

# elebia®

the safety hook



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elebia, the most innovative crane hook ever, able to hook on and release the loads remotely, and much more...

1

the magnet attracts the ring...



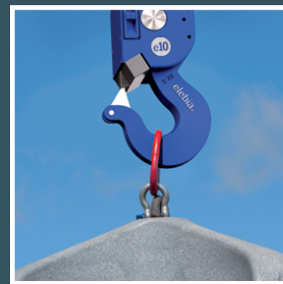
2

...adjust the lifting hook...



3

...and elevate the load



The patented elebia automatic crane hook is equipped with a magnet on its lower section. When the magnet is close to the load, it attracts and positions the sling. The user pushes the control button, the hook closes, catches the ring and lifts the load without any additional handling. The system works with cable slings, chains slings, master links, textile slings and even bigbags. Using the new and patented elebia automatic hook, you will pick up and release loads remotely, avoiding any handling and traveling. The elebia hook system brings you the safest and most productive working method ever.



# AUTOHOOKS



- Swivel with bearings. Can be set in a fix position (option).
- Ready to be upgraded with weighing scale.
- Removable, rechargeable lithium battery with LED charge status and locking system.
- Motor protected by slip clutch.
- WELDOX® high strength steel body.
- Manual operation button.
- Impact and corrosion resistant polyester painting. Painting for marine environments available (option).
- elebia® magnetic field generator Sensor indicates when ring is in position. (optional)
- Spring-operated safety latch.
- Forged hook.

## Failsafe Design

The elebia automatic hook was created to increase both safety and productivity. Therefore, it is designed under a failsafe principle. It is able to drop only the rigging accessories, but is not able to drop a suspended load. This limit is what we call the 'Maximum Releasable Weight'. This is a physical limit that makes it impossible to drop loads above this value.

## REGULATORY STANDARDS



- Directive on machine safety (D89/37/EEC)  
- UNE-EN 1050  
- UNE-EN ISO 12100-1

- UNE-EN ISO 12100-2  
- UNE-EN 61000-6-4  
- UNE-EN 61000-6-2  
- D89/391/EEC

- D89/654/EEC  
- D89/655/EEC  
- D89/656/EEC  
- D92/58/EEC 9ª

- UNE-EN 1677  
- EN 10204 3.1.B  
- Assurance of production quality in accordance with ISO 9001

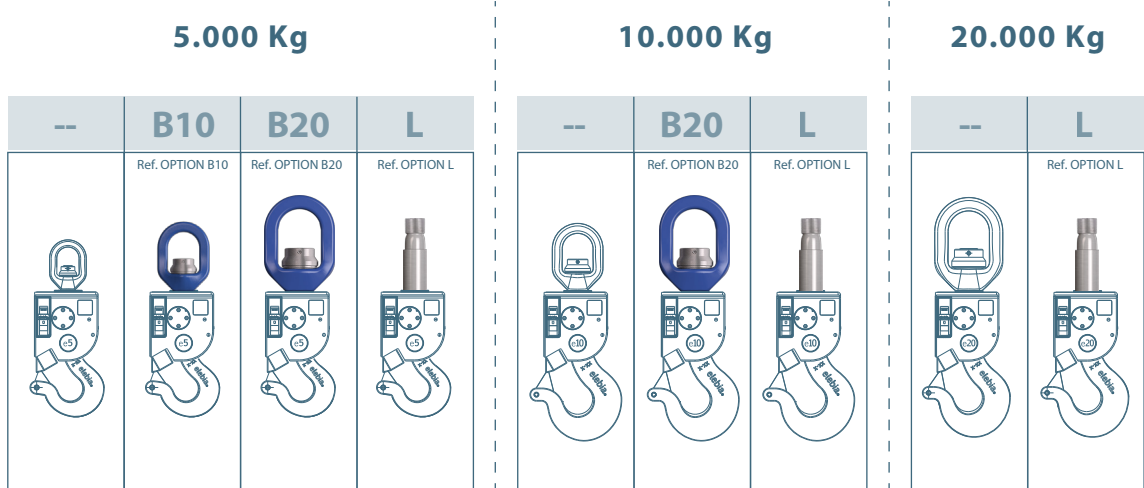
- Each mechanism is delivered with the CE stamp and a declaration of CE conformity.  
- ELEBIA is a member of the F.E.M. (European Federation of Materials Handling)

