	•
Outward opening and aligned shed 	•	•	•	•
Large outward opening and shed L > 1,6 m 		•	•	•
Vertical sunblinds 	•			
Jalousie windows 	•			
Skylights 	•	•		

POSSIBLE CONFIGURATIONS



- 1 Control unit 24V - 230V
- 2 Switch
- 3 Weather control unit
- 4 Smoke/heat detector
- 5 Rain detector
- 6 Anemometer



O2M

Electro-mechanical operator with double chain to automate windows and domes.
The ideal solution for outward and bottom hung-openings.



O2M is flexible, powerful and reliable. These features make it unique in the market of chain controlled electro-mechanical operators for windows.

The special fixing device enables the installer to adjust easily the position of the operator on the frame.

A greater than average thrust force in this category and the double chain enable O2M to operate very heavy windows.

Dedicated software is used to reset the O2M closing point automatically every 50 opening and closing operations. This innovative solution enables O2M to maintain very high performances as regards of temperature and sound insulation.

The highest protection level in its category, **IP54**, guarantee of good functioning even for applications exposed to the most extreme weather conditions.

Smaller dimensions and a compact shape make O2M easy to integrate with the window frame regardless of thickness or design.

TECHNICAL DATA

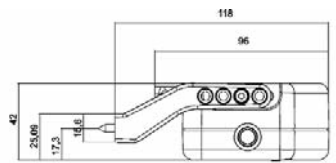
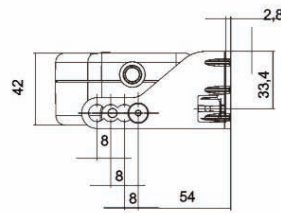
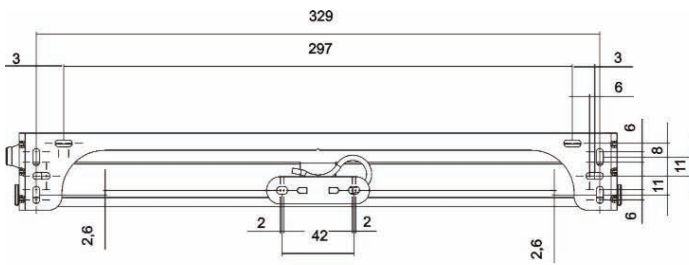
POWER SUPPLY	230 Vac - 24 Vdc - 50/60 Hz
ABSORBED POWER	50 W
ABSORBED CURRENT	0,2 A (for 230V) - 2 A (for 24V)
MAX. THRUST FORCE	350 N
FORCE APPLIED	350 N
ADJUSTABLE STROKE	150, 250, 380 mm + 4th step as required
OPERATING SPEED	24 mm/sec.
OPERATING TEMPERATURE	-5°C to +55°C
FRONT ADJUSTMENT	Max. 10 mm
PARALLEL CONNECTION	YES
OVERLOAD PROTECTION	100° C (only 230 V versions)
DIMENSIONS	(LxHxP) 340x40x80 mm
PROTECTION CLASS	IP54



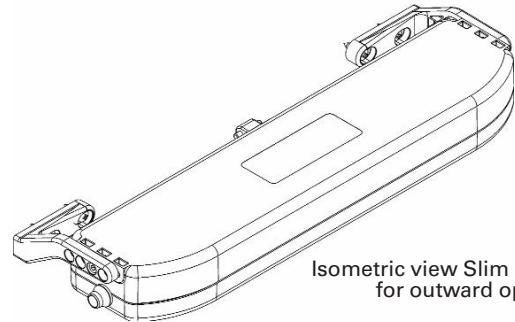
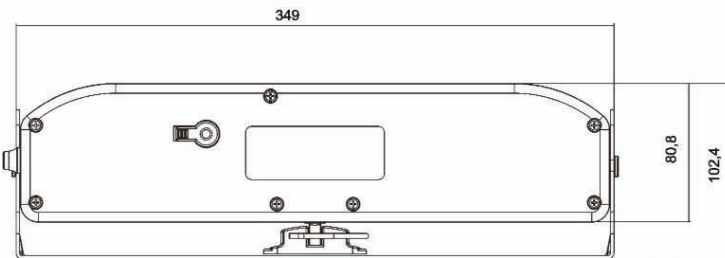


O2M

O2M DIMENSIONS - OUTWARD OPENING



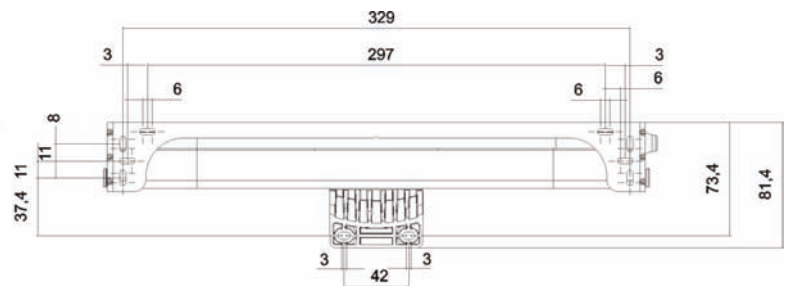
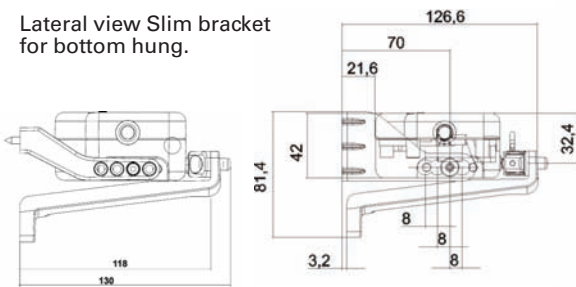
Lateral view Slim bracket for outward opening.



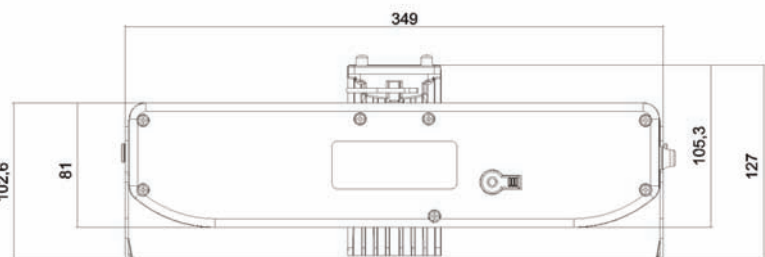
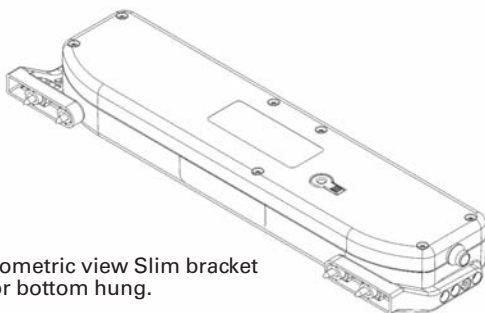
Isometric view Slim bracket for outward opening.



O2M DIMENSIONS - BOTTOM HUNG OPENING

Lateral view Slim bracket for bottom hung.



Isometric view Slim bracket for bottom hung.



DESCRIPTION	Max. stroke mm	Power supply	CODE
O2M Black (with outward and bottom hung opening)	380	230 Vca	43493/001
O2M Grey (with outward and bottom hung opening)	380	230 Vca	43493/002
O2M White (with outward and bottom hung opening)	380	230 Vca	43493/003
O2M Black (with outward and bottom hung opening)	380	24 Vcc	43492/001
O2M Grey (with outward and bottom hung opening)	380	24 Vcc	43492/002
O2M White (with outward and bottom hung opening)	380	24 Vcc	43492/003
Black slim bracket (pack of 5 pieces)			43493/050
 Black skylight bracket			43493/051
 Grey skylight bracket			43493/052
White skylight bracket			43493/053

NOTE: O2M series is complete with outward and bottom hung opening accessories.



APRICOLOR VARIA

Chain operators for bottom hung and outward opening windows.

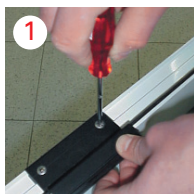


VARIA

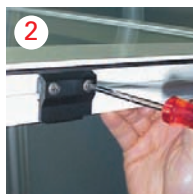


VARIAT

INSTALLING THE OPERATOR SUPPORT ON THE COUNTER-FRAME



INSTALLING THE CHAIN MOUNTING ON THE MOBILE WING



INSTALLING THE APRICOLOR VARIA OPERATOR ON THE COUNTER-FRAME



Exclusive quick-fit system to secure the operator to the window.

Compatible with a vast range of profiles from the R and G.A.C.S. series.

Apricolor VARIA is an electro-mechanical chain operator with internal nylon magazine.

It is suitable for bottom hung and outward opening windows, and features an adjustable stroke from 90 to 400 mm 230 V and 24 V operation.

Can be connected in parallel.

The chain is rust-proof thanks to the Dacro-met coating.

Apricolor VARIAT is designed for twin-mounting on single windows with a width greater than 1600 mm.

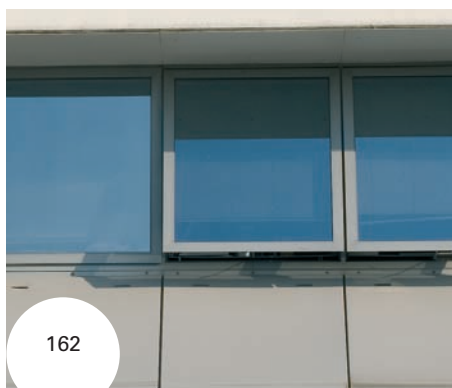
Apricolor VARIAT can be specially connected to share overload protection between two operators connected in parallel.

If one operator jams, the other stops automatically to avoid twisting the window.

TECHNICAL DATA

POWER SUPPLY	230 Vac - 24 Vdc
ABSORBED POWER	150 W - 40 W
ABSORBED CURRENT	0.8 Aac - 1.8 Adc
FREQUENCY	50 Hz
MAX. THRUST FORCE	150 N
FORCE APPLIED	300 N
ADJUSTABLE STROKE	From 90 to 400 mm
OPERATING SPEED	40 mm/sec.
FRONT ADJUSTMENT	Max. 10 mm
PARALLEL CONNECTION	YES
OVERLOAD PROTECTION	100° C (only 230 V versions)
CAPACITOR	4 µ F
RELAY INCORPORATED	YES
WARNING LIGHT	YES
PULL - OUT TERMINAL BOARD	YES
PROTECTION CLASS	IP20

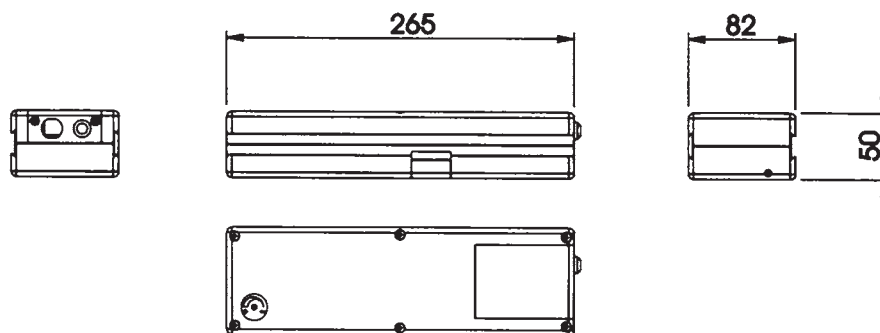
NOTE: The installation of Varia does not exclude the application of the safety arms, which must always be installed on the windows.





APRICOLOR VARIA

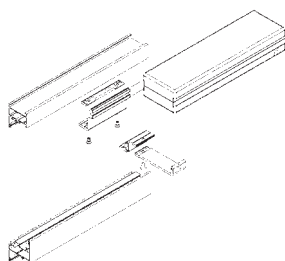
OPERATOR DIMENSIONS



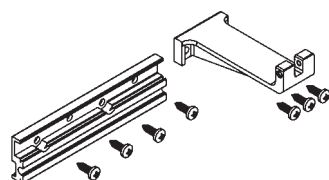
DESCRIPTION	Power supply	Notes	CODE
APRICOLOR VARIA Black 230 V	230 Vac	Combine with Kit Varia (quick-fit) or Screw Kit (conventional fitting)	43503/003
APRICOLOR VARIA Black 24 V	24 Vac	Screw Kit (conventional fitting included)	43502/001
APRICOLOR VARIA Gray 230 V	230 Vac	Combine with Kit Varia (quick-fit) or Screw Kit (conventional fitting)	43503/005
APRICOLOR VARIA Gray 24 V	24 Vdc	Screw Kit (conventional fitting included)	43502/003
APRICOLOR VARIAT Black 230 V (for use with another Varia T, window >1600 mm)	230 Vac	Combine with Kit Varia (quick-fit) or Screw Kit (conventional fitting)	43503/006
APRICOLOR VARIAT Gray 230 V (for use with another Varia T, window >1600 mm)	230 Vac	Combine with Kit Varia (quick-fit) or Screw Kit (conventional fitting)	43503/008
APRICOLOR VARIA White 230 V		Combine with Kit Varia (quick-fit) or Screw Kit (conventional fitting)	43503/004
APRICOLOR VARIA White 24 V		Screw Kit (conventional fitting included)	43502/002
APRICOLOR VARIA White 230 V	230 Vac	Combine with Kit Varia (quick-fit) or Screw Kit (conventional fitting)	43503/007

KIT FOR BOTTOM HUNG OPENING

VARIA KIT QUICK-FIT SYSTEM

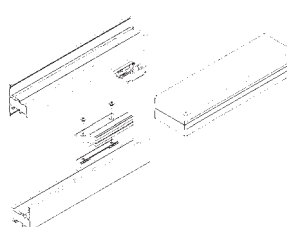


SCREW KIT TRADITIONAL FITTING SYSTEM

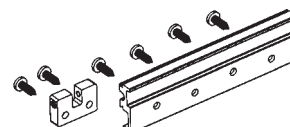


KIT FOR OUTWARD OPENING

VARIA KIT QUICK-FIT SYSTEM



SCREW KIT TRADITIONAL FITTING SYSTEM

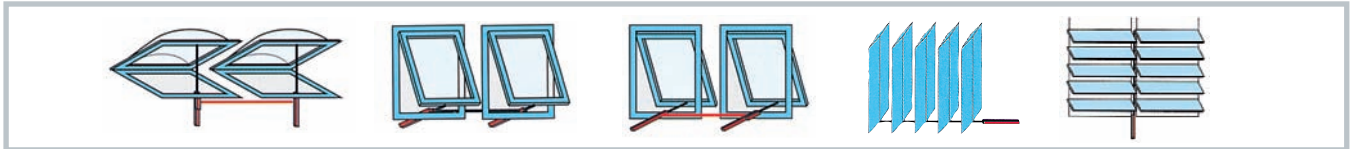


DESCRIPTION	Notes	CODE	EURO
SCREW KIT bottom hung window fitting system	Minim. pack of 10 pieces	43503/056	
VARIA KIT quick fit system for outward opening windows, specially for G.A.C.S. series E9	Minim. pack of 10 pieces	43503/051	Depending on stock availability
SCREW KIT outward opening window fitting system	Minim. pack of 10 pieces	43503/055	
Extension Pin for chain connection	For wood/PVC frames Minim. pack of 10 pieces	43501/050	



ST 450N

Rod operators for domes, vertical sunblinds, jalousie and outward opening windows.



ST 450N
Stroke 180



ST 450N
Stroke 300

Innovative magnetic end-of-stroke detection system: it further increases the product reliability in any working condition.

Product dimensions are designed to be as compact as possible to ensure an installation that blends with the rest of the building.

These operators combine two often mutually conflicting characteristics: silent operation and speed.

Can be connected in parallel thanks to the relay incorporated on the card.

Electronic operators in aluminium casing with linear rod movement.

230 Vac operator with limit switch and overload protection. Max. stroke 300 mm.

Available accessory: Kit for limit switch adjustment.

Features a reed bulb limit switch system without mechanical devices in movement.

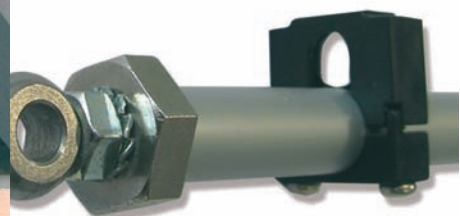
Supports and brackets are supplied for the application required.

TECHNICAL DATA

POWER SUPPLY	230 Vac - 50/60 Hz
ABSORBED POWER	150 W
ABSORBED CURRENT	0,7 Aac
THRUST AND PULL FORCE	450 N
MAX. STROKE	180 - 300 mm
AUTOMATIC LIMIT SWITCH	YES
PARALLEL CONNECTION	YES
OVERLOAD PROTECTION	YES
CAPACITOR	1 for 5 μ F
RELAY INCORPORATED	YES
PROTECTION CLASS	IP55 (inside use)



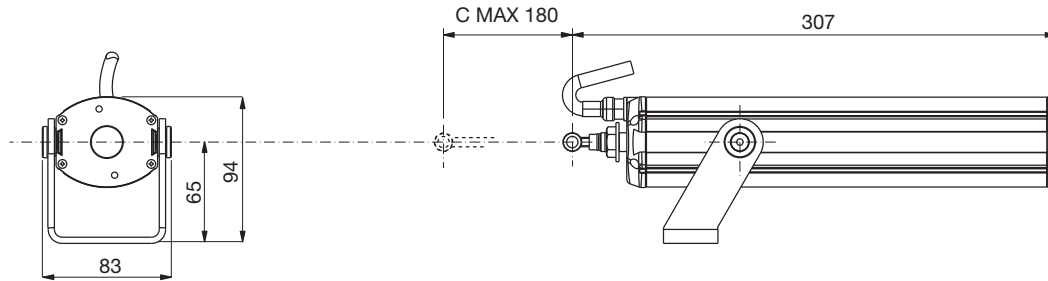
Kit for limit switches
adjustment on request



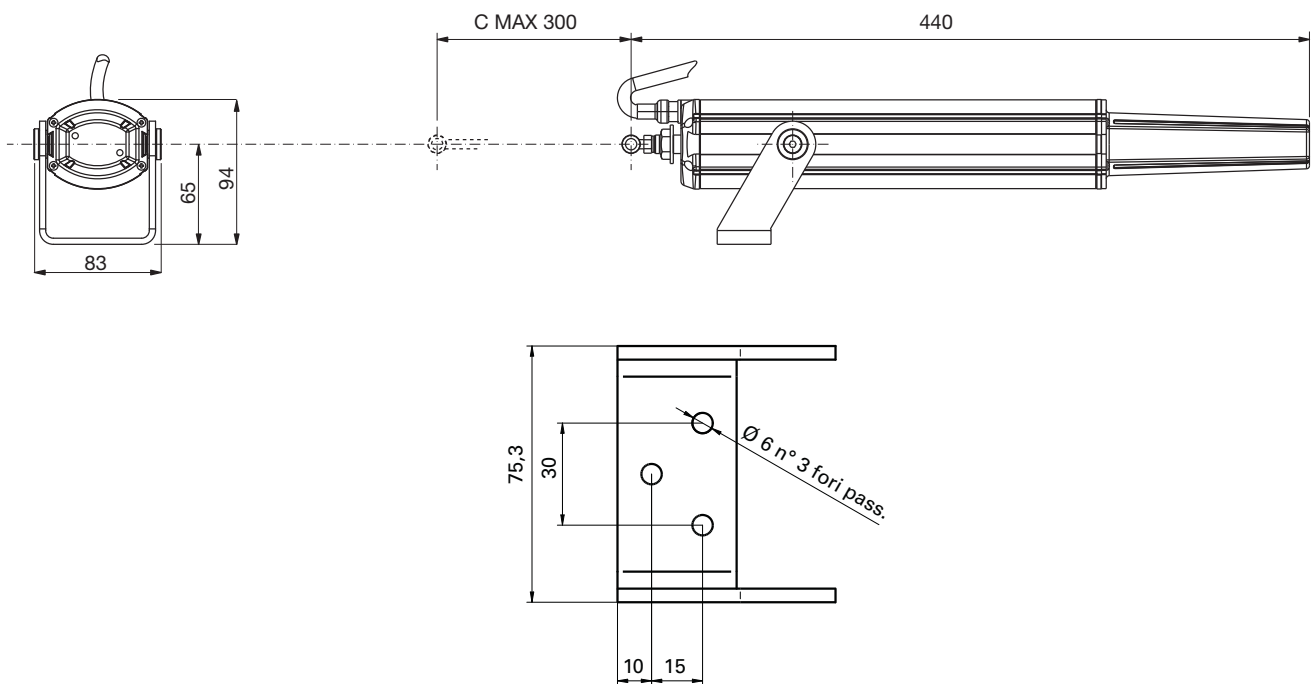


ST 450N

ST 450N DIMENSIONS with STROKE 180 mm



ST 450N DIMENSIONS with STROKE 300 mm



DESCRIPTION	Stroke mm	Power supply	CODE
ST 450N Complete with OUTWARD OPENING 180 mm fixing accessories	180	230 Vca	43545/004
ST 450N Complete with OUTWARD OPENING 300 mm fixing accessories	300	230 Vca	43545/003
ST 450N Complete with accessories for jalousie windows	180	230 Vca	43545/008
KIT for limit switch adjustment ST 450N			43545/050

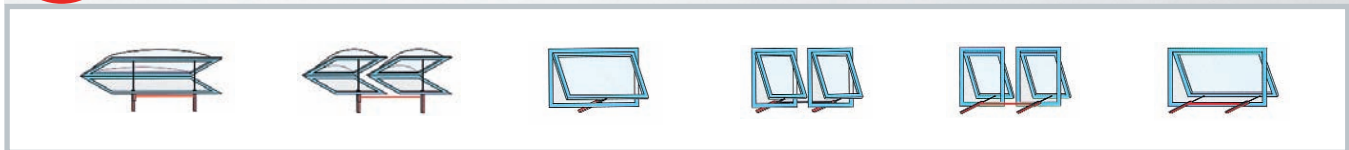


ARK 230

Rack drive operators (two thrust points)
for bottom hung, outward opening,
shed, sky lights and domes.



AVAILABLE
FROM
SEPTEMBER
2010



ARK rack drive operators are ideal for use with large domed and outward opening windows and large skylight automation systems. They are valid alternatives in applications requiring one or two thrust points.

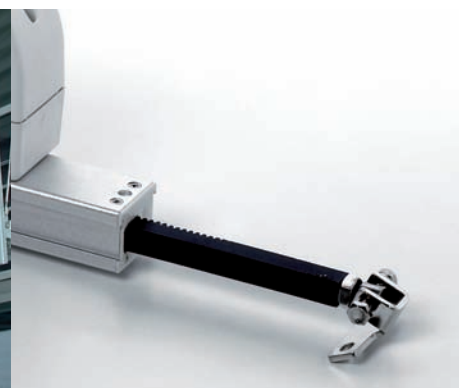
Perfect balance and therefore balanced movement are obtained, even with large frames, by exploiting the power and reliability of a motor unit combined with one or two thrust units.

Electric anodized aluminium operators with rack drive linear movement, fitted with an electronic limit switch, IP65 protection rating, anodized aluminium rod and galvanized steel frame mounting. It can also be connected in parallel. The rack is made of C43 galvanized steel and has a 12x12 square section.

The box is made of two pieces of sealed impact-proof ABS. The operators are fitted with a cable connected inside the operator. It can be combined with GRK drive units made of anodized aluminium and consisting of: C43 steel rack of 12x12 square section complete with anodized aluminium bracket and galvanized steel frame mounting.

TECHNICAL DATA

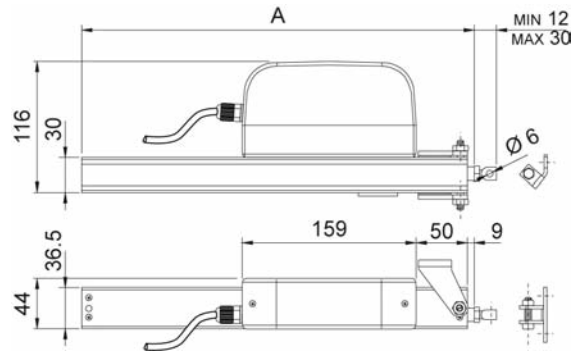
POWER SUPPLY	230 Vac - 50/60 Hz
ABSORBED POWER	20 W
ABSORBED CURRENT	0,3 A (230V)
THRUST AND PULL FORCE	800 N (230V)
OPERATING SPEED	8 mm/sec.
STANDARD STROKES	350, 550, 750, 1000 mm
LIMIT SWITCH	Electronic
STANDARD LENGTHS OF DRIVETUBES	844, 1244, 1544, 1844, 1944 mm
STANDARD CENTRE TO CENTRE BETWEEN OPERATORS	910, 1310, 1610, 1910, 2010 mm
COLOUR	Silver
OPERATING TEMPERATURE	-15° to +75° C
PROTECTION CLASS	IP65



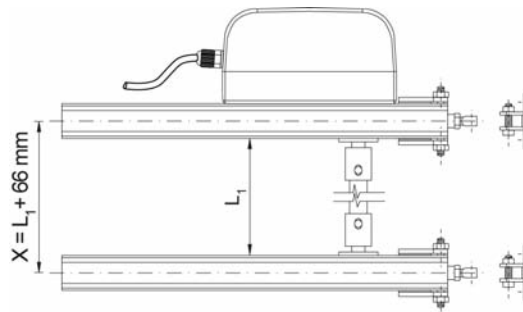


ARK 230

OPERATOR DIMENSIONS - STD installation



OPERATOR DIMENSIONS - TANDEM installation



DESCRIPTION	Stroke mm	Power supply	Notes	CODE
ARK 350	350	230 Vca		43552/001
ARK 550	550	230 Vca		43552/002
ARK 750	750	230 Vca		43552/003
ARK 1000	1000	230 Vca		43552/004
Two drive unit GRK350	350		For use with 1 ARK 350 + 1TT	43553/050
Two drive unit GRK 550	550		For use with 1 ARK 550 + 1TT	43553/051
Two drive unit GRK 750	750		For use with 1 ARK 750 + 1TT	43553/052
Two drive unit GRK 1000	1000		For use with 1 ARK1000 + 1TT	43553/053
TT 90 (tube 900 mm)			Tube length = rack centre to centre minus 66 mm	43531/050
TT 130 (tube 1300 mm)			Tube length = rack centre to centre minus 66 mm	43531/051
TT 160 (tube 1600 mm)			Tube length = rack centre to centre minus 66 mm	43531/052
TT 190 (tube 1900 mm)			Tube length = rack centre to centre minus 66 mm	43531/053
TT 200 (tube 2000 mm)			Tube length = rack centre to centre minus 66 mm	43531/054

DESCRIPTION

CODE



Slip bracket

43554/055



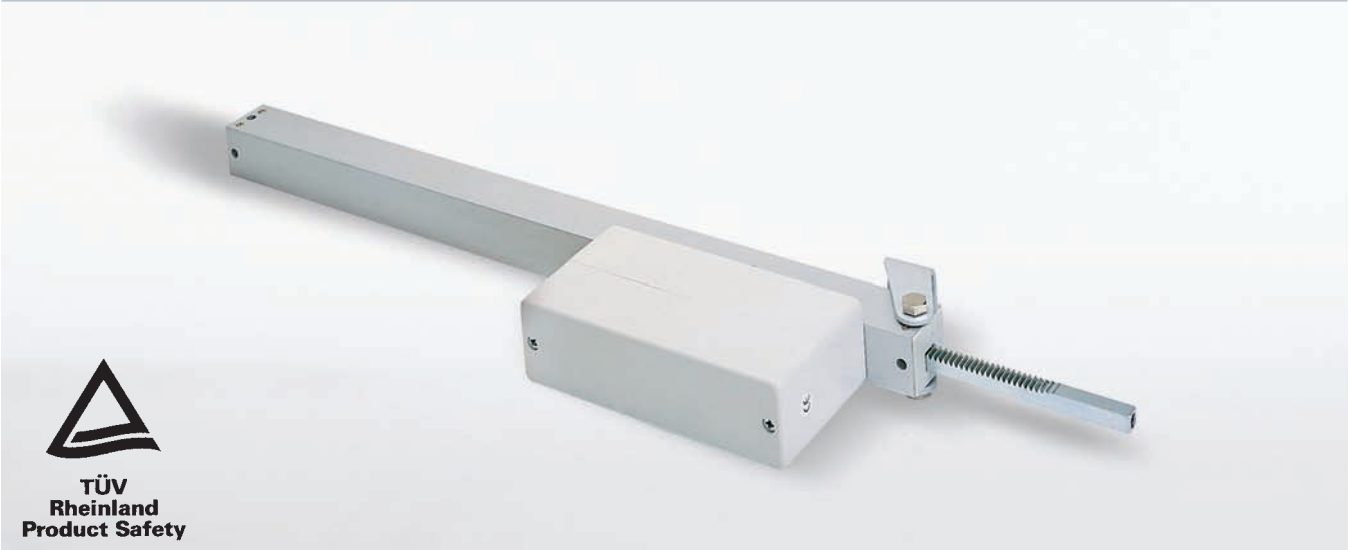
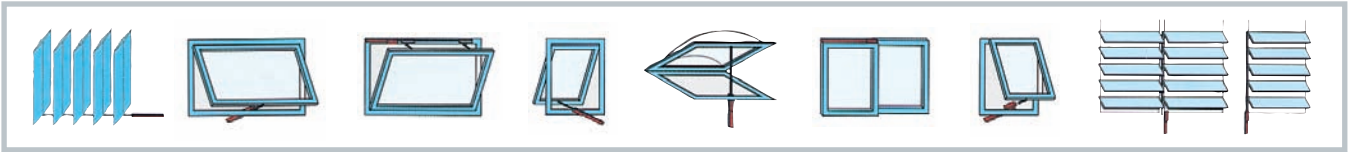
Couple of rod ring for TT tube (2 pieces)

43554/056



APRILINEARE

Rack drive operators for bottom hung, outward opening, shed, skylight, domes, jalousie and sliding windows and vertical sunblinds.



Aprilineare is an aluminium electric operator with rack drive linear movement. The device is fitted with an electronic limit switch, IP65 protection rating, anti-interference capacitor, anodized aluminium rod and galvanized steel frame mounting. It can also be connected in parallel. The rack is made of C43 galvanized steel and has a 10 x 10 square section. The motor box is made of two sealed pieces of impact-proof ABS.



Aprilineare is sturdy, safe and versatile, easy to install and maintenance free.

