







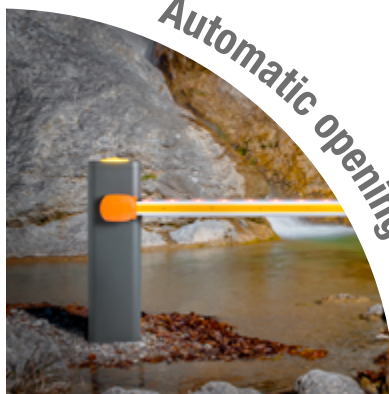
MADE IN ITALY SINCE 1974



Safety devices



Automatic opening



Access control



Electronic control



Creativity, far-sightedness, the will to take risks, pride, fatigue, daring, determination, enthusiasm, sharing, intuition, teamwork, tradition, contiguity with art, memory. Many are the ingredients that go to make a product, an Italian product. Every Cardin product is conceived and made in Italy.

THIS IS CERTAINLY CARDIN ELETTRONICA







# Every company is a unique world... welcome to ours.

1974 sees the start of our story. But already the precise guide lines are laid out, concrete and without abstraction, based on entrepreneurial values that still hold true today: respect for those who collaborate with us and for the environment that surrounds us. Trust in the people, in the projects and in the future. The desire to produce systems for automation and access control using selective materials, catalysing the best of our area in terms of competence, experience and the need for excellence. That very same excellence that allowed us to become part of the Riello Elettronica Group in 2011 giving further vent to and opening up horizons for our values.

In 2014 the company obtained OHSAS 18001 certification (the international standard for health and safety at work) which it has maintained up to date.

From today onwards Cardin Elettronica is expanding and diversifying considerably. Since the merger with Telcoma in 2014, the company has taken a further step forwards, presenting a new unified product catalogue, the fruit of careful selection and the strengthening of both the original product ranges. We forge ahead always bearing in mind our history and roots, conscience of the fact that we are creating solutions for automatic devices and remote control systems that will stand out for their efficiency, style and innovation. We are certain you'll like the outcome.



*Pierantonio Riello  
and Cristiano Cardin  
inaugurate the new  
facilities (2013).*





CARDIN  
is part of a  
larger world

**riello**  
elettronica

[www.riello-elettronica.it](http://www.riello-elettronica.it)

The Riello Elettronica group today is made up of twenty-three companies with nine production plants located throughout the world and competes globally in different areas of business. The POWER area, the core business, deals with energy conversion and the manufacturing of interruptible power supplies (UPS) as well as solar energy conversion systems (inverters). Cardin Elettronica leads the AUTOMATION area offering solutions for the automation and remote control of closing, safety and security systems. The SAFETY & SECURITY area is made up of businesses creating anti-intrusion, fire detection and demotics solutions as well as solutions guaranteeing the safety of employees working in machine production etc. All the companies in the group work together to offer innovative solutions aimed at markedly improving the work and the quality of life of everybody.





Cardin jealously guards its identity, built over the years, founded on effective choices and rewarding relationships, the satisfaction of those working within the company and those collaborating externally: installers and end users. In a transversal yet firm way, Cardin have consolidated a personal area of values over a period of time which has smiled favourably on the choices made, giving their products a way of being which has made them user friendly and allowed them, with sincerity and without presumption to become part of our everyday objects. Being part of a group does not lead to a dilution of one's history, rather, it reinforces one's ideas with the objectives of having greater possibility for comparison, greater stimulus for research and a wider field of vision projected towards the future.

# NEWS 2020



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CDR REFLEX 238

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DESIGN....DEVELOP...UPGRADE....PRODUCE





# Regulations make us stronger and safer

This digital palm device for measuring static and dynamic force, sums up and personifies our know how, and our desire to be better. The device confers the secure knowledge that every installation has been carried out in conformity with the European standards EN12453 and EN12445.

Great force under control with feather light precision.











































## SUMMARY

AUTOMATION	14 - 165
ELECTRONICS	166 - 245
CARDIN IDENTIFICATION ELEMENTS	246 - 249
TABLES OF COMPARISON	250 - 263

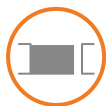
## KEY TO THE SYMBOLS

	Motors powered by 24Vdc		Opening time 90°		Multi-decoding open collector
	Intensive use		Maximum opening angle		Network interface
	Oil bath system		Maximum gate length		Wireless memory
	Hydraulic system		Maximum boom length		Transceiver
	Magnetic encoder control		Maximum door height		Graphic LCD display
	Opening and closing deceleration system		Maximum door surface area		Sun Power
	Variable high speed		Opening time		Real-time clock
	Temperature detection		Built-in programmer		Built-in radio receiver card
	Self-locking motor		Self-learning		Cardin App
	Reversible motor		Built-in batteries		3 year guarantee
	Master - Slave setting		Built-in NiMH batteries		Synchronism with multiplex transmission
	Pre-wired connection cable		Class 3 product		Bluetooth compatible
	Maximum gate weight		Multi-decoding		

Embrace the new  
Cardin generation



# AUTOMATION



14

## AUTOMATION FOR SLIDING GATES

A complete line of products driving gates of all dimensions. Extremely compact and fitted with a complete range of equipment, these devices integrate seamlessly into all types of gates and are resistant to atmospheric agents.



36

## IN-BUILT AUTOMATION FOR SLIDING GATES

A line of products dedicated to the manufacturers of mass-produced industrial sliding gates.



44

## HINGED ARM AUTOMATION FOR SWING GATES

Particularly suited for installations even with oversize columns, and unaligned hinges. They also allow particular installations where the opening direction of the gate is contrary to the position of the motor. They integrate seamlessly into the structure of the gate whilst safeguarding its aesthetic aspect.



74

## WORM SCREW AUTOMATION FOR SWING GATES

Particularly suited for installations with columns of all dimensions (even extremely reduced): Easy to fit without requiring brickwork, the products offer excellent service with regard to the number of manoeuvres.



98

## UNDERGROUND AUTOMATION FOR SWING GATES

Particularly suited for installations that do not allow column installations or where the automation has to be completely hidden.



110

## IN-BUILT AUTOMATION FOR SWING GATES

A line of products dedicated to the manufacturers of mass-produced industrial swing gates.



116

## AUTOMATION FOR COUNTERBALANCED GARAGE DOORS

Easily fitted to all types of counterbalanced garage doors they maintain the aesthetic aspect whilst retaining their mechanical prowess. A balanced choice for perfect service.



128

## CHAIN GUIDED AUTOMATION FOR SECTIONAL DOORS

Tirelessly they accompany the door throughout its entire course getting the best performance and protecting it throughout time.



136

## AUTOMATION FOR ROLLING SHUTTERS AND ROLL-UP GARAGE DOORS

Versatile and easy to mount these Cardin motors for rolling shutters are valid and efficient instruments that guarantee a rapid and secure installation.



142

## AUTOMATION FOR ROAD BARRIERS

Pure efficiency and complete performance. They are impeccable in their movement and it's a pleasure to observe them even when at rest.



158

## ELECTROMECHANICAL SELF-POWERED PARKING PLACE PROTECTION

Robust protection for your parking place with silent electronic movement. This device blends itself seamlessly into any architectonic context.



160

## COMPLEMENTARY EQUIPMENT. AUXILIARY SAFETY DEVICES

Aluminium columns for fastening photoelectric cells, key operated switches and various accessories. Safety edges guaranteeing the safety of every installation.



# AUTOMATION FOR SLIDING GATES

## RAPID SELECTION GUIDE

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### CARDIN PRO SL

MASTER AUTOMATION 24V

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18

### CARDIN TRADE SL

MASTER AUTOMATION 24V-230V

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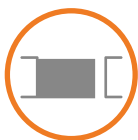
24

### CARDIN KIT SL

MASTER AUTOMATION 24V-230V

32

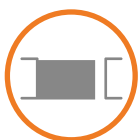




# SL

MASTER  
AUTOMATION

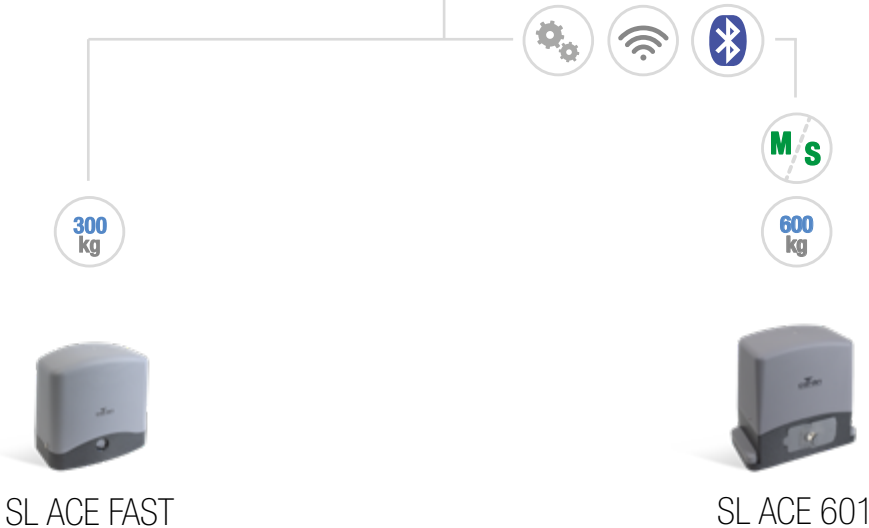
# CARDIN PRO



# SL ACE

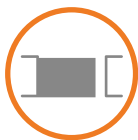
MASTER  
AUTOMATION

# CARDIN TRADE



RAPID GUIDE

SLIDING GATES



**SL EVO**

MASTER  
AUTOMATION

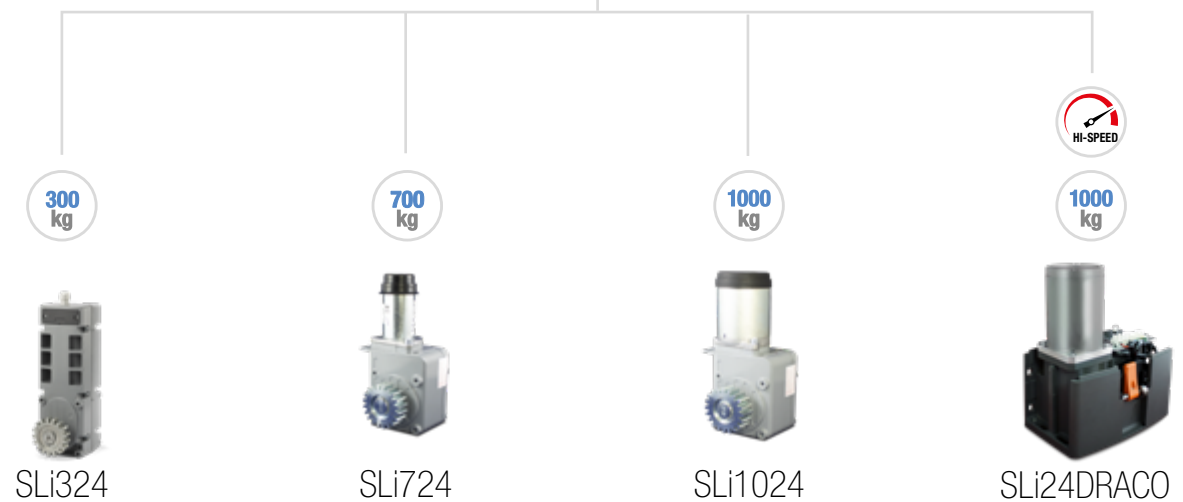
**CARDIN TRADE**

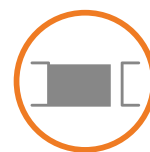


**SLi**

IN-BUILT SLAVE  
AUTOMATION

**CARDIN INSIDE**





# SELF-PROGRAMMING AUTOMATION FOR SLIDING GATES



## CARDIN PRO SERIES SL

A "complete machine" which contains all the electronic and mechanical components required to manage gate positioning and the safety functions of the installation. Powerful and tireless, controlled by state of the art electronics, the automation is fitted with a powerful direct current motor backed up by a finely tuned double gear kinematic system which reduces the stress on the motor and structure caused by the movement of heavy gates.

Installation is possible on any structure and the unit may be fitted both to the right as well as to the left of the passageway. Models are available for both residential and industrial use.

The use of low voltage motors increase the performance, guarantee high efficiency, long life and silent running.

The integrated programmer allows encoder-controlled gate positioning and self-programming thus reducing installation times to a minimum and optimising the programming procedure.

Repositioning takes place automatically whenever foreign objects get in the way of the gate as it is moving. The electronic control unit is completed by the anti-crush and "soft start" and "soft stop" functions.

Compatible with the system INTPRG-3G/WF that allows the system parameters to be controlled and programmed remotely.

A slave motor, connected via cable with the Cardin MODCA slot-in modules inserted, can be installed to drive two bi-parting sliding gates.

### Multi-decoding:

The product range is factory fitted with a multi-decoding remote control module (system S449 - S486 - S504 - S508), a battery charger and NiMH batteries which allow the gate to be manoeuvred even during blackouts.



Compatible with the data exchange system between digital devices (smartphone, tablet, etc.) and the Cardin multifunctional control units.



**See section 24V ECU INTERFACE DEVICES on page 186**



MANUAL RELEASE SLX3024CB



SELF-PROGRAMMING MONITORED  
BY AN LCD GRAPHICS DISPLAY



MANUAL RELEASE SLX1524CB



MANUAL RELEASE SLX24DRACO



MANUAL RELEASE SL524



# CARDIN PRO SERIES SL



## ELECTROMECHANICAL UNIT WITH A 24V MOTOR

The automation is made up of a self-locking gear motor controlled by magnetic encoder with an in-built:

- electronic programmer;
- 433MHz FM receiver;
- slot-in battery charger;
- NiMH batteries.

The electronic programmer is factory fitted with a graphic LCD display (16 digits x 2 lines) in six different languages that monitors the programming stages, counts and displays the number of manoeuvres carried out by the machine and allows you to rapidly set the system parameters including: the sequential button mode, automatic reclosing, warning lamp pre-flashing, flashing warning lamp activation, indicator light and photoelectric cell function setting and transmitter code management etc.

The appliance is fitted with a safe and secure manual release system with a personalised knob (supplied with the appliance).

### SL524CB



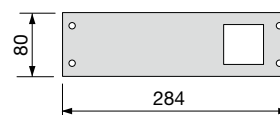
(drag speed max. **9,2** m/min)



### SL524



(drag speed max. **9,2** m/min)



FASTENING BASE  
SPARE PARTS NUMBER 999423

## ELECTROMECHANICAL UNIT WITH A 24V MOTOR

The automation is made up of a self-locking gear motor (with a gate drag speed of 13 metres/minute) controlled by magnetic encoder with an in-built:

- electronic programmer;
- 433MHz FM receiver;
- slot-in battery charger (SLX824CB - SLX1524CB);
- NiMH batteries (SLX824CB - SLX1524CB);
- reversible motor (SLX1024REV).

The electronic programmer is factory fitted with a graphic LCD display (128 x 128 pixels) with backlighting in six different languages. The menu allows you to rapidly set the system parameters including: the sequential button mode, automatic reclosing, warning lamp pre-flashing, intermittent warning lamp activation, indicator light and photoelectric cell function setting etc.

The electronics card, thanks to the presence of the real-time clock, allows you to set 10 events (shown on the display) and these events permit you to regulate the opening and closing of the motor at different times during the day within 3 weekly time bands (Mon-Fri, Sat-Sun, Mon-Sun); the events can be enabled or disabled (during holiday periods) either from the menu or by means of a radio channel. The appliance is fitted with a safe and secure manual release system activated by a personalised key.

### SLX824CB



(drag speed max. **13** m/min)



### SLX1024REV

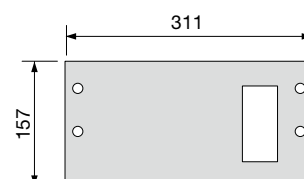


(drag speed max. **13** m/min)

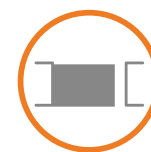
### SLX1524CB



(drag speed max. **9,5** m/min)



FASTENING BASE  
SPARE PARTS NUMBER 999393



# CARDIN PRO SERIES SL

## ELECTROMECHANICAL UNIT WITH A 24V MOTOR

The automation is made up of a self-locking gear motor controlled by magnetic encoder with an in-built:

- electronic programmer;
- 433MHz FM receiver;

The innovative DRACO system permits the gate's movement to be accompanied with total security and features a "variable speed function" which can be adjusted according to the different installation requirements up to a maximum speed of 30m per minute. The electronic programmer is factory fitted with a graphic LCD display (128 x 128 pixels) with backlighting in six different languages. The menu allows you to rapidly set the system parameters including: the sequential button mode, automatic reclosing, warning lamp pre-flashing, intermittent warning lamp activation, indicator light and photoelectric cell function setting etc.

The electronics card, thanks to the presence of the real-time clock, allows you to set 10 events (shown on the display) and these events permit you to regulate the opening and closing of the motor at different times during the day. The appliance is fitted with a safe and secure lever operated manual release system protected by a robust access door with a personalised key.

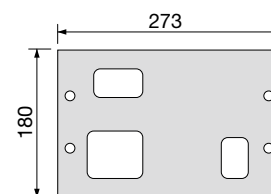
## SLX24DRACO



(optional)



(adjustable drag speed up to **30** m/min)



FASTENING BASE  
SPARE PARTS NUMBER 999805

## ELECTROMECHANICAL UNIT WITH A 24V MOTOR

The automation is made up of a self-locking gear motor controlled by magnetic encoder with an in-built:

- electronic programmer;
- 433MHz FM receiver;
- slot-in battery charger;
- NiMH batteries.

The electronic programmer is factory fitted with a graphic LCD display (128 x 128 pixels) with backlighting in six different languages. The menu allows you to rapidly set the system parameters including: the sequential button mode, automatic reclosing, warning lamp pre-flashing, intermittent warning lamp activation, indicator light and photoelectric cell function setting etc.

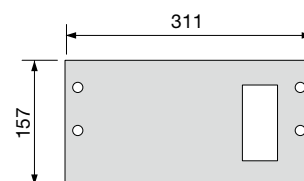
The electronics card, thanks to the presence of the real-time clock, allows you to set 10 events (shown on the display) and these events permit you to regulate the opening and closing of the motor at different times during the day within 3 weekly time bands (Mon-Fri, Sat-Sun, Mon-Sun); the events can be enabled or disabled (during holiday periods) either from the menu or by means of a radio channel.

The appliance is fitted with a safe and secure manual knob operated release system protected by a robust access door with a personalised key.

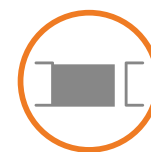
## SLX3024CB



(drag speed max. **8** m/min)



FASTENING BASE  
SPARE PARTS NUMBER 999393



# CARDIN PRO SERIES SL

## GEAR RACK

in nylon reinforced with glass fibre with a steel core for sliding gates up to 600kg.

### VERSION WITH 4 LOWER FASTENING SLITS

30mm x 20mm, M4, 1m pieces.

**CRENY1**



## GEAR RACK

in polyamide with a steel core for sliding gates up to 800kg.

### VERSION WITH 6 LOWER FASTENING SLITS

30mm x 20mm, M4, 1m pieces.

**CREMP**



### VERSION WITH 6 UPPER FASTENING SLITS

30mm x 20mm, M4, 1m pieces.

**CRENY**



## GEAR RACK

in galvanised steel for sliding gates up to 3000kg.  
Particularly suited to industrial installations.

### VERSION TO BE SOLDERED

22mm x 22mm, M4, 2m pieces.

**SLOAC**



### VERSION WITH FASTENING SLITS

30mm x 12mm, M4, 1m pieces.

**SLOAC2**



## SPEED CONTROLLER

The device should be fitted to the gear rack in alignment with the motor in order to recuperate the correct sliding action of the gate in installations that are slightly inclined.

**RVS**



## KIT BATTERY CHARGER + NIMH BATTERIES

Allows the SL524 unit to work during blackouts.

**KBNIMH-1**



## KIT BATTERY CHARGER + NIMH BATTERIES

Allows the SLX24DRACO unit to work during blackouts.

**KBNIMH-D**



## DATA INTERFACE MODULE VIA CABLE

The module allows the exchange of information between the motor's electronic control unit and the Cardin 3G/WF interface and also allows you to connect two motors via cable in order to use the synchronised master/slave function.

**MODCA**



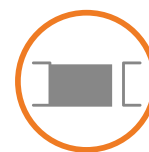
## BLUETOOTH MODULE

The module allows the exchange of information between the motor's electronic control unit and the Cardin 3G/WF interface via Bluetooth or directly between the control units and the apps CRD ONE and CRD TWO.

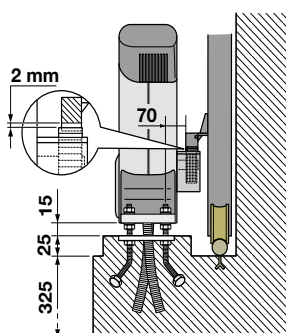
**MODBT**



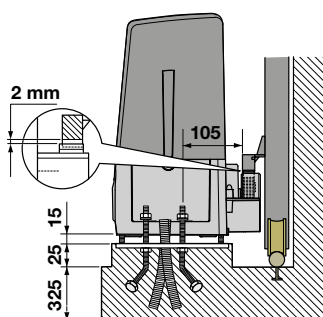
# CARDIN PRO SERIES SL



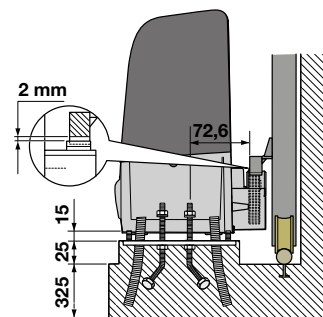
## POSITIONING THE UNIT



**SL524  
SL524CB**



**SLX824CB - SLX1024REV  
SLX1524CB - SLX3024CB**

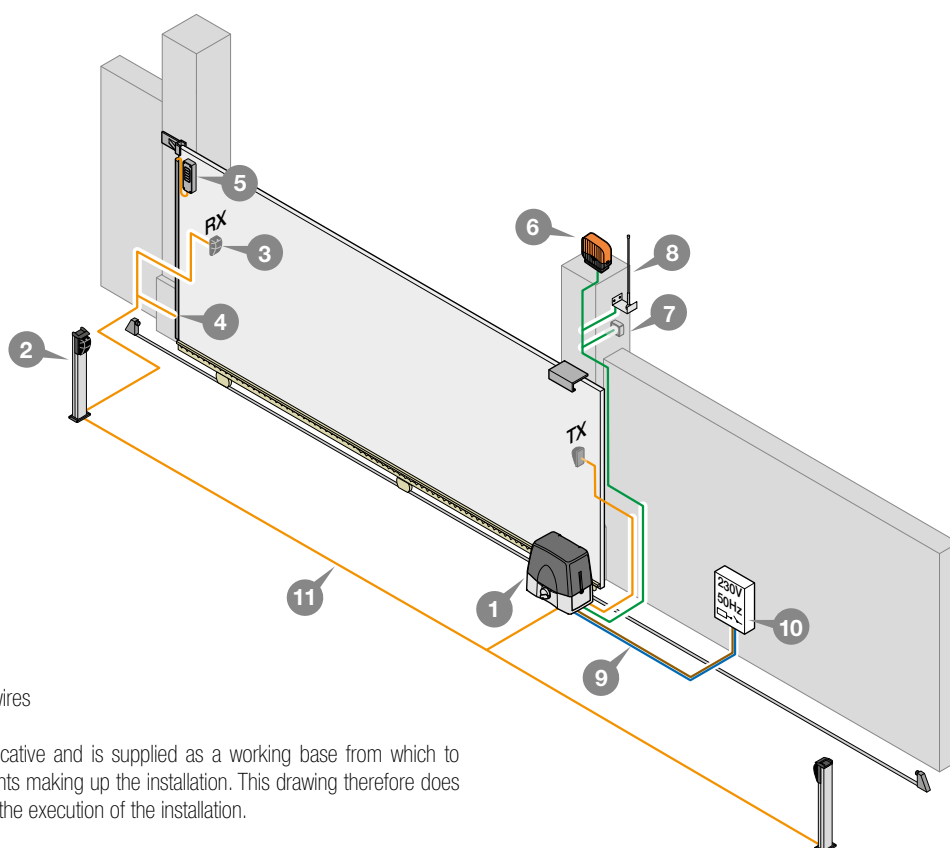


**SLX24DRACO**

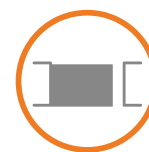
## INSTALLATION EXAMPLE

### LEGEND

- 1 Geared motor
- 2 Internal photocells
- 3 External photocells
- 4 Safety edge
- 5 Radioshield
- 6 Warning lights
- 7 Mechanical selector switch
- 8 External aerial
- 9 Mains cable 230Vac
- 10 All pole circuit breaker
- 11 Channelling route for low voltage wires



**Attention:** The drawing is purely indicative and is supplied as a working base from which to choose the Cardin electronic components making up the installation. This drawing therefore does not lay down any obligations regarding the execution of the installation.

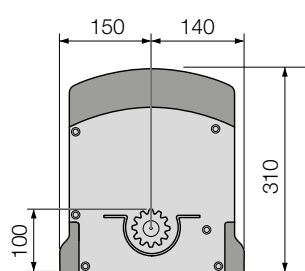


# CARDIN PRO SERIES SL

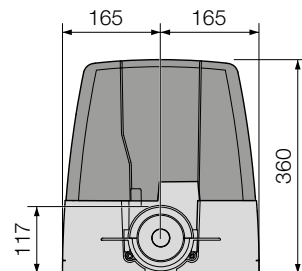
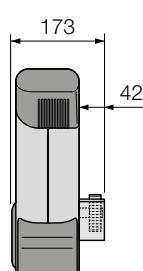
## TECHNICAL DATA

GENERAL CHARACTERISTICS		SL524-524CB	SLX824CB	SLX1024REV	SLX1524CB	SLX3024CB	SLX24DRACO
Power supply	Vac	230	230	230	230	230	230
Frequency	Hz	50	50	50	50	50	50
Nominal electrical input	A	0,75	0,9	0,9	0,9	1,1	1,7
Power input	W	170	200	200	200	250	380
Duty cycle	%	70	70	70	70	70	50
Drag speed	m/min	9,2	13	13	9,5	8	30
Torque max.	Nm	42	57	60	74	90	44
Operating temperature range	°C	-20°...+55	-20°...+55	-20°...+55	-20°...+55	-20°...+55	-20°...+55
Protection grade	IP	44	44	44	44	44	44
<b>MOTOR DATA</b>							
Motor power supply	Vdc	24	24	24	24	24	24
Maximum power yield	W	38	110	110	130	160	250
Nominal electrical input	A	1,8	3	3	3,5	4,5	10
<b>BUILT-IN RECEIVER CARD</b>							
Reception frequency	MHz	433.92 / 868,3	433.92 / 868,3	433.92 / 868,3	433.92 / 868,3	433.92 / 868,3	433.92 / 868,3
Number of channels	No	4	4	4	4	4	4
Number of functions	No	6	8	8	8	8	8
Number of stored codes	No	300 / 1000	300 / 1000	300 / 1000	300 / 1000	300 / 1000	300 / 1000

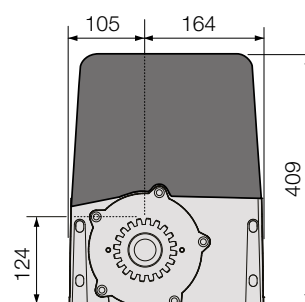
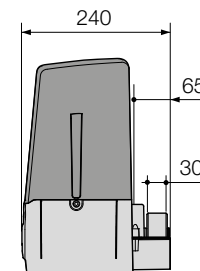
## OVERALL DIMENSIONS



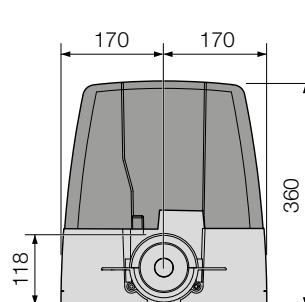
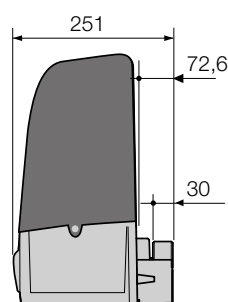
SL524 - SL524CB



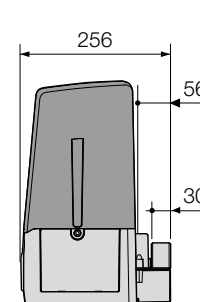
SLX824CB - SLX1024REV - SLX1524CB

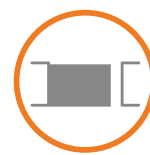


SLX24DRACO



SLX3024CB





# SELF-PROGRAMMING AUTOMATION FOR SLIDING GATES



## CARDIN TRADE SERIES SL ACE

Electromechanical gear motors suitable for gate positioning control and safety system management. Ideal for residential sliding gates the unit moves gates up to 16 metres per minute with speed regulation.

Powerful, rapid and controlled by state of the art electronics, the unit is fitted with a powerful direct current motor backed up by a finely tuned double gear kinematic system which reduces the stress on the motor and structure caused by the movement of gates.

The reduction unit stator is made of die cast aluminium and contains a never ending screw and double reduction lubricated with grease.

Installation, on a robust and rust proof base, is possible on any structure and the unit may be fitted both to the right as well as to the left of the passageway.

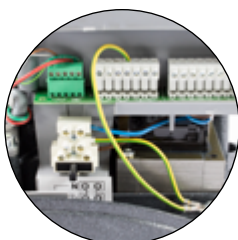
The use of direct current motors increases the performance, guarantees high efficiency, long life and silent running.

The integrated programmer allows encoder-controlled gate positioning and self-programming thus reducing installation times to a minimum and optimising the programming procedure.

Repositioning takes place automatically whenever foreign objects get in the way of the gate as it is moving. The electronic control unit is completed by the anti-crush and "soft start" and "soft stop" functions.

### Open collector:

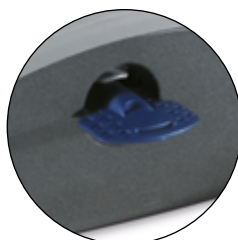
The product range is factory set for the insertion of an open collector receiver card that guarantees compatibility with all the radio control series available in the Cardin catalogue.



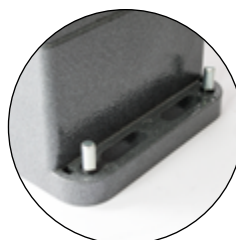
ELECTRONIC PROGRAMMER WITH  
EXTRACTABLE TERMINAL BLOCKS



OPEN COLLECTOR  
RECEIVER CARD



MANUAL RELEASE SL ACE FAST



RAPID ANCHORING  
SYSTEM



MANUAL RELEASE SL ACE 601

# CARDIN TRADE SERIES SL



## ELECTROMECHANICAL UNIT WITH A 24V MOTOR

The automation is made up of self-locking gear motor controlled by encoder and magnetic travel limits with an in-built:

- electronic programmer;
- motor speed regulation;
- motor drive power regulation;
- slot-in open collector receiver card.

The programmer allows you to rapidly set the system parameters including: the sequential button mode, automatic reclosing, warning lamp pre-flashing, flashing warning lamp activation, indicator light and photoelectric cell function setting etc.

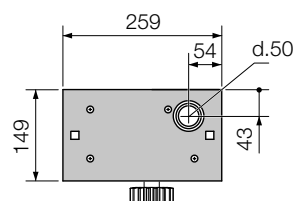
Ideal for residential sliding gates up to 300kg.

The appliance is fitted with a safe and secure key-operated manual release system protected by a plastic access door.

## SL ACE FAST

300  
kg

(adjustable drag speed up to **16** m/min)



FASTENING BASE  
SPARE PARTS NUMBER 9992026

## ELECTROMECHANICAL UNIT WITH A 24V MOTOR

The automation is made up of self-locking gear motor controlled by encoder and magnetic travel limits with an in-built:

- electronic programmer;
- motor speed regulation;
- motor drive power regulation;
- double 8,2k $\Omega$  inputs for connecting safety edges;
- slot-in open collector receiver card.

The programmer allows you to rapidly set the system parameters including: the sequential button mode, automatic reclosing, warning lamp pre-flashing, flashing warning lamp activation, indicator light and photoelectric cell function setting etc.

Compatible with the INTPRG-3G/WF system that allows the monitoring and programming of the system parameters from a remote position.

Possibility of connecting two gear motors in Master and Slave configuration for installations with opposing sliding gates.

Ideal for residential sliding gates up to 600kg.

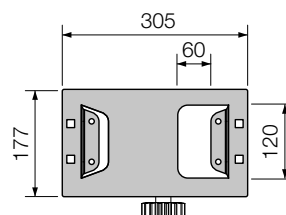
The appliance is fitted with a safe and secure key-operated manual release system protected by a plastic access door.

## SL ACE 601

600  
kg



(adjustable drag speed up to **16** m/min)



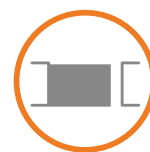
FASTENING BASE  
SPARE PARTS NUMBER 9995013

Compatible with the data exchange system between digital devices (smartphone, tablet, etc.) and the Cardin multifunctional control units.



See section 24V ECU INTERFACE DEVICES on page 186





# SELF-PROGRAMMING AUTOMATION FOR SLIDING GATES



## CARDIN TRADE SERIES SL EVO

Electromechanical gear motors suitable for gate positioning control and safety system management. Ideal for residential/industrial sliding gates powered by 230V.

Powerful, rapid and controlled by state of the art electronics, the gate automation units are fitted with powerful motors backed up by a finely tuned double gear kinematic system which reduces the stress on the motor and structure caused by the movement of gates.

The reduction unit stator is made of die cast aluminium and contains a never ending screw immersed in an oil bath (lubricated with grease for the SL EVO 600).

Installation, on a robust and rust proof base, is possible on any structure and the unit may be fitted both to the right as well as to the left of the passageway.

The integrated programmer allows encoder-controlled gate positioning and self-programming thus reducing installation times to a minimum and optimising the programming procedure.

The electronic control unit is completed by the anti-crush and "soft start" and "soft stop" functions.

### Open collector:

The product range is factory set for the insertion of an open collector receiver card that guarantees compatibility with all the radio control series available in the Cardin catalogue.



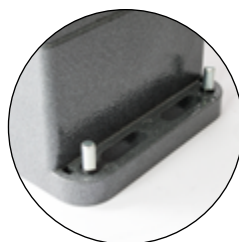
ELECTRONIC PROGRAMMER WITH  
EXTRACTABLE TERMINAL BLOCKS



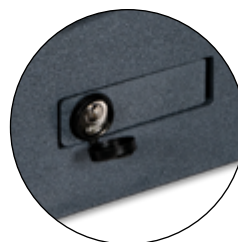
OPEN COLLECTOR  
RECEIVER CARD



MANUAL RELEASE  
SL EVO 600 - 800 - 1200



RAPID ANCHORING  
SYSTEM



MANUAL RELEASE SL EVO 2000



# CARDIN TRADE SERIES SL



## SELF-LOCKING SLIDING GATE MOTOR

For residential/industrial sliding gates up to 1200kg. Complete with encoder, magnetic limits, electronic brake and a built-in control unit. Constant performance over time and in any condition thanks to reduced wear&tear and the possibility to maintain the oil at the ideal temperature (in the versions SL EVO 800 and SL EVO 1200) using HOT (optional). The appliance is fitted with a safe and secure key-operated manual release system protected by a plastic access door.

### ELECTROMECHANICAL GEAR MOTOR POWERED BY 230V

Grease lubrication. For gates up to 600kg.

#### SL EVO 600



(drag speed max. 10 m/min)



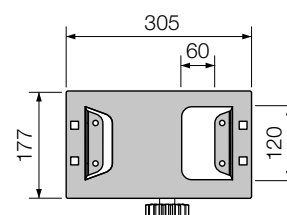
### ELECTROMECHANICAL GEAR MOTOR POWERED BY 230V

Oil bath lubrication. For gates up to 800kg.

#### SL EVO 800



(drag speed max. 10 m/min)



FASTENING BASE  
SPARE PARTS NUMBER 9995013

### ELECTROMECHANICAL GEAR MOTOR POWERED BY 230V

Oil bath lubrication. For gates up to 1200kg.

#### SL EVO 1200



(drag speed max. 10 m/min)



### ELECTROMECHANICAL GEAR MOTOR POWERED BY 230V

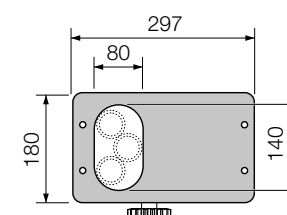
Oil bath lubrication. For industrial sliding gates up to 2000kg. Complete with encoder, magnetic limits, electronic brake and a built-in control unit. Constant performance over time and in any condition thanks to reduced wear&tear and the possibility to maintain the oil at the ideal temperature using HOT.

The appliance is fitted with a safe and secure key-operated manual release system.

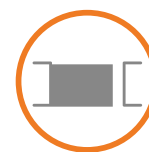
#### SL EVO 2000



(drag speed max. 10 m/min)



FASTENING BASE  
SPARE PARTS NUMBER 9995114



# CARDIN TRADE

## SERIES SL ACE-EVO

### GEAR RACK

in nylon reinforced with glass fibre with a steel core for sliding gates up to 600kg.

#### VERSION WITH 4 LOWER FASTENING SLITS

30mm x 20mm, M4, 1m pieces.

**CRENY1**



### GEAR RACK

in polyamide with a steel core for sliding gates up to 800kg.

#### VERSION WITH 6 LOWER FASTENING SLITS

30mm x 20mm, M4, 1m pieces.

**CREMP**



#### VERSION WITH 6 UPPER FASTENING SLITS

30mm x 20mm, M4, 1m pieces.

**CRENY**



### GEAR RACK

in galvanised steel for sliding gates up to 3000kg.  
Particularly suited to industrial installations.

#### VERSION TO BE SOLDERED

22mm x 22mm, M4, 2m pieces.

**SLOAC**



#### VERSION WITH FASTENING SLITS

30mm x 12mm, M4, 1m pieces.

**SLOAC2**



### SPACERS

screw version for SLOAC2.  
Lots of 30 pcs.

**DAC**



### SPACERS

soldering version for SLOAC2.  
Lots of 30 pcs.

**DSC**



### ADJUSTABLE SPACERS

screw version for SLOAC2.  
Lots of 3 pcs.

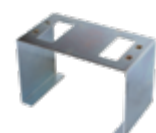
**DAP**



### BASEPLATE

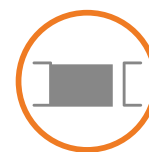
for embedding (SLEVO600 - SLEVO800 - SLEVO1200 - SLACE601).

**CPEVO**



# CARDIN TRADE

## SERIES SL ACE-EVO



### BATTERY CHARGER

for use with 24V programmers.

**CB24**

### EXTERNAL BOX

with 2 batteries 12V 7Ah. For SL ACE FAST - ACE 601.

**SPB24**


### POWER SUPPLY KIT

Solar panels for use with all 24Vdc automation.

**SUNPOWER**


### SPEED CONTROLLER

The device should be fitted to the gear rack in alignment with the motor in order to recuperate the correct sliding action of the gate in installations that are slightly inclined.

**RVS**


### MANUAL RELEASE KIT

for external use, supplied with a steel cable.

**KIT SBLESTEVO**


### MECHANICAL TRAVEL LIMIT ADAPTOR

from open collector to NC.

**ADFCSM**


### ELECTRONIC HEATER

with a temperature probe for 230V motors.

**HOT**


### BLUETOOTH MODULE

The module allows the exchange of information between the motor's electronic control unit and the Cardin 3G/WF interface via Bluetooth or directly between the control units and the apps CRD ONE and CRD TWO.

**MODBT2**

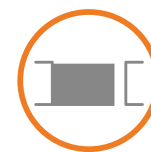

### FLAGON OF OIL

5 litres for SL EVO 800.

5 litres for SL EVO 1200.

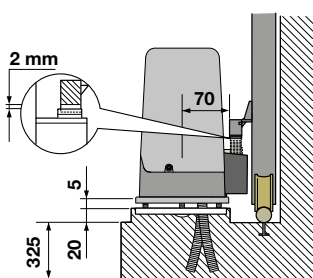
1 litre for SL EVO 2000.

**TS20**
**TS40**
**TS60**

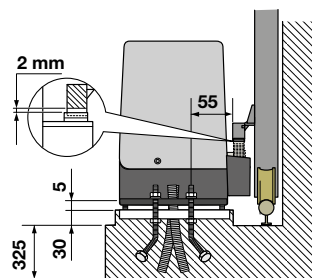



# CARDIN TRADE SERIES SL ACE-EVO

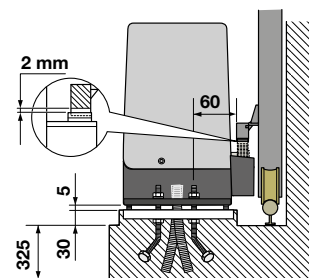
## POSITIONING THE UNIT



**SL ACE FAST**

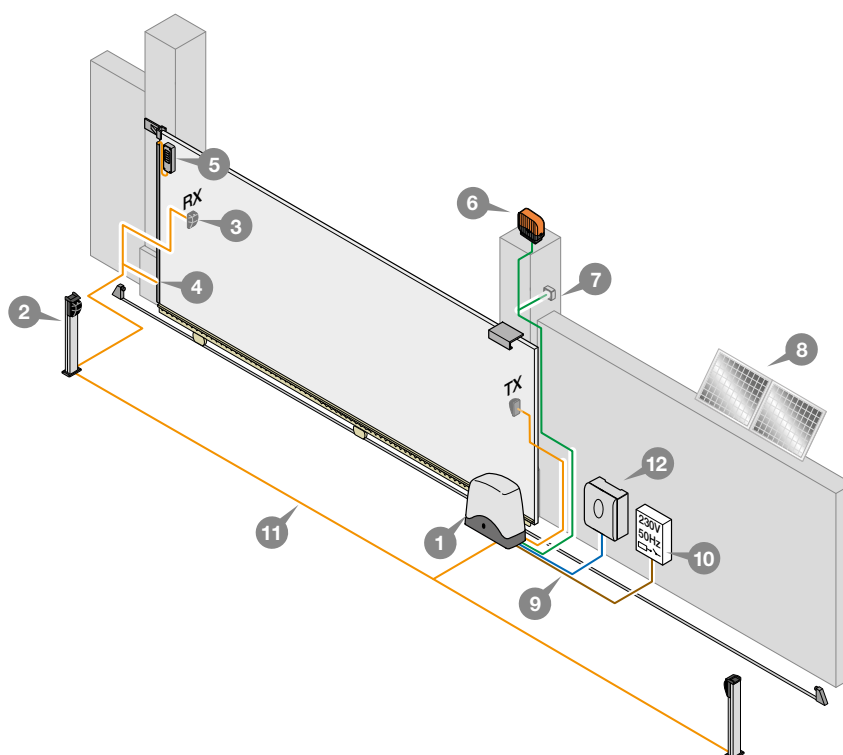


**SL EVO 600 - SL EVO 800  
SL EVO 1200 - SL ACE 601**



**SL EVO 2000**

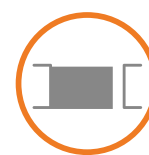
## INSTALLATION EXAMPLE



### LEGEND

- 1 Geared motor
- 2 Internal photocells
- 3 External photocells
- 4 Safety edge
- 5 Radioshield
- 6 Warning lights with aerial
- 7 Mechanical selector switch
- 8 Solar panels
- 9 Mains cable 230Vac
- 10 All pole circuit breaker
- 11 Channelling route for low voltage wires
- 12 Sun Power

**Attention:** The drawing is purely indicative and is supplied as a working base from which to choose the Cardin electronic components making up the installation. This drawing therefore does not lay down any obligations regarding the execution of the installation.



# CARDIN TRADE

## SERIES SL ACE-EVO

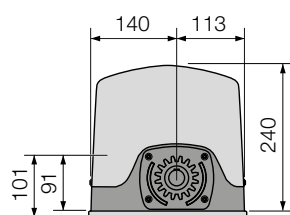
### TECHNICAL DATA

GENERAL CHARACTERISTICS		SL ACE FAST	SL ACE 601	SL EVO 600	SL EVO 800	SL EVO 1200	SL EVO 2000
Power supply	Vac	230	230	230	230	230	230
Frequency	Hz	50	50	50	50	50	50
Nominal electrical input	A	0,5	0,8	1,8	2	2,5	3,1
Power input	W	115	180	400	460	570	710
Duty cycle	%	40	60	40	60	60	40
Drag speed	m/min	10 . 16	10 . 16	10	10	10	10
Torque max.	Nm	15	21	21	25	45	50
Operating temperature range	°C	-20°...+55	-20°...+55	-20°...+55	-20°...+55	-20°...+55	-20°...+55
Protection grade	IP	44	44	44	44	44	44
<b>MOTOR DATA</b>							
Motor power supply	V	30 Vdc	24Vdc	230Vac	230Vac	230Vac	230Vac
Maximum power yield	W	120	200	800	800	1100	1000
Maximum electrical input	A	4	8	3,4	3,4	5,2	4,3

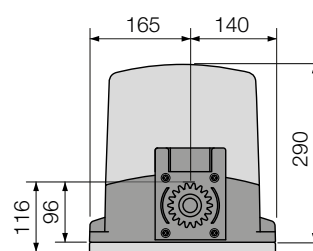
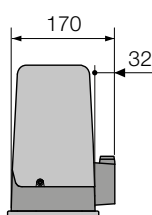
### OPTIONAL RECEIVER CARD

The product range is factory set for the insertion of an open collector receiver card that guarantees compatibility with all the radio control series available in the Cardin catalogue.

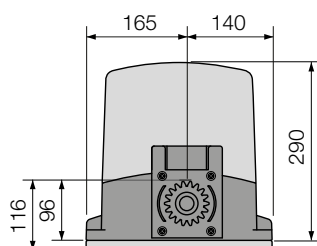
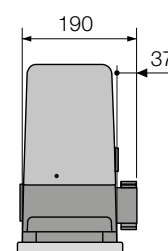
### OVERALL DIMENSIONS



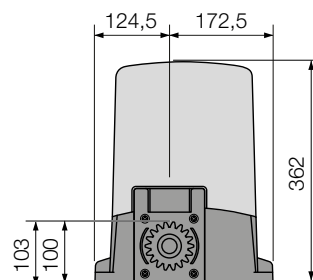
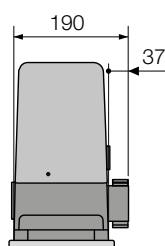
SL ACE FAST



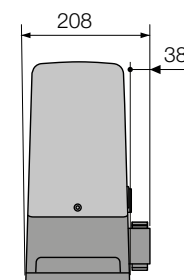
SL ACE 601



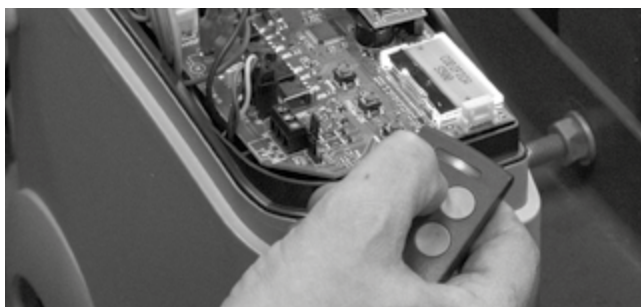
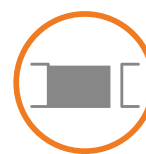
SL EVO 600 - SL EVO 800 - SL EVO 1200



SL EVO 2000



# COMPLETE KIT FOR SLIDING GATES



## USE

The kit contains all the command, control and safety devices required to carry out a residential installation for medium to small size sliding gates with a maximum weight of 500kg.

## SELF-LOCKING SLIDING GATE MOTOR

with an encoder-controlled 24Vdc motor.  
Incorporated electronic programmer with a 433MHz FM receiver, battery charger and NiMH batteries.

## KT-SL524CBX



## PACKING

DIMENSIONS: 390 x 175 x 320

GROSS WEIGHT: 11,5 kg

ITEMS PER PALLET: 24 pcs

## SL524CB

24V

500  
kg

+ -  
NiMH

(drag speed max. 9,2 m/min)



## 2 4-CHANNEL TRANSMITTERS

433MHz FM ROLLING CODE.

## TXQ504C4



## PAIR OF SURFACE-MOUNT PHOTOELECTRIC CELLS

in class 3 with adjustable lens, range 10m.

## CDR999



## LED WARNING LIGHT

24V - 230V with an in-built aerial

## ICON



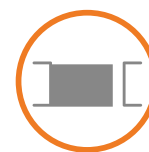
## INTERNATIONAL WARNING SIGN

in PP, multi-language.

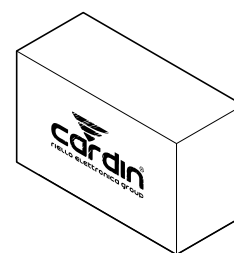
## TARGA-INT



# COMPLETE KIT FOR SLIDING GATES



## KT-SLACEFAST



PACKING

DIMENSIONS: 520 x 210 x 320

GROSS WEIGHT: 9,5 kg

ITEMS PER PALLET: 21 pcs

### USE

The kit contains all the command, control and safety devices required to carry out a residential installation for medium to small size sliding gates with a maximum weight of 300kg.

### SELF-LOCKING SLIDING GATE MOTOR

with an encoder-controlled 24Vdc motor and magnetic travel limits. In-built electronic programmer.

### SL ACE FAST

24V

300  
kg

(adjustable drag speed up to 16 m/min)



### 2-CHANNEL RECEIVER CARD

433MHz open collector, slot-in card. S508 - S449 - S486 - FM - EDGE and NOIRE versions are available on request.

### RSQ5040C2



### 2 4-CHANNEL TRANSMITTERS

433MHz FM ROLLING CODE.

### TXQ504C4



### PAIR OF SURFACE-MOUNT PHOTOELECTRIC CELLS

with adjustable lens, range 25m.

### VEDO 180



### LED WARNING LIGHT

24V - 230V with an in-built aerial

### ICON



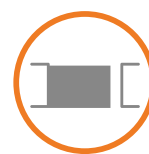
### INTERNATIONAL WARNING SIGN

in PP, multi-language.

### TARGA-INT



# COMPLETE KIT FOR SLIDING GATES



## KT-SLACE 601



PACKING

DIMENSIONS: 520 x 210 x 320

GROSS WEIGHT: 13 kg

ITEMS PER PALLET: 21 pcs

### USE

The kit contains all the command, control and safety devices required to carry out a residential installation for medium to small size sliding gates with a maximum weight of 600kg.

### SELF-LOCKING SLIDING GATE MOTOR

with an encoder-controlled 24Vdc motor and magnetic travel limits. In-built electronic programmer.

### SL ACE 601

24V

600  
kg

(adjustable drag speed up to 16 m/min)



### 2-CHANNEL RECEIVER CARD

433MHz open collector, slot-in card. S508 - S449 - S486 - FM - EDGE and NOIRE versions are available on request.

### RSQ5040C2



### 2 4-CHANNEL TRANSMITTERS

433MHz FM ROLLING CODE.

### TXQ504C4



### PAIR OF SURFACE-MOUNT PHOTOELECTRIC CELLS

with adjustable lens, range 25m.

### VEDO 180



### LED WARNING LIGHT

24V - 230V with an in-built aerial

### ICON



### INTERNATIONAL WARNING SIGN

in PP, multi-language.

### TARGA-INT





# COMPLETE KIT FOR SLIDING GATES



## KT-SLEVO 600



PACKING

DIMENSIONS: 520 x 210 x 320

GROSS WEIGHT: 15 kg

ITEMS PER PALLET: 21 pcs

### USE

The kit contains all the command, control and safety devices required to carry out a residential installation for medium to small size sliding gates with a maximum weight of 600kg.

### SELF-LOCKING SLIDING GATE MOTOR

with an encoder-controlled 24Vdc motor and magnetic travel limits.  
In-built electronic programmer.

**SL EVO 600**

230V

600  
kg

(drag speed max. **10** m/min)



### 2-CHANNEL RECEIVER CARD

433MHz open collector, slot-in card. S508 - S449 - S486 - FM - EDGE and NOIRE versions are available on request.

**RSQ5040C2**



### 2 4-CHANNEL TRANSMITTERS

433MHz FM ROLLING CODE.

**TXQ504C4**



### PAIR OF SURFACE-MOUNT PHOTOELECTRIC CELLS

with adjustable lens, range 25m.

**VEDO 180**



### LED WARNING LIGHT

24V - 230V with an in-built aerial

**ICON**



### INTERNATIONAL WARNING SIGN

in PP, multi-language.

**TARGA-INT**



# INSIDE AUTOMATION FOR SLIDING GATES

CARDIN INSIDE  
SLAVE AUTOMATION 24V

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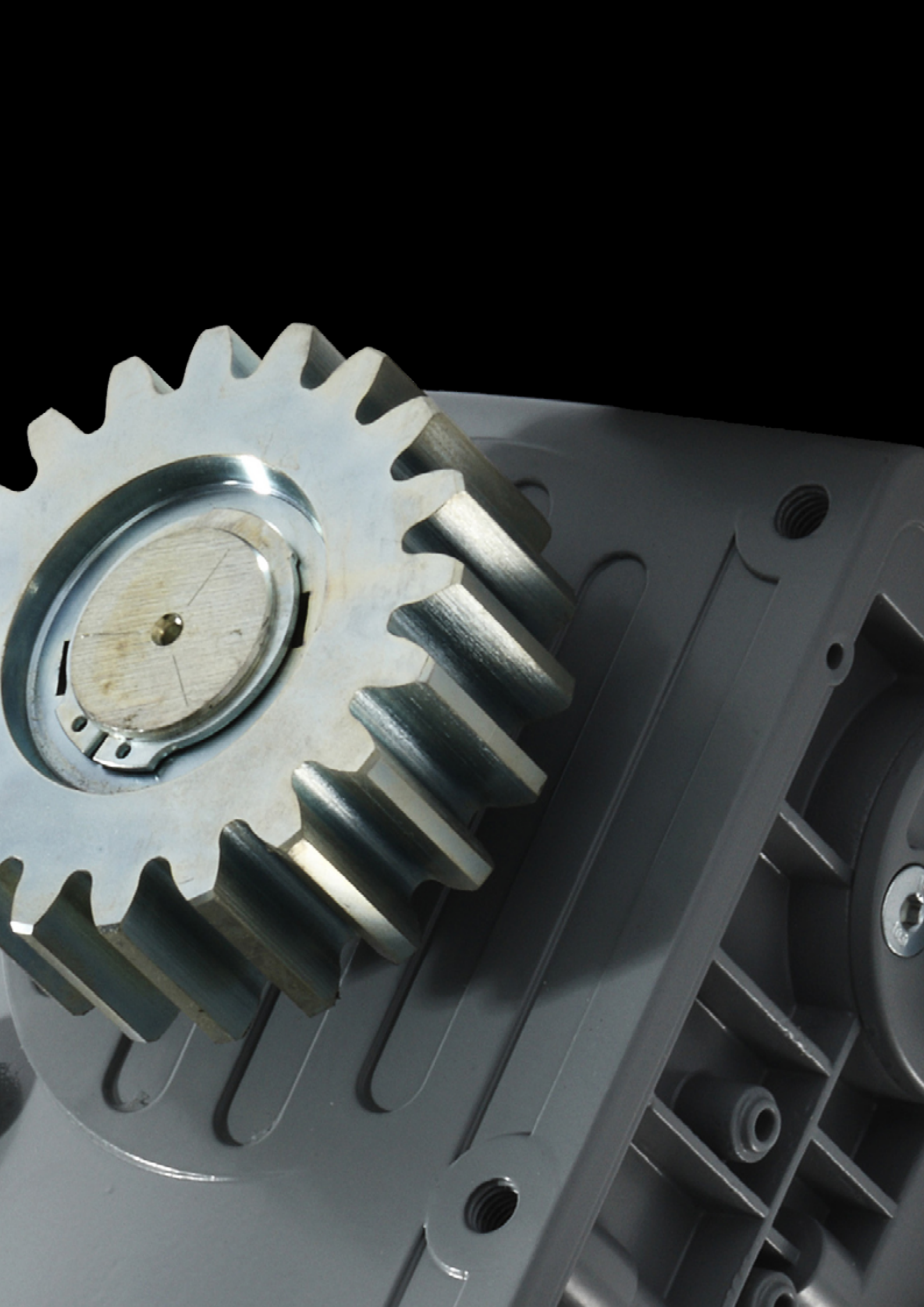
38

CARDIN KIT SLi  
SLAVE AUTOMATION 24V



42





# INSIDE AUTOMATION FOR SLIDING GATES



## CARDIN INSIDE SERIES SLi

Cardin inside identifies a line of products dedicated to the manufacturers of mass produced industrial gates and doors. Integrating the automation device into the structure of the gate or door allows you to complete the automatic door while still in the factory, thus allowing the manufacturer to supply a complete product that has already been tested and complies with the machine directive.

The electromechanical geared motor has been designed to guarantee maximum adaptability when being inserted into the support column of a gate and is fitted with all the fastenings required for every type of solution.

A double-reduction kinetics system immersed in permanently fluid grease works side by side with an efficient low-voltage motor that allows the system to obtain the maximum levels of performance whilst maintaining absolute operating silence when the unit is working.

The emergency manoeuvre (release system) is carried out by means of an efficient manual release system integrated into the geared motor.

The innovative DRACO system permits the gate's movement to be accompanied with total security and features a "variable speed function" which can be adjusted according to the different installation requirements up to a maximum speed of 30m per minute.

The electronic components are housed in a shockproof plastic container IP55 and the appliance is factory fitted with a multi-decoding module (system S449 - S486 - S504 - S508), a battery charger and NiMH batteries which allow the gate to be manoeuvred even during blackouts.

Compatible with the INTPRG-3G/WF system that allows the monitoring and programming of system parameters from remote positions.

A slave motor, connected via cable with the Cardin MODCA slot-in modules inserted, can be installed to drive two biparting sliding gates.

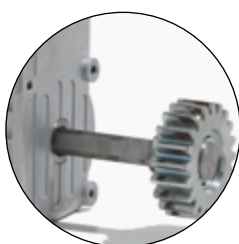


The automation, available in three versions with different motor power levels automation is suitable for driving sliding gates with up to a maximum weight of 1000kg.

Compatible with the data exchange system between digital devices (smartphone, tablet, etc.) and the Cardin multifunctional control units.



**See section 24V ECU INTERFACE DEVICES on page 186**



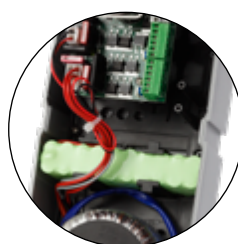
EXTRACTABLE PINION



LEVER ACTIVATED MANUAL RELEASE SYSTEM (SLi24DRACO)



ENCODER CONTROL



BATTERY CHARGER AND NiMH BATTERIES



SELF-PROGRAMMING MONITORED BY AN LCD GRAPHICS DISPLAY





# CARDIN INSIDE SERIES SLi

## SELF-LOCKING ELECTROMECHANICAL INSIDE OPERATOR

with a 24Vdc encoder-controlled motor.

For gates up to 300kg.

Drag speed max. 10,5 m/min.

**SLi324**

300  
kg



## ELECTRONIC PROGRAMMER FOR ONE MOTOR

including:

- 433MHz FM receiver;
- multi-decoding module S449-S486-S504-S508;
- battery charger and NiMH batteries.

The electronic programmer is factory fitted with a graphic LCD display (16 digits x 2 lines) in six different languages that monitors the programming stages, counts and displays the number of manoeuvres carried out by the machine and allows you to rapidly set the system parameters including: the sequential button mode, automatic reclosing, warning lamp pre-flashing, flashing warning lamp activation, indicator light and photoelectric cell function setting and transmitter code management etc.

**CC824EINTCB**



## ELECTRONIC PROGRAMMER FOR ONE MOTOR

Version without batteries or battery charger.

**CC824EINT**

## SELF-LOCKING ELECTROMECHANICAL INSIDE OPERATOR

with a 24Vdc encoder-controlled motor.

For gates up to 700kg.

Drag speed max. 11 m/min.

**SLi724**

700  
kg



## SELF-LOCKING ELECTROMECHANICAL INSIDE OPERATOR

with a 24Vdc encoder-controlled motor.

For gates up to 1000kg.

Drag speed max. 11 m/min.

**SLi1024**

1000  
kg



## ELECTRONIC PROGRAMMER FOR ONE MOTOR

including:

- 433MHz FM receiver;
- multi-decoding module S449-S486-S504-S508;
- battery charger and NiMH batteries.

The electronic programmer is factory fitted with a graphic LCD display (128 x 128 pixels) with backlighting in six different languages. The menu allows you to counts and display the number of manoeuvres carried out by the machine and to rapidly set the system parameters. The electronics card, thanks to the presence of the real-time clock, allows you to set 10 events (shown on the display). The events can be enabled or disabled (during holiday periods) either from the menu or by means of a radio channel.



## ELECTRONIC PROGRAMMER FOR SLi724

Version with batteries and a battery charger.

**CC924EFAMCBS**

## ELECTRONIC PROGRAMMER FOR SLi724

Version without batteries or a battery charger.

**CC924EFAMS**

## ELECTRONIC PROGRAMMER FOR SLi1024

Version with batteries and a battery charger.

**CC924EFAMCB**

## ELECTRONIC PROGRAMMER FOR SLi1024

Version without batteries or a battery charger.

**CC924EFAM**





# CARDIN INSIDE SERIES SLi

## SELF-LOCKING ELECTROMECHANICAL RAPID-ACTION INSIDE OPERATOR

with a 24Vdc encoder-controlled motor.  
For gates up to 1000kg.  
Adjustable drag speed up to 30 m/min.

### SLi24DRACO



## ELECTRONIC PROGRAMMER FOR ONE MOTOR

including:

- 433MHz FM receiver;
- multi-decoding module S449-S486-S504-S508.

Enhanced programmer (400W) with thermal protection and cooling fan.

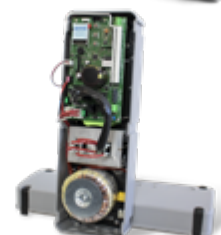
The electronic programmer is factory fitted with a graphic LCD display (128 x 128 pixels) with backlighting in six different languages. The menu allows you to counts and display the number of manoeuvres carried out by the machine and to rapidly set the system parameters. The electronics card, thanks to the presence of the real-time clock, allows you to set 10 events (shown on the display). The events can be enabled or disabled (during holiday periods) either from the menu or by means of a radio channel.

## ELECTRONIC PROGRAMMER FOR SLi24DRACO

batteries and battery charger to be ordered separately.



### CCDRACO24E



## KIT BATTERY CHARGER + NiMH BATTERIES

Allows the programmers CC824EINT, CC924EFAMS and CC924EFAM to work during blackouts.

### KBNIMH-1



## KIT BATTERY CHARGER + NiMH BATTERIES

Allows the programmer CCDRACO24E to work during blackouts.

### KBNIMH-D



## 7-WIRE SPECIAL CONNECTING CABLE (2m)

for SLi324, SLi724 and SLi1024

### CABPC2

## 7-WIRE SPECIAL CONNECTING CABLE (2m)

for SLi24DRACO

### CABPC2D



## DATA INTERFACE MODULE VIA CABLE

The module allows the exchange of information between the motor's electronic control unit and the Cardin 3G/WF interface and also allows you to connect two motors via cable in order to use the synchronised master/slave function.

### MODCA



## BLUETOOTH MODULE

The module allows the exchange of information between the motor's electronic control unit and the Cardin 3G/WF interface via Bluetooth or directly between the control units and the apps CRD ONE and CRD TWO.