# elebia®

HOOK MODEL	evo5	evo10	evo20
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**WORKING LOAD LIMIT**  
SAFETY FACTOR 4:1

**TOP LINK OPTION**



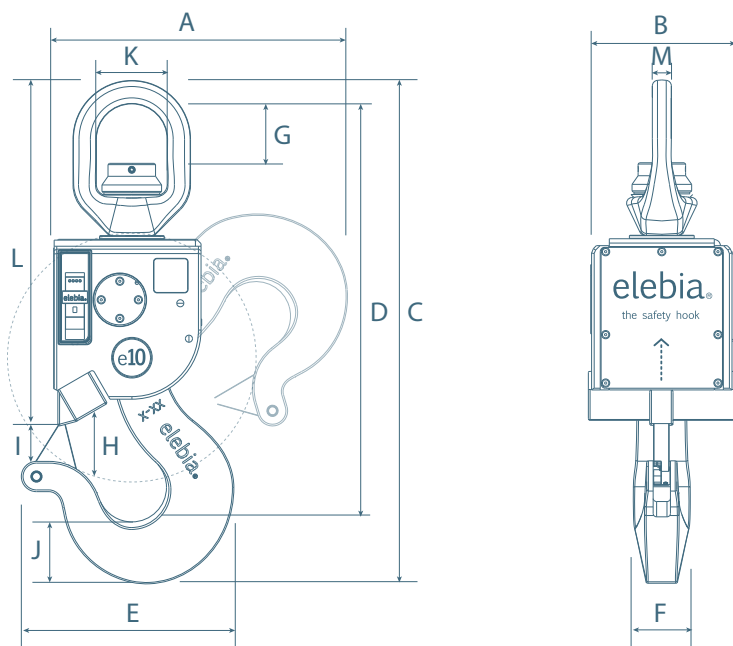
**APPROXIMATE WEIGHT**

26 Kg	31 Kg	38 Kg	--* Kg	36 Kg	43 Kg	--* Kg	43 Kg	--* Kg
-------	-------	-------	--------	-------	-------	--------	-------	--------

**SIZE CHART**

	5.000 Kg			10.000 Kg			20.000 Kg		
	--	B10	B20	L	--	B20	L	--	L
A	276 / 10,87	276 / 10,87	276 / 10,87	276 / 10,87	342 / 13,46	342 / 13,46	342 / 13,46	342 / 13,46	342 / 13,46
B	172,5 / 6,79	172,5 / 6,79	172,5 / 6,79	172,5 / 6,79	172,5 / 6,79	172,5 / 6,79	172,5 / 6,79	172,5 / 6,79	172,5 / 6,79
C	469 / 18,46	519,8 / 20,46	598,9 / 23,58	CUSTOM	584 / 23,99	663 / 26,10	CUSTOM	663 / 26,10	CUSTOM
D	409 / 16,10	451,3 / 17,76	519,5 / 20,45	CUSTOM	485 / 19,10	553 / 21,77	CUSTOM	553 / 21,77	CUSTOM
E	194 / 7,64	194 / 7,64	194 / 7,64	194 / 7,64	246 / 9,68	246 / 9,68	246 / 9,68	246 / 9,68	246 / 9,68
F	43 / 1,70	43 / 1,70	43 / 1,70	43 / 1,70	66 / 2,60	66 / 2,60	66 / 2,60	66 / 2,60	66 / 2,60
G	48,5 / 1,91	67,8 / 2,67	105 / 4,13	CUSTOM	67,8 / 2,67	105 / 4,13	CUSTOM	105 / 4,13	CUSTOM
H	57,6 / 2,26	57,6 / 2,26	57,6 / 2,26	57,6 / 2,26	73 / 2,87	73 / 2,87	73 / 2,87	73 / 2,87	73 / 2,87
I	25,7 / 1,01	25,7 / 1,01	25,7 / 1,01	25,7 / 1,01	41,1 / 1,62	41,1 / 1,62	41,1 / 1,62	41,1 / 1,62	41,1 / 1,62
J	41,4 / 1,63	41,4 / 1,63	41,4 / 1,63	41,4 / 1,63	72 / 2,83	72 / 2,83	72 / 2,83	72 / 2,83	72 / 2,83
K	58 / 2,28	82 / 3,23	115 / 4,53	CUSTOM	82 / 3,23	115 / 4,53	CUSTOM	115 / 4,53	CUSTOM
L	349 / 13,74	400,4 / 15,76	479,5 / 18,87	CUSTOM	401 / 15,79	480 / 18,90	CUSTOM	480 / 18,90	CUSTOM
M	15 / 0,59	22 / 0,87	29 / 1,14	CUSTOM	22 / 0,87	29 / 1,14	CUSTOM	29 / 1,14	CUSTOM