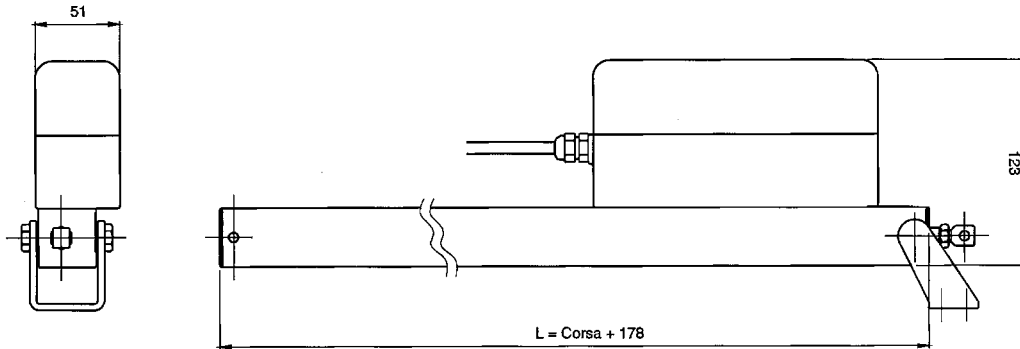
TECHNICAL DATA	APRILINEARE	SPEEDY Sliding Version
POWER SUPPLY	230 Vac - 24 Vdc	230 Vac - 24 Vdc
ABSORBED POWER	20 W	20 W
ABSORBED CURRENT	0,09 A in ac - 0,8 A in dc	0,09 A in ac - 0,8 A in dc
FREQUENCY	50 Hz	50 Hz
THRUST AND PULL FORCE	650 N	200 N
STANDARD STROKES	170, 230, 350, 550, 750 mm	Up to 1350 mm
PARALLEL CONNECTION	YES	YES
OPERATING SPEED	8 mm/sec.	30 mm/sec.
LIMIT SWITCH	Electronic	Electronic
QUALITY CERTIFICATION	TÜV	
PROTECTION CLASS	IP65	IP65









APRILINEARE

OPERATOR DIMENSIONS



DESCRIPTION - APRILINEARE SPEEDY	Stroke mm	Power supply	CODE
APRI SPEEDY 55 - OXAR	550	24 Vcc	43522/001
APRI SPEEDY 80 - OXAR	800	230 Vca	43512/006
APRI SPEEDY 85 - OXAR	850	230 Vca	43512/005
APRI SPEEDY 95 - OXAR	950	230 Vca	43512/014
APRI SPEEDY 100 - OXAR	1000	230 Vca	43512/015
APRI SPEEDY 115 - OXAR	1150	230 Vca	43512/016
APRI SPEEDY 120 - OXAR	1200	230 Vca	43512/017
APRI SPEEDY 125 - OXAR	1250	230 Vca	43512/018
APRI SPEEDY 135 - OXAR	1350	230 Vca	43512/019
APRI SPEEDY 140 - OXAR	1400	230 Vca	43512/007

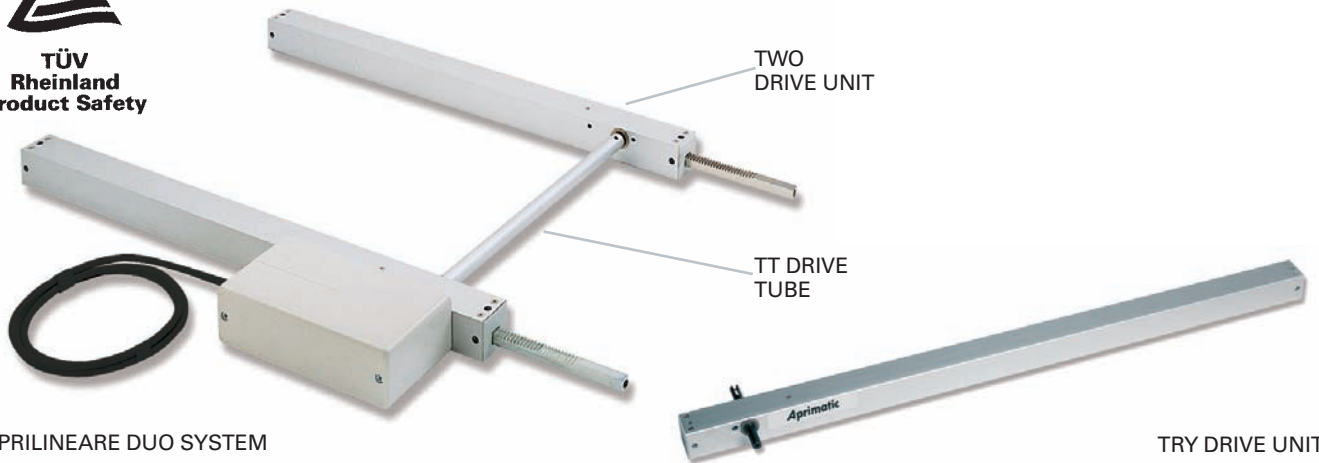
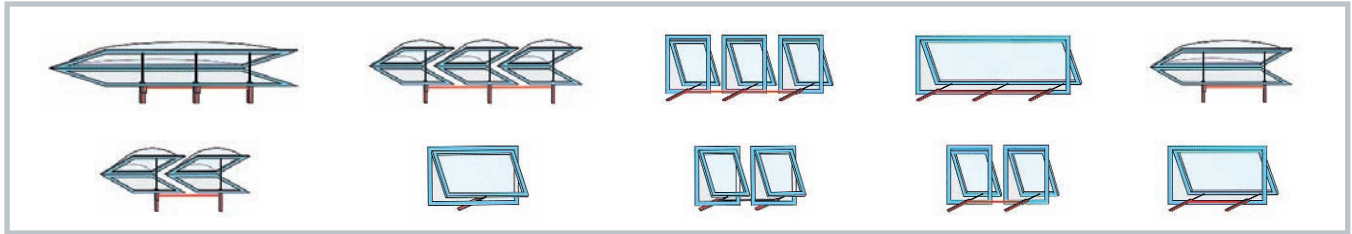
DESCRIPTION - APRILINEARE	Strokea mm	Power supply	CODE
APRI 17 230	170	230 Vca	43510/006
APRI 23 230	230	230 Vca	43510/007
APRI 35 230	350	230 Vca	43510/008
APRI 55 230	550	230 Vca	43510/013
APRI 75 230	750	230 Vca	43510/015
APRI 17 24	170	24 Vcc	43520/018
APRI 23 24	230	24 Vcc	43520/006
APRI 35 24	350	24 Vcc	43520/007
APRI 55 24	550	24 Vcc	43520/008
APRI 75 24	750	24 Vcc	43520/011

DESCRIPTION	Notes	CODE
	Support Bracket in silver anodized aluminium for special outward opening applications	43580/064
	350 mm Rear Bracket for domes, in silver anodized aluminium for fixing to the rear of the operator	43580/065
	Second Bracket for sliding windows in silver anodized aluminium	For use with Speedy 43580/067
	Adjustable "CK" support in galvanized sheet steel	43580/068



APRILINEARE DUO-TRY SYSTEM

Rack drive operators (two or three thrust points) for bottom hung, outward opening, shed, skylight, and domes windows.



APRILINEARE DUO SYSTEM

TRY DRIVE UNIT

Duo System and Tri System are ideal for use with large domed and outward opening windows and large skylight automation systems. They are valid alternatives in applications requiring two or three thrust points.

Perfect balance and therefore balanced movement are obtained, even with large frames, by exploiting the power and reliability of a motor unit combined with one or two more thrust units.

Electric anodized aluminium operators with rack drive linear movement, fitted with an electronic limit switch, IP55 protection rating, anodized aluminium rod and galvanized steel frame mounting. Can also be connected in parallel. The rack is made of C43 galvanized steel and has a 10 x 10 square section.

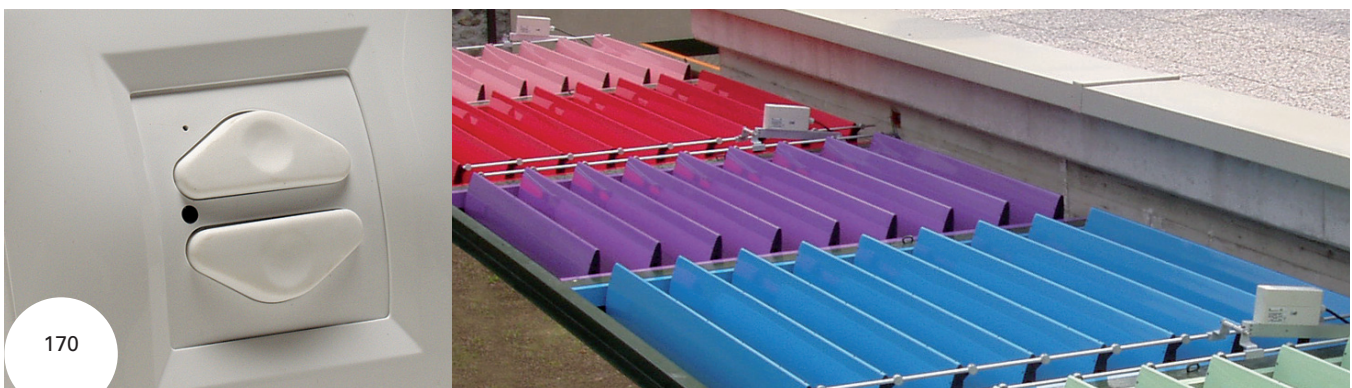
The box is made of two pieces of sealed impact-proof ABS. The operators are fitted with a cable connected inside the operator.

Can be used in conjunction with the DUO and TRY drive units made of anodized aluminium and consisting of: a C43 galvanized steel rack with 10 x 10 square section complete with anodized aluminium bracket and galvanized steel frame mounting.

The two drive tubes for connection to the twin thrust points are made of anodized aluminium and are supplied complete with fixing screws.

TECHNICAL DATA

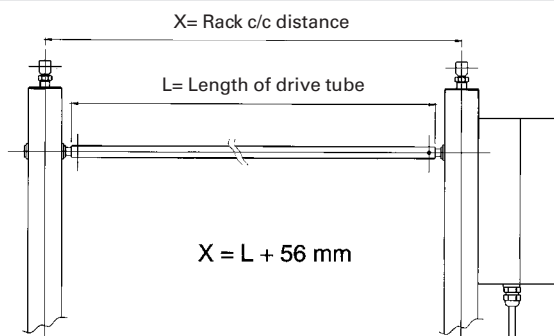
POWER SUPPLY	230 Vac - 50 Hz (duo system) 24 Vdc - 50 Hz (try system)
ABSORBED POWER	20 W
ABSORBED CURRENT	0,09 A (duo system) 0,8 A (try system)
THRUST AND PULL FORCE	600 N
OPERATING SPEED	8 mm/sec.
STANDARD STROKES	170, 230, 350, 550, 750 mm
LIMIT SWITCH	Electronic
STANDARD LENGTHS OF DRIVETUBES	844, 1244, 1544, 1844, 1944 mm
STANDARD CENTRE TO CENTRE BETWEEN OPERATORS	900, 1300, 1600, 1900, 2000 mm
COLOURS	Silver, Black
QUALITY CERTIFICATION	TÜV
OPERATING TEMPERATURE	-5° +40° C
PROTECTION CLASS	IP65








APRILINEARE DUO-TRY SYSTEM

OPERATOR DIMENSIONS



DESCRIPTION	Stroke mm	Power supply	Notes	CODE
APRI DUO 23 230	230	230 Vac		43515/009
APRI DUO 35 230	350	230 Vac		43515/010
APRI DUO 55 230	550	230 Vac		43515/012
APRI DUO 75 230	750	230 Vac		43515/014
APRI DUO 23 24	230	24 Vdc		43525/004
APRI DUO 35 24	350	24 Vdc		43525/005
APRI DUO 55 24	550	24 Vdc		43525/007
APRI DUO 75 24	750	24 Vdc		43525/009
Two drive unit 17	170		For use with 1 ApriDuo + 1TT	43527/060
Two drive unit 23	230		For use with 1 ApriDuo + 1TT	43527/061
Two drive unit 35	350		For use with 1 ApriDuo + 1TT	43527/062
Two drive unit 55	550		For use with 1 ApriDuo + 1TT	43527/063
Two drive unit 75	750		For use with 1 ApriDuo + 1TT	43527/064
Tri drive unit TRY 23	230		For use with 1 ApriDuo + 2TT + 1 Two DU	43529/051
Tri drive unit TRY 35	350		For use with 1 ApriDuo + 2TT + 1 Two DU	43529/052
Tri drive unit TRY 55	550		For use with 1 ApriDuo + 2TT + 1 Two DU	43529/053
Tri drive unit TRY 75	750		For use with 1 ApriDuo + 2TT + 1 Two DU	43529/054
TT 90 (tube 900 mm)			Tube length = rack centre to centre minus 56 mm	43531/050
TT 130 (tube 1300 mm)			Tube length = rack centre to centre minus 56 mm	43531/051
TT 160 (tube 1600 mm)			Tube length = rack centre to centre minus 56 mm	43531/052
TT 190 (tube 1900 mm)			Tube length = rack centre to centre minus 56 mm	43531/053
TT 200 (tube 2000 mm)			Tube length = rack centre to centre minus 56 mm	43531/054
APRI DUO 23 230 INOX	230	230 Vac		43515/705
APRI DUO 35 230 INOX	350	230 Vac		43515/700
APRI DUO 55 230 INOX	550	230 Vac		43515/701
APRI DUO 75 230 INOX	750	230 Vac		43515/702
APRI DUO 23 24 INOX	230	24 Vdc		43525/703
Two drive unit 17 INOX	170		For use with 1 ApriDuo + 1TT	43527/755
Two drive unit 23 INOX	230		For use with 1 ApriDuo + 1TT	43527/756
Two drive unit 35 INOX	350		For use with 1 ApriDuo + 1TT	43527/757
Two drive unit 55 INOX	550		For use with 1 ApriDuo + 1TT	43527/758
Two drive unit 75 INOX	750		For use with 1 ApriDuo + 1TT	43527/759

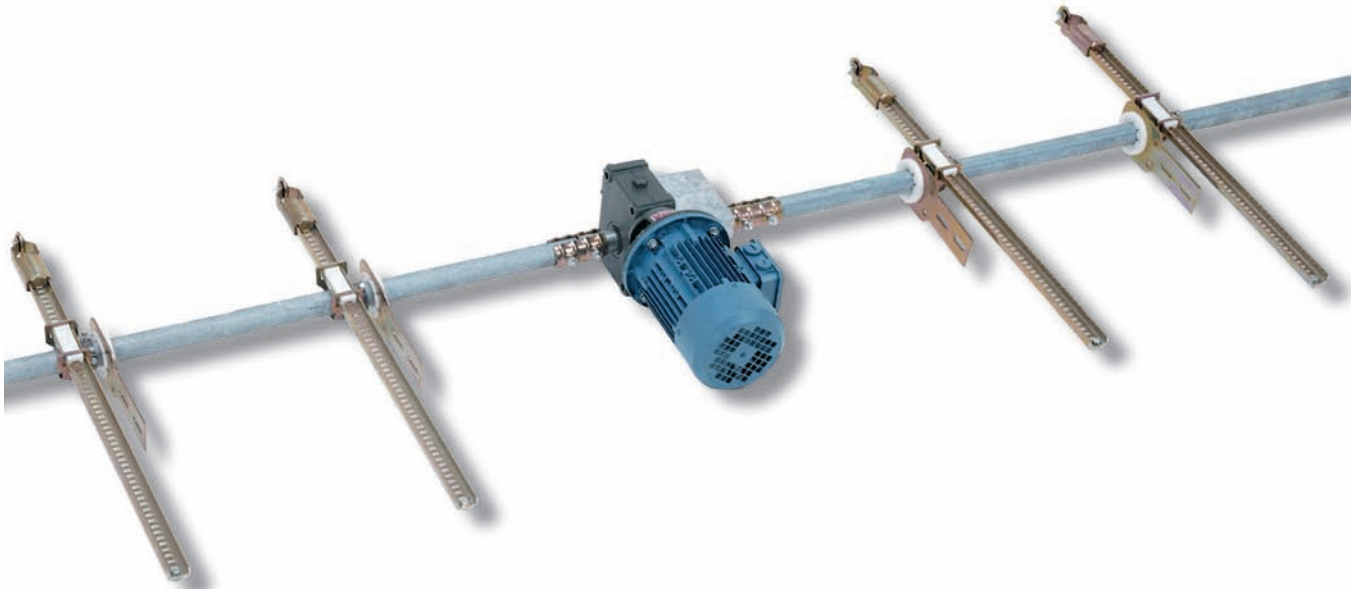
Depending on stock availability

DESCRIPTION		CODE
	Support Bracket in silver anodized aluminium for special outward opening applications	43580/064
	350 mm Rear Bracket for domes in silver anodized aluminium for fixing to the rear of the operator	43580/065
	Adjustable "CK" support in galvanized sheet steel	43580/068



520/600RF - 520/700RF

Remote automated systems
for windows and domes.



The new 520/600RF and 520/700RF systems have been designed to solve the problems represented by remotely opening and closing transom or top-hinged windows, whether installed singly or in rows, also in long rows of windows, skylights, in factory farms or greenhouses.

The windows are opened and closed by a series of racks running on a sprocket, driven by a shaft, which in turn is turned by a reducer. The racks have brass sprockets fixed on the rotary shaft with special press-fit bolts.

The rotary movement is transmitted from the reducer to the shaft, and from each element to the next of the shaft, through keyed joints bolted together.

The spring compensator on the end of the rack may be a pulling or pushing type depending on which way the windows close, and guarantees homogeneous pressure on the window frames.

The rotary shaft support brackets run on ball bearings and have adjustment slots. They can also be fitted with counter-brackets. Available for shafts with diameters of 27-33-42 mm.

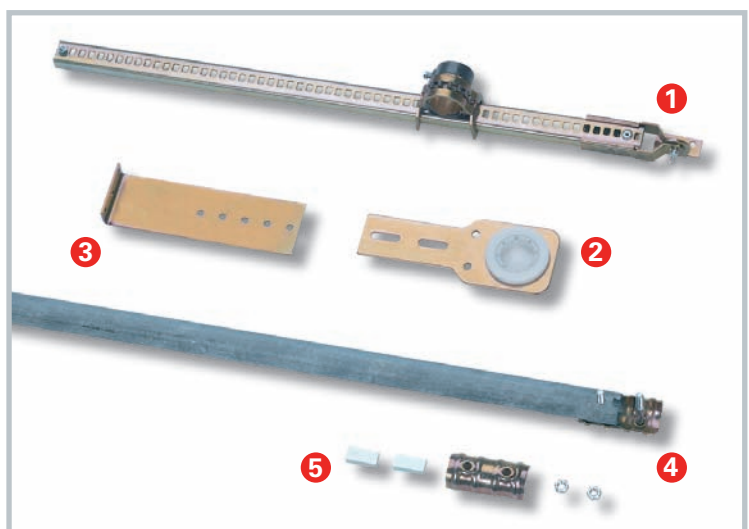
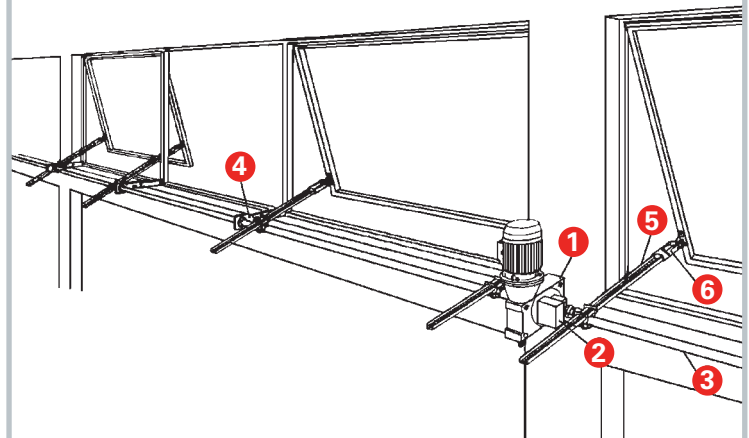
The racks have brass sprockets, which are fixed to the rotary shaft with the relevant press-fit bolts.

The square, to screw onto the window, is held on the rack with a practical spring-loaded pin.

- 1 Rack for top-hinged windows or transom windows:
 - Spring compensator (pull or push)
 - Sprocket for rotary shaft (Ø 27-33-42 mm)
- 2 Standard bracket running on ball bearings for rotary shaft support (Ø 27-33-42 mm)
- 3 Counter-bracket (length 140-210 mm)
- 4 Galvanised rotary shaft (Ø 27-33-42 mm)
- 5 Keyed joint for rotary shaft (Ø 27-33-42 mm)

SYSTEM COMPONENTS:

- 1- Gearmotor
- 2- Limit switch system
- 3- Rotary shaft
- 4- Shaft support bracket
- 5- Rack
- 6- Window mount with spring compensator

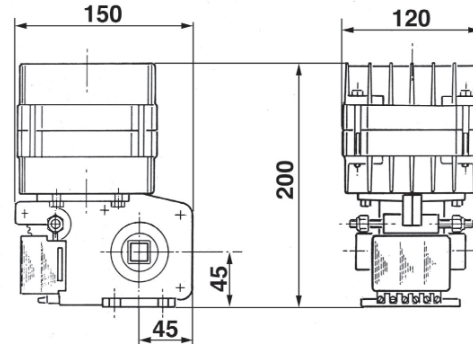




520/600RF - 520/700RF

APRICOP MOTOR

Electro-reducer with single-phase motor coupled to a self-locking worm-screw reducer. With limit switch.



DIMENSION

520 SERIES MOTORS

The 520 series motors have a three-phase motor coupled to a steel self-locking worm-screw reducer with gears cut from a full solid bronze, running in a cast iron self-lubricated casing.

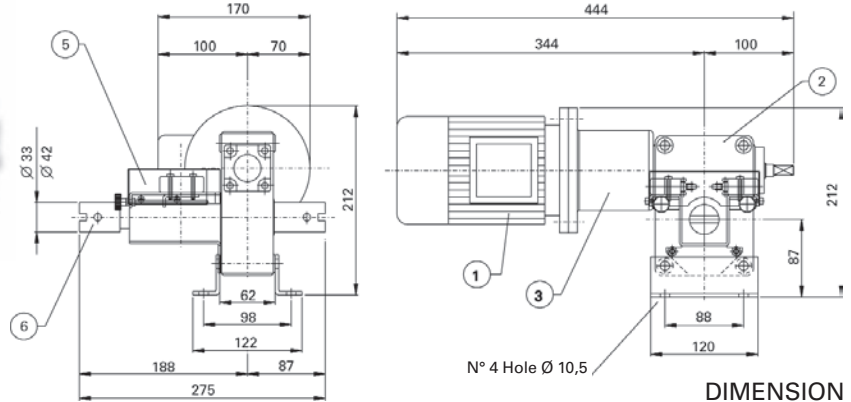
The slow shaft has two protuberances with holes and a slot on both ends, so the reducer can be keyed on in the central position or at the end.

The rotary limit switches are fast-acting and adjustable, and are fitted to one of the two hubs of the slow shaft, with an aluminium protective cover.

520/600RF MOTOR

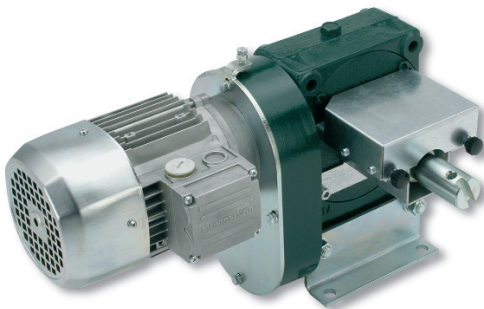


- 1- Motor
- 2- Reducer
- 3- Epicyclic reducer
- 5- Rotary limit switch
- 6- Jointed end

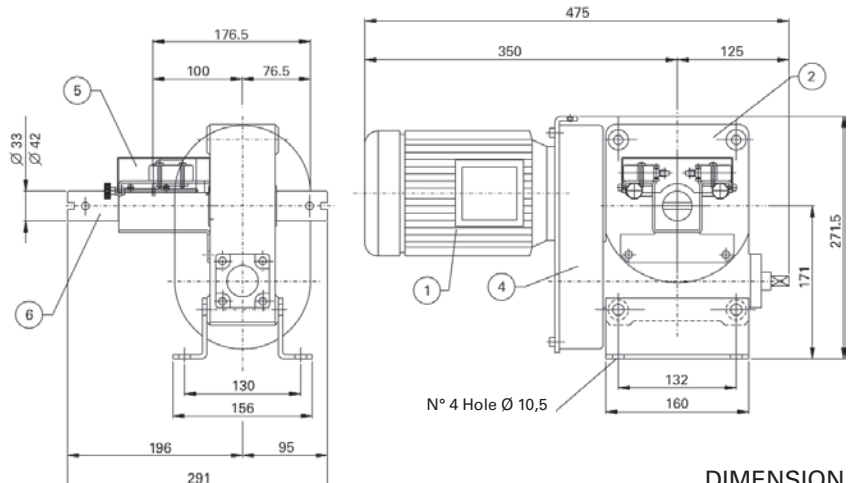


DIMENSION

520/700RF MOTOR



- 1- Motor
- 2- Reducer
- 4- Pulley reducer
- 5- Rotary limit switch
- 6- Jointed end



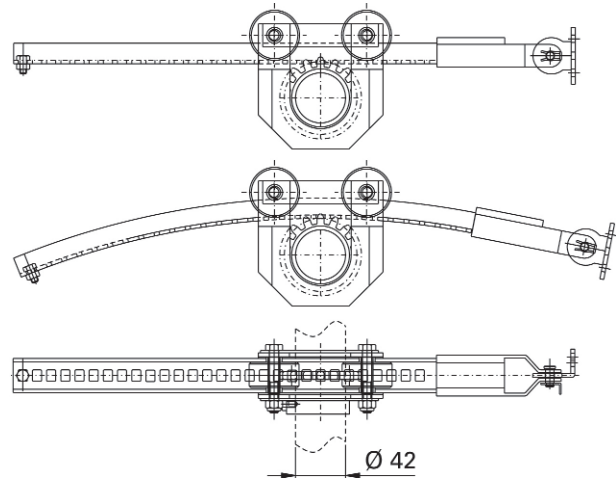
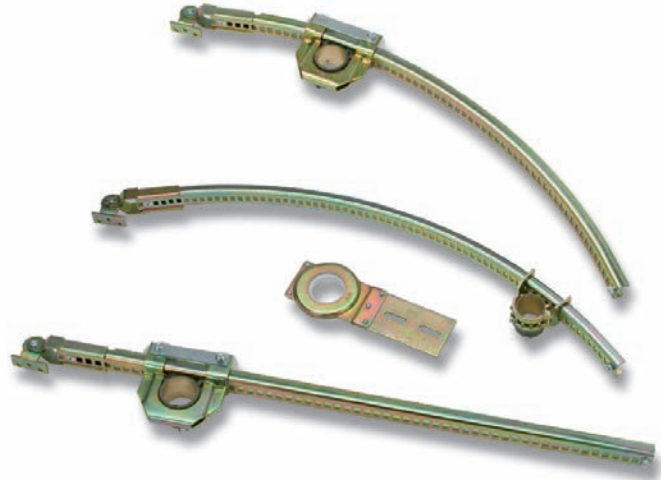
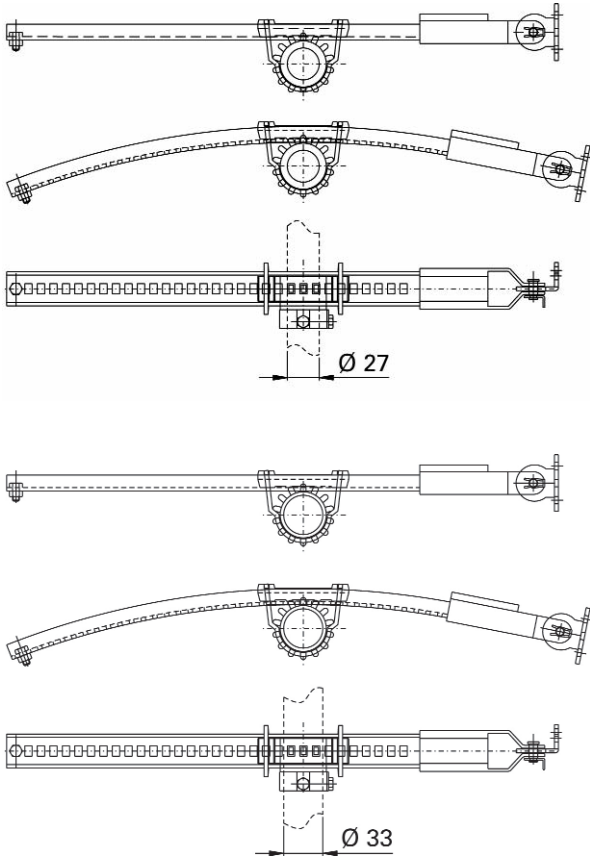
DIMENSION



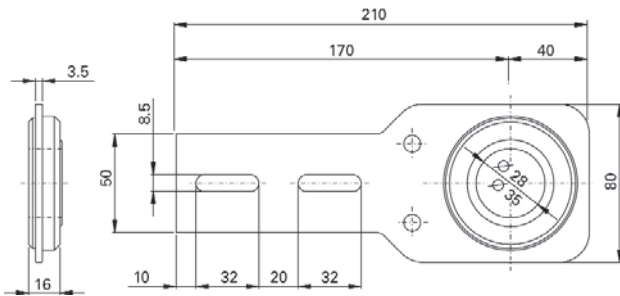
520/600RF - 520/700RF

RACK:

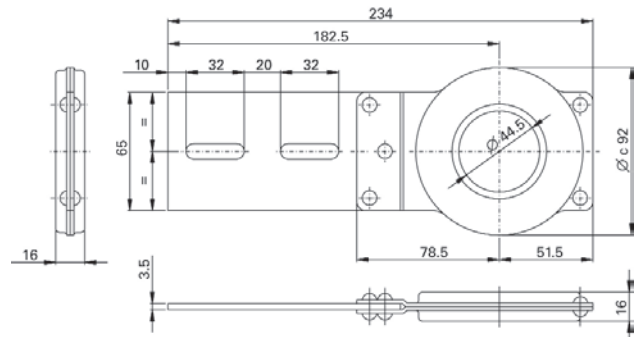
Curved racks are also available to reduce the projection in the case of obstacles or low windows.