### MODBT





# CARDIN INSIDE

## SERIES SLi

### MOTOR SPECIFICATIONS

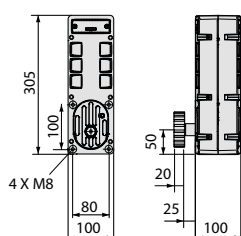
		SLi324	SLi724	SLi1024	SLi24DRACO
Motor power supply	Vdc	24	24	24	24
Electrical input	A	6,5	6,5	8,5	16
Power input	W	150	160	200	380
Duty cycle	%	70	70	70	50
Drag speed	m/min	10,5	11	11	30
Maximum gate weight	kg	300	700	1000	1000
Operating temperature range	°C	-20°...+55	-20°...+55	-20°...+55	-20°...+55
Protection grade	IP	44	44	44	44

### ECU CHARACTERISTICS

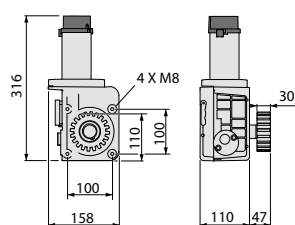
Power supply	Vac	230	230	230	230
Nominal electrical input	A	1,2	1,2	1,2	1,2
Maximum power yield	W	250	250	250	250
Protection grade	IP	55	55	55	55
Class II device	Cls				

### BUILT-IN RECEIVER CARD

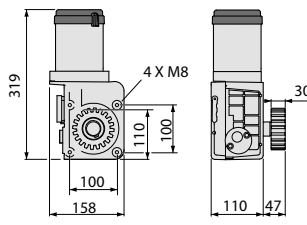
Reception frequency	MHz	433.92 / 868,3	433.92 / 868,3	433.92 / 868,3	433.92 / 868,3
Number of channels / number of functions	No	4 / 6	4 / 8	4 / 8	4 / 8
Number of stored codes	No	300 / 1000	300 / 1000	300 / 1000	300 / 1000



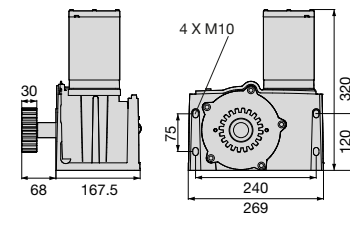
SLi324



SLi724



SLi1024



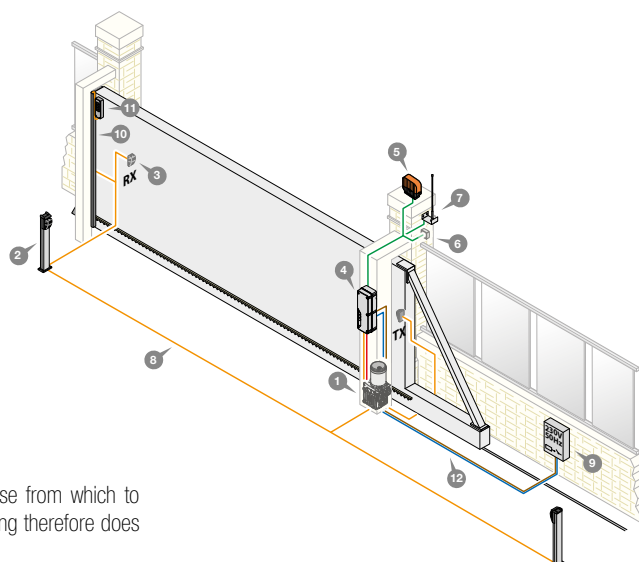
SLi24DRACO

### INSTALLATION EXAMPLE

#### LEGEND

- 1 Geared motor
- 2 Internal photocells
- 3 External photocells
- 4 Electronic programmer
- 5 Warning lights
- 6 Mechanical selector switch
- 7 External aerial
- 8 Channelling route for low voltage wires
- 9 All pole circuit breaker
- 10 Active safety edge
- 11 Radioshield
- 12 Mains cable 230Vac

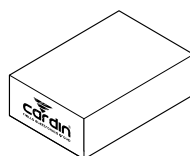
**Attention:** The drawing is purely indicative and is supplied as a working base from which to choose the Cardin electronic components making up the installation. This drawing therefore does not lay down any obligations regarding the execution of the installation.



# INSIDE KITS FOR SLIDING GATES



## KT-SLi324CB



PACKING  
DIMENSIONS: 240 x 360 x 150  
GROSS WEIGHT: 9 kg  
ITEMS PER PALLET: 36 pcs

### SELF-LOCKING ELECTROMECHANICAL INSIDE OPERATOR

with a 24Vdc encoder-controlled motor.  
For gates up to 300kg.

**SLi324**

**300**  
kg

(drag speed max. **10,5** m/min)



### ELECTRONIC PROGRAMMER FOR ONE MOTOR

including:

- 433MHz FM receiver;
- multi-decoding module S449-S486-S504-S508;
- battery charger and NiMH batteries.

**CC824EINTCB**

**128**  
PIX

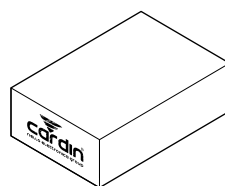


### 7-WIRE SPECIAL CONNECTING CABLE (2m)

**CABPC2**



## KT-SLi724CB



PACKING  
DIMENSIONS: 365 x 500 x 170  
GROSS WEIGHT: 12,7 kg  
ITEMS PER PALLET: 24 pcs

### SELF-LOCKING ELECTROMECHANICAL INSIDE OPERATOR

with a 24Vdc encoder-controlled motor.  
For gates up to 700kg.

**SLi724**

**700**  
kg

(drag speed max. **11** m/min)



### ELECTRONIC PROGRAMMER FOR ONE MOTOR

including:

- 433MHz FM receiver;
- multi-decoding module S449-S486-S504-S508;
- battery charger and NiMH batteries.

**CC924EFAMCBS**

**128**  
PIX



### 7-WIRE SPECIAL CONNECTING CABLE (2m)

**CABPC2**





# INSIDE KITS FOR SLIDING GATES



## KT-SLi1024CB



PACKING  
DIMENSIONS: 365 x 500 x 170  
GROSS WEIGHT: 14,1 kg  
ITEMS PER PALLET: 24 pcs

### SELF-LOCKING ELECTROMECHANICAL INSIDE OPERATOR

with a 24Vdc encoder-controlled motor.  
For gates up to 1000kg.

#### SLi1024



(drag speed max. 11 m/min)



### ELECTRONIC PROGRAMMER FOR ONE MOTOR

including:

- 433MHz FM receiver;
- multi-decoding module S449-S486-S504-S508;
- battery charger and NiMH batteries.

#### CC924EFAMCB



### 7-WIRE SPECIAL CONNECTING CABLE (2m)

#### CABPC2



## KT-SLi24DRACO



PACKING  
DIMENSIONS: 310 x 465 x 310  
GROSS WEIGHT: 20kg  
ITEMS PER PALLET: 18 pcs

### SELF-LOCKING ELECTROMECHANICAL INSIDE OPERATOR

with a 24Vdc encoder-controlled motor.  
Adjustable speed up to 30m per minute.  
For gates up to 1000kg.

#### SLi24DRACO



(adjustable drag speed up to 30 m/min)



### ELECTRONIC PROGRAMMER FOR ONE MOTOR

including:

- 433MHz FM receiver;
- multi-decoding module S449-S486-S504-S508.

#### CCDRAC024E



### 7-WIRE SPECIAL CONNECTING CABLE (2m)

#### CABPC2D



# HINGED ARM AUTOMATION FOR SWING GATES

## RAPID SELECTION GUIDE

(FOR THE SERIES BL - HL - BLi)

46

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### CARDIN PRO BL



MASTER AUTOMATION 24V

52

SLAVE AUTOMATION 24-230V

60

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### CARDIN TRADE BL



MASTER AUTOMATION 24V

64

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### CARDIN KIT BL



MASTER AUTOMATION 24V

68



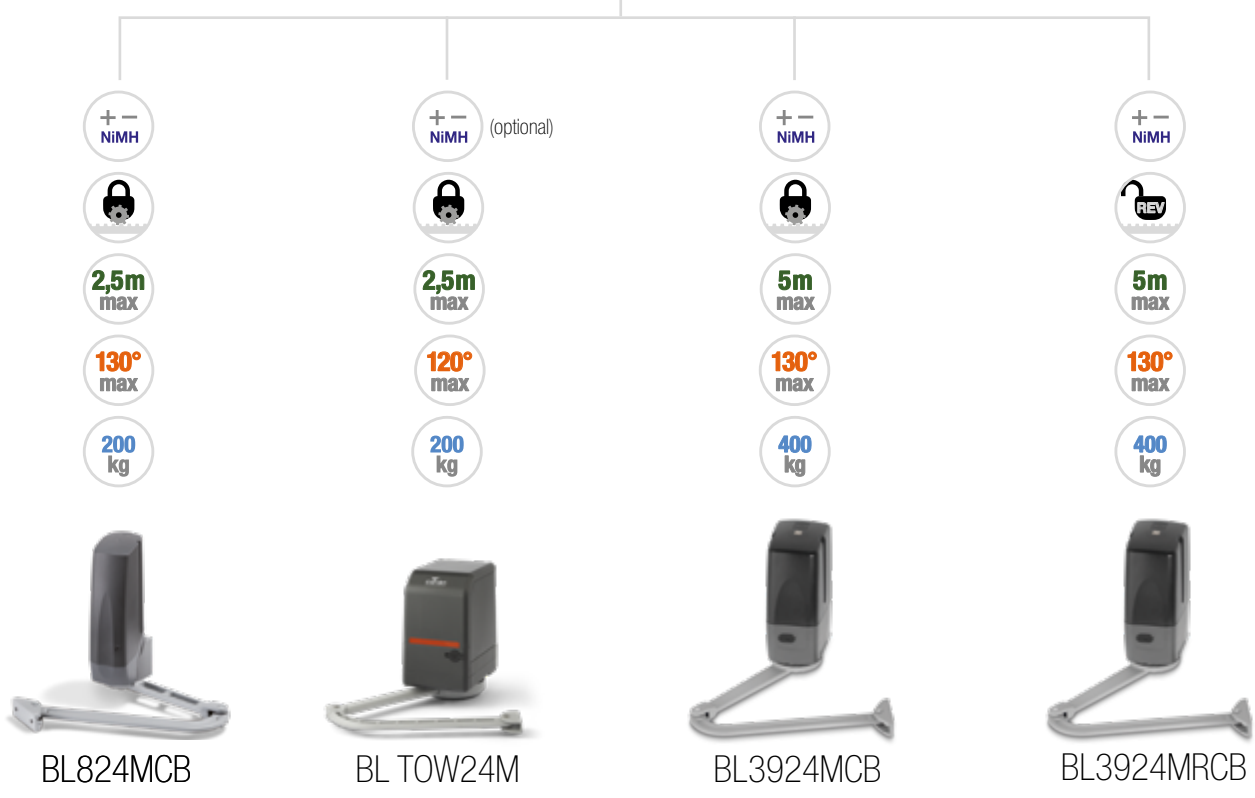
RAPID GUIDE

SWING GATES



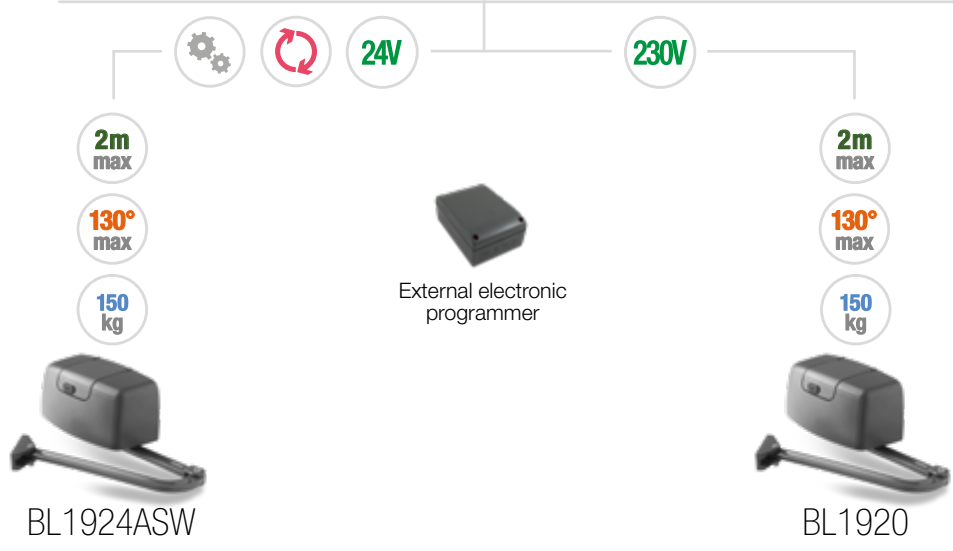
**BL**  
HINGED ARM  
MASTER AUTOMATION

**CARDIN PRO**



**BL**  
HINGED ARM  
SLAVE AUTOMATION

**CARDIN PRO**



RAPID GUIDE

SWING GATES



**BL**

HINGED ARM  
MASTER AUTOMATION

**CARDIN TRADE**



**2,5m**  
max

**120°**  
max

**200**  
kg



BL STEALTH



**BL**

WORM SCREW  
SLAVE AUTOMATION

**CARDIN PRO**



**2,5m**  
max

**110°**  
max

**300**  
kg



BLEGOS

**4m**  
max

**110°**  
max

**400**  
kg



BLESOL

RAPID GUIDE

SWING GATES



BL ASY

WORM SCREW  
SLAVE AUTOMATION

CARDIN TRADE



3m  
max

110°  
max

250  
kg



BL ASY324



5m  
max

110°  
max

300  
kg



BL ASY524



5m  
max

110°  
max

300  
kg



BL ASY524REV



BL ASY

WORM SCREW  
SLAVE AUTOMATION

CARDIN TRADE



3m  
max

110°  
max

250  
kg



BL ASY3



3m  
max

110°  
max

250  
kg



BL ASY3REV



5m  
max

110°  
max

300  
kg



BL ASY5



5m  
max

110°  
max

300  
kg



BL ASY5REV

RAPID GUIDE

SWING GATES



BL TAG

WORM SCREW  
SLAVE AUTOMATION

CARDIN TRADE



2m  
max

100°  
max

150  
kg



BL TAGSX

2m  
max

100°  
max

150  
kg



BL TAGDX



BLUES

WORM SCREW  
SLAVE AUTOMATION

CARDIN TRADE



2,5m  
max

105°  
max

350  
kg



BLUES3



2,5m  
max

105°  
max

350  
kg



BLUES3R



4,5m  
max

105°  
max

500  
kg



BLUES5



4,5m  
max

105°  
max

500  
kg



BLUES5R







**HL**

UNDERGROUND  
SLAVE AUTOMATION

**CARDIN PRO**



3m  
max

110°  
max

350  
kg



HL2524ESB

3m  
max

360°  
max

350  
kg



HL1824ESB



**HL**

UNDERGROUND  
SLAVE AUTOMATION

**CARDIN PRO**



3m  
max

110°  
max

550  
kg



HL251CL

3m  
max

360°  
max

550  
kg



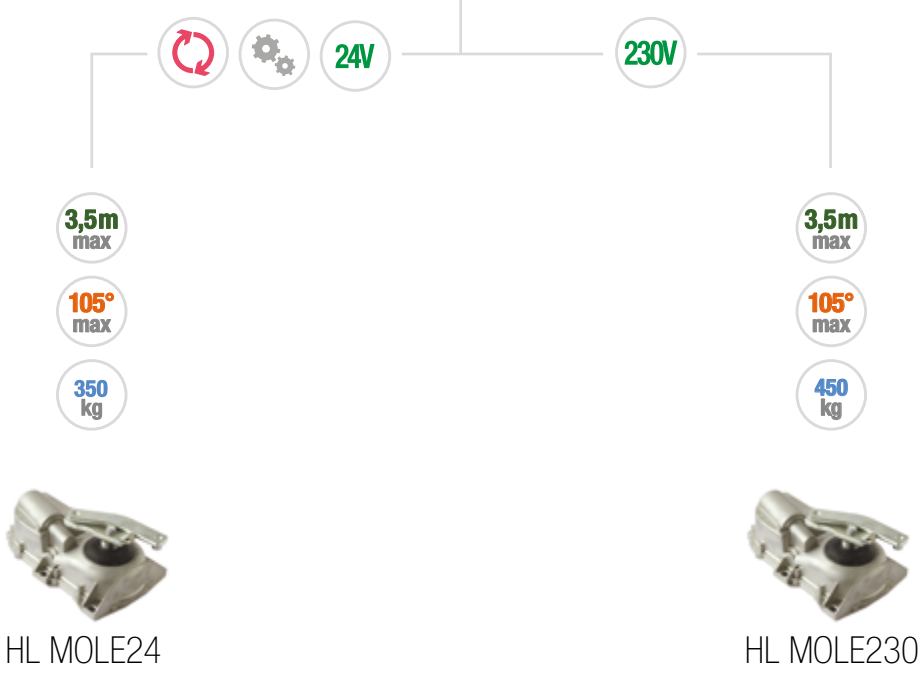
HL2518CL





**HL MOLE**

UNDERGROUND  
SLAVE AUTOMATION



**BLi**

INSIDE SLAVE  
AUTOMATION

**CARDIN INSIDE**





# SELF-PROGRAMMING AUTOMATION FOR SWING GATES



## CARDIN PRO SERIES BL

A complete automatic device for swing gates with one or two gate leaves, the system is made up of a Master unit and a Slave unit powering the second hinged gate.

Installation is facilitated and the geared motor is well anchored by the special practical cast aluminium wall (or column) bracket predisposed for any type of fastening.

The compact and robust fastening bracket allows the automation to be fitted to very narrow columns. The extremely robust cast aluminium operator arms are fitted with joints for all applications and are able to drive hinged gates with different constructive characteristics.

The electronic programmer is factory fitted with a graphic LCD display (128 x 128 pixels) with backlighting in six different languages. The menu allows you to rapidly set the system parameters including: the sequential button mode, automatic reclosing, warning lamp pre-flashing, intermittent warning lamp activation, indicator light and photoelectric cell function setting etc. The electronics card, thanks to the presence of the real-time clock, allows you to set 10 events (shown on the display) and these events permit you to regulate the opening and closing of the motor at different times during the day within 3 weekly time bands (Mon-Fri, Sat-Sun, Mon-Sun); the events can be enabled or disabled (during holiday periods) either from the menu or by means of a radio channel. Repositioning takes place automatically whenever foreign objects get in the way of the gate as it is moving. The electronic control unit is completed by the anti-crush and "soft start" and "soft stop" functions.

Compatible with the INTPRG-3G/WF system that allows the monitoring and programming of system parameters from remote positions.

### Multi-decoding:

The product range is factory fitted with a multi-decoding remote control module (system S449 - S486 - S504 - S508).



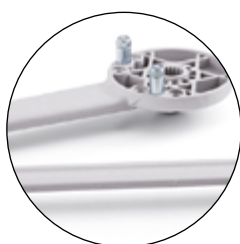
Compatible with the data exchange system between digital devices (smartphone, tablet, etc.) and the Cardin multifunctional control units.



**See section 24V ECU INTERFACE DEVICES on page 186**



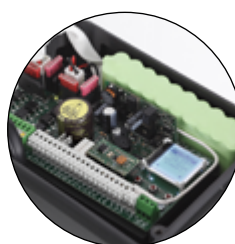
GATE MOVEMENT SIGNALLING  
INDICATED BY LEDS



ALUMINIUM OPERATOR ARMS



MANUAL RELEASE  
BL3924



NIMH EMERGENCY BATTERIES



SELF-PROGRAMMING MONITORED  
BY AN LCD GRAPHICS DISPLAY



# CARDIN PRO SERIES BL

## ELECTROMECHANICAL UNIT WITH A 24V MOTOR

Encoder-controlled self-locking Master unit including:

- electronic programmer;
- 433MHz FM receiver;
- slot-in battery charger;
- NiMH batteries.

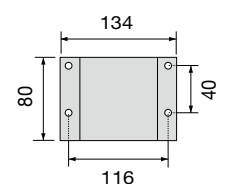
Particularly suited for installations with narrow columns that require the mounting base to be less than 150mm in width and also for gates where the hinges are not aligned to the edge of the column and with gate leaves of up to 2 metres in length (2,5m with a hinged arm and an electric lock) 200kg maximum weight.

Manual release is carried out using the hexagonal key located inside the side panel.

Operator arm to be ordered separately.



## BL824MCB



FASTENING BASE  
SPARE PARTS NUMBER 999626



## ELECTROMECHANICAL UNIT WITH A 24V MOTOR

Encoder-controlled self-locking slave unit.



## BL824S



## STANDARD HINGED OPERATOR ARM

in spray-painted cast aluminium.

## BL824ARM

## STRAIGHT ARM WITH SLIDING GUIDE

in spray-painted cast aluminium.

## BL824DRM

## 1000mm GUIDE FOR SPECIAL OPENING REQUIREMENTS

in cast aluminium.

Lots of 2 pcs.

## BL3924GU2



## KIT BATTERY CHARGER + NIMH BATTERIES

Allows the BL824MCB unit to work during blackouts.

## KBNIMH-3

## 10m CABLE

with end sleeves.

## CABPC10



For the electric locks see page 163.



# CARDIN PRO SERIES BL

## ELECTROMECHANICAL UNIT WITH A 24V MOTOR

Encoder-controlled self-locking Master unit including:

- electronic programmer;
- 433MHz FM receiver;
- gate movement signalling via led (optional).

Kit battery charger + batteries to be ordered separately.

Particularly suited for installations with narrow columns that require the mounting base to be less than 180mm in width and also for gates where the hinges are not aligned to the edge of the column and with gate leaves of up to 2 metres in length (2,5m with an electric lock), 200kg maximum weight.

Manual release is carried out using a practical locking - unlocking lever protected by a security key.

Operator arm included.



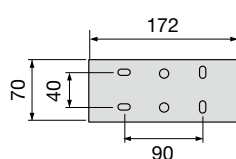
## ELECTROMECHANICAL UNIT WITH A 24V MOTOR

Encoder-controlled self-locking slave unit with gate movement signalling via led (optional).

Operator arm included.



## BLTOW24M



FASTENING BASE  
SPARE PARTS NUMBER 999750



## BLTOW24S



## STRAIGHT ARM WITH SLIDING GUIDE

in spray-painted cast aluminium.

## BLTS24DRM



## KIT BATTERY CHARGER + NIMH BATTERIES

Allows the BLTOW24M unit to work during blackouts.

## KBNIMH-1



## 10m CABLE

with end sleeves.

## CABPC10



## LED LIGHTS

Gate movement signalling indicated by leds.

## LED BLTOW



For the electric locks see page 163.



# CARDIN PRO SERIES BL

## ELECTROMECHANICAL UNIT WITH A 24V MOTOR

Encoder-controlled self-locking Master unit (reversible in the version BL3924MRCB) including:

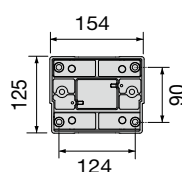
- electronic programmer;
- 433MHz FM receiver;
- slot-in battery charger;
- NiMH batteries.

Particularly suited for installations with large size columns where the hinges are not aligned to the edge of the column and with gate leaves of up to 3,5 metres in length (up to 5m with a hinged arm and an electric lock) 400kg maximum weight.

Manual release is carried out using the supplied hexagonal key after first unlocking and removing the covering cap.

Operator arm to be ordered separately.

**BL3924MCB**  
**BL3924MRCB**



FASTENING BASE  
SPARE PARTS NUMBER 999533



## ELECTROMECHANICAL UNIT WITH A 24V MOTOR

Encoder-controlled self-locking slave unit (reversible in the version BL3924SR).

**BL3924S**  
**BL3924SR**



## STANDARD HINGED OPERATOR ARM

in spray-painted cast aluminium.

**BL3924ARM**



## HINGED OPERATOR ARM WITH JOINTS

in spray-painted cast aluminium for opening systems on slopes.

**BL3924SRM**



## STRAIGHT ARM WITH SLIDING GUIDE

in spray-painted cast aluminium.

**BL3924DRM**



## 1000mm GUIDE FOR SPECIAL OPENING REQUIREMENTS

in spray-painted cast aluminium.  
Lots of 2 pcs.

**BL3924GU2**



## KIT BATTERY CHARGER + NIMH BATTERIES

Allows the BL3924MCB unit to work during blackouts.

**KBNIMH-1**



## 10m CABLE

with end sleeves.

**CABPC10**



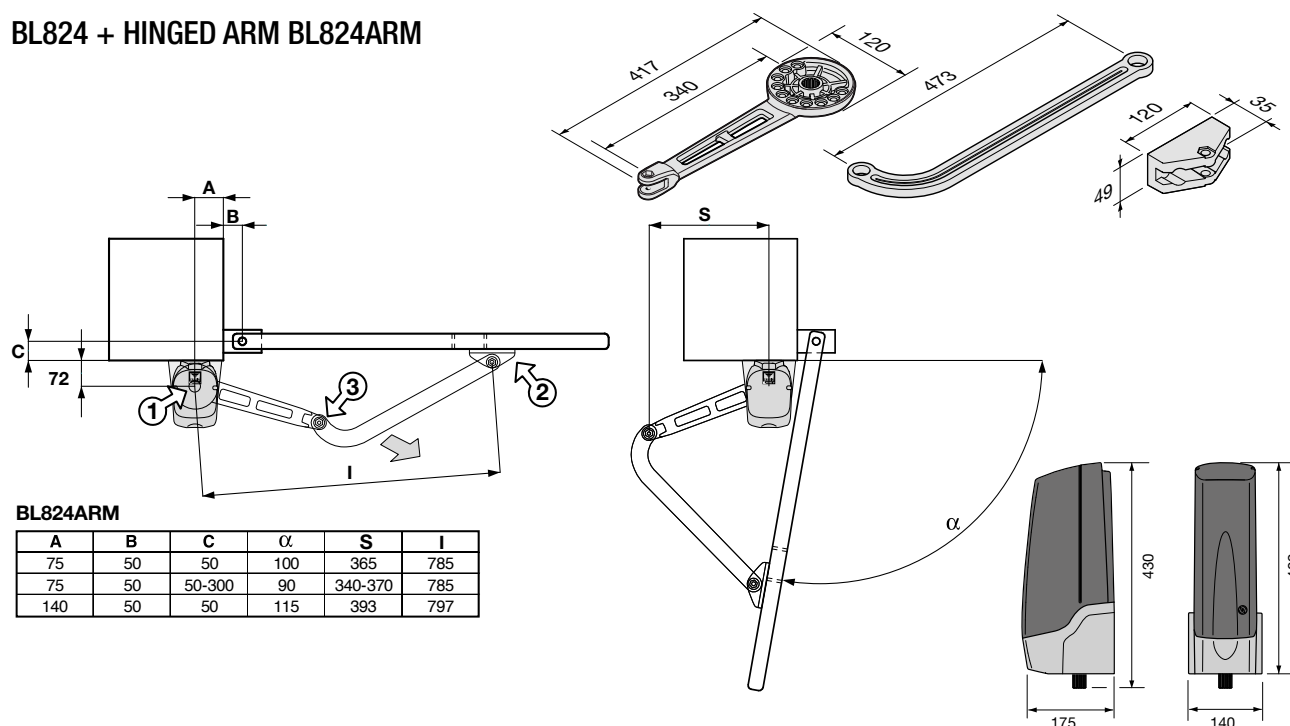
For the electric locks see page 163.



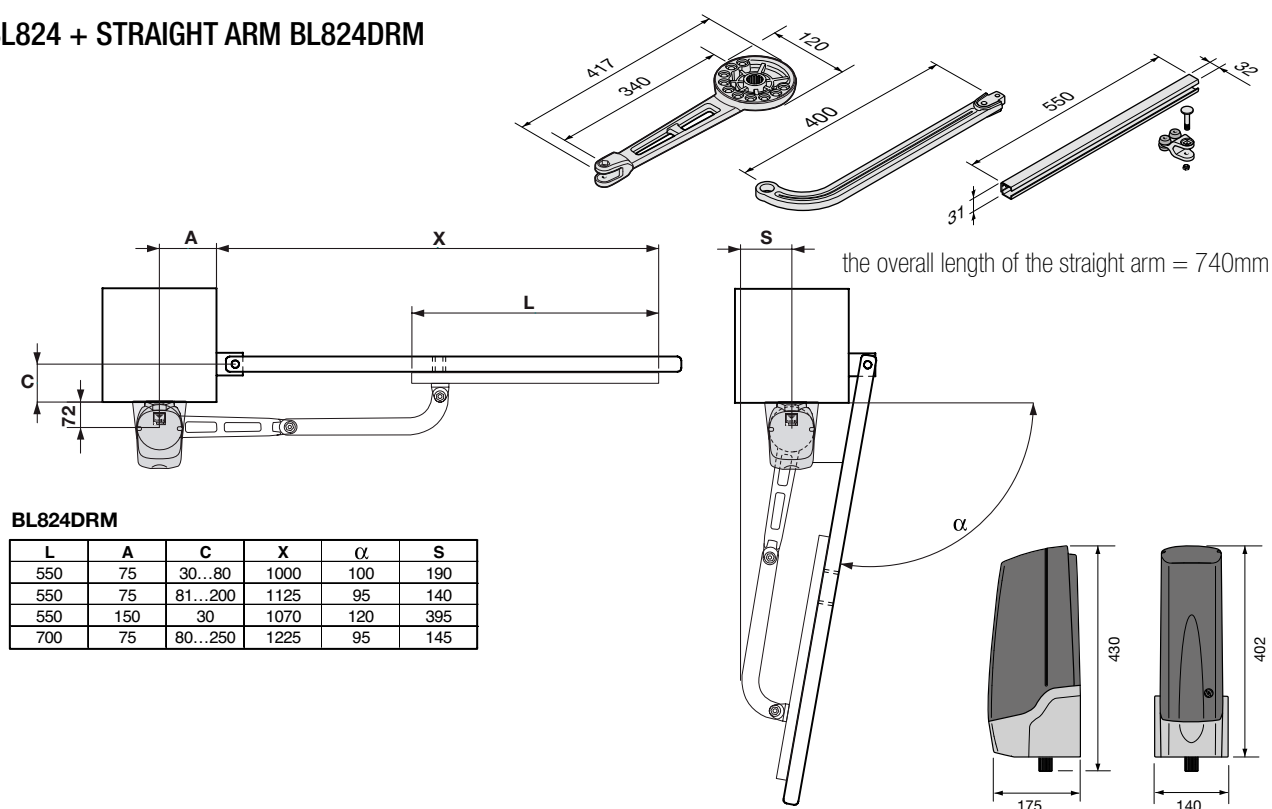
# CARDIN PRO SERIES BL

## LIMITS OF USE

### BL824 + HINGED ARM BL824ARM



### BL824 + STRAIGHT ARM BL824DRM

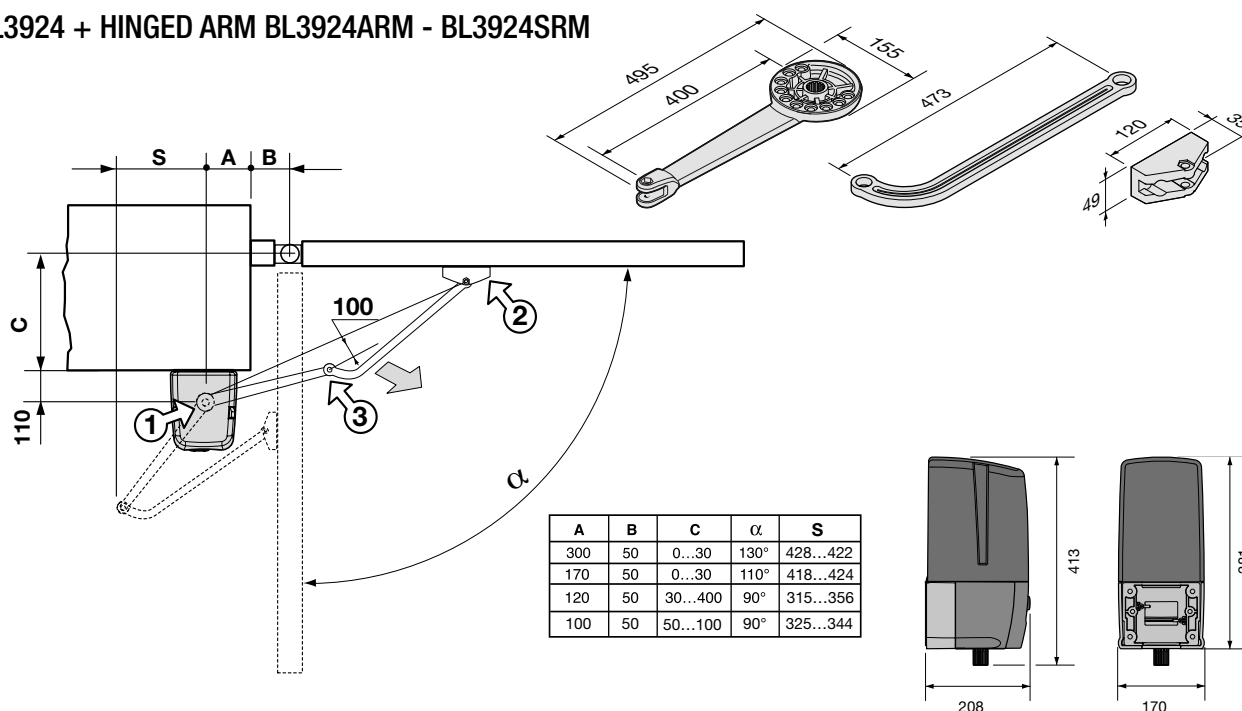




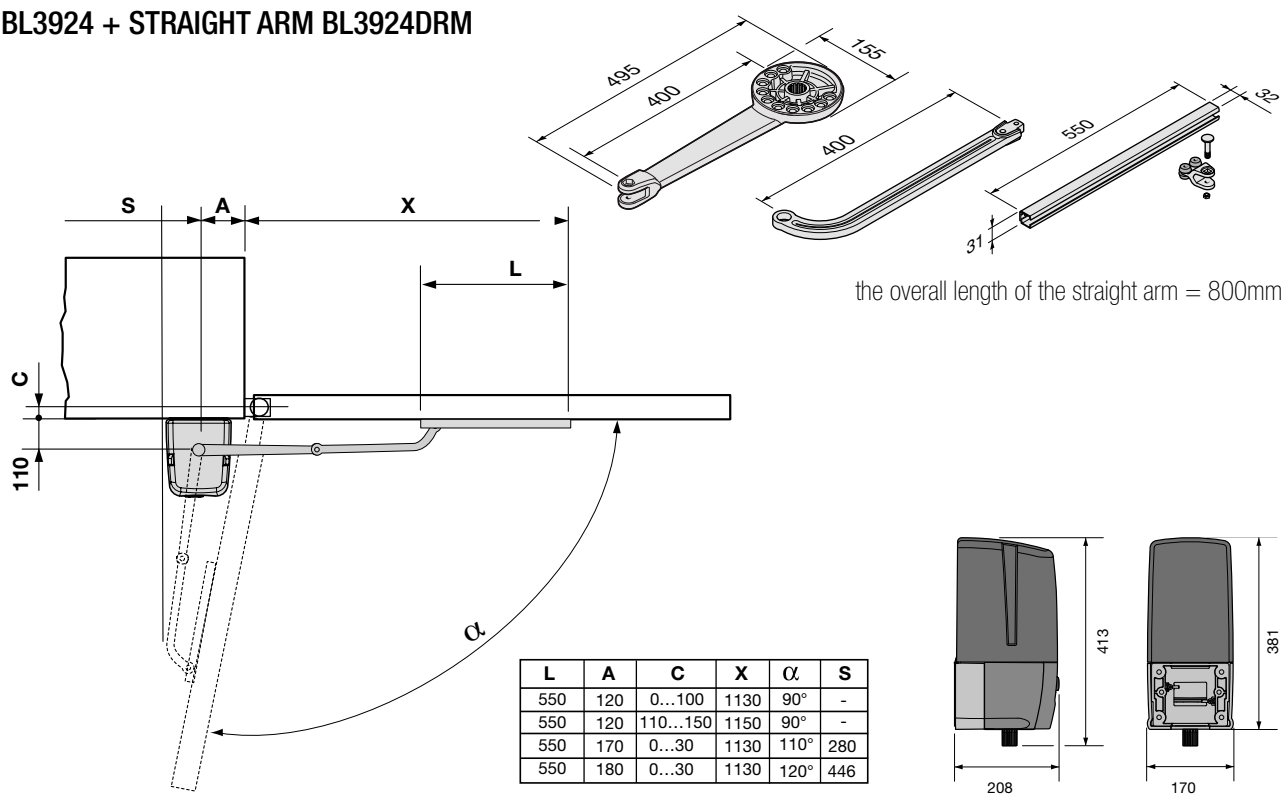
# CARDIN PRO SERIES BL

## LIMITS OF USE

### BL3924 + HINGED ARM BL3924ARM - BL3924SRM



### BL3924 + STRAIGHT ARM BL3924DRM

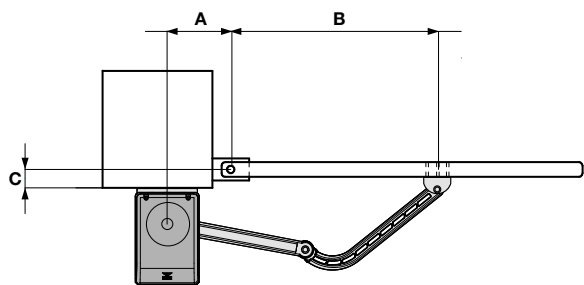
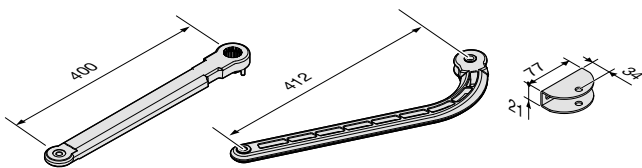


# CARDIN PRO SERIES BL

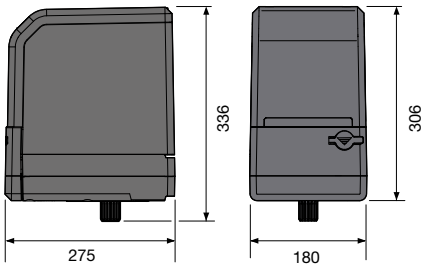
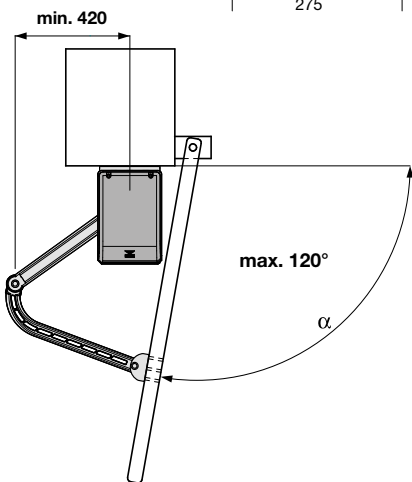


## LIMITS OF USE

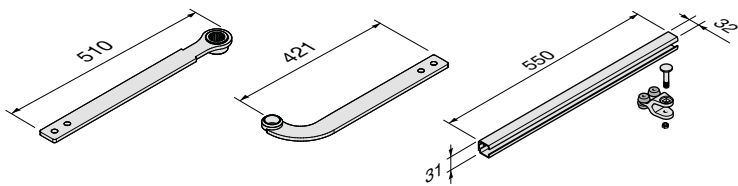
### BLTOW24 + HINGED ARM



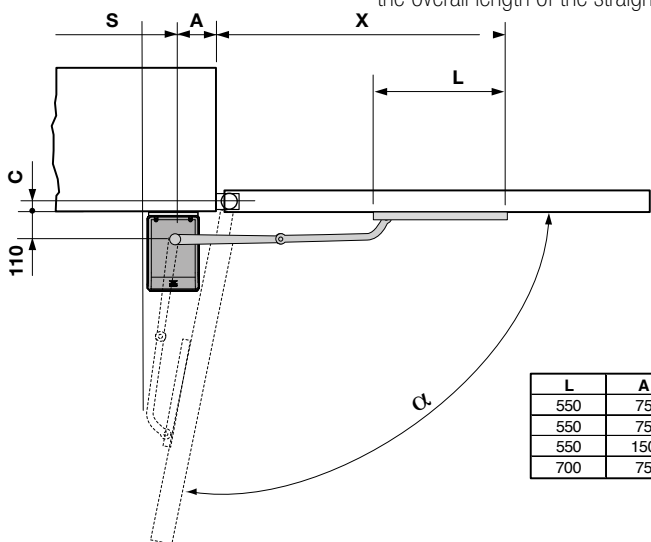
$\alpha$	A	B	C
90	130	500 - 600	0 - 200
110	250	500	25
120	300	500	50 max



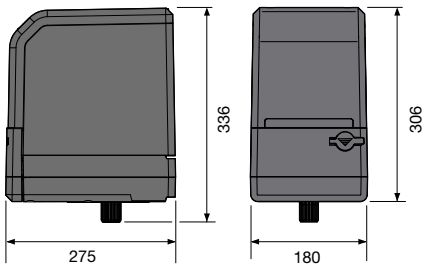
### BLTOW24 + STRAIGHT ARM BLTS24DRM



the overall length of the straight arm = 740mm



L	A	C	X	$\alpha$	S
550	75	30...80	1000	100	190
550	75	81...200	1125	95	140
550	150	30	1070	120	395
700	75	80...250	1225	95	145







# CARDIN PRO SERIES BL

## OPERATOR ARM TECHNICAL SPECIFICATIONS

		BL824MCB	BLTOW24M	BL3924MCB/MRCB
Motor power supply	Vdc	24	24	24
Nominal electrical input	A	2	3	2
Power input	W	50	50	50
Duty cycle	%	70	70	70
Opening time 90°	s	14 (12*)	13	20 (16*)
Maximum opening angle	°	130	120	130
Maximum torque	Nm	270	250	300
Protection grade	IP	44	54	44

\* using a straight operator arm

## ELECTRONIC PROGRAMMER TECHNICAL DATA

Power supply	Vac	230	230	230
Nominal electrical input	A	1,2	1,2	1,2
Maximum power yield	W	250	250	250
Power output for 1 or 2 motors	W	60 + 60	60 + 60	60 + 60
Class II device	Cls			

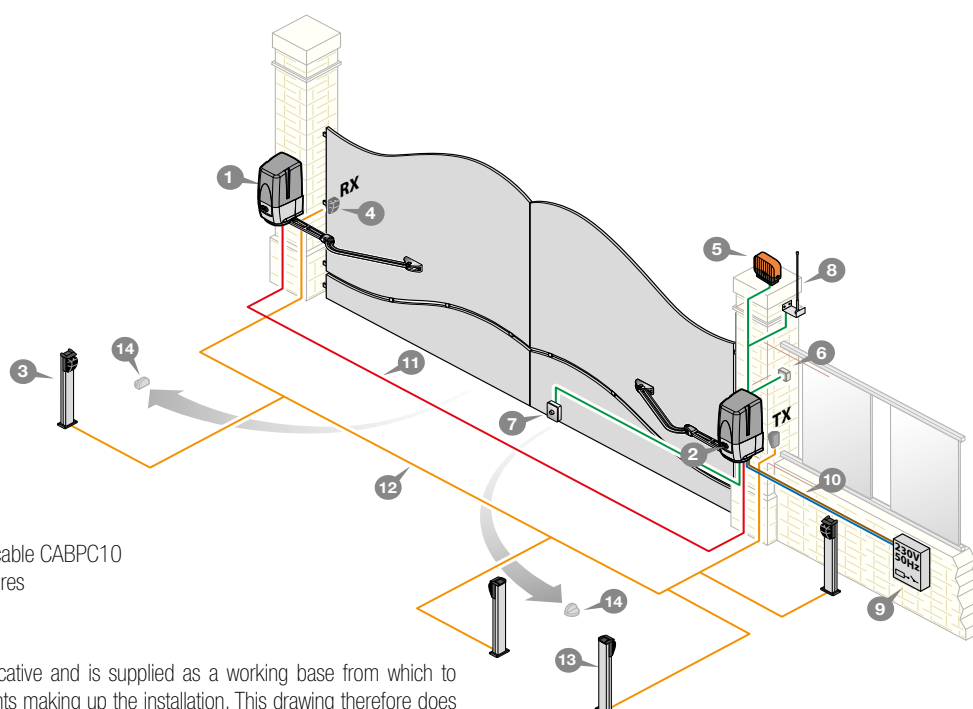
## BUILT IN RECEIVER CARD

Reception frequency	MHz	433.92 / 868,3	433.92 / 868,3	433.92 / 868,3
Number of channels / number of functions	No	4 / 8	4 / 8	4 / 8
Number of stored codes	No	300 / 1000	300 / 1000	300 / 1000

## INSTALLATION EXAMPLE

### LEGEND

- 1 Geared motor (left)
- 2 Geared motor (right)
- 3 Internal photocells
- 4 External photocells
- 5 Warning lights
- 6 Mechanical selector switch
- 7 Electric lock
- 8 External aerial
- 9 All pole circuit breaker
- 10 Mains cable 230Vac
- 11 Channelling for Cardin connection cable CABPC10
- 12 Channelling route for low voltage wires
- 13 Lateral protective photocells
- 14 Opening direction stop buffers



**Attention:** The drawing is purely indicative and is supplied as a working base from which to choose the Cardin electronic components making up the installation. This drawing therefore does not lay down any obligations regarding the execution of the installation.

# HINGED ARM AUTOMATION FOR SWING GATES



## CARDIN PRO SERIES BL

Self-locking electromechanical operators with 24V and 230V models suitable for fitting to single or double hinged gates with opening to the left or to the right of the passageway. Compact, robust and carefully designed, these appliances are the ideal solution for domestic automated gates with ultra wide columns even where the opening direction of the gate is contrary to the position of the motor. The finishing and high quality materials used guarantee one hundred percent resistance to atmospheric agents and the technical and design solutions characterise and heighten the quality standard.

The system is made up of one or two operator arms managed by an external Cardin electronic programmer housed in a shockproof and waterproof container.

The units do not feature on board electronics and we advise you to use a Cardin electronic programmer.

- PRG230M2 for 1 or 2 230V motors;
- CC242ETOPCB - CC242EXTOPCB for 1 or 2 24V motors;

On the 24V BL1924ASW model gate position is encoder-controlled and self-programming thus reducing installation times to a minimum and optimising the programming procedure.

Gate repositioning takes place automatically whenever foreign objects get in the way of the gate as it is moving. The electronic control unit is completed by the anti-crush and "soft start" and "soft stop" functions.

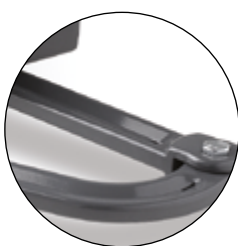
On the 230V - BL1920 model gate positioning is controlled with mechanical travel limits.

Both versions are fitted with a key-operated manual release mechanism.

A powerful unit that blends into all backgrounds and gives your gate regular and silent movement.



SHOCKPROOF CARTER



OPERATOR ARM IN CAST  
ALUMINIUM



MANUAL RELEASE MECHANISM



EMERGENCY BATTERIES  
VERSION BL1924ASW



SELF-PROGRAMMING MONITORED  
BY AN LCD GRAPHICS DISPLAY  
VERSION BL1924ASW

# CARDIN PRO SERIES BL



## RIGHT-HAND OPERATOR UNIT WITH A 24V MOTOR

## LEFT-HAND OPERATOR UNIT WITH A 24V MOTOR

Self-locking encoder-controlled operator:

- operator arm included;
- ECU to be ordered separately.

24V



2m  
max

130°  
max

150  
kg

BL1924ASW

BL1924LSW



## RIGHT-HAND OPERATOR UNIT WITH A 230V MOTOR

## LEFT-HAND OPERATOR UNIT WITH A 230V MOTOR

Self-locking operator with magnetic travel limits:

- operator arm included;
- ECU to be ordered separately.

230V

2m  
max

130°  
max

150  
kg

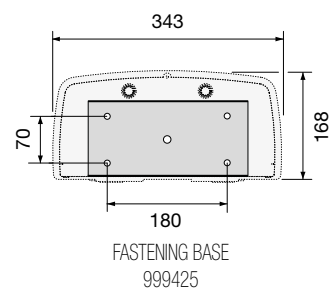
BL1920

BL1920L



### Operational constraints:

for gates with a maximum length of 2m  
maximum weight 150kg.



For the electric locks see page 163.



# CARDIN PRO SERIES BL

## SELF-PROGRAMMING ELECTRONIC CONTROL UNIT FOR BL1924ASW-BL1924LSW

Programmer for the management of two encoder-controlled motors.

Mains power supply 230Vac.

Motor power supply 24Vdc.

Maximum power yield 250W.

Fitted with a multi-decoding module S449-S486-S504-S508.

Compatible with the INTPRG-3G/WF system that allows the monitoring and programming of system parameters from remote positions.

Batteries and a battery charger in the CC242ETOPCB and CC242EXTOPCB versions

For more information turn to page 172.



Compatible with the data exchange system between digital devices (smartphone, tablet, etc.) and the Cardin multifunctional control units.



See section 24V ECU INTERFACE DEVICES on page 186

### ELECTRONIC CONTROL UNIT

**CC242ETOP**



### ECU, BATTERY CHARGER AND NiMH BATTERIES

**CC242ETOPCB**

### ECU, BATTERY CHARGER AND NiMH BATTERIES

**CC242EXTOPCB**



### KIT BATTERY CHARGER + NiMH BATTERIES

Allows the CC242ETOP unit to work during blackouts.

**KBNiMH-1**



### 10m CABLE

with end sleeves for BL1924ASW-BL1924LSW.

**CABPC10**



## SELF-PROGRAMMING ECU FOR BL1920-BL1920L

Programmer for the control of two motors.

Power supply 230Vac.

Motor power supply 230Vac.

Maximum power yield for two motors 470 + 470 W.

The programmer is factory set for the insertion of a Cardin standard receiver card.

For more information turn to page 174.

**PRG230M2**





# CARDIN PRO SERIES BL

## OPERATOR ARM TECHNICAL SPECIFICATIONS

Motor power supply  
Electrical input  
Power input  
Duty cycle  
Opening time 90°  
Maximum opening angle  
Maximum torque  
Protection grade

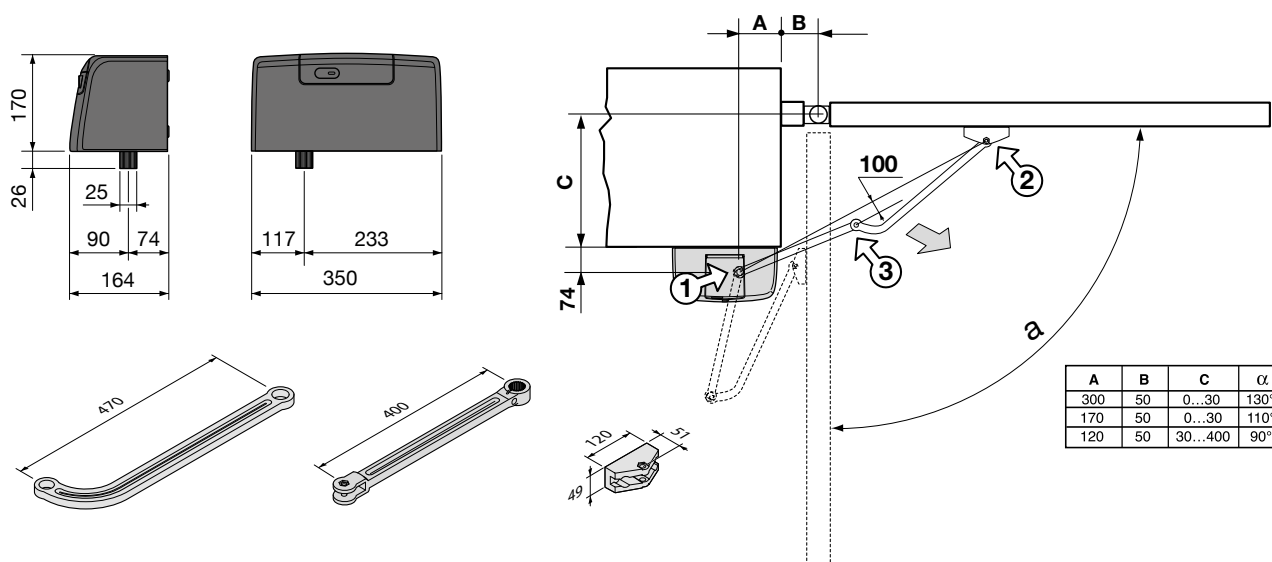
## BL1924ASW-BL1924LSW

V 24Vdc  
A 2  
W 60  
% 70  
s 12,5  
° 130  
Nm 170  
IP 44

## BL1920-BL1920L

230Vac  
1,3  
290  
25  
15  
130  
270  
44

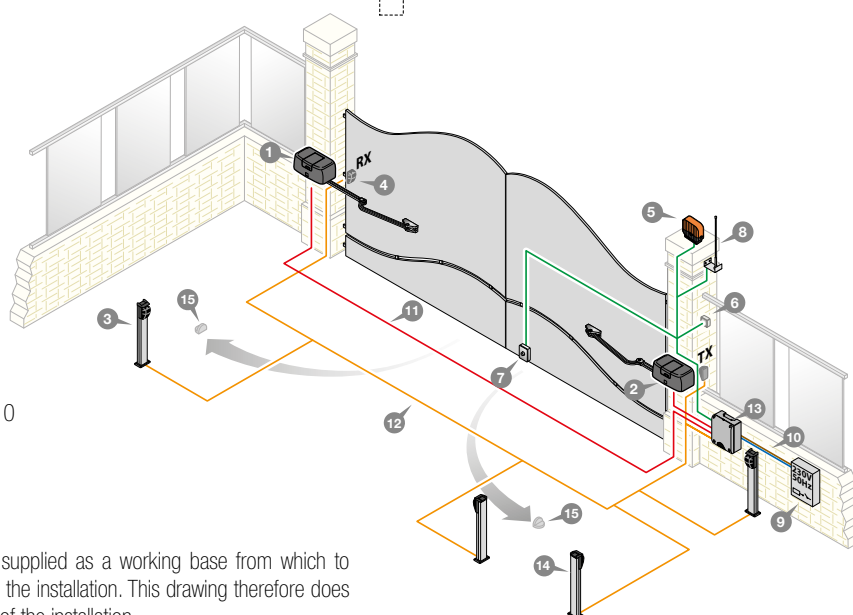
## LIMITS OF USE



## INSTALLATION EXAMPLE

### LEGEND

- 1 Geared motor (left)
- 2 Geared motor (right)
- 3 Internal photocells
- 4 External photocells
- 5 Warning lights
- 6 Mechanical selector switch
- 7 Electric lock
- 8 External aerial
- 9 All pole circuit breaker
- 10 Mains cable 230Vac
- 11 Channelling for Cardin connection cable CABPC10
- 12 Channelling route for low voltage wires
- 13 Electronic programmer
- 14 Lateral protective photocells
- 15 Opening direction stop buffers



**Attention:** The drawing is purely indicative and is supplied as a working base from which to choose the Cardin electronic components making up the installation. This drawing therefore does not lay down any obligations regarding the execution of the installation.





# SELF-PROGRAMMING AUTOMATION FOR SWING GATES



## CARDIN TRADE SERIES BL STEALTH

A complete automatic device for swing-to gates with one or two gate leaves, the system is made up of a Master unit and a slave unit powering the second swing-to gate.

Installation is facilitated and the geared motor is well anchored by the special practical cast aluminium wall (or column) bracket which allows all types of fitting.

The compact and robust fastening bracket allows the automation to be fitted to very narrow columns. The extremely robust cast aluminium operator arms are fitted with joints for all applications and are able to drive hinged gates with different constructive characteristics.

The use of direct current motors increase the performance, guarantee high efficiency, long life and silent running.

The integrated programmer employs mechanical travel limit controlled gate positioning.

Repositioning takes place automatically whenever foreign objects get in the way of the gate as it is moving. The electronic control unit is completed by the anti-crush and "soft start" and "soft stop" functions.

Compatible with the INTPRG-3G/WF system that allows the monitoring and programming of system parameters from remote positions.

### Open collector:

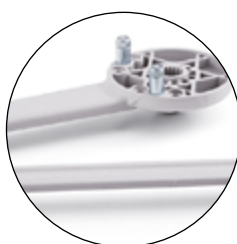
The product range is factory set for the insertion of an open collector receiver card that guarantees compatibility with all the radio control series available in the Cardin catalogue.



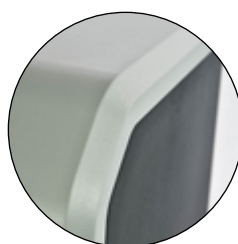
MANUAL RELEASE PROTECTED BY  
A PERSONALISED KEY



MANUAL RELEASE  
LOCKING -UNLOCKING LEVER



ALUMINIUM OPERATOR ARMS



ROBUST CARTIER IN SHOCKPROOF  
MATERIAL



IN-BUILT ELECTRONIC  
PROGRAMMER

# CARDIN TRADE SERIES BL



## ELECTROMECHANICAL UNIT WITH A 24V MOTOR

Self-locking Master unit controlled by mechanical travel limits with an in-built electronic programmer.

Kit battery charger + batteries to be ordered separately.

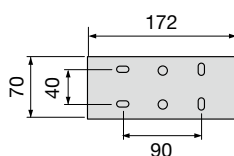
Particularly suited for installations with narrow columns that require the mounting base to be less than 180mm in width and also for gates where the hinges are not aligned to the edge of the column and with gate leaves of up to 2 metres in length (2,5m with an electric lock), 200kg maximum weight.

Manual release is carried out using a practical locking - unlocking lever protected by a security key.

Operator arm included.



## BL STEALTH



FASTENING BASE  
SPARE PARTS NUMBER 999750



## SELF-LOCKING SLAVE UNIT

driving the second gate.

Operator arm included.



## BL STEALTHS



## STRAIGHT ARM WITH SLIDING GUIDE

in spray-painted cast aluminium.

## BLTS24DRM



## BATTERY CHARGER

for use with 24V programmers.

## CB24

## EXTERNAL BOX

with 2 batteries 12V 7Ah.

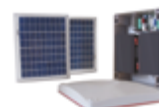
## SPB24



## POWER SUPPLY KIT

Solar panels for use with all 24Vdc automation.

## SUNPOWER



Compatible with the data exchange system between digital devices (smartphone, tablet, etc.) and the Cardin multifunctional control units. **See section 24V ECU INTERFACE DEVICES on page 186**



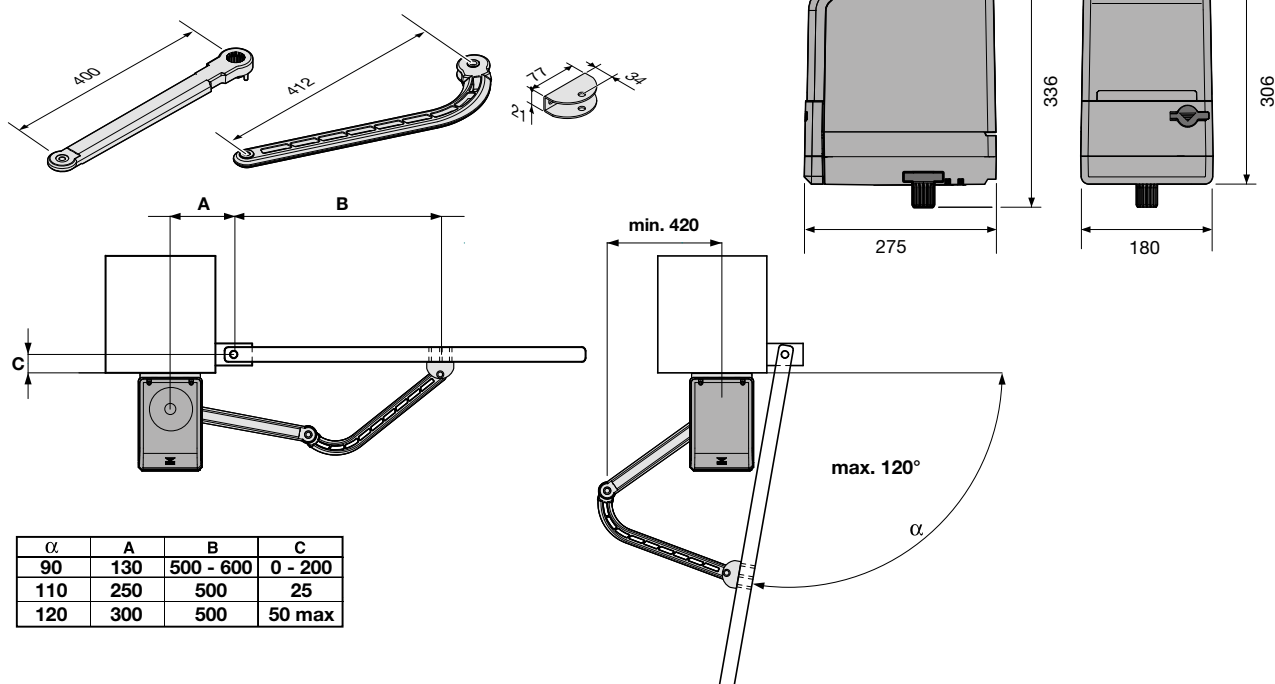
For the electric locks see page 163.