\*L Size is on demand

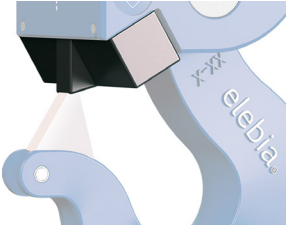
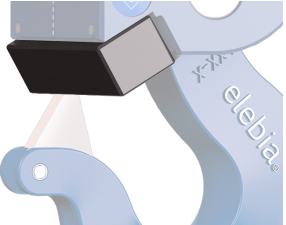
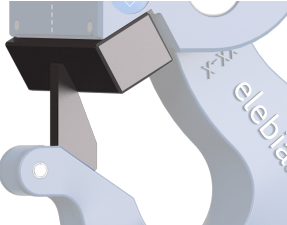
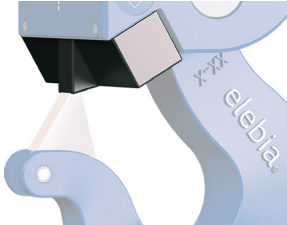


**MAGNETIC SYSTEM**

Elebia automatic hooks come with a unique magnetic system, formed by 32 neodymium permanent magnets placed in a precise configuration to generate an orientated magnetic field. It makes 3 functions: attract, center and orientate the masterlink.



This component comes in all evo models, allowing remote engage of loads. Some other options are available to be configured:

<p><b>MAGNET SENSOR</b> Ref. OPTION S</p>	<p><b>POWER MAGNET</b> Ref. OPTION PM</p>	<p><b>POWER MAGNET &amp; RIGID SAFETY LATCH</b> Ref. OPTION PMA</p>	<p><b>VOID, NO MAGNETS</b> Ref. OPTION V</p>
 <p><b>DESCRIPTION</b> a sensor in the magnet indicates when the masterlink is attached to it. This info is displayed in the remote control. Units with the sensor can be configured in 'Autoclose mode': the hook will automatically close when the sensor detects the ring is in position. The sensor sensitivity / trigger level can be adjusted to customer needs.</p> <p><b>IS GOOD FOR</b> applications when it is difficult to see the lifting point.</p> <p>automated processes, as sensor info can be used by the PLC controlling the crane.</p>	 <p><b>DESCRIPTION</b> increased magnetic power.</p> <p><b>IS GOOD FOR</b> applications when the lifting point is weakly attracted by the magnet (some stainless steels).</p> <p>applications where the hook is below a long wire rope, and a lot of swinging makes difficult to catch the masterlink. The power magnet helps make it easier.</p>	 <p><b>DESCRIPTION</b> instead of the standard safety latch (movable, spring loaded), this one is a fixed latch, forming a complete closed loop along with the hook.</p> <p><b>IS GOOD FOR</b> applications when the lifting points are fixed rings (eyebolts, handles, electrodes nipples, ...).</p>	 <p><b>DESCRIPTION</b> no magnetic system.</p> <p><b>IS GOOD FOR</b> applications when only remote release is needed.</p>

## LOAD CELL

### DESCRIPTION:

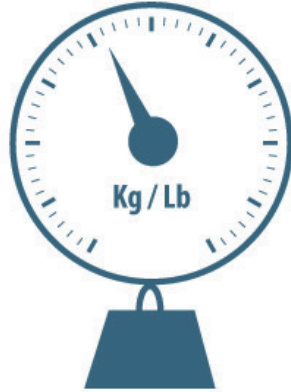
All evo units can be upgraded with a load cell to weigh the load being lifted. Precise, reliable, rugged, compact and fully integrated into the autohook, no increase in weight and dimensions of the unit. Load cells can also be retrofitted to old evo models. Works in combination with the elebia remote control eMax (see page 10).

### IS GOOD FOR:

prevent overloads, load control

### Industries:

all industries.