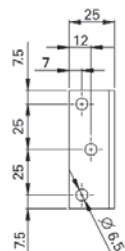
BRACKET AND COUNTER-BRACKET SPECIFICATIONS



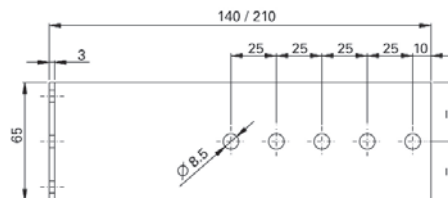
Bracket $\varnothing 27-37$ mm



Bracket $\varnothing 42$ mm



Counter-bracket 140/210 mm



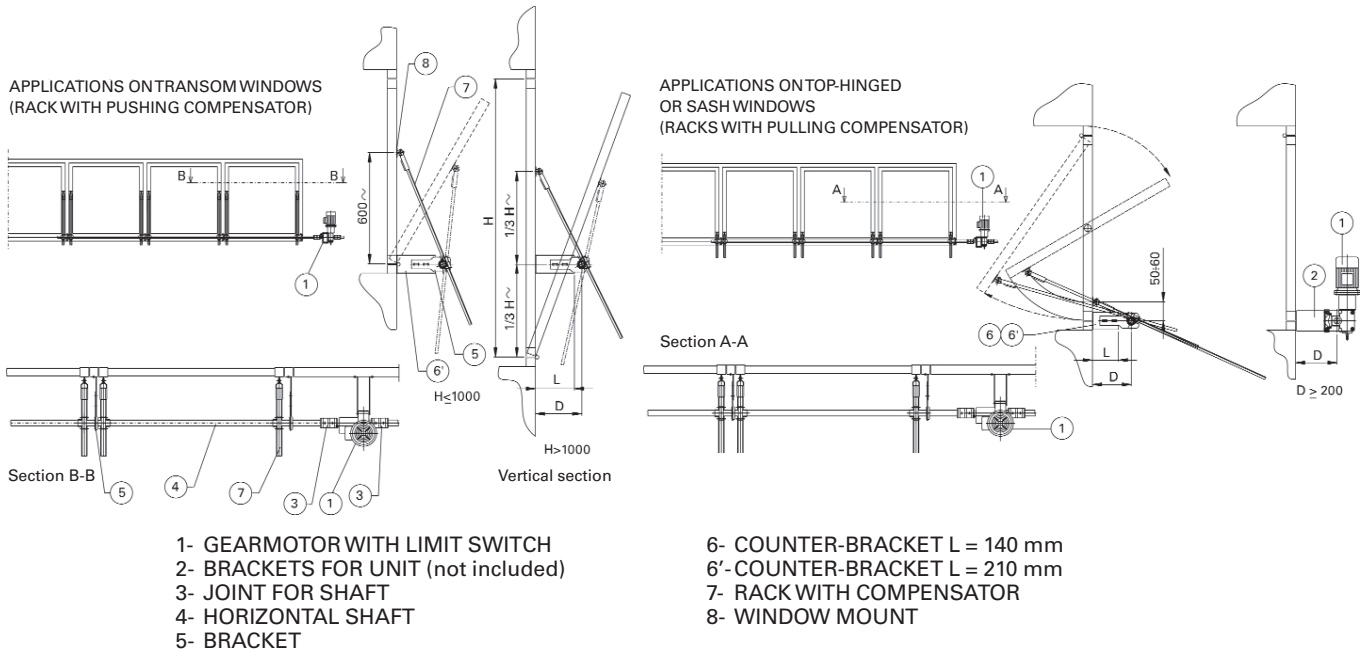


520/600RF - 520/700RF

MOTOR SPECIFICATIONS

SERIE R= WITHOUT ROTARY LIMIT SWITCH RF= WITH ROTARY LIMIT SWITCH	MOTOR		SHAFT Ø mm	TORQUE N (HP 1')	ADJUSTABLE TURNS AT LIMIT SWITCH		RACK MAX. THRUST N	WINDOW EXTENS. m	PROTEC. CLASS IP
	Kw (CV)	POLI TENSION (Size)			Min.	Max.			
APRICOP	0,52 (0,70)	4 Single-phase	33	5 (15)	1	12	1450	25	30
520/600R 520/600RF	0,18 (0,25)	6 Three-phase (63)	33	115 (5,8)	1	11	4200	50	55
520/600R 520/600RF	0,18 (0,25)	6 Three-phase (63)	42	115 (5,8)	1	11	3000	50	55
520/700R 520/700RF	0,37 (0,5)	6 Three-phase (71)	33	250 (7)	1	11	11760	100	55
520/700R 520/700RF	0,37 (0,5)	6 Three-phase (71)	42	250 (7)	1	11	9400	120	55

DIAGRAMS OF APPLICATIONS WITH TRANSOM WINDOWS AND TOP-HINGED/SASH WINDOWS



SPECIFICATIONS OF RACKS AND BRACKETS

COMPENSATOR		Ø SPROCKET	SECTION mm	RACK		BRACKET	
PULL CLOSED	PUSH CLOSED			LENGTH mm	CAPACITY kg	CAPACITY kg*	
Mod. 377	Mod. 387	27	30 x 14	800 / 1200	40	50	
Mod. 379	Mod. 389	33	30 x 14	800 / 1200	50	50	
Mod. 380	Mod. 390	42	30 x 18	1000 / 1200	70	60	

* Maximum capacity at 18°C

NOTE: The number of racks to mount for each single window must allow for the dimensions and rigidity of the window, as well as the necessary thrust.

NOTE: Various lengths of racks are available on request.

Thrust necessary for operating	Top-hinged windows	Sash windows	Transom windows
	From 1/3 to 1/2 weight of window	Roughly 1/4 weight of window	From 1/3 to 1/2 weight of window



520/600RF - 520/700RF

DESCRIPTION	CODE
APRICOP single-phase motor (*) Ø 33 mm with limit switch	43550/001
(*)To be used with adaptor for round Apricop tube	43550/051
Three-phase Ø 33 mm 520/600RF motor (with limit switch)	43562/002
Three-phase Ø 33 mm 520/600R motor (no limit switch)	43562/001
Three-phase Ø 42 mm 520/600RF motor (with limit switch)	43562/006
Three-phase Ø 42 mm 520/600R motor (no limit switch)	43562/005
Three-phase Ø 33 mm 520/700RF motor (with limit switch)	43562/004
Three-phase Ø 33 mm 520/700R motor (no limit switch)	43562/003
Three-phase Ø 42 mm 520/700RF motor (with limit switch)	43562/008
Three-phase Ø 42 mm 520/700R motor (no limit switch)	43562/007

RF: with rotary limit switch - R: without rotary limit switch

NOTE: For applications with over 20m of windows, the unit must be installed in the centre or off-centre, to limit the elastic deformation of the shaft.

APPLICATION ON TOP-HINGED OR SASH WINDOWS (Racks with pull compensator)	CODE
Straight version - Mod. 377 - Rack Ø 27 mm - L = 800 mm	43563/001
Straight version - Mod. 377 - Rack Ø 27 mm - L = 1000 mm	43563/002
Straight version - Mod. 377 - Rack Ø 27 mm - L = 1200 mm	43563/003
Straight version - Mod. 377 - Rack Ø 27 mm - L = 1400 mm	43563/004
Curved version - Mod. 377 - Rack Ø 27 mm - L = 800 mm	43563/021
Curved version - Mod. 377 - Rack Ø 27 mm - L = 1000 mm	43563/022
Curved version - Mod. 377 - Rack Ø 27 mm - L = 1200 mm	43563/023
Curved version - Mod. 377 - Rack Ø 27 mm - L = 1400 mm	43563/024
Straight version - Mod. 379 - Rack Ø 33 mm - L = 800 mm	43563/005
Straight version - Mod. 379 - Rack Ø 33 mm - L = 1000 mm	43563/006
Straight version - Mod. 379 - Rack Ø 33 mm - L = 1200 mm	43563/007
Straight version - Mod. 379 - Rack Ø 33 mm - L = 1400 mm	43563/008
Curved version - Mod. 379 - Rack Ø 33 mm - L = 800 mm	43563/025
Curved version - Mod. 379 - Rack Ø 33 mm - L = 1000 mm	43563/026
Curved version - Mod. 379 - Rack Ø 33 mm - L = 1200 mm	43563/027
Curved version - Mod. 379 - Rack Ø 33 mm - L = 1400 mm	43563/028
Straight version - Mod. 380 - Rack Ø 42 mm - L = 800 mm	43563/009
Straight version - Mod. 380 - Rack Ø 42 mm - L = 1000 mm	43563/010
Straight version - Mod. 380 - Rack Ø 42 mm - L = 1200 mm	43563/011
Straight version - Mod. 380 - Rack Ø 42 mm - L = 1400 mm	43563/012
Curved version - Mod. 380 - Rack Ø 42 mm - L = 800 mm	43563/029
Curved version - Mod. 380 - Rack Ø 42 mm - L = 1000 mm	43563/030
Curved version - Mod. 380 - Rack Ø 42 mm - L = 1200 mm	43563/031
Curved version - Mod. 380 - Rack Ø 42 mm - L = 1400 mm	43563/032
Complementary fitting, pin and rack spring package.	43562/052

NOTE: A complementary fitting, pin and rack spring package must be ordered for each rack. Code 43562/052.

NOTE: Always indicate the radius required for curved racks (minimum radius 750 mm).
Oversize racks are available on request (max. length 2200 mm).
Delivery - 5 weeks from date of order.
Contact customer service for an estimate and availability.



520/600RF - 520/700RF

APPLICATION ON TRANSOM WINDOWS (Racks with push compensator)	CODE
Straight version - Mod. 387 - Rack Ø 27 mm - L = 800 mm	43564/001
Straight version - Mod. 387 - Rack Ø 27 mm - L = 1000 mm	43564/002
Straight version - Mod. 387 - Rack Ø 27 mm - L = 1200 mm	43564/003
Straight version - Mod. 387 - Rack Ø 27 mm - L = 1400 mm	43564/004
Curved version - Mod. 387 - Rack Ø 27 mm - L = 800 mm	43564/021
Curved version - Mod. 387 - Rack Ø 27 mm - L = 1000 mm	43564/022
Curved version - Mod. 387 - Rack Ø 27 mm - L = 1200 mm	43564/023
Curved version - Mod. 387 - Rack Ø 27 mm - L = 1400 mm	43564/024
Straight version - Mod. 389 - Rack Ø 33 mm - L = 800 mm	43564/005
Straight version - Mod. 389 - Rack Ø 33 mm - L = 1000 mm	43564/006
Straight version - Mod. 389 - Rack Ø 33 mm - L = 1200 mm	43564/007
Straight version - Mod. 389 - Rack Ø 33 mm - L = 1400 mm	43564/008
Curved version - Mod. 389 - Rack Ø 33 mm - L = 800 mm	43564/025
Curved version - Mod. 389 - Rack Ø 33 mm - L = 1000 mm	43564/026
Curved version - Mod. 389 - Rack Ø 33 mm - L = 1200 mm	43564/027
Curved version - Mod. 389 - Rack Ø 33 mm - L = 1400 mm	43564/028
Straight version - Mod. 390 - Rack Ø 42 mm - L = 800 mm	43564/009
Straight version - Mod. 390 - Rack Ø 42 mm - L = 1000 mm	43564/010
Straight version - Mod. 390 - Rack Ø 42 mm - L = 1200 mm	43564/011
Straight version - Mod. 390 - Rack Ø 42 mm - L = 1400 mm	43564/012
Curved version - Mod. 390 - Rack Ø 42 mm - L = 800 mm	43564/029
Curved version - Mod. 390 - Rack Ø 42 mm - L = 1000 mm	43564/030
Curved version - Mod. 390 - Rack Ø 42 mm - L = 1200 mm	43564/031
Curved version - Mod. 390 - Rack Ø 42 mm mm - L = 1400 mm	43564/032
Complementary fitting, pin and rack spring package.	43562/052

NOTE: A complementary fitting, pin and rack spring package must be ordered for each rack. Code 43562/052.

NOTE: Always indicate the radius required for curved racks (minimum radius 750 mm).
Oversize racks are available on request (max. length 2200 mm).
Delivery - 5 weeks from date of order.
Contact customer service for an estimate and availability.

DESCRIPTION OF ACCESSORIES FOR RACKS	CODE
Standard bracket for Ø 27 mm	43562/055
Standard bracket for Ø 33 mm	43562/054
Standard bracket for Ø 42 mm	43562/057
Counter-bracket L = 140 mm	43562/058
Counter-bracket L = 210 mm	43562/059

DESCRIPTION OF ACCESSORIES FOR TUBE	CODE
Steel joint for Ø 33 mm shaft	43562/062
Steel joint for Ø 42 mm shaft	43562/061
Key for Ø 33 mm shaft	43562/060
Key for Ø 42 mm shaft	43562/063



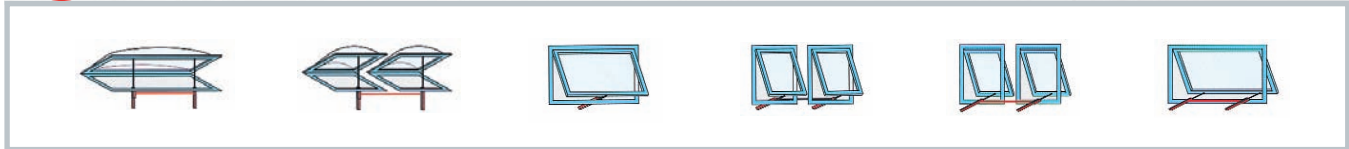
>>>>>>>>>> SMOKE AND HEAT EVACUATION >>>





ARK 24

Rack drive operators (two thrust points) for bottom hung, outward opening, shed, sky lights and domes. Ideal for smoke and heat evacuation.



ARK 24 operator is suitable for installation on smoke and heat extraction systems as required to EN12101-2.

ARK 24 rack drive operators are ideal for smoke and heat evacuation system on large domed and outward opening windows and large skylight automation systems. They are valid alternatives in applications requiring one or two thrust points.

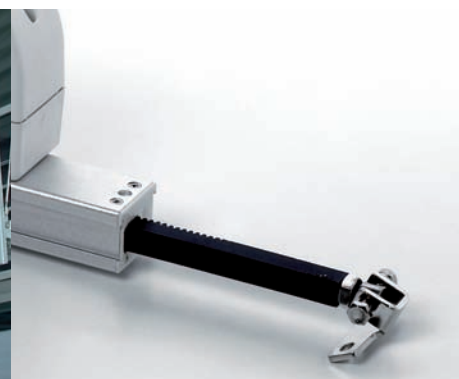
Perfect balance and therefore balanced movement are obtained, even with large frames, by exploiting the power and reliability of a motor unit combined with one or two thrust units.

Electric anodized aluminium operators with rack drive linear movement, fitted with an electronic limit switch, IP65 protection rating, anodized aluminium rod and galvanized steel frame mounting. It can also be connected in parallel. The rack is made of C43 galvanized steel and has a 12x12 square section.

The box is made of two pieces of sealed impact-proof ABS. The operators are fitted with a cable connected inside the operator. It can be combined with GRK drive units made of anodized aluminium and consisting of: C43 steel rack of 12x12 square section complete with anodized aluminium bracket and galvanized steel frame mounting.

TECHNICAL DATA

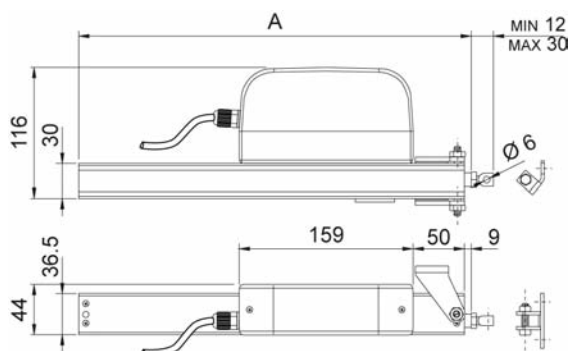
POWER SUPPLY	24 Vdc
ABSORBED POWER	20 W
ABSORBED CURRENT	1,2 A (24V)
THRUST AND PULL FORCE	1000 N (24V)
OPERATING SPEED	8 mm/sec.
STANDARD STROKES	350, 550, 750, 1000 mm
LIMIT SWITCH	Electronic
STANDARD LENGTHS OF DRIVETUBES	844, 1244, 1544, 1844, 1944 mm
STANDARD CENTRE TO CENTRE BETWEEN OPERATORS	910, 1310, 1610, 1910, 2010 mm
COLOUR	Silver
OPERATING TEMPERATURE	-15° to +75° C
PROTECTION CLASS	IP65
FIRE RESISTANCE	30 minutes / 300°C



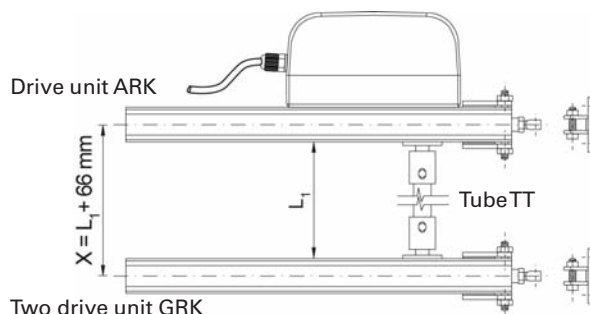


ARK 24



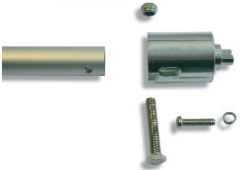
OPERATOR DIMENSIONS - STD installation



OPERATOR DIMENSIONS - TANDEM installation



DESCRIPTION	Stroke mm	Power supply	Notes	CODE
ARK 350	350	24 Vdc		43551/001
ARK 550	550	24 Vdc		43551/002
ARK 750	750	24 Vdc		43551/003
ARK 1000	1000	24 Vdc		43551/004
Two drive unit GRK350	350		For use with 1 ARK 350 + 1TT	43553/050
Two drive unit GRK 550	550		For use with 1 ARK 550 + 1TT	43553/051
Two drive unit GRK 750	750		For use with 1 ARK 750 + 1TT	43553/052
Two drive unit GRK 1000	1000		For use with 1 ARK1000 + 1TT	43553/053
TT 90 (tube 900 mm)			Tube length = rack centre to centre minus 66 mm	43531/050
TT 130 (tube 1300 mm)			Tube length = rack centre to centre minus 66 mm	43531/051
TT 160 (tube 1600 mm)			Tube length = rack centre to centre minus 66 mm	43531/052
TT 190 (tube 1900 mm)			Tube length = rack centre to centre minus 66 mm	43531/053
TT 200 (tube 2000 mm)			Tube length = rack centre to centre minus 66 mm	43531/054

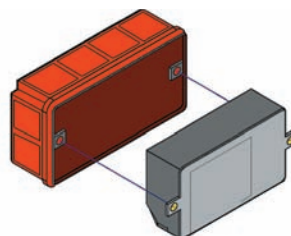
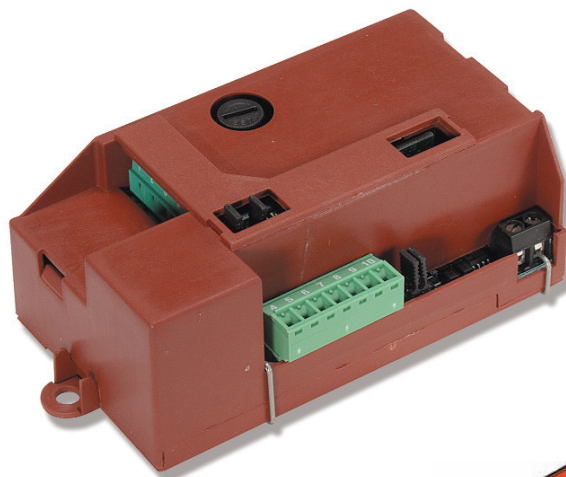
DESCRIPTION	CODE
 <p>CF10/2 - 24 Vdc max. 8A motor control unit, 24Vdc max. 500 mA accessory power output, provision for backup battery and recharge circuit, built-in control panel for operators, rain/wind sensors and thermostat, status LEDs, internal emergency thermostat triggered at + 70° C, 2.2 KOhm balance line for max. 24 smoke and heat detectors, remote alarm signalling output</p>	43660/006
 <p>Slip bracket</p>	43554/055
 <p>Couple of rod ring for TT tube (2 pieces)</p>	43554/056

NOTE: For the weather sensor and accessories see page 195.



ADI MODULES - MOTOR CONTROL

Radio controlled equipment for automating doors and windows, rolling shutters, lights, fans, solenoids and small domestic loads powered at 230 Vac.



Masonry box for 4 modules

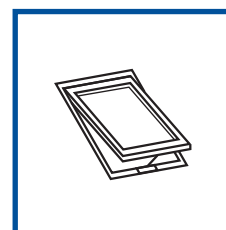
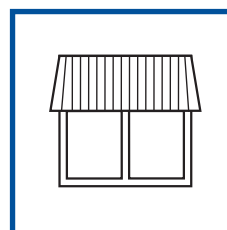
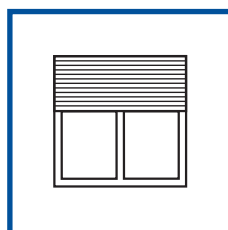
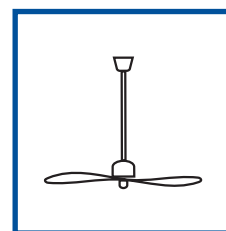
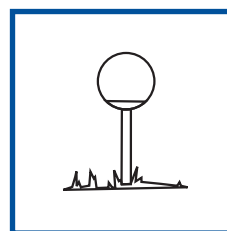
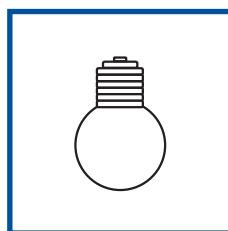
Economical solutions for most common automation residential and commercial requirements (homes, offices, shops, hotels, etc.).

Interior modules can be installed in 4 module masonry boxes using the fixing fins provided.

Suitable for all levels of complexity from individual automations to coordinated systems.

Facilitates installation and start-up built-in antenna.

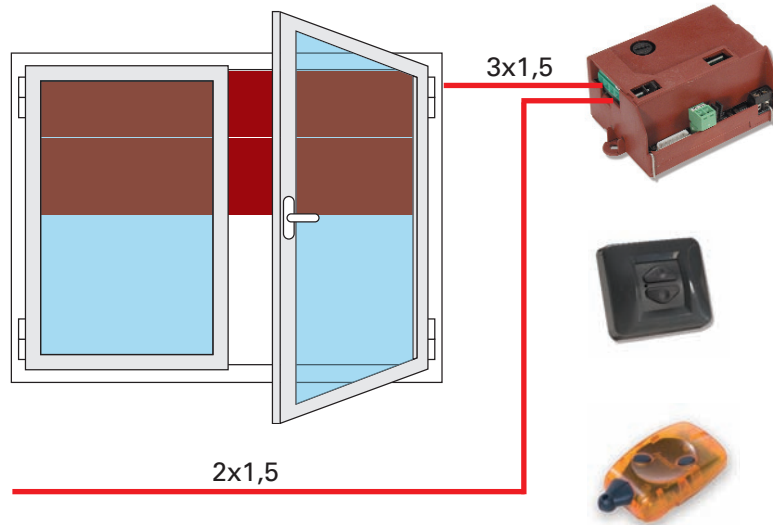
Central cabled or radio control.



ADI ADI MODULES - MOTOR CONTROL

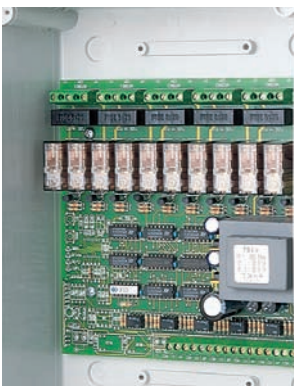
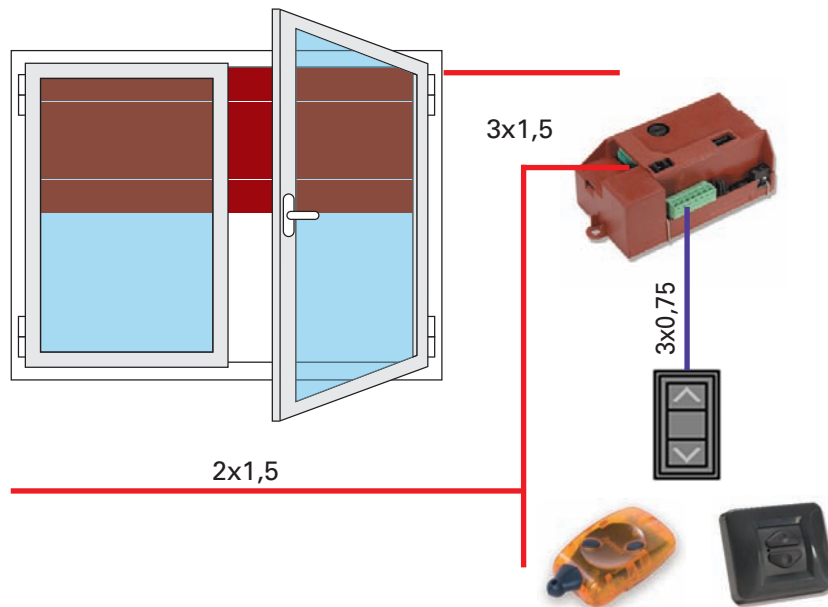
Individual radio control: M230HR.

Radio control with portable two channel transmitters (TR2) or wall mounted transmitters (TP2-BN, TP2-NR).



Individual cable and radio control: M230HR.

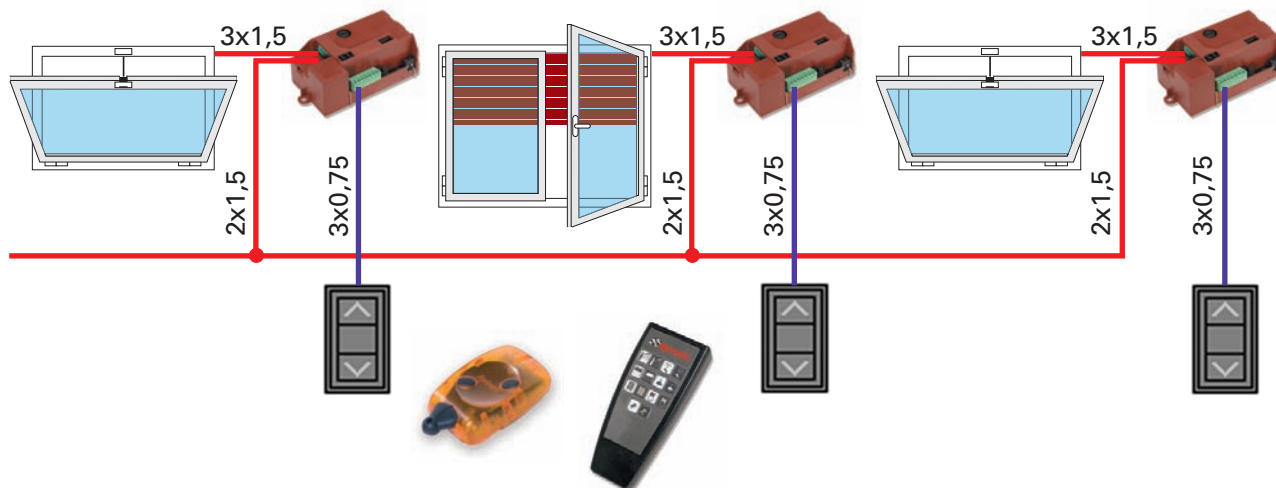
Low voltage cable control with standard, even existing push-buttons and radio control with portable two channel transmitters (TR2) or wall mounted transmitters (TP2-BN, TP2-NR).



ADI ADI MODULES - MOTOR CONTROL

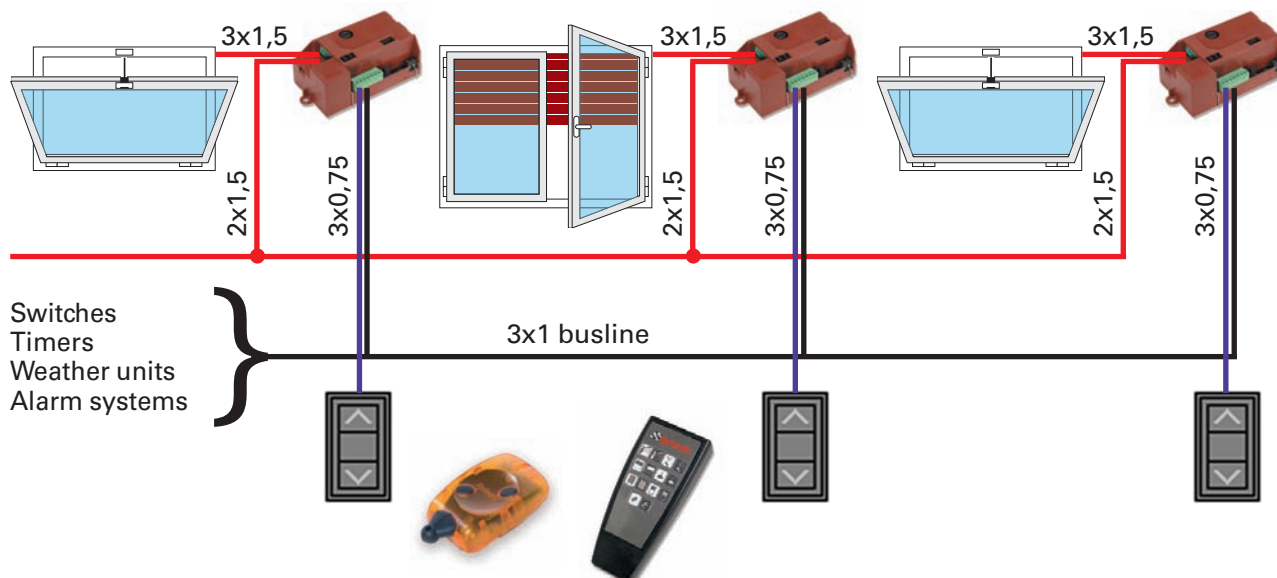
Individual cable controls and multiple radio controls: M230HR.

Individual low voltage cable control with standard, even existing push-buttons and radio control with portable multi-channel transmitters (TR4, TR14). Simple programming allows all modules to be controlled from a single remote control.



Central cable and radio controls: M230HR.

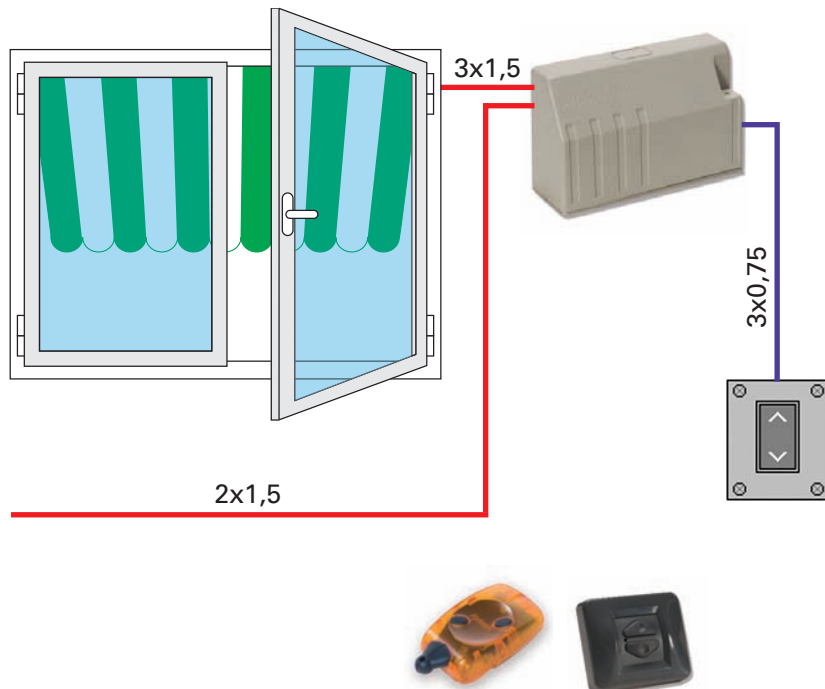
Interior modules can mount individual controls and centralised priority cable controls. Operating signals can come from timers, weather units, or alarm systems etc. as well as from simple manually operated switches. Priority centralised controls take precedence over local controls as long as they remain active or until the end of the operation. Priority centralised controls can be used to create simple but effective coordinated control "scenarios". E.g. in an office a single command could trigger all the operations required for an "end of day scenario", closing all windows and switching off all lights. The same functions can be achieved by radio control too, simply by programming the control modules. For example a TR14 remote control can be used to control "scenarios" as well as controlling individual operators.