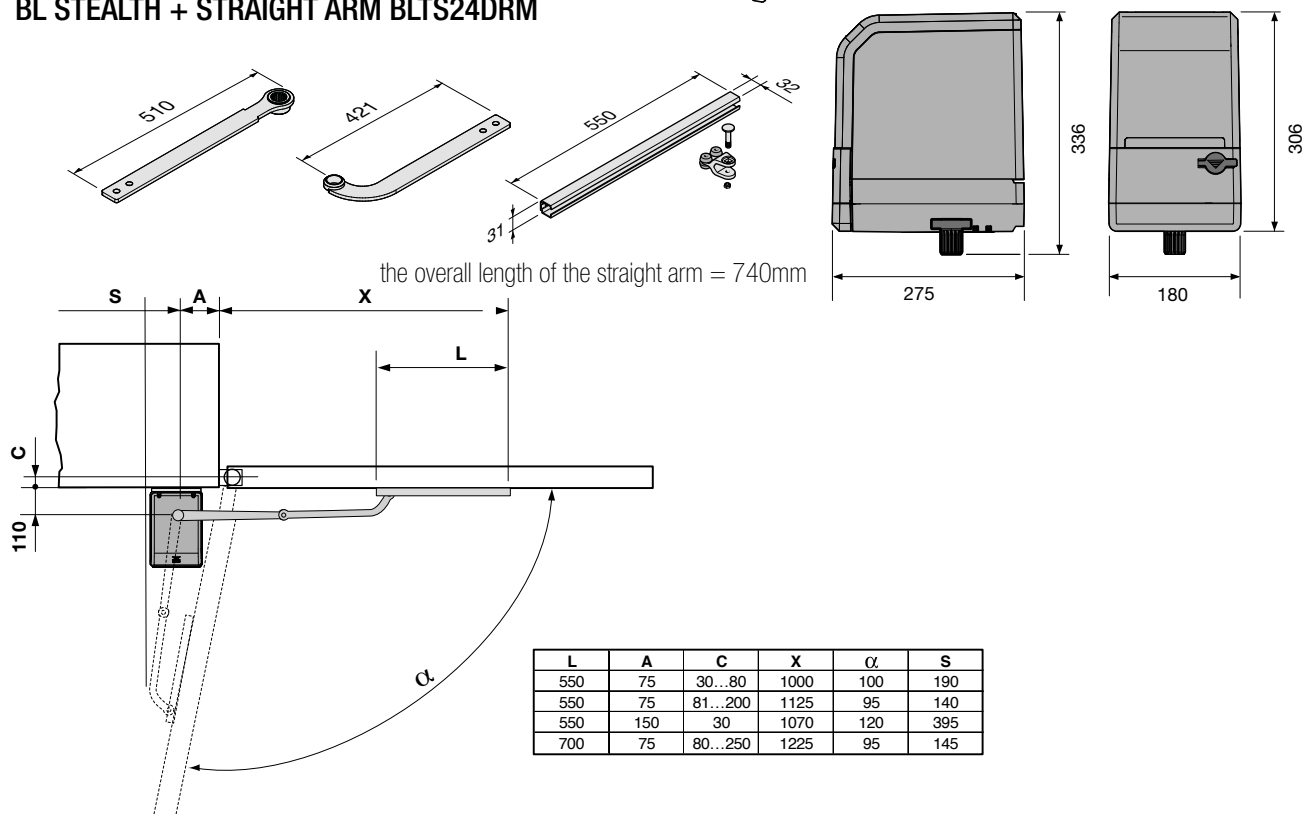
# CARDIN TRADE SERIES BL

## LIMITS OF USE

### BL STEALTH + HINGED ARM



### BL STEALTH + STRAIGHT ARM BLTS24DRM





# CARDIN TRADE SERIES BL

## OPERATOR ARM TECHNICAL SPECIFICATIONS

Motor power supply  
Nominal electrical input  
Power input  
Duty cycle  
Opening time 90°  
Maximum opening angle  
Maximum torque  
Protection grade

Vdc	24
A	3
W	50
%	70
s	13
°	120
Nm	250
IP	54

## ELECTRONIC PROGRAMMER TECHNICAL DATA

Power supply  
Nominal electrical input  
Maximum power yield  
Power output for 1 or 2 motors  
Class II device

Vac	230
A	1,2
W	250
W	60 + 60
Cls	

## BL STEALTH

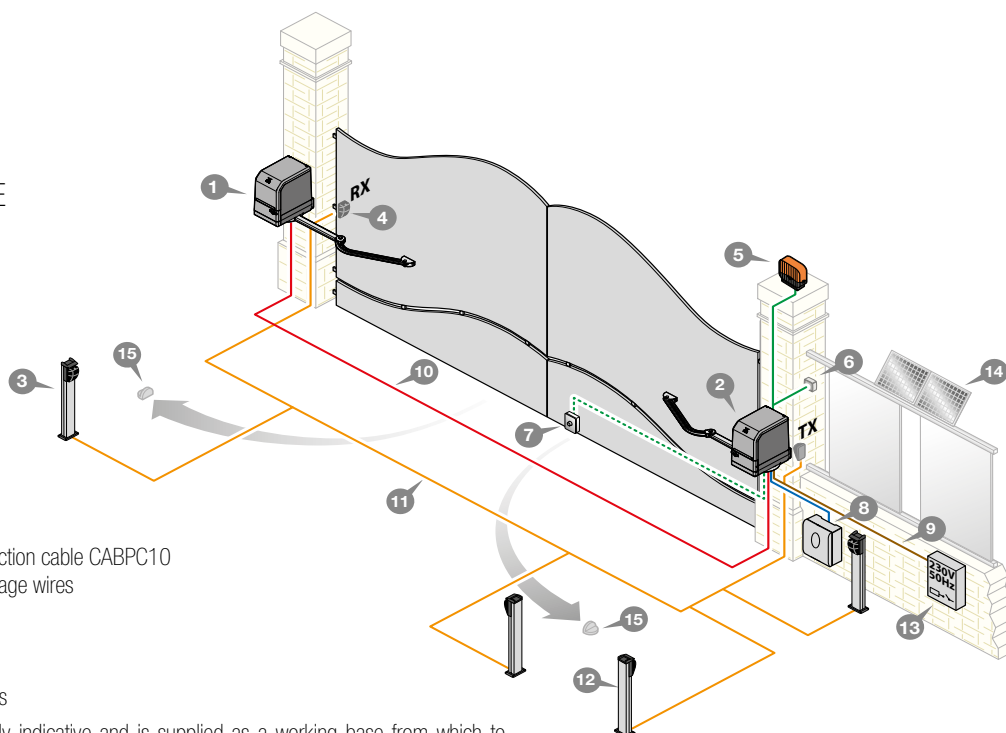
## OPTIONAL RECEIVER CARD

The product range is factory set for the insertion of an open collector receiver card that guarantees compatibility with all the radio control series available in the Cardin catalogue.

## INSTALLATION EXAMPLE

### LEGEND

- 1 Geared motor (left)
- 2 Geared motor (right)
- 3 Internal photocells
- 4 External photocells
- 5 Warning lights with aerial
- 6 Mechanical selector switch
- 7 Electric lock
- 8 Sun Power
- 9 Mains cable 230Vac
- 10 Channelling for Cardin connection cable CABPC10
- 11 Channelling route for low voltage wires
- 12 Lateral protective photocells
- 13 All pole circuit breaker
- 14 Solar panels
- 15 Opening direction stop buffers

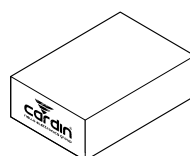


**Attention:** The drawing is purely indicative and is supplied as a working base from which to choose the Cardin electronic components making up the installation. This drawing therefore does not lay down any obligations regarding the execution of the installation.

# COMPLETE KIT FOR SWING GATES



## KT-BL824ACB



PACKING  
DIMENSIONS: 480 x 575 x 210  
GROSS WEIGHT: 22,3 kg  
ITEMS PER PALLET: 10 pcs

### USE

Particularly suited for installations with narrow columns that require the mounting base to be less than **150mm** in width and also for gates where the hinges are not aligned to the edge of the column and with gate leaves of up to **2 metres** in length (**2,5m** with an electric lock) **200kg** maximum weight.

### SELF-LOCKING MASTER UNIT

with a 24V encoder-controlled motor, electronic programmer, 433MHz FM receiver, battery charger and NiMH batteries.

### SELF-LOCKING SLAVE UNIT

driving the second gate.

### 2 STANDARD HINGED OPERATOR ARMS

in spray-painted cast aluminium.

### 2 4-CHANNEL TRANSMITTERS

433MHz FM ROLLING CODE.

### PAIR OF PHOTOCELLS

in class 3 with adjustable lens, range 10m.

### LED WARNING LIGHT

24V - 230V with an in-built aerial

### 10-METRE WIRING CABLE

with end sleeves.

### INTERNATIONAL WARNING SIGN

in PP, multi-language.

24V

2,5m  
max

200  
kg

BL824MCB

BL824S

BL824ARM

TXQ504C4

CDR999

ICON

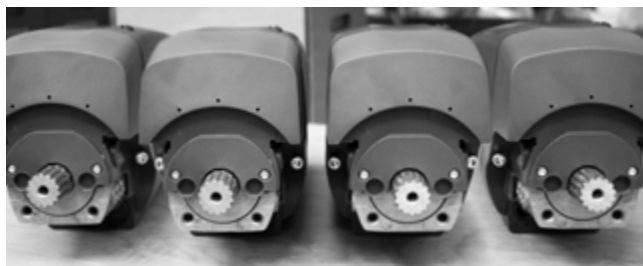
CABPC10

TARGA-INT

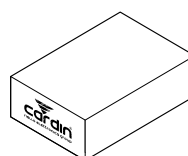




# COMPLETE KIT FOR SWING GATES



## KT-BL824DCB



PACKING  
DIMENSIONS: 480 x 575 x 210  
GROSS WEIGHT: 22,3 kg  
ITEMS PER PALLET: 10 pcs

### USE

Particularly suited for installations with narrow columns that require the mounting base to be less than **150mm** in width and also for gates where the hinges are not aligned to the edge of the column and with gate leaves of up to **2 metres** in length, **200kg** maximum weight.

### SELF-LOCKING MASTER UNIT

with a 24V encoder-controlled motor, electronic programmer, 433MHz FM receiver, battery charger and NiMH batteries.

### SELF-LOCKING SLAVE UNIT

driving the second gate.

### 2 STRAIGHT ARMS WITH A SLIDING GUIDE

in spray-painted cast aluminium.

### 2 4-CHANNEL TRANSMITTERS

433MHz FM ROLLING CODE.

### PAIR OF PHOTOCELLS

in class 3 with adjustable lens, range 10m.

### LED WARNING LIGHT

24V - 230V with an in-built aerial

### 10-METRE WIRING CABLE

with end sleeves.

### INTERNATIONAL WARNING SIGN

in PP, multi-language.

24V

2,5m  
max

200  
kg

**BL824MCB**

**BL824S**

**BL824DRM**

**TXQ504C4**

**CDR999**

**ICON**

**CABPC10**

**TARGA-INT**



# COMPLETE KIT FOR SWING GATES



## KT-BLTOW24



PACKING  
DIMENSIONS: 265 x 730 x 330  
GROSS WEIGHT: 14,5 kg  
ITEMS PER PALLET: 9 pcs

### USE

Particularly suited for installations with narrow columns that require the mounting base to be less than **180mm** in width and also for gates where the hinges are not aligned to the edge of the column and with gate leaves of up to **2 metres** in length (**2,5m** with an electric lock) **200kg** maximum weight.

### SELF-LOCKING MASTER UNIT

with a 24V encoder-controlled motor, electronic programmer, 433MHz FM receiver, battery charger and NiMH batteries.



**BLTOW24M**



### SELF-LOCKING SLAVE UNIT

driving the second gate.

**BLTOW24S**



### 2 4-CHANNEL TRANSMITTERS

433MHz FM ROLLING CODE.

**TXQ504C4**



### PAIR OF PHOTOCELLS

in class 3 with adjustable lens, range 10m.

**CDR999**



### LED WARNING LIGHT

24V - 230V with an in-built aerial

**ICON**



### 10-METRE WIRING CABLE

with end sleeves.

**CABPC10**



### INTERNATIONAL WARNING SIGN

in PP, multi-language.

**TARGA-INT**



# COMPLETE KIT FOR SWING GATES



## KT-BL3924MCB



PACKING  
DIMENSIONS: 530 x 235 x 510  
GROSS WEIGHT: 33 kg  
ITEMS PER PALLET: 14 pcs

### USE

Particularly suited for installations with large size columns where the hinges are not aligned to the edge of the column and with gate leaves of up to **5m** with an electric lock, **400kg** maximum weight.

### SELF-LOCKING MASTER UNIT

with a 24V encoder-controlled motor, electronic programmer, 433MHz FM receiver, battery charger and NiMH batteries.

### SELF-LOCKING SLAVE UNIT

driving the second gate.

### 2 STANDARD HINGED OPERATOR ARMS

in spray-painted cast aluminium.

### 2 4-CHANNEL TRANSMITTERS

433MHz FM ROLLING CODE.

### PAIR OF PHOTOCELLS

in class 3 with adjustable lens, range 10m.

### LED WARNING LIGHT

24V - 230V with an in-built aerial

### 10-METRE WIRING CABLE

with end sleeves.

### INTERNATIONAL WARNING SIGN

in PP, multi-language.

24V

5m  
max

400  
kg

BL3924MCB

BL3924S

BL3924ARM

TXQ504C4

CDR999

ICON

CABPC10

TARGA-INT





# COMPLETE KIT FOR SWING GATES



## KT-BL3924MCD



PACKING  
DIMENSIONS: 530 x 235 x 510  
GROSS WEIGHT: 33 kg  
ITEMS PER PALLET: 14 pcs

### USE

Particularly suited for installations with large size columns where the hinges are not aligned to the edge of the column and with gate leaves of up to **3,5m**, **400kg** maximum weight.

### SELF-LOCKING MASTER UNIT

with a 24V encoder-controlled motor, electronic programmer, 433MHz FM receiver, battery charger and NiMH batteries.

### SELF-LOCKING SLAVE UNIT

driving the second gate.

### 2 STANDARD HINGED OPERATOR ARMS

in spray-painted cast aluminium.

### 2 4-CHANNEL TRANSMITTERS

433MHz FM ROLLING CODE.

### PAIR OF PHOTOCELLS

in class 3 with adjustable lens, range 10m.

### LED WARNING LIGHT

24V - 230V with an in-built aerial

### 10-METRE WIRING CABLE

with end sleeves.

### INTERNATIONAL WARNING SIGN

in PP, multi-language.



**BL3924MCB**



**BL3924S**

**BL3924DRM**



**TXQ504C4**



**CDR999**



**ICON**



**CABPC10**



**TARGA-INT**



# COMPLETE KIT FOR SWING GATES



## KT-BLSTEALTH



PACKING  
DIMENSIONS: 920 x 190 x 280  
GROSS WEIGHT: 20 kg  
ITEMS PER PALLET: 12 pcs

### USE

Particularly suited for installations with narrow columns that require the mounting base to be less than **180mm** in width and also for gates where the hinges are not aligned to the edge of the column and with gate leaves of up to **2 metres** in length (**2,5m** with an electric lock) **200kg** maximum weight.

### SELF-LOCKING MASTER UNIT

with a 24V motor. In-built electronic programmer with an incorporated open collector receiver card.

### SELF-LOCKING SLAVE UNIT

driving the second gate.

### 2-CHANNEL RECEIVER CARD

433MHz open collector, slot-in card.

S508 - S449 - S486 - FM - EDGE and NOIRE versions are available on request.

### 2 4-CHANNEL TRANSMITTERS

433MHz FM ROLLING CODE.

### PAIR OF SURFACE-MOUNT PHOTOELECTRIC CELLS

with adjustable lens, range 25m.

### LED WARNING LIGHT

24V - 230V with an in-built aerial

### INTERNATIONAL WARNING SIGN

in PP, multi-language.

24V

2,5m  
max200  
kg

### BL STEALTH



### BL STEALTHS



### RSQ5040C2



### TXQ504C4



### VEDO 180



### ICON



### TARGA-INT





# WORM SCREW AUTOMATION FOR SWING GATES

CARDIN PRO BL  
ELECTROMECHANICAL RAMS

---



76

CARDIN TRADE BL  
ELECTROMECHANICAL RAMS

---



80

CARDIN KIT BL  
ELECTROMECHANICAL RAMS 24-230V



94



# WORM SCREW AUTOMATION FOR SWING GATES



## CARDIN PRO SERIES BL

The automation is made up of a series of components consisting of an installation management programming unit, 1 or 2 worm screw rams and a special connecting cable. The ram, built around a robust structure in cast aluminium, features an efficient motor that works in complete synergy with a high performance reduction unit that is isolated inside a waterproof compartment and is lubricated using permanently fluid grease. The special, well thought out, three piece carter, the rotating screw supported by double bearings and the special drag screw make it a top of the range ram with a unique performance level. It moves silently and fluently and is controlled (via an encoder integrated into the motor) by the programmer supplied with the product.

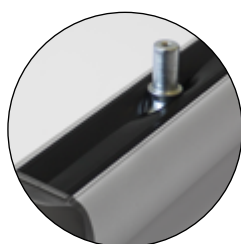
These horizontal action rams are extremely easy to fit without need for brickwork and they offer excellent service in terms of the number of manoeuvres.

Use with the following Cardin programmers CC242ETOPCB, CC242EXTOPCB.

Gate position is encoder-controlled and self-programming thus reducing installation times to a minimum and optimising the programming procedure. Repositioning takes place automatically whenever foreign objects get in the way of the gate as it is moving. The electronic control unit is completed by the anti-crush and "soft start" and "soft stop" functions.

In case of blackouts, emergency manoeuvring is guaranteed by a key-operated manual release mechanism that is efficient under all working conditions.

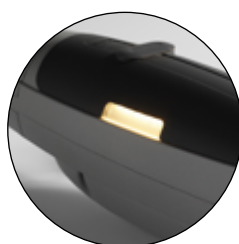
The ram can be fitted with an external lever-operated locking and unlocking system using a remote cord.



WORM SCREW WITH ANTI-DUST PROTECTION



STRUCTURE IN CAST ALUMINIUM



GATE MOVEMENT INDICATOR LEDS



LEVER ACTIVATED MANUAL RELEASE SYSTEM



SELF-PROGRAMMING MONITORED BY AN LCD GRAPHICS DISPLAY



# CARDIN PRO SERIES BL

## PRODUCT DESCRIPTION

## ORDER NUMBER

### ELECTROMECHANICAL RAM WITH A 24V MOTOR

Self-locking ram controlled by encoder. The geared motor locks the gate leaf in the closed position.

Supplied with all the fittings necessary for mounting one ram including the front and rear brackets in galvanised steel.

ECU to be ordered separately CC242ETOPCB / CC242EXTOPCB.

Standard version for gates with a maximum length of 2,5m, maximum weight 300kg.



### BLEGOS



### ELECTROMECHANICAL RAM WITH A 24V MOTOR

Self-locking ram controlled by encoder. The geared motor locks the gate leaf in the closed position.

Supplied with all the fittings necessary for mounting one ram including the front and rear brackets in galvanised steel.

ECU to be ordered separately CC242ETOPCB / CC242EXTOPCB.

Long version for gates with a maximum length of 3,5m (4m with an electric lock) maximum weight 400kg.



### BLESOL



### OPTIONAL BRACKETS

front and rear brackets in galvanised steel.

### BLSTAE



### 10m CABLE

with end sleeves.

### CABPC10



For the electric locks see page 163.

# CARDIN PRO SERIES BL



## SELF-PROGRAMMING ECU FOR BLEGOS/BLESOL

Programmer for the management of two encoder-controlled motors.  
Power supply 230Vac.

Motor power supply 24Vdc.

Maximum power yield 250W.

Fitted with a multi-decoding module S449-S486-S504-S508.

Compatible with the INTPRG-3G/WF system that allows the monitoring and programming of system parameters from remote positions.

Batteries and a battery charger in the versions CC242ETOPCB and CC242EXTOPCB.

For more information turn to page 172.



Compatible with the data exchange system between digital devices (smartphone, tablet, etc.) and the Cardin multifunctional control units.



See section 24V ECU INTERFACE DEVICES on page 186

## ELECTRONIC PROGRAMMER

CC242ETOP

## ECU, BATTERY CHARGER AND NiMH BATTERIES

CC242ETOPCB

## ECU, BATTERY CHARGER AND NiMH BATTERIES

CC242EXTOPCB

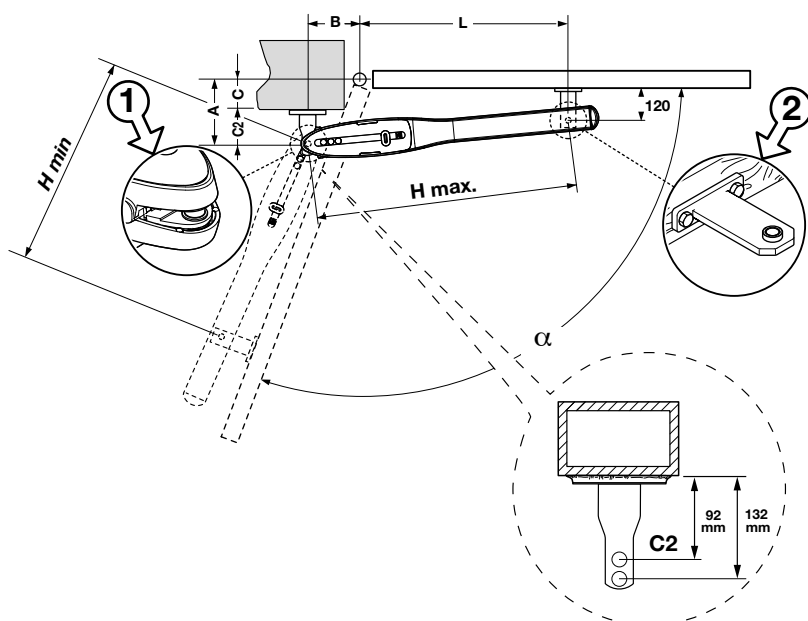
## KIT BATTERY CHARGER + NiMH BATTERIES

Allows the CC242ETOP unit to work during blackouts.

KBNIMH-1



## LIMITS OF USE BLEGOS - BLESOL



### BLEGOS (H min. 420 - H max. 800)

$\alpha^\circ$	A	B	C	C2	L
90	132	200	0	132	600
90	132-182	200	0 - 50	132	600
90	183-203	180	51 - 70	132	620
90	204-224	160	71 - 90	132	640
90	183-203	160	91-110	92	630
90	204-224	150	110-130	92	650
110	132	200	0	132	600
110	132-182	180	0 - 50	132	620
110	183-203	170	51 - 70	92	630
110	204-224	160	71 - 90	92	640

### BLESOL (H min. 420 - H max. 950)

$\alpha^\circ$	A	B	C	C2	L
90	132	240	0	132	700
90	132-182	220	0 - 50	132	720
90	183-203	210	51 - 70	132	720
90	204-224	200	71 - 90	132	730
90	183-203	180	91-110	92	740
90	204-224	180	110-130	92	760
110-120	132	240	0	132	700
110-120	132-182	220	0 - 50	132	720
110	183-203	210	51 - 70	132	720
110	204-224	200	71 - 90	132	730
110	183-203	180	91-110	132	740
110	204-224	180	110-130	132	760

Note: for an optimised installation use the values highlighted in grey.



# CARDIN PRO SERIES BL

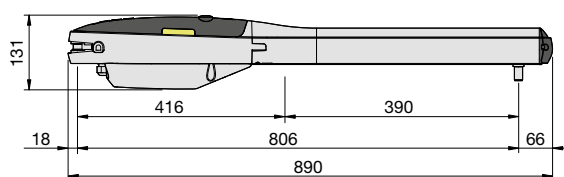


## RAM SPECIFICATIONS

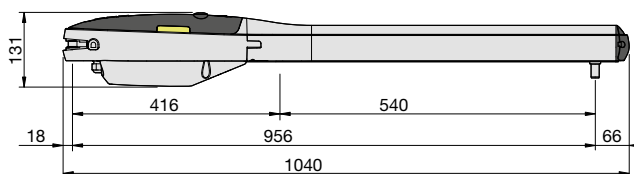
Motor power supply  
Electrical input  
Power input  
Thrust  
Travel distance (worm screw)  
Duty cycle  
Opening time 90°  
Maximum opening angle  
Protection grade

	BLEGOS	BLESOL
Vdc	24	24
A	2	2
W	60	60
N	1500	2000
mm	350	500
%	70	70
s	15	20
°	100	100
IP	44	44

## OVERALL DIMENSIONS



**BLEGOS** (890 x 131 x 110)

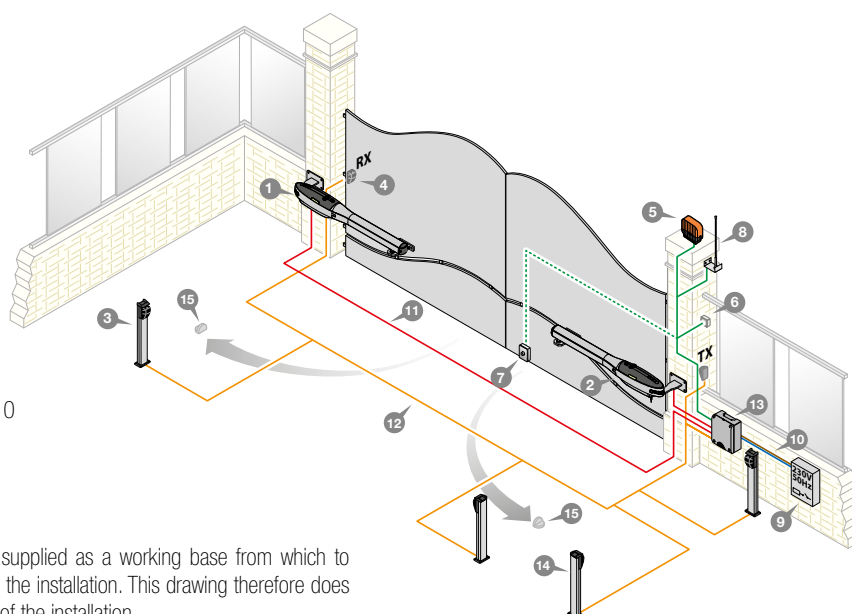


**BLESOL** (890 x 131 x 110)

## INSTALLATION EXAMPLE

### LEGEND

- 1 Geared motor (left)
- 2 Geared motor (right)
- 3 Internal photocells
- 4 External photocells
- 5 Warning lights
- 6 Mechanical selector switch
- 7 Electric lock
- 8 External aerial
- 9 All pole circuit breaker
- 10 Mains cable 230Vac
- 11 Channelling for Cardin connection cable CABPC10
- 12 Channelling route for low voltage wires
- 13 Electronic programmer
- 14 Lateral protective photocells
- 15 Opening direction stop buffers



**Attention:** The drawing is purely indicative and is supplied as a working base from which to choose the Cardin electronic components making up the installation. This drawing therefore does not lay down any obligations regarding the execution of the installation.

# WORM SCREW AUTOMATION FOR SWING GATES



## CARDIN TRADE SERIES BL ASY

These reliable and robust rams, available in 24V intensive and 230V versions, are easy to fit without requiring brickwork, offer excellent service with regard to the number of manoeuvres and are particularly suited for installations with columns of all dimensions.

The following models are available:

- self-locking; the geared motor locks the gate leaf in the closed position.
- reversible; an electric lock must be fitted to guarantee that the gate leaf locks in the closed position.

The units do not feature on board electronics and we advise you to use the Cardin electronic programmers T624 - T600.

Gate positioning control is carried out via encoder with the help of mechanical travel limits and the self-programming system reduces installation times to a minimum and optimises the programming procedure.

Repositioning takes place automatically whenever foreign objects get in the way of the gate as it is moving. The electronic control unit is completed by the anti-crush and "soft start" and "soft stop" functions.

In case of blackouts, emergency manoeuvring is guaranteed (in the self-locking versions) by a practical lever-operated manual release system protected by a personalised key that is efficient under all working conditions.

An electric travel limit kit, guaranteeing precise control of the gate position, is also available.



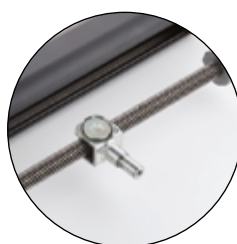
ADJUSTABLE BRACKETS



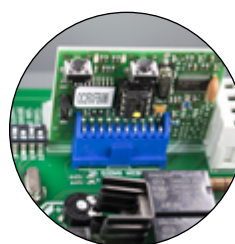
PERSONALISED KEY



SHOCKPROOF STRUCTURE



WORM SCREW SYSTEM



ELECTRONIC PROGRAMMER WITH  
OPTIONAL OPEN COLLECTOR CARD



# CARDIN TRADE SERIES BL

## ELECTROMECHANICAL RAM WITH A 24V MOTOR

Self-locking encoder-controlled ram with mechanical travel limits. The geared motor locks the gate leaf in the closed position.

Supplied with all the fittings necessary for mounting one ram including the front and rear brackets in galvanised steel.

ECU to be ordered separately T624.

Standard version for gates max. length 3m, max. weight 250kg.



## BL ASY324



## ELECTROMECHANICAL RAM WITH A 24V MOTOR

Self-locking encoder-controlled ram with mechanical travel limits. The geared motor locks the gate leaf in the closed position.

Supplied with all the fittings necessary for mounting one ram including the front and rear brackets.

Cardin ECU to be ordered separately T624.

Long version for gates max. length 5m, max. weight 300kg.



## BL ASY524



## ELECTROMECHANICAL RAM WITH A 24V MOTOR

Reversible encoder-controlled ram with mechanical travel limits. An electric lock must be fitted to guarantee that the gate leaf locks in the closed position.

Supplied with all the fittings necessary for mounting one ram including the front and rear brackets.

Cardin ECU to be ordered separately T624.

Long version for gates max. length 5m, max. weight 300kg.



## BL ASY524REV



For the electric locks see page 163.

# CARDIN TRADE SERIES BL



## ELECTROMECHANICAL RAM WITH A 230V MOTOR

Self-locking encoder-controlled ram with mechanical travel limits. The geared motor locks the gate leaf in the closed position. Supplied with all the fittings necessary for mounting one ram including the front and rear brackets in galvanised steel.

ECU to be ordered separately T600.

Standard version for gates max. length 3m, max. weight 250kg.



## ELECTROMECHANICAL RAM WITH A 230V MOTOR

Reversible encoder-controlled ram with mechanical travel limits. An electric lock must be fitted to guarantee that the gate leaf locks in the closed position. Supplied with all the fittings necessary for mounting one ram including the front and rear brackets in galvanised steel. ECU to be ordered separately T600.

Standard version for gates max. length 3m, max. weight 250kg.



## ELECTROMECHANICAL RAM WITH A 230V MOTOR

Self-locking encoder-controlled ram with mechanical travel limits. The geared motor locks the gate leaf in the closed position. Supplied with all the fittings necessary for mounting one ram including the front and rear brackets in galvanised steel.

ECU to be ordered separately T600.

Long version for gates max. length 5m, max. weight 300kg.



## ELECTROMECHANICAL RAM WITH A 230V MOTOR

Reversible encoder-controlled ram with mechanical travel limits. An electric lock must be fitted to guarantee that the gate leaf locks in the closed position.

Supplied with all the fittings necessary for mounting one ram including the front and rear brackets in galvanised steel.

ECU to be ordered separately T600.

Long version for gates max. length 5m, max. weight 300kg.



For the electric locks see page 163.

## BL ASY3



## BL ASY3REV



## BL ASY5



## BL ASY5REV



# CARDIN TRADE SERIES BL



## MECHANICAL GATE LOCK

for installations with two gates and a horizontal electric lock.

BLA



## FIXED BRACKETS

front and rear.

BLSTA



## ADJUSTABLE BRACKETS

front and rear.

BLASR



## ELECTRICAL TRAVEL LIMITS

for 3m gates.

FCAS



for 5m gates.

FCAL



## ELECTRONIC PROGRAMMER

for one or two 230V encoder-controlled motors complete with torque adjustment and deceleration. Factory set for the insertion of an open collector receiver card.

T600



## ELECTRONIC PROGRAMMER

for one or two 24V encoder-controlled motors complete with speed regulation (with ECU data exchange) and deceleration. Factory set for the insertion of an open collector receiver card.

T624



## BATTERY CHARGER

for use with 24V programmers.

CB24

## EXTERNAL BOX

with 2 batteries 12V 7Ah.

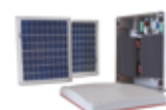
SPB24



## POWER SUPPLY KIT

Solar panels for use with all 24Vdc automation.

SUNPOWER



Compatible with the data exchange system between digital devices (smartphone, tablet, etc.) and the Cardin multifunctional control units. **See section 24V ECU INTERFACE DEVICES on page 186**

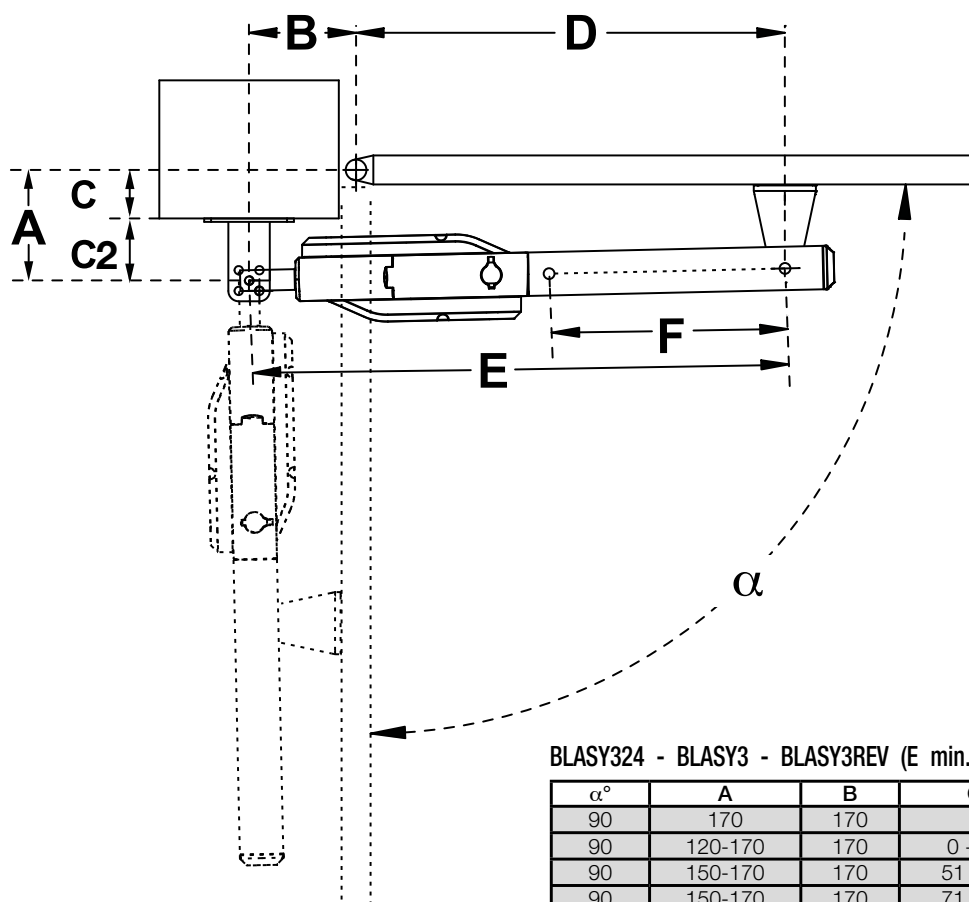






# CARDIN TRADE SERIES BL

LIMITS OF USE **BLASY**



**BLASY324 - BLASY3 - BLASY3REV (E min. 476 / E max. 826 / F = 350)**

$\alpha^\circ$	A	B	C	C2	D
90	170	170	0	170	650
90	120-170	170	0 - 50	120	650
90	150-170	170	51 - 70	100	650
90	150-170	170	71 - 90	80	650
90	165-185	150	91-110	75	665
90	185-205	135	111-130	75	685
110	170	170	0	170	650
110	90-140	150	0 - 50	90	670
110	130-150	150	51 - 70	80	670
110	135-155	150	71 - 90	65	670

**BLASY524-BLASY524REV-BLASY5-BLASY5REV:(Emin.476/Emax.976/F=500)**

$\alpha^\circ$	A	B	C	C2	D
90	170	180	0	170	790
90	170-220	200	0 - 50	170	770
90	210-240	200	51 - 70	160	770
90	210-240	200	71 - 90	120	760
90	220-240	190	91-110	100	770
90	240-270	170	110-130	90	780
110	170	180	0	170	790
110	170-220	200	0 - 50	170	770
110	210-240	190	51 - 80	160	775
110	210-240	190	81 - 120	120	775
110	220-240	190	121-150	90	775
100	240-270	180	151-180	90	785

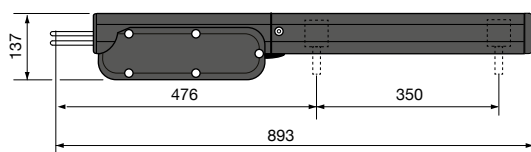
Note: for an optimised installation use the values highlighted in grey.



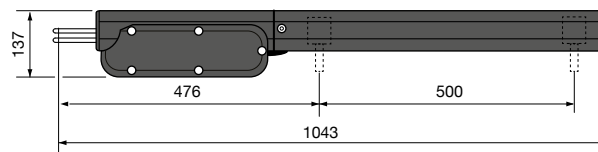
# CARDIN TRADE SERIES BL

RAM SPECIFICATIONS		BL ASY324	BL ASY3	BL ASY3REV	BL ASY524	BL ASY524REV	BL ASY5	BL ASY5REV
Motor power supply	V	24	230	230	24	24	230	230
Electrical input	A	2	1,6	1,6	2	2	1,6	1,6
Power input	W	60	370	370	60	60	370	370
Thrust	N	1900	2200	1800	1900	1800	2200	1800
Travel distance (worm screw)	mm	350	350	350	500	500	500	500
Duty cycle	%	70	30	30	70	70	30	30
Opening time 90°	s	20	25	25	25	25	30	30
Maximum opening angle	°	110	110	110	110	110	110	110
Protection grade	IP	44	44	44	44	44	44	44

## OVERALL DIMENSIONS



**BL ASY324 - BL ASY3 - BL ASY3REV (893 x 137 x 124)**

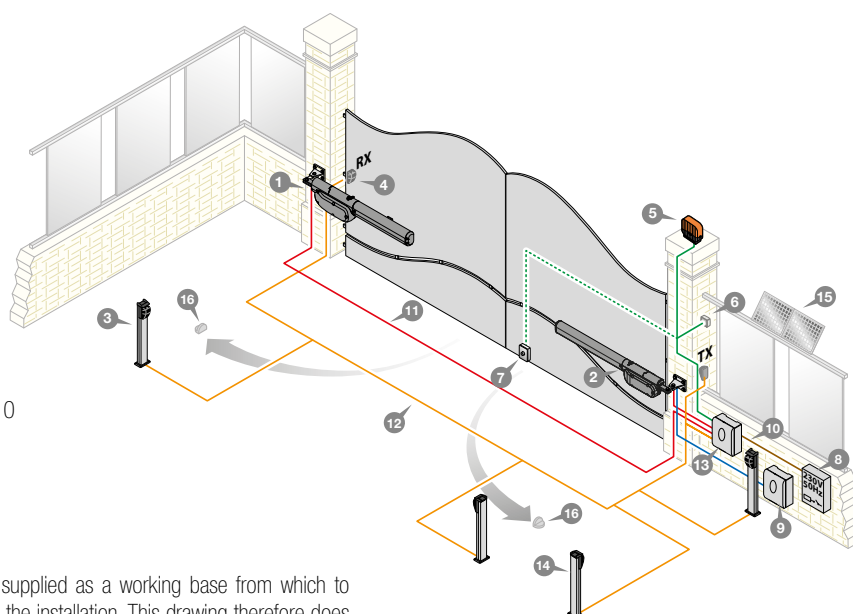


**BL ASY524 - BL ASY524REV - BL ASY5 - BL ASY5REV (1043 x 137 x 124)**

## INSTALLATION EXAMPLE

### LEGEND

- 1 Geared motor (left)
- 2 Geared motor (right)
- 3 Internal photocells
- 4 External photocells
- 5 Warning lights with aerial
- 6 Mechanical selector switch
- 7 Electric lock
- 8 All pole circuit breaker
- 9 Sun Power
- 10 Mains cable 230Vac
- 11 Channelling for Cardin connection cable CABPC10
- 12 Channelling route for low voltage wires
- 13 Electronic programmer
- 14 Lateral protective photocells
- 15 Solar panels
- 16 Opening direction stop buffers



**Attention:** The drawing is purely indicative and is supplied as a working base from which to choose the Cardin electronic components making up the installation. This drawing therefore does not lay down any obligations regarding the execution of the installation.



# WORM SCREW AUTOMATION FOR SWING GATES



## CARDIN TRADE SERIES BL TAG

These electromechanical rams with 24Vdc motors suitable for small residential installations with two swing gate leaves or one pedestrian gate are easy to fit without requiring brickwork and offer excellent service with regard to the number of manoeuvres.

Available in two models, right and left fitting, both of which are self-locking in order to guarantee that the gate remains locked in the closed position.

The units do not feature on board electronics and we advise you to use the Cardin electronic programmer T624.

Gate positioning control is carried out via encoder with the help of mechanical travel limits and the self-programming system reduces installation times to a minimum and optimises the programming procedure.

Repositioning takes place automatically whenever foreign objects get in the way of the gate as it is moving. The electronic control unit is completed by the anti-crush and "soft start" and "soft stop" functions.

In case of blackouts, emergency manoeuvring is guaranteed by a practical manual release system protected by a personalised key that is efficient under all working conditions.



FRONT BRACKET



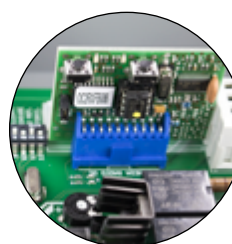
REAR BRACKET



SHOCKPROOF COVER



MANUAL RELEASE MECHANISM



ELECTRONIC PROGRAMMER WITH  
OPTIONAL OPEN COLLECTOR CARD



# CARDIN TRADE SERIES BL

## PRODUCT DESCRIPTION

## ORDER NUMBER

### ELECTROMECHANICAL RAM WITH A 24V MOTOR

Self-locking encoder controlled ram, factory set for fitting to the right hand side of the installation. The geared motor locks the gate leaf in the closed position.

ECU to be ordered separately T624.

Standard version for gates max. length 2m, max. weight 150kg.



### BL TAGDX



### ELECTROMECHANICAL RAM WITH A 24V MOTOR

Self-locking encoder controlled ram, factory set for fitting to the left hand side of the installation. The geared motor locks the gate leaf in the closed position.

ECU to be ordered separately T624.

Standard version for gates max. length 2m, max. weight 150kg.



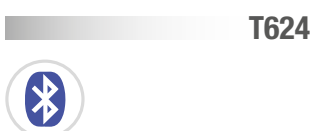
### BL TAGSX



For the electric locks see page 163.

### ELECTRONIC PROGRAMMER

for one or two 24V encoder-controlled motors complete with speed regulation (with ECU data exchange) and deceleration. Factory set for the insertion of an open collector receiver card.

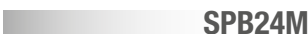


### T624



### BATTERIES WITH SUPPORT BOX

Battery charger, two 12V 2Ah batteries with supports for fixing the batteries to the cover of the electronic programmer complete with wiring cable.

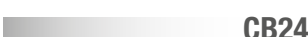


### SPB24M



### BATTERY CHARGER

for use with 24V programmers.



### CB24

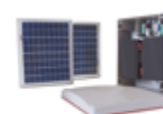


### POWER SUPPLY KIT

Solar panels for use with all 24Vdc automation.



### SUNPOWER



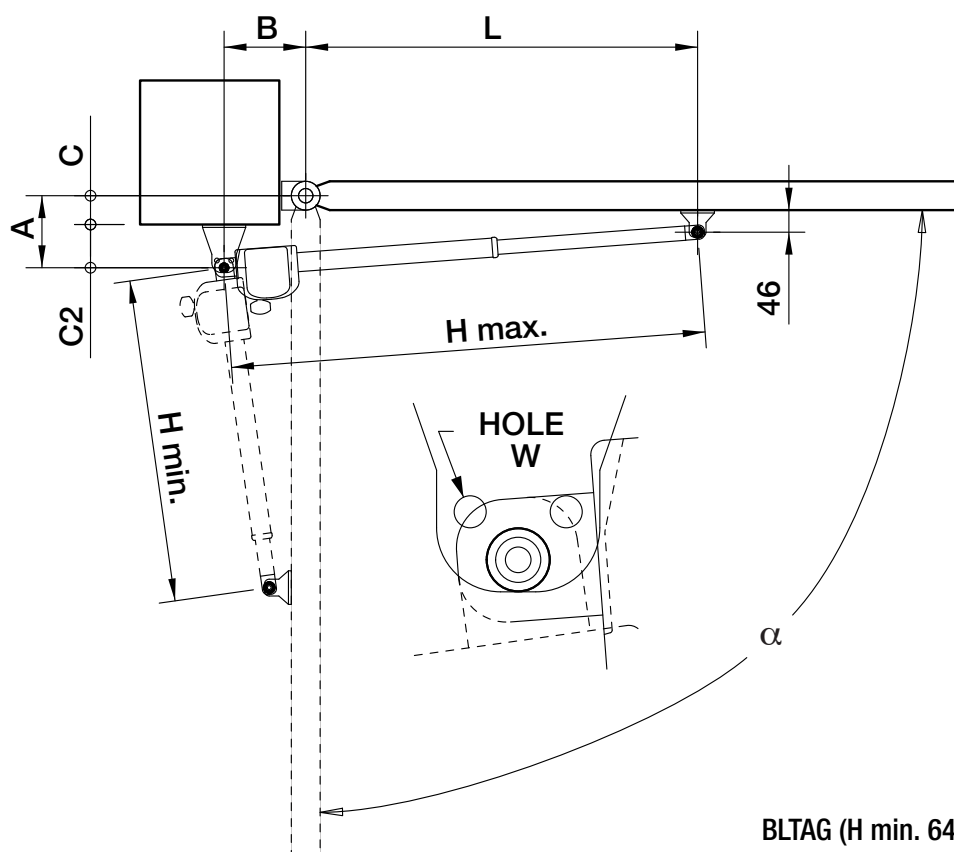
Compatible with the data exchange system between digital devices (smartphone, tablet, etc.) and the Cardin multifunctional control units. **See section 24V ECU INTERFACE DEVICES on page 186**





# CARDIN TRADE SERIES BL

## LIMITS OF USE **BLTAG**



**BLTAG (H min. 640 - H max. 985)**

$\alpha^\circ$	A	B	C	C2	L
90	90	200	0	90	750
90	90-140	200	0 - 50	90	770
90	140-160	180	51 - 70	90	800
90	160-180	170	71 - 90	90	810
90	180-200	150	91-110	90	830
90	200-220	120	111-130	90	855
90	200-220	90	111-130	90	860
90	131-150 HOLE W	105 HOLE W	131-150	75 HOLE W	865
110	90	200	0	90	750
110	90-140	200	0 - 50	90	770
110	140-160	140	51 - 70	90	840
110	140-160	130	51 - 70	90	840

Note: for an optimised installation use the values highlighted in grey.





# CARDIN TRADE SERIES BL

## RAM SPECIFICATIONS

Motor power supply  
Nominal electrical input  
Power input  
Duty cycle  
Opening time 90°  
Maximum opening angle  
Maximum thrust  
Protection grade

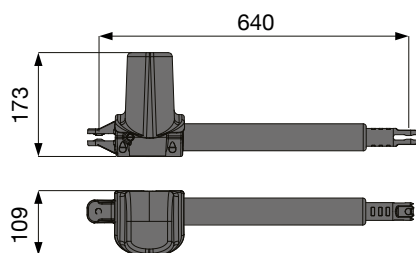
Vdc  
A  
W  
%  
s  
°  
N  
IP

## BL TAGDX

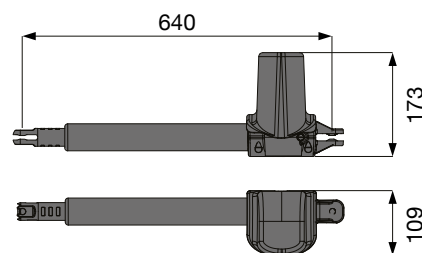
24  
3  
70  
70  
18  
100  
1500  
44

## BL TAGSX

24  
3  
70  
70  
18  
100  
1500  
44



**BL TAGSX** (640 x 173 x 109)

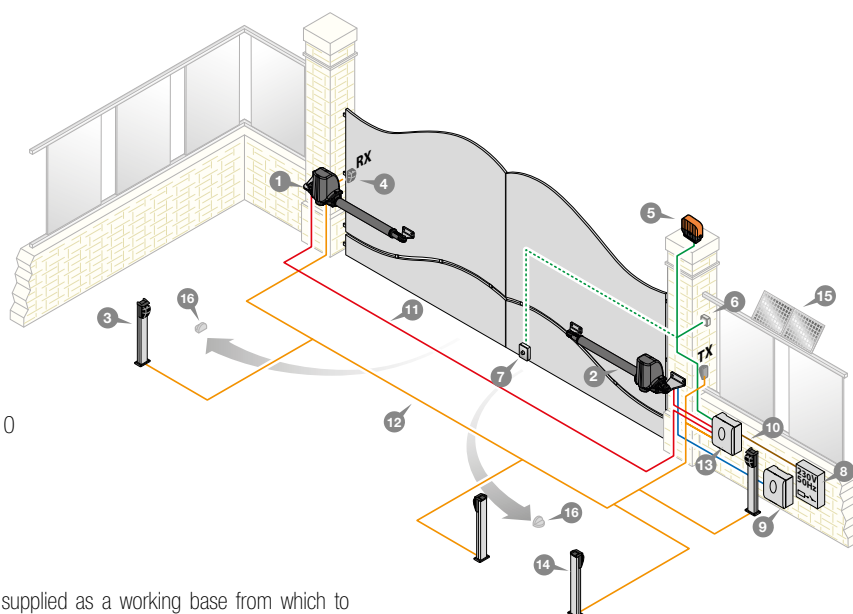


**BL TAGDX** (640 x 173 x 109)

## INSTALLATION EXAMPLE

### LEGEND

- 1 Geared motor (left)
- 2 Geared motor (right)
- 3 Internal photocells
- 4 External photocells
- 5 Warning lights with aerial
- 6 Mechanical selector switch
- 7 Electric lock
- 8 All pole circuit breaker
- 9 Sun Power
- 10 Mains cable 230Vac
- 11 Channelling for Cardin connection cable CABPC10
- 12 Channelling route for low voltage wires
- 13 Electronic programmer
- 14 Lateral protective photocells
- 15 Solar panels
- 16 Opening direction stop buffers



**Attention:** The drawing is purely indicative and is supplied as a working base from which to choose the Cardin electronic components making up the installation. This drawing therefore does not lay down any obligations regarding the execution of the installation.



# HYDRAULIC WORM SCREW AUTOMATION FOR SWING GATES



## CARDIN TRADE SERIES BLUES

These hydraulic rams with 230V motors, are easy to fit without requiring brickwork, offer excellent service with regard to the number of manoeuvres and are particularly suited for installations with columns of all dimensions.

The following models are available:

- self-locking; the geared motor locks the gate leaf in the closed position.
- reversible; an electric lock must be fitted to guarantee that the gate leaf locks in the closed position.

The units do not feature on board electronics and we advise you to use the Cardin electronic programmers T600.

Gate positioning is carried out with the help of mechanical travel limits. Safe and versatile thanks to the independent torque and speed adjustment together with hydraulic deceleration.

Constant performance over time and in any condition thanks to reduced wear&tear and the possibility to maintain the oil at the ideal temperature using HOT (optional).

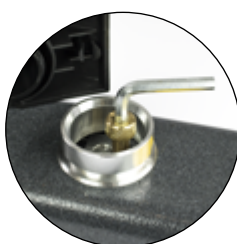
In case of blackouts, emergency manoeuvring is guaranteed (in the self-locking versions) by a practical manual release system protected by a personalised key that is efficient under all working conditions.



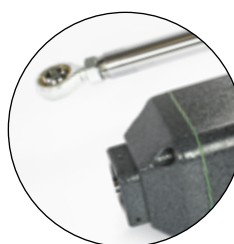
STAINLESS STEEL REAR BRACKET



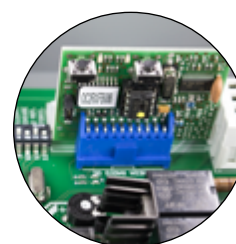
PERSONALISED KEY



MANUAL RELEASE USING  
AN ALLEN KEY



WORM SCREW SYSTEM



ELECTRONIC PROGRAMMER WITH  
OPTIONAL OPEN COLLECTOR CARD



# CARDIN TRADE SERIES BL

## HYDRAULIC RAM WITH A 230V MOTOR

Self-locking ram. The geared motor locks the gate leaf in the closed position.

ECU to be ordered separately T600.

Standard version for gates max. length 2.5m, max. weight 350kg.



## BLUES3



## HYDRAULIC RAM WITH A 230V MOTOR

Reversible ram. An electric lock must be fitted to guarantee that the gate leaf locks in the closed position.

ECU to be ordered separately T600.

Standard version for gates max. length 2.5m, max. weight 350kg.



## BLUES3R



## HYDRAULIC RAM WITH A 230V MOTOR

Self-locking ram. The geared motor locks the gate leaf in the closed position.

ECU to be ordered separately T600.

Long version for gates max. length 4,5m, max. weight 500kg.



## BLUES5



## HYDRAULIC RAM WITH A 230V MOTOR

Reversible ram. An electric lock must be fitted to guarantee that the gate leaf locks in the closed position.

ECU to be ordered separately T600.

Long version for gates max. length 4,5m, max. weight 500kg.



## BLUES5R



Compatible with the data exchange system between digital devices (smartphone, tablet, etc.) and the Cardin multifunctional control units. **See section 24V ECU INTERFACE DEVICES on page 186**



For the electric locks see page 163.

# CARDIN TRADE SERIES BL



## BRACKETS

front and rear brackets in galvanised steel.

## BLSTABLUES



## MECHANICAL GATE LOCK

for installations with two gates and a horizontal electric lock.

## BLA



## ELECTRONIC PROGRAMMER

for one or two 230V encoder-controlled motors complete with torque adjustment and deceleration. Factory set for the insertion of an open collector receiver card.

## T600



## ELECTRONIC HEATER

with a temperature probe for 230V motors.

## HOT



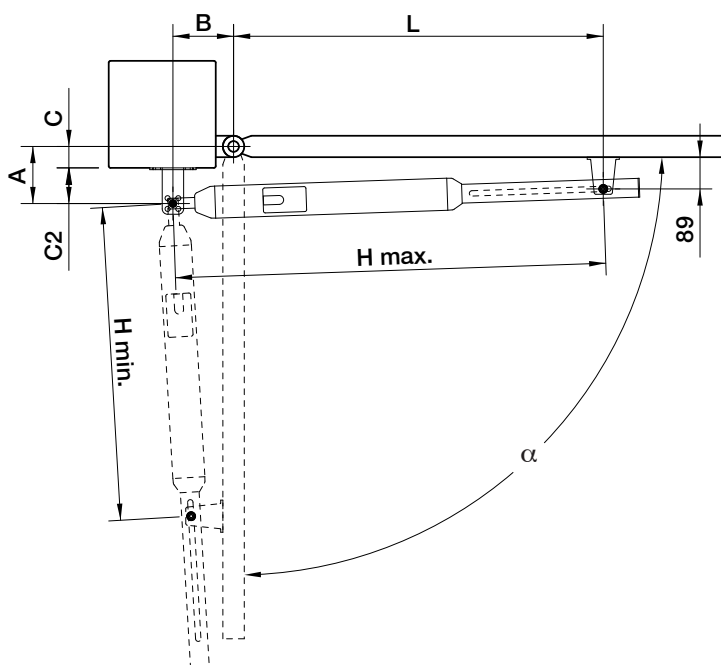
## FLAGON OF OIL

5 litres.

## TS30



## LIMITS OF USE BLUES



### BLUES3 - BLUES3R H min. 745 / H max. 1015)

$\alpha^\circ$	A	B	C	C2	L
90	150	125	0	150	890
90	100-150	120	0 - 50	100	895
90	130-150	120	51 - 70	80	895
90	130-150	120	71 - 90	60	895
90	150-170	80	71 - 90	80	930
90	130-150	120	91-110	40	895
90	150-170	100	111-130	40	915
90	170-190	80	131-150	40	935
110	110	130	0	110	890
110	60-110	130	0 - 50	60	890
110	60-110	110	0 - 50	40	900
110	90-110	130	51 - 70	40	890

### BLUES5 - BLUES5R H min. 845 / H max. 1215)

$\alpha^\circ$	A	B	C	C2	L
90	170	180	0	170	1030
90	170	180	0 - 50	120	1030
90	170	180	51 - 70	100	1030
90	170	180	71 - 90	80	1030
90	170	80	71 - 90	170	1130
90	170	180	91-110	60	1030
90	170-190	180	111-130	60	1035
90	190-210	165	131-150	60	1050
90	210-230	145	151-170	60	1070
90	230-240	120	171-190	60	1090
110	160	165	0	160	1050
110	110-160	165	0 - 50	110	1050
110	140-160	165	51 - 70	90	1050
110	140-160	165	71 - 90	70	1050
110	140-160	125	71 - 90	40	1090
110	150-170	160	91 - 110	60	1055

Note: for an optimised installation use the values highlighted in grey.

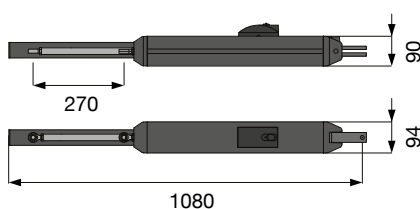


# CARDIN TRADE SERIES BL

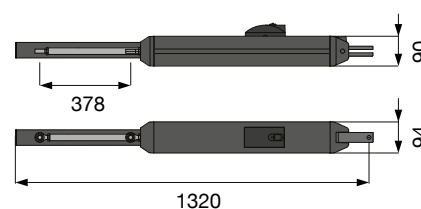
## OPERATOR ARM TECHNICAL SPECIFICATIONS

		BLUES3	BLUES3R	BLUES5	BLUES5R
Motor power supply	Vac	230	230	230	230
Nominal electrical input	A	1,2	1,2	1,2	1,2
Power input	W	280	280	280	280
Duty cycle	%	70	70	70	70
Opening time 90°	s	18	18	30	30
Maximum opening angle	°	105	105	105	105
Thrust	N	3000	3000	3000	3000
Protection grade	IP	56	56	56	56

## OVERALL DIMENSIONS



**BLUES3 - BLUES3R (1080 x 90 x 94)**



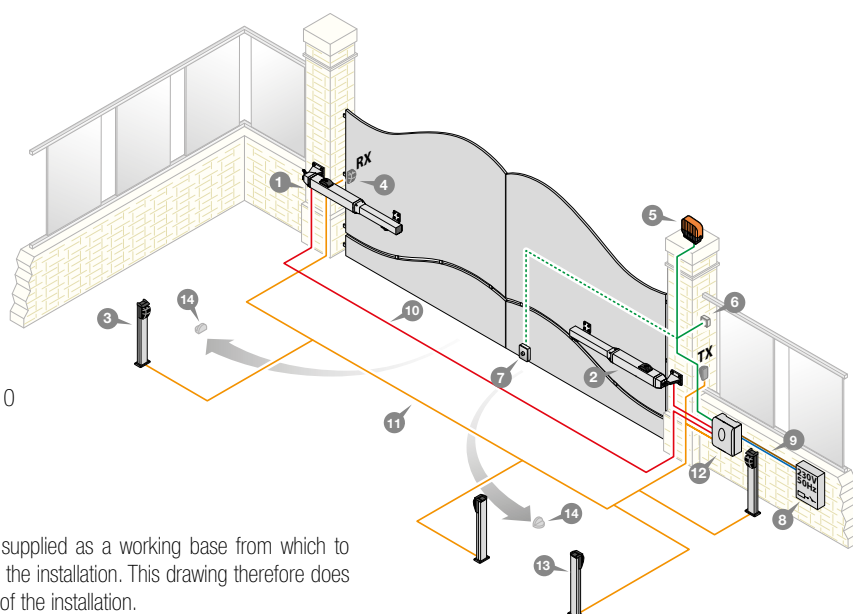
**BLUES5 - BLUES5R (1320 x 90 x 94)**

## INSTALLATION EXAMPLE

### LEGEND

- 1 Geared motor (left)
- 2 Geared motor (right)
- 3 Internal photocells
- 4 External photocells
- 5 Warning lights with aerial
- 6 Mechanical selector switch
- 7 Electric lock
- 8 All pole circuit breaker
- 9 Mains cable 230Vac
- 10 Channelling for Cardin connection cable CABPC10
- 11 Channelling route for low voltage wires
- 12 Electronic programmer
- 13 Lateral protective photocells
- 14 Opening direction stop buffers

**Attention:** The drawing is purely indicative and is supplied as a working base from which to choose the Cardin electronic components making up the installation. This drawing therefore does not lay down any obligations regarding the execution of the installation.







# COMPLETE KIT FOR SWING GATES



## KT-BLEGOS



PACKING  
DIMENSIONS: 920 x 190 x 280  
GROSS WEIGHT: 20 kg  
ITEMS PER PALLET: 9 pcs

### USE

Worm screw automation for gates with a maximum length of **2,5m**, maximum weight **200kg**.

### 2 SELF-LOCKING ELECTROMECHANICAL RAMS

with a 24V encoder-controlled motor.



### ELECTRONIC PROGRAMMER

with a 433MHz FM receiver, battery charger and NiMH batteries, housed in an IP55 box with sealing gaskets and cable gland entry holes for the insertion of one Ø21 mm and two Ø16mm rigid tubes.  
See page 172.



### 2 4-CHANNEL TRANSMITTERS

433MHz FM ROLLING CODE.



### PAIR OF PHOTOCELLS

in class 3 with adjustable lens, range 10m.



### LED WARNING LIGHT

24V - 230V with an in-built aerial



### 10-METRE WIRING CABLE

with end sleeves.



### INTERNATIONAL WARNING SIGN

in PP, multi-language.



# COMPLETE KIT FOR SWING GATES



## KT-BLASY324



PACKING  
DIMENSIONS: 920 x 190 x 280  
GROSS WEIGHT: 24 kg  
ITEMS PER PALLET: 9 pcs

### USE

Worm screw automation for gates with a maximum length of **3m**, maximum weight **250kg**.



### 2 SELF-LOCKING ELECTROMECHANICAL RAMS

with a 24V encoder-controlled motor and mechanical travel limits.

**BL ASY324**



### ELECTRONIC PROGRAMMER

for two 24V encoder-controlled motors complete with speed regulation and deceleration.

**T624**



### 2-CHANNEL RECEIVER CARD

433MHz open collector, slot-in card.

S504 - S508 - S486 - FM - EDGE and NOIRE versions are available on request.

**RSQ5040C2**



### 2 4-CHANNEL TRANSMITTERS

433MHz FM ROLLING CODE.

**TXQ504C4**



### PAIR OF SURFACE-MOUNT PHOTOELECTRIC CELLS

with adjustable lens, range 25m.

**VEDO 180**



### LED WARNING LIGHT

24V - 230V with an in-built aerial

**ICON**



### INTERNATIONAL WARNING SIGN

in PP, multi-language.

**TARGA-INT**





# COMPLETE KIT FOR SWING GATES



## KT-BLASY3



PACKING  
DIMENSIONS: 920 x 190 x 280  
GROSS WEIGHT: 24 kg  
ITEMS PER PALLET: 9 pcs

### USE

Worm screw automation for gates with a maximum length of **3m**, maximum weight **250kg**.

### 2 SELF-LOCKING ELECTROMECHANICAL RAMS

with a 230V encoder-controlled motor and mechanical travel limits.



**BL ASY3**



### ELECTRONIC PROGRAMMER

for two 230V encoder-controlled motors complete with speed regulation and deceleration.

**T600**



### 2-CHANNEL RECEIVER CARD

433MHz open collector, slot-in card.

S504 - S508 - S486 - FM - EDGE and NOIRE versions are available on request.

**RSQ5040C2**



### 2 4-CHANNEL TRANSMITTERS

433MHz FM ROLLING CODE.

**TXQ504C4**



### PAIR OF SURFACE-MOUNT PHOTOELECTRIC CELLS

with adjustable lens, range 25m.

**VEDO 180**



### LED WARNING LIGHT

24V - 230V with an in-built aerial

**ICON**



### INTERNATIONAL WARNING SIGN

in PP, multi-language.

**TARGA-INT**



# COMPLETE KIT FOR SWING GATES



## KT-BLTAG

PACKING

DIMENSIONS: 720 x 260 x 330

GROSS WEIGHT: 12,5 kg

ITEMS PER PALLET: 16 pcs

### USE

Worm screw automation for gates with a maximum length of **2m**, maximum weight **150kg**.

### 2 SELF-LOCKING ELECTROMECHANICAL RAMS

with a 24V encoder-controlled motor.



BL TAGDX

BL TAGSX



### ELECTRONIC PROGRAMMER

for two 24V encoder-controlled motors complete with speed regulation and deceleration.

T624



### 2-CHANNEL RECEIVER CARD

433MHz open collector, slot-in card.

S504 - S508 - S486 - FM - EDGE and NOIRE versions are available on request.

RSQ5040C2



### 2 4-CHANNEL TRANSMITTERS

433MHz FM ROLLING CODE.

TXQ504C4



### PAIR OF SURFACE-MOUNT PHOTOELECTRIC CELLS

with adjustable lens, range 25m.

VEDO 180



### LED WARNING LIGHT

24V - 230V with an in-built aerial

ICON



### INTERNATIONAL WARNING SIGN

in PP, multi-language.