## SPECIFICATIONS

	EVO5 Ref. OPTION LCS	EVO10 Ref. OPTION LC10	EVO20 Ref. OPTION LC20	
Load cell type	Compression / flexion ring	Compression / flexion ring	Compression / flexion ring	
Material	Stainless steel	Stainless steel	Stainless steel	
Protection	IP67 (EN60529)	IP67 (EN60529)	*	
Nominal capacities (Ln)	5000	10000	*	Kg
Precision class	0.2	0.2	*	%
Minimum dead load	0	0	*	%Ln
Service load	120	120	*	%Ln
Ultimate load	500	500	*	%Ln
Total error	< ±0.2	< ±0.2	*	%Sn
Repeatability error	< ±0.06	< ±0.08	*	%Sn
Temperature effect:			*	
on zero	< ±0.01	< ±0.01	*	%Sn / 5°K
on sensitivity	< ±0.01	< ±0.01	*	%Sn / 5°K
Creep error (30min)	< ±0.03	< ±0.03	*	%Sn
Temperature compensation	-20...+50	-20...+50	*	°C
Temperature limits	-30...+70	-30...+70	*	°C
Nominal sensitivity (Sn)	2 ±0.25%	2 ±0.25%	*	mV/V
Nominal input voltage	10	10	*	V
Maximum input voltage	15	15	*	V
Input impedance	800 ±30	800 ±30	*	Ω
Output impedance	700 ±5	700 ±5	*	Ω
No load input	< ±2	< ±2	*	%Sn
Insulation resistance	>5000	>5000	*	MΩ
Maximum deflection (at Ln)	0.4	0.4	*	mm

\* To be defined

## SPECIAL ENVIRONMENTS

The standard evo units are rugged, designed and build to work in almost every industry. For special enviroments, these are the options:

MARINE Ref. OPTION M	DNV Ref. OPTION DNV	ATEX / IECEx Ref. OPTION EX	HEAT SHIELD Ref. OPTION HS
			
<p><b>DESCRIPTION</b> CM5 painting and AISI components.</p> <p><b>IS GOOD FOR</b> marine enviroments</p> <p><b>INDUSTRIES</b> offshore wind turbines, onboard cranes, buoys.</p>	<p><b>DESCRIPTION</b> DNV 2.22 certification for offshore lifting appliances.</p> <p><b>IS GOOD FOR</b> offshore applications.</p> <p><b>INDUSTRIES</b> offshore wind turbines, onboard cranes</p>	<p><b>DESCRIPTION</b> units with IECEx certification for zones 1 and 21. According to European Directive 94/9 / EC and IECEx international standards. Filed ATEX: II 2GD to work on the sites classified as zone1, Zone21 according to the European Directive 99/92 / EC</p> <p><b>IS GOOD FOR</b> applications in potentially, explosive atmospheres.</p> <p><b>INDUSTRIES</b> oil and gas, mining, chemical.</p>	<p><b>DESCRIPTION</b> heat shield that protects unit from radiated heat. Electronic components with extended temp. working range.</p> <p><b>IS GOOD FOR</b> applications where evo hook receives a lot of radiated heat.</p> <p><b>INDUSTRIES</b> foundries</p>
			

# REMOTE CONTROLS

Elebia produces different remote controls tailored to customer needs. All of them allow simple, flexible, precise and reliable control in a failsafe way. One remote can be paired to one hook or many, and one hook can be controlled by many remotes. We call it: One to One / One to Many / Many to One.



## GENERAL SPECIFICATIONS



Available Code Combinations	65,536 different combinations
Detection of Errors in Transmission	2 CRC bytes + Forward Error Correction
Frequency selection	1
Frequencies	868 MHz / 915 MHz (custom freq. upon demand)
Communication	Bi-directional return of receiver battery status
Certification standards	EN 300 220 Telecommunications EN 301 489 Electromagnetic Compatibility EN 60730 Low Voltage