ADI ADI MODULES - MOTOR CONTROL

Individual cable and radio: M230S.

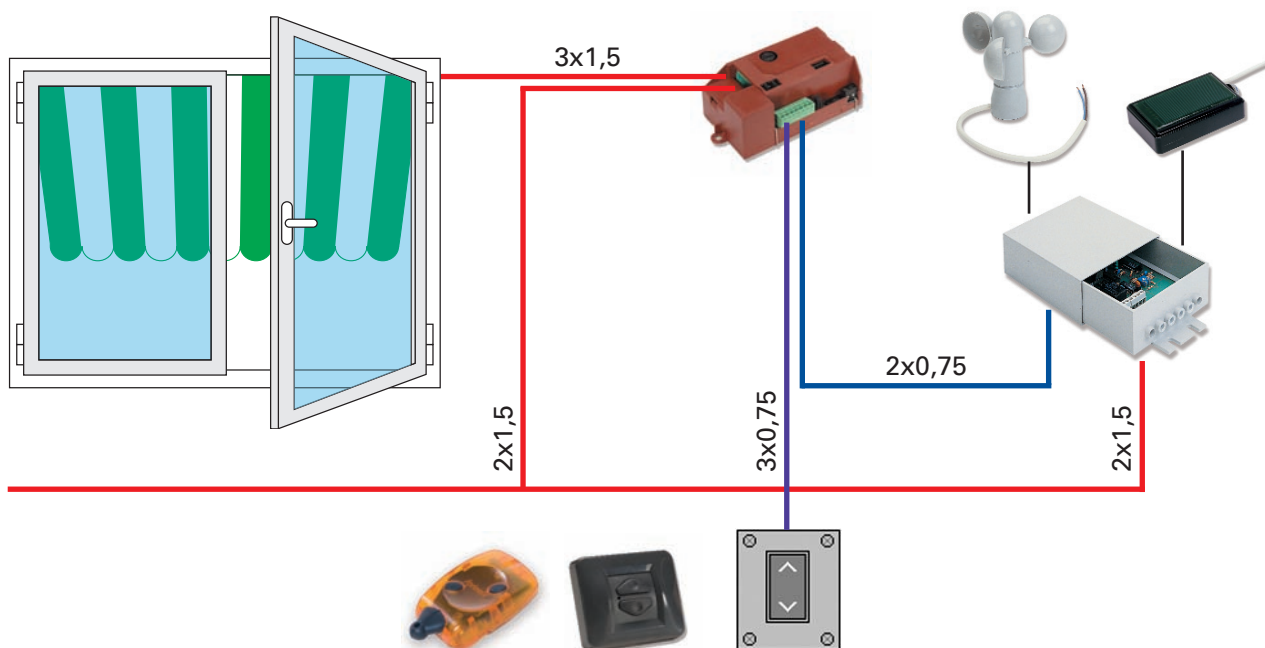
Low voltage cable control with standard outdoor switch and radio control with portable two channel transmitters (TR2) or wall mounted transmitters (TP2-BN, TP2-NR).



Application with weather unit: M230HR.

Closing is automatically controlled by the weather unit via a dedicated priority input.

Low voltage cable control with standard outdoor switch and radio control with portable two channel transmitters (TR2) or wall mounted transmitters (TP2-BN, TP2-NR).

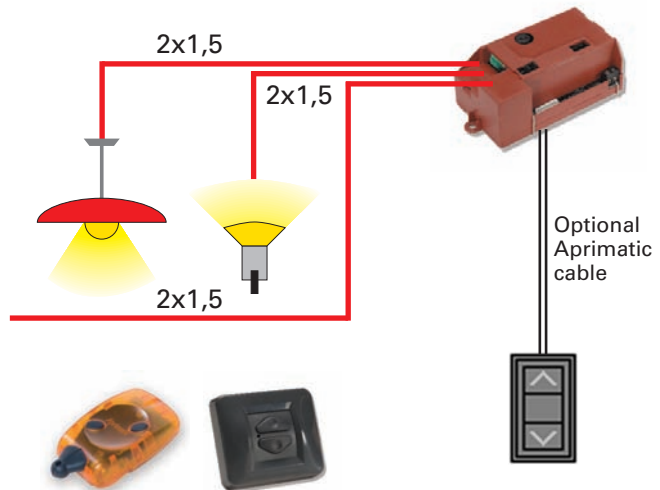


Interior cable and radio control: R230H2.

Low voltage cable control with standard, even existing push-buttons and radio control with portable two channel transmitters (TR2) or wall mounted transmitters (TP2-BN, TP2-NR).

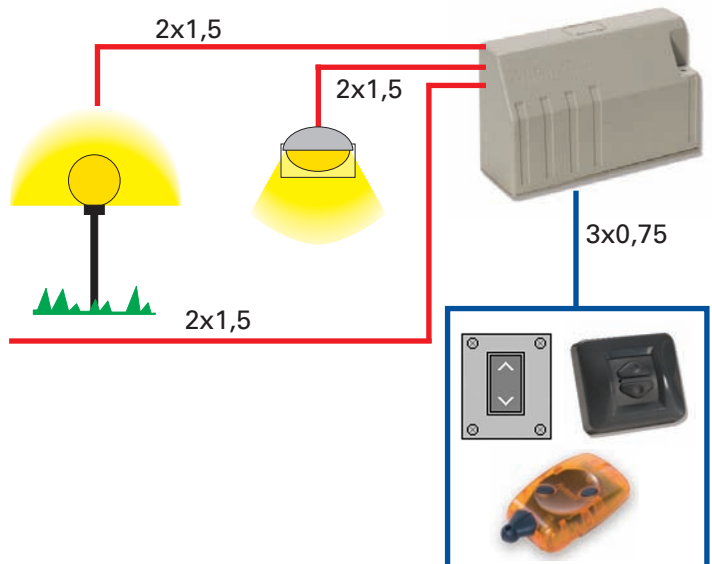
For controlling most common types of light, including ceiling and wall lamps, using the existing wiring and adding only the necessary control units.

Loads can be radio controlled with ON/OFF logic or programmable timer logic or switched on only while a button is held down.



Outdoor cable and radio control: R230E.

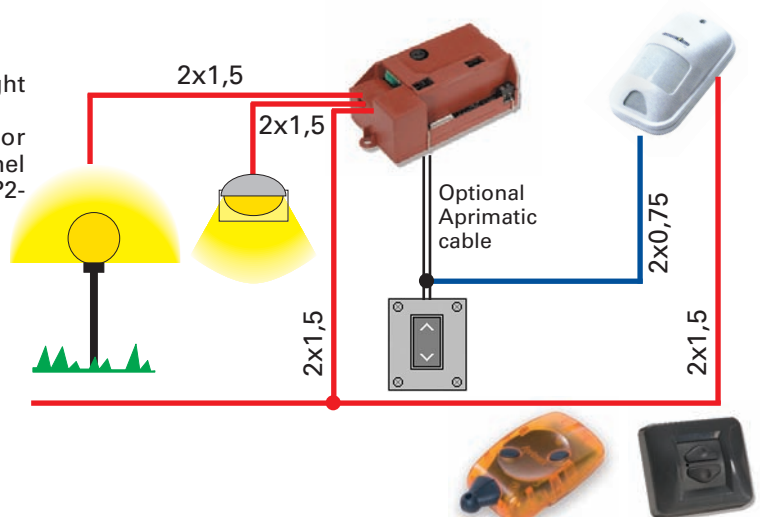
Low voltage cable control with standard outdoor switch and radio control with portable two channel transmitters (TR2) or wall mounted transmitters (TP2-BN, TP2-NR).



Application with twilight sensors: R230H2.

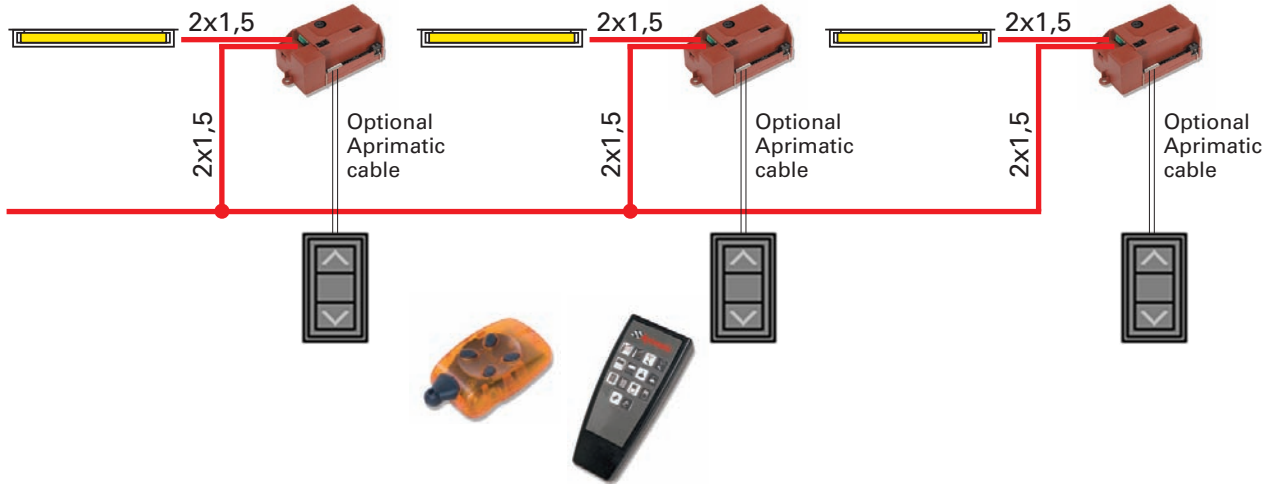
Switching on controlled automatically by a twilight sensor over a dedicated priority input.

Low voltage cable control with standard outdoor switch and radio control with portable two channel transmitters (TR2) or wall mounted transmitters (TP2-BN, TP2-NR).



Individual cable and multiple radio control: R230H2.

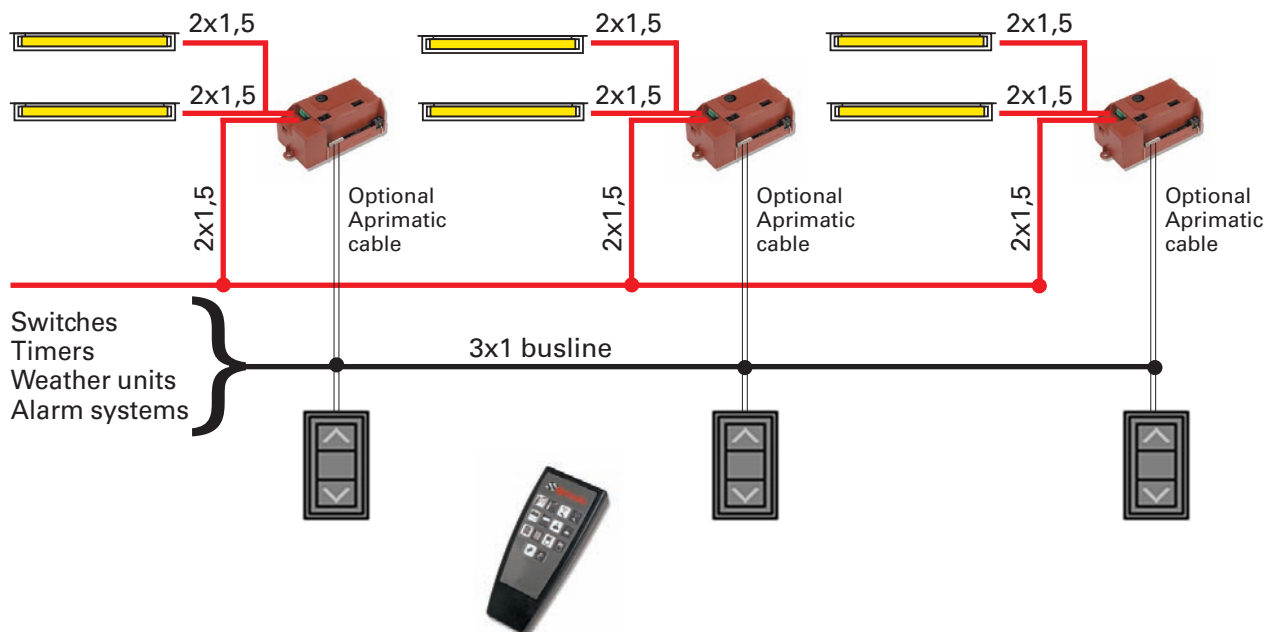
Individual low voltage cable control with standard, even existing push-buttons and radio control with portable multi-channel transmitters (TR4, TR14). Simple programming allows all modules to be controlled from a single remote control.




Centralised controls – cable and radio: R230H2.

Interior modules can mount individual controls and centralised priority cable controls. Operating signals can come from timers or alarm systems etc. as well as from simple manually operated switches. Priority centralised controls take precedence over local controls as long as they remain active or until the end of the operation.

Priority centralised controls can be used to create simple but effective co-ordinated control "scenarios". The same functions can be achieved by radio control too, simply by programming the control modules. For example a TR14 remote control can be used to control "scenarios" as well as controlling individual operators.



SPECIFICATIONS	M230HR	M230S
Power supply	Single-phase 230 Vac (+6% -10%) - 50/60 Hz	
Motor voltage	230 Vac	230 Vac
Protection fuses	5 A	5 A
Max power W	600	650
Unit consumption	2 W max.	2 W max.
24 Vdc accessories power	Unavailable	300 mA max.
Accessory protection fuses	Unavailable	500 mA
Max. power supply cable section	1,5 mm ²	2,5 mm ²
Max. motor cable section	1,5 mm ²	2,5 mm ²
Max. control cable section	1 mm ²	2,5 mm ²
Radio frequency	433.92 Mhz	433.92 Mhz
Useful range	120 metres unobstructed view with optional antenna	
Operating temperature	-20°C to +70°C	-20°C to +70°C
Storage temperature	-40°C to +85°C	-40°C to +85°C
Relative humidity	90% max. (non condensing)	90% max. (non condensing)
Protection rating	IP20	IP44
Installation	Interior, in dry, dust-free environments	also outdoors
Case:		

CABLE INPUTS	M230HR	M230S
Local open	pull-out terminals	terminal board
Local close	pull-out terminals	terminal board
Centralised open	pull-out terminals	not available
Centralised close	pull-out terminals	not available
Stop	pull-out terminals	terminal board
Safety device	pull-out terminals	terminal board

RADIO INPUTS	M230HR	M230S
Local open	Yes	Yes
Local close	Yes	Yes
Centralised open	Yes	-
Centralised close	Yes	-
Stop	Yes	Yes

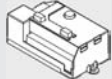


OUTPUTS	M230HR	M230S
Outputs	2 motor control relays with HW and SW interlocking	

FUNCTIONING LOGIC	M230HR	M230S
Dead man	Yes	Yes
Semiautomatic Open/Close	Yes	Yes
Semiautomatic Step-by-step	Yes	Yes
Automatic	Yes	Yes

OTHER FUNCTION	M230HR	M230S
Radio control memory:	Radio self-teaching - Max. 496 different users.	

PROGRAMMING	M230HR	M230S
Movement time	On module and by radio	On module and by radio
Pause time	On module and by radio	On module and by radio
TX keys – radio control	On module and by radio	On module and by radio

SETTINGS	M230HR	M230S
Functioning logic	Semiautomatic Open/Close	
Movement time	45 s (programmable from 0 to 180 seconds)	
Pause time	45 s (programmable from 0 to 180 seconds)	
Stop input	Disabled (JP6 closed)	
Safety device input	Disabled (JP6 closed)	

SPECIFICATIONS	R230H2	RX230	R230E
Power supply	Single-phase 230 Vac (+6% -10%) - 50/60 Hz		
Load voltage	230 Vac	0-24 Vdc/Vac	230 Vac
Protection fuses	5 A	3,15 A	5 A
Control unit absorption	2 W max.	2 W max.	2 W max.
Max. power supply cable section	1,5 mm ²	1,5 mm ²	2,5 mm ²
Max. load cable section	1,5 mm ²	1,5 mm ²	2,5 mm ²
Max. control cable section	Use an Aprimatic control cable		2,5 mm ²
Radio frequency	433.92 Mhz	433.92 Mhz	433.92 Mhz
Useful range	120 metres unobstructed view with optional antenna		
Operating temperature	-20°C to +70°C	-20°C to +70°C	-20°C to +70°C
Storage temperature	-40°C to +85°C	-40°C to +85°C	-40°C to +85°C
Relative humidity	90% max. (non condensing)	90% max. (non condensing)	90% max. (non condensing)
Protection rating	IP20	IP20	IP44
Installation	Interior, in dry, dust-free environments		also outdoors
Case:			

LOAD CONTROL	R230H2	RX230	R230E
Number of relays	2	2	2

MAX. APPLICABLE LOADS			
Induction motor or transformer	300 W - 2 x 300 W	1 A	2 x 300 W
Resistive load	3 A - 2 x 3 A	1 A	2 x 3 A
Incandescent lamp	200 W - 2 x 200 W	1 A	2 x 200 W
Fluorescent lamp	250 W - 2 x 250 W	1 A	2 x 250 W

CABLE INPUTS			
Channel 1 control	Connector	-	Terminal board
Channel 2 control	Connector	-	Terminal board
Centralised control enable	Connector	-	Not available
Centralised control disable	Connector	-	Not available

RADIO INPUTS			
Channel 1 control	Yes	Yes	Yes
Channel 2 control	Yes	Yes	Yes
Centralised control enable	Yes	-	-
Centralised control disable	Yes	-	-




FUNCTIONING LOGIC			
ON/OFF	Yes	Yes	Yes
Timer 1-255 seconds	Yes	Yes	Yes
Timer 1-255 minutes	Yes	Yes	Yes
Dead man	Yes	Yes	Yes

OTHER FUNCTIONS	
Radio control memory:	Radio self-teaching - Max. 496 different users




PROGRAMMING			
Channel 1 timer	On module and by radio	On module and by radio	On module and by radio
Channel 2 timer	On module and by radio	On module and by radio	On module and by radio
TX keys – radio controls	On module and by radio	On module and by radio	On module and by radio

SETTINGS			
Functioning logic	ON/OFF	ON/OFF	ON/OFF
Channel 1 timer	45 sec. / min.	1 second	45 sec. / min.
Channel 2 timer	45 sec. / min.	1 second	45 sec. / min.

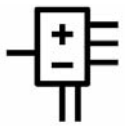
MOTOR CONTROL MODULES

DESCRIPTION		CODE
	M230HR - Vac motor control module, cable and radio control, interior installation, suitable size for installation in "504" masonry box	43665/004
	M230S - Vac motor control module, cable and radio control, max. 300 mA accessory power, outdoor installation in IP44 box	43665/015
	MCT - Centralised control module for tubular motors with interface card specifically for the parallel control of more than one tubular motor	43645/004

LIGHT CONTROL MODULES

DESCRIPTION		CODE
	R230H2 - Vac two channel light control module, cable and radio control, interior installation, suitable size for installation in "504" masonry box	43665/010
	R230E - Vac two channel light control module, cable and radio control, outdoor installation, IP44 box	43665/016
	RX230 - Two channel radio receiver module for low voltage loads, gate opening and security control units etc., suitable size for installation in "503" masonry box	41923/055











ACCESSORIES		
DESCRIPTION		CODE
	C6P - 6 core cable with press-fit connector, length 3 metres optional for cable controls with modules M230LR, R230L1, R230L2, R230H1, R230H2	43665/050
	ANT 433 - Optional 433.92 Mhz outdoor antenna with 4.5 m coax cable and earth plate	41929/001
	AL 24 - 24Vdc 250 mA power supply, dimensions: diam. 50 mm h. 30 mm	41703/001
	TR2 - 433.92 Mhz twin channel rolling code remote control	41903/002
	TR4 - 433.92 Mhz four channel rolling code remote control	41903/004
	TR14 - 433.92 Mhz 14 channel remote control	41903/014
	TP2-BN - White wall-mounted two channel 433.92 Mhz remote control, compatible with BTicino Living International/Light civil product series	41905/001
	TP2-NR - Black wall-mounted two channel 433.92 Mhz remote control, compatible with BTicino Living International/Light civil product series	41905/002
	PP-BN - Wall plate for white wall-mounted remote control	43701/050
	PP-NR - Wall plate for black wall-mounted remote control	43701/051





MOTOR CONTROL UNITS, WEATHER SENSORS AND ACCESSORIES

24 V and 230 V motor control units, weather units,
rain, wind, smoke and heat sensors, thermostats.

COMBINING MOTOR CONTROL UNITS WITH OPERATORS AND WEATHER UNITS

OPERATOR	24 V			230 V
	CV1N	CV10	CF10/2 *	5M
ARK 24 - APRILINEARE 24V 				
1 Motor	10 Motors	10 Motors		
APRICOLOR VARIA 24V 	1 Motor	5 Motors	5 Motors	
APRILINEARE DUO SYSTEM 24V 	1 Motor	10 Motors	10 Motors	
ARK 230 - APRILINEARE 230 V 				5 Motors
O2M 				5 Motors
APRICOLOR VARIA - VARIAT 230 V 				5 Motors
ST 450N 				5 Motors
APRILINEARE DUO SYSTEM 230 V 				5 Motors
TUBOLARI REVOLUX 				5 Motors

WEATHER UNITS				
PV1 230 V 	•	•	•	•
PV2 24 V 	•		•	

NOTE: PV1 and PV2 control units can be used with:



RV - Anemometer



SP1 - Rain sensor

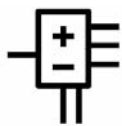
NOTE: *CF 10/2 control units can be used with:







Detection sensor:
Smoke, Heat or Smoke/Heat










Backup battery



MOTOR CONTROL UNITS, WEATHER SENSORS AND ACCESSORIES

DESCRIPTION - MOTOR CONTROL UNITS	CODE
 <p>CV1N - 24 Vdc max. 1A motor control unit, inputs for local and centralised open and close commands, current output adjustment potentiometer 300 mA to 600 mA, 24Vdc accessories power, can be connected in parallel with other CV1N units</p>	43660/002
 <p>CV10 - 24 Vdc max. 8A motor control unit, inputs for local and centralised open and close commands, can be connected in parallel with other CV10N units</p>	43660/007
 <p>5M - 230 Vac motor control unit for simultaneous control of 5 motors, inputs for local and centralised open and close commands, can be connected in parallel with other 5M units</p>	43645/002
 <p>CF10/2 - 24 Vdc max. 8A motor control unit, 24Vdc max. 500 mA accessory power output, provision for backup battery and recharge circuit, built-in control panel for operators, rain/wind sensors and thermostat, status LEDs, internal emergency thermostat triggered at + 70° C, 2.2 KOhm balance line for max. 24 smoke and heat detectors, remote alarm signalling output</p>	43660/006

DESCRIPTION - CF 10/2 ACCESSORIES	CODE
 <p>CF10/2 - Backup battery</p>	43660/101
 <p>RFC - Optical smoke detector with differential heat sensor, conforms to EN54 standards</p>	43701/063

DESCRIPTION - WEATHER UNITS AND SENSORS	CODE
 <p>PV1 (230 Vac power supply)</p>	43665/018
 <p>PV2 (24 Vdc power supply)</p>	43660/008
 <p>PV1 and PV2 weather units can be connected to an anemometer and/or rain sensor to provide an alarm signal output (normally open relay with no-voltage contacts) that can be used to control window closing</p>	
 <p>RV - Anemometer</p>	43701/055
 <p>SP1 - Rain sensor</p>	43701/052





SLIDING DOORS AUTOMATIONS

Smooth, precise, silent movement.

Aprimatic offers a wide range of automation solutions for sliding doors. Products designed to provide top reliability in a wide range of application in offices, shops and supermarkets. All automation and frame components are housed inside compact, attractively designed extruded aluminium profile.

Units are easy to install and do not require specialist skills or masonry work.

The automation units are equipped with intelligent electronic control systems.

Modern electronics reduces the need for adjustment.

This reduces installation, set-up and maintenance times.

It is also your guarantee of total safety.

Our systems are equipped with the very latest obstacle detection systems designed to ensure total safety.

NS 100

New non-reversible single-motor automation for sliding doors.

Suitable for shops, supermarkets and offices with high traffic levels. Designed for medium-heavy loads for compact size sliding doors, just 100 mm high.

Max. load for continuous use (6 cycles/min.):

90 kg for 2 wings, 90 kg for 1 wing.

(for more informations about NS 100 see page 210)



Wing NK

Reversible single-motor automation for sliding doors.

Suitable for shops, supermarkets and offices with high traffic levels. Designed for medium-heavy loads.

Max. load for heavy duty use (4 cycles/min.):

100 kg for 2 wings, 150 kg for 1 wing.

Max. load for continuous use (6 cycles/min.):

80 kg for 2 wings, 130 kg for 1 wing.

Wing NK H150

Reversible single-motor automation for sliding doors.

Suitable for shops, supermarkets and offices with high traffic levels. Designed for medium-heavy loads.

Max. load for heavy-duty use (4 cycles/min.):

150 kg for 2 wings, 150 kg for 1 wing.

Max. load for continuous use (6 cycles/min.):

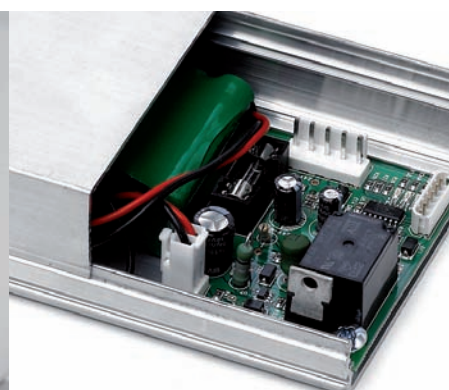
130 kg for 2 wings, 150 kg for 1 wing.



NS 100



Wing NK





SLIDING DOORS AUTOMATIONS

Drive system with a toothed HPPD rubber drive belt. The belt is reinforced with a glass fibre core and has a non-slip coating.

Modular carriages with large diameter, reinforced-nylon wheels running on upper and lower rails. Rails have a semi-circular cross-section. The carriage modules feature a derailment-proof, tip-proof, load balancing system.

Gear motor reversible featuring DC motor with PWM (pulse width modulation) electronic control.

Optical encoder with 2 channel system for electronic position and speed control and for obstacle detection (auto-reverse safety).

Control unit ensuring the highest levels of safety and reliability. Performance features include: self-teach function for stroke length, wing weight, braking force and braking distance; continuous adjustment of braking distance to match external operating conditions; automatic adjustment of opening and closing speed to match wing weight; highly sensitive electronic auto-reverse safety device on opening and closing strokes (max. 150 N).

The control unit also incorporates the emergency battery recharging circuit.

Slim SNK

Non reversible single-motor automation for sliding doors. Suitable for shops, supermarkets and offices with medium traffic levels.

Designed for medium-light loads.

Max. load for NOT heavy-duty use (<3 cycles/min.):
70 kg for 2 wings, 100 kg for 1 wing.

Max. load for heavy-duty use (4 cycles/min.):
50 kg for 2 wings, 70 kg for 1 wing.

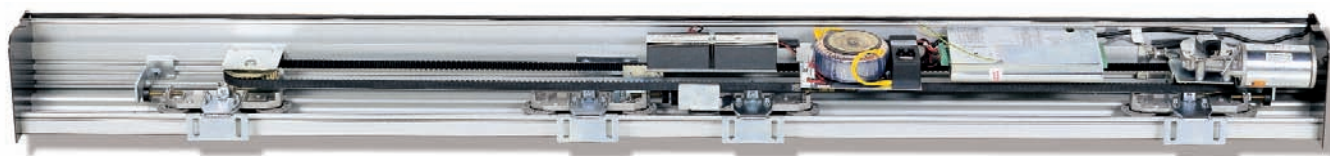


Twin

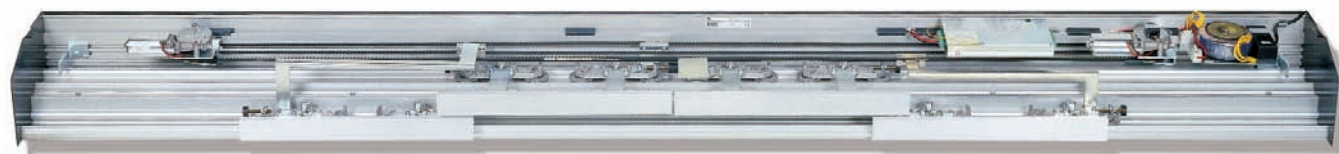
Automation for telescopic sliding doors. Designed to provide a wider door opening for the same beam length.

Max. load for intensive use (4 cycles/min.):
50 kg for 4 wings, 75 kg for 2 wings.

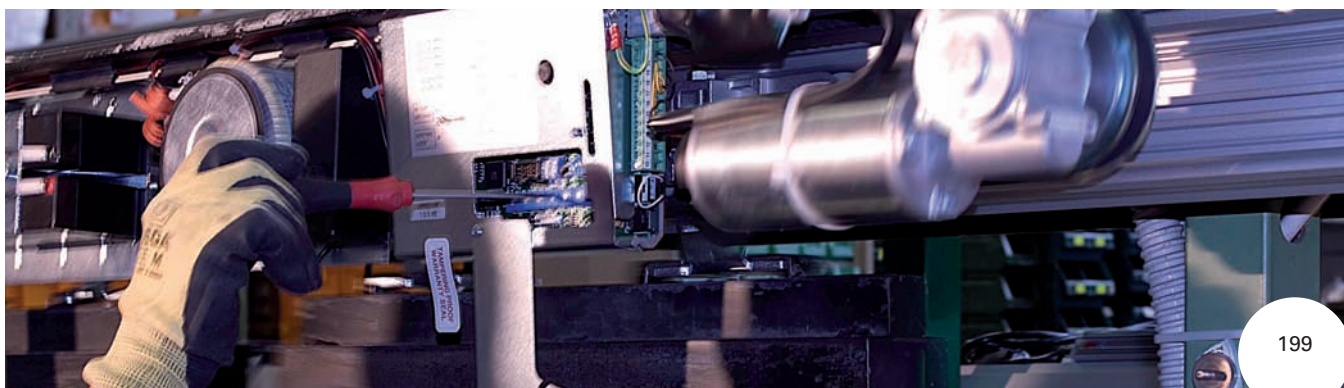
Max. load for continuous use (6 cycles/min.):
40 kg for 4 wings, 60 kg for 2 wings.