TARGA-INT



# UNDERGROUND AUTOMATION FOR SWING GATES

CARDIN PRO HL

UNDERGROUND AUTOMATION

---



100

CARDIN TRADE HL MOLE

UNDERGROUND AUTOMATION

---



104

CARDIN KIT BL

UNDERGROUND AUTOMATION 24-230V



108











# UNDERGROUND AUTOMATION FOR SWING GATES



## CARDIN PRO SERIES HL

The automation is made up of a series of components consisting of an electronic programmer, one or two sealed self-locking operators complete with embedding cases and a special connecting cable. The robust and reliable electromechanical operator guarantees optimum performance under all working conditions and its system of ball bearing balanced pivoting levers guarantees regular and silent running.

The hot dip galvanized or stainless steel embedding cases are guaranteed to remain rust free throughout time.

Particularly suited for installations that do not allow column installations or where the automation has to be completely hidden.

The units do not feature on board electronics and we advise you to use a Cardin electronic programmer:

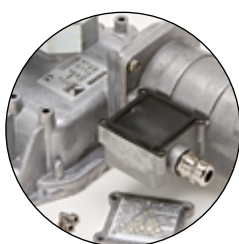
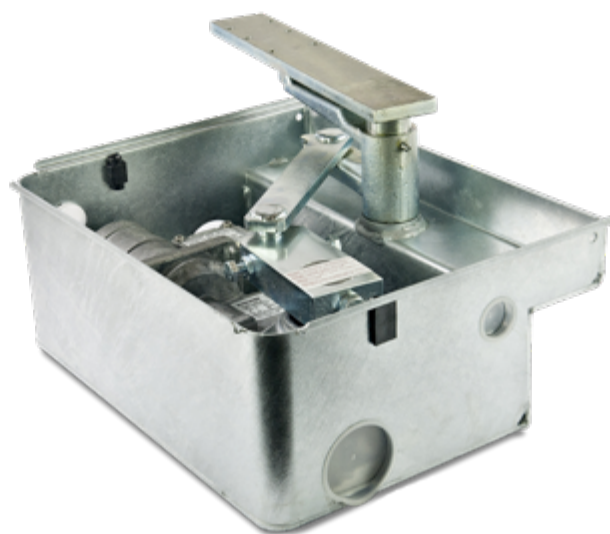
- PRG230M2 for 1 or 2 230V motors;
- CC242ETOPCB - CC242EXTOPCB for 1 or 2 24V motors;

On the 24V model gate position is encoder controlled and self-programming thus reducing installation times to a minimum and optimising the programming procedure. Repositioning takes place automatically whenever foreign objects get in the way of the gate as it is moving.

The electronic control unit is completed by the anti-crush and "soft start" and "soft stop" functions. The control electronics also comes complete with a display that monitors the programming stages and counts the number of manoeuvres carried out by the machine.

The irreversible reduction system guarantees the blocking of the gate in the closed position.

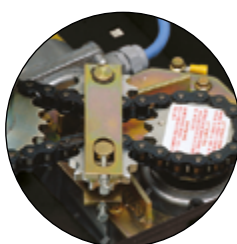
The manual emergency movement system is easy to operate using a personalised "locking-unlocking" key and rearming is automatic.



WATERTIGHT MOTOR IP67



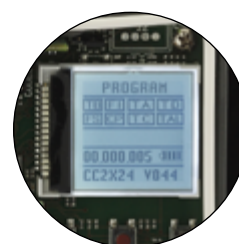
STAINLESS STEEL OR HOT DIP  
GALVANIZED EMBEDDING CASE



ROTATION THROUGH 360°



PIVOTING ON BEARINGS



SELF-PROGRAMMING MONITORED BY  
AN LCD GRAPHICS DISPLAY  
VERSIONS HL2524ESB - HL1824ESB



# CARDIN PRO SERIES HL

## ELECTROMECHANICAL OPERATOR WITH A 24V MOTOR FOR GATES WITH A 110° MAXIMUM OPENING ANGLE

Encoder controlled self-locking operator:

- fitted with a crank rod transmission system;
- embedding case, Cardin electronic programmer and connection cable to be ordered separately.



### HL2524ESB



## ELECTROMECHANICAL OPERATOR WITH A 24V MOTOR FOR GATES WITH A 180°-360° MAXIMUM OPENING ANGLE

Encoder controlled self-locking operator:

- fitted with a chain driven transmission system (chain kit included);
- embedding case, Cardin electronic programmer and connection cable to be ordered separately.



### HL1824ESB



## ELECTROMECHANICAL OPERATOR WITH A 230V MOTOR FOR GATES WITH A 110° MAXIMUM OPENING ANGLE

Self-locking operator:

- fitted with a crank rod transmission system;
- supplied with a 6m connection cable;
- embedding case and Cardin electronic programmer to be ordered separately.



### HL251CL



## ELECTROMECHANICAL OPERATOR WITH A 230V MOTOR FOR GATES WITH A 180°-360° MAXIMUM OPENING ANGLE

Self-locking operator:

- fitted with a chain driven transmission system (chain kit included);
- supplied with a 6m connection cable;
- embedding case and Cardin electronic programmer to be ordered separately.



### HL2518CL



For the electric locks see page 163.



# CARDIN PRO SERIES HL

## EMBEDDING CASES

complete with connection lever and adjustable mechanical travel limits.  
All versions are fitted with a stainless steel cover.

**HLBOX** - Hot dip galvanized anti-rust treatment, manual release mechanism to be ordered separately.

**HLBOXI** - Structure completely in stainless steel, manual release mechanism to be ordered separately.

**HLBOXC** - Hot dip galvanized anti-rust treatment, release mechanism with a personalised key included in the embedding case lever unit (not compatible with ACCHL360).

## MANUAL RELEASE MECHANISM

with a personalised key for HLBOX-HLBOXI

## MANUAL RELEASE MECHANISM

activated by means of a lever for HLBOX-HLBOXI

## ACCESSORY FOR 360° OPENING

HLBOX

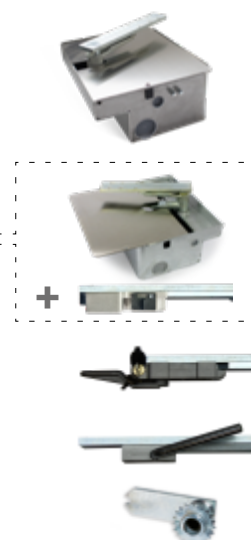
HLBOXI

HLBOXC

SBLHL

SBLSHL

ACCHL360



## SELF-PROGRAMMING ECU FOR HL2524ESB- HL1824ESB

Programmer for the control of two encoder controlled 24V motors.  
Fitted with a multi-decoding module S449-S486-S504-S508.  
Compatible with the INTPRG-3G/WF system that allows the monitoring and programming of system parameters from remote positions.  
For more information turn to page 186.



Compatible with the data exchange system between digital devices (smartphone, tablet, etc.) and the Cardin multifunctional control units.



See section 24V ECU INTERFACE DEVICES on page 186

## ELECTRONIC PROGRAMMER

CC242ETOP

## ECU, BATTERY CHARGER AND NiMH BATTERIES

CC242ETOPCB

## ECU, BATTERY CHARGER AND NiMH BATTERIES

CC242EXTOPCB

## KIT BATTERY CHARGER + NiMH BATTERIES

Allows the CC242ETOP unit to work during blackouts.

KBNiMH-1



## 10m CABLE

with end sleeves for HL2524ESB - HL1824ESB.

CABPC10



## SELF-PROGRAMMING ECU FOR HL251CL - HL2518CL

Programmer for the control of two motors.  
Motor power supply 230Vac.  
Maximum power yield for two motors 470 + 470 W.  
The appliance is fitted with an interface for the insertion of a standard Cardin radio receiver card. For more information turn to page 174.

PRG230M2



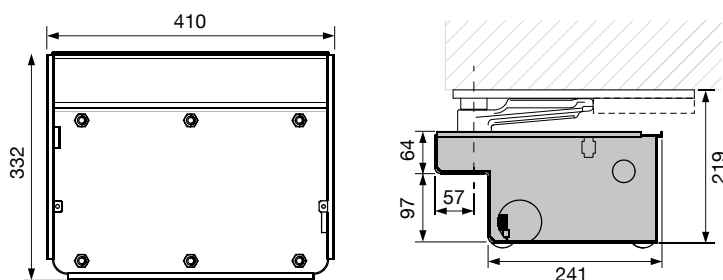


# CARDIN PRO SERIES HL

## OPERATOR SPECIFICATIONS

Motor power supply	V	24Vdc	230Vac
Electrical input	A	2	1,9
Power input	W	60	470
Duty cycle	%	70	20
Opening time 90°	s	22	19,5
Opening time 110°	s	27	25
Opening time 140°	s	35	30
Opening time 180°	s	44	35
Maximum torque	Nm	170	290
Protection grade	IP	67	67

## OVERALL DIMENSIONS

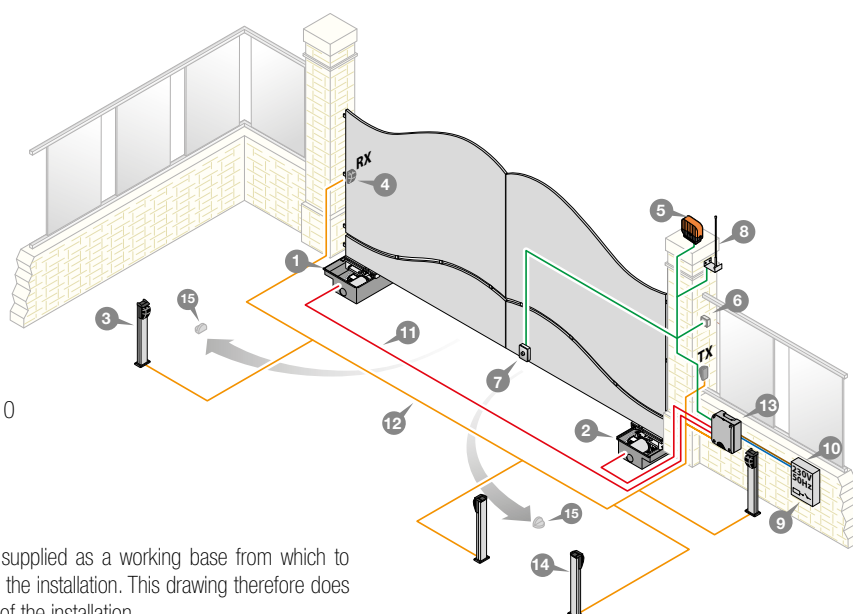


HL2524ESB - HL1824ESB - HL251CL - HL2518CL

## INSTALLATION EXAMPLE

### LEGEND

- 1 Geared motor (left)
- 2 Geared motor (right)
- 3 Internal photocells
- 4 External photocells
- 5 Warning lights
- 6 Mechanical selector switch
- 7 Electric lock
- 8 External aerial
- 9 All pole circuit breaker
- 10 Mains cable 230Vac
- 11 Channelling for Cardin connection cable CABPC10
- 12 Channelling route for low voltage wires
- 13 Electronic programmer
- 14 Lateral protective photocells
- 15 Opening direction stop buffers



**Attention:** The drawing is purely indicative and is supplied as a working base from which to choose the Cardin electronic components making up the installation. This drawing therefore does not lay down any obligations regarding the execution of the installation.



# UNDERGROUND AUTOMATION FOR SWING GATES



## CARDIN TRADE SERIES HL MOLE

The automation is made up of a series of components consisting of an electronic programmer, one or two sealed self-locking operators complete with embedding cases and a special 2-metre long connecting cable.

The robust and reliable electromechanical operator guarantees optimum performance under all working conditions and its system of ball bearing balanced pivoting levers guarantees regular and silent running. Internally the automation is fitted with highly resistant cast iron helicoidal gears.

The hot dip galvanized or stainless steel embedding cases are guaranteed to remain rust free throughout time.

Particularly suited for installations that do not allow column installations or where the automation has to be completely hidden with the possibility of reaching an opening angle up to 360° (with an optional accessory).

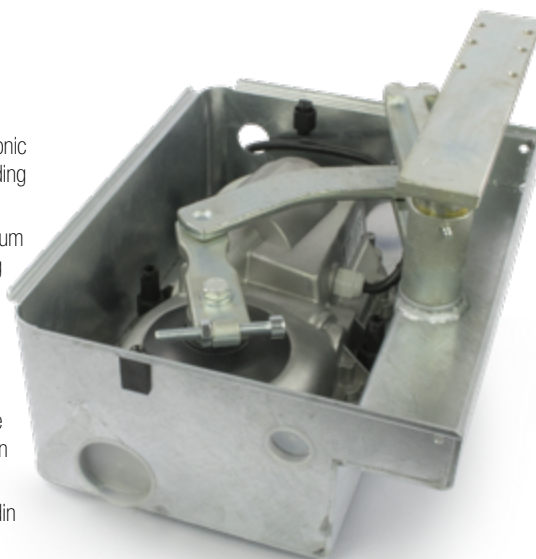
The units do not feature on board electronics and we advise you to use a Cardin electronic programmer:

- Cardin T600 for 1 or 2 230V motors;
- Cardin T624 for 1 or 2 24V motors;

On the 24V model gate position is encoder controlled with the use of mechanical travel limits and self-programming thus reducing installation times to a minimum and optimising the programming procedure. Repositioning takes place automatically whenever foreign objects get in the way of the gate as it is moving.

The electronic control unit is completed by the anti-crush and "soft start" and "soft stop" functions.

The reversible geared motor guarantees that the gate will remain blocked when closed. The manual emergency movement system is easy to operate using the personalised "locking-unlocking" key or a lever operated system and rearming is automatic.



ANTI-WATER SEAL



STAINLESS STEEL OR HOT DIP  
GALVANIZED EMBEDDING CASE



HOT DIPPED FORGED LEVER



ELASTOMER CABLE SHEATH



ROBUST ALUMINIUM  
STRUCTURE

# CARDIN TRADE SERIES HL



## ELECTROMECHANICAL OPERATOR WITH A 24V MOTOR FOR GATES WITH A 105° MAXIMUM OPENING ANGLE

### HL MOLE24

Encoder controlled self-locking operator:

- fitted with a crank rod transmission system;
- supplied with a 2m connection cable;
- embedding case and Cardin electronic programmer to be ordered separately.



## ELECTROMECHANICAL OPERATOR WITH A 230V MOTOR FOR GATES WITH A 105° MAXIMUM OPENING ANGLE

### HL MOLE230

Self-locking operator:

- fitted with a crank rod transmission system;
- supplied with a 2m connection cable;
- embedding case and Cardin electronic programmer to be ordered separately.



## EMBEDDING CASES

complete with connection lever and adjustable mechanical travel limits.  
All versions are fitted with a stainless steel cover.

**HLBOX** - Hot dip galvanized anti-rust treatment, manual release mechanism to be ordered separately.

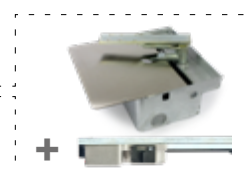
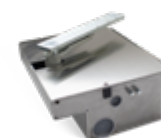
**HLBOXI** - Structure completely in stainless steel, manual release mechanism to be ordered separately.

**HLBOXC** - Hot dip galvanized anti-rust treatment, release mechanism with a personalised key included in the embedding case lever unit (not compatible with ACCMOLE360).

### HLBOX

### HLBOXI

### HLBOXC



## ACCESSORY FOR 360° OPENING

with pinion and chain.

### ACCMOLE360



For the electric locks see page 163.



# CARDIN TRADE SERIES HL



## MECHANICAL GATE LOCK

for installations with two gates and a horizontal electric lock.

BLA



## MANUAL RELEASE MECHANISM

with a personalised key for HLBOX-HLBOXI

SBLHL



## MANUAL RELEASE MECHANISM

activated by means of a lever for HLBOX-HLBOXI

SBLSHL



## ELECTRONIC PROGRAMMER

for one or two 230V encoder-controlled motors complete with torque adjustment and deceleration. Factory set for the insertion of an open collector receiver card.

T600



## ELECTRONIC PROGRAMMER

for one or two 24V encoder-controlled motors complete with speed regulation (with ECU) and deceleration. Factory set for the insertion of an open collector receiver card.

T624



## BATTERY CHARGER

for use with 24V programmers.

CB24

## EXTERNAL BOX

with 2 batteries 12V 7Ah.

SPB24



## POWER SUPPLY KIT

Solar panels for use with all 24Vdc automation.

SUNPOWER



Compatible with the data exchange system between digital devices (smartphone, tablet, etc.) and the Cardin multifunctional control units. **See section 24V ECU INTERFACE DEVICES on page 186**



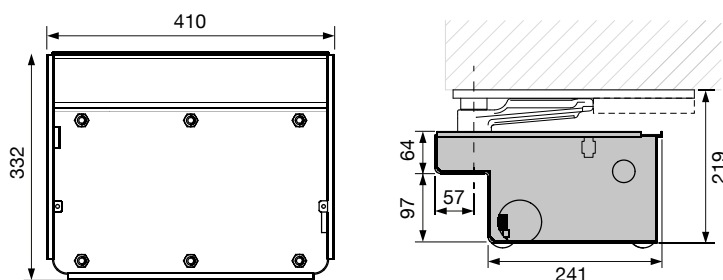
# CARDIN TRADE SERIES HL



## OPERATOR SPECIFICATIONS

Motor power supply	V	<b>HL MOLE24</b>	24Vdc	<b>HL MOLE230</b>	230Vac
Electrical input	A		5		2
Power input	W		120		370
Duty cycle	%		70		30
Opening time 90°	s		19		19
Opening time 110°	s		23		23
Opening time 180° (with ACCMOLE360)	s		40		40
Maximum torque	Nm		400		500
Protection grade	IP		67		67

## OVERALL DIMENSIONS

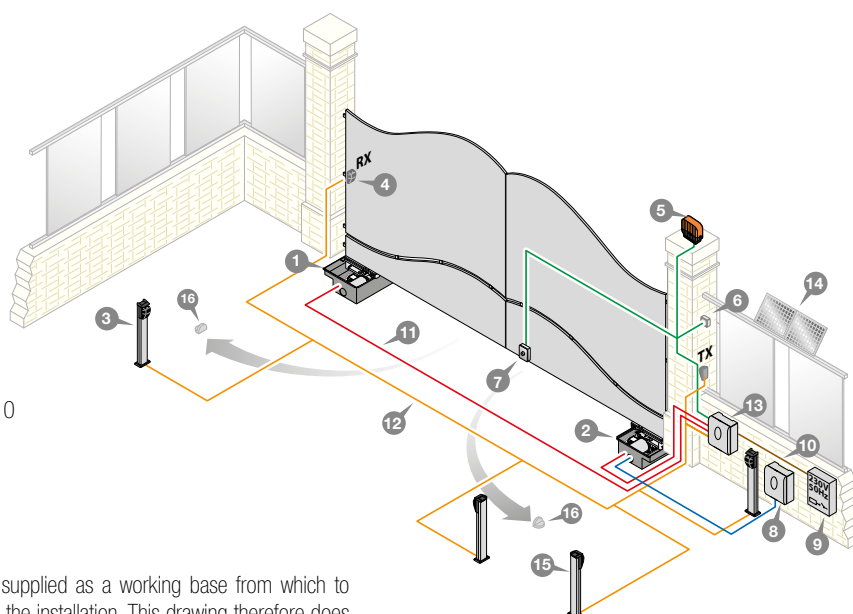


HL MOLE24 - HL MOLE230

## INSTALLATION EXAMPLE

### LEGEND

- 1 Geared motor (left)
- 2 Geared motor (right)
- 3 Internal photocells
- 4 External photocells
- 5 Warning lights
- 6 Mechanical selector switch
- 7 Electric lock
- 8 Sun Power
- 9 All pole circuit breaker
- 10 Mains cable 230Vac
- 11 Channelling for Cardin connection cable CABPC10
- 12 Channelling route for low voltage wires
- 13 Electronic programmer
- 14 Solar panels
- 15 Lateral protective photocells
- 16 Opening direction stop buffers

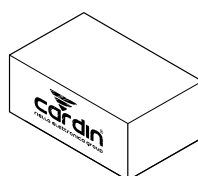


**Attention:** The drawing is purely indicative and is supplied as a working base from which to choose the Cardin electronic components making up the installation. This drawing therefore does not lay down any obligations regarding the execution of the installation.

# COMPLETE UNDERGROUND AUTOMATION KIT FOR SWING GATES



## KT-HL2524PSB



PACKING  
DIMENSIONS: 720 x 410 x 330  
GROSS WEIGHT: 62,9 kg  
ITEMS PER PALLET: 5 pcs

### USE

Particularly suited for installation that do not allow column installations or where the automation has to be completely hidden. For gates with a maximum length of **3m**, maximum weight **350kg**.

### 2 SELF-LOCKING ELECTROMECHANICAL GEARED MOTORS

with an encoder-controlled 24V motor.

24V

3m  
max

350  
kg

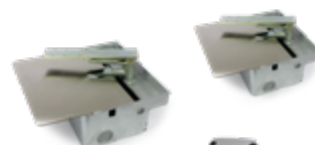
HL2524ESB



### 2 EMBEDDING CASES

with stainless steel covers, connection levers and release mechanism with a personalised key.

HLBOXC



### ELECTRONIC PROGRAMMER

with a 433MHz FM receiver, battery charger and NiMH batteries, housed in an IP55 box with sealing gaskets and cable gland entry holes for the insertion of one Ø21 mm and two Ø16mm rigid tubes.  
See page 172.

CC242EXTOPCB



### 2 4-CHANNEL TRANSMITTERS

433MHz FM ROLLING CODE.

TXQ504C4



### PAIR OF PHOTOCELLS

in class 3 with adjustable lens, range 10m.

CDR999



### LED WARNING LIGHT

24V - 230V with an in-built aerial

ICON



### 10-METRE WIRING CABLE

with end sleeves.

CABPC10



### INTERNATIONAL WARNING SIGN

in PP, multi-language.

TARGA-INT



# COMPLETE UNDERGROUND AUTOMATION KIT FOR SWING GATES



## KT-HL251KS9



PACKING  
DIMENSIONS: 720 x 410 x 330  
GROSS WEIGHT: 65,1 kg  
ITEMS PER PALLET: 5 pcs

### USE

Particularly suited for installation that do not allow column installations or where the automation has to be completely hidden. For gates with a maximum length of **3m**, maximum weight **550kg**.

### 2 SELF-LOCKING ELECTROMECHANICAL GEARED MOTORS

with a 230V motor. Supplied with a 6m connection cable.



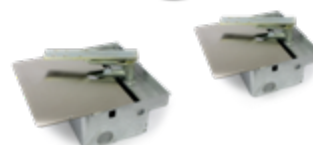
HL251CL



### 2 EMBEDDING CASES

with stainless steel covers, connection levers and release mechanism with a personalised key.

HLBOXC



### ELECTRONIC PROGRAMMER

for two 230V motors. The appliance is fitted with an interface for the insertion of a standard Cardin radio receiver card.

PRG230M2



### 2-CHANNEL RECEIVER CARD

433MHz FM.

RSQ504C2



### 2 4-CHANNEL TRANSMITTERS

433MHz FM ROLLING CODE.

TXQ504C4



### PAIR OF PHOTOCELLS

in class 3 with adjustable lens, range 10m.

CDR999



### LED WARNING LIGHT

24V - 230V with an in-built aerial

ICON



### INTERNATIONAL WARNING SIGN

in PP, multi-language.

TARGA-INT



# INSIDE AUTOMATION FOR SWING GATES

CARDIN INSIDE  
INSIDE AUTOMATION

---



112

CARDIN KIT BLi  
INSIDE AUTOMATION 24V



114









# INSIDE AUTOMATION FOR SWING GATES



## CARDIN INSIDE SERIES BLi

Cardin inside identifies a line of products dedicated to the manufacturers of mass produced industrial gates and doors.

The Cardin inside devices are designed to be easily integrated into specially made structures. Integrating the automation device into the structure of the gate or door allows you to complete the automatic door while still in the factory, thus allowing the manufacturer to supply a complete product that has already been tested and complies with the machine directive.

This device has been created to be integrated into the structure of specially made hinged gates, either into the gate's upright (direct transmission) or into the gate support column (transmission to the gate leaf via a pinion or pulley).

The geared motor is self-locking and is fitted with a direct action hexagonal Allen key system.

The geared motor components are enclosed in a robust structure in spray-painted pressed aluminium with a high performance, robust, permanently lubricated two-stage epicyclic reduction unit connected to an efficient low voltage motor that allows silent running.

The operator is suitable for driving hinged gates up to 2,0 m in length and 200kg in weight per gate leaf. For gates longer than 2,5m an electric lock must be fitted.

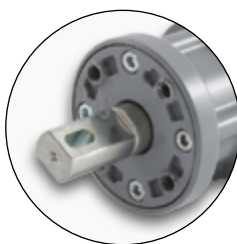
The geared motor is made self-locking (on both gate leaves) by the use on an integrated electromagnetic lock which blocks the gate in the closed position.



CARTER IN SPRAY-PAINTED ALUMINIUM



DIAMETER Ø105



ROTATION ON BEARINGS



CABLE PROTECTION



SELF-PROGRAMMING MONITORED BY AN LCD GRAPHICS DISPLAY

# CARDIN INSIDE SERIES BLi



## SELF-LOCKING BUILD-IN OPERATOR

with a 24Vdc encoder-controlled motor.  
For gates max. 200kg.



**BLi1000**



## ELECTRONIC PROGRAMMER FOR TWO MOTORS

including:

- 433MHz FM receiver;
- multi-decoding module S449-S486-S504-S508;
- battery charger and NiMH batteries.

The electronic programmer is factory fitted with a graphic LCD display (128 x 128 pixels) with backlighting in six different languages. The menu allows you to counts and display the number of manoeuvres carried out by the machine and to rapidly set the system parameters. The electronics card, thanks to the presence of the real-time clock, allows you to set 10 events (shown on the display). The events can be enabled or disabled (during holiday periods) either from the menu or by means of a radio channel.



Compatible with the data exchange system between digital devices (smartphone, tablet, etc.) and the Cardin multifunctional control units.



**See section 24V ECU INTERFACE DEVICES on page 186**

## ELECTRONIC PROGRAMMER FOR TWO MOTORS

Version with a battery charger and batteries.

## ELECTRONIC PROGRAMMER FOR TWO MOTORS

Version without a battery charger and batteries.

**CC242EFAMCB**

**CC242EFAM**



## KIT BATTERY CHARGER + NIMH BATTERIES

Allows the programmer CC242EFAM to work during blackouts.

**KBNIMH-1**



## 6-WIRE SPECIAL CONNECTING CABLE

100m (supplied on a special spool).

**CABPC100ST**



For the electric locks see page 163.

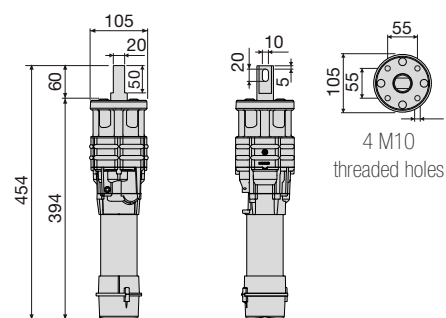
# CARDIN INSIDE SERIES BLi



## MOTOR SPECIFICATIONS

Motor power supply	Vdc	24
Nominal electrical input	A	2
Power input	W	50
Duty cycle	%	70
Opening time 90°	s	16
Maximum opening angle	°	180
Maximum gate weight	kg	200
Maximum gate length	m	2
Operating temperature range	°C	-20°...+55
Protection grade	IP	55

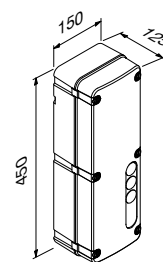
## BLi1000



BLi1000

## PROGRAMMER SPECIFICATIONS

Power supply	Vac	230
Nominal electrical input	A	1,2
Maximum power yield	W	250
Power output for 1 or 2 motors	W	60 + 60



CC242EFAMCB

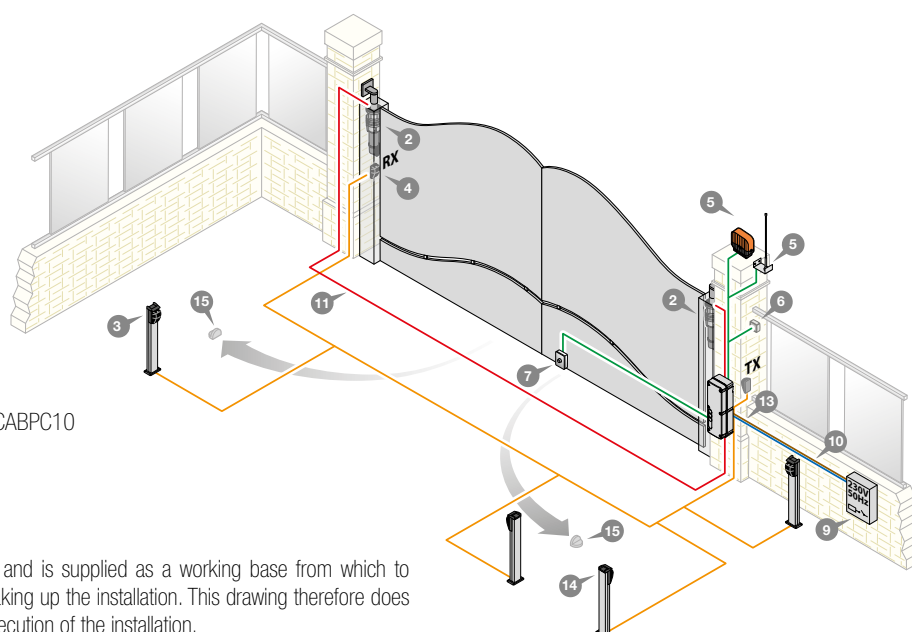
## BUILT-IN RECEIVER CARD

Reception frequency	MHz	433.92 / 868,3
Number of channels	No	4
Number of functions	No	8
Number of stored codes	No	300 / 1000

## INSTALLATION EXAMPLE

### LEGEND

- 1 Geared motor (left)
- 2 Geared motor (right)
- 3 Internal photocells
- 4 External photocells
- 5 Warning lights
- 6 Mechanical selector switch
- 7 Electric lock
- 8 External aerial
- 9 All pole circuit breaker
- 10 Mains cable 230Vac
- 11 Channelling for Cardin connection cable CABPC10
- 12 Channelling route for low voltage wires
- 13 Electronic programmer
- 14 Lateral protective photocells
- 15 Opening direction stop buffers

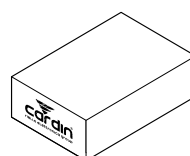


**Attention:** The drawing is purely indicative and is supplied as a working base from which to choose the Cardin electronic components making up the installation. This drawing therefore does not lay down any obligations regarding the execution of the installation.

# INSIDE KIT FOR SWING GATES



## KT-BLi1000



PACKING  
DIMENSIONS: 440 x 470 x 130  
GROSS WEIGHT: 18,2 kg  
ITEMS PER PALLET: 10 pz

The inside kit for swing gates with a maximum weight of 200kg contains two geared motors and an electronic control unit.

Special connection cable in a spool to be ordered separately.

The automation is encoder controlled by an external ECU factory fitted with a graphic LCD display (128 x 128 pixels) with backlighting in six different languages. The geared motors are connected to the electronics card by means of a six-wire, fast-fitting cable.

The electronic components are housed in a shockproof plastic container IP55 and the appliance is factory fitted with a multi-decoding module (system S449 - S486 - S504 - S508), a battery charger and NiMH batteries which allow the gate to be manoeuvred even during blackouts.

Compatible with the INTPRG-3G/WF system that allows the monitoring and programming of system parameters from remote positions.

### 2 SELF-LOCKING BUILD-IN OPERATORS

with an encoder-controlled 24Vdc motor for gates:

- maximum length 2m (2,5m with an electric lock);
- maximum weight 200kg.

### BLi1000



### ELECTRONIC PROGRAMMER FOR TWO MOTORS

including:

- 433MHz FM receiver;
- multi-decoding module S449-S486-S504-S508;
- battery charger and NiMH batteries.

### CC242EFAMCB



# AUTOMATION FOR GARAGE DOORS

## RAPID SELECTION GUIDE

118

### CARDIN PRO GL



AUTOMATION FOR COUNTERBALANCED DOORS

120

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### CARDIN TRADE GL



AUTOMATION FOR COUNTERBALANCED DOORS

124

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### CARDIN PRO GL



AUTOMATION FOR SECTIONAL DOORS

128

### CARDIN TRADE GL



AUTOMATION FOR SECTIONAL DOORS

132







**GL**

AUTOMATION FOR  
COUNTERBALANCED DOORS

**CARDIN PRO**

(optional)



GLB249M



GLB248M



GLB249S



**GL**

AUTOMATION FOR  
SECTIONAL DOORS

**CARDIN PRO**



GL124EBSS



**GL**

AUTOMATION FOR  
COUNTERBALANCED DOORS

**CARDIN TRADE**



**2,5m**  
h-max

**8m²**



GL STAR1E

**PR6**

**2,5m**  
h-max

**8m²**



GL STAR2E

**PR6**

**2,5m**  
h-max

**8m²**



GL STAR2AE



**GL**

AUTOMATION FOR  
SECTIONAL DOORS

**CARDIN TRADE**



**3,9m**  
h-max

**9 m²**



GL ZEN60E

**3,9m**  
h-max

**12 m²**



GL ZEN100E

# GARAGE AUTOMATION FOR COUNTERBALANCED DOORS



(optional)

## CARDIN PRO SERIES GL

A complete automatic device suitable for moving all types of counterbalanced garage doors. The compact and solid form makes this product a versatile machine that may be used safely and efficiently on all types of counterbalanced garage doors.

The automation consists of a compact single-piece geared reduction unit (with an incorporated encoder and bilateral manual release system) and is fitted with a reduction system made from materials that allow maximum efficiency and minimum noise. All the components making up the device: geared motor, transformer, electronic programmer and batteries (optional) are mounted on a robust chassis made of shockproof plastic and are separated and protected by a double carter that completely covers all the moving parts and safely houses all the cables and wiring. The second removable cover allows access to all the setting and program functions in complete safety.

Internally, the carter contains the mechanism required to activate the manual release system and this allows the manoeuvre to be fluid and manageable under all working conditions whilst at the same time covering all possible manual release mechanisms installed by the door manufacturers: a handle directly installed on the geared motor, an external release cord or via a hexagonal key operated mechanism that is accessed through the door panel both to the right and to the left of the motor. The door position is encoder controlled and self-programming thus reducing installation times to a minimum and optimising the programming procedure. Repositioning takes place automatically whenever foreign objects get in the way of the door as it is moving.

The electronic control unit is completed by the anti-crush and "soft start" and "soft stop" functions and a display that monitors the programming stages and counts the number of manoeuvres carried out by the machine.

### Multi-decoding:

The product range is factory fitted with a multi-decoding remote control module (system S449 - S486 - S504 - S508).

For garage doors larger than 4 metres and for garage doors with an in-built pedestrian door (mounted laterally) a second slave motor is required.



MANUAL RELEASE GLB249



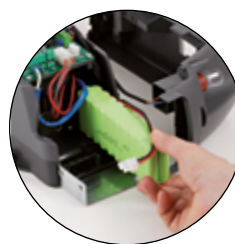
REMOTE RELEASE RIGHT/LEFT



PROGRAMMER PROTECTION



SELF-PROGRAMMING



OPTIONAL NiMH BATTERIES



# CARDIN PRO SERIES GL

## SELF-PROGRAMMING ELECTROMECHANICAL UNIT WITH A 24V MOTOR (433MHz)

Self-locking encoder-controlled Master automation with an in-built electronic programmer.

Operator arms are to be ordered separately.

Kit battery charger + batteries to be ordered separately.



## GLB249M



## SELF-PROGRAMMING ELECTROMECHANICAL UNIT WITH A 24V MOTOR (868MHz)

Self-locking encoder-controlled Master automation with an in-built electronic programmer.

Operator arms are to be ordered separately.

Kit battery charger + batteries to be ordered separately.



## GLB248M



## ELECTROMECHANICAL UNIT WITH A 24V MOTOR

Self-locking slave automation.

Use to supplement the GLB249M - GLB248M units for particular installations that require two motors.

Operator arm to be ordered separately.



## GLB249S





# CARDIN PRO SERIES GL

## AXLE SHAFTS

Pair of axle shafts for central motor positioning, 1500mm long.

Pair of axle shafts for central motor positioning, 2200mm long.

GL0TG

GL0TG20



## JOINTS FOR LATERAL MOTOR POSITIONING

GL0CGL



## TELESCOPIC ARMS

Right curved telescopic arm

Left curved telescopic arm

Straight telescopic arm, 700mm

Straight telescopic arm, 700mm (2 pcs.)

Straight telescopic arm, 1000mm

Straight telescopic arm, 1000mm (2 pcs.)

GL03A

GL04A

GL02AD

GL02AD2

GL06A

GL06A2



## SUPPORT BRACKET

Motor support extension bracket, 2000mm.

GL0PS2



## EXTERNAL RELEASE CORD

length 2000mm

GL24SB



## KIT BATTERY CHARGER + NIMH BATTERIES

Allows the GLB249M unit to work during blackouts.

KBNIMH-2



## CABLE GLANDS Ø16mm

GLB24PC





# CARDIN PRO SERIES GL

## MOTOR SPECIFICATIONS

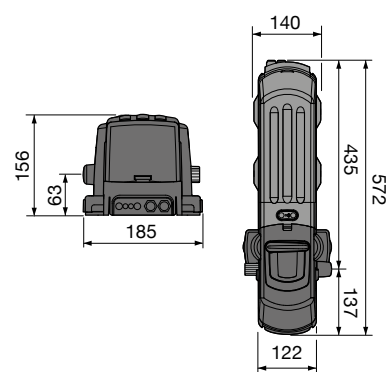
Motor power supply	Vdc	24
Nominal electrical input	A	2
Power input	W	100
Duty cycle	%	70
Geared motor speed	revs/min	1,7
Maximum torque	Nm	170
Operating temperature range	°C	-20°...+55
Protection grade	IP	54

## PROGRAMMER SPECIFICATIONS

Power supply	Vac	230
Nominal electrical input	A	0,5
Maximum power yield	W	120

## BUILT-IN RECEIVER CARD

Reception frequency	MHz	433.92 / 868,3
Number of channels	No	4
Number of functions	No	2
Number of stored codes	No	300

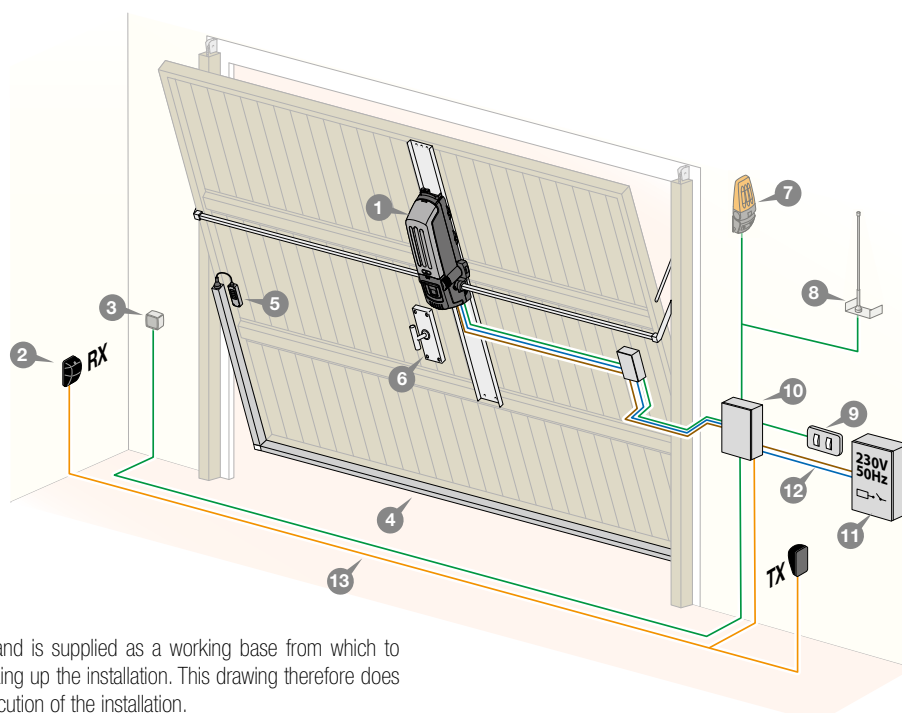


GLB249M - GLB248M

## INSTALLATION EXAMPLE

### LEGEND

- 1 Geared motor
- 2 Photoelectric cells
- 3 Mechanical selector switch
- 4 Anticrush safety edge
- 5 Radioshield
- 6 Release cord
- 7 External warning lights
- 8 External aerial
- 9 Wall mounted switch TB - TD
- 10 Shunt box
- 11 All pole circuit breaker
- 12 Mains cable 230Vac
- 13 Channelling route for low voltage wires



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# GARAGE AUTOMATION FOR COUNTERBALANCED DOORS



## CARDIN TRADE SERIES GL STAR

230V automatic device suitable for counterbalanced garage doors up to 10 m<sup>2</sup>. For garage doors larger than 4 metres and for garage doors with an in-built pedestrian door (mounted laterally) a second slave motor is required.

GL STAR is a complete automation system suitable for use with all types of counterbalanced overhead garage doors. The appliance has been designed and realised to be reliable day after day and throughout the passage of time. It is for this reason that the panelling and external particulars are made out of cast aluminium and galvanised steel, the internal moving parts are made of tempered steel and the carter is made of shockproof plastic.

These solutions offer guaranteed resistance to atmospheric agents, and after installing, an absolutely maintenance free future. The installer is guaranteed a valid and reliable product. The user is guaranteed first rate service and a silent, consistent and regular action which will safeguard the automated structure throughout the years of service to come.

The manual release system allows the manoeuvre to be fluid and manageable under all working conditions whilst at the same time covering all possible manual release mechanisms installed by the door manufacturers whether it be a handle fitted directly to the door or an external cord release system.

The integrated programmer allows encoder and limit switch controlled gate positioning and self-programming thus reducing installation times to a minimum and optimising the programming procedure.

The electronic control unit controls are completed by the anti-crush and "soft start" and "soft stop" functions.

### Open collector:

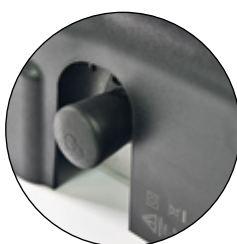
The product range is factory set for the insertion of an open collector receiver card that guarantees compatibility with all the radio control series available in the Cardin catalogue.



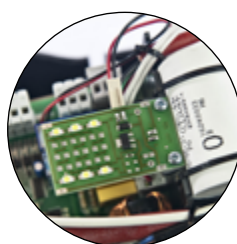
ADJUSTABLE SEQUENTIAL  
COMMAND



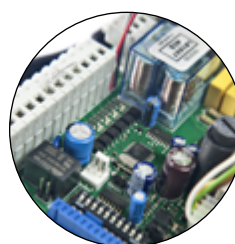
MANUAL RELEASE MECHANISM



LOW SPEED SHAFT PROTECTION



LED COURTESY LIGHTS



MASTER MOTOR  
IN-BUILT ELECTRONICS

# CARDIN TRADE SERIES GL



## SELF-LOCKING GARAGE DOOR MOTOR

with a 230V slave motor.

**2,5m**  
h-max

**8m<sup>2</sup>**

## GL STAR1E



## SELF-LOCKING GARAGE DOOR MOTOR

with a 230V encoder-controlled motor complete with electronic travel limits and an in-built programmer.

**PRG**

**2,5m**  
h-max

**8m<sup>2</sup>**

## GL STAR2E



## SELF-LOCKING GARAGE DOOR MOTOR

with a 230V encoder-controlled motor complete with electronic travel limits, an in-built electronic programmer with autotransformer and torque limitation.

**PRG**

**2,5m**  
h-max

**8m<sup>2</sup>**

## GL STAR2AE





# CARDIN TRADE SERIES GL

## SUPPORT BRACKETS

in zinc-plated metal, 60cm.

in zinc-plated metal, 200cm.

## ADJUSTABLE BRACKETS

Axle shaft supports.

## ADAPTER KIT GL20-GLSTAR

Adapter kit to instal the STAR garage door motor in an old GL20 installation

## TRANSMISSION SHAFTS

20cm including support bracket.

150cm including support bracket.

200cm including support bracket.

## TRANSMISSION ARMS

Two straight arms with round bushing for AT shafts.

One straight arm with grooved bushing for motor drive shaft.

Two curved arms with round bushing for AT shafts.

## EXTERNAL RELEASE CORD KIT

with a personalised key for counterbalanced or sectional garage doors.

## EXTERNAL RELEASE CORD KIT

to connect to the door handle.

## ELECTRONIC PROGRAMMER

for one 230V encoder-controlled motor complete with torque limitation and deceleration. Factory set for the insertion of an open collector receiver card.

## TRAVEL LIMIT KIT

Travel limit switch kit and encoder for GL STAR1E.

SS60STARA

SS200STARA

SRSTAR

GLJSTAP

AT20

AT150

AT200

BDB

BDBUS

BCB

KSN

KSE

S101B

FCGL STAR1E





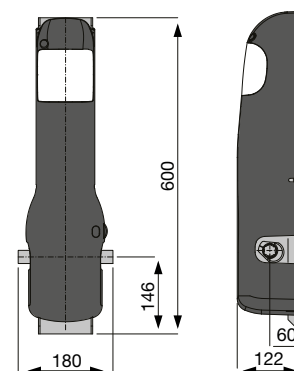
# CARDIN TRADE SERIES GL

## MOTOR SPECIFICATIONS

Motor power supply	Vac	230
Frequency	Hz	50
Nominal electrical input	A	1,7
Power input	W	360
Duty cycle	%	40
Geared motor speed	revs/min	1,8
Maximum torque	Nm	530
Operating temperature range	°C	-20°...+55
Protection grade	IP	30

## PROGRAMMER SPECIFICATIONS

Power supply	Vac	230
Nominal electrical input	A	2
Maximum power yield	W	360



## OPTIONAL RECEIVER CARD

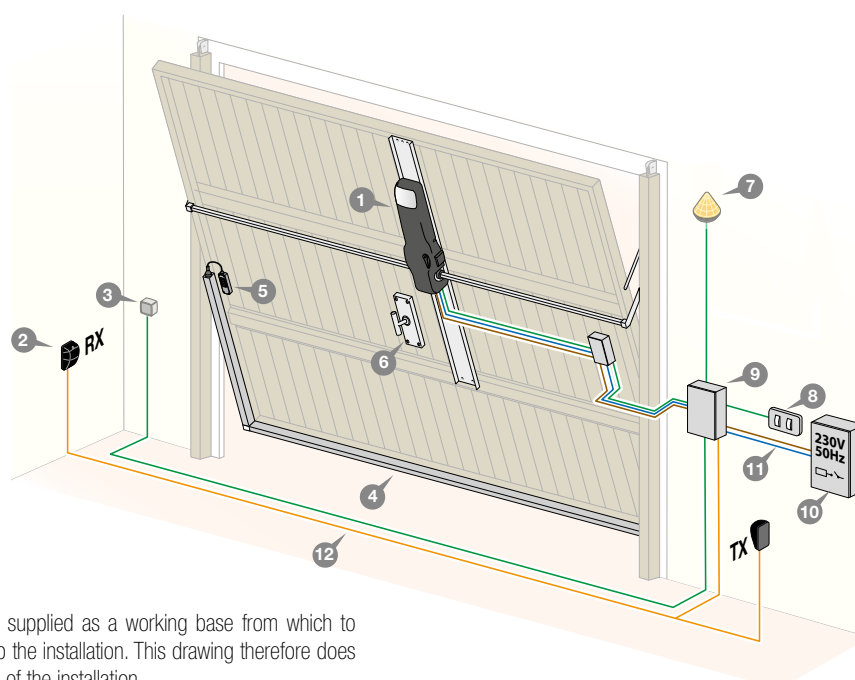
The product range is factory set for the insertion of an open collector receiver card that guarantees compatibility with all the radio control series available in the Cardin catalogue.

GL STAR1E - GL STAR2E - GL STAR2AE

## INSTALLATION EXAMPLE

### LEGEND

- 1 Geared motor
- 2 Photoelectric cells
- 3 Mechanical selector switch
- 4 Anticrush safety edge
- 5 Radioshield
- 6 Release cord
- 7 Warning light with aerial
- 8 Wall mounted switch TB - TD
- 9 Shunt box
- 10 All pole circuit breaker
- 11 Mains cable 230Vac
- 12 Channelling route for low voltage wires



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# CHAIN-GUIDED AUTOMATION FOR SECTIONAL DOORS



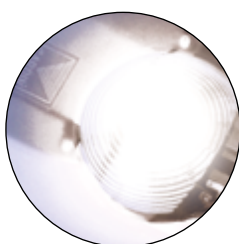
## CARDIN PRO SERIES GL

The chain guided automation GL124 is made up of two elements complete in all their parts, which are assembled by simply slotting them together. An efficient and aesthetically designed high performance propulsion unit, featuring new technical solutions, and fitted with all the elements for operation under all working conditions it slots together with an extruded aluminium chain driven transmission. The motor attachment and chain drive head on the guide are structurally optimised using nylon fibre. The compact and robust propulsion unit is commanded by state of the art logic based on encoder control, which tracks the movement of the door, and on a self-learning programming procedure.

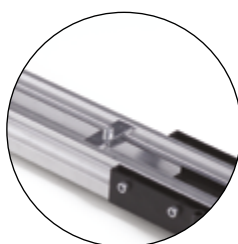
The unit is fitted with a direct current motor which uses an efficient system of kinematics protected by a special anti drag element that cancels out vibrations and variations in movement that can occur during the work cycle. The automation is fitted with courtesy lights and NiMH batteries that guarantee emergency operation during blackouts. The integrated electronic programmer is housed in a protective well that only leaves access to the programming controls, display and circuit protection fuses.

The carriage slides along the chain guide on specially lubricated castors. The manual release mechanism used to detach the carriage from the chain guide is carried out using a release cord that separates the door from the automation. Repositioning takes place automatically whenever foreign objects get in the way of the door as it is moving. The electronic control unit is completed by the anti-crush and "soft start" and "soft stop" functions and a display that monitors the programming stages and counts the number of manoeuvres carried out by the machine.

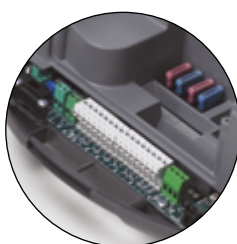
Chain guide to be ordered apart.



COURTESY LIGHT



ALUMINIUM CHAIN GUIDE



INTEGRATED ELECTRONICS



DIP-SWITCH SETTING



SELF-PROGRAMMING

# CARDIN PRO SERIES GL



## SELF-PROGRAMMING ELECTROMECHANICAL UNIT WITH A 24V MOTOR

Encoder controlled integral automation fitted with an electronic programmer, an S449 radio receiver card, battery charger and NIMH batteries.

Digital work time control.

Command inputs: TA, TC and TB.

Safety inputs: photocells, safety edge (N.C. contact or 8.2kΩ).

Chain guide to be ordered apart.

## GL124EBSS



For sectional doors:

- maximum height 2.7m with a 3000mm chain guide;
- maximum height 3.2m with a 3500mm chain guide;
- maximum height 4.2m with a 4500mm chain guide;
- maximum height 5.7m with a 6000mm chain guide.

## OPTIONAL SLOT-IN CARD

Functions:

- traffic light output for 2 traffic lights (red, green);
- programmable potential free output, impulsive or continuous (courtesy light 100 W);
- digital safety edge management input.

## YPR124SCL00





# CARDIN PRO SERIES GL



## ALUMINIUM CHAIN GUIDE

length 3000mm

length 3500mm

length 4500mm

length 6000mm

**GL124S30**

**GL124S35**

**GL124S45**

**GL124S60**



## ADAPTER

Allows the chain guided automation to be used on counterbalanced garage doors.

**GLB0**



## EXTERNAL RELEASE CORD

length 2000mm

length 4000mm

**GL20SB**

**GL20SB4**





# CARDIN PRO SERIES GL

## MOTOR SPECIFICATIONS

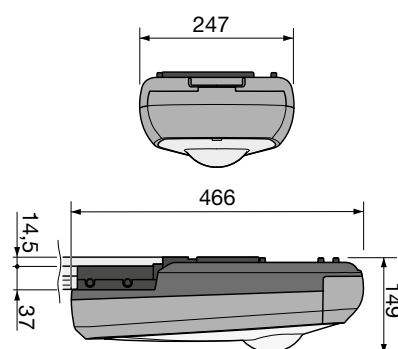
Motor power supply	Vdc	24
Nominal electrical input	A	3
Power input	W	130
Duty cycle	%	70
Drag speed	m/min	7
Maximum travel distance	mm	5700
Operating temperature range	°C	-20°...+55
Protection grade	IP	40

## PROGRAMMER SPECIFICATIONS

Power supply	Vac	230
Nominal electrical input	A	0,9
Maximum power yield	W	190

## BUILT-IN RECEIVER CARD

Reception frequency	MHz	433.92
Number of channels	No	4
Number of functions	No	2
Number of stored codes	No	300

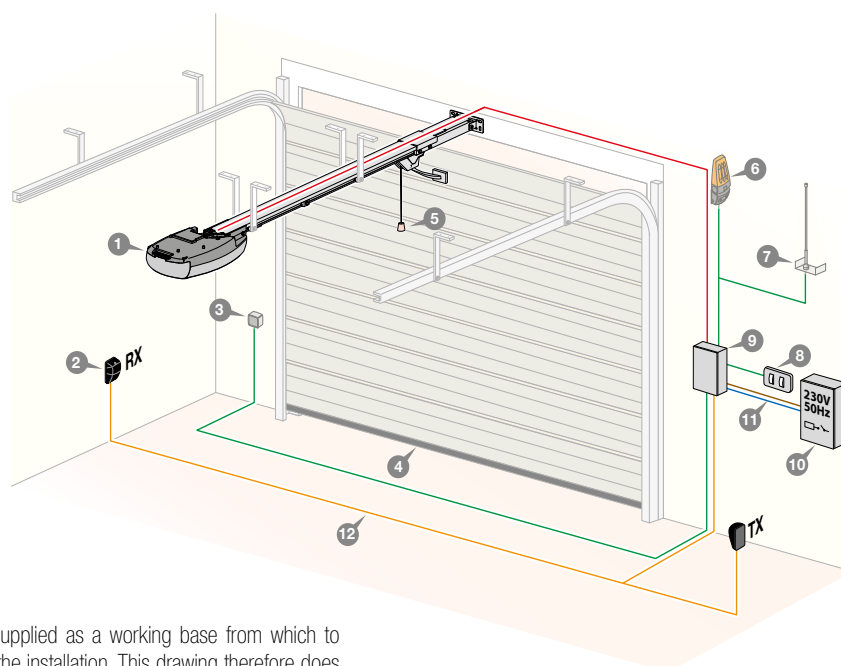


GL124EBSS

## INSTALLATION EXAMPLE

### LEGEND

- 1 Geared motor + built-in programmer
- 2 Photoelectric cells
- 3 Mechanical selector switch
- 4 Anticrush safety edge
- 5 Release cord
- 6 External warning lights
- 7 External aerial
- 8 Wall mounted switch TB - TD
- 9 Shunt box
- 10 All pole circuit breaker
- 11 Mains cable 230Vac
- 12 Channelling route for low voltage wires



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# CHAIN-GUIDED AUTOMATION FOR SECTIONAL DOORS



(optional)

## CARDIN TRADE SERIES GL ZEN

Chain guided automation for residential sectional and counterbalanced doors up to 12m<sup>2</sup>. An efficient and robust 24V propulsion unit with an in-built programmer fitted with all the elements for operation under all working conditions, it slots together with a steel chain driven transmission guide available in various lengths.

The propulsion unit is commanded by state of the art logic based on encoder control, with deceleration in the opening and closing directions, which tracks the movement of the door. The system is based on a self-learning programming procedure with function setting using dip-switches.

The automation is fitted with courtesy lights and an input specifically tailored for 8K2 safety edges.

The manual release mechanism used to detach the carriage from the chain guide is carried out using a release cord that separates the door from the automation. Repositioning takes place automatically whenever foreign objects get in the way of the door as it is moving. The electronic control unit is completed by the anti-crush and "soft start" and "soft stop" functions.

The complete range of products have been designed and constructed in accordance with the safety standards in force and feature automatic, semi-automatic, manual and remote control functions.

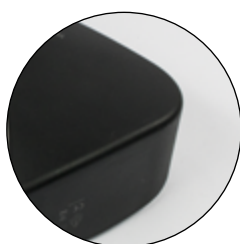
### Open collector:

The product range is factory set for the insertion of an open collector receiver card that guarantees compatibility with all the radio control series available in the Cardin catalogue.

Chain guide to be ordered apart.



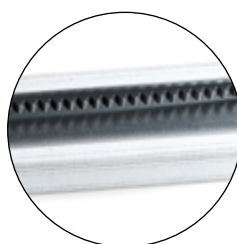
EXTERNAL RELEASE CORD



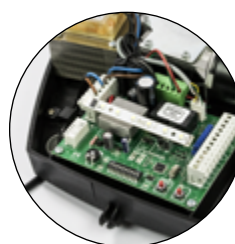
ROBUST PROTECTIVE CASING



LED LIGHTING



BELT GUIDE



INTEGRATED ELECTRONICS



# CARDIN TRADE SERIES GL

## SELF-LOCKING GARAGE DOOR MOTOR

for residential use, with an encoder controlled 24V motor and in-built electronic programmer with LED courtesy lights. Maximum drag force 600N.

**3,9m**  
h-max

**9 m²**

## SELF-LOCKING GARAGE DOOR MOTOR

for residential use, with an encoder controlled 24V motor and in-built electronic programmer with LED courtesy lights. Maximum drag force 1000N.

**3,9m**  
h-max

**12 m²**

## BELT GUIDE

Pre-assembled single unit belt guide and accessories. (length 3200mm)

2 piece pre-assembled belt guide and accessories. (length 1600mm - 1600mm)

3 piece pre-assembled belt guide and accessories. (length 1600mm - 1600mm - 1060mm)

### GL ZEN60E



### GL ZEN100E



### ZENGB1U



### ZENGB2U

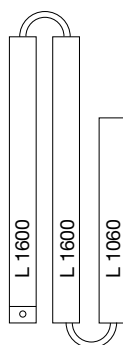
### ZENGB4U



ZENGB1U



ZENGB2U



ZENGB4U

# CARDIN TRADE SERIES GL



## EXTERNAL RELEASE CORD KIT

with a personalised key for counterbalanced or sectional garage doors.

KSN



## ADAPTER

Allows the chain guided automation to be used on counterbalanced garage doors.

GLB0



## FASTENING BRACKETS

ZEN ST2



## HOLDING BRACKET

Large holding bracket for heavy doors.

SUPZEN



## BATTERY CHARGER

for use with 24V programmers.

CB24

## EXTERNAL BOX

with 2 batteries 12V 7Ah.

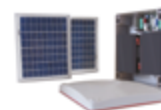
SPB24



## POWER SUPPLY KIT

Solar panels for use with all 24Vdc automation.

SUNPOWER





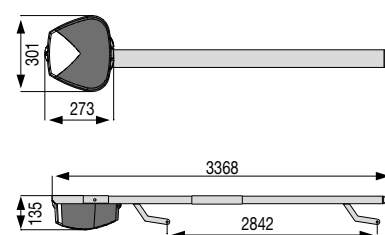
# CARDIN TRADE SERIES GL

## MOTOR SPECIFICATIONS

		GL ZEN60E	GL ZEN100E
Motor power supply	Vdc	24	24
Nominal electrical input	A	4	5
Power input	W	100	130
Duty cycle	%	60	60
Drag speed	m/min	9	9
Maximum thrust	N	600	1000
Max. travel distance	mm	3900	3900
Operating temperature range	°C	-20°...+55	-20°...+55
Protection grade	IP	30	30

## PROGRAMMER SPECIFICATIONS

Power supply	Vdc	24	24
Nominal electrical input	A	4	4
Maximum power yield	W	230	260



GL ZEN60E - GL ZEN100E

## OPTIONAL RECEIVER CARD

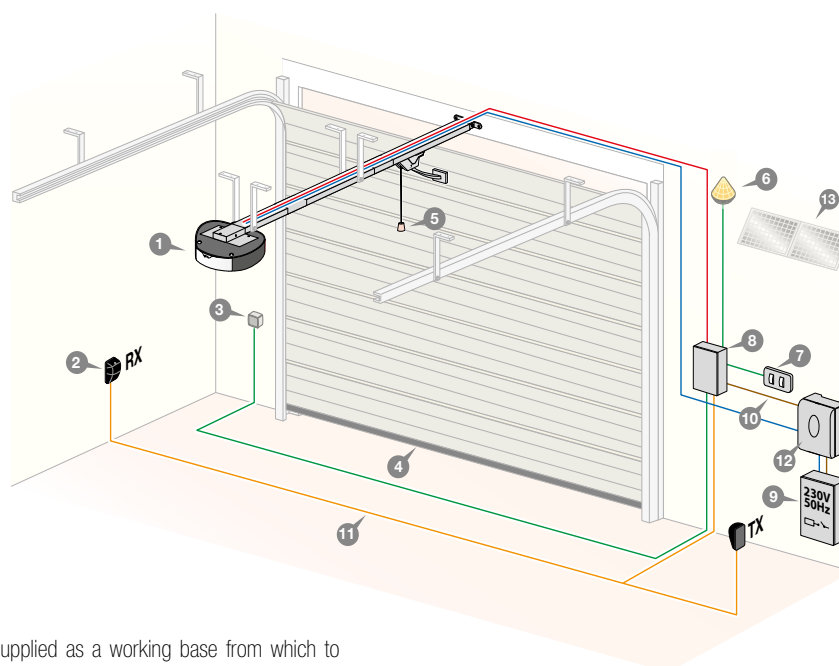
The product range is factory set for the insertion of an open collector receiver card that guarantees compatibility with all the radio control series available in the Cardin catalogue.

## INSTALLATION EXAMPLE

### LEGEND

- 1 Geared motor + built-in programmer
- 2 Photoelectric cells
- 3 Mechanical selector switch
- 4 Anticrush safety edge
- 5 Release cord
- 6 External warning lights with aerial
- 7 Wall mounted switch TB - TD
- 8 Shunt box
- 9 All pole circuit breaker
- 10 Mains cable 230Vac
- 11 Channelling route for low voltage wires
- 12 Sun Power
- 13 Solar panels

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# AUTOMATION FOR ROLLING SHUTTERS AND GARAGE DOORS

CARDIN TRADE RL



138





# AUTOMATION FOR ROLLING SHUTTERS AND ROLL-UP GARAGE DOORS



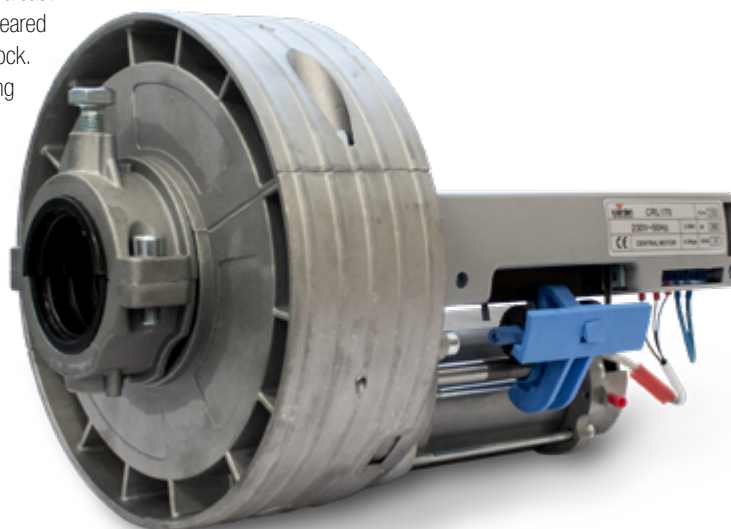
230V

## CARDIN TRADE SERIES RL

230V automation for shutters, rolling grills and roll-up garage doors with a cast aluminium geared motor and crown wheel. Available as a reversible geared motor and in self-locking versions with an integrated electromagnetic lock. The modular motor is rapid and easy to install even on pre-existing systems without having to dismantle the rolling shutter drive shaft and spring holders.

