



# AUTOMATION FOR ROAD BARRIERS AND PARKING PLACE PROTECTION

RAPID SELECTION  
GUIDE

138

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CARDIN AUTOMATION  
EL



140

AUTOMATION FOR ROAD BARRIERS



# EL

AUTOMATION FOR ROAD BARRIERS

## CARDIN AUTOMATION

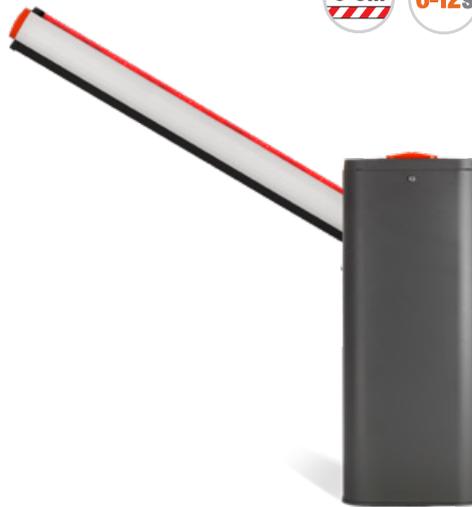


3-5m 3-4s



ELDOMSDG

6-8m 6-12s



ELDOMLDG



# PL

PARKING PLACE PROTECTION

## CARDIN AUTOMATION



8s



PARKSUN - PARKSUN-SR

8s



PARKSUN-BTS

8s



PARKLINE



**EL**

AUTOMATION FOR ROAD BARRIERS

(optional)



**CARDIN AUTOMATION**



ELSNAP-RAPID



ELSNAPS



ELSNAPL



**EL**

AUTOMATION FOR ROAD BARRIERS

(optional)



**CARDIN AUTOMATION**



EL RAP4E

# AUTOMATION FOR ROAD BARRIERS



## CARDIN AUTOMATION 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 178

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 (cathaphoresis 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.



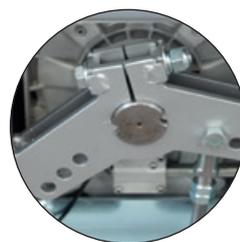
SPRAY-PAINTED ARTICULATED ALUMINIUM BOOM



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 AUTOMATION 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



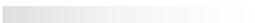
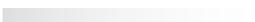
# CARDIN AUTOMATION SERIES EL



## 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.

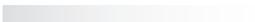
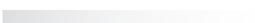
## BOOMS FOR THE ROAD BARRIER CABINET ELDOMSDG

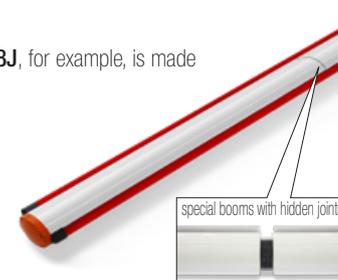
3m Boom		DOM3
4m Boom		DOM4
5m Boom		DOM5
3m ARTICULATED BOOM		DOM3AS



## BOOMS FOR THE ROAD BARRIER CABINET ELDOMLDG

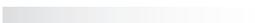
Booms marked with the letter 'J' are special versions made up of multiple pieces plus joints. The article number **DOM8J**, for example, is made up of two 4-metre booms and a hidden joint. Consult the table below for 6, 7 and 8 m boom configurations.

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



## BOOM SAFETY DEVICE

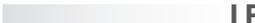
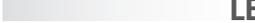
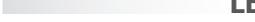
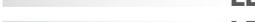
Anti-collision system with roller bearings and plastic security screws that protects the DOM3 boom from accidental collision.