Radiated power	under 5 dBm
Antenna	Printed circuit
Range	100 metres / 330 Feet
Consumption at rest	5 uA
/ transmission operation	/ 20 mA
Working temperature	-20 to +85°C / -4 to 185°F

elebia®

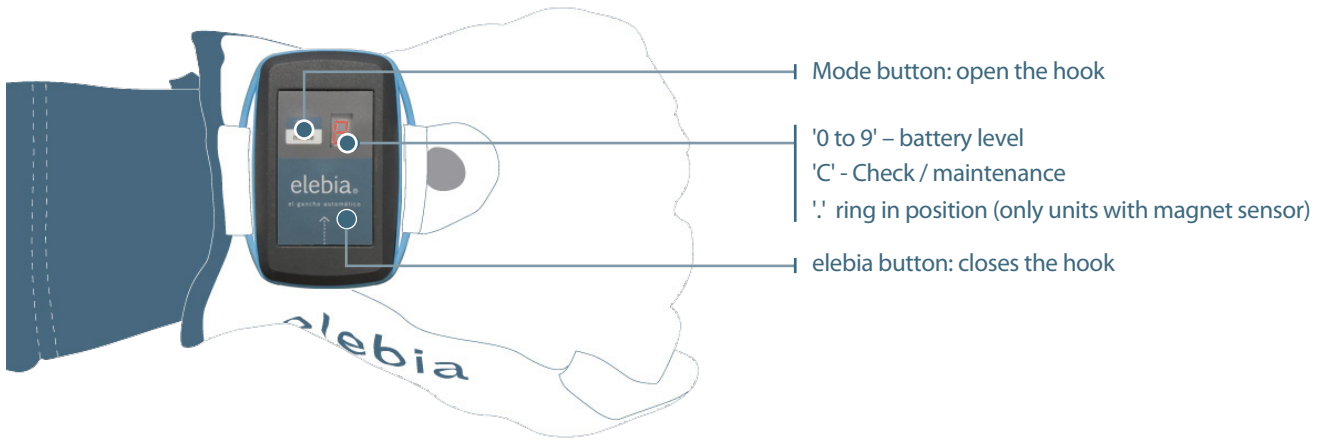


## MINI (Ref. eMini)

The eMini is a small, compact remote control. It can be integrated in a glove or with a wrist band to wear it as a watch.

Allows to open and close the hook, control the battery level of the hook.

It will also tell you when it's time for the annual inspection of the hook. It also displays sensor information and maintenance messages



Power supply	1 3V lithium battery (CR2032)
Autonomy	2 Years
Buttons	2
Dimensions	68 x 52 x 17 mm / 2.68 x 2.05 x 0.67 inches

## INSTALLABLE (Ref. elnst24 or elnst48)

If desired, the elebia® automatic hook can also be controlled using a free channel of the crane control.

The installable remote control has to be placed into the crane relay cabinet.

Only a simple wiring is needed. Compatible with all cranes and remotes.



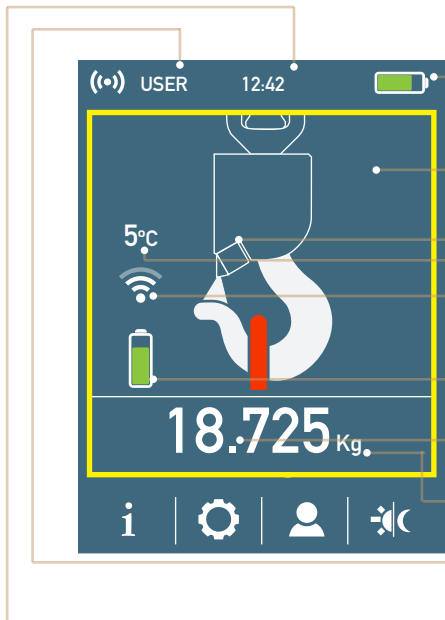
Power supply	24Vdc or 48Vdc
Buttons	2
Dimensions	80 x 140 x 45 mm / 3.15 x 5.51 x 1.77 inches

This is our most advanced and powerful remote control, able to control autohooks with weighing scale, while displaying all the info. With a big high resolution screen, and a high profile keypad, it is still handy and lightweight.



- USB connector, for charge, data export and software update.
- Rugged enclosure, IP65.
- Rubber bumper to protect from impacts
- TFT " high resolution, full colour, display
- Membrane keypad, with high profile and mechanical feel (can be operated with gloves).
- Directional keypad for fast, friendly and intuitive navigation through menus.
- Vibration
- Buzzer
- Rechargeable ion lithium battery