The reversible version is ideal for lockable roll-up garage doors, while the self-locking version with an electromagnetic lock and manual release cable is more suited to installations not featuring tradition locking systems such as lock & key, door bolts, padlocks and electric locks etc.

An ample range of electronic programmers and selector switches is available for the manual, automatic and semi-automatic control of the RL series of motors.



ELECTROMAGNETIC LOCK  
STANDARD IN THE VERSIONS  
CRL170E - CRL180E - CRL360DE



CROWN WHEEL MOUNTED  
ON ROLLER BEARINGS



INTEGRATED OPENING AND  
CLOSING TRAVEL LIMITS



RAPID AND EASY  
ELECTRICAL CONNECTION



MANUAL RELEASE CABLE  
STANDARD IN THE VERSIONS  
CRL170E - CRL180E - CRL360DE





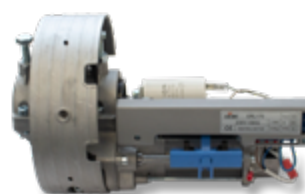
### REVERSIBLE GEARED MOTOR FOR ROLLING SHUTTERS

230V geared motor permitting a maximum lifting power of 180kg. An electric lock must be fitted to guarantee that the rolling shutter locks in the closed position.

Precise and reliable, thanks to the integrated travel limits, this model may fitted to all types of rolling shutter with a 60mm or 48mm drive shaft diameter and a crown wheel diameter of 200mm e 220mm. Maximum rolling shutter height 6m.

### CRL 170

180 kg



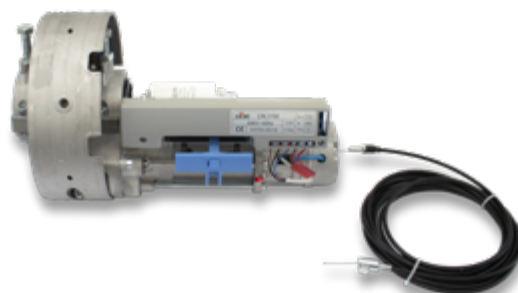
### SELF-LOCKING GEARED MOTOR FOR ROLLING SHUTTERS

230V geared motor permitting a maximum lifting power of 180kg. Precise and reliable, thanks to the integrated travel limits and standard electromagnetic lock, this model may fitted to all types of rolling shutter with a 60mm or 48mm drive shaft diameter and a crown wheel diameter of 200mm e 220mm.

Maximum rolling shutter height 6m.

### CRL 170 E

180 kg



### SELF-LOCKING GEARED MOTOR FOR ROLLING SHUTTERS

230V geared motor permitting a maximum lifting power of 180kg. Precise and reliable, thanks to the integrated travel limits and standard electromagnetic lock, this model may fitted to all types of rolling shutter with a 76mm drive shaft diameter and a crown wheel diameter of 240mm.

Maximum rolling shutter height 6m.

### CRL 180 E

180 kg



### SELF-LOCKING GEARED MOTOR FOR ROLLING SHUTTERS

Two 230V geared motors permitting a maximum lifting power of 360kg.

Precise and reliable, thanks to the integrated travel limits and standard electromagnetic lock, this model may fitted to all types of rolling shutter with a 76mm drive shaft diameter and a crown wheel diameter of 240mm.

Maximum rolling shutter height 6m.

### CRL 360 DE

360 kg



# CARDIN TRADE SERIES RL



## ELECTRONIC PROGRAMMER CONTROLLING ONE 230V MOTOR

ECU for rolling grills or rolling shutters max. 1300W. Ideal for tubular motors or rolling shutters and fitted with torque limitation, a programmable 24V warning light output (flashing or continuous activation) and a 230V courtesy light output. Protection grade IP55.

Overall dimensions 135 x 175 x 85

## ELECTRONIC PROGRAMMER CONTROLLING ONE 230V MOTOR

ECU for rolling grills or rolling shutters max. 1300W. Basic version supplied with a fitted RSQ5040C2 receiver card.

Protection grade IP55.

Overall dimensions 135 x 175 x 85

## COMMAND CARD CONTROLLING ONE 230V MOTOR

Ideal for the manual control of one rolling grill or rolling shutter motor.

Protection grade IP55.

Overall dimensions 58 x 125 x 84

## RADIOPROGRAMMER FOR ROLLING SHUTTERS, SUN BLINDS AND AWNINGS (230V-1000W)

Logic integrated into the receiver with work time management and output for the control of one motor. Suitable for the command of automatic rolling shutters, sun blinds and awnings. Inputs for one opening and one closing command via cable. Manual operation in either the opening/closing or only closing direction.

## RADIOPROGRAMMERS FOR ROLLING SHUTTERS AND GRILLS (230V-630W)

Logic integrated into the receiver and output for the control of one motor. Power supply output for a pair of Cardin photoelectric cells. Possibility of memorising up to 1000 transmitters.

All weather box in ABS - IP55.

Overall dimensions 139 x 115 x 44.

## ALUMINIUM KEY OPERATED SURFACE-MOUNT SWITCH

Selector switch for the manual on-site activation of automatic gate and door systems. Container in cast aluminium

All weather box in AL - IP55.

## ALUMINIUM SURFACE-MOUNT BOX WITH SWITCH AND RELEASE LEVER

Selector switch and release lever for the manual on-site activation of automatic gate and door systems. Container in cast aluminium

All weather box in AL - IP55.

## ALUMINIUM KEY OPERATED SURFACE-MOUNT SWITCH

Selector switch for the manual on-site activation of automatic gate and door systems. Container in cast aluminium with a shockproof plastic front piece. Anti-tampering system that is easy to install and easier to use.

All weather box in AL - IP55.

## T21X



## T21B



## T1



## RPQ504T10

## RPQ508T10

Indoor box IP20.

Overall dimensions 106 x 36 x 21.



## RPQ504

## RPQ508



## SELRL1C

Maximum voltage 30Vac-dc.

Maximum current 2A.

Open-close functions.

Overall dimensions 79 x 72 x 44.



## SELRL3C

Maximum voltage 30Vac-dc.

Maximum current 2A.

Open-close functions.

Manual release lever

Overall dimensions 145 x 79 x 50.



## SELMEC/E1

Maximum voltage 30Vac-dc.

Maximum current 2A.

Open-close functions.

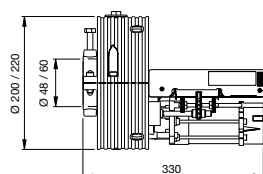
Overall dimensions 35 x 70 x 70.



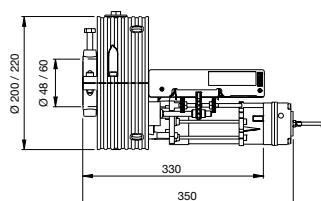
# CARDIN TRADE SERIES RL



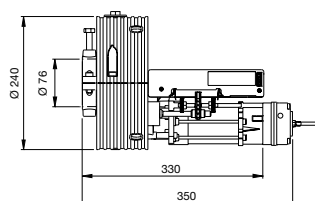
## OVERALL DIMENSIONS



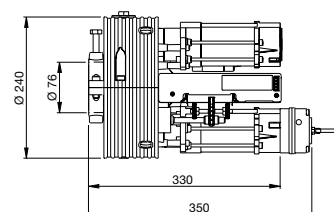
CRL 170



CRL 170 E



CRL 180 E



CRL 360 DE

## ELECTRONIC PROGRAMMER TECHNICAL DATA

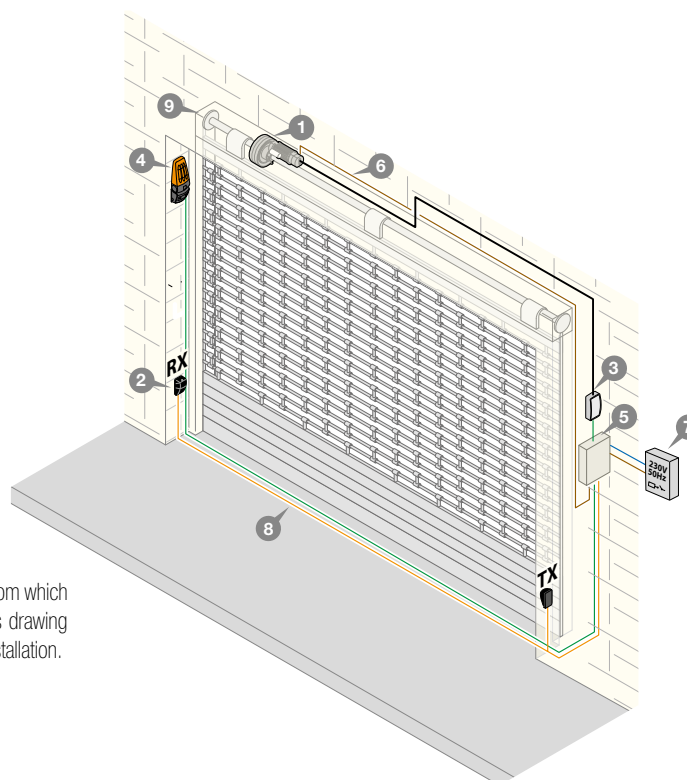
		CRL170	CRL170E	CRL180E	CRL360DE
Power supply	Vac	230	230	230	230
Frequency	Hz	50 / 60	50 / 60	50 / 60	50 / 60
Nominal electrical input	A	2,56	2,56	2,85	5,61
Power input	W	590	590	650	1290
Torque	Nm	180	180	210	360
Geared motor speed	rpm	10	10	9,5	9,5
Shaft	mm	48 / 60	48 / 60	Ø 76	Ø 76
Crown	mm	200 / 220	200 / 220	Ø 240	Ø 240
Weight	kg	8,5	9,5	10	14
Rolling shutter max. height	m	6	6	6	6

## INSTALLATION EXAMPLE

### LEGEND

- 1 Geared motor
- 2 Photoelectric cells
- 3 Wall mounted switches TA - TC / manual release cable
- 4 Warning light with inbuilt antenna
- 5 Electronic programmer
- 6 Mains wiring 230V
- 7 All pole circuit breaker with a minimum gap of 3 mm between the contacts
- 8 Channelling route for low voltage wires
- 9 Rolling shutter structure

**Attention:** The drawing is purely indicative and is supplied as working base from which to choose the Cardin electronic components making up the installation. This drawing therefore does not lay down any obligations regarding the execution of the installation.







# AUTOMATION FOR ROAD BARRIERS AND PARKING PLACE PROTECTION

## RAPID SELECTION GUIDE

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### CARDIN PRO EL



AUTOMATION FOR ROAD BARRIERS

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### CARDIN TRADE EL



AUTOMATION FOR ROAD BARRIERS

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### CARDIN PRO PL



PARKING PLACE PROTECTION

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**EL**

AUTOMATION FOR  
ROAD BARRIERS

**CARDIN PRO**



3-5m  
3-4s



ELDOMSDG

6-8m  
6-12s



ELDOMLDG



**PL**

PARKING PLACE  
PROTECTION

**CARDIN PRO**



8s



PARKSUN - PARKSUN-S

8s



PARKLINE

RAPID GUIDE

ROAD BARRIERS



EL

AUTOMATION FOR  
ROAD BARRIERS

(optional)



CARDIN TRADE



EL SNAP-RAPID



EL SNAPS



EL SNAPL



EL

AUTOMATION FOR  
ROAD BARRIERS

(optional)



CARDIN TRADE



EL RAP4E



# AUTOMATION FOR ROAD BARRIERS



## CARDIN PRO SERIES EL

Compatible with the data exchange system between digital devices (smartphone, tablet, etc.) and the Cardin multifunctional control units.



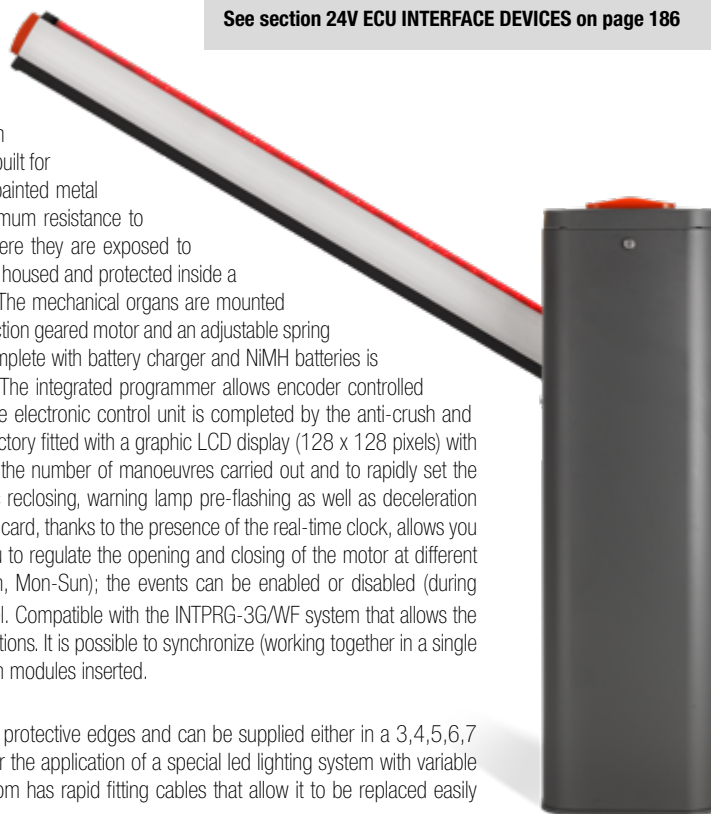
See section 24V ECU INTERFACE DEVICES on page 186

The latest addition to the company's range of road barriers is fitted with a 24Vdc motor and factory set for the application of 3, 4 or 5m booms (ELDOMS) and 6, 7 or 8m booms (ELDOML). Designed and built for use on car-parks of all dimensions this road barrier made of spray-painted metal (cataphoresis passivation + powder spray painting), offers the maximum resistance to the effects of weathering throughout time even in environments where they are exposed to corrosives such as saline elements or smoke. All the components are housed and protected inside a cabinet fitted with ample, extractable and lockable inspection panel. The mechanical organs are mounted on a robust steel chassis and consist of a highly efficient, double reduction geared motor and an adjustable spring loaded balancing system. The in-built command and control unit, complete with battery charger and NiMH batteries is located inside the cabinet and protected by a waterproof container. The integrated programmer allows encoder controlled boom positioning, automatic repositioning and self-programming. The electronic control unit is completed by the anti-crush and "soft start" and "soft stop" functions. The electronic programmer is factory fitted with a graphic LCD display (128 x 128 pixels) with backlighting in six different languages. The menu allows you to read the number of manoeuvres carried out and to rapidly set the system parameters including: the sequential button mode, automatic reclosing, warning lamp pre-flashing as well as deceleration adjustment both in the opening and closing directions. The electronics card, thanks to the presence of the real-time clock, allows you to set 10 events (shown on the display) and these events permit you to regulate the opening and closing of the motor at different times during the day within 3 weekly time bands (Mon-Fri, Sat-Sun, Mon-Sun); the events can be enabled or disabled (during holiday periods) either from the menu or by means of a radio channel. Compatible with the INTPRG-3G/WF system that allows the monitoring and programming of system parameters from remote positions. It is possible to synchronize (working together in a single installation) two road barriers via cable, with the Cardin MODCA slot-in modules inserted.

### Booms

The barrier takes a special aluminium boom with rubber anti-shock protective edges and can be supplied either in a 3,4,5,6,7 or 8 metre version. The boom, to be ordered apart, is factory set for the application of a special led lighting system with variable flashing that illuminates it in whatever position it finds itself. The boom has rapid fitting cables that allow it to be replaced easily and quickly whenever necessary.

A special articulated aluminium boom with rubber anti-shock protective edges is also available. The boom consists of two parts for an overall length of 3m. The cast aluminium joint, which markedly reduces the height during opening, makes it ideal for use in installations such as underground car parks.



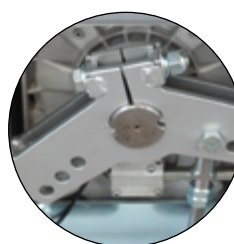
SPRAY-PAINTED ARTICULATED ALUMINIUM BOOM



ADJUSTABLE BOOM HOLDER RIGHT - LEFT



EXTRACTABLE KEY-LOCKED INSPECTION PANEL ELDOMSDG



REINFORCED BALANCE SYSTEM AND GEARED MOTOR PERSONALISED FOR THE 3,4,5 METRE BOOMS OF THE ELDOMSDG



SELF-PROGRAMMING MONITORED BY AN LCD GRAPHICS DISPLAY



# CARDIN PRO SERIES EL

## SELF-PROGRAMMING ROAD BARRIERS WITH A 24V MOTOR

Encoder-controlled movement.

Lockable barrier cabinet complete with boom holder and LED warning lights built into the barrier's flip-back hood and key operated external manual release system.

Automation with an in-built electronic programmer featuring an LCD graphics display, multi-decoding radio receiver module S449-S486-S504-S508, 433MHz / 868,3MHz FM, NiMH batteries and a battery charger.

The S504 - S508 receiver module, features high security 128 bit cryptography, which allows transmitters to be enabled remotely thanks to the RFID technology built into the transmitters and the use of the code programming base PGBASE500.

The road barrier cabinet made of powder spray-painted metal is available in dark Slate grey RAL7015.

3m, 4m, 5m booms and the boom balancing springs are to be ordered apart.

## ELDOMSDG



Slate grey  
RAL7015



## SELF-PROGRAMMING ROAD BARRIER WITH A 24V MOTOR

Encoder-controlled movement.

Lockable barrier cabinet complete with boom holder and LED warning lights built into the barrier's flip-back hood and key operated external manual release system.

Automation with an in-built electronic programmer featuring an LCD graphics display, multi-decoding radio receiver module S449-S486-S504-S508, 433MHz / 868,3MHz FM, NiMH batteries and a battery charger.

The S504 - S508 receiver module, features high security 128 bit cryptography, which allows transmitters to be enabled remotely thanks to the RFID technology built into the transmitters and the use of the code programming base PGBASE500.

The road barrier cabinet made of powder spray-painted metal is available in dark Slate grey RAL7015.

6m, 7m, 8m booms and the boom balancing springs are to be ordered apart.

## ELDOMLDG



Slate grey  
RAL7015



## GROUND FASTENING BASE PLATE

Counter-plate for preparing the barrier's ground fastening base. This accessory allows the installer to prepare the cement base with relative fastenings and cable channelling for the installation of the ELDOM barrier at a later date.

## BASEDOMS

## BASEDOML





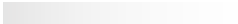
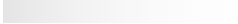
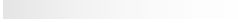
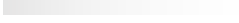
# CARDIN PRO SERIES EL

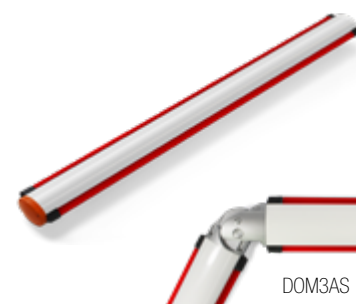


## SPRAY-PAINTED ALUMINIUM BOOMS

The barrier takes a special aluminium boom from 3 to 8 metres which is factory set for the application of a special led lighting system with variable flashing. A special articulated consisting of two parts for an overall length of 3m is also available.

## BOOMS FOR THE ROAD BARRIER CABINET ELDOMSDG

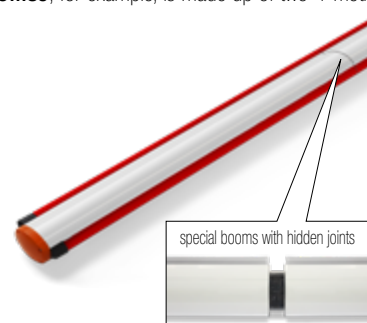
3m Boom		DOM3
4m Boom		DOM4
5m Boom		DOM5
3m ARTICULATED BOOM		DOM3AS



## BOOMS FOR THE ROAD BARRIER CABINET ELDOMLDG

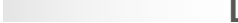

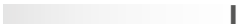
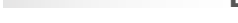


Booms marked with the letter 'J' are special versions made up of multiple pieces plus joints. The article number **DOM8J**, for example, is made up of two 4-metre booms and a hidden joint. Consult the table below for 6, 7 and 8 m boom configurations.

6m Boom		DOM6J
7m Boom		DOM7J
8m Boom		DOM8J



## LED LIGHTS

Led lighting strips on a spool (only for Cardin booms with the orange rubber profile)








3m STRIP OF LED LIGHTING		LED DOM3
4m STRIP OF LED LIGHTING		LED DOM4
5m STRIP OF LED LIGHTING		LED DOM5
6m STRIP OF LED LIGHTING		LED DOM6
7m STRIP OF LED LIGHTING		LED DOM7
8m STRIP OF LED LIGHTING		LED DOM8



## SPRINGS FOR ELDOM BARRIERS

To custom fit springs according to the length and weight of the boom consult the table below. The type and number of springs remains the same however many Cardin (ELUFS1, ELUFS1-ML, ELUMS1, ELSRS ecc.) accessories are added.



Barrier cabinet	Boom	Spring Art. Nr.	Colour code	Nr. of springs
ELDOMSDG	CUSTOM (lengths less than 3 metres)	SP-YE	Yellow 	1
	DOM3 - DOM3L - DOM3AS (3 metres)	SP-GR	Green 	1
	DOM4 - DOM4L (4 metres)	SP-GR	Green 	1
	DOM5 - DOM5L (5 metres)	SP-BR	Brown 	1
ELDOMLDG	DOM6 (2 3-metre booms)	SP-BL	Blue 	1
	DOM7J - DOM7JL (1 4-metre boom + 1 3-metre boom)	SP-2BR	Brown 	2
	DOM8J - DOM8JL (2 4-metre booms)	SP-2OR	Orange 	2

# CARDIN PRO SERIES EL



## SUPPORT FORKS / POLES

**FIXED ALUMINIUM SUPPORT FORK (H 910mm)**

**ELUFS1**

**FIXED ALUMINIUM SUPPORT FORK (H 910mm)  
WITH AN ELECTROMAGNETIC SUCTION CUP**

**ELUFS1-ML**

**MOBILE SUPPORT POLE (H 1200mm)**

**ELUMS1**



**ALUMINIUM FOLD-UP MESH (L 2000 x H 610mm)**

**ELSRA**

**PLASTIC FOLD-UP MESH (L 2000 x H 610mm)**

**ELSRS**



## ACCESSORY BOX

Accessory box with DIN rails and fastening plates.

**BOXDOM**



**ADHESIVE REFLECTIVE TAPE STRIPS FOR ELDOMS (3000 x 50mm)**

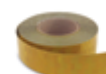
**ELREF3**

**ADHESIVE REFLECTIVE TAPE STRIPS FOR ELDOMS (4000 x 50mm)**

**ELREF4**

**ADHESIVE REFLECTIVE TAPE STRIPS FOR ELDOMS (5000 x 50mm)**

**ELREF5**



Note:

The **6-metre boom** requires two pieces of **ELREF3**

The **7-metre boom** requires one piece of **ELREF3** + one piece of **ELREF4**

The **8-metre boom** requires two pieces of **ELREF4**

**ADHESIVE REFLECTIVE TAPE (250 x 50mm)**

Lots of 12 pcs.

**ELSRE**



## DATA INTERFACE MODULE VIA CABLE

The module allows the exchange of information between the motor's electronic control unit and the Cardin 3G/WF interface and also allows you to connect two motors via cable in order to use the synchronised master/slave function.

**MODCA**



## BLUETOOTH MODULE

The module allows the exchange of information between the motor's electronic control unit and the Cardin 3G/WF interface via Bluetooth or directly between the control units and the apps CRD ONE and CRD TWO.

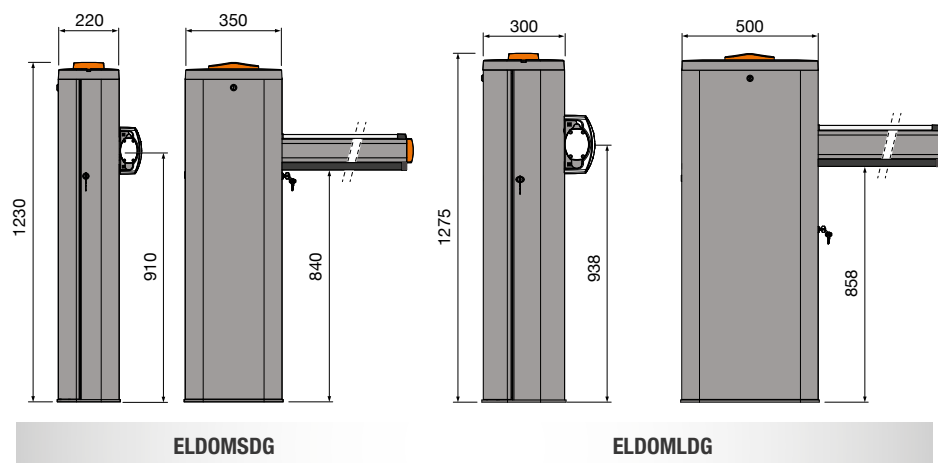
**MODBT**



# CARDIN PRO SERIES EL



## OVERALL DIMENSIONS



# CARDIN PRO SERIES EL



## GENERAL CHARACTERISTICS

		ELDOMS (3-5m)	ELDOML (6m-8m)
Mains power supply	Vac	230	230
Nominal electrical input	A	0,9	0,9
Power input	W	250	250
Duty cycle	%	90	90
Geared motor speed	revs/min	6	6
Opening time 90°	s	3...4	6...12
Passageway opening time (75°)	s	2	4
Maximum torque	Nm	180	180
Operating temperature range	°C	-20°...+55	-20°...+55
Protection grade	IP	54	54

## MOTOR DATA

Power supply	Vdc	24	24
Nominal electrical input	A	3	3
Maximum power yield	W	120	120

## BUILT-IN RECEIVER CARD

Reception frequency	MHz	433.92/868,3	433.92/868,3
Number of channels / Number of functions	No	4 / 8	4 / 8
Number of stored codes	No	300 / 1000	300 / 1000

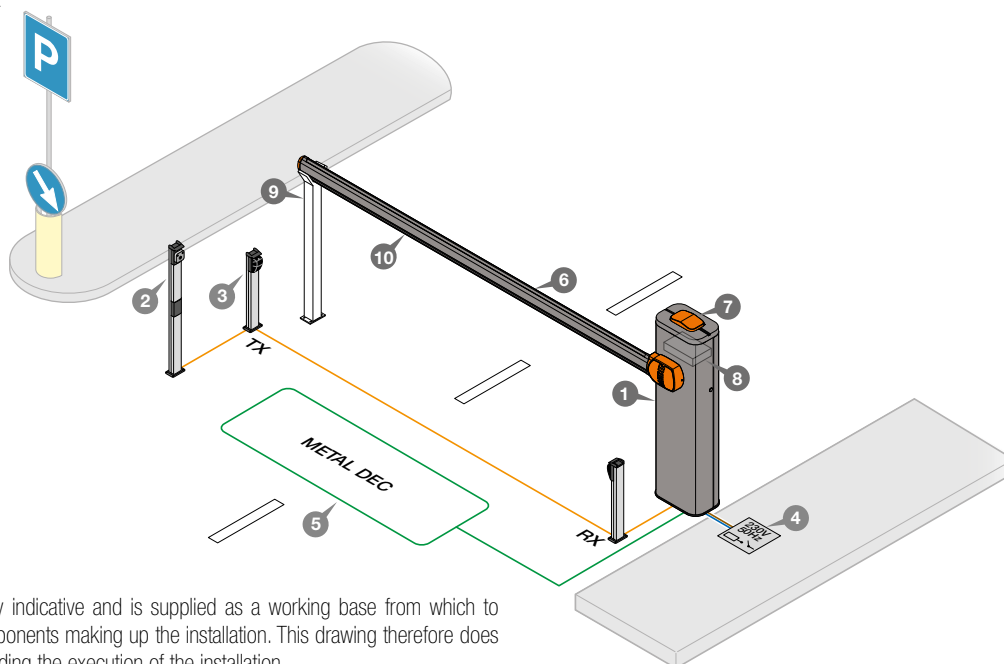
## BATTERY TYPE

Model	NiMH	NiMH
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## INSTALLATION EXAMPLE

### LEGEND

- 1 Road barrier
- 2 Mechanical selector switch
- 3 Photoelectric cells
- 4 All pole circuit breaker
- 5 Magnetic loop detector
- 6 Standard boom
- 7 Warning light
- 8 Electronic programmer
- 9 Fixed support fork
- 10 Passive safety edge



**Attention:** The drawing is purely indicative and is supplied as a working base from which to choose the Cardin electronic components making up the installation. This drawing therefore does not lay down any obligations regarding the execution of the installation.



# AUTOMATION FOR ROAD BARRIERS



## CARDIN TRADE SERIES EL

Road barrier with an enhanced geared motor powered by 24V, designed for access control of passageways up to 6m with rapid and fluid boom movement.

The linear boom-holder cabinet made of robust steel panels spray-painted in different finishings allows the SNAP range of road barriers to blend in perfectly into the most modern of architectural urban contexts at the same time guaranteeing its reliability throughout time.

The SN24 control electronics has several stand-out characteristics beginning with the progressive, calibrated management of the motor power with the possibility to adjust the manoeuvring speed, the "master/slave" function allowing you to synchronise two barriers working in unison, internal diagnostics indicating main errors and the vast array of available command and safety accessories.

The integrated programmer allows encoder controlled boom positioning, automatic repositioning and self-programming. The electronic control unit is completed by the anti-crush and "soft start" and "soft stop" functions.

The installation and programming times are rapid and the electronic programmer is positioned in the hood of the structure allowing ease of access.

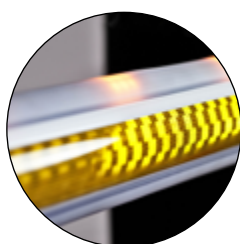
The barriers can be fitted with buffer batteries which allow them to function with the SUN POWER system for isolated installations where mains power supply is not available or where you simply wish to reduce energy costs.

### Open collector:

The product range is factory set for the insertion of an open collector receiver card that guarantees compatibility with all the radio control series available in the Cardin catalogue.



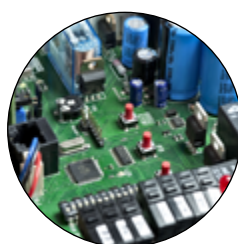
HOOD WITH BUILT-IN BOOM  
MOVEMENT LEDS



BOOM WITH LED LIGHTING



ALLEN KEY OPERATED MANUAL  
RELEASE SYSTEM



IN-BUILT ELECTRONIC PROGRAMMER



ROBUST SPRING BALANCED  
GEARS SYSTEM



# CARDIN TRADE SERIES EL

## SELF-PROGRAMMING ROAD BARRIER WITH A 24V MOTOR

Encoder-controlled movement.

Robust, rapid opening road barrier designed to last through time, complete with boom holder, warning lights built in to the hood and an external Allen key operated release system.

The "master/slave" function allows you to synchronise two barriers working in unison.

Boom balancing spring included. Boom to be ordered apart.



## EL SNAP-RAPID



## SELF-PROGRAMMING ROAD BARRIER WITH A 24V MOTOR

Encoder-controlled movement.

Robust, rapid opening road barrier designed to last through time, complete with boom holder, warning lights built in to the hood and an external Allen key operated release system.

The "master/slave" function allows you to synchronise two barriers working in unison.

Boom and boom balancing spring to be ordered apart (see paragraph 'operational constraints' on page 156).



## EL SNAPS



## SELF-PROGRAMMING ROAD BARRIER WITH A 24V MOTOR

Encoder-controlled movement.

Robust barrier designed to last through time, complete with boom holder, warning lights built in to the hood and an external Allen key operated release system.

The "master/slave" function allows you to synchronise two barriers working in unison.

Boom and boom balancing spring to be ordered apart (see paragraph 'operational constraints' on page 156).



## EL SNAPL







# CARDIN TRADE SERIES EL

## BOOMS

Rigid boom in white spray-painted aluminium. Length 3,25m Ø70mm. Complete with end caps and passive rubber safety edge.

Rigid boom in white spray-painted aluminium. Length 4,25m Ø70mm. Complete with end caps and passive rubber safety edge.

Rigid boom in white spray-painted aluminium. Length 5,25m Ø70mm. Complete with end caps and passive rubber safety edge.

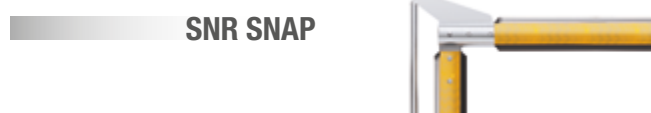
Rigid boom in white spray-painted aluminium. Length 6,25m Ø70mm. Complete with end caps and passive rubber safety edge.

## JOINT

for EL SNAP-RAPID - EL SNAPS. Maximum passageway 3 metres.

## LED LIGHTS

for SNAPPER3 (with 4 leds), SNAPPER4 (with 5 leds), SNAPPER5 (with 6 leds) and SNAPPER6 (with 8 leds).



## SELF-PROGRAMMING ROAD BARRIER WITH A 24V MOTOR

Encoder-controlled movement.

24V road barrier spray-painted and cathaphoresis treated complete with electronic programmer and encoder.

EL RAP4E is a light automation cabinet for tubular booms up to 4m long. The small size, simple programming and 24V encoder controlled geared motor give it an excellent price to performance ratio.



## BOOM

Rigid tubular boom in white spray-painted aluminium Ø7cm, Length 4,25m for passageways up to 4m.

# CARDIN TRADE SERIES EL



**ALUMINIUM FOLD-UP MESH (L 2000 x H 610mm)**

**ELSRA**

**PLASTIC FOLD-UP MESH (L 2000 x H 610mm)**

**ELSRs**



## SUPPORT FORKS / POLES

**FIXED ALUMINIUM SUPPORT FORK (H 910mm)**

(for EL SNAP-RAPID, 4, 5/6).

**ELUFS1**

**FIXED ALUMINIUM SUPPORT FORK (H 910 mm)**

with a magnetic suction cup (for EL SNAP-RAPID, 4, 5/6).

**ELUFS1-ML**

**MOBILE SUPPORT POLE (H 1200mm)**

(for EL SNAP-RAPID, 4, 5/6).

**ELUMS1**



## ANCHOR PLATE

ground fastening base

**FIX SNAP**

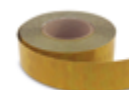
**FIX RAP4**



**ADHESIVE REFLECTIVE TAPE (1000 x 50mm)**

for SNAP barriers.

**ADEK**



**ADHESIVE REFLECTIVE TAPE STRIPS.**

for SNAP barriers. Lots of 12 pcs.

**STICKERS**



## BATTERY CHARGER

for use with 24V programmers.

**CB24**

## EXTERNAL BOX

with 2 batteries 12V 7Ah.

**SPB24**



## POWER SUPPLY KIT

Solar panels for use with all 24Vdc automation.

**SUNPOWER**



# CARDIN TRADE SERIES EL



## GENERAL CHARACTERISTICS

		EL SNAP-RAPID	EL SNAPS	EL SNAPL	EL RAP4E
Mains power supply	Vac	230	230	230	230
Nominal electrical input	A	1,5	1	1,5	1
Power input	W	350	300	350	120
Duty cycle	%	70	70	70	50
Geared motor speed	revs/min	8,3	6	2,1	2,5
Opening time 90°	s	1,8	2,5	7	6
Passageway opening time (75°)	s	1,2	1,8	3	5
Maximum torque	Nm	750	600	750	260
Operating temperature range	°C	-20°...+55	-20°...+55	-20°...+55	-20°...+55
Protection grade	IP	54	54	54	54



















## MOTOR DATA





Power supply	Vdc	24	24	24	24
Nominal electrical input	A	4,5	3,5	4,5	3
Maximum power yield	W	300	250	300	180

## OPTIONAL RECEIVER CARD

The product range is factory set for the insertion of an open collector receiver card that guarantees compatibility with all the radio control series available in the Cardin catalogue.

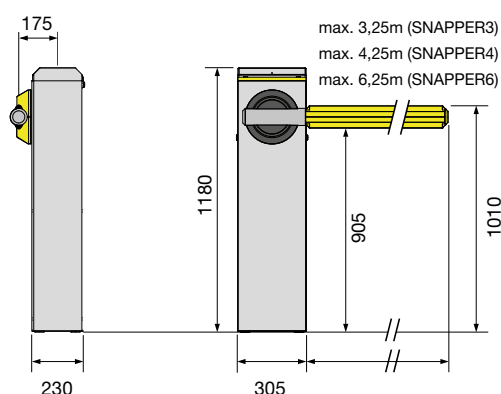
## OPERATIONAL CONSTRAINTS

BOOM MAKE UP	3 METRES	4 METRES	5 METRES	6 METRES
SNAPPER3				
SNAPPER3 + ELUMS1				
SNAPPER3 + SNR SNAP				
SNAPPER3 + ELSRS				
SNAPPER3 + ELSRS + ELUMS1				
SNAPPER4				
SNAPPER4 + ELUMS1				
SNAPPER4 + SNR SNAP				
SNAPPER4 + ELSRS				
SNAPPER4 + ELSRS + ELUMS1				
SNAPPER5				
SNAPPER5 + ELUMS1				
SNAPPER5 + ELSRS				
SNAPPER5 + ELSRS + ELUMS1				
SNAPPER6				
SNAPPER6 + ELUMS1				
SNAPPER6 + ELSRS				
SNAPPER6 + ELSRS + ELUMS1				

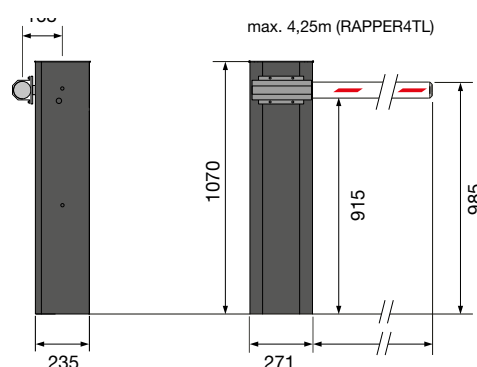
Barrier cabinet	Boom	Spring Art. Nr.	Colour code	Nr. of springs
<b>ELSNAPS</b> <b>ELSNAPL</b>	SNAPPER3	SP-YE	Yellow 	1
	SNAPPER3 - SNAPPER4	SP-GR	Green 	1
	SNAPPER5	SP-RE	Red 	1
	SNAPPER5 - SNAPPER6	SP-WH	White 	1



# CARDIN TRADE SERIES EL



EL SNAP-RAPID - EL SNAPS - EL SNAPL

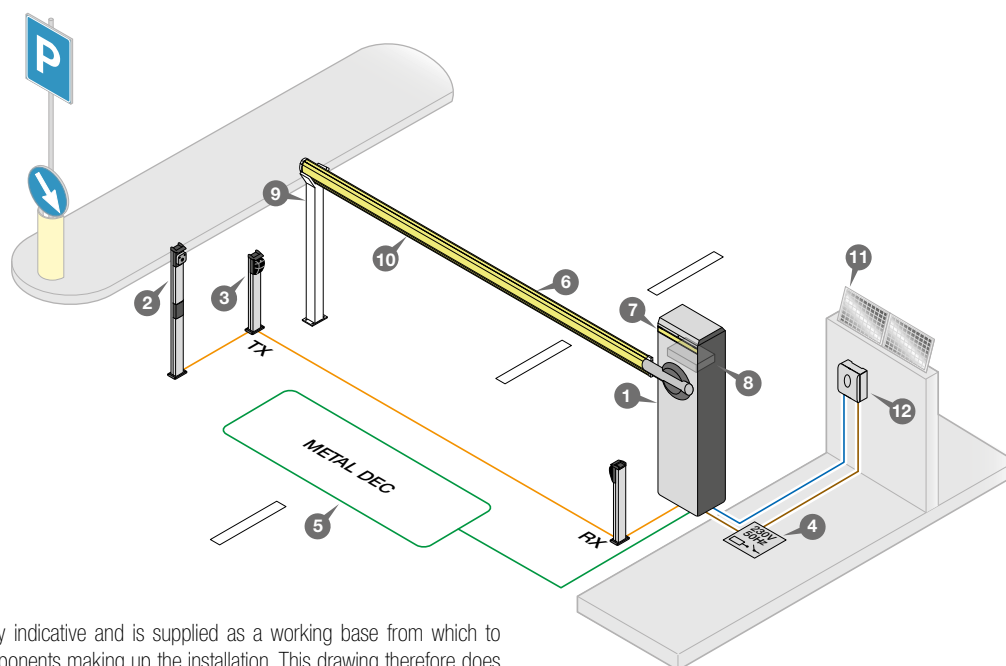


EL RAP4E

## INSTALLATION EXAMPLE

### LEGEND

- 1 Road barrier
- 2 Mechanical selector switch
- 3 Photoelectric cells
- 4 All pole circuit breaker
- 5 Magnetic loop detector
- 6 Standard boom
- 7 Led warning light
- 8 Electronic programmer
- 9 Fixed support fork
- 10 Passive safety edge
- 11 Solar panels
- 12 Sun Power



**Attention:** The drawing is purely indicative and is supplied as a working base from which to choose the Cardin electronic components making up the installation. This drawing therefore does not lay down any obligations regarding the execution of the installation.



# SELF-POWERED ELECTROMECHANICAL PARKING PLACE PROTECTION



## CARDIN PRO SERIES PL

The PL (Parking Line) series consists of two parking space protection devices PARKSUN and PARKLINE which stand out from other similar products for their robustness and completely automatic electrical movement. Simple and practical to operate thanks to the remote control included in the system, a stainless steel arch rises up to prevent non authorised vehicles from using your personal parking space.

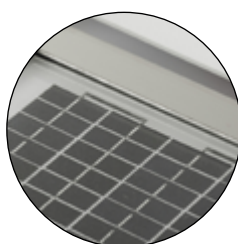
Both models are powered by heavy duty, long-life buffer batteries. The PARKSUN model does not require connection to external power sources as the batteries are recharged by an in-built solar panel, while the PARKLINE model requires an external battery charger powered by the mains. The PARKSUN-S model is fitted with a solar panel and a vehicle presence detector which will automatically raise the arc when the vehicle leaves the parking place. The control panel has an in-built state-of-the-art S504 radio receiver card with 128 bit cryptography, "433MHz" FM ROLLING CODE and the possibility of memorising up to 1000 user codes. Various solutions have been adopted in the PARKING LINE systems in order to guarantee the safety and security of people and materials, foremost among which is the electronic sensor that inverts the movement of the arch whenever it encounter an obstacle and a mechanical shock absorbing device that reduces the effect of eventual crashes and bangs even when not in movement. The device is fitted with a key-operated manual release mechanism.

Rapid installation:

- does not require particular tools;
- for standard operation it does not require programming and travel limit setting;
- the code of the radio control transmitter supplied with the device is already stored in the control panel.



MECHANICAL SHOCK ABSORBER



SOLAR PANEL  
(PARKSUN VERSION)



STAINLESS STEEL ARCH



MANUAL RELEASE MECHANISM



S504 RADIO RECEIVER

# CARDIN PRO SERIES PL



## PARKING SPACE PROTECTION WITH A 12V MOTOR

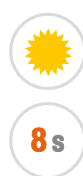
The automation system consists of the PARKSUN parking space protection plus:

- electronic programmer;
- solar panel;
- built-in S504 receiver "433MHz" FM ROLLING CODE;
- one S504 pre-coded two-channel transmitter;
- buffer batteries;
- vehicle presence detector (only Parksun-s).

The parking space protection, self-powered with built-in photovoltaic panel, can be installed anywhere as it needs no power cable.

The built-in control unit controls the photovoltaic panel and the battery to ensure maximum energy efficiency and continuity of operation. Even with no light whatsoever Parksun can operate for up to 4 months.

## PARKSUN PARKSUN-S



## PARKING SPACE PROTECTION WITH A 12V MOTOR

The automation system consists of the PARKLINE parking space protection plus:

- electronic programmer;
- built-in S504 receiver "433MHz" FM ROLLING CODE;
- one S504 pre-coded two-channel transmitter;
- buffer batteries.

Parking space protection with external battery charger powered from the mains or battery. The built-in control unit controls the battery charge so as to guarantee continuity of operation even without a power supply.

Parkline can operate up to 4 months without being connected to a mains power supply.

## PARKLINE



## GENERAL CHARACTERISTICS

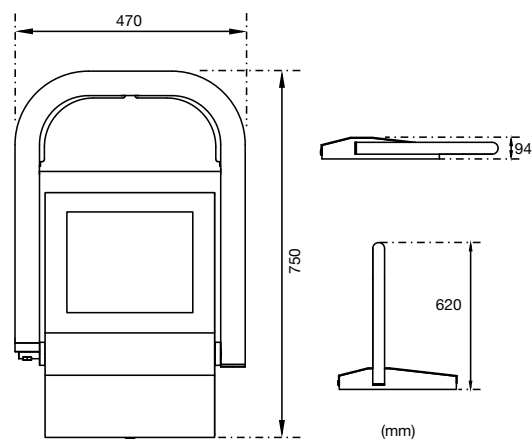
Mains power supply	Vdc	12
Battery	Vdc	12
Battery power supply	AH	7
Solar panel power (only Parksun)	W	5
Power consumption in standby	mA	1
Motor electrical input	A	1
Opening / closing time	s	8
Operating temperature range	°C	-20°...+55
Protection grade	IP	54
Weight	Kg	23

## BUILT-IN RECEIVER CARD (S504)

Reception frequency	MHz	433.92
Number of channels / Number of functions	No	4 / 1
Number of stored codes	No	1000

## OVERALL DIMENSIONS

470 x 750mm, height 620mm (94mm lowered arch)







# MECHANICAL ACCESSORIES

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COMPLIMENTARY EQUIPMENT 162

AUXILIARY AND SAFETY DEVICES 164

# COMPLIMENTARY EQUIPMENT



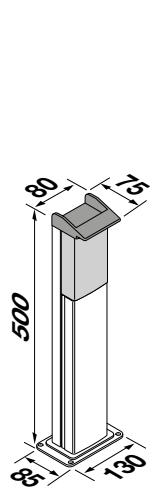
A correctly installed system guarantees safety and reliability.

The installation must be carried out in conformity with the local standards and regulations in force and it therefore follows that all the components which make up the installation must be of high quality and also conform to these requirements. We advise you therefore to use Cardin electronic appliances to complete your installation.

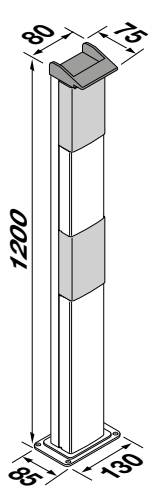
The Cardin accessories are designed to enhance the performance of our appliances and are made of top quality materials in order to guarantee a long operating life and maintain the aesthetic characteristics throughout time.

All the accessories bearing the Cardin trademark are built specifically for use in automatic opening installations.

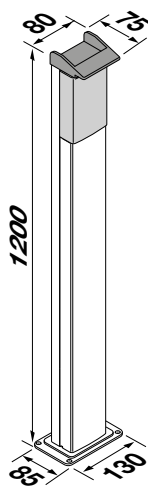
Systems such as the safety edges have been tested in order to guarantee ample safety margins in all situations.



SEL50



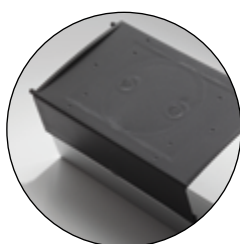
SEL120D



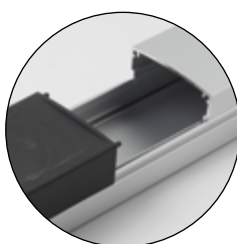
SEL120



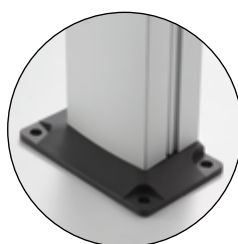
SELMEC MOUNTED ON A  
SEL120 COLUMN



FACTORY SET FOR THE APPLICATION  
OF CARDIN PHOTOELECTRIC CELLS  
AND SELECTOR SWITCHES



MODULAR STRUCTURE  
EASILY RECONDITIONED



IMPACT-RESISTANT  
MODULAR BASE PLATE



ELECTRIC LOCKS



### INTERNATIONAL WARNING SIGN

in PP, multi-language. It is good practise to fit warning signs to your automatic installations and these should be placed where they can be easily seen.

### TARGA-INT



### SECTIONAL COLUMNS

Sectional columns to which all the CDR, SEL, APRO, VEDO and PASS products can be fitted. They allow the installation of photoelectric cells and selector switches. The aluminium sectional structure makes them easy to reinstate after accidental knocks and bangs.

#### 500mm COLUMN

for 1 surface-mounted or embedded photoelectric cell.

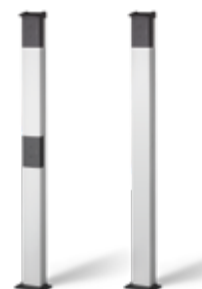
### SEL50



#### 1200mm COLUMN

for a selector switch or keypad.

### SEL120



#### 1200mm COLUMN

for 2 surface-mounted or embedded photoelectric cells.

### SEL120D



### FASTENING BASE

Fastening base for columns SEL50, SEL120, SEL120D.

### SELFIX



### ELECTRIC LOCKS 12V

complete with accessories for the series BL - HL

#### ELECTRIC LOCK

Vertical/horizontal electric locking device

### ELV

#### RIGHT FITTING ELECTRIC LOCK

with internal/external cylinder.

### XLSE10DX

#### LEFT FITTING ELECTRIC LOCK

with internal/external cylinder.

### XLSE10SX

#### ELECTRIC LOCK

rotating locking system without cylinder (European profile).

### XLSE12



### 6-WIRE SPECIAL CONNECTING CABLE

100m (supplied on a special spool).

### CABPC100ST



# AUXILIARY AND SAFETY DEVICES



FOR SWING GATES, SLIDING GATES AND GARAGE DOORS

The safety edge is made up of a rubber profile with elastic impact absorption and an aluminium profile, which is fixed to the column or the gate and acts as a support for the safety edge. Its operating principle is based on detection (active along the entire length of the safety edge), via the crushing pressure applied by an obstacle or a mass that is located within the operating sphere of the closing device that is fitted with the protection. The deformation of the rubber profile causes the safety edge to create a contact, which is then sent (by cable or by radio) to a control centre, which in turn activates a STOP command.

## **Active mechanical safety edge with an N.C. contact for sliding gates / swing gates**

The mechanical safety edge is used as a safety device in installations with automatic sliding gates with horizontal movement and on other closing device installations (hinged gates etc.), where there is a real risk of crushing or trapping.

Operation of the device is guaranteed by 2 micro-switches. Both of them intervene when the safety edge and/or the pliable end caps are deformed.

## **Safety edge for garage doors N.C. contact**

This mechanical device is an extremely versatile safety edge in aluminium that can be fitted to overhead garage doors, rolling shutters and other industrial closing devices. The edges are fitted with sealed micro-switches and have a series of accessories permitting a variety of combinations and uses.

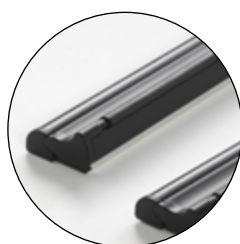
## **Low profile / high profile passive edge**

Although it is not to be considered a safety device due to the absence of an electrical contact, the passive edge has the same dimensions and mechanical protective characteristics as the active safety edge and does supply valid absorption protection against impact. The low profile edge, which works as simple impact protection, is suitable for closing devices where passing room is limited.

## **Conductive safety edge 8,2k $\Omega$ contact**

The safety edges are used to eliminate the risk of crushing or shearing caused by sliding doors, bulkheads, automatic gates etc. and respect the requirements of the impact curve as stipulated in EN12453. The edges are made up of a C-shaped aluminium support and a PVC profile in which a safety sensor has been inserted. When the profile is deformed or crushed the two metal contacts of the sensor come into contact causing the alarm situation. The ample height of the rubber profile and the insert in conductive rubber allow rapid intervention times fully respecting the standards and regulations in force.

MECHANICAL / CONDUCTIVE  
SAFETY EDGE



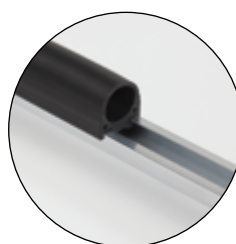
SAFETY EDGE FOR GARAGE  
DOORS N.C. CONTACT



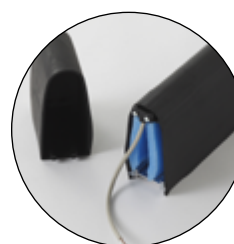
TOTAL PROTECTION



HIGH PROFILE PASSIVE EDGE



LOW PROFILE PASSIVE EDGE



CONDUCTIVE SAFETY EDGE  
8,2k $\Omega$  CONTACT



#### MECHANICAL AUXILIARY DEVICES FOR SWING / SLIDING GATES

High profile 61mm - contact output N.C. - colour black.

**1.6-METER MECHANICAL EDGE CONTACT N.C.**

**2-METER MECHANICAL EDGE CONTACT N.C.**

**2.5-METER MECHANICAL EDGE CONTACT N.C.**

**3-METER MECHANICAL EDGE CONTACT N.C.**

	<b>NC8K2L16N</b>
	<b>NC8K2L20N</b>
	<b>NC8K2L25N</b>
	<b>NC8K2L30N</b>

#### MECHANICAL AUXILIARY DEVICES FOR GARAGE DOORS

Low profile 26mm - contact output N.C. - colour black.

**0.7-METER MECHANICAL EDGE CONTACT N.C.**

**1-METER MECHANICAL EDGE CONTACT N.C.**

**1.2-METER MECHANICAL EDGE CONTACT N.C.**

**1.8-METER MECHANICAL EDGE CONTACT N.C.**

**GARAGE DOOR EDGE RIGHT/LEFT END CAPS**

**GARAGE DOOR EDGE RIGHT/LEFT CORNER PIECES**

	<b>BBASL07N</b>
	<b>BBASL10N</b>
	<b>BBASL12N</b>
	<b>BBASL18N</b>
	<b>BBASDSTAP</b>
	<b>BBASDSANG</b>

#### PASSIVE AUXILIARY DEVICES FOR SWING AND SLIDING GATES

High profile 70mm / low 30mm - colour black.

**2-METER PASSIVE IMPACT EDGE (PROFILE 70mm)**

**3-METER PASSIVE IMPACT EDGE (PROFILE 30mm)**

**4-METER PASSIVE IMPACT EDGE (PROFILE 30mm)**

**5-METER PASSIVE IMPACT EDGE (PROFILE 30mm)**

	<b>BP20BL</b>
	<b>CP30BL</b>
	<b>CP40BL</b>
	<b>CP50BL</b>

#### SAFETY DEVICES 8,2KΩ FOR SWING AND SLIDING GATES

High profile 95mm / low 61mm - contact 8,2kΩ with maximum detection speed 12 m/min - colour black

**1.6-METER CONDUCTIVE SAFETY EDGE (PROFILE 95mm)**

**2-METER CONDUCTIVE SAFETY EDGE (PROFILE 95mm)**

**2.5-METER CONDUCTIVE SAFETY EDGE (PROFILE 95mm)**

**1.6-METER CONDUCTIVE SAFETY EDGE (PROFILE 61mm)**

**2-METER CONDUCTIVE SAFETY EDGE (PROFILE 61mm)**

**2.5-METER CONDUCTIVE SAFETY EDGE (PROFILE 61mm)**

	<b>BSH95L16</b>
	<b>BSH95L20</b>
	<b>BSH95L25</b>
	<b>BSH61L16</b>
	<b>BSH61L20</b>
	<b>BSH61L25</b>







Stand out amongst  
the waves

# ELECTRONICS



168

## ELECTRONIC PROGRAMMERS

The ideal control devices for efficient machines, easy to program and fitted with the correct answer for all possible situations.



188

## RADIO CONTROLS

The ideal system to command and control automatic access systems. Extremely efficient, high quality devices designed not to disturb and not to be disturbed. Products in FM, AM, transceivers and industrial with great range.



216

## COMMAND AND SAFETY DEVICES

System for the command and control of access installations from a fixed position using secret codes or transponders. Devices for detecting the presence of metallic masses in a magnetic field. Wireless safety devices commanding safety edges.



226

## INFRARED BARRIERS

Always ready in all situations, discreet control devices that increase safety. A vast range of products covering all different applications and requirements.



240

## WARNING LIGHTS

The efficient signal. Distinguishable in all situations even when they are switched off.



**cardin**  
RIELLO ELETTRONICA group

LCD1

LGC

← **PROG/OK** →

Y2

24 25 26 27 28 29 30

# ELECTRONIC PROGRAMMERS

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# RAPID GUIDE

# ELECTRONIC PROGRAMMERS

## CARDIN PRO



PROGRAMMERS  
FOR 24V MOTORS

(optional)



CC242ETOP  
CC242ETOPCB



CC242EXTOPCB



PRG900  
PRG900CB



PROGRAMMERS  
FOR 230V MOTORS

## CARDIN PRO

230V



PRG304E



PRG304ETC



PRG302E



PRG230M2



PRG807001



PROGRAMMERS  
FOR 230V / 400 V MOTORS

## CARDIN PRO

400V

230V

400V



PRG383TCE



PRG3830CE



PRG384TCE



PRG3840CE



PROGRAMMERS  
FOR 24V MOTORS

(optional)



**CARDIN TRADE**



T124



T624



PROGRAMMERS  
FOR 230V - 400V MOTORS



**CARDIN TRADE**



T101



T600



T400



PROGRAMMERS  
FOR ROLLING SHUTTERS

230V

**CARDIN TRADE**



T1



T21X



T21B



# ELECTRONIC PROGRAMMERS



MICROPROCESSOR CONTROLLED FOR 24V MOTORS



(optional)

## CARDIN PRO

MAINS POWER SUPPLY 230Vac  
MOTOR OUTPUT 24Vdc  
PROTECTION GRADE IP55  
FIREPROOFING GRADE V2  
AUTOMATIC GATE/DOOR PROGRAMMING

Electronic devices for the control of automatic opening systems with one or two gate leaves: swing gates and garage doors. Powered by 24Vdc they intelligently manage the movement of the gate.

Available in the following versions:

- with gate positioning control and encoder;
- with timer-controlled movement.

Both are equipped with a 433MHz FM radio receiver card.

Specially studied and designed for this type of use, these Cardin programmers are fitted with digital "step by step" time programming which is easily carried out in real time while the gate is moving thus reducing the installation time.

Monitoring the current consumption allows the control of a sophisticated anticrush safety system and the "soft start" and "soft stop" functions reduce the stress on the mechanical components.

The simplified programming method uses one or two buttons (depending on the version) allowing all functions to be programmed rapidly.

### ALL WEATHER CONTAINER ABS IP55 WITH WALL FASTENING ELEMENTS

The electronic components of the CC242ETOP and PRG900 series are housed in a container with sealing gaskets and cable gland entry holes for the insertion of Ø16mm rigid tubes.

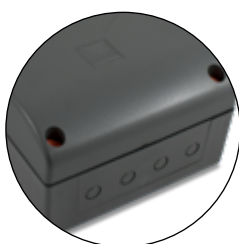
The electronic components of the CC242EXTOPCB series are housed in a container with sealing gaskets with:

- cover closing system using rapid action hooks;
- removable plaque factory set for the fastening of up to five cable clamps;
- air circulation slits built into the container;
- removable support in nylon fibre housing the electronic appliances on DIN rails;
- a Ø21 mm cable clamp and two Ø16mm cable clamps.

CC242ETOPCB



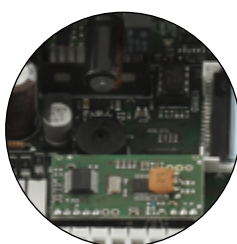
CC242EXTOPCB



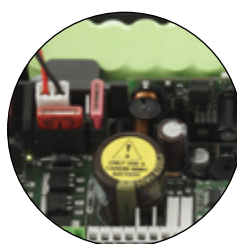
READY TO FIT RIGID TUBE ENTRY POINTS



Ø21 AND Ø16 CABLE GLANDS SUPPLIED WITH CC242EXTOPCB



433MHz OR 868MHz INTEGRATED RECEIVER CARDS



EMERGENCY NiMH BATTERIES IN THE CC242ETOPCB AND CC242EXTOPCB VERSIONS



SELF-PROGRAMMING MONITORED BY AN LCD GRAPHICS DISPLAY CC242ETOP AND CC242EXTOPCB



## PRODUCT DESCRIPTION

## ORDER NUMBER

**ELECTRONIC PROGRAMMERS FOR THE MANAGEMENT OF ONE OR TWO ENCODER-CONTROLLED MOTORS**

Electronic programmer for encoder-controlled 24Vdc motors that allow the precise position control of hinged and sliding gates fitted with a multi-decoding module S449 - S486 - S504 - S508. Batteries and battery charger in the CC242ETOPCB and CC242EXTOPCB versions.

The electronic programmer is factory fitted with a graphic LCD display (128 x 128 pixels) with backlighting in six different languages. The menu allows you to read the number of manoeuvres carried out and to rapidly set the system parameters including: the sequential button mode, automatic reclosing, warning lamp pre-flashing, intermittent warning lamp activation, indicator light, photoelectric cell function setting and electric lock enable etc.



Compatible with the data exchange system between digital devices (smartphone, tablet, etc.) and the Cardin multifunctional control units.



See section 24V ECU INTERFACE DEVICES on page 186



CC242ETOP - CC242ETOPCB  
Overall dimensions  
210 x 300 x 120



CC242EXTOPCB  
Overall dimensions  
150 x 450 x 125

**ELECTRONIC PROGRAMMER****ECU, BATTERY CHARGER AND NiMH BATTERIES****ECU, BATTERY CHARGER AND NiMH BATTERIES****ELECTRONIC PROGRAMMERS FOR THE MANAGEMENT OF ONE OR TWO MOTORS**

Electronic programmer for the control of 24Vdc hinged gates with intelligent time control functions that allow you to control the position of the hinged and sliding gates, fitted with a multi-decoding module S449 - S486 - S504 - S508.

Gate travel time programming is fully automatic and guided by a 6-digit display which allows you to visualise the number of manoeuvres carried out and to set several parameters such as the type of motor, the torque setting and the limited opening distance. Dip-switches allow you to set the system parameters including: the sequential button mode, automatic reclosing, warning lamp pre-flashing, intermittent warning lamp activation, indicator light and photoelectric cell function setting and electric lock enable.



PRG900 - PRG900CB  
Overall dimensions  
210 x 300 x 120

**ELECTRONIC PROGRAMMER****ECU, BATTERY CHARGER AND NiMH BATTERIES****VOLTAGE REGULATOR STABILIZED AT 24Vdc (SERIES PRG900)**

The device supplies a regulated 24Vdc voltage in output starting from a direct current input that can vary from 19Vdc to 38Vdc. It is fitted with 2 signal LEDs, one indicating the presence of voltage at the output binding post and the other giving status information (correct operation, overload, activated protection).

**KIT BATTERY CHARGER + NiMH BATTERIES**

Allows the programmers PRG900 and CC242ETOP to work during blackouts.