	DOMAC
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## 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	DOM3AS + CUSTOM (lengths less than 3 metres)	SP-YE	Yellow 	1
	DOM3 (3 metres)	SP-GR	Green 	1
	DOM4 (4 metres)	SP-RE	Red 	1
	DOM5 (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 AUTOMATION 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)**

ELSR5



## 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.

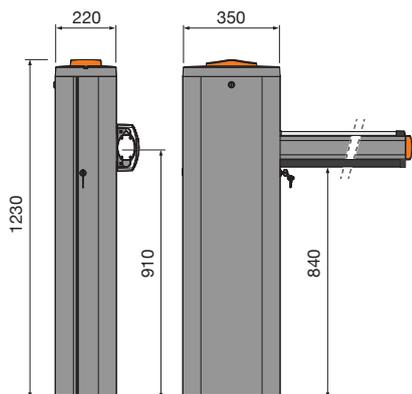
MODBT



# CARDIN AUTOMATION SERIES EL

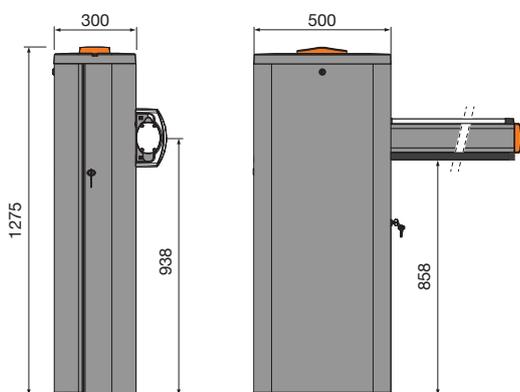


## OVERALL DIMENSIONS



**ELDOMSDG**

TECHNICAL DATA FOR THE ELDOMSDG BOOMS		
DOM3	3m white RAL9010	
DOM4	4m white RAL9010	
DOM5	5m white RAL9010	
DOM3AS	3m white RAL9010	



**ELDOMLDG**

TECHNICAL DATA FOR THE ELDOMLDG BOOMS		
DOM6J	6m white RAL9010	
DOM7J	7m white RAL9010	
DOM8J	8m white RAL9010	

# CARDIN AUTOMATION 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

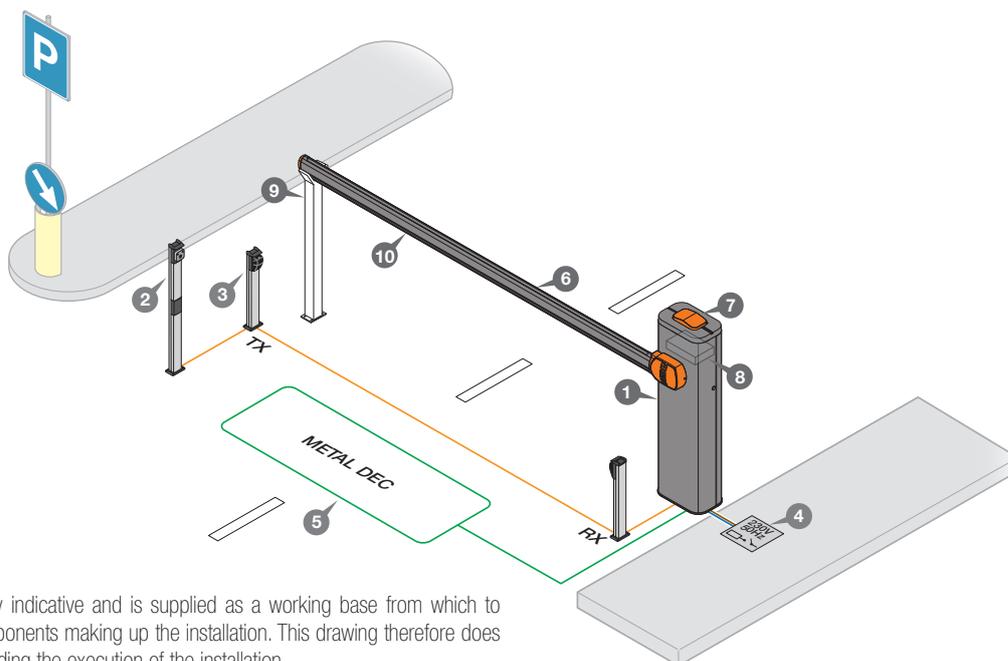
## BUILT-IN RECEIVER CARD

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

## 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 AUTOMATION SERIES EL



Road barrier with an enhanced geared motor powered by 24V, designed for access control of passageways up 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.