Slim



Twin





SLIDING DOORS AUTOMATIONS

TECHNICAL DATA

	NS 100	WING NK 1 WING NK 2	WING NK H150 1 WING NK H150 2	SLIM SNK 1 SLIM SNK 2	TWIN single-side TWIN two-side
GENERAL					
Automation power supply	Single-phase 230 Vca (+/- 10%) – 50/60 Hz				
Motor power supply	24 Vdc	24 Vcc with high performance toroidal transformer			
Accessories power supply	24 Vdc	24 Vdc/Vac	24 Vdc/Vac	24 Vdc/Vac	24 Vdc/Vac
Operating temperature	-20° +70° C	-20° +70° C	-20° +70° C	-10° +60° C	-10° +60° C
Installed power (max.)	210 W	300 W	300 W	130 W	210 W

DIMENSIONS IN mm

Overall (h x d) mm	100 x 135,4	152 x 172	152 x 172	152 x 172	270 x 205
Beam lenght, min.-max. mm	1810 - 5410	1810 - 6010	1810 - 6010	1810 - 5410	1410 - 6010 2810 - 6010
Passage span, min.-max. mm	850 - 2650	850 - 2950	850 - 2950	850 - 2650	800-3900 1800-3900

WING LOAD CAPACITY IN kg

Max. load capacity (kg)	90x1 - 90x2	150x1 - 100x2	150x1 - 150x2	100x1 - 70x2	50x4 - 75x2
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SPEED IN cm/sec.

Opening speed min.-max.	4,5-60 (1 wing)	11-75 (1 wing)	11-75 (1 wing)	40 - 60	60
	90-120 (2 wing)	22-150 (2 wing)	22-150 (2 wing)	80 - 120	120
Closing speed min.-max.	4,5-60 (1 wing)	11-75 (1 wing)	11-75 (1 wing)	11 - 50	40
	90-120 (2 wing)	22-150 (2 wing)	22-150 (2 wing)	22 - 100	80
Approach speed	Adjustable by parameters	6	6	6	6

DRIVE TRASMISSION

Transmission	Toothed belt		Toothed HPPD belt		
Carriage type	2 double wheel carriages		Modular, 3-wheel carriages (2 each wing)		
Protection class	IP23	IP23	IP23	IP23	IP23





SLIDING DOORS AUTOMATIONS

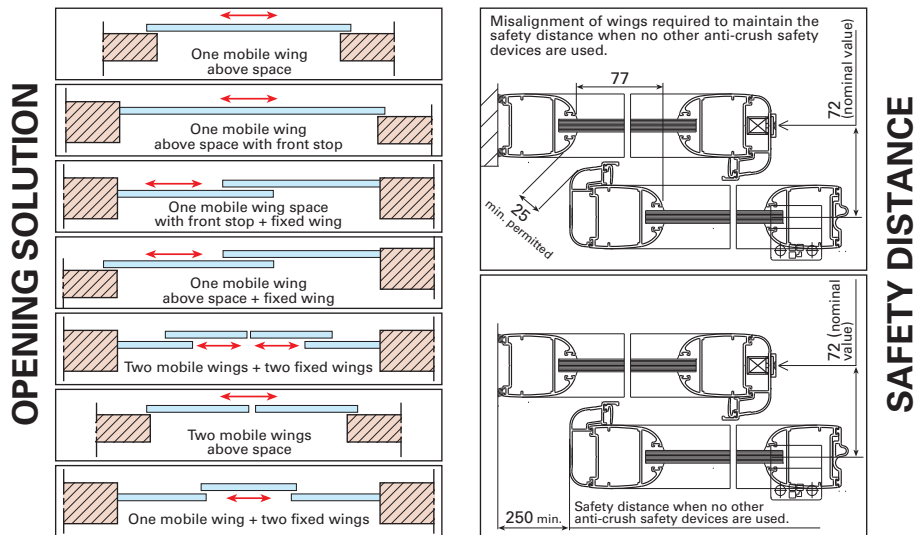
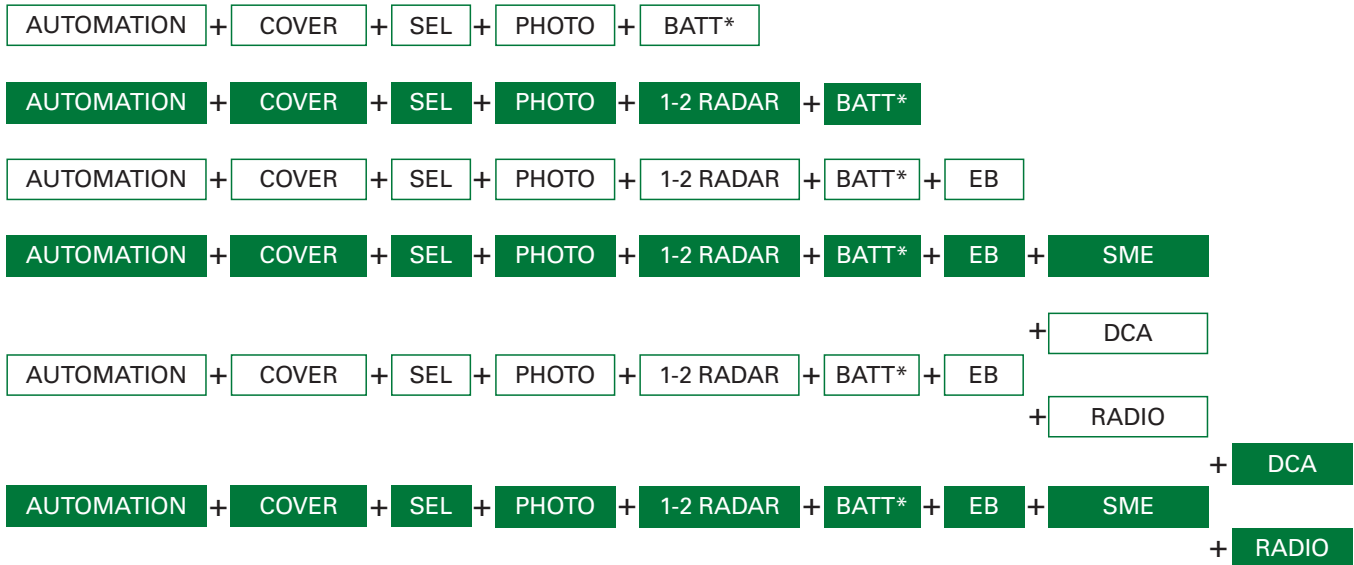
OPERATING CHARACTERISTICS

	NS 100	WING NK 1 WING NK 2	WING NK H150 1 WING NK H150 2	SLIM SNK 1 SLIM SNK 2	TWIN single-side TWIN two-side
SELF-TEACH FUNCTIONS (at power on or after a reset)					
Opening stroke length	Yes	Yes	Yes	Yes	Yes
Closing stroke length	Yes	Yes	Yes	Yes	Yes
Wing weight	Yes	Yes	Yes	Yes	Yes
Braking space (adaptive)	-	Yes	Yes	Yes	Yes
Opening speed	Yes	Yes	Yes	Yes	Yes
Closing speed	Yes	Yes	Yes	Yes	Yes
STANDARD FUNCTION (selected from key switch or keypad)					
Night lock	Yes	Yes	Yes	Yes	Yes
Automatic two-way	Yes	Yes	Yes	Yes	Yes
Automatic exit only	Yes	Yes	Yes	Yes	Yes
Automatic entry only	Yes	Yes	Yes	Yes	Yes
Completely open	Yes	Yes	Yes	Yes	Yes
Automatic partial opening	Yes	Yes	Yes	Yes	Yes
Manual opening	Yes	-	-	-	-
Night service opening	-	-	-	-	-
Reset	Yes	Yes	Yes	Yes	Yes
Master/Slave	Yes	Yes	Yes	-	-
Eco function	Yes	-	-	-	-
HDCP function	Yes	-	-	-	-
EMERGENCY FUNCTIONS					
Input for emergency push button	Yes	Yes	Yes	Yes	Yes
Electric emergency opener with battery	Yes	Yes	Yes	Yes	Yes
Emergency operation with battery	Yes	Yes	Yes	Yes	-
Stop input	Yes	Yes	Yes	Yes	-
Fire alarm input	Yes	-	-	-	-
Fire alarm output	Yes	-	-	-	-
SAFETY FUNCTIONS					
Input for safety photocell	Yes	Yes	Yes	Yes	Yes
Obstacle detection (adaptive)	Yes	Yes (adaptive)	Yes (adaptive)	Yes (adaptive)	Yes (adaptive)
ADJUSTABLE PARAMETERS					
Opening speed	Yes	Yes	Yes	Yes	Yes
Closing speed	Yes	65% opening speed (dipswitch)	Yes	Yes	-
Approach speed	Yes	Yes	Yes	Yes	Yes
Open pause time	Yes	Yes	Yes	Yes	Yes
Thrust force	Yes	Yes	Yes	Yes	Yes
Electric lock actuation delay	-	Yes	Yes	Yes	Yes
Partial opening percentage	Yes	Yes	Yes	-	-
DIAGNOSTIC					
Identification of alarm types	Yes	Yes	Yes	Yes	Yes
ADDITIONAL FUNCTION (optionals)					
Bistable electric lock with self-test	-	Yes	Yes	Yes	Yes
Built-in emergency opener	Yes	Yes	Yes	Yes	-
Interlock function	Yes	Yes	Yes	Yes	Yes
Manual release	-	Yes	Yes	Yes	Yes



POSSIBLE CONFIGURATIONS

EXAMPLE FOR POSSIBLE CONFIGURATIONS



LEGEND

AUTOMATION

Choose the model (complete operator assembly or beam system plus module) from the available range: **NS 100 - WING NK - WING NK H150 - SLIM SNK - TWIN**

COVER

Choose the guard with the desired surface finish from one of the following: **natural aluminium (NAT), silver (A/A), black (A/N)**

SEL

Choose the key selector (REQUIRED): **SC6 WIRELESS - SC6 EC - SC6** or **NS2 - NS4** (only for NS 100)

PHOTO

Choose the photocells: **ER6 UNI - ER6/N**

1-2 RADAR

Choose the radar: **DM-H21, DM-H22, DM-H82, RI-H3 SAFE, RI-H3 ACTI, RI-H5**

BATT*

*Batteries OPTIONAL only on **TWIN**: are provided as standard with all other models.

EB

Electric lock: **EB2** or **EB100** (only for NS 100)

SME

Choose the Emergency Manual Release device: **SME/E - SME/I**
installable only in conjunction with EB2

ACD

Choose Alternative Control Devices, if necessary : **PC12E - PR5 - LB4 - CT3**

RADIO

Choose the remote control and receiver: **TR2 - TR4 ; PLUS SC6 WIRELESS**



SLIDING DOORS AUTOMATIONS

NS 100 automation with anodized silver finish

Beam	Passage span	LH Single-wing	RH Single-wing		Double wing	
1810	850	42850/181.1	42850/181.0		42850/181.2	
2010	950	42850/201.1	42850/201.0		42850/201.2	
2410	1150	42850/241.1	42850/241.0		42850/241.2	
2510	1200	42850/251.1	42850/251.0		42850/251.2	
2810	1350	42850/281.1	42850/281.0		42850/281.2	
3010	1450	42850/301.1	42850/301.0		42850/301.2	
3210	1550	42850/321.1	42850/321.0		42850/321.2	
3610	1750	42850/361.1	42850/361.0		42850/361.2	
4010	1950	42850/401.1	42850/401.0		42850/401.2	
4410	2150	42850/441.1	42850/441.0		42850/441.2	
4810	2350	42850/481.1	42850/481.0		42850/481.2	
5410	2650	42850/541.1	42850/541.0		42850/541.2	

Automation with anodised black finish surcharge of Euro 55.

Automation with non-standard lengths: surcharge of Euro 40.

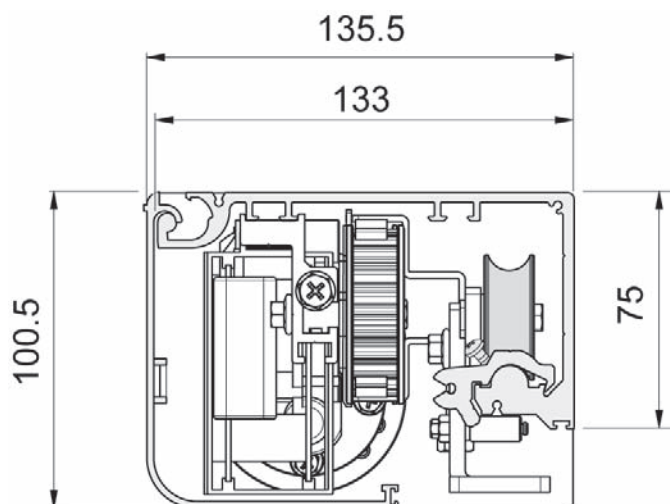
Order the automation with the next standard length up from the one you require and then state the exact beam length you require in mm ending with 0 or 5.

The standard supply includes the emergency battery unit.

Covers for NS 100 automation

Beam	Natural finish		Silver finish		Black finish	
1800	42862/180		42860/180		42861/180	
2000	42862/200		42860/200		42861/200	
2400	42862/240		42860/240		42861/240	
2500	42862/250		42860/250		42861/250	
2800	42862/280		42860/280		42861/280	
3000	42862/300		42860/300		42861/300	
3200	42862/320		42860/320		42861/320	
3600	42862/360		42860/360		42861/360	
4000	42862/400		42860/400		42861/400	
4400	42862/440		42860/440		42861/440	
4800	42862/480		42860/480		42861/480	
5400	42862/540		42860/540		42861/540	

NS 100 CROSS SECTION





SLIDING DOORS AUTOMATIONS

EXAMPLE OF AUTOMATION DIMENSIONING

	Two-wing automation: Wing NK, Wing NK H150			RH single-wing automation: Wing NK, Wing NK H150			LH single-wing automation: Wing NK, Wing NK H150		
	Known A	Known VP	Known T	Known A	Known VP	Known T	Known A	Known VP	Known T
T	$4A-2S+10$	$2VP+2S+10$	-	$2A-2S+10$	$2VP+2S+10$	-	$2A-S+10$	$2VP+S+10$	-
VP	$2(A-S)$	-	$(T-2S-10)/2$	$A-2S$	-	$(T-2S-10)/2$	$A-S$	-	$(T-S-10)/2$
A	-	$(VP+2S)/2$	$(T+2S-10)/4$	-	$VP+2S$	$(T+2S-10)/2$	-	$VP+S$	$(T+S-10)/2$

A= wing length in mm VP= passage span in mm T= beam length in mm S= overlap in mm

NOTE: The overlap (S) used in the formula = 50 mm (not binding). The calculations for RH and LH single-wing automation are valid for both opening directions. For RH single-wing automation, the actual passage span (VP) of the automation is reduced by the size of the overlap selected.

WING NK automation with anodized silver finish

Beam	Passage span	LH Single-wing	RH Single-wing	Double wing
1810	850	42710/181.1	42710/181.0	42710/181.2
2010	950	42710/201.1	42710/201.0	42710/201.2
2410	1150	42710/241.1	42710/241.0	42710/241.2
2510	1200	42710/251.1	42710/251.0	42710/251.2
2810	1350	42710/281.1	42710/281.0	42710/281.2
3010	1450	42710/301.1	42710/301.0	42710/301.2
3210	1550	42710/321.1	42710/321.0	42710/321.2
3610	1750	42710/361.1	42710/361.0	42710/361.2
4010	1950	42710/401.1	42710/401.0	42710/401.2
4410	2150	42710/441.1	42710/441.0	42710/441.2
4810	2350	42710/481.1	42710/481.0	42710/481.2
5410	2650	42710/541.1	42710/541.0	42710/541.2
6010	2950	42710/601.1	42710/601.0	42710/601.2

Automation with anodised black finish surcharge: see export price list.

Automation with non-standard lengths: surcharge of Euro 40. Order the automation with the next standard length up from the one you require and then state the exact beam length you require in mm ending with 0 or 5. The standard supply includes the emergency battery unit.

WING NK H150 automation with anodized silver finish

Beam	Passage span	LH Single-wing	RH Single-wing	Double wing
1810	850	42715/181.1	42715/181.0	42715/181.2
2010	950	42715/201.1	42715/201.0	42715/201.2
2410	1150	42715/241.1	42715/241.0	42715/241.2
2510	1200	42715/251.1	42715/251.0	42715/251.2
2810	1350	42715/281.1	42715/281.0	42715/281.2
3010	1450	42715/301.1	42715/301.0	42715/301.2
3210	1550	42715/321.1	42715/321.0	42715/321.2
3610	1750	42715/361.1	42715/361.0	42715/361.2
4010	1950	42715/401.1	42715/401.0	42715/401.2
4410	2150	42715/441.1	42715/441.0	42715/441.2
4810	2350	42715/481.1	42715/481.0	42715/481.2
5410	2650	42715/541.1	42715/541.0	42715/541.2
6010	2950	42715/601.1	42715/601.0	42715/601.2

Automation with anodised black finish surcharge: see export price list.

Automation with non-standard lengths: surcharge of Euro 40. Order the automation with the next standard length up from the one you require and then state the exact beam length you require in mm ending with 0 or 5. The standard supply includes the emergency battery unit.



SLIDING DOORS AUTOMATIONS

SLIM SNK automation with anodized silver finish

Beam	Passage span	LH Single-wing	RH Single-wing	Double wing
1810	850	42705/181.1	42705/181.0	42705/181.2
2010	950	42705/201.1	42705/201.0	42705/201.2
2410	1150	42705/241.1	42705/241.0	42705/241.2
2510	1200	42705/251.1	42705/251.0	42705/251.2
2810	1350	42705/281.1	42705/281.0	42705/281.2
3010	1450	42705/301.1	42705/301.0	42705/301.2
3210	1550	42705/321.1	42705/321.0	42705/321.2
3610	1750	42705/361.1	42705/361.0	42705/361.2
4010	1950	42705/401.1	42705/401.0	42705/401.2
4410	2150	42705/441.1	42705/441.0	42705/441.2
4810	2350	42705/481.1	42705/481.0	42705/481.2
5410	2650	42705/541.1	42705/541.0	42705/541.2

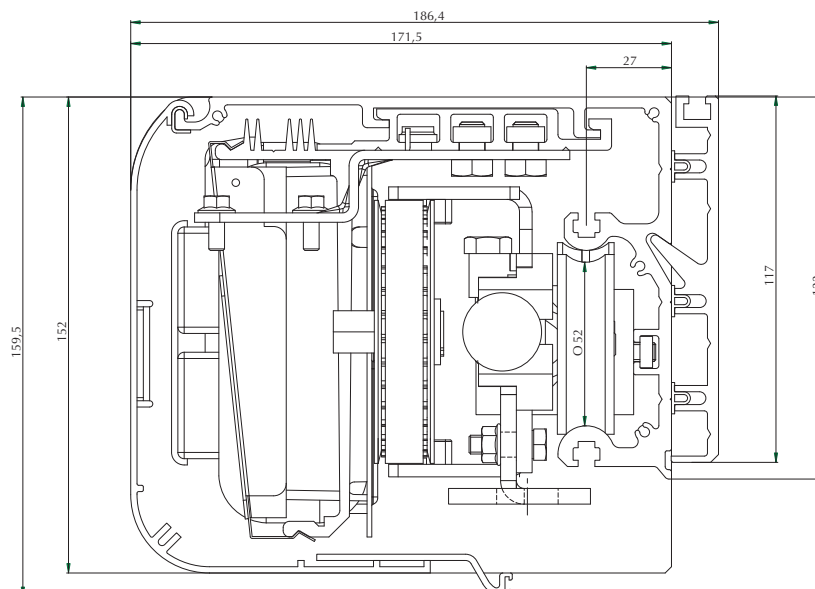
Automation with anodised black finish surcharge: see export price list.

Automation with non-standard lengths: surcharge of Euro 40. Order the automation with the next standard length up from the one you require and then state the exact beam length you require in mm ending with 0 or 5. The standard supply includes the emergency battery unit.

Covers for WING NK, WING NK H150, SLIM SNK automation

Beam	Natural finish	Price Euro	Silver finish	Black finish
1800	42102/180	77,00	42100/180	42101/180
2000	42102/200	82,00	42100/200	42101/200
2400	42102/240	90,00	42100/240	42101/240
2500	42102/250	92,00	42100/250	42101/250
2800	42102/280	99,00	42100/280	42101/280
3000	42102/300	103,00	42100/300	42101/300
3200	42102/320	108,00	42100/320	42101/320
3600	42102/360	116,00	42100/360	42101/360
4000	42102/400	125,00	42100/400	42101/400
4400	42102/440	135,00	42100/440	42101/440
4800	42102/480	143,00	42100/480	42101/480
5400	42102/540	156,00	42100/540	42101/540
6000	42102/600	170,00	42100/600	42101/600

WING NK - WING NK H150 - SLIM SNK CROSS SECTION





SLIDING DOORS AUTOMATIONS

EXAMPLE OF AUTOMATION DIMENSIONING

	Telescopic, four-wing automation: TWIN			Telescopic, two-wing automation: TWIN		
	Known A	Known VP	Known T	Known A	Known VP	Known T
T	$(6 * A - 2 * S) + 10$ Round down the result in brackets to the nearest hundred	$(3/2 * VP + 2S) + 10$ Round up the result in brackets to the nearest hundred		$(3 * A - S) + 10$ Round down the result in brackets to the nearest hundred	$(3/2 * VP + 2S) + 10$ Round up the result in brackets to the nearest hundred	
VP	$4 * (A - S)$		$[(T - 2 * S - 10) * (2/3)]$ Round down the result in brackets to the nearest hundred	$2 * (A - 2S)$		$[(T - 2 * S - 10) * (2/3)]$ Round down the result in brackets to the nearest hundred
A		$1/4 * (VP + 4 * S)$	$S + 1/4 * [(T - 2 * S - 10) * (2/3)]$ Round up the result in square brackets to the nearest hundred		$1/2 * (VP + 4 * S)$	$S + 1/2 * [(T - 2 * S - 10) * (2/3)]$ Round up the result in square brackets to the nearest hundred

A = wing length in mm VP = passage span in mm T = beam length in mm S = overlap in mm

NOTE: The overlap (S) used in the formula = 50 mm (not binding).

TWIN automation with anodised silver finish

Beam	Passage span	1 + 1 LH Wing	1 + 1 RH Wing	2 + 2 Wing
1410**	800	42800/141.1	42800/141.0	
1810**	1100	42800/181.1	42800/181.0	
2010**	1200	42800/201.1	42800/201.0	
2410*	1500	42800/241.1	42800/241.0	
2810*	1800	42800/281.1	42800/281.0	42800/281.2
3210	2000	42800/321.1	42800/321.0	42800/321.2
3610	2300	42800/361.1	42800/361.0	42800/361.2
4010	2600	42800/401.1	42800/401.0	42800/401.2
4410	2800	42800/441.1	42800/441.0	42800/441.2
4810	3100	42800/481.1	42800/481.0	42800/481.2
5410	3500	42800/541.1	42800/541.0	42800/541.2
6010	3900	42800/601.1	42800/601.0	42800/601.2

The TWIN series automations are not fitted with emergency batteries as standard.

** Automations marked with two asterisks CANNOT be fitted the electric lock EB2 and must have the emergency battery unit fitted outside the beam.

* Automations marked with one asterisk CAN be fitted with electric lock EB2 on the beam but the emergency battery unit NS48 must be fitted outside the beam.

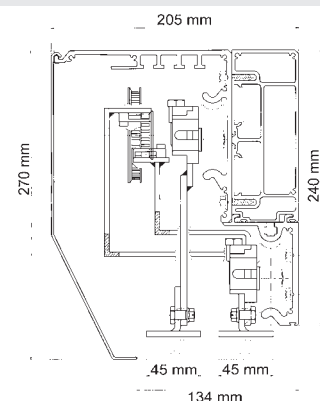
Automation with anodised black finish surcharge: see export price list.

Automation with non-standard lengths: surcharge of Euro 40. Order the automation with the next standard length up from the one you require and then state the exact beam length you require in mm ending with 0 or 5.

Carter for TWIN automation

Beam	Natural finish	Silver finish	Black finish
1400	42112/140	42110/140	42111/140
1800	42112/180	42110/180	42111/180
2000	42112/200	42110/200	42111/200
2400	42112/240	42110/240	42111/240
2800	42112/280	42110/280	42111/280
3200	42112/320	42110/320	42111/320
3600	42112/360	42110/360	42111/360
4000	42112/400	42110/400	42111/400
4400	42112/440	42110/440	42111/440
4800	42112/480	42110/480	42111/480
5400	42112/540	42110/540	42111/540
6000	42112/600	42110/600	42111/600

TWIN CROSS-SECTION





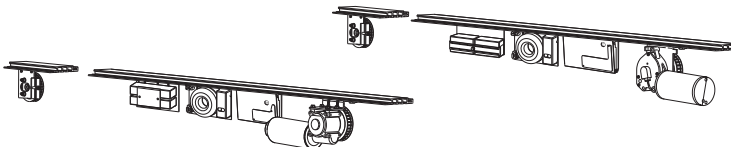
MODULES AND KIT SOLUTIONS

You can use these modules to construct any type of "Wing NK" or "Wing NK H150" or "SLIM SNK" automation with the same technical characteristics and functions as described above. The NK module profile is supplied ready for installation,






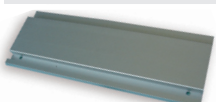
complete with the control unit, power supply unit, motor and batteries ready-assembled.

To complete an automation you will need the following: the "L" beam (of convenient length), the hardware kit; the toothed belt and the cover.

	DESCRIPTION	Beam		Passage span	
		MIN.	MAX.	MIN.	MAX.
	Module Wing NK L=1100 mm	1810	6010	850	2950
	Module SLIM SNK L=1100 mm	1810	5410	850	2650

Modules WING NK / SLIM SNK	Configuration
	The WING NK and SLIM SNK modules consists of a module profile L=1100 mm complete with the pre-assembled components: control unit, power supply unit, motor with encoder, emergency batteries. The Modules pack also includes an idle pulley and two side flanges.

AVAILABLE NK MODULES AND COMPULSORY AND OPTIONAL COMPONENTS

DESCRIPTION	CODE
 Module WING NK L=1100 mm	42902/003
 Module SLIM SNK L=1100 mm	42900/002
 L shaped beam* with anodized silver finish L=7000 mm L shaped beam* with anodized black finish L=7000 mm	42910/006 42910/007
 Cover* with natural finish L=7000 mm Cover* with silver finish L=7000 mm Cover* with black finish L=7000 mm	42000/010 42000/001 42000/006
 Drive belt for modules L=1100 (in pack of 55 m) Thoted belt 7 m / RR	42280/068 42710/100
 Sound-proofing gasket for cover (pack of 300 m) Sound-proofing gasket for cover (pack of 1 m) (not included in the module cod. 42902/003 and cod. 42900/002)	42280/056 42280/098
Hardware Kit for SLIM SNK and WING NK modules The kit consists of all the mechanical components needed to assemble the automation and includes: carriage units, connection plates, mechanical stop plates and a pack of nuts/bolts/screws.	Monoanta 42902/053 Double Wing 42902/051
Hardware Kit for WING NK H150 The kit consists of all the mechanical components needed to assemble and includes: carriage units, connection plates, mechanical stop plates and a pack of nuts/bolts/screws.	Single Wing 42902/054 Double Wing 42902/055
 NK 250 accessory mounting profile. Every accessories requires one NK 250 mm profile.	42902/056

* All profiles are supplied in lengths of 7 m which cannot be split. Prices and codes are per metre.

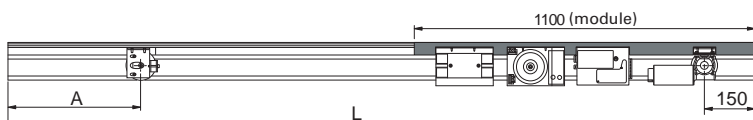


MODULES SOLUTIONS

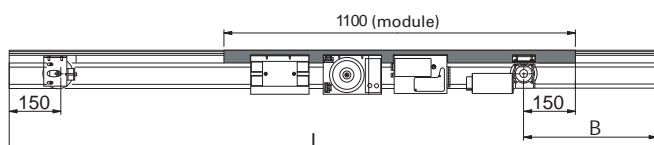
EXAMPLES OF AUTOMATION DIMENSIONING

MODULES WING NK - WING NK H150

**Modules WING NK / NK H150:
RH single wing and double wing**



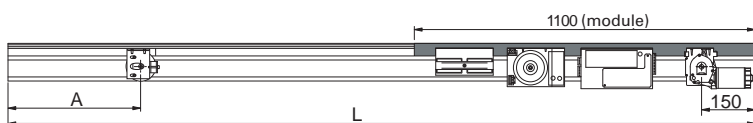
**Modules WING NK / NK H150:
LH single wing**



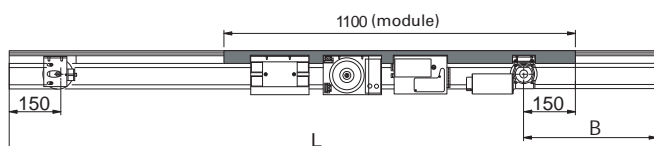
"L" (mm)	"A" (mm)	"B" (mm)
1800	300	300
2000	350	350
2400	450	450
2500	475	475
2800	550	550
3000	600	600
3200	650	650
3600	750	750
4000	850	850
4400	950	950
4800	1050	1050
5400	1200	1200
6000	1350	1350

MODULE SLIM SNK

**Module SLIM SNK:
RH single wing and double wing**



**Module SLIM SNK:
LH single wing**



"L" (mm)	"A" (mm)	"B" (mm)
1800	275	300
2000	325	350
2400	425	450
2500	450	475
2800	525	550
3000	575	600
3200	625	650
3600	725	750
4000	825	850
4400	925	950
4800	1025	1050
5400	1175	1200



NS 100 KIT MODULE

New non-reversible single-motor automation for sliding doors, designed for medium-heavy loads for compact size sliding doors, just 100 mm high.

NS100 new system has a sturdy structure, equipped with dual anti-derailment wheel carriages, a belt transmission system, an electric motor with electric brake.

Durable and reliable, NS100 is capable to carry wings up to 90 Kg for continuous use.

The electronic controls allow easy and quick programming and the possibility of choosing between 5 different operating modes in order to meet the various user's needs (bi-direction automatic mode, semi-automatic mode, door open mode, night lock mode, exit only mode).