**PRG900****PRG900CB****SELINTCV****KBNIMH-1**

# ELECTRONIC PROGRAMMERS



MICROPROCESSOR CONTROLLED FOR 230V MOTORS



## CARDIN PRO

MAINS POWER SUPPLY 230Vac

MOTOR OUTPUT 230Vac

PROTECTION GRADE IP55

FIREPROOFING GRADE V2

INTERFACE FOR A STANDARD SLOT-IN RADIO CARD

COMMAND INPUTS: TA, TC, TD, TB.

Electronic devices for the control of automatic opening systems. Specially studied and designed for this type of use, these Cardin programmers are fitted with digital "step by step" time programming which is easily carried out in real time while the gate is moving thus reducing the installation time.

The simplified programming method uses one or two buttons (depending on the version) allowing all functions to be programmed rapidly. In the double gate/door version the programming procedure is guided by a LED display.

The complete range of products have been designed and constructed in accordance with the safety standards in force and feature automatic, semi-automatic, manual and remote control functions (the product takes a Cardin standard slot-in receiver card).

Electronic devices for the control of automatic opening systems with one or two gate leaves: sliding gates, hinged gates and garage doors powered by 230Vac.

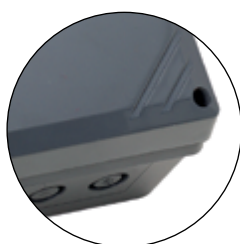
The complete range of programmers simplifies and solves all possible installation problems. The high product-quality level together with accurate design and a selective choice of materials allows trouble free operation and maximum reliability under all kinds of working conditions.



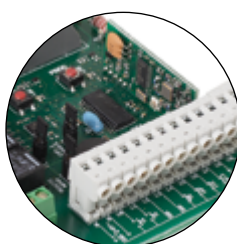
PRG304E



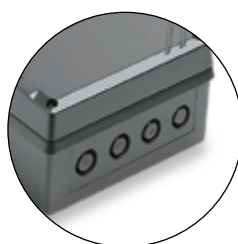
AUTOMATIC CLOSING



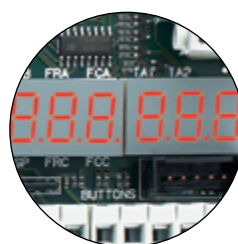
WATERPROOF CONTAINER IP55



EXTRACTABLE TERMINAL BOARD



READY TO FIT RIGID TUBE ENTRY POINTS



LED DISPLAY



## PRODUCT DESCRIPTION

## ORDER NUMBER

**ELECTRONIC PROGRAMMERS FOR THE CONTROL OF ONE 230V MOTOR WITH MAXIMUM POWER YIELD 650 W**

Digital work time control. Command inputs: TA, TC and TB. Security inputs: photocells, safety edge (N.C. contact or 8.2 k $\Omega$ ), digital safety edge.

Output for a courtesy light 230Vac 300W and for a led warning light. The appliance is supplied with a S449, 433MHz, FM decoder.

Suitable for the control of automatic rolling shutters.



Overall dimensions  
135 x 175 x 85

**ELECTRONIC CONTROL UNIT, BASIC VERSION****PRG304E****ELECTRONIC PROGRAMMER WITH EXTERNAL CONTROL BUTTONS****PRG304ETC****ELECTRONIC PROGRAMMERS FOR THE CONTROL OF ONE 230V MOTOR WITH MAXIMUM POWER YIELD 600 W**

Digital work time control. Possible operation without mechanical travel limits. Command inputs: TA, TC, TD, TB. The appliance is fitted with an interface for the insertion of a standard Cardin radio receiver card (complete with cable glands  $\varnothing 2 \times \varnothing 9\text{mm} + \varnothing 2 \times \varnothing 16\text{mm}$ ).

Suitable for the control of automatic road barriers.



Overall dimensions  
135 x 175 x 85

**SLOT-IN CARD**

Slot-in card that allows the complete control of the opening and closing micro-switches as well as the control of the inverting photocells (for application on 230V road barriers).

**YPR302SR2****ELECTRONIC PROGRAMMERS FOR THE CONTROL OF ONE 230V MOTOR WITH MAXIMUM POWER YIELD 450 W****PRG807001**

Digital work time control. Possible operation without mechanical travel limits. Torque setting. Maximum power initial thrust control and torque limitation. The appliance is fitted with an interface for the insertion of a standard Cardin radio receiver card.

Suitable for the control of automatic gates and doors with one 230V motor.



Overall dimensions  
210 x 300 x 105

**ELECTRONIC PROGRAMMERS FOR THE CONTROL OF TWO 230V MOTORS WITH MAXIMUM POWER YIELD 470 + 470W****PRG230M2**

Digital work time control separately memorised for each gate leaf guided by a 6-digit display. Possible operation without mechanical travel limits. Torque setting.

Maximum power initial thrust control, torque limitation and deceleration management with deceleration zone control. The appliance is fitted with an interface for the insertion of a standard Cardin radio receiver card.

Suitable for the control of automatic gates and doors with two 230V motors.

**ADDITIONAL FUNCTION CARD**

Optional card that allows you to extend the functions of the control units:

- Timer-controlled lamp 230Vac - 500W  
(electric lock or an electric brake can be fitted as an alternative);
- 8,2k $\Omega$  safety edge management.

**SESLC****CABLE GLANDS KIT**

Cable glands 4 x  $\varnothing 16\text{mm}$ .

**XSL4DIE09960**

# ELECTRONIC PROGRAMMERS



SINGLE PHASE - THREE PHASE MOTORS FOR INDUSTRIAL INSTALLATIONS

## CARDIN PRO

MAINS POWER SUPPLY 230Vac / 400Vac

MOTOR OUTPUT:

SINGLE PHASE 230Vac

THREE PHASE 400V3~

PROTECTION GRADE IP55

FIREPROOFING GRADE V2

INTERFACE FOR A STANDARD SLOT-IN RADIO CARD

COMMAND INPUTS: TA, TC, TD, TB.

Electronic devices for the control of automatic opening systems. The appliances feature integrated logic and function activation confirmation using leds.

The complete range of products have been designed and constructed in accordance with the safety standards in force and feature automatic, semi-automatic, manual and remote control functions.

The appliances can take a Cardin standard slot-in receiver card and are supplied with cable glands.

Electronic devices for the control of automatic opening systems with one gate leaf: sliding gates, hinged gates, garage doors and factory doors.

The high product-quality level together with accurate design and a selective choice of materials allows trouble free operation and maximum reliability under all kinds of working conditions.

PRG383TCE



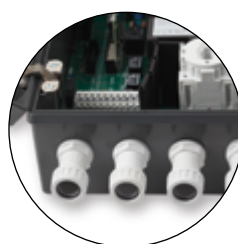
DOOR SECURITY SWITCH



EMERGENCY BUTTON



EXTERNAL COMMAND BUTTONS



FITTED WITH PIPE GLANDS



STAINLESS STEEL HINGES



## PRODUCT DESCRIPTION

## ORDER NUMBER

**INDUSTRIAL PROGRAMMER CONTROLLING ONE SINGLE PHASE / THREE PHASE MOTOR**

- 370W single phase power supply 230Vac,
- 700W three phase power supply 400V3~.

Automatic, semiautomatic, manual and remote control functions.

Command inputs TA, TB, TC, TD, TAL.

Incorporated door security switch.

Optional external control buttons.

Electric brake output.

Interface for a standard slot-in radio receiver card.

Supplied with 4 x Ø16mm cable glands.

Suitable for the control of industrial gates and doors with one single-phase/three phase motor.

230V

400V

PRG383TCE



Overall dimensions  
175 x 265 x 105

**ELECTRONIC CONTROL UNIT, BASIC VERSION**

PRG3830CE

**ELECTRONIC PROGRAMMER WITH EXTERNAL CONTROL BUTTONS**

PRG383TCE

**INDUSTRIAL PROGRAMMER CONTROLLING ONE THREE PHASE MOTOR**

- 2200W three phase power supply 400V3~.

Automatic, semiautomatic, manual and remote control functions.

Command inputs TA, TB, TC, TD, TAL.

Incorporated door security switch.

Optional external control buttons.

Electric brake output.

Interface for a standard slot-in radio receiver card.

Supplied with 4 x Ø16mm cable glands.

Suitable for the control of industrial gates and doors with one three phase motor.

400V

PRG3840CE



Overall dimensions  
175 x 265 x 105

**ELECTRONIC CONTROL UNIT, BASIC VERSION**

PRG3840CE

**ELECTRONIC PROGRAMMER WITH EXTERNAL CONTROL BUTTONS**

PRG384TCE



# ELECTRONIC PROGRAMMERS



MICROPROCESSOR CONTROLLED FOR 24V MOTORS



## CARDIN TRADE

MAINS POWER SUPPLY 230Vac  
MOTOR OUTPUT 24Vdc  
PROTECTION GRADE IP55  
FIREPROOFING GRADE V2  
AUTOMATIC GATE/DOOR PROGRAMMING

Electronic devices for the control of automatic opening systems with one or two gate leaves. Powered by 24Vdc they intelligently manage the movement of the gate.

The appliances either work with encoder controlled or timer controlled gate positioning (automatic system detection).

Specially studied and designed for this type of use, these programmers are fitted with digital time programming thus markedly reducing the installation time.

Monitoring the current consumption allows the control of a sophisticated anticrush safety system, and the "soft start" and "soft stop" functions reduce the stress on the mechanical components.

The complete range of products have been designed and constructed in accordance with the safety standards in force and feature automatic, semi-automatic and remote control functions and allow the system parameters such as the sequential button mode, automatic reclosing, warning lamp pre-flashing, flashing warning lamp activation, indicator light and photoelectric cell function and electric lock setting etc.

Compatible with the INTPRG-3G/WF system (T624 only) that allows you to control and program the system parameters from a remote location and with the SUN POWER system.

### Open collector:

The product range is factory set for the insertion of an open collector receiver card that guarantees compatibility with all the radio control series available in the Cardin catalogue.

T624



T124 ECU



ROBUST SHOCKPROOF CASING



EXTRACTABLE TERMINAL BOARD



ADJUSTABLE WALL  
FASTENING POINTS



SEALING GASKETS IP56



## PRODUCT DESCRIPTION

## ORDER NUMBER

**ELECTRONIC PROGRAMMER FOR ONE 24V MOTOR**

Encoder controlled programmer complete with torque limitation, and deceleration.

**T124****ELECTRONIC PROGRAMMER FOR ONE OR TWO 24V MOTORS**

Encoder controlled programmer with torque limitation, deceleration, inputs for safety edges in both the opening and closing directions, safety device exclusion via dip-switch:

- second channel OC2 output (contact US1);
- connection for the keypad TAST3F;
- BSA and BSC inputs for 8K2 safety edges.

**T624**

Compatible with the data exchange system between digital devices (smartphone, tablet, etc.) and the Cardin multifunctional control units.



See section 24V ECU INTERFACE DEVICES on page 186

**ADHESIVE KEYPAD**

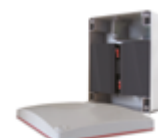
Adhesive keypad in polycarbonate complete with all wiring and connections. For indoor this keypad is easily attached to the box cover for the ECU model T624.

**TAST 3F****BATTERIES WITH SUPPORT BOX**

Battery charger, two 12V 2Ah batteries with supports for fixing the batteries to the cover of the electronic programmer complete with wiring cable.

**SPB24M****EXTERNAL BOX**

with 2 batteries 12V 7Ah.

**SPB24****BATTERY CHARGER**

for use with 24V programmers.

**CB24****POWER SUPPLY KIT**

Solar panels for use with all 24Vdc automation.

Two solar panels complete with adjustable brackets.

Watertight box with batteries, command electronics and charger.

**SUNPOWER**

# ELECTRONIC PROGRAMMERS



SINGLE PHASE - THREE PHASE MOTORS FOR INDUSTRIAL INSTALLATIONS



## CARDIN TRADE

MAINS POWER SUPPLY 230Vac

MOTOR OUTPUT:

SINGLE PHASE 230Vac

THREE PHASE 400V3~

PROTECTION GRADE IP55

FIREPROOFING GRADE V2

Electronic devices for the control of automatic opening systems with one or two gate leaves. Specially studied and designed for this type of use, these Cardin programmers are fitted with digital time programming.

Dedicated to 230Vac and 400V3~ motors (T400) they intelligently manage the movement of the gate.

The appliances either work with encoder controlled or timer controlled gate positioning (automatic system detection).

The complete range of products have been designed and constructed in accordance with the safety standards in force and feature automatic, semi-automatic and remote control functions.

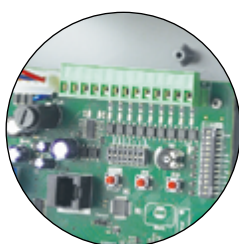
Compatible with the INTPRG-3G/WF system (T600 only) that allows you to control and program the system parameters from a remote location and with the SUN POWER system.

The complete range of programmers simplifies and solves all possible installation problems. The high product-quality level together with accurate design and a selective choice of materials allows trouble free operation and maximum reliability under all kinds of working conditions.

### Open collector:

The product range is factory set for the insertion of an open collector receiver card that guarantees compatibility with all the radio control series available in the Cardin catalogue.

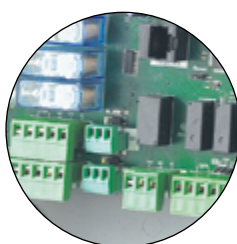
T600



OPTO-ISOLATED INPUTS  
WITH LED CONTROL



T400 ECU



EXTRACTABLE TERMINAL BOARD



ADJUSTABLE WALL  
FASTENING POINTS



SEALING GASKETS IP56



## PRODUCT DESCRIPTION

## ORDER NUMBER

**ELECTRONIC PROGRAMMER FOR ONE 230V MOTOR**

Encoder controlled programmer with torque limitation, deceleration and safety device exclusion via dip-switch.

**T101****ELECTRONIC PROGRAMMER FOR TWO 230V MOTORS**

Encoder controlled programmer with torque limitation, deceleration and safety device exclusion via dip-switch:

- new external 32VA transformer;
- third programming button;
- flashing warning light output;
- second channel OC2 output (contact US1);
- terminal blocks for motor capacitor connection;
- connection for the keypad TAST3F;
- BSA and BSC inputs for 8K2 safety edges.

**T600**

Compatible with the data exchange system between digital devices (smartphone, tablet, etc.) and the Cardin multifunctional control units.



See section 24V ECU INTERFACE DEVICES on page 186

**ELECTRONIC PROGRAMMER FOR ONE 400 V THREEPHASE MOTOR OR ONE SINGLEPHASE 230V MOTOR**

Operation with or without encoder control.

Complete with self-learning function, two separate connections for balanced safety edges (EN 12978). Connection for slot-in radio card. Travel limit inputs.

**T400****ELECTRIC LOCK MODULE**

Electric lock card for T101.

**MES****ADHESIVE KEYPAD**

Adhesive keypad in polycarbonate complete with all wiring and connections. For indoor use, this keypad is easily attached to the box cover for ECU models: T600 - T400.

**TAST 3F**



# ELECTRONIC PROGRAMMERS

FOR 230V ROLLING GRILLS AND ROLLING SHUTTERS



## CARDIN TRADE

MAINS POWER SUPPLY 230Vac  
MOTOR OUTPUT 230Vac  
MOTOR POWER 1000W.  
PROTECTION GRADE IP55  
FIREPROOFING GRADE V2

Electronic devices for the control of 230V automatic rolling grills and rolling shutters. Specially studied and designed for this type of use, these Cardin programmers are fitted with digital time programming.

Dedicated to 230Vac they intelligently manage the movement of the gate.

The functions are programmed via dip-switches.

The electronic programmers T21X and T21B have been designed and constructed in accordance with the safety standards in force and feature automatic, semi-automatic, remote control and deadman operating functions and a 230V non-flashing warning light.

They are also factory set for the insertion of an open collector receiver card that guarantees compatibility with all the radio control series available in the Cardin catalogue.

The high product-quality level together with accurate design and a selective choice of materials allows trouble free operation and maximum reliability under all kinds of working conditions.

The command card T1 is ideal for connecting the digital selector switch APRO and supplies a power output of 1000W for the dead man control of rolling grills or rolling shutters.

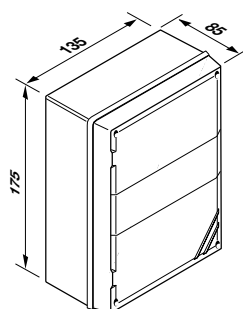
T21X



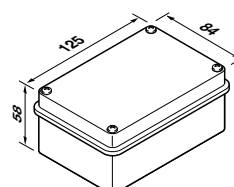
T1



### OVERALL DIMENSIONS



T21X - T21B



T1



## PRODUCT DESCRIPTION

## ORDER NUMBER

**ELECTRONIC PROGRAMMER CONTROLLING ONE 230V MOTOR**

ECU for rolling grills or rolling shutters max. 1300W. Ideal for tubular motors or rolling shutters and fitted with with torque limitation, a programmable 24V warning light output (flashing or continuous activation) and a 230V courtesy light output. Protection grade IP55.

**T21X**

Overall dimensions  
135 x 175 x 85

**ELECTRONIC PROGRAMMER CONTROLLING ONE 230V MOTOR**

ECU for rolling grills or rolling shutters max. 1300W. Supplied with a fitted RSQ5040C2 receiver card. Protection grade IP55.

**T21B**

Overall dimensions  
135 x 175 x 85

**COMMAND CARD CONTROLLING ONE 230V MOTOR**

Ideal for the manual control of one rolling grill or rolling shutter motor. Protection grade IP55.

**T1**

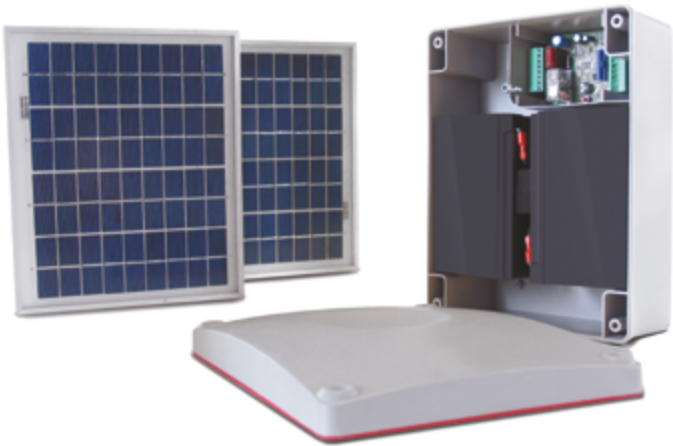


# POWER SUPPLY KIT FOR SOLAR PANELS



## CARDIN TRADE SUN POWER

This product uses solar energy to power automatic devices for gates, garage doors, and road barriers etc. situated far away from the mains power lines, all without needing any sort of excavation or brick work. SUN POWER is compatible with all the Cardin Trade control units for 24Vdc motors, making them independent, reducing electricity costs and respecting the environment.



### PRODUCT DESCRIPTION

#### POWER SUPPLY KIT

Solar panels for use with all 24Vdc automation.  
Two solar panels complete with adjustable brackets.  
Watertight box with batteries, command electronics and charger.

#### SUPPLEMENTARY SOLAR PANEL KIT

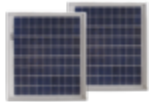
Two solar panels complete with adjustable brackets.

### ORDER NUMBER

**SUNPOWER**

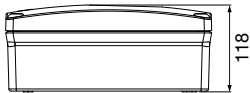


**SPW10**

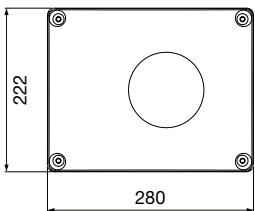


### GENERAL CHARACTERISTICS

		SUN POWER
Solar panel voltage	Vdc	24
Output voltage	Vdc	24
Maximum electrical input	A	10
Power consumption in standby	mA	1
Battery power supply	Ah	7 (x2)
Solar panel power	W	5 (x2)
Solar panel dimensions	cm	290 x 240 x 35 (x2)
Operating temperature range	°C	-20°...+55

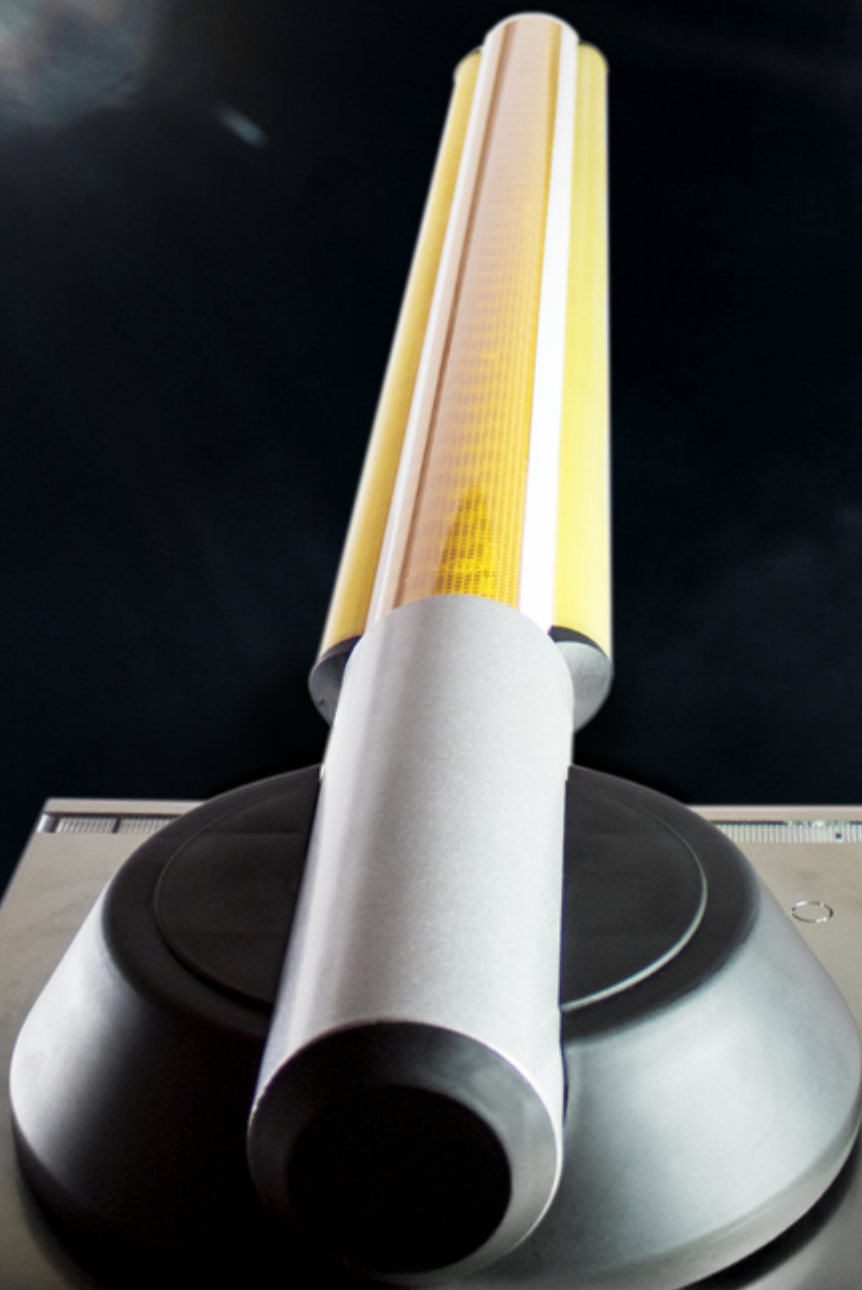


### OVERALL DIMENSIONS

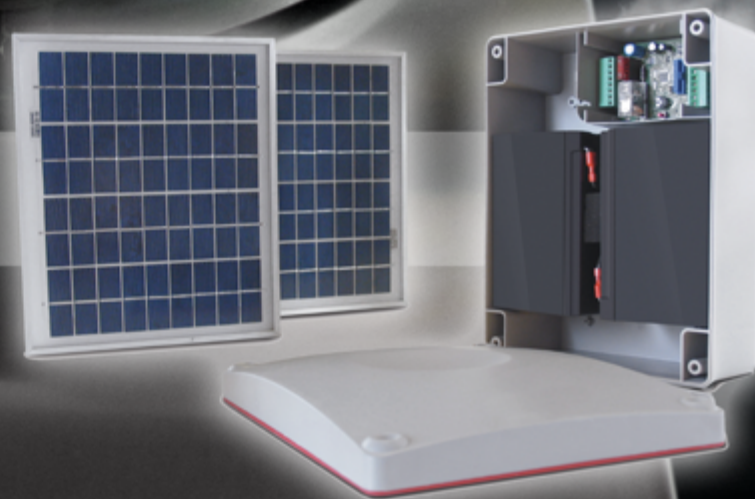




**cardin**<sup>®</sup>  
RIELLO ELETTRONICA GROUP



SUNPOWER



# ECU DATA EXCHANGE



## PROGRAMMER INTERFACE



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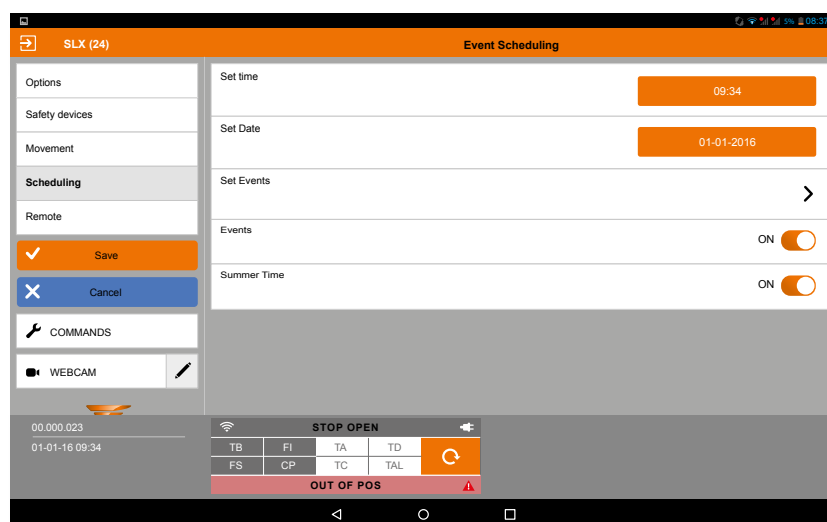
INTPRG is a device that allows you to remotely monitor and configure the multi-functional electronic control units using the professional App CRDTWO. Bluetooth connection to the ECU is made either by inserting the interface modules or via cable which then connects to the Cardin gateway Cardin via 3G or WiFi. The gateway allows you to set up a direct connection to the ECU connected to the INTPRG using a tablet or smartphone which will allow you to interact with the ECU as if you were on site. The main functions that can be carried out are as follows:

- display the status of the command and security devices including eventual errors;
- set all the ECU's parameters including timer controlled events, the date and the time;
- send movement commands and launch the self-programming cycle;
- memorise transmitters.
- error messages via email;
- direct communication between mobile devices and Cardin ECU's via bluetooth.

Furthermore the App can also be used to set and control a webcam (IP video camera) which you can use to monitor the area of the installation allowing you to send commands in total security.



APP CARDIN "CRD TWO"  
FOR SMARTPHONE AND TABLET



## ORDER NUMBER

## INTPRG-3G

## INTPRG-3G10

**INTPRG-WF**

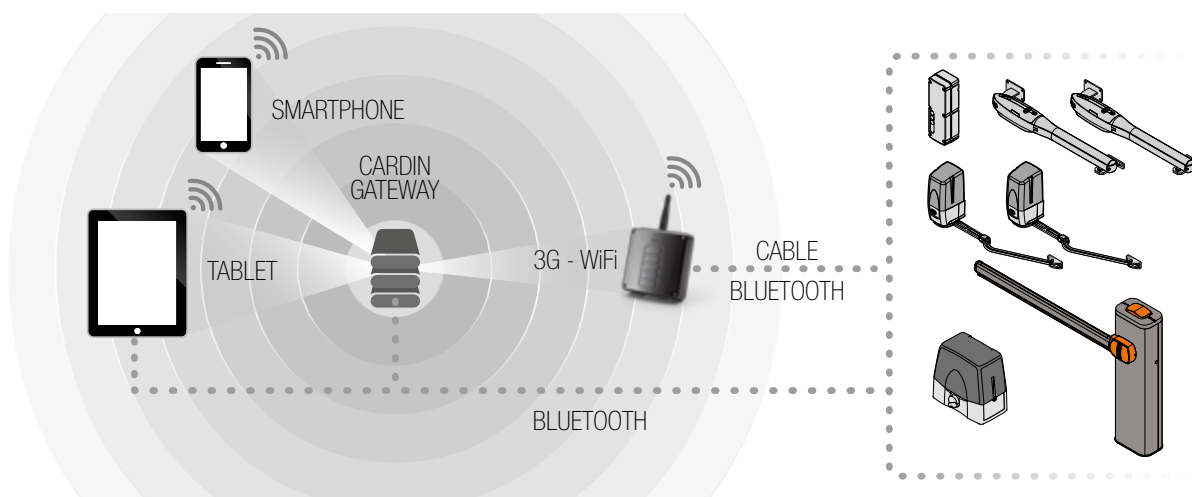
## MODCA



## MODBT



## MODBT2







# RADIO CONTROL SYSTEMS

## RAPID SELECTION GUIDE

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MORPHEUS	194
S500	198
S400	204
TXQ PRO	212
FM 400 - NOIRE - EDGE	214



# RAPID GUIDE

# RADIO CONTROL SYSTEMS



## MORPHEUS

TRANSCIVER  
433MHz  
FM ROLLING CODE



1 CHANNEL



2 CHANNELS



3 CHANNELS



4 CHANNELS



4 CHANNELS + AERIAL

## S500

433MHz  
FM ROLLING CODE



PRECODED TRANSMITTERS



2 CHANNEL  
TRANSMITTERS



4 CHANNEL  
TRANSMITTERS



8 CHANNEL  
TRANSMITTERS



2 CHANNEL  
TRANSCIVERS



4 CHANNEL  
TRANSCIVERS



4-CHANNEL KEYPAD

868MHz  
FM ROLLING CODE



2 CHANNEL  
TRANSMITTERS



4 CHANNEL  
TRANSMITTERS



8 CHANNEL  
TRANSMITTERS



2 CHANNEL  
TRANSCIVERS



4 CHANNEL  
TRANSCIVERS



4-CHANNEL KEYPAD

## S400

433MHz  
FM ROLLING CODE



868MHz  
FM ROLLING CODE



1 CHANNEL



2 CHANNELS



3 CHANNELS



4 CHANNELS



4-CHANNEL  
WALL-MOUNTING  
TRANSMITTER



4-CHANNEL KEYPAD



1 CHANNEL



2 CHANNELS



3 CHANNELS



4 CHANNELS



4-CHANNEL  
WALL-MOUNTING  
TRANSMITTER



4-CHANNEL KEYPAD

## TXQ PRO

MORPHEUS  
S500  
S400



MORPHEUS



4 CHANNELS  
4 CH + AERIAL

S500



4 CHANNELS  
4 CH + AERIAL

S508



4 CHANNELS  
4 CH + AERIAL

# RAPID GUIDE

# RADIO CONTROL SYSTEMS



## TRANSCIVER MORPHEUS



TRANSCIVER  
4 CHANNELS



TRANSCIVER  
4 CHANNELS + INPUTS



TRANSCIVER  
MINI 2 CHANNELS



TRANSCIVER  
SLOT-IN 2 CHANNELS



TRANSCIVER  
MULTIPROTOCOL INTER.

## S504 / S508 RECEIVERS



3G RECEIVER  
WIFI RECEIVER



4-CHANNEL RECEIVER  
+ DISPLAY



4-CHANNEL RECEIVER



2-CANNEL MINI RECEIVER



2-CHANNEL SLOT-IN  
RECEIVER CARD



2-CHANNEL  
OPEN COLLECTOR



ROLLING SHUTTER  
PROGRAMMER



ROLLING SHUTTER  
PROGRAMMER



ON/OFF PROGRAMMER



PROGRAMMER ROLLING  
SHUTTERS / AWNINGS



MULTIPROTOCOL INTER.

## S449 / S486 RECEIVERS



3G RECEIVER  
WIFI RECEIVER



4-CHANNEL RECEIVER  
+ DISPLAY



4-CHANNEL RECEIVER



2-CANNEL MINI RECEIVER



2-CHANNEL SLOT-IN  
RECEIVER CARD



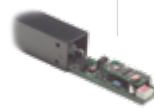
2-CHANNEL  
OPEN COLLECTOR



ROLLING GRILLS PROGRAMMER  
ON/OFF PROGRAMMER



PROGRAMMER FOR  
ROLLING SHUTTERS



PROGRAMMER FOR  
AWNINGS



MULTIPROTOCOL INTER.

S449



4 CHANNELS  
4 CH + AERIAL

S486



4 CHANNELS  
4 CH + AERIAL

RAPID GUIDE

RADIO CONTROL SYSTEMS



FM 400  
433MHz  
FM ROLLING CODE

433  
MHz



2 CHANNELS



4 CHANNELS



5 CHANNELS



21 CHANNELS



4-CHANNEL  
KEYPAD

NOIRE  
433MHz  
AM ROLLING CODE

433  
MHz



2 CHANNELS



4 CHANNELS



5 CHANNELS



21 CHANNELS



4-CHANNEL  
KEYPAD

EDGE  
433MHz  
AM FIXED CODES

433  
MHz



2 CHANNELS



2 CHANNELS



5 CHANNELS



21 CHANNELS



3 CHANNELS



4-CHANNEL  
KEYPAD

RAPID GUIDE

RADIO CONTROL SYSTEMS



2-CHANNEL  
OPEN COLLECTOR



2-CHANNEL  
MINI RECEIVER



4 CHANNEL  
OUTDOOR RECEIVER



4 CHANNEL 230V  
OUTDOOR RECEIVER



PROGRAMMER FOR  
ROLLING GRILLS / SHUTTERS



2-CHANNEL  
OPEN COLLECTOR



2-CHANNEL  
MINI RECEIVER



4 CHANNEL  
OUTDOOR RECEIVER



4 CHANNEL 230V  
OUTDOOR RECEIVER



PROGRAMMER FOR  
ROLLING GRILLS / SHUTTERS



2-CHANNEL  
OPEN COLLECTOR



2-CHANNEL  
MINI RECEIVER



4 CHANNEL  
OUTDOOR RECEIVER



4 CHANNEL 230V  
OUTDOOR RECEIVER



PROGRAMMER FOR  
ROLLING GRILLS / SHUTTERS

# DIGITAL RADIO CONTROL TRANSCEIVER WITH ROLLING CODES



WITH SIGNAL RECEPTION CONFIRMATION



## RADIO CONTROL SYSTEMS

433MHz FM ROLLING CODE  
2<sup>128</sup> CODE COMBINATIONS  
RECHARGEABLE Li-Poly BATTERY  
AERIAL ANS400

AVAILABLE CHANNELS 1-4  
RANGE 100 - 200m  
MOBILE TRANSCEIVER WITH AERIAL 700m

The system maintains the radio-electric characteristics of the latest generation of Cardin Elettronica appliances whilst sharpening the reception capacity and increasing the number of possible uses thanks to the implementation of the "Transceiver" bidirectional signal exchange. These and other characteristics make "Morpheus Cardin" an excellent system that distinguishes itself in the specialist sector of radio control devices. The fruit of Cardin Elettronica's experience, and realised following a philosophy of work that sees us continuously occupied in the creation of coherent projects that are aimed at the creation of professional products.

The Morpheus system allows the remote activation of electrical and electronic appliances and sends a reception confirmation signal back to the transceiver. The radio control system consists of one or more mobile transceivers and one or more stationary transceivers, which can be combined to meet the specific needs of the system. The codes in the mobile units are transferred during the memorization stage in to the non-volatile memory of the fixed unit; a maximum of 1000 different codes may be memorized.

The Morpheus system is best used for the activation and deactivation of security systems, the command of automatic opening systems and in all systems which require:

- remote control activation (without wires) using secret codes;
- confirmation control of the sent command signal without direct visual contact with the system.

During operation each successful activation will receive a confirmation signal sent from the receiver to the transmitter allowing you to control an operation from a remote location.

The first time the appliance is used it should be completely charged until the green LED lights up.



MORPH433T4A



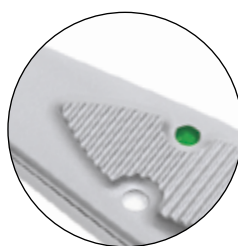
OPERATION INDICATOR



BATTERY CHARGER CONNECTION



AERIAL RANGE 700m



BATTERY CHARGE STATUS LED



BATTERY CHARGER VIA USB



## PRODUCT DESCRIPTION

## ORDER NUMBER

**MOBILE TRANSCEIVER**

Container in shockproof plastic material.  
3,7V power supply with Li-Poly rechargeable battery.  
Overall dimensions 34 x 72 x 11.

**1-CHANNEL MOBILE TRANSCEIVER****MORPH433T1****2-CHANNEL MOBILE TRANSCEIVER****MORPH433T2****3-CHANNEL MOBILE TRANSCEIVER****MORPH433T3****4-CHANNEL MOBILE TRANSCEIVER****MORPH433T4****4-CHANNEL MOBILE TRANSCEIVER WITH AERIAL****MORPH433T4A****BATTERY CHARGER KEY**

The battery can be recharged by connecting the transmitter to a suitable power pack by means of the battery charger key or to a PC via USB.

The key also allows the different functions available in the mobile units to be managed via PC through the use of the software MORPHKEYSW, which can be downloaded free of charge from the website [www.cardin.it](http://www.cardin.it).

**MORPHKEY****KIT BATTERY CHARGER**

The charger kit consists of:

- battery charger key MORPHKEY;
- mains transformer;
- USB cable.

**MORPHKEYCB****KEYPAD COVERS****10 2-CHANNEL KEYPAD COVERS WITH 5 DIFFERENT COLOURS****COVERMIX200****10 4-CHANNEL KEYPAD COVERS WITH 5 DIFFERENT COLOURS****COVERMIX400**



# DIGITAL RADIO CONTROL TRANSCEIVER WITH ROLLING CODES



WITH SIGNAL RECEPTION CONFIRMATION



## RADIO CONTROL SYSTEMS

### STATIONARY TRANSCEIVER

The stationary transceivers are available in all the classic Cardin versions: outdoor stationary transceivers in watertight cases with a flip up access cover, stationary interface transceiver with multiprotocol decoding in indoor boxes, mini transceiver units to be installed in appliances which already have a protective casing and slot-in transceiver cards for direct insertion into host appliances designed to receive them.

- Outdoor stationary transceiver,
- Slot-in stationary transceiver card,
- Mini stationary transceiver,
- Stationary transceiver with multiprotocol interface;
- Radio frequency module for stationary transceivers

### OUTDOOR STATIONARY TRANSCEIVER MORPH433NRC

The outdoor (ABS IP55) stationary transceiver is fitted with a 15-way terminal board and has a 12/24Vac-dc electrical connection between binding posts 1-2 and it is possible to connect two aerials between binding posts in order to improve the signal and consequently the range.

The outdoor receiver is fitted using "fast-fitting" brackets. After connecting the wiring the case should be slid onto the bracket therefore fixing it to the wall. If any repair work is necessary the case can be easily extracted by pushing upwards the action of which will separate it from the bracket.

The unit can be fitted with up to 4 interchangeable relays strips - MCCMORPHM1

The modules are set via dip-switches (Dip1=CHA - Dip2=CHB - Dip3=CHC - Dip4=CHD) to the following:

- Impulsive channel modules = corresponding dip-switch set to 'OFF'
- ON/OFF channel modules = corresponding dip-switch set to 'ON'

In the impulsive modules the activation time can be set by means of a trimmer from 200ms to 3 s.

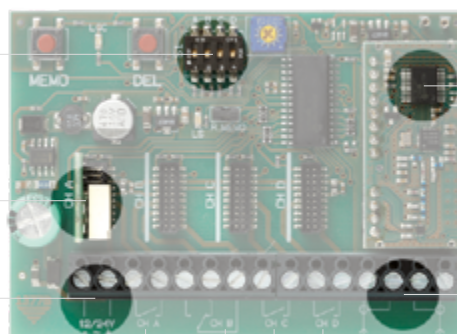


MORPH433NRC

Impulsive/ON-OFF selection

Relay module

Power supply 12/24Vac-dc



433MHz, FM RF module

Connection for two aerials ANS400

4 outputs with impulsive/ON-OFF selection



## PRODUCT DESCRIPTION

## ORDER NUMBER

**OUTDOOR STATIONARY TRANSCEIVER (12/24Vac-dc)**

All weather box in ABS - IP44.

4-channel transceiver with ON/OFF-impulsive relay settings.

**OUTDOOR STATIONARY TRANSCEIVER WITH SIGNAL INPUTS (12/24Vac-dc)**

All weather box in ABS - IP44.

The unit is fitted with 4 soldered relays with ON/OFF-impulsive settings. For every output there is a corresponding input through which it is possible to read the (ON/OFF) status of the device connected to the respective outputs.

**2-CHANNEL MINI STATIONARY TRANSCEIVER (12/24Vac-dc)**

Electronic circuit with a 10-way terminal block; Indoor box IP20.

ON/OFF-impulsive relay settings.

**SLOT-IN STATIONARY TRANSCEIVER CARD (24Vac-dc)**

Transceiver card for direct insertion into a host appliance designed to receive it.

ON/OFF-impulsive relay settings.

**RF MODULE FOR STATIONARY TRANSCEIVERS 433MHz**

Superheterodyne in FM with a digital filter.

RF module without decoder suitable for receiving and transmitting digital signals.

**MULTIPROTOCOL INTERFACE**

The interface is able to decode a radio frequency signal coming from a Morpheus transceiver and output a Wiegand/ISO-3554 digital signal, containing the transmitter code, in 13 different formats. It is fitted with a USB for connection to a PC and an input that can be connected to a timer or a switch with the aim of enabling or disabling the interface over different time periods. Rolling Code management with transmitter memorization on the interface.

**STRIP MORPHEUS WITH 1 PROGRAMMABLE RELAY**

The relay can be set on the receiver to one of the functions.

**1000-CODE MEMORY MODULE**

Extractable and furnished with non volatile memory, this EEPROM contains the system code.

**SLOT-IN RECEIVER ADAPTOR**

Allows you to use the AMP 10-way receiver card connector as a standard terminal block.

**AERIAL FOR 433MHz RECEIVERS****COAXIAL CABLE RG58 (per metre)****MORPH433NRC**

1 relay inserted.

Possibility of memorising up to 1000 codes.

Overall dimensions 110 x 110 x 33.

**MORPH433AL**

Possibility of memorising up to 1000 codes.

Overall dimensions 110 x 110 x 33.

**MORPH433RM**

Possibility of memorising up to 1000 codes.

Overall dimensions 95 x 75 x 25.

**MORPH433RS**

Possibility of memorising up to 1000 codes.

Overall dimensions 70 x 52 x 20.

**JRFMORPH43300**

Voltage: 3Vdc - Electrical input: 15mA.

Overall dimensions 40 x 20 x 13.

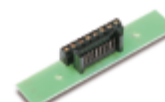
**MORPH433W00**

Carrier frequency 433,92MHz.

Power supply 12/24Vac-dc.

Electrical input 20mA.

Overall dimensions 120 x 85 x 20mm.

**MCCMORPHM1****ZGB24LC64-I/P****RSQSPP****ANS400****ZVCRG58**

# DIGITAL QUARTZ RADIO CONTROLS WITH ROLLING CODES



## RADIO CONTROL SYSTEMS

433MHz - 868MHz FM ROLLING CODE

2<sup>128</sup> CODE COMBINATIONS

REMOTE TRANSMITTER MEMORISATION

RFID: WIRELESS MEMORY

AERIAL ANS400 - ANQ800-1

AVAILABLE TRANSMITTER CHANNELS 2-4-8

AVAILABLE TRANSCEIVER CHANNELS 2-4

RANGE 100 - 150 m

MORE THAN 4 BILLION PRE-CODED TRANSMITTER CODES

An extremely secure state-of-the-art radio control system with 128 bit cryptography. The system has gathered together a series of specific appliances under a single working protocol aimed at the remote control of automatic and security installations. Solutions for all possible uses: control of automatic installations for gates and doors, the command and control of automatic rolling shutters and sun blinds, the activation of alarm and access control systems as well as the activation of all ON-OFF or timer-controlled systems. Adopting the S504 - S508 system doesn't just offer high levels of efficiency but also provides practicality for the user and an extremely useful and manageable appliance for the installer.

### NETWORK CONNECTIVITY

The S504 - S508 range interacts with an evolved system consisting of a server dedicated to the 3G/WF connection by means of appliances and software for computers and smart phones.

### DIGITAL ROLLING CODE TRANSMITTERS 128 BIT WITH 2/4/8 CHANNELS

The transmitters, powered by a 3-volt lithium batteries (1 x CR2032) with a range of from 100 to 150 metres, are pre-coded in the factory with a unique identification number printed on the rear so as to allow memorisation in lots on the receiver and can be enabled without the presence of the receivers from a remote location through the use of a second transmitter that has already been memorised in the system. They are fitted with a key-lock function which when selected protects the appliance from any accidental activation and automatic shut down that cuts in after at least twenty seconds of continuous activation in order to reduce battery consumption. The bidirectional transmitters (transceivers) receive a confirmation signal allowing you to control an operation from a remote location.

### QUARTZ RECEIVERS WITH THE POSSIBILITY OF MEMORISING UP TO 1000 USER CODES

The receivers are available in all the classic Cardin versions: outdoor receivers 12-24V with display, with LCD display and 3G/WF functions in watertight cases IP55, mini receiver units to be installed in appliances which already have a protective casing and slot-in receiver cards for direct insertion into host appliances designed to receive them. A code and memory programming base via USB allows the transmitters to be memorised in blocks and access to the remote memorisation function thanks to the RFID technology fitted into the transmitters.

TXQ504C8



TXQ508C8



REMOTE ENABLING USING  
A TRANSMITTER ALREADY  
MEMORISED IN THE SYSTEM



KEY BLOCK PROTECTION  
AGAINST CASUAL ACTIVATION



FLUSH-FITTING METAL KEYRING



DOUBLE PROTECTIVE CASING  
SHOCKPROOF CONTAINER



3V LITHIUM BATTERY (1 x CR2032)



## PRODUCT DESCRIPTION

## ORDER NUMBER

**PRECODED TRANSMITTERS**

Container in shockproof plastic material.  
3V lithium battery power supply CR2032.  
Overall dimensions 35 x 80 x 11.

**2-CHANNEL TRANSMITTER****4-CHANNEL TRANSMITTER****8-CHANNEL TRANSMITTER****2-CHANNEL TRANSCEIVER****4-CHANNEL TRANSCEIVER****2-CHANNEL TRANSMITTER****4-CHANNEL TRANSMITTER****8-CHANNEL TRANSMITTER****2-CHANNEL TRANSCEIVER****4-CHANNEL TRANSCEIVER**

TXQ504C2

TXQ504C4

TXQ504C8

TXQ504BD2

TXQ504BD4



TXQ508C2

TXQ508C4

TXQ508C8

TXQ508BD2

TXQ508BD4

**5 2-CHANNEL KEYPAD COVERS WITH 5 DIFFERENT COLOURS**

COVERMIX5002

**5 4-CHANNEL KEYPAD COVERS WITH 5 DIFFERENT COLOURS**

COVERMIX5004

**TRANSMITTER WALL / CAR SUPPORT DARK GREY**

XACSUPTX500

**TRANSMITTER WALL / CAR SUPPORT LIGHT GREY**

XACSUPTX500GC

**CODE AND MEMORY PROGRAMMING BASE VIA USB**

The USB code and memory programming base allows the transmitters to be programmed in batches and remote code memorisation and replacement thanks to the RFID technology present in the series S504 transmitters and in the management software CARDINTX\_SW.

PGBASE500

**NUMERICAL CODE KEYPAD VIA RADIO**

Container in shockproof polycarbonate IP57.  
3V lithium battery power supply (ZRA3.0-3.8-W).  
Number of code available combinations: 1.000.000.  
Possibility of memorising up to 500 user codes.  
Manages up to 4 distinct functions and communicates with all S504 (433MHz) and S508 (868MHz) standard receivers.  
Backlighting is controlled by a proximity light sensor.  
Overall dimensions 74 x 130 x 20.

SSB-504

SSB-508

**3V LITHIUM BATTERY PACK (SSB-504 / SSB-508)**

ZRA3.0-3.8-W



# DIGITAL QUARTZ RADIO CONTROLS WITH ROLLING CODES



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## RADIO CONTROL SYSTEMS

### RECEIVERS

The receivers are available in all the classic Cardin versions: outdoor receivers 12-24V with display, with LCD display and 3G/WiFi functions, 230V radio programmers in watertight cases with flip up access covers, mini receiver units to be installed in appliances which already have a protective casing and slot-in receiver cards for direct insertion into host appliances designed to receive them:

- outdoor receiver with a multi-decoding module S449 - S486 - S504 - S508, LCD display and 3G-WiFi functions;
- standard outdoor receivers;
- outdoor receivers with display;
- 2-channel mini receivers, slot-in receiver cards;
- 2-channel open collector receiver cards;
- outdoor radio programmers;
- multiprotocol interface.

### RECEIVERS WITH LCD DISPLAY AND 3G/WiFi FUNCTIONS

Thanks to the inbuilt 2G-3G or WiFi module, avant-garde software and a highly efficient signal reception apparatus the receiver allows the remote management (without range limits) of all installations that require remote control via radio (automatic entry systems, access control, car-parks etc.). The appliance is ideally suited to multi-user installations (up to 3000 transmitters can be memorised) and ones that require frequent upgrading and modification of the codes. The USB connection, the programming and setting buttons and the efficient display allow the appliance to be easily configured. The installation management functions are: transmitter code memorization/ cancellation and programming the function mode for each single output.

The receiver can manage up to four programmable channel modules (impulsive/ ON-OFF/timer controlled, NO/NC contact type and power on reset). The device also features a Real Time Clock which can be used to set the time bands during which the outputs are active, as well as a non volatile memory module which can store up to 100000 relay activation events which may be downloaded during a normal connection and consulted at will. The CARDINTX\_SW, software that can be downloaded from the website [www.cardin.it](http://www.cardin.it) allows the stored user codes to be managed by means of one of three possible connection methods: direct via USB cable, using the mobile communications network with a 2G/3G module or using a WF module. One or more outputs can be remotely activated over the phone or via SMS with an installed 2G/3G module or using an App.

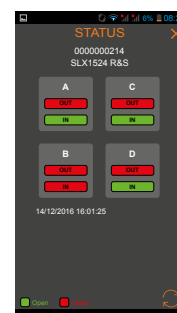
Four independent inputs are also available which can be used to monitor external appliances the status of which can be obtained from the receiver via SMS or an App. Using the Cardin software it is possible to set the receiver's 4 inputs according to the requirements of the installation. As soon as an event such as resetting the position status of the door, security devices intervening, presence/absence of power etc. is detected, the receiver will send a personalised message to the pre-registered e-mail addresses. Thanks to this system the 3G receiver becomes a very useful maintenance management tool.



3G/WiFi receiver



### APP CARDIN "CRD ONE" FOR SMARTPHONE AND TABLET





## PRODUCT DESCRIPTION

## ORDER NUMBER

**RECEIVERS WITH LCD DISPLAY AND 3G/WiFi FUNCTIONS  
(12/24Vac-dc)**

All weather box in ABS - IP55. Overall dimensions 135 x 175 x 85.  
The receiver can be fitted with up to four programmable relay modules MCCMORPHM1 (impulsive, ON-OFF or timer controlled).  
1 relay inserted.

Possibility of memorising up to 3000 codes.

USB connection and 2G-3G-WiFi module for remote user and activation of the output relays.

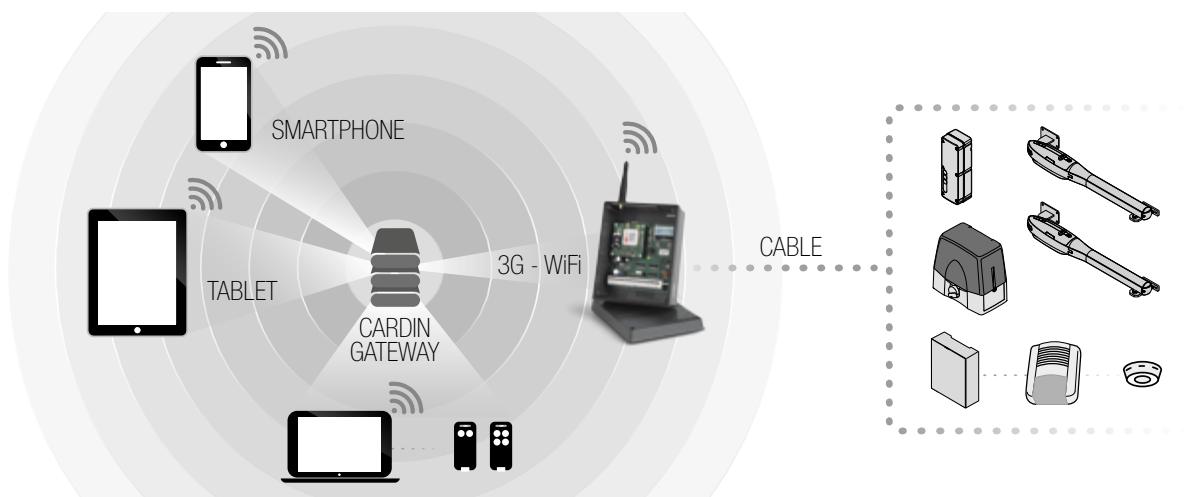
The RCQ433/868-3G10 receivers include a 10 year subscription with our partner Vodafone.



3G receiver



WiFi receiver

**2G-3G RECEIVERS****2G-3G RECEIVERS + SIM VODAFONE****WiFi RECEIVER****2G-3G RECEIVERS****2G-3G RECEIVERS + SIM VODAFONE****WiFi RECEIVER****3000-CODE MEMORY MODULE****5000-CODE MEMORY MODULE****RCQ433-3G****RCQ433-3G10****RCQ433-WF****RCQ868-3G****RCQ868-3G10****RCQ868-WF****MCC24LC256****MCC24LC512**





## PRODUCT DESCRIPTION

## ORDER NUMBER

**STANDARD OUTDOOR RECEIVER (12/24Vac-dc)**

The unit can be fitted with up to four interchangeable relay modules MCCMORPHM1, which can be set to ON/OFF or impulsive. 1 relay inserted. Possibility of memorising up to 1000 codes.

**OUTDOOR RECEIVER WITH DISPLAY (12/24Vac-dc)**

The unit can be fitted with up to four interchangeable relay modules MCCMORPHM1, which can be impulsive, ON-OFF or timer controlled. 1 relay inserted. Possibility of memorising up to 1000 codes.

**2-CHANNEL MINI RECEIVER (12/24Vac-dc)**

Electronic circuit with a 10-way terminal block; Fitted with 2 relay channels which can be set to ON/OFF or impulsive. Possibility of memorising up to 1000 codes.

**2-CHANNEL SLOT-IN RECEIVER CARD (24Vac-dc)**

Receiver card for direct insertion into a host appliance designed to receive it. Fitted with 2 relay channels which can be set to ON/OFF or impulsive. Possibility of memorising up to 1000 codes.

**2-CHANNEL RECEIVER CARD (5Vdc)**

Open collector receiver card for direct insertion into a host appliance designed to receive it. Impulsive channels. Possibility of memorising up to 1000 codes.

**RADIOPROGRAMMER FOR ROLLING SHUTTERS, SUN BLINDS AND AWNINGS (230V-1000W)**

Logic integrated into the receiver with work time management and output for the control of one motor. Suitable for the command of automatic rolling shutters, sun blinds and awnings. Inputs for one opening and one closing command via cable. Manual operation in either the opening/closing or only closing direction.

**RADIOPROGRAMMERS FOR ROLLING GRILLS (230V-600W)**

Logic integrated into the receiver and output for the control of one motor. Power supply output for a pair of Cardin photoelectric cells. Possibility of memorising up to 1000 transmitters.

**RADIOPROGRAMMERS ON/OFF + TIMER (2000W)**

For specific uses such as the remote control of external (gardens) and internal lighting; the remote control of power sockets. Connecting the radioprogrammer to a light detection device will prevent it from switching on the lighting system during the daytime. Possibility of memorising up to 1000 user codes. Timer settings: from 1 min. to 23 hrs. 59 min.

**QUARTZ RECEIVER/TRANSCIVER MODULE (433MHz - 868MHz)**

Superheterodyne in FM with a digital filter.  
Unidirectional (DG) and bidirectional (DG) versions.  
RF module without decoder for the reception of digital signals.  
Voltage: 5Vdc - Electrical input: 15mA.  
Overall dimensions 40 x 20 x 13.

**RCQ504NC1****RCQ508NC1**

All weather box in ABS - IP55.  
Overall dimensions 148 x 118 x 40.

**RCQ504ND1****RCQ508ND1**

All weather box in ABS - IP55.  
Overall dimensions 148 x 118 x 40.

**RQM504C2****RQM508C2**

Indoor box IP20.  
Overall dimensions 95 x 75 x 25.

**RSQ504C2****RSQ508C2**

Overall dimensions 70 x 52 x 20.

**RSQ5040C2****RSQ5080C2**

Overall dimensions 48 x 35 x 10.

**RPQ504T10****RPQ508T10**

Indoor box IP20.  
Overall dimensions 106 x 36 x 21.

**RPQ504****RPQ508**

All weather box in ABS - IP55.  
Overall dimensions 139 x 115 x 44.

**RPQ504IT0****RPQ508IT0**

All weather box in ABS - IP55.  
Overall dimensions 139 x 115 x 44.

**JRF433QFMDG1****JRF868QFMDG1****JRF433QFMBD0****JRF868QFMBD0**



## PRODUCT DESCRIPTION

## ORDER NUMBER

**RADIOPROGRAMMERS FOR ROLLING SHUTTERS / AWNINGS (400 W)**

The radio programmer allows the remote control of one single phase motor and finds its best use in the command of automatic rolling shutters and awnings. The appliance is designed for the connection of an anemometer (see chapter COMMAND AND SAFETY DEVICES).

**MULTIPROTOCOL INTERFACE**

The interface is able to decode a radio frequency signal coming from a S504-S508 transmitter or via cable from a DKS1000T, DKSTPT, DKSDUALT and output a Wiegand/ISO-3554 digital signal, containing the transmitter code, in 13 different formats.

It is fitted with a USB for connection to a PC and an input that can be connected to a timer or a switch with the aim of enabling or disabling the interface over different time periods. Rolling Code management with transmitter memorization on the interface.

**BLUETOOTH INTERFACE WITH FOUR RELAYS**

The interface with a bluetooth module allows the control of four relays with NO or NC contacts. The selection dip-switches (one block per relay) allow you to select the relay's activation method: impulsive, ON/OFF, timer controlled or remotely controlled relay activation using the programming calendar in the Cardin multiprotocol interface Cardin RCQ504/508W00. The programming buttons (one per relay) allow you to set the activation times for the relays (from 1 s to 5 min) for the timer controlled mode.

**STRIP WITH 1 PROGRAMMABLE RELAY (S504 - S508)**

The relay can be set on the receiver to one of the functions.

**CODE MEMORY MODULES**

Extractable and furnished with non volatile memory, this EEPROM contains the system code

**1000-CODE MEMORY MODULE**

**(RECEIVERS S504D1-S508D1) VERTICAL**

**1000-CODE MEMORY MODULE (S504 - S508)****3000-CODE MEMORY MODULE FOR 2G-3G-WIFI RECEIVER****SLOT-IN RECEIVER ADAPTOR**

Allows you to use the AMP 10-way receiver card connector as a standard terminal block.

**AERIAL FOR 433MHz RECEIVERS****AERIAL FOR 868MHz RECEIVERS****COAXIAL CABLE RG58 (per metre)****KIT AERIAL EXTENSION 2G - 3G WiFi 10m SMA-M****KIT AERIAL EXTENSION 2G - 3G WiFi 5m SMA-M****LITHIUM BATTERY 3V (2 X CR2032)****RPQ504RNA0****RPQ508RNA0**

Indoor box IP43.

Power supply 230Vac.

Overall dimensions 120 x 85 x 20

**RCQ504W00****RCQ508W00**

Power supply 12/24Vac-dc.

Electrical input 20mA.

Overall dimensions 148 x 118 x 40.

All weather box in ABS - IP55.

Carrier frequency 433,92MHz - 868,3MHz.

**INTBTC4**

Power supply 12/24Vac-dc.

Electrical input 50mA.

Overall dimensions 95 x 75 x 25.

Indoor box IP20

**MCCMORPHM1****MCC24LC64****ZGB24LC64-I/P****ZGB24LC256-I/P****RSQSPP****ANS400****ANQ800-1****ZVCRG58****ANSKITGSMWF10****ANSKITGSMWF5****XRP03**

# DIGITAL QUARTZ RADIO CONTROLS WITH ROLLING CODES



## RADIO CONTROL SYSTEMS

433MHz - 868MHz FM ROLLING CODE

2<sup>66</sup> CODE COMBINATIONS

MEMORISATION VIA RADIO

AERIAL ANS400 - ANQ800-1

AVAILABLE CHANNELS 1-2-3-4

RANGE 100 - 150 m

MORE THAN 268 MILLION PRE-CODED TRANSMITTER CODES

An innovative radio control system that has gathered together a series of specific appliances under a single working protocol aimed at the remote control of automatic and security installations.

High-technology appliances, protected by robust and practical containers, easy to install and pleasing on the eye in the usual style of Cardin products.

Solutions for all possible uses: control of automatic installations for gates and doors, the command and control of automatic rolling shutters and sun blinds, the activation of alarm and access control systems as well as the activation of all ON-OFF or TIMER-CONTROLLED systems. Adopting the S449 - S486 as a command and control system for remote controlled installations, automatic gates and doors and security systems, doesn't just offer high levels of efficiency but also provides practicality for the user and an extremely useful and manageable appliance for the installer. A complete and secure system, the best today's technology has to offer, which has been designed and realised with the quality and attention to detail that only CARDIN products can provide.

The "key" to the system is the "simply unique" set of transmitters, made of anti-scratch, shockproof materials that are compact and easy to use. They are available in the following versions: pocket size with 1-2-3-4 channels and wall mounted with four available functions working from a fixed position. The single button radio controls (1 channel) are suitable for alarm systems and access control. The practical and efficient three button radio controls specially designed to command rolling shutters and sun blinds allow the functions open, close and stop to be immediately identified.

A clip is available allowing the insertion of a transponder into the transmitter unit.

TXQ449400



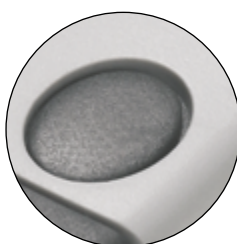
TXQ486400



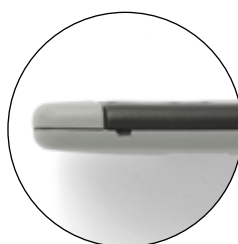
SELF-LEARNING



MEMO RADIO - KEY LOCK



ERGONOMIC BUTTONS



COMPACT CASE



3V LITHIUM BATTERY



## PRODUCT DESCRIPTION

## ORDER NUMBER

**433MHz TRANSMITTERS**

Container in shockproof plastic material.  
3V lithium battery power supply CR2032.  
Overall dimensions 34 x 72 x 11.

**1-CHANNEL TRANSMITTER****2-CHANNEL TRANSMITTER****3-CHANNEL TRANSMITTER****4-CHANNEL TRANSMITTER****2-CHANNEL PRECODED TRANSMITTER****4-CHANNEL PRECODED TRANSMITTER**


TXQ449100

TXQ449200

TXQ449300

TXQ449400

TXQ4492P0

TXQ4494P0

**868MHz TRANSMITTERS**

Container in shockproof plastic material.  
3V lithium battery power supply CR2032.  
Overall dimensions 34 x 72 x 11.