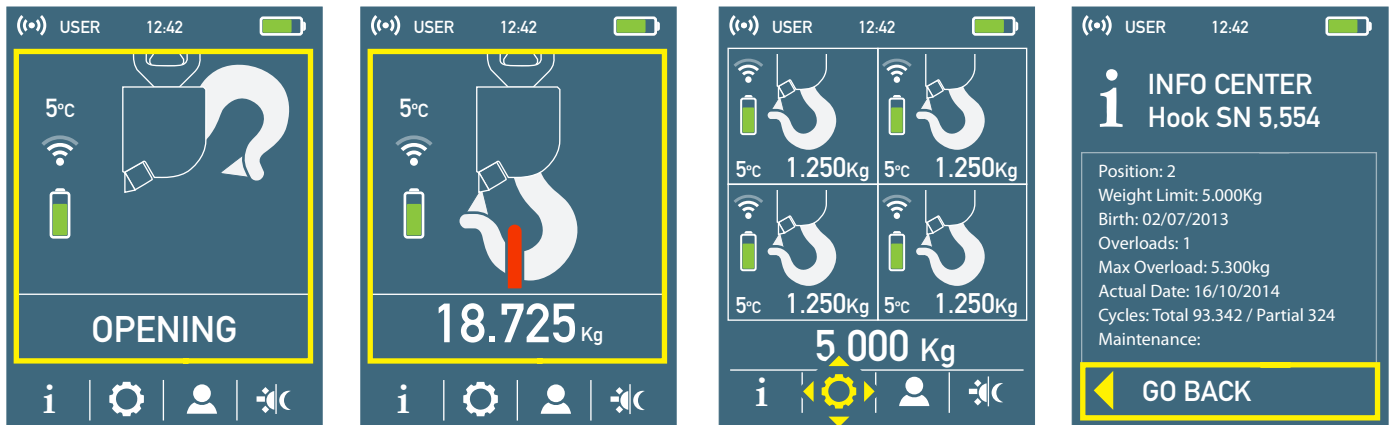
## DISPLAY



- Battery of the remote
- Hook state (open/closed)  
*(if unit has no encoder option, this is only by software)*
- Ring position *(only units with sensor)*
- Hook temperature *(alarms can be set for max and min limits)*
- Radio communication quality
- Battery level
- Weight on each hook, and total weight. *(if unit has load cell)*
- Units (Net/Gross)
- User logged
- Real time clock

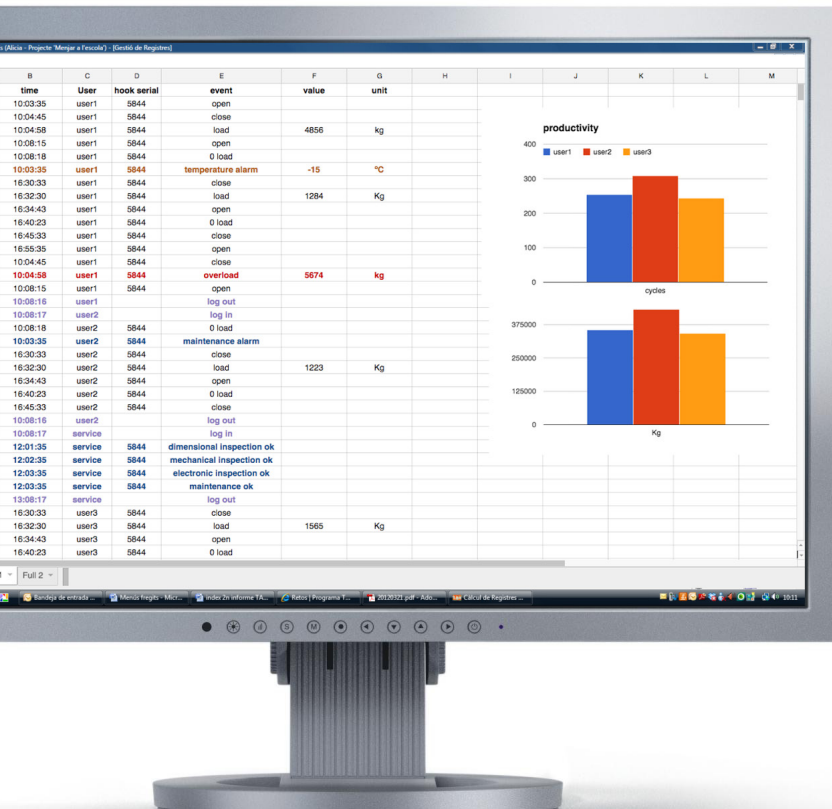
date	A
1	
2	15/05/2014
3	15/05/2014
4	15/05/2014
5	15/05/2014
6	15/05/2014
7	15/05/2014
8	19/05/2014
9	19/05/2014
10	19/05/2014
11	19/05/2014
12	19/05/2014
13	19/05/2014
14	20/05/2014
15	20/05/2014
16	20/05/2014
17	20/05/2014
18	20/05/2014
19	20/05/2014
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22	20/05/2014
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24	20/05/2014
25	20/05/2014
26	23/05/2014
27	23/05/2014
28	23/05/2014
29	23/05/2014
30	23/05/2014
31	23/05/2014
32	23/05/2014
33	03/06/2014
34	03/06/2014
35	03/06/2014
36	03/06/2014