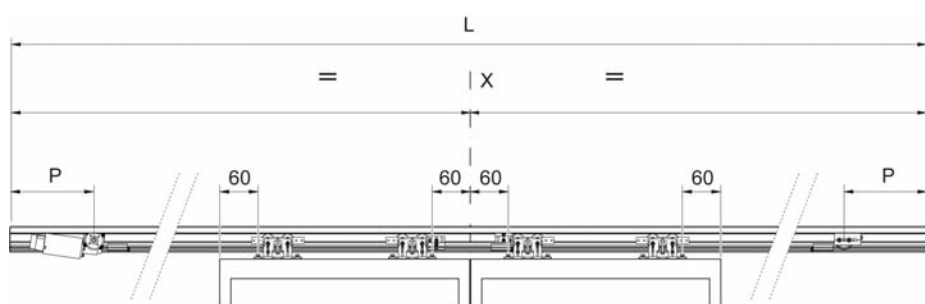
Through a display screen and control buttons it is possible to program both the basic parameters, such as door speed and deceleration, and more advanced parameters.

By using a programmer, it is also possible to program the main control unit in details, acting on sophisticated parameters such as: output status, alarm status, and master-slave management.

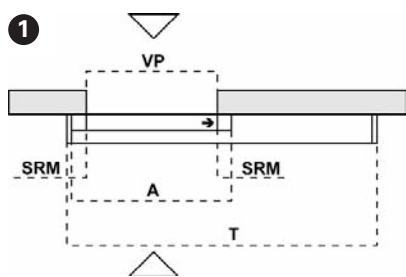
If there is a power failure, the battery pack guarantees interruption free operation for few maneuvers.

Easy maintenance thanks to the special beam that allows to help open position the casing during the works.

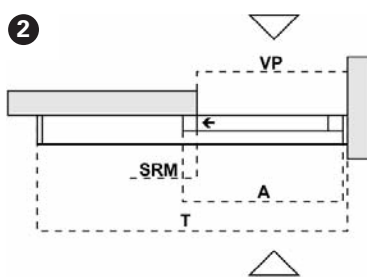
EXAMPLES OF AUTOMATION DIMENSIONING



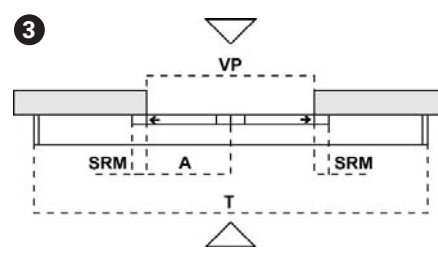
T	L	P (1/2)	P (3)
1810	1800	300	300
2010	2000	350	
2410	2400	450	
2510	2500	475	500
2810	2800	550	
3010	3000	600	
3210	3200	750	
3610	3600	850	800
4010	4000	950	
4410	4400	1050	1200
4810	4800	1200	
5410	5400	1350	1500



Module NS 100:
single wing (right)



Module NS 100:
single wing (left)





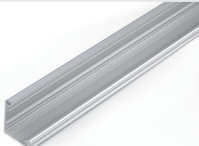
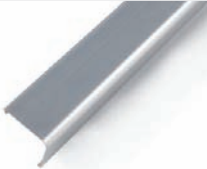




Module NS 100:
double wing





NS 100 KIT MODULE



DESCRIPTION	CODE
 <p>Single Wing KIT - it includes: 1 electronic circuit board - 1 gear-motor unit - 1 pulley unit - a package with 2 stoppers - 1 belt lock - 2 double wheel carriages - 6 m long toothed belt - 1 ON/OFF switch - an emergency battery pack - lateral cover flanges</p>	42850/800
 <p>Double Wheel Carriages KIT - it includes: 1 stopper ,1 belt lock, 2 double wheel carriages</p>	42850/060
 <p>NS100 Beam Silver finish L=6 m NS100 Beam Black finish L=6 m</p>	42850/010 42850/011
 <p>NS100 Cover Silver finish L=6 m NS100 Cover Black finish L=6 m NS100 Cover Natural finish L=6 m</p>	42850/012 42850/013 42850/014
 <p>NS2 - Digital Selector</p>	42850/050
 <p>NS4 - Digital Selector and programmer</p>	42850/051
 <p>EB100 - Electric lock with battery</p>	42850/052
 <p>Ground sliding lock</p>	42850/055



KIT UPGRADE WING NK

The **Upgrade KIT** allows all Aprimatic automatic door customers (Wing and Wing Evo series) to replace the basic components to adapt the "old" system to the new performance levels of the new WING NK series automation.

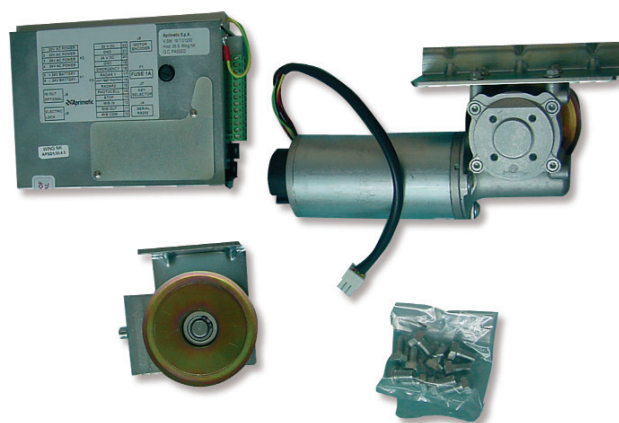
The mechanical operations required for the replacement are extremely simple (the same bolts and component measurements are used) while the electronic operations are even simpler: just disconnect the old control unit and the peripheral units from the terminals and insert the new control unit.

Once it is powered up, the new Wing NK control board will do all the rest: the new HIGH-TECH software requires no manual operations and will automatically learn all the regulations required (such as the various weights) and will calibrate itself as efficiently as possible.



Application range:

The WING NK Upgrade Kit is only for: Aprimatic WING and WING EVO automatic doors on catalogue from year 2003.



DESCRIPTION		CODE
KIT UPGRADE WING NK		42902/052
The pack includes: motor unit; Wing NK control unit; idle pulley and fixing screws		
TECHNICAL DATA		
Automation Power Supply	230 Vac single-phase (+/- 10%) -50/60 Hz	
Motor Power Supply	24 Vdc	
Temperature	-10°/+60°C	
Battery Charger	Built into Wing NK control unit	
Automatic Diagnostics	Several types of buzzer alarms	
Communication port	Serial RS 232 standard	
Adjustable parameters:	Approach speed during opening and closing Door open pause time Thrust force Electric lock intervention delay Partial opening percentage Master/Slave Emergency Opening Photocells used Settings for tampering, emergency, electric lock and power failure	



CONTROL AND SAFETY DEVICE



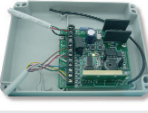





Aprimatic control devices have a stylish, functional design.

The key selector units can be used to set and select 6 operating modes for automatic sliding doors.



The SC6EC and SC6WIRELESS key selector units can be installed wallmounted or recessed, flush fitting in a standard 503 electrical box.

The Reset pushbutton on the key selector unit is small and recessed to prevent accidental operation.



DESCRIPTION	CODE
 SC6 WIRELESS - 6-way key selector unit for setting standard functions, it operates by radio waves with a frequency of 433.92 Mhz, installation: wall-mounted or recessed, flush 503 box, only work with PLUS SC6WIRELESS receiver	42282/078
 SC6EC - 6-way key selector unit for setting standard function, installation: wall-mounted or recessed, flush 503 box, 4-metre cable complete with connector	42282/073
 PLUS SC6 WIRELESS RECEIVER - Installation on NK beams requires the NK 250 mm accessory profile, only works with SC6WIRELESS key selector, or with TR2 or TR4 transmitter	41923/007
 SC6 - 6-way key selector unit for setting standard functions installation: wall-mounted - 4-metre cable complete with connector	42282/070
 NS2 - Digital Selector	42850/050
 NS4 - Digital Selector and programmer	42850/051
 TR2 - 433.92 Mhz twin channel transmitter	41903/002
 TR4 - 433.92 Mhz four channel transmitter	41903/004

PHOTOCELLS

DESCRIPTION	CODE
 ER6/N - Self-aligning, miniaturized, modulated infrared photocells Range of 6 metres at full power and 3 metres at half power, unit consists of: amplifier card for two pairs of photocells self-test function (fault signal relay output) and twin relay output with series contacts, pair of transmitter / receiver photocells complete with 8-metre shielded cable, fittings for assembly on aluminium support, installation on NK beams requires the NK 250 accessory profile	42300/007
ER6/N Prem. - Pair of photocells pre-assembled and mounted (only for Twin model)	42300/001
ER6/N Premounted NK (only for NK series)	42300/002
ER6/N - Self-aligning, miniaturized, modulated infrared photocells for NS100 series	42300/009
ER6/N Premounted only for NS100 series	42300/010
 Kit of extra ER6/N photocells	42300/006

Note: If you require the ER6N photocells pre-assembled and mounted on the beam, tick the box on the order form.



CONTROL AND SAFETY DEVICE

RADAR

This range of radar units incorporates all the most commonly used methods for automatic door control units , i.e. microwave, active infrared and passive infrared.

DESCRIPTION		CODE
	DM-H21 - Uni directional door activation sensor (microwave technology)	42282/093
	DM-H22 - Bi directional door sensor (microwave technology)	42282/090
	RI-H5 - Medium range combined door activation and safety sensor with 4 rows of detection (active infrared technology)	42282/092
	RI-H3 SAFE - Side screen or door threshold safety sensor with 1 row of presence detection (active infrared technology)	42282/095
	RI-H3 ACTI - Long range door activation sensor with 2 rows of detection (active infrared technology)	42282/094
	DM82 - Mixed microwave/infrared radar	42282/064
	DM-H82 - Long range dual relay output combined door activation and safety sensor, separate adjustment of activation and safety detection zones possible (active infrared technology)	42282/091
	RSH - Door leaf mounted swing door safety sensor, (active infrared distance measurement technology)	42282/096
	TLHC - Illuminated touchless switch with a diameter of 100 mm and detection distance of up to 100 mm (capacitance technology)	42282/098
	TLHI - Touchless wall mounting switch (dim. 70x114x32 mm) with detection distance of up to 760 mm (active infrared technology)	42282/099
	PBH - Hardwired stainless steel (dim.115x115x44 mm)	42282/097

TECHNICAL DATA	DM-H21 / DM-H22	DM-H82	DM82	RI-H5	RI-H3 Acti/RI-H3 Safe	RS-H
Technology	Microwave	Infrared	Microwave Infrared	Active infrared	Active infrared	Active infrared
Installation height	4 m max.	2,7 m max.	Da 1,8 a 4 m max.	3 m max.	3 m max.	2,6 m max.
Detection mode	Movement and movement	Presence and movement	Presence and movement	Presence and movement	Presence	Presence
Power supply	12-36 Vac+/-10% (DM-H21) 12-30 Vdc+/-10% (DM-H22)	12-24 Vac 12-24 Vdc	12 V +/-5%	12-32 Vac +/-10% 12-32 Vdc +/-10%	12-32 Vac +/-10% 12-32 Vdc +/-10%	12-24 Vac/dc +/-10%
Consumption	< 1 W (a 24 V)	1,45 W (a 24 V)	< 3 W (a 24 V)	1,45 W (a 24 V)	1,45 W (a 24 V)	< 1 W (a 24 V)
Temperature range	-20°C +60°C	-20°C +60°C	-20°C +60°C	-20°C +60°C	-20°C +60°C	-20°C +60°C
Dimensions (LxPxH)	123 x 57 x 65	230 x 44 x 70	260 x 44 x 55	210 x 65 x 30	210 x 65 x 30	340 x 47 x 47
Cable	Yes	Yes	Yes	Yes	Yes	-



ACCESSORIES FOR INSTALLATIONS

EMERGENCY PUSHBOTTOM

The PE ensures that a door can be opened whenever necessary. The PE is an highly-visible, red mushroom-head pushbutton with a twist-to-release action.

Emergency door opening is controlled from the electronic control device and can be set for opening or closing as required.

DESCRIPTION

CODE



PE - Red mushroom-head emergency pushbutton with twist-to-release action 42282/082

ELECTRIC LOCK and MANUAL RELEASE UNITS

The electric lock has been designed specifically for locking sliding wings. It is supplied complete with a diagnostics card.

The system is not electrically powered when it is in the open or closed position.

The EB2 electrical lock can be fitted (on request) with me-

chanical release systems which is used to release the lock in the event of an operating fault, a mains power failure or a backupbattery failure.

An external release drive is also available.

This is mounted inside a recessed, wall-mounted, lockable box to protect against unauthorised operation.

DESCRIPTION

CODE



EB2 - Electric lock for LH and RH doors, controlled from an electronic card, dalla scheda elettronica, completo di cavi da 0,9 m - 1,5 m - 2,5 m, installazione su travi Nk mediante profilo NK 250 mm

42282/076

EB2 Prem (forTwin)

42282/074



EB2 NK Prem (for Slim SNK, Wing NK, Wing NK H150)

42282/077



SME - Mechanical release system for EB2 electric lock, for use in the event of faults or power supply failures

42280/084



EB100 - Electric lock with battery

42850/052

EB100 Prem - Premounted electric lock with battery

42850/059



Box for external release drive complete with cable 5 m

42280/085



CS - External strong box

41704/002



CSP - Wall-mounted external strong box

41704/004

NOTE: If you require the EB2 electric lock unit pre-assembled and mounted on the beam, tick the box on the order form. There is no extra charge for pre-assembly.

NS 48

DESCRIPTION

CODE



NS48

42282/075

(battery units are pre-assembled on automation, except for theTWIN model doors)
Battery unit (the charging and diagnostic functions are incorporated in the door control device), the units has two functions:

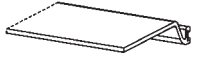

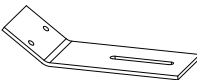

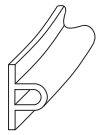
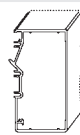
- 1) Emergency electrical opener
- 2) Backup battery (autonomy of 1 hour, half-charged)

ForTwin series automation only. If you require the NS48 battery unit pre-assembled and mounted on the beam, tick the box on the order form. There is no extra charge for pre-assembly. The automation units are supplied with a battery unit as standard, except for theTwin model Doors.



ACCESSORIES FOR LEAF INSTALLATION

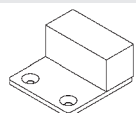
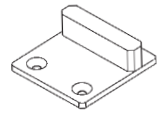
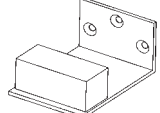

BEAM AND COVER OPTIONAL ACCESSORIES

DESCRIPTION	CODE
 Telescopic cover* with natural finish L=7000 mm Telescopic cover* with silver finish L=7000 mm Telescopic cover* with black finish L=7000 mm	42910/008 42910/009 42910/010
 Telescopic cover* with natural finish L=7000 mm Telescopic cover* with silver finish L=7000 mm Telescopic cover* with black finish L=7000 mm	42000/011 42000/002 42000/007
 Cover fixing bracket, in pack of 10 pcs Cover fixing bracket, in pack of 100 pcs	42280/067 42280/066
 Rear profile* with silver finish L=7000 mm	42910/003
 Sound-proofing gasket for rear profile (pack of 300 m) Sound-proofing gasket for rear profile (pack of 1 m)	42280/060 42280/061
 Beam* for mounting automation units L=7000 mm (also complete automations)	42910/001

* All profiles are supplied in lengths off 7m wich cannot be split. Prices and codes are per metre.

ACCESSORIES FOR WINGS WITH ALUMINIUM PROFILE FRAMES

Floor guides and guides for fitting between the fast and slow mobile wings on Twin units.
Used for fixing the mobile wings.

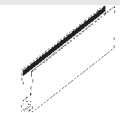

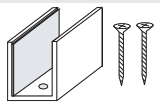
DESCRIPTION	CODE
 SPT - Floor guide set for wing with Large profile frame (Can be used with other types of aluminium profile) Compatible with NS 100 sistem	42201/051
 SPS - Floor guide set for wing with Small profile frame (Can be used with other types of aluminium profile) Compatible with NS 100 sistem	42200/050
 SPM - Floor guide set for connecting two mobile wings on telescopic automatic doors (Twin) Compatible with NS 100 sistem	42280/082
 Ground sliding lock (only for NS 100)	42850/055



ACCESSORIES FOR LEAF INSTALLATION

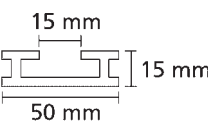
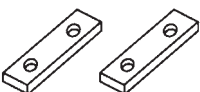
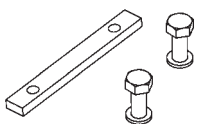
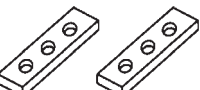
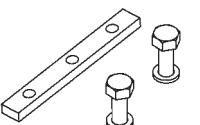
ACCESSORIES FOR GLASS WINGS

Fitting to be used for the assembly of glass-only wings (i.e. those without aluminium frames).
New system which cuts assembly work to the minimum and facilitates working with glass panels.

DESCRIPTION		CODE
	PCR - Mounting profile for glass wings (for 4 m raw profile)	42280/052
	Set of fitting for mounting glass wings	42280/087
	Sealant for glass wings (1,5 m of PCR)	42280/086
	GTC - Floor guide set for glass wings	42280/079

UNIVERSAL ACCESSORIES FOR ALL TYPES OF WINGS

Accessories for rapidly fixing new or existing mobile wings to the carriages of APRIMATIC automatic doors.

DESCRIPTION		CODE
	PDA - Aluminium adapted profile (L=1500 mm) for one wing, for joining the carriages to the framed wing (standard on theTWIN series), requires the attachment plates	42280/077
	CPA - Set of 2 attachment plates for on wing, complete with fixing screws (standard on theTWIN series)	42280/071
	Set of fixing screws for a small wing, the set of fixing screws contains all the screws and fittings needed to fix the door wing to the automation carriage	42200/052
	CPA - Set of 2 attachment plates for on wing, complete with fixing screws (for series NS 100)	42850/057
	Set of fixing screws for a small wing, the set of fixing screws contains all the screws and fittings needed to fix the door wing to the automation carriage (for series NS 100)	42850/058



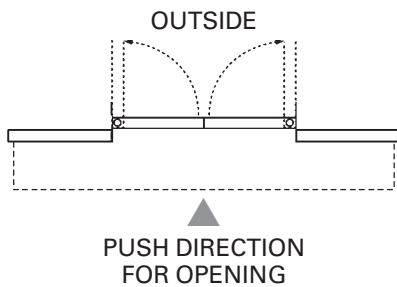
EMERGENCY DOOR OPENER

ASM-N mechanical emergency door opener system (full or partial).

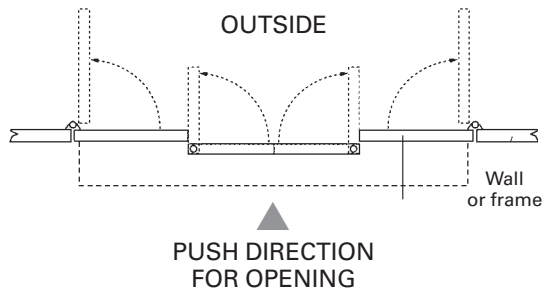
The ASM-N mechanical emergency door opener system is a safety device enabling mobile and semi-fixed wings of all types to be opened mechanically in the event of an emergency. Certificate by the Giordano S.p.A. Institute with n. 171823 for large profile only.



PARTIAL EMERGENCY OPENING



FULL EMERGENCY OPENING



IMPORTANT:

Configurations where mobile wings equipped with ASM are joined to semi-fixed wings also equipped with emergency openers (full emergency opening).

On these configurations you must fix the wings using the fittings supplied in the special set (OPTIONAL).

New - The spinning point for mobile wing and semi-fixed wing is located inside the profile.

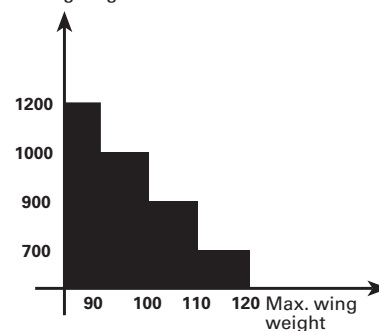
The set of fittings for semi-fixed wing are non visible and located inside the covering profile.

The ASM-N mechanical emergency opener system can be used on wings with a maximum width of 1200 mm and max. weight of 90 kg; and on wings with a minimal width of 700 mm and max. weight of 1200 kg (according to the table below).

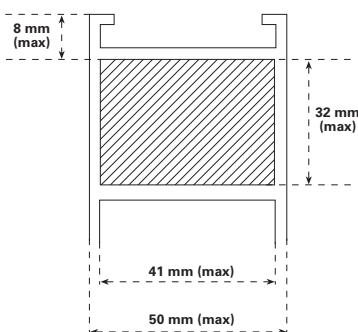
Wing length in mm	700	900	1000	1200
Max.wing weight*kg	120	110	100	90
ASM-N weight	7 kg			

*Total weight including ASM-N

Max. wing length



The ASM-N can be used with the following types of profiles:



PROFILES COMPATIBLE WITH ASM-N (NOT CERTIFIED)

- Domalstopper PG
- Formula F40 system
- Metra NC 45 International
- Metra NC 55 International
- R50
- Large Profile APRIMATIC*

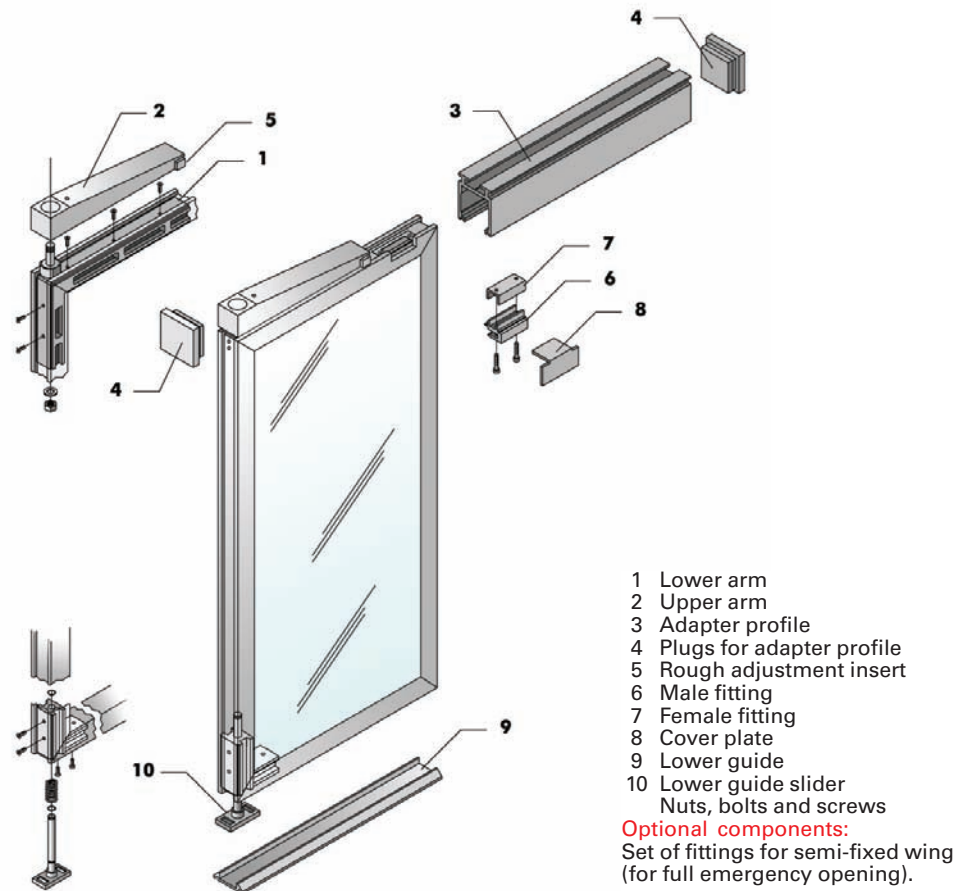
If you cannot use the compatible profiles listed above, ensure that the profiles you use have the dimensions indicated above.

* For instructions on machining the "Large" profiles, request the cutting list.



EMERGENCY DOOR OPENER

EMERGENCY DOOR OPENER



- 1 Lower arm
 - 2 Upper arm
 - 3 Adapter profile
 - 4 Plugs for adapter profile
 - 5 Rough adjustment insert
 - 6 Male fitting
 - 7 Female fitting
 - 8 Cover plate
 - 9 Lower guide
 - 10 Lower guide slider
- Nuts, bolts and screws
- Optional components:**
Set of fittings for semi-fixed wing (for full emergency opening).

MECHANICAL EMERGENCY DOOR OPENER

DESCRIPTION	CODE
(*) Mechanical emergency door opener set for 1 mobile wing, device weight 7 kg	42280/088
(*) Mechanical emergency door opener set for 1 mobile wing, device weight 7 kg only for NS100 series	42850/061
(*) Guide (L=1500 mm) and adapter (L=1200 mm)	42280/081
Set of fittings for 1 semi-fixed wing	42280/070

NOTE: You should include the weight of the emergency opener when calculating the wing weight.
Max. wing weight = 90 kg for a length of 1200 mm, including the emergency opener system (7 kg).
(*) Both required for installation.

MECHANICAL EMERGENCY DOOR OPENER ACCESSORIES

Accessories used to stop wing movement in the event of emergency opening.

DESCRIPTION OPTIONAL ACCESSORIES	CODE
SMI - Magnetic lock sensor, recess mounted, to be connected as a N.C. contact in series with the reset button, on full emergency opening systems, to be fitted on all semi-fixed wing	42280/076
SMS - Magnetic lock sensor, surface mounted, to be connected as a N.C. contact in series with the reset button, on full emergency opening systems, to be fitted on all semi-fixed wing	42280/075
ER6/N - Pair of photocells	42300/007
ER6/N - Pair of photocells only for NS100 series	42300/009

NOTE: For technical details about the ER6N photocells, (see the page "Electronic control devices").



SMALL PROFILE

Profiles for automatic doors suitable for glazing 10/11 mm thick.

"SMALL" series profiles can be used to make the wings for automatic sliding doors.

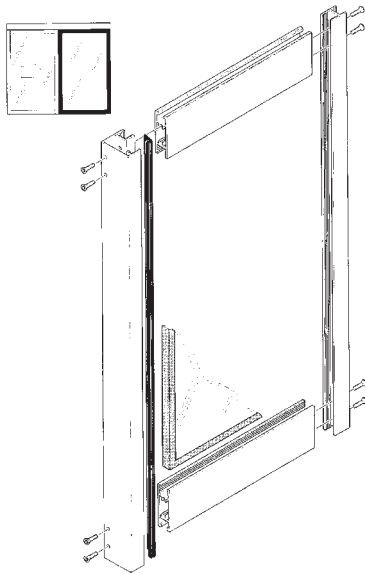
This profile has been designed and manufactured specifically for making mobile wings, fixed side wings and semi-fixed side wings.

The outstanding feature of this profile is its compactness. Despite its compact size it can take glazing up to 10 mm thick. Using the special profile, "Small" can also be fitted with a mechanical emergency wing opener.

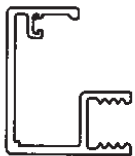
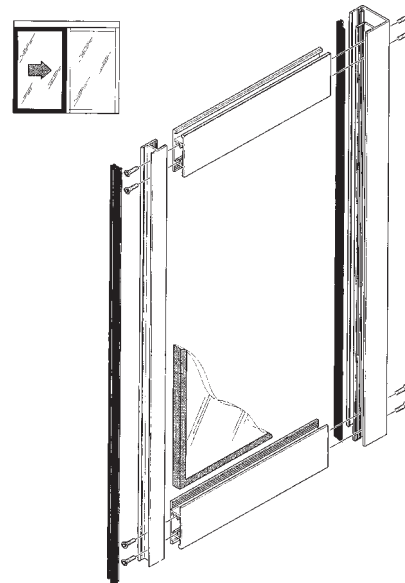


AN EXAMPLE OF ONE OF THE POSSIBLE CONFIGURATIONS

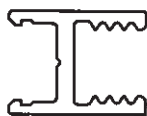
FIXED WING



MOBILE WING



FIXED/MOBILE WING UPRIGHT



CENTRAL UPRIGHT



TOP AND BOTTOM RAIL



SINGLE WING STOP



CENTRAL SEAL



DRAUGHT-PROOF SEAL



SIDE SEAL






SMALL PROFILE

"SMALL" SERIES PROFILES

DESCRIPTION		CODE
	"Small" mobile/fixed wing upright (srm)	42200/012
	"Small" central upright (L = 5050)	42200/013
	"Small" top and bottom rail (L = 5050)	42200/014
	"Small" single wing stop (L = 5050)	42200/015

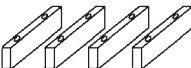
NOTE: All aluminium profiles are supplied non-anodized in lengths of 5050 mm.

SEALS

DESCRIPTION		CODE
	"Small" central seal (pack of 100 m)	42200/016
	Draught-proof seal (pack of 1 m)	42281/060
	"Small" side seal (pack of 80 m)	42200/054
	Adhesive seal for fitting glazing to "Small" profiles (pack of 50 m / h 5 cm)	42200/055

NOTE: All the seals necessary for wing assembly are can be purchased to size in multiples of 1 metre. This does not apply to adhesive seals; these are sold exclusively in packs of 50 metres.

FITTING ACCESSORIES

DESCRIPTION		CODE
	Pack of screws for "Small" wing, this "Pack of screws" is required to assemble the profiles of an automatic door	42200/053
	Pack of inserts for assembling a fixed wing with "Small" profile	42200/051

NOTE: For the fittings used to attach the mobile wing to the carriage and for the floor guide to be used with Small profiles, see the catalogue on page 26 (SPM and Floor guide set for wing with Small profile frame).



LARGE PROFILE

Profiles for automatic doors suitable for safety glazing 10/11 mm and double glazing up to 20 mm.

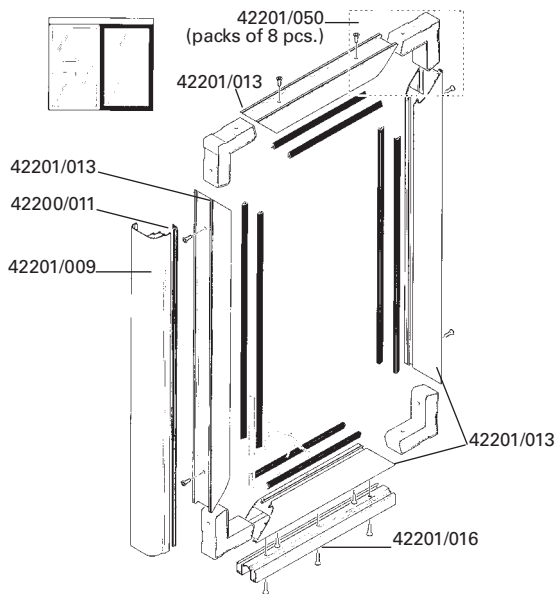
"LARGE" series profiles can be used to make the wings for automatic sliding doors.