**1-CHANNEL TRANSMITTER****2-CHANNEL TRANSMITTER****3-CHANNEL TRANSMITTER****4-CHANNEL TRANSMITTER****2-CHANNEL PRECODED TRANSMITTER****4-CHANNEL PRECODED TRANSMITTER**


TXQ486100

TXQ486200

TXQ486300

TXQ486400

TXQ4862P0

TXQ4864P0

**4-CHANNEL WALL TRANSMITTER**

Container in shockproof plastic material.  
3V lithium battery power supply CR2032.  
Wall mounting.  
Available in 433MHz and 868MHz versions.  
Overall dimensions 72 x 72 x 15.

TXQ44940M

TXQ48640M

**NUMERICAL CODE KEYPAD VIA RADIO**

Container in shockproof polycarbonate IP57.  
6V lithium battery power supply 2 x CR2032 (KITSSB-T9K4-1).  
Number of code available combinations: 1.000.000.  
Communicates with all standard S449 (version 433MHz) and S486 (version 868MHz) receivers, allows you to memorise up to 250 user codes and manage up to 4 distinct functions.  
Overall dimensions 72 x 115 x 28.

SSB-T9K4

SSB-T8K4

**3V LITHIUM BATTERY (2 X CR2032) FOR SSB-T9K4/T8K4**

KITSSB-T9K4-1



# DIGITAL QUARTZ RADIO CONTROLS WITH ROLLING CODES



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## RADIO CONTROL SYSTEMS

### RECEIVERS

The receivers are available in all the classic Cardin versions: outdoor receivers 12-24V with display, with LCD display and 3G/WiFi functions, 230V radio programmers in watertight cases with flip up access covers, mini receiver units to be installed in appliances which already have a protective casing and slot-in receiver cards for direct insertion into host appliances designed to receive them:

- outdoor receiver with a multi-decoding module S449 - S486 - S504 - S508, LCD display and 3G-WiFi functions;
- standard outdoor receivers;
- outdoor receivers with display;
- 2-channel mini receivers, slot-in receiver cards;
- 2-channel open collector receiver cards;
- outdoor radio programmers;
- multiprotocol interface.

### RECEIVERS WITH LCD DISPLAY AND 3G/WiFi FUNCTIONS

Thanks to the inbuilt 2G-3G or WiFi module, avant-garde software and a highly efficient signal reception apparatus the receiver allows the remote management (without range limits) of all installations that require remote control via radio (automatic entry systems, access control, car-parks etc.). The appliance is ideally suited to multi-user installations (up to 3000 transmitters can be memorised) and ones that require frequent upgrading and modification of the codes. The USB connection, the programming and setting buttons and the efficient display allow the appliance to be easily configured. The installation management functions are: transmitter code memorization/ cancellation and programming the function mode for each single output.

The receiver can manage up to four programmable channel modules (impulsive/ ON-OFF/timer controlled, NO/NC contact type and power on reset). The device also features a Real Time Clock which can be used to set the time bands during which the outputs are active, as well as a non volatile memory module which can store up to 100000 relay activation events which may be downloaded during a normal connection and consulted at will. The CARDINTX\_SW, software that can be downloaded from the website [www.cardin.it](http://www.cardin.it) allows the stored user codes to be managed by means of one of three possible connection methods: direct via USB cable, using the mobile communications network with a 2G/3G module or using a WF module. One or more outputs can be remotely activated over the phone or via SMS with an installed 2G/3G module or using an App.

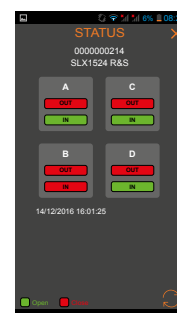
Four independent inputs are also available which can be used to monitor external appliances the status of which can be obtained from the receiver via SMS or an App. Using the Cardin software it is possible to set the receiver's 4 inputs according to the requirements of the installation. As soon as an event such as resetting the position status of the door, security devices intervening, presence/absence of power etc. is detected, the receiver will send a personalised message to the pre-registered e-mail addresses. Thanks to this system the 3G receiver becomes a very useful maintenance management tool.



3G/WiFi receiver



### APP CARDIN "CRD ONE" FOR SMARTPHONE AND TABLET





## PRODUCT DESCRIPTION

## ORDER NUMBER

**RECEIVERS WITH LCD DISPLAY AND 3G/WiFi FUNCTIONS  
(12/24Vac-dc)**

All weather box in ABS - IP55. Overall dimensions 135 x 175 x 85.  
The receiver can be fitted with up to four programmable relay modules MCCMORPHM1 (impulsive, ON-OFF or timer controlled).  
1 relay inserted.

Possibility of memorising up to 3000 codes.

USB connection and 2G-3G-WiFi module for remote user and activation of the output relays.

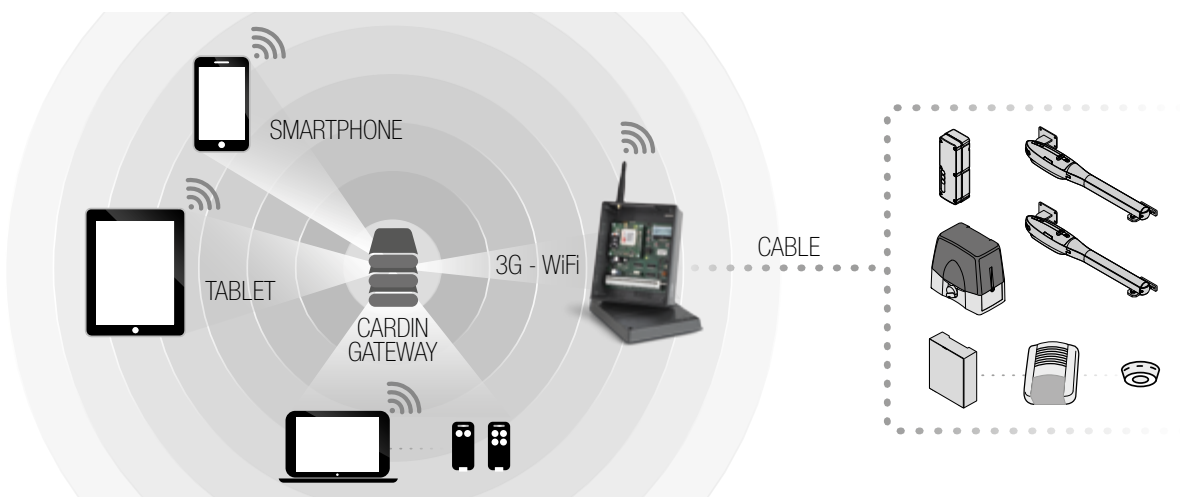
The RCQ433/868-3G10 receivers include a 10 year subscription with our partner Vodafone.



3G receiver



WiFi receiver

**2G-3G RECEIVERS****2G-3G RECEIVERS + SIM VODAFONE****WiFi RECEIVER****RCQ433-3G****RCQ433-3G10****RCQ433-WF****2G-3G RECEIVERS****2G-3G RECEIVERS + SIM VODAFONE****WiFi RECEIVER****RCQ868-3G****RCQ868-3G10****RCQ868-WF**



# DIGITAL QUARTZ RADIO CONTROLS WITH ROLLING CODES



## RADIO CONTROL SYSTEMS

### RECEIVERS

The receivers are available in all the classic Cardin versions: outdoor receivers 12-24V with display, with LCD display and 3G-WiFi functions, 230V radio programmers in watertight cases with flip up access covers, multiprotocol interface decoding in indoor boxes, mini receiver units to be installed in appliances which already have a protective casing and slot-in receiver cards for direct insertion into host appliances designed to receive them:

- outdoor receiver with LCD display and 3G-WiFi functions;
- standard outdoor receivers;
- outdoor receivers with display;
- 2-channel mini receivers, slot-in receiver cards;
- 2-channel open collector receiver cards;
- outdoor radio programmers;
- multiprotocol interface.

RQM449200



### 2-CHANNEL MINI RECEIVER

The mini receiver housed in an indoor container and is fitted with an 10-way terminal board.

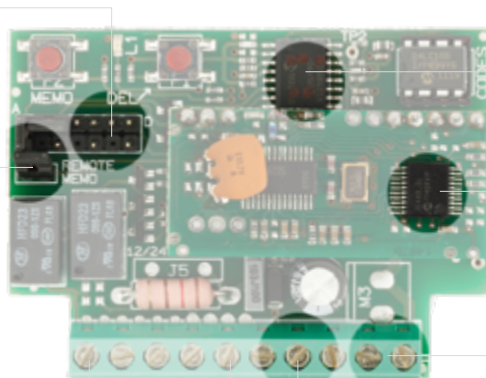
The receiver cards are fitted with two relays the outputs of which are marked CH1 (N.O. contact) and CH2 (N.O./N.C. contact). The relays CH1 and CH2 can be activated by selecting the functions A-B-C-D and made to correspond with the transmitter channels CHA-CHB-CHC-CHD by setting the jumpers situated on the circuit board.

The memorization via radio function allows extra transmitters to be added to the system without having to access the circuit board but instead by using the MEMO Radio button in a previously memorised transmitter in the vicinity of the receiver.

Channel selection jumper

Memorizing ulterior channels  
via radio

2 outputs with impulse contact



Extractable memory module 300 codes

433MHz, FM RF module

ANS400 aerial connection

Power supply 12/24Vac-dc



## PRODUCT DESCRIPTION

## ORDER NUMBER

**STANDARD OUTDOOR RECEIVER (12/24Vac-dc)**

All weather box in ABS - IP44.

The unit can be fitted with up to four interchangeable relay modules N.O. or N.C. 1 relay inserted.

Possibility of memorising up to 300 codes.

Overall dimensions 110 x 110 x 33.

RCQ449N100

RCQ486N100

**OUTDOOR RECEIVER WITH DISPLAY (12/24Vac-dc)**

All weather box in ABS - IP44.

The receiver can be fitted with up to four programmable relay modules (impulsive, ON-OFF or timer-controlled). Possibility of memorising up to 1000 codes.

Overall dimensions 110 x 110 x 33.

RCQ449ND00

RCQ486ND00

**2-CHANNEL MINI RECEIVER (12/24Vac-dc)**

Electronic circuit with a 10-way terminal block; Indoor box IP20.

Supplied with 2 impulsive relays.

Possibility of memorising up to 300 codes.

Overall dimensions 95 x 75 x 25.

RQM449200

RQM486200

**2-CHANNEL SLOT-IN RECEIVER CARD (24Vac-dc)**

Receiver card for direct insertion into a host appliance designed to receive it. Overall dimensions 70 x 52 x 20.

Fitted with 2 relay channels which can be set to ON/OFF or impulsive.

Possibility of memorising up to 1000 codes.

RSQ449200

RSQ486200

**2-CHANNEL RECEIVER CARD (5Vdc)**

Open collector receiver card for direct insertion into a host appliance designed to receive it. Overall dimensions 48 x 35 x 10.

Impulsive relay channels. Possibility of memorising up to 300 codes.

RSQ4490C2

RSQ4860C2

**RADIOPROGRAMMERS FOR ROLLING GRILLS (230V-630W)**

Power supply 230Vac. All weather box in ABS - IP55.

Overall dimensions 139 x 115 x 44.

Logic integrated into the receiver and output for the control of one motor. Power supply output for a pair of Cardin photoelectric cells.

Possibility of memorising up to 20 transmitters.

RPQ449

RPQ486

**RADIOPROGRAMMERS ON/OFF + TIMER (2000W)**

For specific uses such as the remote control of external (gardens) and internal lighting; the remote control of power sockets. Terminal board connections; sequential command input and a control button that can be linked to a light detection device so making sure that the lights do not switch on during the day.

Possibility of memorising up to 300 user codes.

Timer settings: from 1 min. to 23 hrs. 59 min.

RPQ449IT0

Power supply 230Vac.

All weather box in ABS - IP55.

Overall dimensions 139 x 115 x 44.

**QUARTZ RECEIVER MODULE (433MHz - 868MHz)**

Superheterodyne in FM with a digital filter.

RF module without decoder for the reception of digital signals.

Voltage: 5Vdc - Electrical input: 15mA

Overall dimensions 40 x 20 x 13.

JRF433QFMDG0

JRF868QFMDG0





## PRODUCT DESCRIPTION

## ORDER NUMBER

**RADIOPROGRAMMERS FOR ROLLING SHUTTERS AND AWNINGS (400 W)**

The radio programmer allows the remote control of one single phase motor and finds its best use in the command of automatic rolling shutters and awnings. The appliance is designed for the connection of an anemometer (see chapter COMMAND AND SAFETY DEVICES).

**RADIOPROGRAMMERS FOR SUN BLINDS AND AWNINGS (450W)**

The radio programmer allows the remote control of one single phase motor and finds its best use in the command of automatic sun blinds and awnings. The appliance is designed for the connection of an anemometer (see chapter COMMAND AND SAFETY DEVICES).

**MULTIPROTOCOL INTERFACE**

The interface is able to decode a radio frequency signal coming from a TXQ449-486 transmitter or via cable from a DKS1000T and output a Wiegand/ISO-3554 and RS232 digital signal, containing the transmitter code, in 13 different formats.

The interface also has an enable contact which can be wired to a timer or a normal switch allowing you to activate or deactivate the interface in different time bands.

The RS232 serial interface allows you to connect the device to a personal computer using software supplied with the kit.

**HAND-HELD PDA PROGRAMMER**

User code programming system that can be interfaced with a personal computer.

It allows you to manage transmitter codes in the receivers memory without having to activate the transmitters one by one. The transmitters pre-coded in blocks can be memorised rapidly in multi-user systems which require the use of many transmitters. You can manage the replacement of a transmitter lost by the user using remote programming.

Complete with interface cables and external power unit.

**RESERVED CODE PROGRAMMING KEY**

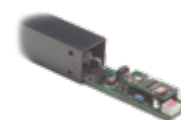
KEY449, when connected to the PC management software, expands the work capacity of the palm system by remotely adding one or more transmitters to the system.

**10 2-CHANNEL KEYPAD COVERS WITH 5 DIFFERENT COLOURS****10 4-CHANNEL KEYPAD COVERS WITH 5 DIFFERENT COLOURS****10 TRANSPONDER CLIPS (LIGHT GREY)****10 TRANSPONDER CLIPS (DARK GREY)****RP449RNA0**

Indoor box IP43.  
Power supply 230Vac.  
Overall dimensions 120 x 85 x 20.

**RP449BNA0**

(special for square tube rollers 40 x 40 mm)  
Indoor box IP20.  
Power supply 230Vac.  
Overall dimensions 280 x 32 x 32

**RCQ449W00****RCQ486W00**

Power supply 12/24Vac-dc.  
Electrical input 20mA.  
Overall dimensions 148 x 118 x 40.  
All weather box ABS - IP55.  
Carrier frequency 433,92MHz - 868,3MHz.

**PGM449****PGM486**

Carrier frequency 433,92 - 868,3MHz.  
Internal power supply (battery) 9Vdc.  
External power supply 12Vac-dc.  
Display backlighting 16 characters x 4 lines.  
A maximum of 2000 reserved KEY449 codes.

**KEY449****COVERMIX200****COVERMIX400****COVERTP-LG****COVERTP-DG**



## PRODUCT DESCRIPTION

## ORDER NUMBER

**STRIP WITH 1 IMPULSIVE RELAY (N.O. CONTACT)**

The relay remains active while the channel button is kept pressed down.

**STRIP WITH 1 IMPULSIVE RELAY (N.C. CONTACT)**

The relay remains active while the channel button is kept pressed down.

**CODE MEMORY MODULES**

Extractable and furnished with non volatile memory, this EEPROM contains the system code.

**300-CODE MEMORY MODULE (S449 - S486)****1000-CODE MEMORY MODULE (S449D - S486D)****3000-CODE MEMORY MODULE FOR 2G-3G-WIFI RECEIVER****SLOT-IN RECEIVER ADAPTOR**

Allows you to use the AMP 10-way receiver card connector as a standard terminal block.

**AERIAL FOR 433MHz RECEIVERS****AERIAL FOR 868MHz RECEIVERS****COAXIAL CABLE RG58 (per metre)****KIT AERIAL EXTENSION 2G - 3G WiFi 10m SMA-M****KIT AERIAL EXTENSION 2G - 3G WiFi 5m SMA-M****LITHIUM BATTERY 3V (2 X CR2032)****MCC4491R1****MCC4491RC1****ZGB24LC16-I/P****ZGB24LC64-I/P****ZGB24LC256-I/P****RSQSPP****ANS400****ANQ800-1****ZVCRG58****ANSKITGSMWF10****ANSKITGSMWF5****XRP03**

# INDUSTRIAL ROLLING CODE TRANSMITTERS/TRANSCEIVERS



## RADIO CONTROL SYSTEMS

### TXQPROMRF

433MHz FM ROLLING CODE  
2128 CODE COMBINATIONS  
SIGNAL RECEPTION CONFIRMATION

### TXQPRO449 - TXQPRO486

433MHz - 868MHz FM ROLLING CODE  
 $2^{66}$  CODE COMBINATIONS

### TXQPRO504 - TXQPRO508

433MHz - 868MHz FM ROLLING CODE  
 $2^{128}$  CODE COMBINATIONS

AVAILABLE CHANNELS 4

RANGE 200m (700m with an external aerial)

PROTECTION GRADE IP65

High powered radio controls suited for the industrial sector ideal for the command of generic systems which require remote control.

High technology appliances protected by robust and practical containers with an elevated degree of protection against inclement weather.

The "key" to the system is made up of palm device commands made of anti-shock and anti-scratch materials that are easy to handle and easier to use.

The system of activation using large size buttons guarantees makes them ergonomic and extremely easy to use with or without working gloves.

Available in the standard (version without an external aerial) and the long range version with an external screw-on aerial.

The Cardin 6V batteries supplied with the device are high capacity components which guarantee long life and extended performance.

The TXQPROMRF transceivers are compatible with all the appliances in the MORPHEUS series.

The TXQPRO449 - TXQPRO486 transmitters are compatible with all the appliances in the S449 - S486 series.

The TXQPRO504 - TXQPRO508 transmitters/transceivers are compatible with all the appliances in the S504 - S508 series.

TXQPROMRF-4A



RED INDICATOR LED



ERGONOMIC BUTTONS



EXTERNAL SCREW-IN AERIAL



WATERPROOF CONTAINER IP65



6V LONG LIFE BATTERIES



## PRODUCT DESCRIPTION

## ORDER NUMBER

**INDUSTRIAL TRANSCEIVER MORPHEUS, FM ROLLING CODE**

Container in shockproof, water-proof material IP65.  
Power supply 6V with lithium batteries 2 x CR123A.  
Overall dimensions 50 x 145 x 26.

**4-CHANNEL TRANSCEIVER (INTERNAL AERIAL)**

**4-CHANNEL TRANSCEIVER (EXTERNAL AERIAL)**

**INDUSTRIAL TRANSMITTER S449, FM ROLLING CODE**

Container in shockproof, water-proof material IP65.  
Power supply 6V with lithium batteries 2 x CR123A.  
Overall dimensions 50 x 145 x 26.

**4-CHANNEL TRANSMITTER (INTERNAL AERIAL)**

**4-CHANNEL TRANSMITTER (EXTERNAL AERIAL)**

**INDUSTRIAL TRANSMITTER S486, FM ROLLING CODE**

Container in shockproof, water-proof material IP65.  
Power supply 6V with lithium batteries 2 x CR123A.  
Overall dimensions 50 x 145 x 26.

**4-CHANNEL TRANSMITTER (INTERNAL AERIAL)**

**4-CHANNEL TRANSMITTER (EXTERNAL AERIAL)**

**INDUSTRIAL TRANSMITTER S504, FM ROLLING CODE**

Container in shockproof, water-proof material IP65.  
Power supply 6V with lithium batteries 2 x CR123A.  
Overall dimensions 50 x 145 x 26.

**4-CHANNEL TRANSMITTER (INTERNAL AERIAL)**

**4-CHANNEL TRANSMITTER (EXTERNAL AERIAL)**

**4-CHANNEL TRANSCEIVER (INTERNAL AERIAL)**

**4-CHANNEL TRANSCEIVER (EXTERNAL AERIAL)**

**INDUSTRIAL TRANSMITTER S508, FM ROLLING CODE**

Container in shockproof, water-proof material IP65.  
Power supply 6V with lithium batteries 2 x CR123A.  
Overall dimensions 50 x 145 x 26.

**4-CHANNEL TRANSMITTER (INTERNAL AERIAL)**

**4-CHANNEL TRANSMITTER (EXTERNAL AERIAL)**

**4-CHANNEL TRANSCEIVER (INTERNAL AERIAL)**

**4-CHANNEL TRANSCEIVER (EXTERNAL AERIAL)**

**6V-LITHIUM BATTERY PACK**

**433**  
MHz



**TXQPROMRF-4**

**TXQPROMRF-4A**



**433**  
MHz

**TXQPR0449-4**

**TXQPR0449-4A**



**868**  
MHz

**TXQPR0486-4**

**TXQPR0486-4A**



**433**  
MHz

**TXQPR0504-4**

**TXQPR0504-4A**

**TXQPR0504BD-4**

**TXQPR0504BD-4A**



**868**  
MHz

**TXQPR0508-4**

**TXQPR0508-4A**

**TXQPR0508BD-4**

**TXQPR0508BD-4A**



**ZRL7.2-1.6**



# DIGITAL RADIO CONTROLS WITH FIXED / ROLLING CODES



product  
design  
award  
2011



## RADIO CONTROL SYSTEMS

### FM

433MHz FM ROLLING CODE  
 $2^{66}$  CODE COMBINATIONS

### NOIRE

433MHz AM FIXED / ROLLING CODES  
 $2^{72}$  CODE COMBINATIONS

### EDGE

433MHz AM FIXED CODES  
 $2^{20}$  CODE COMBINATIONS

AVAILABLE CHANNELS 2-4-5-21  
RANGE 100-150

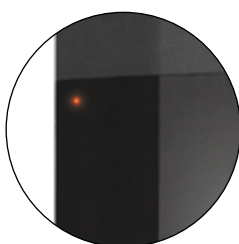
Specifically designed to satisfy all the needs of the market, the TRADE radio control systems are available in three series:

FM400 433MHz FM Rolling Code with transmitters that can be personalised in family group codes using the PRG FM programmer;

NOIRE 433MHz AM Fixed / Rolling Code with transmitters that can be personalised in family group codes using the PRG FM programmer;

EDGE 433MHz AM Fixed Code.

The range of radio controls is complete by receivers with self-learning code, extractable memory modules and programmable outputs.



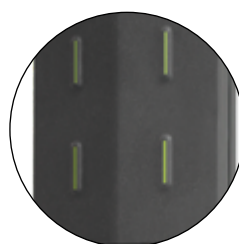
RED INDICATOR LED



WHITE LED DISPLAY



RUBBER KEY PADS



ERGONOMIC BUTTONS



RUBBER KEY RING



## PRODUCT DESCRIPTION

## ORDER NUMBER

**TRANSMITTERS (FM - NOIRE - EDGE)**

2 and 4-channel transmitters with long life lithium batteries and remote self-learning functions. Bi-injection moulded black case, with the upper part in shockproof rubber creating a solid and manageable radio control. Rubber keyring.

**2-CHANNEL TRANSMITTER FM 400****4-CHANNEL TRANSMITTER FM 400****2-CHANNEL TRANSMITTER NOIRE****4-CHANNEL TRANSMITTER NOIRE****2-CHANNEL TRANSMITTER EDGE****4-CHANNEL TRANSMITTER EDGE**

FM402E

FM404E

NOIRE2E

NOIRE4E

EDGE2

EDGE4

**TRANSMITTER HOLDER (FM400 - NOIRE - EDGE)**

PTE

**TRANSMITTERS TAXI (FM - NOIRE - EDGE)**

5-channel transmitter with dedicated software for use in the car. Once a button on the radio control has been pressed the transmission will repeat cyclically freeing up the drivers hands and allowing him to drive safely. An easy to use adhesive fastening system is supplied in order to have the transmitter always within reach.

FM400TAXI

NOIRETAXI

EDGETAXI

**TRANSMITTERS (FM - NOIRE - EDGE)**

Multi-channel transmitters for the rapid and intuitive control of 21 functions. Innovative and elegant cases with white LED display indicating the chosen channels. A rubber keypad is situated centrally with three function buttons and two channel scrolling buttons. Range 200m.

FM420

NOIRE20

EDGE20

**WALL-MOUNTED TRANSMITTER**

Wall-mounting transmitter with three function keys 3 and an indicator LED. Ideal for use together with T10 EDGE for the remote control of rolling shutters, grills and 230V ambient lighting.

WIN3





## PRODUCT DESCRIPTION

## ORDER NUMBER

**DIGITAL SELECTOR SWITCH**

4 channel, battery powered wireless selector switch, compatible with series FM400 receivers.

4 channel, battery powered wireless selector switch, compatible with series EDGE and NOIRE receivers.

**PROTECTIVE SUPPORT**

Protective support in cast aluminium for the PASSO selector switch. Lots of 2 pcs.

**FASTENING BASE**

Wall fastening base for the PASSO selector switch. Cover when installing over pre-existing holes. Lots of 2 pcs.

**2-CHANNEL RECEIVER CARD (5Vdc)**

Open collector receiver card for direct insertion into a host appliance designed to receive it.  
Overall dimensions 48 x 35 x 10.

**2-CHANNEL MINI RECEIVER (12/24Vac-dc)**

Electronic circuit wired to an 8-way terminal board, 2 potential free relays, indoor box IP20. Self-learning code function and programmable outputs in three different modes.  
Overall dimensions 80 x 50 x 20.

**OUTDOOR RECEIVER (12/24Vac-dc)**

12/24Vac-dc receiver with four powered outputs (4 A). Self-learning code function and programmable outputs in three different modes. and outdoor box IP44.

**PASSOFM400****PASSOR****BLINDO****COP****FM400C2****NOIREOC2****EDGEOC2****FM400RB2****NOIRERB2****EDGERB2****FM400R4P****NOIRER4P****EDGER4P**

Dimensions 46 x 133 x 37



Dimensions 110 x 150 x 14





## PRODUCT DESCRIPTION

## ORDER NUMBER

**OUTDOOR RECEIVER (230V)**

Receiver with four soldered relays, powered outputs (max. 5A 230V), which can be set to impulsive, ON/OFF or timer control (after you release the transmission button the output will remain active for 30 seconds). Self-learning with the possibility of memorising up to 1012 user codes.

**FM400230R4****NOIRE230R4****EDGE230R4**

All weather box IP55.  
Overall dimensions 158 x 118 x 77.

**RADIOPROGRAMMER FOR SUN BLINDS AND AWNINGS (230V-500W)**

The radio programmer with an inbuilt receiver and transformer for one single phase motor finds its best use in the command of automatic sun blinds and awnings. The appliance may also be used to activate lighting systems with two bulbs (230V max. 500W) or light rolling grills and shutters. Inputs for one opening and one closing command via cable.

**T10FM400****T10NOIRE****T10EDGE**

Indoor box IP20.  
Overall dimensions 106 x 36 x 21.

**1012-CODE MEMORY MODULE (FM 400)****675-CODE MEMORY MODULE (NOIRE - EDGE)****MEM64****MEM16****ELECTRONIC PROGRAMMER FOR FM 400**

Programmer for managing single or blocks of codes complete with power supply.

Supplied with archive management software (SOFTFM400).

Allows installation management functions such as memorizing and cancelling transmitters in the receiver memory modules.

**PRGFM400****ELECTRONIC PROGRAMMER FOR NOIRE**

Programmer for managing single or blocks of codes complete with power supply.

Supplied with archive management software (SOFTNOIRE).

Allows installation management functions such as memorizing and cancelling transmitters in the receiver memory modules.

**PRGNOIRE****AERIAL FOR 433MHz RECEIVERS (FM - NOIRE - EDGE)****COAXIAL CABLE RG58 (per metre)****ANS400****ZVCRG58****LITHIUM BATTERY 3V (2 X CR2032)****XRP03****LITHIUM BATTERY 3V CR2430**

For 20-channel transmitters series TAXI and WIN3.  
Lots of 10 pcs.

**B3V2430**



# COMMAND AND SAFETY DEVICES

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# PROXIMITY COMMAND SYSTEMS



DKS1000T

DIGITAL TRANSMISSION VIA CABLE  
 SURFACE-MOUNT INSTALLATION IP57  
 NUMBER OF USER CODES THAT CAN BE STORED: 1000  
 NUMBER OF AVAILABLE CODE COMBINATIONS: 1 MILLION  
 SEPARATE COMMAND FUNCTIONS: 4  
 MANAGES UP TO 3 PERIPHERAL DEVICES (KEYPADS / READERS)  
 BACKLIGHTING PROGRAMMING

DKS is a security system via cable ideal for commanding automatic gates and doors and access control systems. Extremely efficient, it can be inserted into any architectural context with extreme ease and is made up of an anti-tamper numerical key pad, a key-pad with transponder functions, a transponder reader and an interface which is activated either by a digital code typed into the keypad, by the proximity of a Series S500 transmitter or by a transponder tag/card. All devices are connected by a shielded single wire cable.

DKS1000 is a system made up of a numerical code keypad and an interface. The extremely compact and efficient command keypad has a case made of Zama, the key cover and sealing gaskets are made of silicon rubber, the flush-fitting and embedding wall fastening bases are both made of Zama and the fastening system uses personalised screws. The DKS1000R interface allows the memorisation of 1000 user codes and has code cancellation, memorisation and memory reset functions directly on the keyboard.

It is possible to memorise up to three keyboards in a single interface module which allows you to activate commands from different locations. You can also manage up to four contacts independently with separate keys using impulsive ON / OFF or timer controlled relays. After having inserted a special enabling code it is possible to memorise codes from a remote position without accessing the interface.

DKSTP is a system made up of a transponder reader and an interface. The transponder reader DKSTPT is compact and reliable and housed in a shockproof polycarbonate container IP57 with an easy to apply wall fastening base. The system allows the remote reading of tags, transponder cards and series S500 transmitters, through the use of the interface DKS1000R which is able to memorise up to 1000 users. It is possible to memorise up to three transponder readers in a single interface module which allows you to activate commands from different locations

It is possible to memorise tags directly on the reader using a Master Tag or by accessing the interface and pressing the programming button.

The transponder in the tag is passive and therefore does not require a power supply and is only activated when it finds itself in the transponder reader detection zone.

DKSDUAL is a multifunctional security system that unites the functions of the DKS1000 and DKSTP in a single product. The device, in a shockproof polycarbonate IP57 container, features backlighting with adjustable intensity automatically controlled by a light sensor and a proximity sensor.



BUTTONS WITH BACKLIGHTING  
DKS1000T



ANTI-TAMPER SYSTEM  
DKS1000T



SHOCKPROOF CONTAINER IN  
POLYCARBONATE WITH  
BACKLIGHTING DKSDUALT



S500 TRANSMITTERS AND TAGS  
DETECTED USING RFID  
TECHNOLOGY



MEMORISATION OF UP TO 1000  
CODES



## PRODUCT DESCRIPTION

## ORDER NUMBER

**KEYPAD**

Surface-mounting IP57.

The metal antitamper keyboard DKS1000T has 12 keys, 10 numerical (0-9), one confirm key (\*) and one cancel key (#) by means of which it is possible to program the backlighting and other operational parameters. It is suitable for connection with the DKS security system via a shielded unipolar wire carrying both the power supply and the data line. It is also fitted with auxiliary serial line allowing it to connect to the CARHF2 system (consult the Liberté catalogue).

**KEYPAD WITH BACKLIGHTING****KIT KEYPAD + INTERFACE****TRANSPONDER READER**

Surface-mounting IP57.

Using dip-switch settings it is possible to program the backlighting and other operational parameters. It is suitable for connection with the DKS security system via a shielded unipolar wire carrying both the power supply and the data line. It is also fitted with auxiliary serial line allowing it to connect to the CARHF2 system (consult the Liberté catalogue).

**TRANSPONDER READER****KIT TRANSPONDER READER + INTERFACE****KEYPAD WITH TRANSPONDER FUNCTION**

Surface-mounting IP57.

The DKSDUALT device has the following features:

- 12 keys with backlighting;
- backlighting controlled by the proximity sensor.

Allows the interface to be activated by either typing in a code or by proximity reading an S500 transmitter, a TAG or a CARD.

**KEYPAD WITH TRANSPONDER FUNCTION****KIT KEYPAD TRANSPONDER + INTERFACE****4-CHANNEL INTERFACE**

The interface box is easy to install and has the following features:

- power supply 12 or 24Vac-dc;
- 4 normally open relays (one for each channel);
- management of up to 3 peripheral devices (keypads and/or transponder readers);
- 1 multifunction key for the following functions: storing a code, cancelling a code, cancelling the entire memory content, inserting an activation code for the "remote memorisation" function.

It is possible to store 1000 codes in memory with a maximum of 6 digits for each code. Each code can activate up to 4 channels (different functions).

**TRANSPONDER TAG (WHITE)****TRANSPONDER TAG (GREY)****10 TRANSPONDER CARDS**

13,56 MHz

DKS1000T



Overall dimensions 72 x 104 x 26.

KIT



DKS1000T

DKS1000

DKSTPT



13,56 MHz



KIT



Overall dimensions 74 x 130 x 24.

DKSTPT

DKSTP

DKSDUALT



13,56 MHz



KIT



Overall dimensions 74 x 130 x 20.

DKSDUALT

DKSDUAL

DKS1000R



Overall dimensions 95 x 75 x 25.

TAGWH

TAGGR

TAGCARD



# SELECTORS AND SENSORS



## PRODUCT DESCRIPTION

## ORDER NUMBER

### KEY OPERATED SURFACE-MOUNT SWITCH IN ALUMINIUM

Selector switch for the manual on-site activation of automatic gate and door systems. Container in cast aluminium with a shockproof plastic front piece. Anti-tampering system that is easy to install and easier to use.

### SELMEC/E1

Maximum voltage 30Vac-dc.  
Maximum current 2A.  
Open-close functions.  
Overall dimensions 35 x 70 x 70.



### KEY OPERATED SURFACE-MOUNT SELECTOR SWITCH

Selector switch in shockproof material for the manual on-site activation of automatic gate and door systems.

### APRO

Maximum voltage 30Vac-dc.  
Maximum current 2A.  
Open-close functions.  
Overall dimensions 102 x 43 x 34.



### PROTECTIVE SUPPORT

Protective support in cast aluminium for the APRO selector switch. Lots of 2 pcs.

### BLINDO



Dimensions 46 x 133 x 37

### FASTENING BASE

Wall fastening base for the selector switch APRO. Cover when installing over pre-existing holes. Lots of 2 pcs.

### COP



Dimensions 110 x 150 x 14

### KEY-OPERATED EMBEDDING SELECTOR SWITCH

Selector switch in shockproof material for the manual on-site activation of automatic gate and door systems. Anti-tampering system that is easy to install and easier to use.

### SELCH

Maximum voltage 30Vac-dc.  
Maximum current 2A.  
Open-close functions.  
Overall dimensions 69 x 69 x 78.



### ANEMOMETER

Wind speed sensor (with wall bracket). The wind sensor can be used with all electronic devices that feature a potential free "anemometer" contact. Overall dimensions 240 x 220 x 71.

### SW01



# SINGLE COIL METALLIC MASS DETECTORS



POWER SUPPLY 24Vac-dc / 230Vac  
AUTOMATIC CALIBRATION  
SENSITIVITY ADJUSTMENT  
MULTIPLE RELAY OUTPUT

Device for detecting the presence of metallic masses in a magnetic field generated by a special external circuit (sensitive coil) connected to it. The appliance can be used to control either single or multiple passageways connected to a computer with the possibility of detecting the direction in which the traffic is moving (rapid passage mode up to 100km/h). Multiple appliances working together allow you to have real time control over the parking situation in a variable number of parking lots in one or more zones.

The system is made up of four components:

- a detection device contained in a special protective case;
- socket for fitting on panelling or rails DIN46277 (METALDEC only);
- a sensitive element (not supplied by us) that should be made up of a multipolar cable with one or more wires and must respect the measurements as specified in the drawings;
- a bipolar cable (not supplied by us) with which to connect the sensitive element to the detecting device.

If you use two single-wire cables these should be loosely wound together.

METALDEC



Overall dimensions 101 x 71 x 35.

METALD3



Overall dimensions 146 x 64 x 38.

## Technical description

	METALDEC230X	METALDEC024X	METALD3
Power supply:	230Vac (50-60Hz) 35mA	24Vac-dc 100mA	24Vac-dc 100mA
Sensitivity:	8 levels	8 levels	4 levels
Relay output:	2 (max. 1A 30V)	2 (max. 1A 30V)	3 (max. 1A 30V)
Operating temperature range:	-20°...+55°C	-20°...+55°C	-20°...+55°C
Protection grade:	IP40	IP40	IP54

**SELF-CALIBRATING METAL DETECTOR (POWER SUPPLY 24V)**

**SELF-CALIBRATING METAL DETECTOR (POWER SUPPLY 230V)**

**SELF-CALIBRATING METAL DETECTOR (POWER SUPPLY 24V)**

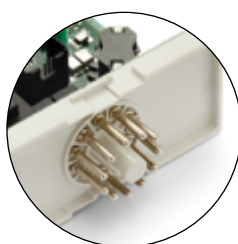
**METALDEC024X**

**METALDEC230X**

**METALD3**



RAIL GUIDE SOCKET DIN 46277



UNDECAL CONNECTION FOR DIN  
RAIL GUIDE



SENSITIVITY SELECTOR H-M-L  
AND RESET BUTTON



DOUBLE RELAY WITH SERIAL  
EXCHANGE NO-NC

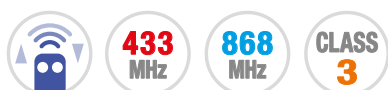


SENSITIVITY SELECTION  
DIP-SWITCHES

# WIRELESS TRANSCEIVER SAFETY SYSTEM



CONFORMS TO THE SAFETY STANDARD EN12978



## RADIOSHIELD

MAXIMUM RADIO SIGNAL RANGE 30m

PROTECTION GRADE IP65

OPERATING TEMPERATURE RANGE -20...+55°C

Safety first, this is our what we have in mind. Guaranteeing safety within a complex system is not to be taken lightly as it is never obtained by chance. Safety must be the point of arrival and to obtain it requires a combination of professionalism, experience and know how. It is for this reason that our know how is dedicated to the creation of professional appliances for specialised installers.

Radioshield is part of this project and it becomes part of a range of appliances all of which are dedicated to the protection of absolutely reliable motorized closing systems constructed in conformity with **CLASS 3**. Appliances that unite maximum detection efficiency and controlled intervention working together under all conditions predictable or unpredictable that could arise during the operation of the system.

### RANGE OF PRODUCTS

Radioshield is made up of the following high technology appliances protected by robust and practical containers with an elevated degree of protection against inclement weather.

### STATIONARY TRANSCEIVER UNIT

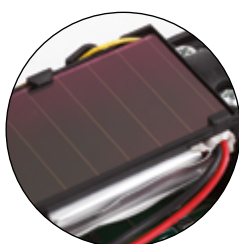
The stationary transceiver is able to manage up to 8 security devices via radio and is fitted with 3 safety outputs NO/8.2k $\Omega$  set by jumpers. The semi-transparent cover allows the status of the safety devices and the level of charge in the batteries on the transceiver interface to be controlled visually by means of LEDs. Each radio controlled safety device can be associated with one of the three safety outputs by means of a dip-switch.

### SAFETY EDGE TRANSCEIVER INTERFACE

The transceiver interface is wired directly to the safety edge on the moving part of the installation. This is a highly professional appliance categorised as a safety device and used with Cardin safety edges it conforms to the European safety standard EN12978. The 3V Cardin Lithium battery supplied with the appliance is highly reliable under all weather conditions and furnishes a high level of safety and top performance in all environments.

### PAIR OF WIRELESS TRANSCEIVER PHOTOELECTRIC CELLS

The pair of wireless photoelectric cells can be installed on any surface without wiring. Power is supplied by a solar panel on bright days and by a 3V lithium battery in conditions of insufficient light. The duration of the battery can be optimised by using the energy saving function to set the cut in time and the installation operating distance. Self-locking adjustable lens which can be rotated horizontally through plus or minus 90° and vertically through plus or minus 30° with respect to the standard installation position.



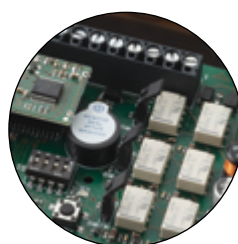
COMBINED OPERATION  
BATTERY - SOLAR PANEL



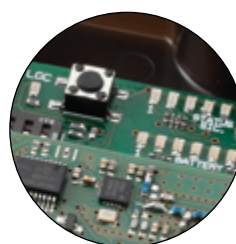
ADJUSTABLE LENS



CABLE GLANDS SUPPLIED WITH  
THE APPLIANCE



STATIONARY TRANSCEIVER,  
SAFETY OUTPUT MANAGEMENT  
(NO/8,2k $\Omega$ )



8 RED SAFETY STATUS LEDS  
8 GREEN BATTERY CHARGE LEDS





## PRODUCT DESCRIPTION

## ORDER NUMBER

**SAFETY EDGE TRANSCIEVER INTERFACE**

3V lithium battery power supply.  
Safety edge signal input NC/8.2kΩ.  
Maximum radio signal range 30m.  
Shockproof case IP65.

**433**  
MHz**SAFEPRC4****868**  
MHz**SAFEPRC8**

Dimensions 50 x 145 x 26

**PAIR OF WIRELESS PHOTOELECTRIC CELLS**

3V lithium battery power supply.  
Maximum radio signal range 30m.  
Maximum infrared range 10m.  
Transmitter and receiver housed in shockproof and waterproof cases IP65.

**433**  
MHz**SAFECDR4****868**  
MHz**SAFECDR8**

Dimensions 60 x 125 x 41

**STATIONARY TRANSCIEVER UNIT**

Power supply 12/24Vac-dc.  
Maximum radio signal range 30m.  
8 safety devices.  
3 safety outputs NC/8.2kΩ.  
Shockproof case IP65.

**433**  
MHz**SAFEDECX4****868**  
MHz**SAFEDECX8**

Dimensions 109 x 110 x 40

**KIT SAFETY EDGE INTERFACE + STATIONARY UNIT (433MHz)****SAFEKIT4****KIT SAFETY EDGE INTERFACE + STATIONARY UNIT (868MHz)****SAFEKIT8****KIT PAIR OF PHOTOCELLS + STATIONARY UNIT (433MHz)****SAFEKITCDR4****KIT PAIR OF PHOTOCELLS + STATIONARY UNIT (868MHz)****SAFEKITCDR8****3V-LITHIUM BATTERY PACK****ZRA3.0-3.8-W****SAFETY EDGE TRANSCIEVER INTERFACE**

Power supply 2 alkaline or lithium AA batteries.  
Safety edge signal input NC/8.2kΩ.  
Maximum radio signal range 20m.  
Shockproof case IP65.

**868**  
MHz**SRCTXE**

Dimensions 50 x 145 x 26

**STATIONARY TRANSCIEVER UNIT**

Power supply 12/24Vac-dc.  
Maximum radio signal range 20m.  
8 safety devices - 2 safety outputs NC/8.2kΩ.  
Shockproof case IP65.

**868**  
MHz**SRCRXE**

Dimensions 109 x 110 x 40

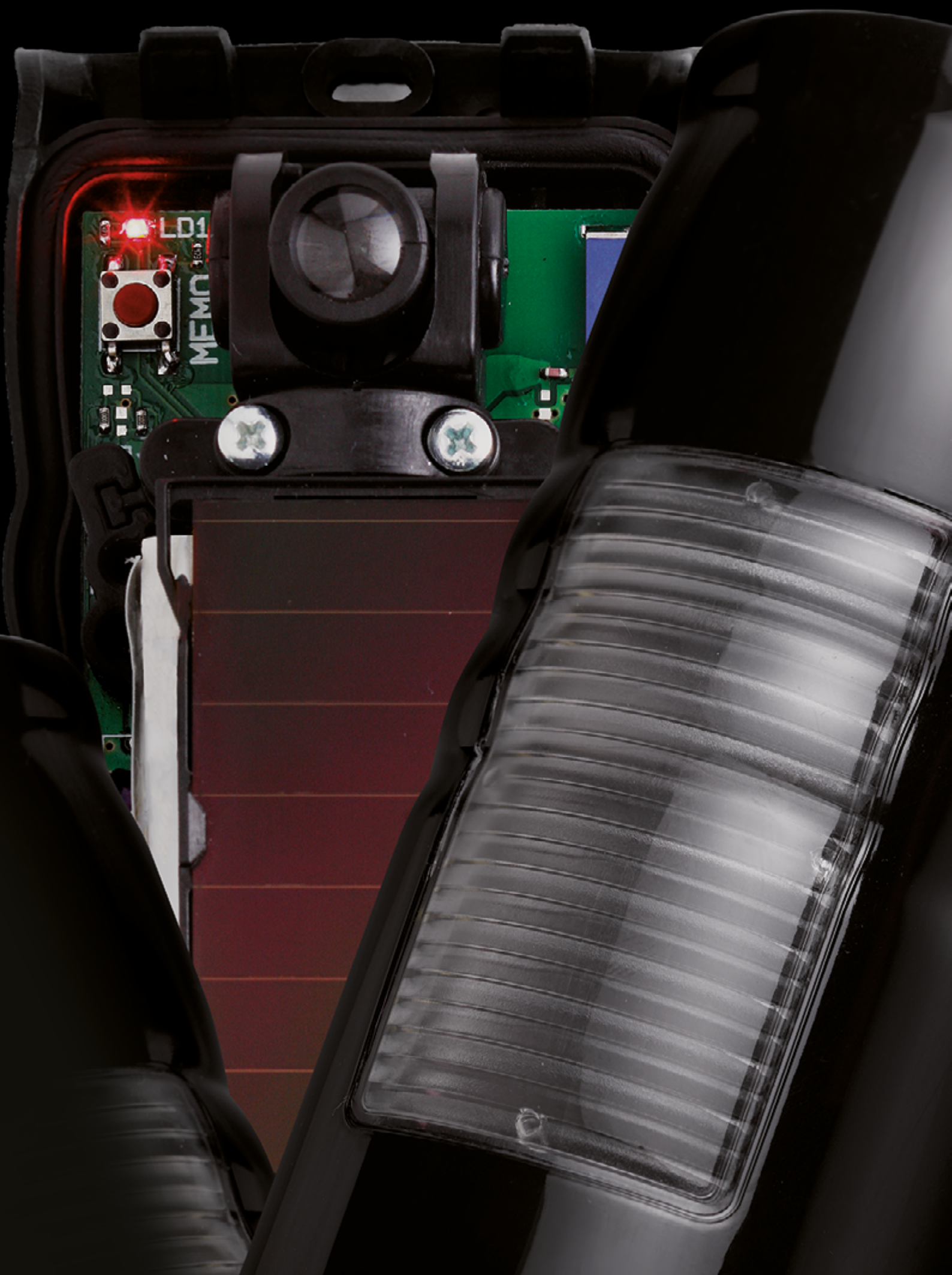
**KIT SAFETY EDGE INTERFACE + STATIONARY UNIT****868**  
MHz**SRCKIT8**



# INFRARED MODULATED BARRIERS

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INFRARED BARRIERS FULL CLASS 3	228
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# INFRARED BARRIERS WITH ADJUSTABLE LENSES FULL CLASS 3



POWER SUPPLY 12/24Vac-dc

MAXIMUM RANGE UNDER IN CONDITIONS 15 METRES

CONFORMS TO THE SAFETY DIRECTIVES 12978 IN CATEGORY 3

OF THE EN ISO 13849-1 AND CATEGORY 2 OF THE EN61496-2

SHIELDED LENSES - GREATER IMMUNITY TO INTERFERENCE



CDR 973 is a specifically designed range of next generation infrared security devices for the protection of carriageways and pedestrian passageways fitted with automatic opening and closing systems. The appliance is fitted with a new optical transmission system that respects an infrared opening angle of  $\pm 5^\circ$ . The management of both the transmitter part and the receiver part is carried out by micro controller, giving the advantage of greater precision in the generation of impulses transmitted via infrared and this (once modulated according to a digital protocol that allows information transfer from the transmitter to the receiver) eliminates the risk of blinding caused by other infrared systems working on the same frequency and located in the vicinity. This is a superior class appliance that will be available in three different containers in order to solve all installation requirements.

## Technical description

Infrared emission obtained by digital modulation of the carrier signal.

Reception with protocol demodulation and decoding allowing the transmitter to be recognised.

It is possible to connect up to 3 pairs of photocells and synchronize the transmission without interference; selection is carried out by means of a three-way dip-switch located on the transmitter and the receiver and by interconnecting the three transmitters using a two-wire cable (synchronism). The receiver does not require any other form of interconnection.

Digitally controlled double relays are situated on the receiver card in order to increase the safety of the appliance (at rest/alarm status control).

Jumper for selecting the output mode (potential free, N.C. or resistance 8,2k $\Omega$  contacts). Drop out delay selection via dip-switch (0, 2 seconds or 3 seconds).

High intensity LED (on the receiver) facilitating lens centring from a certain distance.

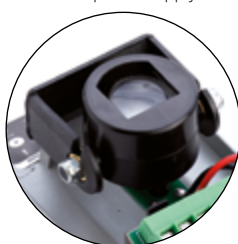
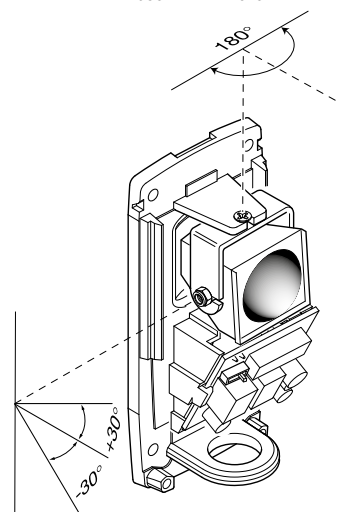
2 indicator LEDs on the receiver:

- green - when lit indicates the photoelectric cell is at rest;
- red - when lit indicates the photoelectric cell is in alarm, when flashing indicates photoelectric cell failure.

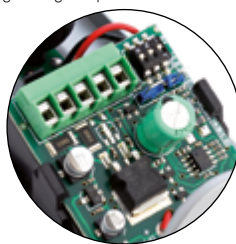
Reinforced power supply tolerating voltages up to 40Vdc or 28Vac.



ADJUSTABLE LENSES



ADJUSTABLE LENS



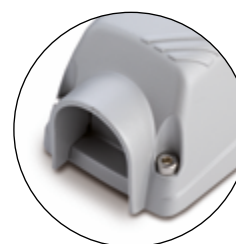
MULTIPLEX SYSTEM



ALUMINIUM CASING



CONTAINER IP66



CABLE PROTECTION



## PRODUCT DESCRIPTION

## ORDER NUMBER

**PHOTOELECTRIC CELLS IN AN ALUMINIUM CASE IP66**

Maximum range 15m

Power supply 12/24Vac-dc

Protection grade IP66

Transmitter and receiver housed in a compact waterproof aluminium case. Highly resistant spray painting. Self locking adjustable lens which can be rotated horizontally through plus or minus 90° and vertically through plus or minus 30° with respect to the standard installation position.

It is possible to connect up to 3 pairs of photocells and synchronize the transmission (multiplex system).



Dimensions 56 x 142 x 63

**SURFACE-MOUNT PHOTOELECTRIC CELL**

The kit contains a pair of aluminium photoelectric cells with two pipe glands.

**CDR973AX**

**PHOTOELECTRIC CELLS IN A SHOCKPROOF CASE IP55**

Maximum range 15m

Power supply 12/24Vac-dc

Protection grade IP55

Transmitter and receiver housed in a waterproof plastic case.

Self locking adjustable lens which can be rotated horizontally through plus or minus 90° and vertically through plus or minus 30° with respect to the standard installation position.

It is possible to connect up to 3 pairs of photocells and synchronize the transmission (multiplex system).

**FLUSH-FITTING PHOTOELECTRIC CELLS**

The kit contains a pair of flush-fitting photoelectric cells and 2 lens covers for flush-fitting photocells.

**CDR973IX**



Dimensions 50 x 90 x 60

**SURFACE-MOUNT PHOTOELECTRIC CELLS**

The kit contains a pair of surface-mount photoelectric cells, 2 lens covers for surface-mount photocells and 2 fast-fitting wall brackets.

**CDR973EX**



Dimensions 50 x 90 x 60

**CLASS 3**

The circuit board has been produced according to the requirements stipulated by the standards for electronic appliances that fall under category 3 of the EN ISO 13849-1 (update of the EN954-1). At a practical level it covers the need to guarantee greater immunity to interference in the working environment that is increasingly being polluted by disturbance. This has led to the technical evolution of both the transmitter part as well as the receiver part based on the criteria "resistance to single failure" that guarantees the maintenance of the safety level even when faced with electrical problems regarding one or more components within the device (transmitter or receiver).



# INFRARED BARRIERS WITH ADJUSTABLE LENSES



POWER SUPPLY 12/24Vac-dc

RANGE 15m - 60m

SENSITIVITY ADJUSTMENT CDR851 - CDR852A

SHIELDED LENSES - GREATER IMMUNITY TO INTERFERENCE

Modulated infrared barrier consisting of a transmitter and a receiver.

It constitutes an efficient safety system for the protection of passageways or spaces which are equipped with automatic doors or gates.

A shockproof designer case, pleasing on the eye, encloses innovative technical solutions which make the system extremely reliable under all working conditions.

The vast range of available models meets all possible system requirements.

## Technical description

Anti-tamper aluminium case IP66 CDR842A - CDR852A

Shockproof case IP55 CDR841 - CDR851

Self locking adjustable lens which can be rotated horizontally through plus or minus 90° ( $\pm 45^\circ$  for the CDR841I) and vertically through plus or minus 30° with respect to the standard installation position.

These adjustments permit lateral fitting and installations where the transmitter and receiver are at different heights.

Double-relay with serial exchange on the receivers as requested by the standards regarding protection against accidents for motorized gates and doors.

2 indicator LEDs:

- red - indicating that the transmitter is receiving power;
- red - (photocells out of alignment or the beam is interrupted) in the receiver.

Test point (for fine tuning) on the receiver.

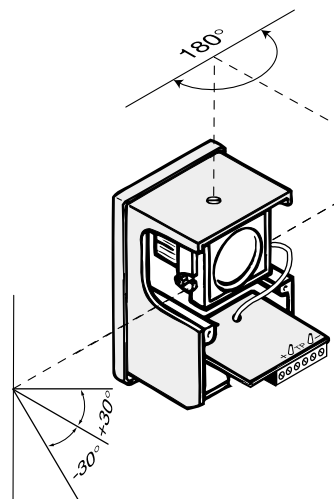
Sensitivity adjustment trimmer on models CDR851 - CDR852A.

Anti-tamper function on model CDR851T.

Delayed relay - 5s not adjustable on model CDR851R.



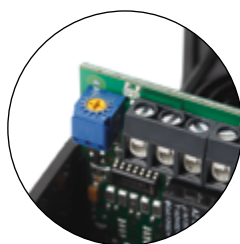
ADJUSTABLE LENSES



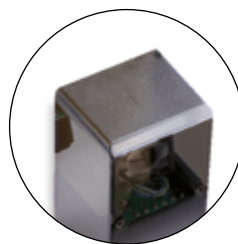
ADJUSTABLE LENS



SURFACE-MOUNT ALUMINIUM  
CASE IP66



SHIELDED LENSES  
GREATER IMMUNITY TO INTERFERENCE



SURFACE-MOUNT VERSION



FLUSH-FITTING VERSION



## PRODUCT DESCRIPTION

## ORDER NUMBER

**PHOTOELECTRIC CELLS IN AN ALUMINIUM CASE IP66**

Maximum range 15m - 60m

Power supply 12/24Vac-dc

Protection grade IP66

Transmitter and receiver housed in a compact waterproof aluminium case. Highly resistant spray painting.

Double-relay with serial exchange.

Sensitivity adjustment trimmer located on the receiver (only CDR852A).



Dimensions 56 x 142 x 63

**SURFACE-MOUNT PHOTOELECTRIC CELLS, RANGE 15m**

The kit contains a pair of photoelectric cells with two pipe glands.

**CDR842A****SURFACE-MOUNT PHOTOELECTRIC CELLS, RANGE 60m**

The kit contains a pair of photoelectric cells with two pipe glands.

**CDR852A****PHOTOELECTRIC CELLS IN A SHOCKPROOF CASE IP55**

Maximum range 15m - 60m

Power supply 12/24Vac-dc

Protection grade IP55

Transmitter and receiver housed in a waterproof plastic case.

Double-relay with serial exchange.

Sensitivity adjustment trimmer located on the receiver (only CDR851).

**FLUSH-FITTING PHOTOELECTRIC CELLS, RANGE 15m**

The kit contains a pair of flush-fitting photoelectric cells and 2 lens covers for flush-fitting photocells.

**CDR841I00**

Dimensions 50 x 90 x 60

**SURFACE-MOUNT PHOTOELECTRIC CELLS, RANGE MAX. 15m****CDR841E00****SURFACE-MOUNT PHOTOELECTRIC CELLS, RANGE MAX. 60m****CDR851****SURFACE-MOUNT PHOTOELECTRIC CELLS, RANGE MAX. 60m**

Anti-tamper version.

**CDR851T****SURFACE-MOUNT PHOTOELECTRIC CELLS, RANGE MAX. 60m**

Delayed version - 5s not adjustable

**CDR851R**

Dimensions 50 x 90 x 60

The kit contains a pair of surface-mount photoelectric cells, 2 lens covers for surface-mount photocells and 2 fast-fitting wall brackets





## PRODUCT DESCRIPTION

## ORDER NUMBER

**PHOTOELECTRIC CELLS IN A SHOCKPROOF CASE IP55**

Maximum range 10m

Power supply 12/24Vac-dc

Protection grade IP55

Transmitter and receiver housed in waterproof cases.

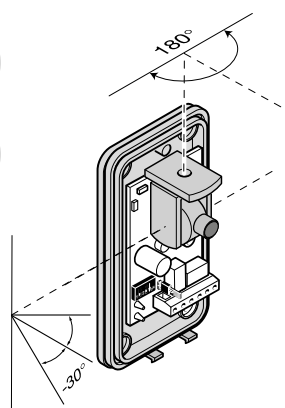
Self locking adjustable lens which can be rotated horizontally through plus or minus 90° and vertically through plus or minus 30° with respect to the standard installation position.

It is possible to connect up to 3 pairs of photocells and synchronize the transmission (multiplex system).

Double relays on the receiver with digital control increase the security and safety level of the output part (the part that furnishes the at rest/ alarm signal). Jumper for selecting the output contact mode (potential free or resistance 8, 2kΩ contacts).

CLASS  
3

SYNCHRO



Dimensions 50x 90 x 40

**SURFACE-MOUNT PHOTOELECTRIC CELLS, RANGE 10m****CDR999****PHOTOELECTRIC CELLS IN A SHOCKPROOF CASE IP44**

Maximum range 25m

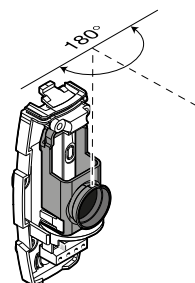
Power supply 12/24Vac-dc

Protection grade IP44

Photoelectric cells that are easy and rapid to install, they are fitted with horizontally adjustable lenses through 180°, permitting greater installation flexibility.

The auto-centering lenses also allow slight vertical corrections to be made.

Automatic synchronism eliminates disturbance between two pairs of photoelectric cells.



Dimensions 43 x 102 x 34

**SURFACE-MOUNT PHOTOELECTRIC CELLS, RANGE 25m****VED0180****PHOTOELECTRIC CELLS IN A SHOCKPROOF CASE IP44**

Maximum range 25m

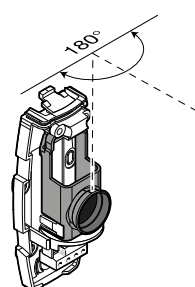
Power supply 24Vac-dc

Protection grade IP44

Programmable infrared photoelectric cells. Ideal for complex installations with up to 8 pairs of photocells thanks to the synchronism system. They are fitted with horizontally adjustable lenses through 180°, permitting greater installation flexibility and the auto-centering lenses also allow slight vertical corrections to be made.

The devices can be powered with 24 Vac or Vdc without reference to the polarity.

SYNCHRO



Dimensions 43 x 102 x 34

**SURFACE-MOUNT PHOTOELECTRIC CELLS, RANGE 25m****VED0180PRO**



## PRODUCT DESCRIPTION

## ORDER NUMBER

**PROTECTIVE SUPPORT**

Protective support in cast aluminium for the VEDO photoelectric cells.

Lots of 2 pcs.

**FASTENING BASE**

Wall fastening base for the VEDO photoelectric cells. Cover when installing over pre-existing holes. Lots of 2 pcs.

**PHOTOELECTRIC CELLS IN A SHOCKPROOF CASE IP44**

Maximum range 25m

Power supply 12/24Vac-dc

Protection grade IP44

The FT201 are surface mount photocells that allows the internal part of the to be inclined through  $\pm 5^\circ$  both horizontally and vertically for precise alignment.

The photocells are supplied with 2 NC relays with contact in series. An NO contact is also available on the terminal board.

The FT201 photocells are fitted with a system that is able to keep two pairs of photoelectric cells synchronised.

**SURFACE-MOUNT PHOTOELECTRIC CELL, RANGE 25m****PHOTOELECTRIC CELLS IN A SHOCKPROOF CASE IP44**

Maximum range 25m

Power supply 12/24Vac-dc

Protection grade IP44

The ILB SINCRO are flush-fitting photoelectric cells that allows the internal part of the to be inclined through  $\pm 5^\circ$  both horizontally and vertically for precise alignment.

The photocells are supplied with 2 NC relays with contact in series. An NO contact is also available on the terminal board.

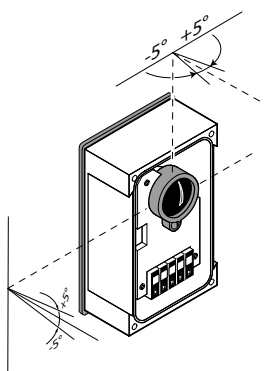
The ILB SINCRO photocells are fitted with a system that is able to keep two pairs of photoelectric cells synchronised.

**FLUSH-FITTING PHOTOELECTRIC CELLS, RANGE 25m****BLINDO**

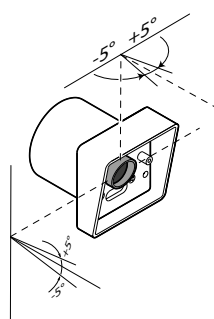
Dimensions 46 x 133 x 37

**COP**

Dimensions 110 x 150 x 14



Dimensions 59 x 87 x 40

**FT201SINCRO**

Dimensions 79 x 79 x 78

**ILBSINCRO**

# HYBRID INFRARED BARRIERS WITH ADJUSTABLE LENSES



**CLASS**  
**3**

RECEIVER POWER SUPPLY 12/24Vac-dc

PROJECTOR POWER SUPPLY 3V WITH A LITHIUM BATTERY

MAXIMUM RANGE 10m

PROTECTION GRADE IP55

CDRX12 is a next generation infrared safety system, particularly suited to the protection of passageways (traffic and pedestrian) that are fitted with automatic opening and closing systems. The electronic circuit respects the most up to date standards and regulations and conforms to the standard 3 of the UNI EN 13849-1 (update of the EN954-1). It is possible to connect up to 3 pairs of photocells and synchronise the transmission (multiplex system). The necessity of guaranteeing greater ambient noise immunity has led to the evolution of both the transmitter and receiver cards. The system is based on the criteria "resistance to single failure" that guarantees the maintenance of safety in case of electrical problems.