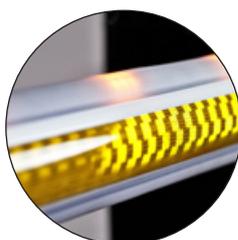
Compatible with the data exchange system between digital devices (smartphone, tablet, etc.) and the Cardin multifunctional control units.



**See section 24V ECU INTERFACE DEVICES on page 178**



HOOD WITH BUILT-IN BOOM MULTICOLOUR MOVEMENT LEDES



BOOM WITH LED LIGHTING



ALLEN KEY OPERATED MANUAL RELEASE SYSTEM



IN-BUILT ELECTRONIC PROGRAMMER



ROBUST SPRING BALANCED GEARS SYSTEM

# CARDIN AUTOMATION 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.



## 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 150).



## 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 150).



## ELSNAP-RAPID



## ELSNAPS



## ELSNAPL



# CARDIN AUTOMATION 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.

**SNAPPER3**



L 3,25m

**SNAPPER4**



L 4,25m

**SNAPPER5**



L 5,25m

**SNAPPER6**



L 6,25m

## JOINT

for ELSNAP-RAPID - ELSNAPS. Maximum passageway 3 metres.

**SNR SNAP**



## LED LIGHTS

Multicolour LED lighting strips on a spool.

**3m STRIP OF LED LIGHTING**

**4m STRIP OF LED LIGHTING**

**5m STRIP OF LED LIGHTING**

**6m STRIP OF LED LIGHTING**

**LEDRG SNAPPER3**

**LEDRG SNAPPER4**

**LEDRG SNAPPER5**

**LEDRG SNAPPER6**



## 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.

**EL RAP4E**



## BOOM

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

**RAPPER4TL**



# CARDIN AUTOMATION 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 ELSNAP-RAPID, 4, 5/6).

ELUFS1

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

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

ELUFS1-ML

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

(for ELSNAP-RAPID, 4, 5/6).

ELUMS1



ELUFS1 ELUMS1  
ELUFS1-ML

## ANCHOR PLATE

ground fastening base

FIX SNAP

FIX RAP4



## ADHESIVE REFLECTIVE TAPE STRIPS.

for SNAP barriers. Lots of 12 pcs.

STICKERS



## KIT BATTERY CHARGER + NiMH BATTERIES

Allows the 24V programmers to work during blackouts.

KBNIMH-T1



## POWER SUPPLY KIT

Solar panels for use with all 24Vdc automation.

SUNPOWER



## 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 AUTOMATION SERIES EL



## GENERAL CHARACTERISTICS

		ELSNAP-RAPID	ELSNAPS	ELSNAPL	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

		ELSNAP-RAPID	ELSNAPS	ELSNAPL	EL RAP4E
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

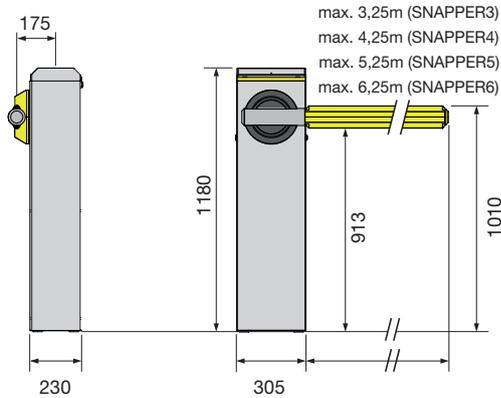
The product range is factory set for the insertion of an open collector receiver card that guarantees compatibility with all the radio control series available in the Cardin catalogue.