This profile has been designed and manufactured specifically for making mobile wings, fixed side wings and semi-fixed side wings. This is a medium-sized profile and can hold 10/11 mm safety glazing and double glazing up to 20 mm. With "LARGE" series profile it is possible to install the mechanical emergency door opening system (AMS-N). This system is studied to facilitate and simplify the operation of accessories and antipanic system installation.

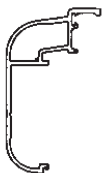
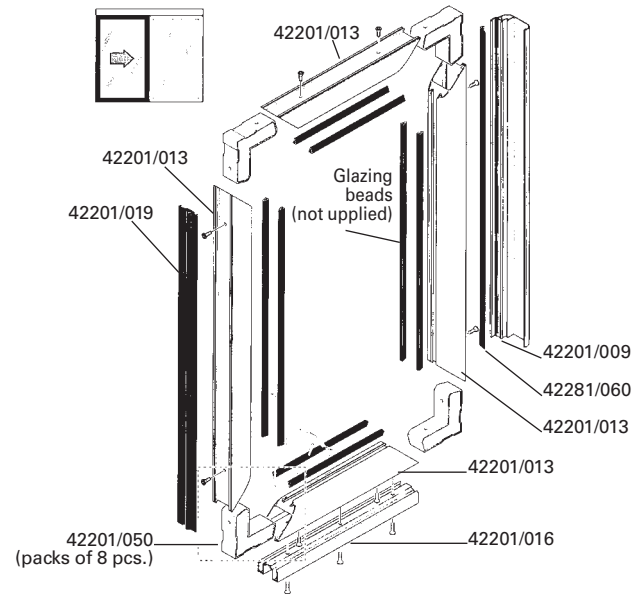


AN EXAMPLE OF ONE OF THE POSSIBLE CONFIGURATIONS

FIXED WING



MOBILE WING



UPRIGHT COVER



RAILS AND UPRIGHTS



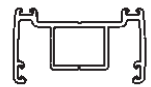
SLIDE/BRAKE GUIDE



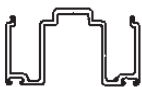
CENTRAL SEAL



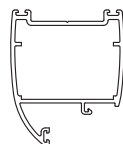
UPRIGHT EXTERNAL COVER



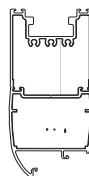
WALL COMPENSATOR



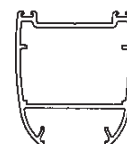
FIXED SLIDE GUIDE



NEW LARGE CROSS BEAM UPRIGHT WITH GLASS STOP



NEW LARGE BASE H110 WITH GLASS STOP



NEW LARGE BASE H110 WITH GLASS STOP










DRAUGHT-PROOF SEAL OVERLAP AREA



LARGE PROFILE

"LARGE" SERIES PROFILES

DESCRIPTION		CODE
	"Large" upright cover (L = 5050)	42201/009
	"Large" rails/uprights (L = 5050)	42201/013
	"Large" Slide/Brake guide (L = 5050)	42201/014
	"Large" wall-mounted compensator (L = 5050)	42201/015
	"Large" fixed slide guide (L = 5050)	42201/016
	"Large" rails/uprights for double glazing (L = 5050)	42201/017
	"Large" upright external cover (L = 5050)	42201/018
	New large crossbeam upright with glass stop (L = 5050)	42201/001
	New large base (H.110) with glazing bead	42201/012
	New glazing bead (L = 5050)	42201/002

NOTE: All aluminium profile are supplied non-anodized in lengths of 5050 mm.

SEALS

DESCRIPTION		CODE
	"Large" central seal	42201/019
	Draught-proof seal overlap area	42281/060
	Internal seal for glazing bead (pack of 200 m)	42281/055
	External seal for glazing bead (pack of 25 m)	42281/056

NOTE: All the seals necessary for wing assembly can be purchased to size in multiples of 1 metres.

FITTING ACCESSORIES

DESCRIPTION	CODE
Draught-proofing brush (pack of 20 m)	42281/057
Corner plates (including fixing screws) in pack of 8 pcs.	42201/050
Set hinges 1 semi-fixed wing profile H.110	42281/058
Set hinges 1 semi-fixed wing profile standard	42281/059



MODULAR PROFILE

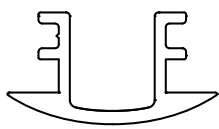
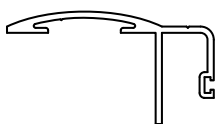
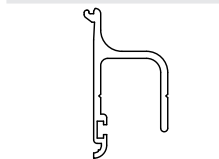
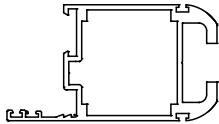
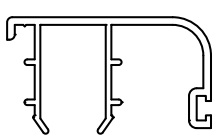
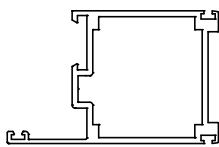
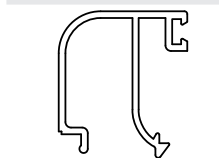
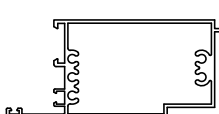
Profiles for automatic doors of 9/13 mm and 20/23 mm.

You can create the wings of your automatic sliding door by using the “MODULAR” series special profile.

The profile has been specially designed for mobile and fixed wings, with or without mechanical emergency door opening system (AMS), as it perfectly fits glass wings and curtain walling, providing a comprehensive range of solutions.

Thanks to their modularity, it is possible to obtain high visual impact finishes.

The “MODULAR” profiles complete the range of extruded profiles for wings, thus providing solutions to meet any needs.

DESCRIPTION	CODE
 <p>Upright cover (L = 5050)</p>	42205/001
 <p>Wing mounting profile without fixed slide guide (L = 5050)</p>	42205/002
 <p>Mobile wing mounting profile + fixed slide guide (L = 5050)</p>	42205/003
 <p>Upright profile (L = 5050)</p>	42205/004
 <p>Photoelectric cells profile (L = 5050)</p>	42205/005
 <p>Upper frame (L = 5050)</p>	42205/006
 <p>Snap-type rounded glass beading (L 23) (L = 6500)</p>	42205/007
 <p>Lower additional transom (L = 6500)</p>	42205/008



MODULAR PROFILE

Profiles for automatic doors of 9/13 mm and 20/23 mm.

DESCRIPTION		CODE
	Horizontal transom (L = 6500)	42205/009
	Lower transom 160 mm (L = 6500)	42205/010
	Snap-type rounded glass beading (L13) (L = 6500)	42205/011
	Vertical wall-mounted compensator (L = 6500)	42205/012
	"L" oversized fixed frame (L = 6500)	42205/015
	"R" oversized fixed frame (L = 6500)	42205/016
	External opening oversized wing (L = 6500)	42205/017
	Blind glass beading (L = 6500)	42205/019



MODULAR PROFILE

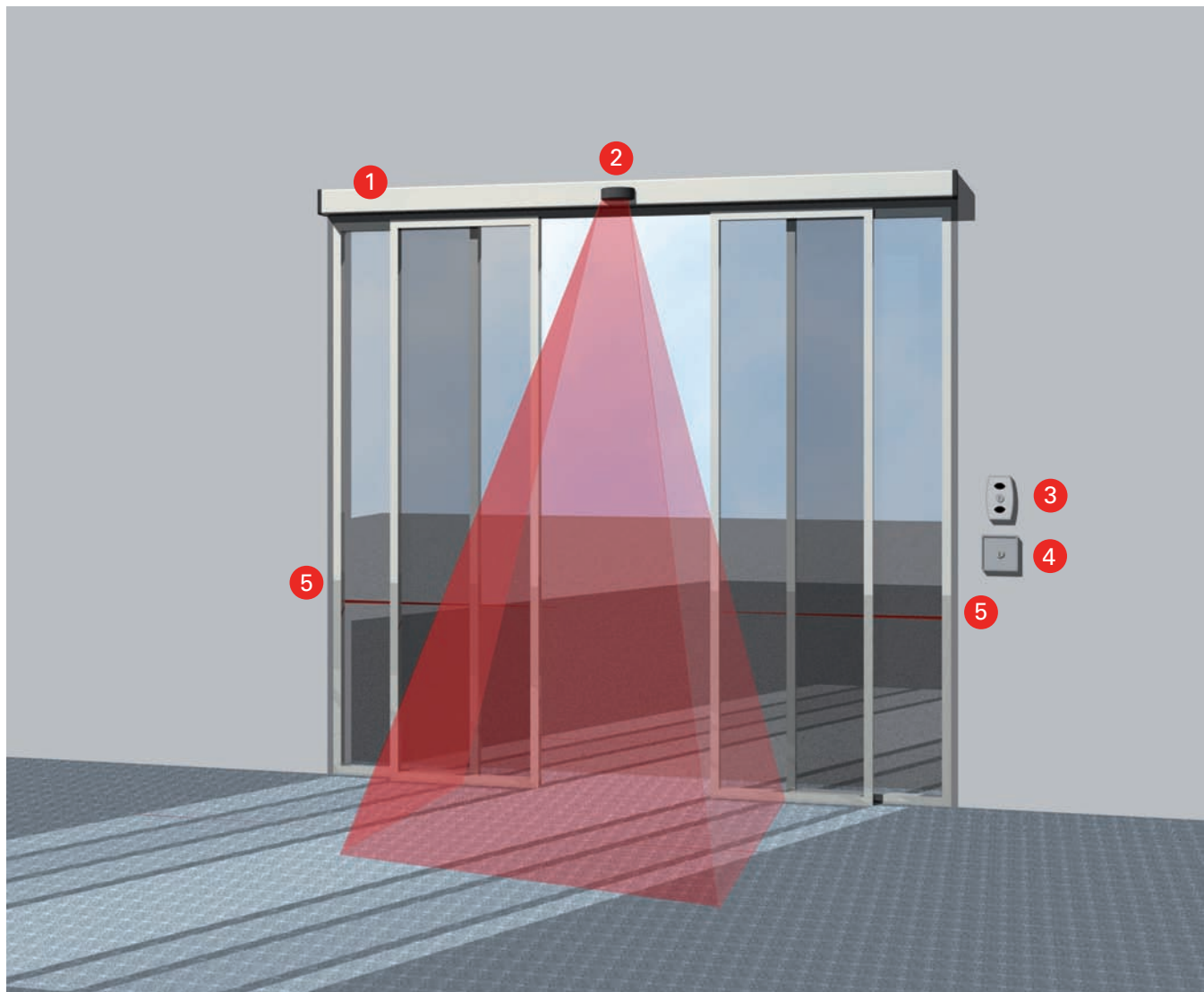
Profiles for automatic doors of 9/13 mm and 20/23 mm.

DESCRIPTION	CODE
Black comb hinge 2.0 (10 pcs pack)	42205/050
Alumium brush seal 2,5 m	42205/051
Brush 38 x 33 x 2500 mm	42205/052
Angle for glass beading (160 pcs pack)	42205/053
Aluminium T-joint (150 pcs pack)	42205/055
Bracket bolt (10 pcs pack)	42205/056
 Glass beading seal A = 3 mm (250 m)	42205/057
 Glass beading seal B = 2 mm (350 m)	42205/058
 Glass beading seal D = 5:6 mm (120 m)	42205/059
 Glass beading seal F = 3 mm (180 m)	42205/060
 Central seal (100 m)	42205/061



MODULAR PROFILE

Profiles for automatic doors of 9/13 mm and 20/23 mm.



- 1 Door automation
- 2 Radar
- 3 Manual key release
- 4 Control device: key selector / proximity sensor access control / electronic key-pad / tamper-proof card / magnetic key reader
- 5 Pair of photocells



NUT

Automation for interior recessed sliding doors of up to max 50 kg (max. door width 1200 mm) for light duty use (1 cycle/min).



NUT is practical because it can be fitted to doors that have already been installed without the need for large-scale structural modifications or other building work.

Nut has a simple and refined design and is covered with an elegant guard.

The look of the door is left unaltered thanks to a slender, compact operator.

NUT is very safe thanks to the auto-reverse sensor which detects obstacles and immediately inverts the direction of door movement.

NUT is an intelligent system thanks to the self-teach function which is actuated during the first opening cycle.

This enables the approach speed of the door to be reduced during opening and closing.

In the event of a power failure, the door can be opened manually without causing damage to the operator. Automatic functioning is reset automatically when the power supply returns.

NUT uses the standard microwave radar (DM-H22) or push button control devices.

The unit has a single motor to drive both left-hand and right-hand opening; a switch sets the motor rotation direction.

A standard, commercial operating switch is supplied.



DM-H22 - Bi directional door sensor (microwave technology).

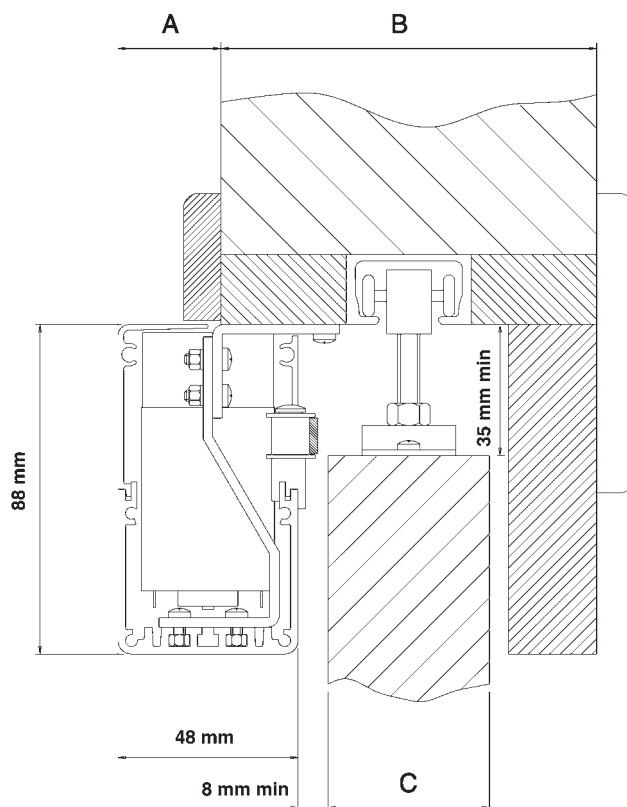
TECHNICAL DATA	
POWER SUPPLY	230 Vca (+/- 10%) - 50/60 Hz
MOTOR POWER SUPPLY	24 Vdc
ACCESSORY POWER SUPPLY	24 Vdc
THRUST	35 N
SPEED	0,35 m/s (opening) 0,22 m/s (closing)
MAX. WING WEIGHT	50 kg
MAX. WING WIDTH	1200 mm
MIN. WING WIDTH	600 mm
CONTROL CARD	Microprocessor control card with two-channel optical encoder opening stroke self-teaching and auto-reverse on detection of obstacles





NUT

DIMENSIONS



DESCRIPTION INTERNAL RECESSED SLIDING DOOR AUTOMATION

CODE

NUT

42601/004

The NUT system includes:

1 sliding door automation system, 1 set of control accessories comprising,
1 single pole switch, 1 single pole push-button, 1 masonry box, 1 two block white plate,
RH or LH opening selector switch

ACCESSORIES DESCRIPTION

CODE

DM-H22 - Bi directional door sensor (microwave technology)

42282/090

PBH - Hardwired stainless steel switch (dim.115x115x44 mm)

42282/097

TLHC - Illuminated touchless switch with a diameter of 100 mm
and detection distance of up to 100 mm (Capacitance technology)

42282/098

TLHI - Touchless wall mounting switch (dim.70x114x32 mm) with
detection distance of up to 760 mm (Active infrared technology)

42282/099



OVER

Automation for interior side-hung doors
of maximum weight: 80 kg (max. wing width 1200 mm).
Intensive use.



The **LOW POWER** mode enables the operator to function at slower speed. This is a very useful function when the door is used by disabled people.

Maximum safety conditions are ensured by the numerous functions of OVER.

The **OBSTACLE DETECTION** function, available thanks to the encoder, stops the door and/or reverses the movement direction when an obstacle is detected.

The **OVER operator** reduction gear includes a patented mechanical clutch enabling the operator to open the door without any damage to mechanical components if the door is subject to violent impact.

The **PUSH&GO function** enables OVER to recognise when the door is pushed by hand and therefore allow door opening.

The **automation is flexible and self-sufficient** in that can operate also without a selector thanks to specific base settings which can be modified using the dip switches on the control board.

Furthermore the optional KIBO/KIBOPRO digital selector/programmer or a PC can be used to set all parameters required for specific applications.

TECHNICAL DATA

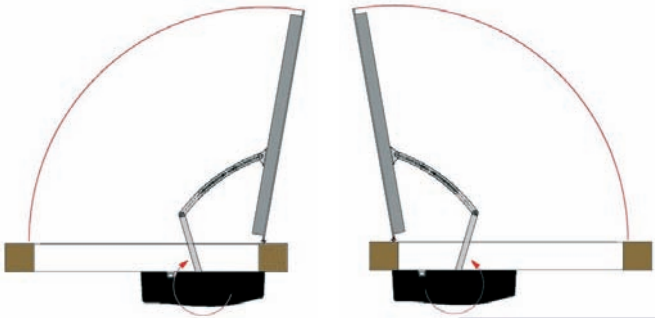
POWER SUPPLY	230 Vca (+/- 10%) - 50/60 Hz
MOTOR POWER SUPPLY	24 Vdc
ACCESSORY POWER SUPPLY	12 Vdc - 2,5W max.
THRUST	35 Nm
MAX. WING WEIGHT	80 kg with L=700/1000 mm
MOTOR POWER	60 W
MAX. WING WIDTH	L=1200 mm with 80 kg
OPERATING FREQUENCY	Continuous
AUTOMATION WEIGHT	6,7 kg
MAX. OPENING ANGLE	100° max.
OBSTACLE DETECTION	YES
EMERGENCY BATTERY	12V - 1,3 Ah





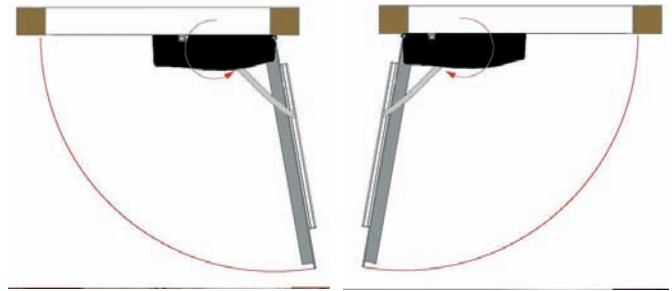
OVER

ARTICULATED ARM



Use the ARTICULATED ARM for doors that open outwards from the automation side.

SLIDING ARM



Use the SLIDING ARM for doors that open inwards from the automation side.

DRIVE SYSTEM FOR INTERNAL SIDE-HUNG DOORS

OVER (gray cover), fitted with dedicated input for safety devices, back-up battery fitted as standard

CODE

42602/001

OVER (black cover), fitted with dedicated input for safety devices, back-up battery fitted as standard

42602/002

OBLIGATORY CONTROL ACCESSORIES

Articulated arm: (Silver color)
If necessary to open a side-hung door from the opposite side to the automation

CODE

42602/050

Sliding arm: (Silver color)
If necessary to open a side-hung door from the same side as the automation

42602/051

ACCESSORIES DESCRIPTION

Adapter plate OVER (optional)

CODE

42602/055

RSH - Door leaf mounted swing door safety sensor (active infrared distance measurement technology)

42282/096

RADAR:

DM-H21 - Uni directional door activation sensor (microwave technology)

42282/093

DM-H22 - Bi directional door sensor (microwave technology)

42282/090

RI-H3 Acti - Long range door activation sensor with 2 rows of detection (active infrared technology)

42282/094

Kibo - Basic selector

42602/052

Kibo Pro - Professional selector

42602/053

NOTE: For other control and safety devices see page 214

KIBO

Select the operation logics of the door and reset the system.



KIBO PRO

Select the operation logics of the door and reset the system.
Set many types of parameters.
Set a password to protect the system.
Setup of 4 daily events.
Diagnostic and service functions.





OVER PLUS

Automation for interior side-hung doors
of maximum weight: 200 kg (max. wing width 1200 mm).
Continuous use.



The **LOW POWER** mode enables the operator to function at slower speed. This is a very useful function when the door is used by disabled people.

Maximum safety conditions are ensured by the numerous functions of OVER PLUS.

The **OBSTACLE DETECTION** function, available thanks to the encoder, stops the door and/or reverses the movement direction when an obstacle is detected.

The **OVER PLUS operator** reduction gear includes a patented mechanical clutch enabling the operator to open the door without any damage to mechanical components if the door is subject to violent impact.

The **PUSH&GO** function enables OVER PLUS to recognise when the door is pushed by hand and therefore allow door opening.

The **automation is flexible and self-sufficient** in that can operate also without a selector thanks to specific base settings which can be modified using the dip switches on the control board.

Furthermore the optional KIBO/KIBOPRO digital selector/programmer or a PC can be used to set all parameters required for specific applications.

TECHNICAL DATA

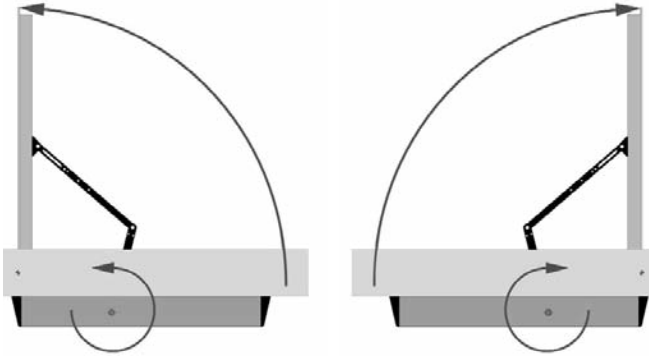
POWER SUPPLY	230 Vca (+/- 10%) - 50/60 Hz
MOTOR POWER SUPPLY	24 Vdc
ACCESSORY POWER SUPPLY	12 Vdc - 2,5W max.
THRUST	35 Nm
MAX. WING WEIGHT	200 kg with L=700/1000 mm
MOTOR POWER	60 W
MAX. WING WIDTH	L=1200 mm with 200 kg
OPERATING FREQUENCY	Continuous
AUTOMATION WEIGHT	6,7 kg
MAX. OPENING ANGLE	100° max.
OBSTACLE DETECTION	YES
EMERGENCY BATTERY	12V - 1,3 Ah





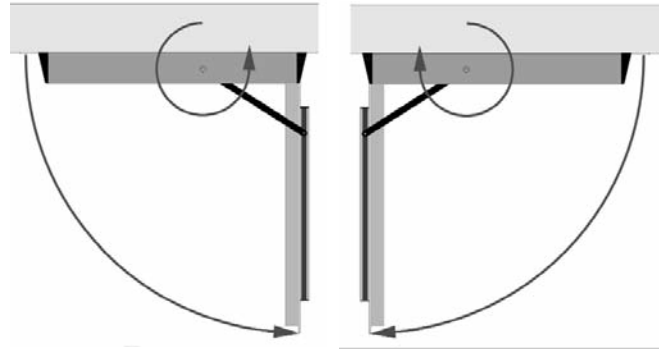
OVER PLUS

ARTICULATED ARM



Use the ARTICULATED ARM for doors that open outwards from the automation side.

SLIDING ARM



Use the SLIDING ARM for doors that open inwards from the automation side.

DRIVE SYSTEM FOR INTERNAL SIDE-HUNG DOORS

OVER PLUS, fitted with dedicated input for safety devices, back-up battery fitted as standard

CODE

42603/001

OBLIGATORY CONTROL ACCESSORIES

Articulated arm: (Silver color)
If necessary to open a side-hung door from the opposite side to the automation

42603/050

Sliding arm: (Silver color)
If necessary to open a side-hung door from the same side as the automation

42603/051

ACCESSORIES DESCRIPTION

ACCESSORIES DESCRIPTION	CODICE
Stopper for articulated arm	42603/052
RSH - Door leaf mounted swing door safety sensor (active infrared distance measurement technology)	42282/096
RADAR:	
DM-H21 - Uni directional door activation sensor (microwave technology)	42282/093
DM-H22 - Bi directional door sensor (microwave technology)	42282/090
RI-H3 Acti - Long range door activation sensor with 2 rows of detection (active infrared technology)	42282/094
Kibo - Basic selector	42602/052
Kibo Pro - Professional selector	42602/053

NOTE: For other control and safety devices see page 214

KIBO

Select the operation logics of the door and reset the system.



KIBO PRO

Select the operation logics of the door and reset the system.
Set many types of parameters.
Set a password to protect the system.
Setup of 4 daily events.
Diagnostic and service functions.



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42705/481.1	SLIM SNK L (L=4810)	205
42705/481.2	SLIM SNK D (L=4810)	205
42705/541.0	SLIM SNK R (L=5410)	205
42705/541.1	SLIM SNK L (L=5410)	205
42705/541.2	SLIM SNK D (L=5410)	205
42706/181.0	SLIM SNK R (L=1810) BLACK	205
42706/181.1	SLIM SNK L (L=1810) BLACK	205
42706/181.2	SLIM SNK D (L=1810) BLACK	205
42706/201.0	SLIM SNK R (L=2010) BLACK	205
42706/201.1	SLIM SNK L (L=2010) BLACK	205
42706/201.2	SLIM SNK D (L=2010) BLACK	205
42706/241.0	SLIM SNK R (L=2410) BLACK	205
42706/241.1	SLIM SNK L (L=2410) BLACK	205
42706/241.2	SLIM SNK D (L=2410) BLACK	205
42706/251.0	SLIM SNK R (L=2510) BLACK	205
42706/251.1	SLIM SNK L (L=2510) BLACK	205
42706/251.2	SLIM SNK D (L=2510) BLACK	205
42706/281.0	SLIM SNK R (L=2810) BLACK	205
42706/281.1	SLIM SNK L (L=2810) BLACK	205
42706/281.2	SLIM SNK D (L=2810) BLACK	205
42706/301.0	SLIM SNK R (L=3010) BLACK	205
42706/301.1	SLIM SNK L (L=3010) BLACK	205
42706/301.2	SLIM SNK D (L=3010) BLACK	205
42706/321.0	SLIM SNK R (L=3210) BLACK	205
42706/321.1	SLIM SNK L (L=3210) BLACK	205
42706/321.2	SLIM SNK D (L=3210) BLACK	205
42706/361.0	SLIM SNK R (L=3610) BLACK	205
42706/361.1	SLIM SNK L (L=3610) BLACK	205
42706/361.2	SLIM SNK D (L=3610) BLACK	205
42706/401.0	SLIM SNK R (L=4010) BLACK	205
42706/401.1	SLIM SNK L (L=4010) BLACK	205
42706/401.2	SLIM SNK D (L=4010) BLACK	205
42706/441.0	SLIM SNK R (L=4410) BLACK	205
42706/441.1	SLIM SNK L (L=4410) BLACK	205
42706/441.2	SLIM SNK D (L=4410) BLACK	205
42706/481.0	SLIM SNK R (L=4810) BLACK	205
42706/481.1	SLIM SNK L (L=4810) BLACK	205
42706/481.2	SLIM SNK D (L=4810) BLACK	205
42706/541.0	SLIM SNK R (L=5410) BLACK	205
42706/541.1	SLIM SNK L (L=5410) BLACK	205
42706/541.2	SLIM SNK D (L=5410) BLACK	205
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42710/201.0	WING NK R (L=2010)	204
42710/201.1	WING NK L (L=2010)	204
42710/201.2	WING NK D (L=2010)	204
42710/241.0	WING NK R (L=2410)	204
42710/241.1	WING NK L (L=2410)	204
42710/241.2	WING NK D (L=2410)	204
42710/251.0	WING NK R (L=2510)	204
42710/251.1	WING NK L (L=2510)	204
42710/251.2	WING NK D (L=2510)	204
42710/281.0	WING NK R (L=2810)	204
42710/281.1	WING NK L (L=2810)	204
42710/281.2	WING NK D (L=2810)	204
42710/301.0	WING NK R (L=3010)	204
42710/301.1	WING NK L (L=3010)	204
42710/301.2	WING NK D (L=3010)	204
42710/321.0	WING NK R (L=3210)	204
42710/321.1	WING NK L (L=3210)	204

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42710/361.1	WING NK L (L=3610)	204
42710/361.2	WING NK D (L=3610)	204
42710/401.0	WING NK R (L=4010)	204
42710/401.1	WING NK L (L=4010)	204
42710/401.2	WING NK D (L=4010)	204
42710/441.0	WING NK R (L=4410)	204
42710/441.1	WING NK L (L=4410)	204
42710/441.2	WING NK D (L=4410)	204
42710/481.0	WING NK R (L=4810)	204
42710/481.1	WING NK L (L=4810)	204
42710/481.2	WING NK D (L=4810)	204
42710/541.0	WING NK R (L=5410)	204
42710/541.1	WING NK L (L=5410)	204
42710/541.2	WING NK D (L=5410)	204
42710/601.0	WING NK R (L=6010)	204
42710/601.1	WING NK L (L=6010)	204
42710/601.2	WING NK D (L=6010)	204
42711/181.0	WING NK R (L=1810) BLACK	204
42711/181.1	WING NK L (L=1810) BLACK	204
42711/181.2	WING NK D (L=1810) BLACK	204
42711/201.0	WING NK R (L=2010) BLACK	204
42711/201.1	WING NK L (L=2010) BLACK	204
42711/201.2	WING NK D (L=2010) BLACK	204
42711/241.0	WING NK R (L=2410) BLACK	204
42711/241.1	WING NK L (L=2410) BLACK	204
42711/241.2	WING NK D (L=2410) BLACK	204
42711/251.0	WING NK R (L=2510) BLACK	204
42711/251.1	WING NK L (L=2510) BLACK	204
42711/251.2	WING NK D (L=2510) BLACK	204
42711/281.0	WING NK R (L=2810) BLACK	204
42711/281.1	WING NK L (L=2810) BLACK	204
42711/281.2	WING NK D (L=2810) BLACK	204
42711/301.0	WING NK R (L=3010) BLACK	204
42711/301.1	WING NK L (L=3010) BLACK	204
42711/301.2	WING NK D (L=3010) BLACK	204
42711/321.0	WING NK R (L=3210) BLACK	204
42711/321.1	WING NK L (L=3210) BLACK	204
42711/321.2	WING NK D (L=3210) BLACK	204
42711/361.0	WING NK R (L=3610) BLACK	204
42711/361.1	WING NK L (L=3610) BLACK	204
42711/361.2	WING NK D (L=3610) BLACK	204
42711/401.0	WING NK R (L=4010) BLACK	204
42711/401.1	WING NK L (L=4010) BLACK	204
42711/401.2	WING NK D (L=4010) BLACK	204
42711/441.0	WING NK R (L=4410) BLACK	204
42711/441.1	WING NK L (L=4410) BLACK	204
42711/441.2	WING NK D (L=4410) BLACK	204
42711/481.0	WING NK R (L=4810) BLACK	204
42711/481.1	WING NK L (L=4810) BLACK	204
42711/481.2	WING NK D (L=4810) BLACK	204
42711/541.0	WING NK R (L=5410) BLACK	204
42711/541.1	WING NK L (L=5410) BLACK	204
42711/541.2	WING NK D (L=5410) BLACK	204
42711/601.0	WING NK R (L=6010) BLACK	204
42711/601.1	WING NK L (L=6010) BLACK	204
42711/601.2	WING NK D (L=6010) BLACK	204
42715/181.0	WING NK H150 R (L=1810)	204
42715/181.1	WING NK H150 L (L=1810)	204
42715/181.2	WING NK H150 D (L=1810)	204
42715/201.0	WING NK H150 R (L=2010)	204
42715/201.1	WING NK H150 L (L=2010)	204
42715/201.2	WING NK H150 D (L=2010)	204
42715/241.0	WING NK H150 R (L=2410)	204
42715/241.1	WING NK H150 L (L=2410)	204
42715/241.2	WING NK H150 D (L=2410)	204
42715/251.0	WING NK H150 R (L=2510)	204
42715/251.1	WING NK H150 L (L=2510)	204
42715/251.2	WING NK H150 D (L=2510)	204
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42715/281.1	WING NK H150 L (L=2810)	204

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42715/301.2	WING NK H150 D (L=3010)	204
42715/321.0	WING NK H150 R (L=3210)	204
42715/321.1	WING NK H150 L (L=3210)	204
42715/321.2	WING NK H150 D (L=3210)	204
42715/361.0	WING NK H150 R (L=3610)	204
42715/361.1	WING NK H150 L (L=3610)	204
42715/361.2	WING NK H150 D (L=3610)	204
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42715/401.1	WING NK H150 L (L=4010)	204
42715/401.2	WING NK H150 D (L=4010)	204
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42715/601.1	WING NK H150 L (L=6010)	204
42715/601.2	WING NK H150 D (L=6010)	204
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42716/181.1	WING NK H150 L (L=1810) BLACK	204
42716/181.2	WING NK H150 D (L=1810) BLACK	204
42716/201.0	WING NK H150 R (L=2010) BLACK	204
42716/201.1	WING NK H150 L (L=2010) BLACK	204
42716/201.2	WING NK H150 D (L=2010) BLACK	204
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42716/281.0	WING NK H150 R (L=2810) BLACK	204
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42716/301.0	WING NK H150 R (L=3010) BLACK	204
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42716/301.2	WING NK H150 D (L=3010) BLACK	204
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42716/321.2	WING NK H150 D (L=3210) BLACK	204
42716/361.0	WING NK H150 R (L=3610) BLACK	204
42716/361.1	WING NK H150 L (L=3610) BLACK	204
42716/361.2	WING NK H150 D (L=3610) BLACK	204
42716/401.0	WING NK H150 R (L=4010) BLACK	204
42716/401.1	WING NK H150 L (L=4010) BLACK	204
42716/401.2	WING NK H150 D (L=4010) BLACK	204
42716/441.0	WING NK H150 R (L=4410) BLACK	204
42716/441.1	WING NK H150 L (L=4410) BLACK	204
42716/441.2	WING NK H150 D (L=4410) BLACK	204
42716/481.0	WING NK H150 R (L=4810) BLACK	204
42716/481.1	WING NK H150 L (L=4810) BLACK	204
42716/481.2	WING NK H150 D (L=4810) BLACK	204
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42716/601.0	WING NK H150 R (L=6010) BLACK	204
42716/601.1	WING NK H150 L (L=6010) BLACK	204
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Cost estimate n° Date

INSTALLER'S COMPANY NAME
Name
Address
Post Code City Country
Tel. Cell.