The receiver should be installed close to the electronic programmer and wired up drawing its 12/24V power supply directly from the programmer while the projector can be installed on any surface and doesn't require wiring. Power is supplied by a solar panel when light is present and by a 3V lithium battery when insufficient light is available. The batteries lifespan can be optimised by setting the energy saving function and varying the cut-in time and the installation distance between the two photoelectric cells.

## Technical description

Infrared transmission by means of digital modulation of the carrier signal.

Reception via demodulation and decoding of the protocol allowing the transmitter to be identified.

Self locking adjustable lens which can be rotated horizontally through plus or minus 90° and vertically through plus or minus 30° with respect to the standard installation position.

Double relays on the receiver with digital control increase the security and safety level of the output part (the part that furnishes the at rest/alarm signal).

Selection of the output contact mode (potential free or resistance 8, 2kΩ contacts).

Differentiated signal LEDs on the receiver indicate the "correct function" status by flashing briefly (every minute) or the "alarm" status when they remain constantly lit.

Pre-amplified receiver lens.

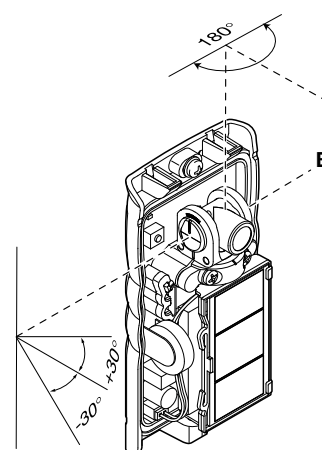
Reinforced power supply allowing voltages up to 40Vdc or 28Vac.

Overall dimensions 60 x 125 x 41

Maximum range 10m.

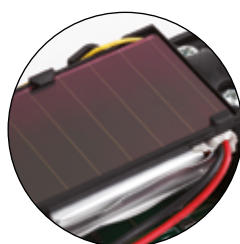


ADJUSTABLE LENSES



## PAIR OF SURFACE-MOUNT PHOTOELECTRIC CELLS

**CDRX12**



COMBINED OPERATION BATTERY  
- SOLAR PANEL ON THE  
PROJECTOR



ADJUSTABLE LENS



SEMI-TRANSPARENT PROJECTOR  
ALLOWING THE PASSAGE OF  
SUNLIGHT



CABLE CLAMP SUPPLIED WITH  
THE RECEIVER



SURFACE-MOUNT FITTING  
SHOCKPROOF CONTAINER IP55

# INFRARED BARRIERS WITH FIXED POSITION LENSES



POWER SUPPLY 12/24Vac-dc

MAXIMUM RANGE 10 Metres

PROTECTION GRADE IP54

OPERATING TEMPERATURE RANGE -10...+55 °C

The infrared barrier constitutes an efficient safety system for the protection of passageways or spaces which are equipped with automatic door or gate systems, and for the detection and control of general passageways, whether carriageway or pedestrian, situated inside or outside buildings.

## Technical description

The projector and receiver are housed in a compact, shockproof plastic casing.

The casing is designed to be surface-mounted on walls. The ease of installation is complemented by the rapid adjustment time: centring is carried out, without having to loosen or fasten any screws. Just align the devices on the same axis.

The system of diodes (sender - receiver), fitted with a constraint guide for the infrared beam remains in a fixed position.

Base in thermoplastic rubber.

Lens cover with holding gasket.

Double-relay with serial exchange as required by the local standards and regulations in force.

Protection grade IP54

Fireproofing grade V0.

Overall dimensions 65 x 92 x 22.

CDR861



**PAIR OF SURFACE-MOUNT PHOTOELECTRIC CELLS RANGE 10m**

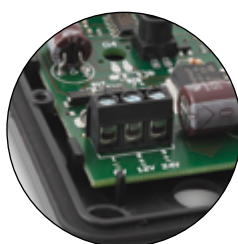
**HOLE COVERING BASE Ø60mm**

**CDR861**

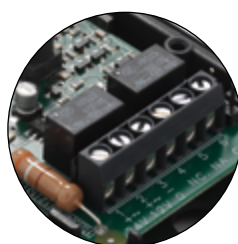
**CDR861SUP**



INFRARED BEAM GUIDE



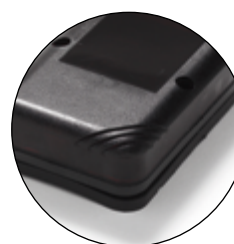
POWER SUPPLY 0-12-24Vac-dc



EXCHANGE CONTACT NC-NO-C



RUBBER WALL-MOUNTING BASE



SHOCKPROOF CONTAINER

# INFRARED BARRIERS WITH MINUTE OPTICAL SENSORS



POWER SUPPLY 12/24Vac-dc

RANGE FROM 1 TO 15 METRES

PROTECTION GRADE (SENSORS) IP55

CONFORMS TO THE SAFETY DIRECTIVES 12978 IN CATEGORY 3 DELLA  
EN13849-1 AND TYPE 2 OF THE EN61496-2

CDR 892C3 Dual-beam multiplex infrared barrier.

FTR 893C3 Single-beam infrared barrier.

CDR 893 Single-beam infrared barrier mounted on a rail guide DIN46277.

Suitable for the protection of passageways or spaces which are equipped with automatic installations such as lifts and automatic doors or where you wish to detect or count the passage of people or things while using the least possible space.

The infrared barriers with mini sensors are ideal for installations that need to be discreet but at the same time require the passageway to be safely and reliably protected.

The electronic circuit respects the most up to date standards and regulations and conforms to the standard 3 of the EN 13849-1 (update of the EN954-1).

The necessity of guaranteeing greater ambient noise immunity has led to the evolution of both the transmitter and receiver cards. The system is based on the criteria "resistance to single failure" that guarantees the maintenance of safety in case of electrical problems.

The management of both the transmitter part as well as the receiver part is carried out by means of a micro-controller, giving the advantage of greater precision when generating the impulses transmitted via infrared that are modulated using a digital protocol thus eliminating the risk of blackout spots.

## Technical description

Infrared transmission by means of digital modulation of the carrier signal.

Possibility to adjust the power of the projector by setting a jumper to one of the three available levels depending on the range that needs to be covered.

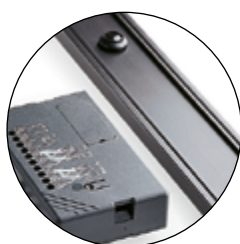
Double relays on the receiver with digital control increase the security and safety level of the output part (the part that furnishes the at rest/alarm signal).

Jumper for selecting the output contact mode (potential free, N.C. or resistance 8,2k $\Omega$  contacts).

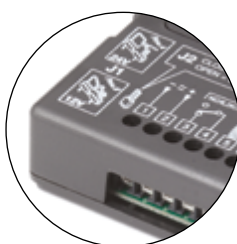
Jumper for selecting the number of active beams (only in the dual beam model).



SENSOR PROTECTION  
GRADE IP55



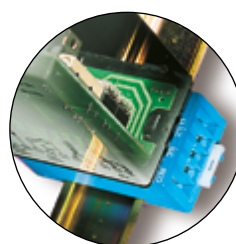
ANTI-TEMPER SENSORS



POWER SUPPLY 12/24Vac-dc



MULTIPLEX SYSTEM



RAIL GUIDE SOCKET DIN 46277



## PRODUCT DESCRIPTION

## ORDER NUMBER

**DUAL-BEAM MULTIPLEX INFRARED BARRIER**

Overall dimensions 90 x 50 x 20.

**DOUBLE-RELAY PHOTOELECTRIC CELLS**

Power supply 12/24Vac-dc.

Range: 15m indoors - 10m outdoors.

Transmitter cable 5 metres - Receiver cable 3 metres.

CLASS  
3

CDR892C3

**DOUBLE-RELAY PHOTOELECTRIC CELLS**

Power supply 12/24Vac-dc.

Range: 15m indoors - 10m outdoors.

Transmitter cable 10 metres - Receiver cable 7 metres.

CLASS  
3

CDR892C3-1

**DOUBLE-RELAY PHOTOELECTRIC CELLS**

Power supply 12/24Vac-dc.

Range: 15m indoors - 10m outdoors.

Transmitter cable 15 metres - Receiver cable 10 metres.

CLASS  
3

CDR892C3-2

**SINGLE BEAM DOUBLE-RELAY PHOTOELECTRIC CELLS**

Overall dimensions 90 x 50 x 20.

Power supply 12/24Vac-dc.

Range: 2,5m indoors.

Transmitter cable 4 metres - Receiver cable 4 metres.

CLASS  
3

FTR893C3

**SINGLE BEAM SINGLE-RELAY PHOTOELECTRIC CELLS**

with a socket for mounting on a rail guide DIN46277.

Overall dimensions 60 x 45 x 117.

Power supply 10...24Vac-dc.

Range: 4m indoors - 2m outdoors.

Transmitter cable 3 metres - Receiver cable 3 metres.

CLASS 3

CDR893



The circuit board has been produced according to the requirements stipulated by the standards for electronic appliances that fall under category 3 of the EN ISO 13849-1 (update of the EN954-1). At a practical level it covers the need to guarantee greater immunity to interference in the working environment that is increasingly being polluted by disturbance. This has led to the technical evolution of both the transmitter part as well as the receiver part based on the criteria "resistance to single failure" that guarantees the maintenance of the safety level even when faced with electrical problems regarding one or more components within the device (transmitter or receiver).



# RETRO-REFLECTIVE PHOTOCELL WITH ADJUSTABLE LENSES



POWER SUPPLY 12/24Vac-dc

RANGE 10m

CDR REFLEX is system made up of a one photoelectric unit with an inbuilt transmitter and receiver and a passive retro-reflector disc.

The photoelectric cell with reflector disc allows the installer to save installation time and to avoid unnecessary brickwork with respect to traditional systems with separate transmitters and receivers.

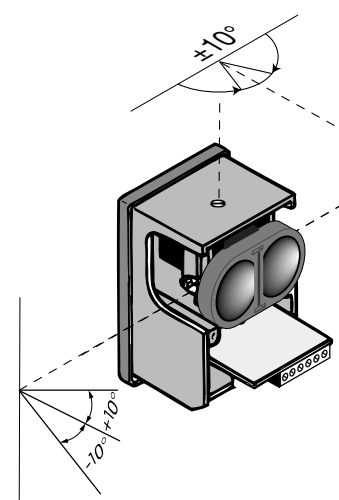
A polarisation filter makes the receiver lens immune to unwanted light disturbance.

It constitutes an efficient safety system for the protection of passageways or spaces which are equipped with automatic doors or gates.

A shockproof designer case, pleasing on the eye, encloses innovative technical solutions which make the system extremely reliable under all working conditions.



ADJUSTABLE LENSES



## Technical description

Shockproof case IP55

Self locking adjustable lens which can be rotated horizontally and vertically through plus or minus 10° with respect to the standard installation position.

These adjustments permit lateral fitting and installations where the photoelectric cell and retro-reflector disc are at different heights.

Selection of the relay output contact mode N.C.-N.O. or 8,2kΩ via jumpers.

Led signal strength indicator facilitates lens centering.

Test function:

- when wired to a suitable electronic programmer, this function allows the continuous control of the presence of the infrared signal thus increasing the safety and security level of the installation.

## SURFACE MOUNTED PHOTOCELL WITH RETRO-REFLECTOR

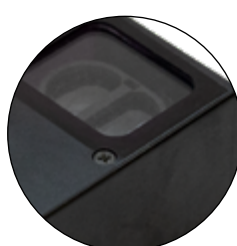
## CDR REFLEX



ADJUSTABLE LENS



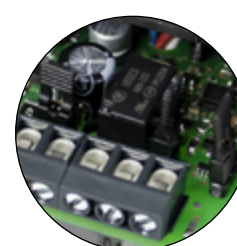
PASSIVE RETRO- REFLECTOR DISC



POLARISATION FILTER





SURFACE-MOUNT  
SHOCKPROOF CONTAINER IP55



RELAY OUTPUT SELECTION  
N.C.-N.A. OR 8,2KΩ  
USING JUMPERS.

## RAPID GUIDE / TABLE OF COMPARISON PHOTOELECTRIC CELLS

Product code		Range	Grade	Position	Adjustable lenses			Relay characteristics / functions		
		m max.	IP		° horizontal	° vertical	Nr. pairs	Nr.	output	special functions
<b>CDR973AX</b>	✓	15	66	surface mounted	± 90	± 30°	3	2	N.C./8,2KΩ	aluminium box
<b>CDR973IX</b>	✓	15	55	flush fitting	± 45	± 30°	3	2	N.C./8,2KΩ	
<b>CDR973EX</b>	✓	15	55	surface mounted	± 90	± 30°	3	2	N.C./8,2KΩ	
<b>CDR842A</b>	-	15	66	surface mounted	± 90	± 30°	-	2	N.O. + N.C.	aluminium box
<b>CDR852A</b>	-	60	66	surface mounted	± 90	± 30°	-	2	N.O. + N.C.	aluminium box
<b>CDR841I00</b>	-	15	55	flush fitting	± 45	± 30°	-	2	N.O. + N.C.	
<b>CDR841E00</b>	-	15	55	surface mounted	± 90	± 30°	-	2	N.O. + N.C.	
<b>CDR851</b>	-	60	55	surface mounted	± 90	± 30°	-	2	N.O. + N.C.	
<b>CDR851T</b>	-	60	55	surface mounted	± 90	± 30°	-	2	N.O. + N.C.	anti-tamper
<b>CDR851R</b>	-	60	55	surface mounted	± 90	± 30°	-	2	N.O. + N.C.	delayed relay 5s
<b>CDR999</b>	✓	10	55	surface mounted	± 90	± 30°	3	2	N.C./8,2KΩ	
<b>VED0180</b>	-	25	44	surface mounted	± 90	fixed position	2	2	N.C.	
<b>VED0180PRO</b>	-	25	44	surface mounted	± 90	fixed position	8	2	N.C. /N.O.	
<b>FT201SYNCHRO</b>	-	25	44	surface mounted	± 5	± 5	2	2	N.C. /N.O.	
<b>ILBSYNCHRO</b>	-	25	44	flush fitting	± 5	± 5	2	2	N.C. /N.O.	
<b>CDRX12</b>	✓	10	55	surface mounted	± 90	± 30°	-	2	N.O./8,2KΩ	battery + solar powered transmitter
<b>CDR861</b>	-	10	54	surface mounted	fixed position	fixed position	-	2	N.C. + N.O.	
<b>CDR892C3</b>	✓	10	55	flush fitting sensors	2 pairs fixed position		-	2	N.C./8,2KΩ	trans. cable: 5m receiv. cable: 3m
<b>CDR892C3-1</b>	✓	10	55	flush fitting sensors	2 pairs fixed position		-	2	N.C./8,2KΩ	trans. cable: 10m receiv. cable: 7m
<b>CDR892C3-2</b>	✓	10	55	flush fitting sensors	2 pairs fixed position		-	2	N.C./8,2KΩ	trans. cable: 15m receiv. cable: 10m
<b>FTR892C3</b>	✓	2,5	55	flush fitting sensors	fixed position	fixed position	-	1	N.C./8,2KΩ	
<b>CDR893</b>	-	4	55	flush fitting sensors	fixed position	fixed position	-	1	N.C. + N.O.	DIN 46277 connector
<b>CDR REFLEX</b>	-	10	55	surface mounted	± 10°	± 10°	-	2	N.C./N.O./8,2KΩ	passive retro reflector disc



# ELECTRONIC WARNING LIGHTS WITH LED TECHNOLOGY

# ELECTRONIC WARNING LIGHTS WITH LED TECHNOLOGY



POWER SUPPLY 24Vac-dc / 230Vac

LED ILLUMINATION

FIXED POSITION AND ADJUSTABLE VERSIONS

The ample range of electronic warning lights are valid visual warning systems for the movement of automatic devices, built according to the safety standards in force and using LED technology. Highly efficient and adaptable to all situations they satisfy the needs of a modern installation. The warning lights are available in 24V and 230V versions as follows:

- MOLLIGHT4 - 24Vac-dc eight leds;
- MOLLIGHT4X - 230Vac eight leds;
- LACOLED - 24Vac-dc -230Vac on-board selectable power supply, multi-led;
- LPXLAMP - 24Vac-dc - 230Vac on-board selectable power supply, multi-led;
- ICON - 24Vac-dc -230Vac on-board selectable power supply, multi-led;
- ICONX - 24Vac-dc on-board selectable power supply, multi-led RGB;
- WALL - 24Vdc strip of led lighting;
- WALL + AL2VA - 230Vac output 24Vdc strip of led lighting.

The shape and thicknesses used for the protective parts and the attention to detail paid to the sealing gaskets for all the critical joints make the entire structure weather-proof and immune to vandalism.

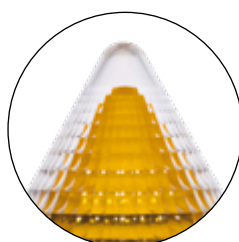
All in all this is a unique and unmistakeable appliance, an effective warning system both before and during the activation of the automatic opening device whilst at the same time underlining the quality and service given by a Cardin System.



WALL MOUNTING  
MOLLIGHT



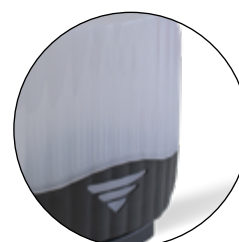
COLUMN MOUNTING  
MOLLIGHT



TRANSPARENT PROTECTIVE  
SHELL LACOLED



ADJUSTABLE LAMP COVER  
XLAMP



VISUALISATION OF THE RGB LEDS  
(ICONX)



## PRODUCT DESCRIPTION

## ORDER NUMBER

**LED WARNING LIGHT**

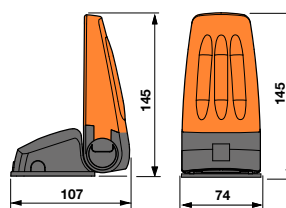
Warning light made up of eight highly efficient leds and a special optical guide designed by Cardin.

The lighting system is housed in a shockproof, opaque, polycarbonate container that accentuates the lighting effect.

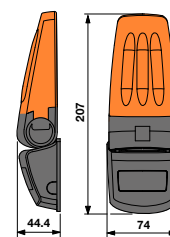
A solid base with its contact part in rubber allows the warning light to be installed on any structure and in any position and at the same time (thanks to the simple rotation between the body and the base) it may be fitted to a column or directly on a wall.

The shockproof plastic base is factory set to take a special aerial with a pre-wired BNC connection and at the same time it perfectly protects the power supply connection of the appliance.

Protection grade IP54.



COLUMN MOUNTING



WALL MOUNTING

**24V EIGHT-LED WARNING LIGHT****230V EIGHT-LED WARNING LIGHT****MOLLIGHT4****MOLLIGHT4X****ANS400-MOL****DEDICATED AERIAL 433MHz****LED WARNING LIGHT**

Multi-led warning light with an in-built 433MHz aerial. The lighting system is housed in a shockproof, opaque, polycarbonate container that accentuates the lighting effect.

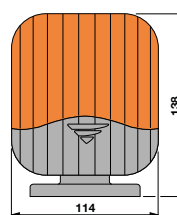
On-board selectable power supply: 24Vac-dc - 230Vac.

Work cycle 70%.

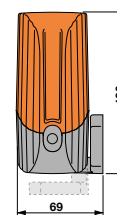
Fixed light - flashing light selection jumper.

Protection grade IP54.

Supplied with relativecolumn/wall fitting support.



COLUMN MOUNTING



WALL MOUNTING

**LED WARNING LIGHT 24-230V WITH IN-BUILT AERIAL**

orange lamp cover

**ICON****LED WARNING LIGHT 24-230V WITH IN-BUILT AERIAL**

white lamp cover

**ICON-WH****LED WARNING LIGHT 24V WITH IN-BUILT AERIAL**

special version with acoustic gate movement signalling and a transparent lamp cover that allows the visualisation of the RGB LEDs (orange, red, green, white) when using Cardin Pro ECU's.

**ICONX**



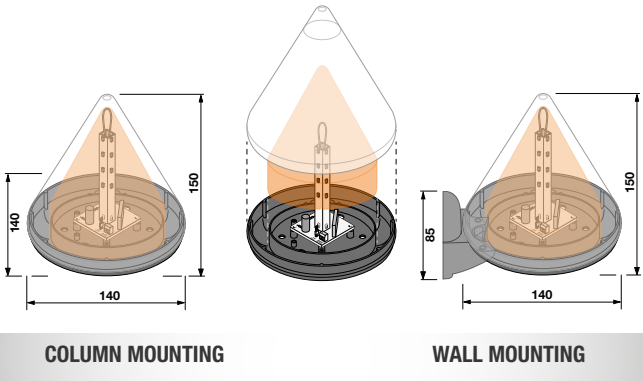


PRODUCT DESCRIPTION

ORDER NUMBER

LED WARNING LIGHT

Warning light with an in-built 433MHz aerial.  
On-board selectable power supply:  
24Vac-dc - 230Vac.  
Work cycle 70%.  
Fixed light - flashing light selection jumper.  
Protection grade IP54.  
Supplied with relative support.



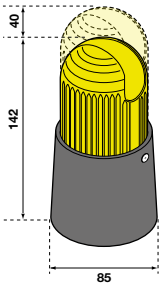
LED WARNING LIGHT 24-230V WITH IN-BUILT AERIAL

LACOLED24-230



LED WARNING LIGHT

Suitable for fitting to all types of system, its compact size and simplicity of installation makes it ideal for residential systems. The lamp cover can be adjusted in height, thus allowing horizontal installations with a minimum outcrop.  
On-board selectable power supply: 24Vac-dc - 230Vac.  
Work cycle 70%.  
Fixed light - flashing light selection jumper.  
Adjustable light cover.  
Overall dimensions Ø85 x H142-H182mm.  
Protection grade IP55.



WALL MOUNTING AND COLUMN MOUNTING

24-230V ELECTRONIC LED WARNING LIGHT, YELLOW

LPXLAMP



24-230V ELECTRONIC LED WARNING LIGHT, ORANGE

LPXLAMP-OR



24-230V ELECTRONIC LED WARNING LIGHT, WHITE

LPXLAMP-WH



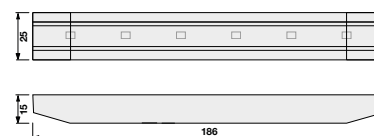


## PRODUCT DESCRIPTION

## ORDER NUMBER

**LED WARNING LIGHT FOR GARAGE DOORS**

Ideal for use on counterbalanced and sectional garage doors.  
Long lifetime, anti-shock and vibration resistant with low power consumption.  
Supplied with a 3500mm cable and grub type fastening screws.  
Available with a 24V power supply.  
Power supply 230V with the accessory AL2VA.  
Protection grade IP54.

**APPLICATION****ELECTRONIC YELLOW LED WARNING LIGHT STRIP 24V****ELECTRONIC WHITE LED WARNING LIGHT STRIP 24V**

WALL  
LITE

**FLASHING LIGHT CIRCUIT BOARD FOR WALL**

Circuit with a 24Vac-dc power supply and output 24Vdc (max. 300mA). Two types of flash sequence are available.

BLINKER

**230 POWER SUPPLY STRIP WARNING LIGHTS**

Power supply for connecting WALL and Lite LED strip warning lights to electronic programmers with 230V outputs. Input 230V, output 24Vdc (max. 80mA).

AL2VA

**24V LED SPOTLIGHT**

Adjustable spotlight.  
Power supply 9-30 Vac/cc.  
Power input 10 W.  
Colour temperature CCT 4000K.  
50 cm long power supply cable.  
Protection grade IP65.

SPOTLED24





PIERCE

# CARDIN IDENTIFICATION ARTICLES




# DESIGN & GRAPHICS MADE IN CARDIN

For their after sales service and sales network Cardin develop and make available a series of promotional instruments for furnishing sales outlets, trade fairs and personalising transport vehicles.


All the available articles are identified by the Cardin trademark and follow the guidelines that have been studied in order to maintain the coordinated company image of Cardin Elettronica.

## “CARDIN - SERVICE” ADHESIVE STICKERS

**CARDIN ADHESIVE STICKERS 500 X 230mm**


 **PR001**

**CARDIN ADHESIVE STICKERS 150 X 70mm**


 **PR002**



**CARDIN ADHESIVE STICKERS 500 X 110mm**


 **PR003**

**CARDIN ADHESIVE STICKERS 150 X 35mm**

 **PR004**



**CARDIN SERVICE ADHESIVE STICKERS 500 X 500mm**

 **PR005**



**CARDIN SERVICE ADHESIVE STICKERS 150 X 150mm**

 **PR008**



## DISPLAY UNITS


Free-standing modular display units (honeycomb sandwich board) designed for the display of the entire range of Cardin products.

Overall dimensions:

Base 700 x 380 x 380

Column 1800 x 620 x 100

## HONEYCOMB DISPLAY UNITS

 **PR009**



PRODUCT DESCRIPTION

ORDER NUMBER

**PANELS**

Structure in vertical K-mount with differing product images.

**PANEL 500 X 700mm**

**ESPK001**

**PANEL 700 X 1000mm**

**ESPK002**

**PANEL 1000 X 1400mm**

**ESPK003**

**PANEL 1000 X 2400mm**

**ESPK004**



**PANELS**

Structure in horizontal K-mount with differing product images.

**PANEL 400 X 1400mm**

**ESPK005**

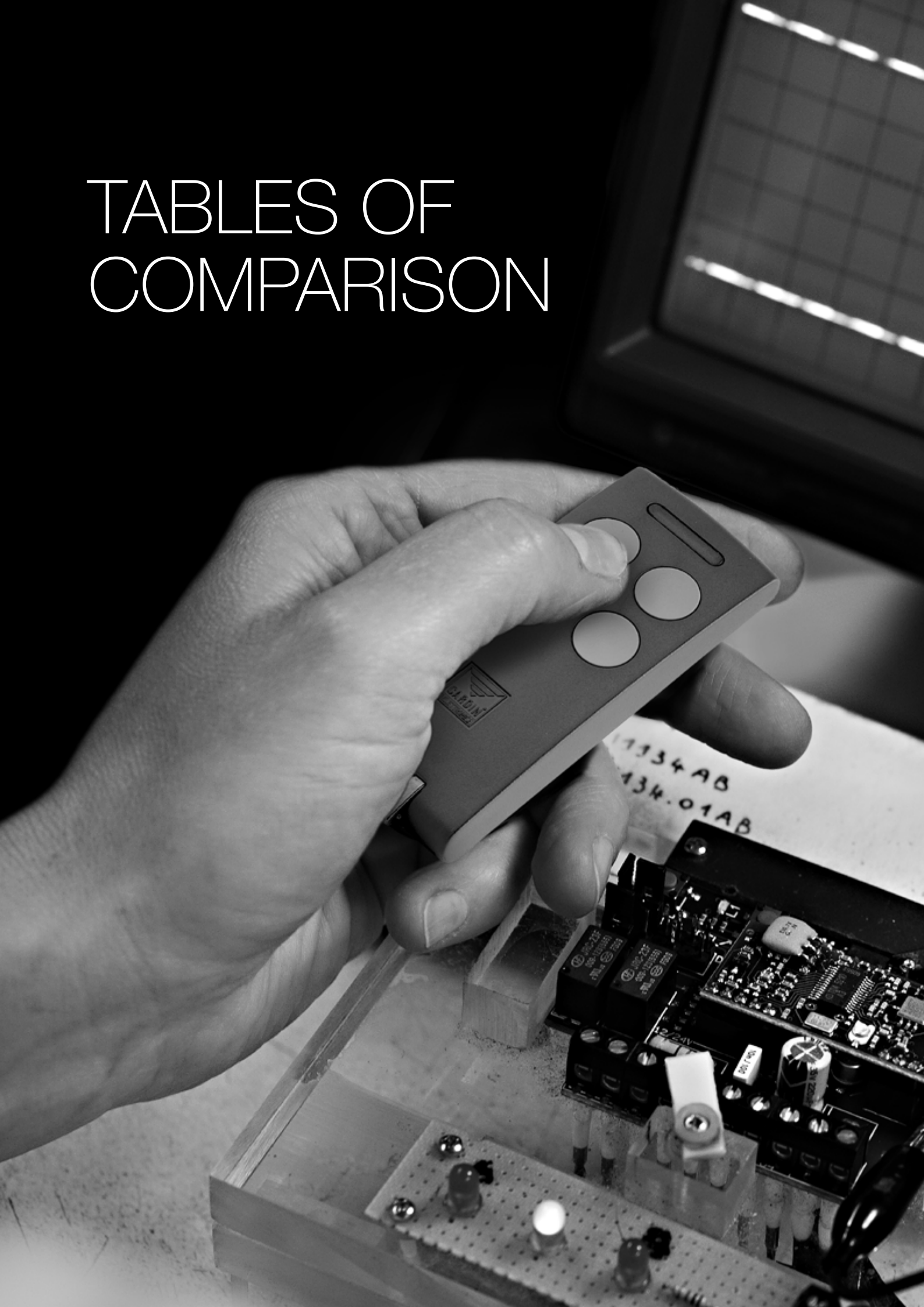


**ESTIMATES FOR PANELS WITH PERSONALISED IMAGES AND DIMENSIONS WILL BE SUPPLIED ON REQUEST**





# TABLES OF COMPARISON





# TABLES OF COMPARISON

## Automation for sliding gates series SL - SLi

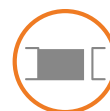


Table 1 - A summary of the models with constraints based on gate weight.

Automation Order nr.	Power supply Motor power	Drag speed	maximum gate weight in kilograms (kg)	
SLX3024CB	24V - 160W	8 m/min	3000 kg	
SLX1524CB	24V - 130W	9,5 m/min	1500 kg	
SLX1024REV	24V - 200W	13 m/min	1000 kg	
SLX824CB	24V - 110W	13 m/min	800 kg	
SL524-SL524CB	24V - 38W	9,2 m/min	500 kg	
SL ACEFAST	24V - 100W	10 m/min	300 kg	16 m/min with gate weight 100kg
SL ACE 601	24V - 250W	10 m/min	600 kg	16 m/min with gate weight 100kg
SL EVO 600	230V - 800W	10 m/min	600 kg	
SL EVO 800	230V - 800W	10 m/min	800 kg	
SL EVO 1200	230V - 1100W	10 m/min	1200 kg	
SL EVO 2000	230V - 1000W	10 m/min	2000 kg	
SLi324	24V - 150W	10,5 m/min	300 kg	
SLi724	24V - 160W	11 m/min	700 kg	
SLi1024	24V - 200W	11 m/min	1000 kg	
DRACO (SLX-SLi)	24V - 380W	22 m/min	1000 kg	30 m/min with gate weight 300kg

## Automation for swing gates series BL - HL



Table 2 - A summary of the series and models with constraints based on gate length.

Automation Order nr.	Maximum opening angle (°)	Opening time 90°		maximum gate length (m)		maximum gate length with an electric lock (m)
		Curved arm	Straight arm			
BL824MCB	130°	14s	12s	2 m	2,5 m	
BL3924CSB	130°	20s	16s		3,5 m	5 m
BL1924ASW	130°	12,5s	-	2 m		
BL1920	130°	15s	-	2 m		
BLTOW24	120°	13s	-	2 m	2,5 m	
BLSTEALTH	120°	13s	-	2 m	2,5 m	
BLEGOS	100°	15s			2,5 m	
BLESOL	100°	20s			3,5 m	4 m
BLASY324	110°	20s			3 m	
BLASY524 - BLASY524REV	110°	25s				5 m
BLASY3 - BLASY3REV	110°	25s			3 m	
BLASY5 - BLASY5REV	110°	30s				5 m
BLTAGDX - BLTAGSX	100°	20s		2 m		
BLUES3 - BLUES3R	105°	22s			2,5 m	
BLUES5 - BLUES5R	105°	30s				4,5 m
BLi1000	180°	16s			2,5 m	
HL2524ESB	110°	22s			3 m	
HL1824ESB	360°	22s			3 m	
HL251CL	110°	19,5s			3 m	
HL2518CL	360°	19,5s			3 m	
HLMOLE24	105°	19s				3,5 m
HLMOLE230	105°	19s				3,5 m

# TABLES OF COMPARISON

## Automation for swing gates series BL - HL



Table 3 - A summary of the series and models with constraints based on gate weight.

Automation Order nr.	Power supply Motor power	maximum gate weight in kilograms (kg)
BL824MCB	24V - 50W	200 kg
BL3924CSB	24V - 50W	400 kg
BL1924ASW	24V - 60W	150 kg
BL1920	230V - 290W	150 kg
BLTOW24	24V - 50W	200 kg
BLSTEALTH	24V - 60W	200 kg
BLEGOS	24V - 60W	300 kg
BLESOL	24V - 60W	400 kg
BLASY324	24V - 60W	250 kg
BLASY524 - BLASY524REV	24V - 60W	300 kg
BLASY3 - BLASY3REV	230V - 370W	250 kg
BLASY5 - BLASY5REV	230V - 330W	300 kg
BLTAGDX - BLTAGSX	24V - 70W	150 kg
BLUES3 - BLUES3R	230V - 280W	350 kg
BLUES5 - BLUES5R	230V - 280W	500 kg
BLi1000	230V - 50W	200 kg
HL2524ESB - HL1824ESB	24V - 60W	350 kg
HL251CL - HL2518CL	230V - 470W	550 kg
HLMOLE24	24V - 60W	350 kg
HLMOLE230	230V - 370W	450 kg

## Automation for counterbalanced doors series GL



Table 4 - A summary of the models with constraints based on the surface area of the door.

Automation Order nr.	Power supply Motor power	Garage door max. height	max. door surface area Master motor	max. door surface area Master + Slave motor
GLB248M - GLB249M	24V - 120W	2,7 m	11 m <sup>2</sup>	13 m <sup>2</sup>
GLB249S	24V - 120W	2,7 m	11 m <sup>2</sup>	
GL STAR1E	230V - 360W	2,5 m	8 m <sup>2</sup>	
GL STAR2E - GL STAR2AE	230V - 360W	2,5 m	8 m <sup>2</sup>	10 m <sup>2</sup>

## Automation for sectional doors series GL

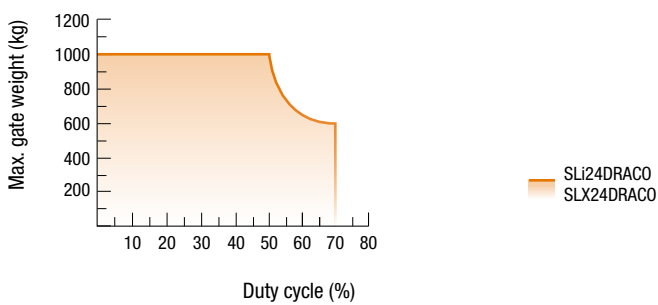
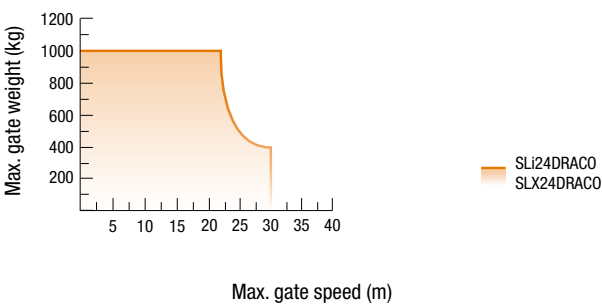
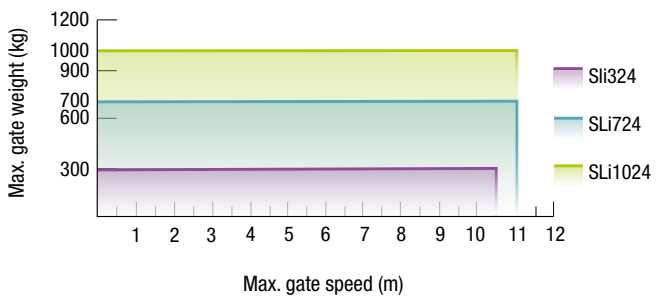
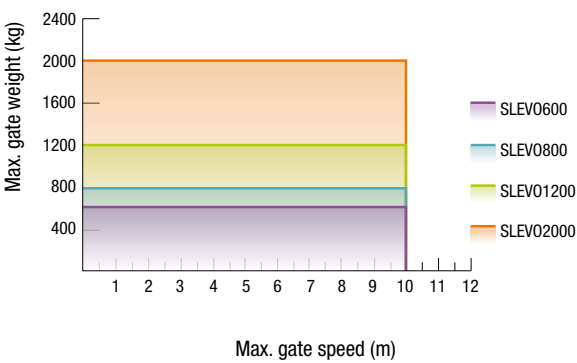
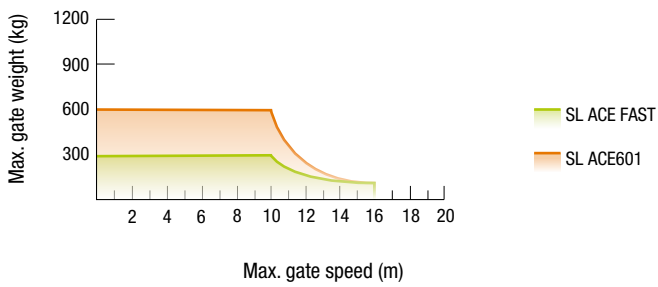
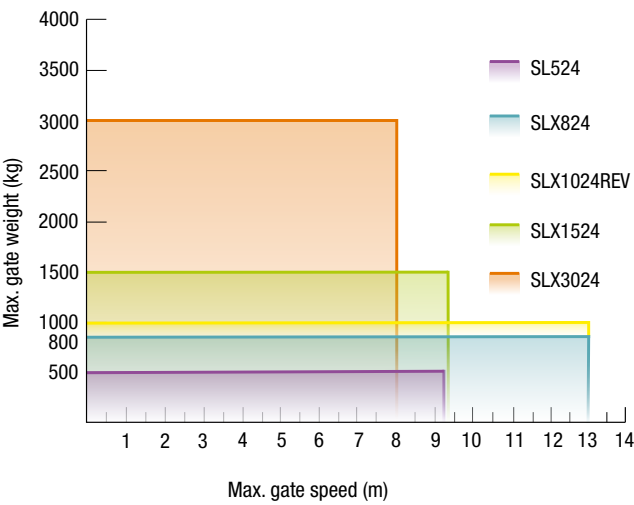
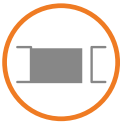


Table 5 - A summary of the models with constraints based on the maximum height of the door.

Automation Order nr.	Drag speed	Max. surface area	maximum sectional door height (m)			
			Chain guide order nr. + GL124S30	+ GL124S35	+ GL124S40	+ GL124S60
GL124EBSS	7 m/min		2,7 m	3,2 m	4,2 m	5,7 m
			ZENGB1E - ZENGB2E - ZENGB3E      ZENGB14E			
GL ZEN60E	9 m/min	9 m <sup>2</sup>	2,4 m	3,1 m		
GL ZEN100E	9 m/min	9 m <sup>2</sup>	2,4 m	3,1 m		

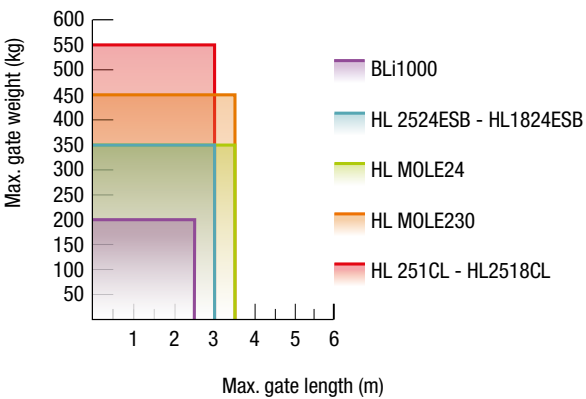
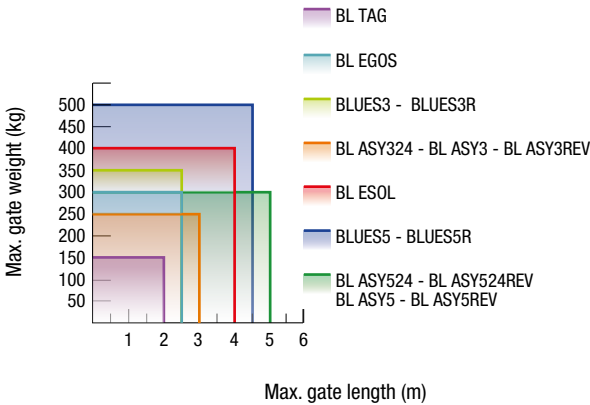
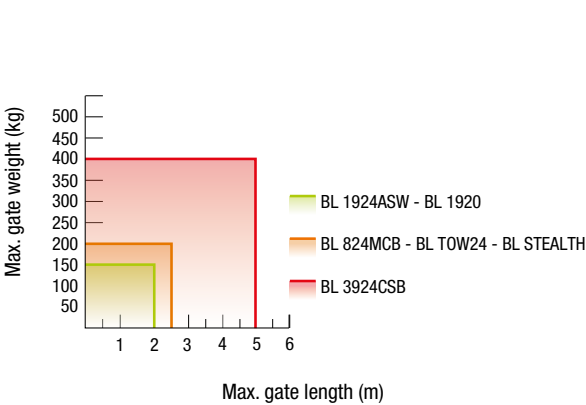
# TABLES OF COMPARISON

## Automation for sliding gates series SL - SLi



# TABLES OF COMPARISON

## Automation for swing gates series BL - HL





# TABLES OF COMPARISON

CARDIN PRO

## Automation with integrated electronics

MOTOR CONTROL	BL824	BL3924	BLTOW24	SLX24DRACO	SLX 3024 -1524-824	SL524	GLB249
For 1 motor							
For 2 motors							in parallel
Motor power supply 24Vdc							
Torque limitation (electronic selection)							
Current sensor setting							
Deceleration setting							
Battery powered operation incorporated						SL524CB	
Optional battery powered operation				KBNIMH-D		KBNIMH-1	KBNIMH-2

INPUTS	BL824	BL3924	BLTOW24	SLX24DRACO	SLX 3024 -1524-824	SL524	GLB249
Inverting photocells (FI)	N.C./8.2 kΩ	N.C./8.2 kΩ	N.C./8.2 kΩ	N.C./8.2 kΩ	N.C./8.2 kΩ	N.C./8.2 kΩ	N.C./8.2 kΩ
Stop photocells (FS)	N.C./8.2 kΩ	N.C./8.2 kΩ	N.C./8.2 kΩ	N.C./8.2 kΩ	N.C./8.2 kΩ	N.C./8.2 kΩ	
Stop button (TB)	N.C./8.2 kΩ	N.C./8.2 kΩ	N.C./8.2 kΩ	N.C./8.2 kΩ	N.C./8.2 kΩ	N.C./8.2 kΩ	N.C./8.2 kΩ
Safety edge (CSP)	N.C./8.2 kΩ	N.C./8.2 kΩ	N.C./8.2 kΩ	N.C./8.2 kΩ	N.C./8.2 kΩ	N.C./8.2 kΩ	N.C./8.2 kΩ
Opening button (TA)							
Limited opening button (TAL)							
Closing button (TC)							
Sequential command (TD)							
Electronic travel limits (encoder)							

OUTPUTS	BL824	BL3924	BLTOW24	SLX24DRACO	SLX 3024 -1524-824	SL524	GLB249
Electric locking device	12Vdc	12Vdc	12Vdc				selectable
Warning lights (programmable)							
Low power supply warning lights	24Vdc	24Vdc	24Vdc	24Vdc	24Vdc	24 Vac	24Vdc
Indicator led (programmable)							
Power supply controlled external devices	24Vdc	24Vdc	24Vdc	24Vdc	24Vdc	24Vdc	24Vdc
Power supply external devices	24Vdc	24Vdc	24Vdc	24Vdc	24Vdc	24Vdc	24Vdc
Second radio channel	selectable	selectable	selectable	selectable	selectable		

RADIOCONTROL FUNCTIONS	BL824	BL3924	BLTOW24	SLX24DRACO	SLX 3024 -1524-824	SL524	GLB249
Multi-decoding S504-S508-S449-S486							
Buzzer							
Sequential function via radio							
Radio control function: programmable							

SPECIAL FUNCTIONS	BL824	BL3924	BLTOW24	SLX24DRACO	SLX 3024 -1524-824	SL524	GLB249
6-digit display							
Display LCD (16 characters x 2 lines)							
Display LCD (128x128 pixels)							
Manoeuvre count display							
Master/Slave function				MODCA	MODCA	MODCA	
Function setting using menus							
Automatic safety device test							
Warning light pre-flashing (set to 3 seconds)							
Courtesy light	selectable	selectable	selectable	selectable	selectable		24Vdc-230Vac
Real time clock							
Clock mode (on the TA input)							
Variable high speed				max. 30 m			
Temperature detection							

Function not available

Function available

## Automation with integrated electronics

MOTOR CONTROL	GL124EBSS	ELDOMS	ELDOML	PARKSUN	PARKLINE
For 1 motor					
Motor power supply 24Vdc					
Current sensor setting					
Deceleration setting					
Battery powered operation incorporated					
Optional battery powered operation					

INPUTS	GL124EBSS	ELDOMS	ELDOML	PARKSUN	PARKLINE
Inverting photocells (FI)		N.C./8.2 kΩ	N.C./8.2 kΩ		
Stop photocells (FS)	selectable	N.C./8.2 kΩ	N.C./8.2 kΩ		
Stop button (TB)		N.C./8.2 kΩ	N.C./8.2 kΩ		
Safety edge (CP)	N.C./8.2 kΩ	N.C./8.2 kΩ	N.C./8.2 kΩ		
Opening button (TA)		TA1 - TA2	TA1 - TA2		
Limited opening button (TAL)					
Closing button (TC)		TC1 - TC2	TC1 - TC2		
Sequential command (TD)				selectable	selectable
Electronic travel limits (encoder)					

OUTPUTS	GL124EBSS	ELDOMS	ELDOML	PARKSUN	PARKLINE
Warning lights (programmable)		led	led		
Low power supply warning lights	24Vdc	24Vdc	24Vdc		
Indicator led (programmable)					
Travel limit / photocell status information					
Power supply controlled external devices	24Vdc	24Vdc	24Vdc		
Power supply external devices	24Vdc	24Vdc	24Vdc		
Second radio channel		selectable	selectable		

RADIOCONTROL FUNCTIONS	GL124EBSS	ELDOMS	ELDOML	PARKSUN	PARKLINE
Standard slot-in radio card					
Incorporated S449 receiver (300 codes)					
Only S500 decoding					
Multi-decoding S504-S508-S449-S486					
Buzzer					
Sequential function via radio					
Radio control function: programmable					
Stop function via radio					

SPECIAL FUNCTIONS	GL124EBSS	ELDOMS	ELDOML	PARKSUN	PARKLINE
6-digit display					
LCD display					
Manoeuvre count display					
Master/Slave function		MODCA	MODCA		
Function setting using dip-switches					
Function setting using menus					
Automatic safety device test					
Warning light pre-flashing (set to 3 seconds)					
Courtesy light	24Vdc	selectable	selectable		
Clock mode (on the TA input)					
Clock mode (on the TC input)					

Function not available      Function available

## Automation with an external programmer

MOTOR CONTROL	PRG302E	PRG304E	PRG807001	PRG230M2	PRG3830CE	PRG3840CE
For 1 motor						
For 2 motors						
Power supply 230Vac						
Power supply 400V3~						
Motor power supply 24Vdc						
Torque limitation (mechanical selection)						
Torque limitation (electronic selection)						
Current sensor setting						
Deceleration setting						

INPUTS	PRG302E	PRG304E	PRG807001	PRG230M2	PRG3830CE	PRG3840CE
Inverting photocells (FI)				N.C./8.2 kΩ		
Stop photocells (FS)				N.C./8.2 kΩ		
Stop button (TB)				N.C./8.2 kΩ		
Safety edge (CSP)		N.C./8.2 kΩ		N.C./8.2 kΩ		
Opening button (TA)						
Limited opening button (TAL)						
Closing button (TC)						
Sequential command (TD)						
Mechanical travel limits						
Electronic travel limits (encoder)						

OUTPUTS	PRG302E	PRG304E	PRG807001	PRG230M2	PRG3830CE	PRG3840CE
Electric locking device			12 Vac	12 Vac		
Warning lights (not flashing)						
Warning lights (programmable)						
Low power supply warning lights	24 Vac	24 Vac	24 Vac		24 Vac	24 Vac
Power supply warning lights 230Vac						
Indicator light (only fixed)						
Indicator led (programmable)						
Travel limit / photocell status information	optional					
Power supply external devices	24 Vac	24 Vac	24 Vac	24 Vac	24 Vac	24 Vac
Power supply controlled external devices				24 Vac		
Second radio channel			2-ch receiver	2-ch receiver		

RADIOCONTROL FUNCTIONS	PRG302E	PRG304E	PRG807001	PRG230M2	PRG3830CE	PRG3840CE
Standard slot-in radio card						
Integrated S449 receiver (20 codes)						
Buzzer						
Sequential function via radio						
Limited opening function via radio						
Stop function via radio	2-ch receiver				2-ch receiver	2-ch receiver

SPECIAL FUNCTIONS	PRG302E	PRG304E	PRG807001	PRG230M2	PRG3830CE	PRG3840CE
1-digit display						
6-digit display						
External control buttons		optional			PRG3830TCE	PRG3840TCE
Sequential function setting						
Function setting using dip-switches						
Warning light pre-flashing (set to 3 seconds)						
Hinged gate opening delay (fixed)						
Hinged gate closing delay (programmable)						
Gate jolt (frees the electric lock)						
Courtesy light		230Vac	230Vac	230Vac		
Clock mode (on the TA input)						

Function not available

Function available

## Automation with an external programmer

MOTOR CONTROL	PRG900CB	CC242ETOPCB	CC242EXTOPCB	CC24DRACO	CC924EFAMCB/S	CC824EINTCB	CC242EFAMCB
For 1 motor							
For 2 motors							
Motor power supply 24Vdc							
Current sensor setting							
Deceleration setting							
Battery powered operation incorporated							
Optional battery powered operation	PRG900	CC242ETOP		CC24DRACO	CC924EFAM	CC824EINT	CC242EFAM

INPUTS	PRG900CB	CC242ETOPCB	CC242EXTOPCB	CC24DRACO	CC924EFAMCB/S	CC824EINTCB	CC242EFAMCB
Inverting photocells (FI)	N.C./8.2 kΩ	N.C./8.2 kΩ	N.C./8.2 kΩ	N.C./8.2 kΩ	N.C./8.2 kΩ	N.C./8.2 kΩ	N.C./8.2 kΩ
Stop photocells (FS)	N.C./8.2 kΩ	N.C./8.2 kΩ	N.C./8.2 kΩ	N.C./8.2 kΩ	N.C./8.2 kΩ	N.C./8.2 kΩ	N.C./8.2 kΩ
Stop button (TB)	N.C./8.2 kΩ	N.C./8.2 kΩ	N.C./8.2 kΩ	N.C./8.2 kΩ	N.C./8.2 kΩ	N.C./8.2 kΩ	N.C./8.2 kΩ
Safety edge (CSP)	N.C./8.2 kΩ	N.C./8.2 kΩ	N.C./8.2 kΩ	N.C./8.2 kΩ	N.C./8.2 kΩ	N.C./8.2 kΩ	N.C./8.2 kΩ
Opening button (TA)							
Limited opening button (TAL)							
Closing button (TC)							
Sequential command (TD)							
Mechanical travel limits							
Electronic travel limits (encoder)							

OUTPUTS	PRG900CB	CC242ETOPCB	CC242EXTOPCB	CC24DRACO	CC924EFAMCB/S	CC824EINTCB	CC242EFAMCB
Electric locking device	12Vdc	12Vdc	12Vdc				12Vdc
Warning lights (not flashing)							
Warning lights (programmable)							
Low power supply warning lights	24Vdc	24Vdc	24Vdc	24Vdc	24Vdc	24Vdc	24Vdc
Power supply warning lights 230Vac							
Indicator light (only fixed)							
Indicator led (programmable)							
Travel limit / photocell status information							
Power supply external devices	24Vdc	24Vdc	24Vdc	24Vdc	24Vdc	24Vdc	24Vdc
Power supply controlled external devices	24Vdc	24Vdc	24Vdc	24Vdc	24Vdc	24Vdc	24Vdc
Second radio channel selectable							

RADIOCONTROL FUNCTIONS	PRG900CB	CC242ETOPCB	CC242EXTOPCB	CC24DRACO	CC924EFAMCB/S	CC824EINTCB	CC242EFAMCB
Incorporated S449 receiver (300 codes)							
Multi-decoding S504-S508-S449-S486							
Buzzer							
Sequential function via radio							
Radio control function: programmable							

SPECIAL FUNCTIONS	PRG900CB	CC242ETOPCB	CC242EXTOPCB	CC24DRACO	CC924EFAMCB/S	CC824EINTCB	CC242EFAMCB
6-digit display							
LCD display							
Manoeuvre count display							
Function setting using dip-switches							
Function setting using menus							
Automatic safety device test							
Warning light pre-flashing (set to 3 seconds)							
Hinged gate opening delay (fixed)							
Hinged gate closing delay (programmable)							
Courtesy light selectable							
Clock mode (on the TA input)							
Variable high speed				max. 30 m			
Temperature detection							

Function not available

Function available

## Automation with integrated electronics

MOTOR CONTROL	SLEVO600	SLEVO800	SLEVO1200	SLEVO2000	SLACEFAST	SLACE601	ZEN60E	ZEN100E	STAR2E	STAR2AE
ECU Data Exchange										
Master Slave										
Encoder controlled gate positioning										
Timer controlled gate positioning										
Power supply 230Vac										
Motor power supply 24Vdc										
Torque limitation (electronic selection)										
Speed regulation										
Obstacle detection										
Encoder										
Soft start deceleration management										
Optional battery powered operation										

INPUTS	SLEVO600	SLEVO800	SLEVO1200	SLEVO2000	SLACEFAST	SLACE601	ZEN60E	ZEN100E	STAR2E	STAR2AE
Inverting photocells (FT1)										
Stop photocells (FT2)	J	J	J	J	J	J+INTPRG			J	J
Inverting photocells during opening (FT3)										
Stop button (STP)										
Safety edge (C.F.)	J	J	J	J					J	J
Safety edge active during opening (BSA/CA)					J(NC)	8K2				
Safety edge active during closing (BSC/CC)						8K2	8K2/NC	8K2/NC		
Clock input	J	J	J	J		J			J	J
Pedestrian function gate clock input						J+INTPRG				
Jolly input 1 (J1/JOL)										
Opening button (PA)					PP/PA	PP/PA				
Closing button (PC)					J (PP --> PA)	J (PP --> PA)				
Limited opening button (PED)	J	J	J	J	J					
Sequential command step by step (PP)										
Travel limit inputs (FCA/FCC)										

OUTPUTS	SLEVO600	SLEVO800	SLEVO1200	SLEVO2000	SLACEFAST	SLACE601	ZEN60E	ZEN100E	STAR2E	STAR2AE
Electric locking device						(US1+INTPRG)				
Warning lights (not flashing)										
Warning lights (ECU flashing)							(US1-230Vac)			
Low power supply warning lights							24Vdc - 100mA, US1 func.			
Jolly output (US1)							230V			
Indicator light (only fixed)						(24V FT)				
Indicator light (only flashing)						US1	(US1-230Vac)			
Dry contact output						US1				
Courtesy light						US1	(US1-230Vac)			
Power supply external devices	24 Vac	24 Vac	24 Vac	24 Vac	24Vdc	24Vdc	24Vdc	24Vdc	24 Vac	24 Vac
Second radio channel						US1				

RADIOCONTROL FUNCTIONS	SLEVO600	SLEVO800	SLEVO1200	SLEVO2000	SLACEFAST	SLACE601	ZEN60E	ZEN100E	STAR2E	STAR2AE
OC2 card compatible										
Sequential command PP										
Sequential command PED										

SPECIAL FUNCTIONS	SLEVO600	SLEVO800	SLEVO1200	SLEVO2000	SLACEFAST	SLACE601	ZEN60E	ZEN100E	STAR2E	STAR2AE
Manoeuvre count display						INTPRG				
Maintenance alarm (US1)						INTPRG				
Command buttons on the ECU										
Dip-switch for excluding safety devices										
Function setting using dip-switches										
Optional pre-flashing (set at 5 seconds)										
Anticipated automatic closing on FT1 cut in										

Function not available

Function available

J = Function only available on the Jolly input binding post

## Automation with integrated electronics

MOTOR CONTROL	SNAP3	SNAP4	SNAP6	RAP4E	BLSTEALTH
ECU Data Exchange					
Master Slave					
Encoder controlled gate positioning					
Timer controlled gate positioning					
Power supply 230Vac					
Motor power supply 24Vdc					
Torque limitation (electronic selection)					
Speed regulation					INTPRG
Obstacle detection					
Encoder					
Soft start deceleration management					
Optional battery powered operation					

INPUTS	SNAP3	SNAP4	SNAP6	RAP4E	BLSTEALTH
Inverting photocells (FT1)					
Stop photocells (FT2)				J	
Inverting photocells during opening (FT3)					
Stop button (STP)					
Safety edge (C.F.)					
Safety edge active during opening (BSA/CA)				J(NC)	8K2
Safety edge active during closing (BSC/CC)	8K2/NC	8K2/NC	8K2/NC		8K2
Jolly input 1 (J1/JOL)					
Opening button (TA)				PP/PA	
Closing button (PC)				J (PP --> PA)	
Limited opening button (PED)					
Sequential command step by step (PP)					
Travel limit inputs (FCA/FCC)					

OUTPUTS	SNAP3	SNAP4	SNAP6	RAP4E	BLSTEALTH
Electric locking device					
Boom light control (road barriers only)					
Warning lights (not flashing)					
Warning lights (ECU flashing)	(integrated/US1)	(integrated/US1)	(integrated/US1)		
Low power supply warning lights					
Jolly output (US1)					
Dry contact output	US1	US1	US1		US1
Courtesy light	US1	US1	US1		(US1+INTPRG)
Power supply external devices	24Vdc	24Vdc	24Vdc	24Vdc	24Vdc
Second radio channel					US1

RADIOCONTROL FUNCTIONS	SNAP3	SNAP4	SNAP6	RAP4E	BLSTEALTH
OC2 card compatible					
Sequential command PP					
Sequential command PED					
Open command PA					
Closing command PC					

SPECIAL FUNCTIONS	SNAP3	SNAP4	SNAP6	RAP4E	BLSTEALTH
Manoeuvre count display					INTPRG
Maintenance alarm (US1)					INTPRG
Command buttons on the ECU					
Dip-switch for excluding safety devices					
Function setting using dip-switches					
Optional pre-flashing (set at 5 seconds)					
Anticipated automatic closing on FT1 cut in					

Function not available

Function available

J = Function only available on the Jolly input binding post



## Automation with an external programmer

MOTOR CONTROL	T101	T124	T400	T600	T624
ECU Data Exchange					
Master Slave					
Encoder / timer gate positioning control	encoder / timer	encoder / timer	encoder / timer	encoder / timer	encoder / timer
For 1 motor					
For 2 motors					
Power supply 230Vac			230V - 400 V		
Motor power supply 24Vdc					
Torque limitation (electronic selection)					
Speed regulation					INTPRG
Obstacle detection					
Soft start deceleration management					
Optional battery powered operation					

INPUTS	T101	T124	T400	T600	T624
Inverting photocells (FT1)					
Stop photocells (FT2)	J	J	J		
Inverting photocells during opening (FT3)				J2	J2
Stop button (STP)					
Safety edge (C.F.)	J				
Safety edge active during opening (BSA/CA)		J(NC)	8K2/NC	8K2	8K2
Safety edge active during closing (BSC/CC)			8K2/NC	8K2	8K2
Clock input	J		J	J1	J1
Pedestrian function gate clock input			J	INTPRG	INTPRG
Jolly input 1-2-3-4	1	1	1	2	2
Opening button (PA)		(PP/PA)	(AP)		
Closing button (PC)		J (PP --> PA)	(CH)		
Limited opening button (PED)	J	J			
Sequential command step by step (PP)					
Travel limit inputs (FCA/FCC)				J1-J2 (PA-PC)	J1-J2 (PA-PC)

OUTPUTS	T101	T124	T400	T600	T624
Electric locking device	con modulo MES		US1		
Warning lights (not flashing)					
Warning lights (ECU flashing)			US1		
Low power supply warning lights					
Jolly output (US1)					
Indicator light (only fixed)				US1	US1
Indicator light (only flashing)					
Indicator light 2					
Dry contact output				US1	US1
Courtesy light			US1		INTPRG
Power supply external devices	24 Vac	24Vdc	24 Vac	24 Vac	24Vdc
Second radio channel				US1	US1

RADIOCONTROL FUNCTIONS	T101	T124	T400	T600	T624
OC2 card compatible					
Sequential command PP / PED					
Open command PA / PC					

SPECIAL FUNCTIONS	T101	T124	T400	T600	T624
Manoeuvre count display				INTPRG	INTPRG
Maintenance alarm (US1)				INTPRG	INTPRG
Command buttons on the ECU					
Dip-switch for excluding safety devices					
Function setting using dip-switches					
Optional pre-flashing (set at 5 seconds)					
Anticipated automatic closing on FT1 cut in					

Function not available

Function available

J = Function only available on the Jolly input binding post

## Automation with an external programmer

MOTOR CONTROL	T21B	T21X	T1	S101B
ECU Data Exchange				
Master Slave				
Encoder / timer gate positioning control	timer	timer	only dead-man function	encoder or timer
For 1 motor				
For 2 motors				
Power supply 230Vac				
Motor power supply 24Vdc				
Torque limitation (electronic selection)				
Speed regulation				
Obstacle detection				
Soft start deceleration management				
Optional battery powered operation				

INPUTS	T21B	T21X	T1	S101B
Inverting photocells (FT1)				
Stop photocells (FT2)				J
Inverting photocells during opening (FT3)				
Stop button (STP)				
Safety edge (C.F.)				J
Safety edge active during closing (BSC/CC)	8K2	8K2		
Clock input				J
Pedestrian function gate clock input				
Jolly input 1-2-3-4				1
Opening button (PA)	(option PP/PED)	(option PP/PED)	UP	
Closing button (PC)	(option PP/PED)	(option PP/PED)	UP	
Limited opening button (PED)				
Sequential command step by step (PP)				
Travel limit inputs (FCA/FCC)				

OUTPUTS	T21B	T21X	T1	S101B
Electric locking device				
Warning lights (not flashing)				
Warning lights (ECU flashing)		24 Vac		
Jolly output (US1)				
Indicator light (only flashing)				
Indicator light 2				
Dry contact output				
Courtesy light				
Power supply external devices	24 Vac	24 Vac		24 Vac
Second radio channel				

RADIOCONTROL FUNCTIONS	T21B	T21X	T1	S101B
OC2 card compatible				
Sequential command PP				
Sequential command PED				
Open command PA				
Closing command PC				

SPECIAL FUNCTIONS	T21B	T21X	T1	S101B
Manoeuvre count display				
Maintenance alarm (US1)				
Command buttons on the ECU				
Dip-switch for excluding safety devices				
Function setting using dip-switches				
Optional pre-flashing (set at 5 seconds)				
Anticipated automatic closing on FT1 cut in				

Function not available

Function available

J = Function only available on the Jolly input binding post

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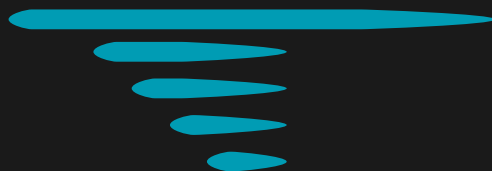
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