## 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				

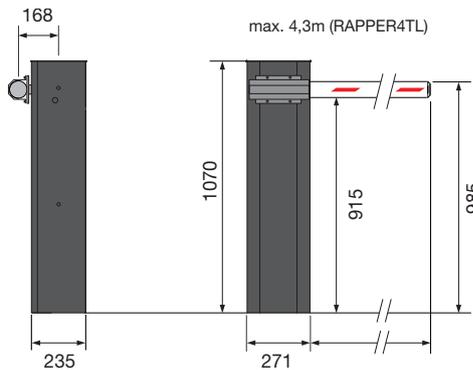
Barrier cabinet	Boom	Spring Art. Nr.	Colour code	Nr. of springs	
<b>ELSNAPS</b>	<b>SNAPPER3</b>	SP-YE	Yellow 	1	
	<b>SNAPPER3 - SNAPPER4</b>	SP-GR	Green 	1	
	<b>ELSNAPL</b>	<b>SNAPPER4 - SNAPPER5</b>	SP-RE	Red 	1
		<b>SNAPPER5 - SNAPPER6</b>	SP-WH	White 	1

# CARDIN AUTOMATION SERIES EL



TECHNICAL DATA FOR THE ELSNAP BOOMS		
SNAPPER3	3m white RAL9010	
SNAPPER4	4m white RAL9010	
SNAPPER5	5m white RAL9010	
SNAPPER6	6m white RAL9010	

ELSNAP-RAPID - ELSNAPS - ELSNAPL



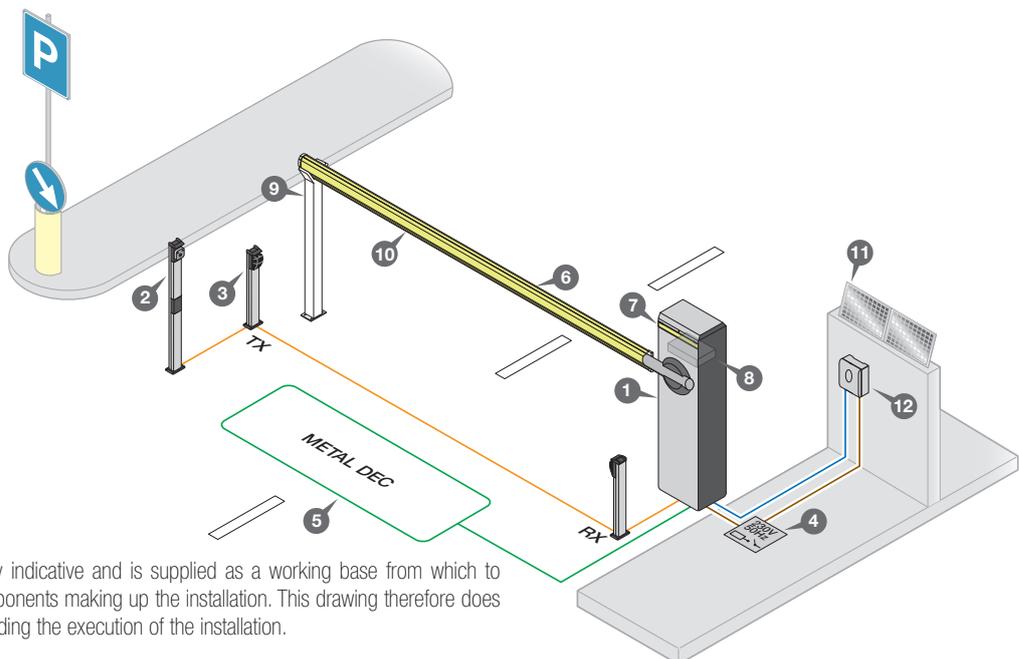
TECHNICAL DATA FOR THE ELRAP4E BOOM		
RAPPER4TL	4m white RAL9010	

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.