Branch
Contact name
Retailer's Stamp
Agent's Stamp

SLIDING GATES

Gate characteristics:
 Weight: approx..... kg
 Length: approx..... m

Cycles for day (n° opening and closing cycles):

Low (< 50 cycles/day approx)
 Condominium (> 50 and < 300 cycles/day approx)
 Intensive (> 300 e < 800 cycles/day approx)
 Continuous (> 800 cycles/day approx)

Installation accessories:

Galvanised STEEL rack, length 5m.
 PLASTIC rack, length 5 m (MAX gate weight 500 kg).

Command unit:

Key switch
 Other (card reader, keypad, etc.):

Photocells post:..... pcs
 Flasher unit

Remote control:

2 key remote controls:.....pcs
 4 key remote controls:.....pcs

Additional security:
 Photocells:..... pcs (1 pcs is one pair)
 Anti-crush: Autoreverse card

Safety edges:

1,5 m:.....pcs
 2,0 m:.....pcs
 2,5 m:.....pcs

Other:

SWING GATES

External automation:

Electro-mechanical operator
 Hydraulic operator

Underground automation:

Electro-mechanical operator
 Hydraulic operator
 Drive release

Gate comprises:

Single wing
 Double wing

Gate characteristics:
 Weight of individual wing: approx.....kg
 Width of individual wing: approx.....kg

Cycles for day (n° opening and closing cycles):

Low (< 50 cycles/day approx)
 Condominium (> 300 cycles/day approx)
 Intensive (> 300 and < 400 cycles/day approx)
 Continuous > 400 cycles/day approx)

Installation accessories:
 Command unit

Key switch
 Other (card reader, keypad, etc.):

Photocells post:.....pcs
 Flasher unit
 Electric lock

Remote control:

2 key remote controls:.....pcs
 4 key remote controls:.....pcs

Additional security:
 Photocells:..... pcs (1 pcs is one pair)
 Other:

Note: To receive your customised quotation, please fax the completed form back to your local Aprimatic distributor.

Cost estimate n° Date

INSTALLER'S COMPANY NAME	
.....	
Name	
Address	
.....	
Post Code	City
Country	
Tel.	Cell.

Branch
Contact name
Retailer's Stamp
.....
Agent's Stamp
.....

GARAGE DOORS

- Counterweight up-and-over doors
- Sectional doors
- Spring doors

For counterweight up-and-over doors:

Width.....m; Height.....m; Weight.....m;

- With pedestrian door
- Hydraulic operator (recommended for > 50 cycles/day)
- Electro-mechanical operator (recommended for < 50 cycles/day)
- External release: if there are no other ways in to the garage

For sectional doors:

Width.....m; Height.....m; Weight.....m approx;

For spring doors:

Width.....m; Height.....m; Weight.....m approx;

Common installation accessories:

Command unit

- Key switch
- Other (card reader, keypad, etc.):

- Flasher unit
Only for sectional doors weighing between 80 and 120 kg

Remote control:

- 2 key remote controls:.....pcs
- 4 key remote controls:.....pcs

Additional security:

Photocells:..... pcs (1 pcs is one pair)

Safety edges:

- 1,5 m:.....pcs
- 2,0 m:.....pcs
- 2,5 m:.....pcs

BARRIERS

Barrier construction technology:

- Electro-mechanical barrier
- Hydraulic barrier

Cycles for day (n° opening and closing cycles):

- Condominium (> 300 cycles/day approx)
- Intensive (> 300 and < 400 cycles/day approx)
- Continuous (> 400 cycles/day approx)

Installation comprises:

- Single barrier
- Double barrier

Road span:

Roads span:.....m

Installation accessories:

- Base plate
- Skirt
- Swinging tip support
- Articulated beam conversion kit
(not available for all barriers)
- Beam support fork

Command unit

- Key switch
- Other (card reader, keypad, etc.):

Photocells:..... pcs (1 pc is one pair)

- Photocells:.....pcs
- Magnetic vehicle detector
- Flasher unit

Radio System:

- 433 frequency rolling code radio receiver
- 40.685 frequency rolling code quartz radio receiver
- 2 key remote controls:.....pcs
- 4 key remote controls:.....pcs

Other:

Note: To receive your customised quotation, please fax the completed form back to your local Aprimatic distributor.

ORDER FORM "SLIM SNK" AUTOMATION

Name _____ City/Town _____
 Surname _____ Postcode _____ District _____
 Company name _____ Tel. _____ Mobile _____
 Address _____ E-mail _____

STANDARD AUTOMATION

Code Automation LH single wing Anodized silver	Code Automation RH single wing Anodized silver	Code Automation Double wing Anodized silver	Max Passage span (mm)	Automation Total length (mm)	Code Automation LH single wing Anodized black	Code Automation RH single wing Anodized black	Code Automation Double wing Anodized black
<input type="checkbox"/> 42705/181.1	<input type="checkbox"/> 42705/181.0	<input type="checkbox"/> 42705/181.2	850	1810	<input type="checkbox"/> 42706/181.1	<input type="checkbox"/> 42706/181.0	<input type="checkbox"/> 42706/181.2
<input type="checkbox"/> 42705/201.1	<input type="checkbox"/> 42705/201.0	<input type="checkbox"/> 42705/201.2	950	2010	<input type="checkbox"/> 42706/201.1	<input type="checkbox"/> 42706/201.0	<input type="checkbox"/> 42706/201.2
<input type="checkbox"/> 42705/241.1	<input type="checkbox"/> 42705/241.0	<input type="checkbox"/> 42705/241.2	1150	2410	<input type="checkbox"/> 42706/241.1	<input type="checkbox"/> 42706/241.0	<input type="checkbox"/> 42706/241.2
<input type="checkbox"/> 42705/251.1	<input type="checkbox"/> 42705/251.0	<input type="checkbox"/> 42705/251.2	1200	2510	<input type="checkbox"/> 42706/251.1	<input type="checkbox"/> 42706/251.0	<input type="checkbox"/> 42706/251.2
<input type="checkbox"/> 42705/281.1	<input type="checkbox"/> 42705/281.0	<input type="checkbox"/> 42705/281.2	1350	2810	<input type="checkbox"/> 42706/281.1	<input type="checkbox"/> 42706/281.0	<input type="checkbox"/> 42706/281.2
<input type="checkbox"/> 42705/301.1	<input type="checkbox"/> 42705/301.0	<input type="checkbox"/> 42705/301.2	1450	3010	<input type="checkbox"/> 42706/301.1	<input type="checkbox"/> 42706/301.0	<input type="checkbox"/> 42706/301.2
<input type="checkbox"/> 42705/321.1	<input type="checkbox"/> 42705/321.0	<input type="checkbox"/> 42705/321.2	1550	3210	<input type="checkbox"/> 42706/321.1	<input type="checkbox"/> 42706/321.0	<input type="checkbox"/> 42706/321.2
<input type="checkbox"/> 42705/361.1	<input type="checkbox"/> 42705/361.0	<input type="checkbox"/> 42705/361.2	1750	3610	<input type="checkbox"/> 42706/361.1	<input type="checkbox"/> 42706/361.0	<input type="checkbox"/> 42706/361.2
<input type="checkbox"/> 42705/401.1	<input type="checkbox"/> 42705/401.0	<input type="checkbox"/> 42705/401.2	1950	4010	<input type="checkbox"/> 42706/401.1	<input type="checkbox"/> 42706/401.0	<input type="checkbox"/> 42706/401.2
<input type="checkbox"/> 42705/441.1	<input type="checkbox"/> 42705/441.0	<input type="checkbox"/> 42705/441.2	2150	4410	<input type="checkbox"/> 42706/441.1	<input type="checkbox"/> 42706/441.0	<input type="checkbox"/> 42706/441.2
<input type="checkbox"/> 42705/481.1	<input type="checkbox"/> 42705/481.0	<input type="checkbox"/> 42705/481.2	2350	4810	<input type="checkbox"/> 42706/481.1	<input type="checkbox"/> 42706/481.0	<input type="checkbox"/> 42706/481.2
<input type="checkbox"/> 42705/541.1	<input type="checkbox"/> 42705/541.0	<input type="checkbox"/> 42705/541.2	2650	5410	<input type="checkbox"/> 42706/541.1	<input type="checkbox"/> 42706/541.0	<input type="checkbox"/> 42706/541.2

Tick the box for the size and model you want to order.

Non-standard: Tick the box for the next standard length up and then write in the exact size here in this box ending with zero or 5.

mm

ACCESSORIES

Q.ty	Control units	Code
<input type="checkbox"/>	SC6 6-way key selector switch	42282/070
<input type="checkbox"/>	Recessed box for SC6	41700/009
<input type="checkbox"/>	SC6EC 6-way key selector switch	42282/073
<input type="checkbox"/>	Emergency pushbutton	42282/082
Q.ty	Radar	Code
<input type="checkbox"/>	RI-H5 Active infrared sensor	42282/092
<input type="checkbox"/>	RI-H3 SAFE Active infrared safety sensor	42282/095
<input type="checkbox"/>	RI-H3 ACTI Active infrared activation sensor	42282/094
<input type="checkbox"/>	DM-H22 Microwave sensor	42282/090
<input type="checkbox"/>	DM-H82 Active infrared sensor	42282/091
<input type="checkbox"/>	TLHI Touchless wall mounting switch	42282/099
Q.ty	Accessories for glass wings	Code
<input type="checkbox"/>	Profile for mounting glass wing	42280/052
<input type="checkbox"/>	Pack of fitting accessories for glass wing	42280/087
<input type="checkbox"/>	Sealant for glass wings	42280/086
<input type="checkbox"/>	Floor guide set for glass wing	42280/079
Q.ty	Mechanical emergency door opener	Code
<input type="checkbox"/>	Mechanical emergency opener set (1 mobile wing)	42280/088
<input type="checkbox"/>	Guide and adapter set (1 mobile wing)	42280/081
<input type="checkbox"/>	Set of fittings for 1 semi-fixed wing	42280/070
<input type="checkbox"/>	SMI magnetic sensor	42280/076
<input type="checkbox"/>	SMS magnetic sensor	42280/075
Q.ty	Mechanical emergency releases	Code
<input type="checkbox"/>	Emergency manual release, internal	42280/084
<input type="checkbox"/>	Emergency manual release, external	42280/085
Q.ty	Pre-assembled beam accessories	Code
<input type="checkbox"/>	ER6/N NK mini photocells, pre-assembled	42300/002
<input type="checkbox"/>	Electric lock NK, pre-assembled	42282/077

COVERS

Net length (mm)	Code unfinished aluminium	Code anodized silver	Code anodized black
1800	<input type="checkbox"/> 42102/180	<input type="checkbox"/> 42100/180	<input type="checkbox"/> 42101/180
2000	<input type="checkbox"/> 42102/200	<input type="checkbox"/> 42100/200	<input type="checkbox"/> 42101/200
2400	<input type="checkbox"/> 42102/240	<input type="checkbox"/> 42100/240	<input type="checkbox"/> 42101/240
2500	<input type="checkbox"/> 42102/250	<input type="checkbox"/> 42100/250	<input type="checkbox"/> 42101/250
2800	<input type="checkbox"/> 42102/280	<input type="checkbox"/> 42100/280	<input type="checkbox"/> 42101/280
3000	<input type="checkbox"/> 42102/300	<input type="checkbox"/> 42100/300	<input type="checkbox"/> 42101/300
3200	<input type="checkbox"/> 42102/320	<input type="checkbox"/> 42100/320	<input type="checkbox"/> 42101/320
3600	<input type="checkbox"/> 42102/360	<input type="checkbox"/> 42100/360	<input type="checkbox"/> 42101/360
4000	<input type="checkbox"/> 42102/400	<input type="checkbox"/> 42100/400	<input type="checkbox"/> 42101/400
4400	<input type="checkbox"/> 42102/440	<input type="checkbox"/> 42100/440	<input type="checkbox"/> 42101/440
4800	<input type="checkbox"/> 42102/480	<input type="checkbox"/> 42100/480	<input type="checkbox"/> 42101/480
5400	<input type="checkbox"/> 42102/540	<input type="checkbox"/> 42100/540	<input type="checkbox"/> 42101/540
6000	<input type="checkbox"/> 42102/600	<input type="checkbox"/> 42100/600	<input type="checkbox"/> 42101/600

Tick the box for the size and model you want to order.

Non-standard:

Tick the box for the next standard length up and then write in the exact size here in this box ending with zero or 5.

mm

 **Aprimatic**
THE CHAMPION OF AUTOMATION

ORDER FORM "WING NK H150" AUTOMATION

Name _____ City/Town _____
 Surname _____ Postcode _____ District _____
 Company name _____ Tel. _____ Mobile _____
 Address _____ E-mail _____

STANDARD AUTOMATION

Code Automation LH single wing Anodized silver	Code Automation RH single wing Anodized silver	Code Automation Double wing Anodized silver	Max Passage span (mm)	Automation Total length (mm)	Code Automation LH single wing Anodized black	Code Automation RH single wing Anodized black	Code Automation Double wing Anodized black
<input type="checkbox"/> 42715/181.1	<input type="checkbox"/> 42715/181.0	<input type="checkbox"/> 42715/181.2	850	1810	<input type="checkbox"/> 42716/181.1	<input type="checkbox"/> 42716/181.0	<input type="checkbox"/> 42716/181.2
<input type="checkbox"/> 42715/201.1	<input type="checkbox"/> 42715/201.0	<input type="checkbox"/> 42715/201.2	950	2010	<input type="checkbox"/> 42716/201.1	<input type="checkbox"/> 42716/201.0	<input type="checkbox"/> 42716/201.2
<input type="checkbox"/> 42715/241.1	<input type="checkbox"/> 42715/241.0	<input type="checkbox"/> 42715/241.2	1150	2410	<input type="checkbox"/> 42716/241.1	<input type="checkbox"/> 42716/241.0	<input type="checkbox"/> 42716/241.2
<input type="checkbox"/> 42715/251.1	<input type="checkbox"/> 42715/251.0	<input type="checkbox"/> 42715/251.2	1200	2510	<input type="checkbox"/> 42716/251.1	<input type="checkbox"/> 42716/251.0	<input type="checkbox"/> 42716/251.2
<input type="checkbox"/> 42715/281.1	<input type="checkbox"/> 42715/281.0	<input type="checkbox"/> 42715/281.2	1350	2810	<input type="checkbox"/> 42716/281.1	<input type="checkbox"/> 42716/281.0	<input type="checkbox"/> 42716/281.2
<input type="checkbox"/> 42715/301.1	<input type="checkbox"/> 42715/301.0	<input type="checkbox"/> 42715/301.2	1450	3010	<input type="checkbox"/> 42716/301.1	<input type="checkbox"/> 42716/301.0	<input type="checkbox"/> 42716/301.2
<input type="checkbox"/> 42715/321.1	<input type="checkbox"/> 42715/321.0	<input type="checkbox"/> 42715/321.2	1550	3210	<input type="checkbox"/> 42716/321.1	<input type="checkbox"/> 42716/321.0	<input type="checkbox"/> 42716/321.2
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<input type="checkbox"/> 42715/401.1	<input type="checkbox"/> 42715/401.0	<input type="checkbox"/> 42715/401.2	1950	4010	<input type="checkbox"/> 42716/401.1	<input type="checkbox"/> 42716/401.0	<input type="checkbox"/> 42716/401.2
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<input type="checkbox"/> 42715/541.1	<input type="checkbox"/> 42715/541.0	<input type="checkbox"/> 42715/541.2	2650	5410	<input type="checkbox"/> 42716/541.1	<input type="checkbox"/> 42716/541.0	<input type="checkbox"/> 42716/541.2
<input type="checkbox"/> 42715/601.1	<input type="checkbox"/> 42715/601.0	<input type="checkbox"/> 42715/601.2	2950	6010	<input type="checkbox"/> 42716/601.1	<input type="checkbox"/> 42716/601.0	<input type="checkbox"/> 42716/601.2

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Net length (mm)	Code unfinished aluminium	Code anodized silver	Code anodized black
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2400	<input type="checkbox"/> 42102/240	<input type="checkbox"/> 42100/240	<input type="checkbox"/> 42101/240
2500	<input type="checkbox"/> 42102/250	<input type="checkbox"/> 42100/250	<input type="checkbox"/> 42101/250
2800	<input type="checkbox"/> 42102/280	<input type="checkbox"/> 42100/280	<input type="checkbox"/> 42101/280
3000	<input type="checkbox"/> 42102/300	<input type="checkbox"/> 42100/300	<input type="checkbox"/> 42101/300
3200	<input type="checkbox"/> 42102/320	<input type="checkbox"/> 42100/320	<input type="checkbox"/> 42101/320
3600	<input type="checkbox"/> 42102/360	<input type="checkbox"/> 42100/360	<input type="checkbox"/> 42101/360
4000	<input type="checkbox"/> 42102/400	<input type="checkbox"/> 42100/400	<input type="checkbox"/> 42101/400
4400	<input type="checkbox"/> 42102/440	<input type="checkbox"/> 42100/440	<input type="checkbox"/> 42101/440
4800	<input type="checkbox"/> 42102/480	<input type="checkbox"/> 42100/480	<input type="checkbox"/> 42101/480
5400	<input type="checkbox"/> 42102/540	<input type="checkbox"/> 42100/540	<input type="checkbox"/> 42101/540
6000	<input type="checkbox"/> 42102/600	<input type="checkbox"/> 42100/600	<input type="checkbox"/> 42101/600

Tick the box for the size and model you want to order.

Non-standard:

Tick the box for the next standard length up and then write in the exact size here in this box ending with zero or 5.

mm



NOTES

MANUFACTURER ADDRESS: APRIMATIC SPA - Via Leonardo Da Vinci, 414 - 40059 Villafontana di Medicina - Bologna - Italy.

Aprimatic S.p.A. declares that operators and electronic control units are all conform to:

Directive 2004/108/EC (EMC) replacing the previous directive 89/336/EEC.

Directive 2006/95/EC (LVD) replacing the previous directive 73/23/EEC.

Aprimatic Memory System 433.92 MHz remote controls and receivers have passed the tests stipulated by the following European Standards: Directive 1999/5/EC (R & TTE).

The remote controls and receivers have been approved by an authorised certification authority with no. 0678 (see the back of the remote control).

The company operates a policy of continuous improvement and reserves the right to make product changes without prior notice.

GENERAL SALES CONDITIONS

The purchase of Aprimatic products implies the acceptance of the following general sales conditions:

1. ORDERS

Orders received by the export sales department are subject to approval from Aprimatic S.p.A. Orders shall be binding on Aprimatic upon order confirmation only and shall never imply exclusivity rights unless otherwise agreed in writing.

Orders are only supplied in the packaging format indicated on the price list.

2. TRANSPORT AND DELIVERY

Transport of the goods sold will be at the expense and risk of the purchasers who must, in their own interest, check the quantity and the condition of the goods before accepting them from the carrier.

Any reservation should be made known directly to the carrier.

Delivery EXW Incoterms ICC 2000 unless otherwise agreed in writing.

All delivery dates given shall be deemed as purely indicative and non-binding.

Aprimatic shall not be held responsible to the Purchaser for any failure to perform, including late delivery or failure to deliver, which failure to perform is caused by occurrences beyond Aprimatic's reasonable control or in any case caused by an event of force majeure, including, but not limited to, late delivery or non-delivery of material by suppliers, strikes, and other trade union actions, terrorist activities, suspension of electrical energy or difficulties in transportation.

3. OWNERSHIP

Goods are sold subject to then lien clause, i.e. they remain the property of the seller until payment for them is made in full, at which point they become the property of the purchaser. If the seller does not intend to repossess goods for which payment has not been made in full, the seller shall have the right to apply interest charges at a rate of 5% more than the current discount rate.

4. PRICES

The prices indicated on the Price List are not binding. Aprimatic S.p.A. reserves the right to change the price of the Products and/or the discounts, if any, applicable thereto at any time and for any reason, upon 30 (thirty) days' prior written notice to the Purchaser. If any delay in delivery of the Products occurs through the fault of the Purchaser, any possible increase in the price of the Products which may have occurred since the confirmation of the order relating to the Products shall be borne solely by the Purchaser. Any and all taxes, duties, levies, licenses, authorizations, permits and any and all tax and administrative formalities relating to import and/or resale of the Products shall be borne and carried out exclusively by the Purchaser.

5. RETURNS AND CLAIMS

Any complaints must be sent to Aprimatic S.p.A. in writing within 8 days of receiving of the goods.

Returns must be authorised beforehand by Aprimatic S.p.A. Returns must be sent carriage paid to the Aprimatic warehouse with the purchase documents and delivery note enclosed. It will be issued a credit note for the purchase price of the goods minus 20% if the reason for the return is not attributable to Aprimatic S.p.A.

6. PRODUCTS

Aprimatic S.p.A. shall be entitled to make minor changes to the Products, without being obliged to inform the Purchaser.

The information shown in all Aprimatic publications are provided for information purposes only and are subject to modification at any time without prior warning.

Aprimatic S.p.A. does not warrant to the Purchaser that the Products comply with the applicable laws and regulations in force in the country (ies) where the Purchaser is established or where the Products are meant to be sold, delivered and/or installed.

Aprimatic shall have no obligation to modify the Products in compliance with said laws or regulations and the Purchaser shall be solely responsible for ensuring that the Products and any service of the Purchaser conform to the applicable technical and safety standards, laws and regulations in force in said country (ies).

The Purchaser acknowledges that the Products may be dangerous to persons or property when not installed or used in strict compliance with Aprimatic's written instructions for installation and used furnished by Aprimatic and with the safety requirements specified in the EN 12445 and EN 12543. Aprimatic expressly disclaim liability for any personal injury or property damage resulting from installation or use of the Products, other than in strict compliance with Aprimatic's written instructions with respect to installation and use, or from installation or use of the Products together with safety accessories or other products not manufactured by Aprimatic, it being understood that the maximum liability of Aprimatic to the Purchaser or to any other person or entity, arising out of or in connection with the Products and based on a claim of breach or under warranty, shall in no case exceed the price paid to Aprimatic for the Products which gives rise to the claim, loss or damage.

In no event shall Aprimatic S.p.A. be liable for special and consequential damages, including, without limitation, loss of profit.

7. PAYMENT

Payments to Aprimatic S.p.A. must be made within the agreed expiry date and should be equal to the agreed sum.

Any delay in the payment of invoices, even if partial, beyond the agreed expiry date shall cause the purchaser to be immediately charged interest, and entitle Aprimatic S.p.A. to suspend or terminate contracts, even different from the unfulfilled one.

THE MANUFACTURER MAY NOT BE HELD RESPONSIBLE FOR ANY ERRORS CONTAINED IN THIS CATALOGUE CAUSED BY PRINTING OR TRANSCRIPTION ERRORS. THE COMPANY RESEVES THE RIGHT TO MAKE CHANGES AND IMPROVEMENTS TO THE PRODUCTS WITHOUT PRIOR NOTICE.

8. WARRANTY

Goods sold are guaranteed against manufacturing or material defects for 24 months from the date of installation. The installation date is certified by the Certificate of Guarantee which must be sent to Aprimatic S.p.A. for the goods covered by it.

The Certificate of Guarantee is only valid if completed in full and sent within 10 days of the installation date.

Products for which a certificate is not issued are guaranteed for 30 months from the date of production.

The terms of the warranty are verified exclusively by Aprimatic S.p.A. in its undisputed judgement and by the approved repair centres. Call-out fees and labour costs shall be charged to the purchaser.

Aprimatic reserves the right to declare that the warranty shall be valid only if the entire automation system has been constructed using APRIMATIC products and provided that installation has been performed correctly.

The warranty does not apply if defects in functioning are caused by structural problems or by the incompatibility of the structures for automation with APRIMATIC products. The material acknowledged as covered by the guarantee will only be accepted for repair if sent carriage paid. After repair or replacement the material will be returned freight collect.

Substituted material remains the property of Aprimatic. Furthermore the warranty does not include:

- Defects or damage caused by transport.
- Defects or damage caused by faults in the electric system and/or oversight, negligence in the use of the system or any use of the system for purposes other than the ones it was designed for.
- Defects or damage caused by omissions, negligence or bad workmanship on the part of the installer or purchaser or failure to follow the manufacturer's instructions.
- Defects or damage caused by the use of non-original spare parts.
- Defects caused by chemical agents or atmospheric conditions.
- Consumption material.
- Tampering in the event of presumed faults and intervention by unauthorised personnel.

Aprimatic guarantees exclusively the conformity of the Products to the technical specifications submitted to Buyer and published on the web site www.aprimatic.com, provided that the Products have been correctly transported, stored, installed, used and repaired by Buyer (including in compliance with the Aprimatic's manual); in case of defects, purchaser shall write a "reserve" on the delivery note and give a detailed notice thereof in writing to Aprimatic within 7 days from delivery or from discovery, in case of hidden defects and anyhow not later than two years from delivery and Aprimatic shall only be bound to, at its own choice: replace the defective Products or, totally or partially, reimburse their price. Apart from what set forth herewith, Aprimatic shall bear no other responsibility, in particular any liability for damages (including loss of profit or any other subsequent loss) hereby expressly excluded.

9. COURT OF JURISDICTION

Judgement in the event of any controversy shall be entrusted solely to the courts of Bologna, Italy.

General Recommendations:

This price list cancels and replaces all previous price lists.

In accordance with current safety standards, it is essential to install genuine APRIMATIC control units and accessories.

Aprimatic S.p.A. declines all responsibility for injury or damage, even to third parties, deriving from failure to observe these safety standards or from bad craftsmanship in the installation or operation of the goods.

SYMBOLS USED

AUTOMATION FOR SWING GATES, UP-AND-OVER GARAGE DOORS AND AUTOMATIC BARRIERS:

- A: Hydraulic locking in open position only.
- B: Hydraulic locking in open and closed positions.
- C: Hydraulic locking in closed position only.
- SF: No hydraulic locking - with brake.
- DS: No hydraulic locking - slow down in opening and closing system.
- SR: No hydraulic locking - rapid manual movement.
- 7: Pump capacity: 1.0 l/min. For light gates.
- 5: Pump capacity: 0.75 l/min.
- 4: Pump capacity: 0.6 l/min. For heavy gates.
- RR: 433.92 MHz radio receiver.
- RF: Oil flow adjustment.

AUTOMATION FOR SLIDING GATES:

- Z16: Pitch 4 pinion, 16 teeth: Slow 9.5 m/min. Heavy gates.
- Z20: Pitch 4 pinion, 20 teeth: Slow 12 m/min. Light gates.
- C: 16 tooth sprocket for chain drive.
- E: On-board electronic motor control unit.

TRANSMITTERS:

- TR: 2 or 4 channel rolling code channel remote control.
- TG: 2 channel dip-switch remote control.

DEFINITIONS USED

RESIDENTIAL: Single family occupancy

CONDOMINIUM: Multy family occupancy

INTENSIVE: Multi user - Heavy gates

INDUSTRIAL: Industry/Car parks/Heavy loads

CONTINUOUS: Automatic car parks

IMPORTANT :

ALL APPLICATIONS MUST ADHERE TO THE SAFETY STANDARDS SPECIFIED IN THE MACHINERY DIRECTIVE.