The remote control is able to control and display many autohooks. The display adapts itself to the situation (1 hook, 2 hooks, 4 hooks, ...).

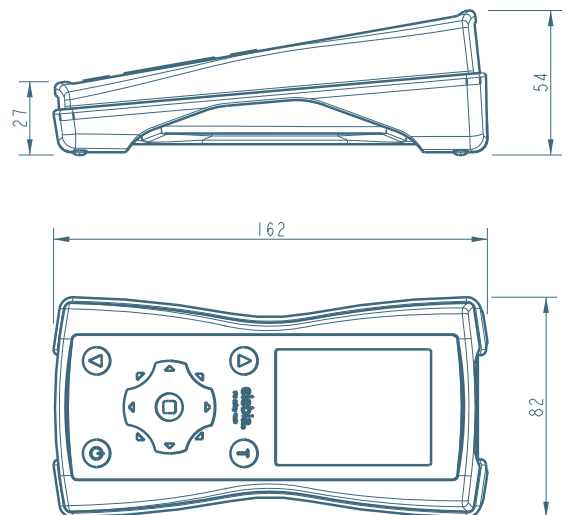


## SCALE

- Preset tares or capture tare
- Overload alarms  
*(visual, buzzer and vibration. Overload value, user, date and time recorded into the log file)*
- Unbalance alarm  
*(when 2 or more hooks are used)*
- Log events file with real time clock  
*(open, close, load, overload alarm, maintenance, ...)*
- Export log file via USB log file to spreadsheet.



## SPECIFICATIONS



Weight: 200gr

# BATTERY / CHARGERS

## BATTERY (Ref. EVO 1700)



- lock system
- led charge indicator
- on/off

No connectors, no wire, no cover. Push to insert, pull to remove.  
 Lock system to prevent battery from falling in case of impacts.  
 Ergonomic rubber handle to pull and carry the battery.  
 You'll always know the level of the battery, thanks to 4 high brightness leds.  
 ON/OFF button. Save battery when you don't plan to use the autohook.  
 High capacity: charge in 2 hours and work one week.

Technology	LI-ION
Capacity	2.200 mA/h
Charging time	3 hrs
Capacity:	Stand by 300h
	Cycles 5000

Tcharge	0 to +40 °C / 32 to 104 °F
Tdischarge	-20 to +60 °C / -4 to 140 °F
Tstorage	-20 to +50 °C / -4 to 122 °F

Cells	6 (serial)
Vn	22.2 V
Vmax/min	25,3 / 17 V

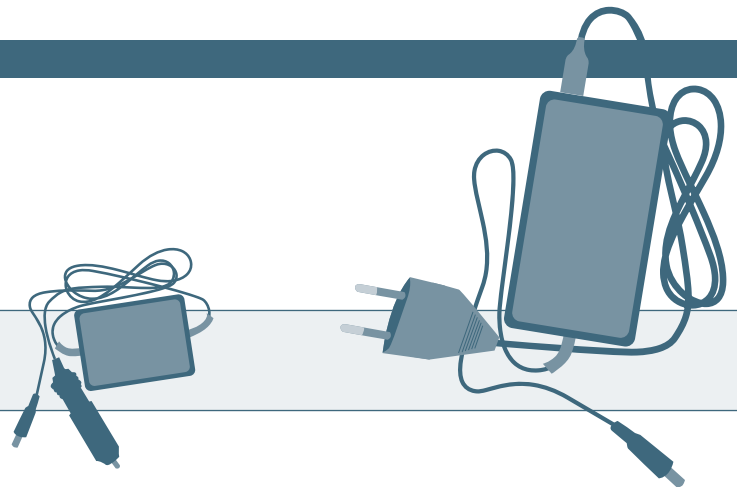
## 220v CHARGER (Ref. ch220)

### Specifications

Number of cells  
 Input voltage  
 Output  
 Charge indicator  
 Charge complete indicator

### Technical specifications

6 Li-ion/Li-Polymer cells in series  
 100V - 240V 50Hz - 60Hz 0.15A max  
 25.2V / 1A Max.  
 Yes, by red LED  
 Yes, by green LED



### 24V cc Charger (Ref. ch24)

A 24V cc Charger is also available.  
 This adapter/charger should be used only in vehicles with a 24-volt connector.

## Multiple Charger (Ref. chx10)



A charging station for 10 batteries units is also available.  
 In a rigid flight case, with transport handle and dish type butterfly lock.  
 Keep everything tidy and ready to work.

### Technical specifications

Dimensions	655x305x230 mm
Input voltage	100V - 240V 50Hz - 60Hz 0.15A max
Charge indicator	Yes, by red LED
Charge complete indicator	Yes, by green LED
Main switch	
Charging indicator	

# ACCESSORIES

## SWIVEL LOCK

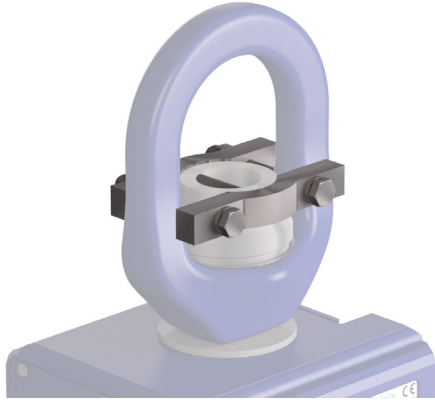
swivel lock: allows to block the top swivel at any desired position. Good for applications when a fixed orientation of the hook is desired.

References:

SWIVEL LOCK B5

SWIVEL LOCK B10

SWIVEL LOCK B20



## THE ELEBIA® BIG BAG

Instead of having 4 corner loops, we redesigned the bulk bag with two side handles and a central elebia® sling, which incorporates the metal insert. Thus we have a wide open top bigbag, one point lifting and automatic engage and release. With the automatic hook and the elebia® big bag, do the job more comfortable, safer and faster. It can be produced upon custom specifications.

Size: 0.9x0.9x1m, 1.000Kg with discharge valve. Ref. ELEBIA BB1



*\*elebia bigbags can be produced upon customer specifications.*

## THE ELEBIA® SLINGS

Elebia® slings are textile slings that incorporate metal strip. This allows the elebia® automatic hook to attract and orientate the sling.

Manufactured on many lengths and capacities, upon customers specifications.



You can also fill the hook configurator on a pdf file and send it by mail

Visiting [www.elebia.com/configurator](http://www.elebia.com/configurator) or scanning this QR Code.



# HOOK CONFIGURATOR

HOOK MODEL	evo5				evo10			evo20	
	--	B10	B20	L	--	B20	L	--	L
		Ref. OPTION B10	Ref. OPTION B20	Ref. OPTION L		Ref. OPTION B20	Ref. OPTION L		Ref. OPTION L

MAGNETIC SYSTEM	MAGNET SENSOR Ref. OPTION S		POWER MAGNET & RIGID SAFETY LATCH Ref. OPTION PMA	
	POWER MAGNET Ref. OPTION PM		VOID, NO MAGNETS Ref. OPTION V	

LOAD CELL		<p>All evo units can be upgraded with a load cell to weigh the load being lifted. Precise, reliable, rugged, compact and fully integrated into the autohook, no increase in weight and dimensions of the unit. Load cells can also be retrofitted to old evo models. Works in combination with the elebia remote control eMax (see page 10).</p>
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SPECIAL ENVIRONMENTS	MARINE Ref. OPTION M			ATEX / IECEx Ref. OPTION EX		
		DNV Ref. OPTION DNV			HEAT SHIELD Ref. OPTION HS	

REMOTE CONTROLS	eMAX Ref. EMAX			INSTALLABLE Ref. EINST24		
		eMINI Ref. EMINI			INSTALLABLE Ref. EINST48	

BATTERY / CHARGERS	BATTERY Ref. EVO 1700			24V CHARGER Ref. CH24		
		220V CHARGER Ref. CH220			MULTIPLE CHARGER Ref. CHX10	



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