

## Radio Remote Control Systems



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• ELECTRONIC •

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Crane Radio Remote Control Systems,  
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## About Us

The founders of Elfatek Elektronik who have brought their 15 years of experience in the industrial electronics sector to the Crane remote control sector in 2006, have produced the first crane remote controls with 80 channels and 120 hours of operating life in Turkey with the project support of TUBITAK. Now; 3D printer, Tour Switch, Load Switch, Load Switch External Display, Collision Sensor, Joystick Control, voice and light warning system has enriched the product portfolio.

Elfatek produces all electronic parts, software and mechanical parts of its remote controls under its own roof. Elfatek has become the leading crane remote control producer and designer of Turkey with its technological infrastructure investments and continuous research and development activities up to now.

The firm continues its activities with its young and dynamic engineer staff for developing the high-performance and high-quality products required by the industry. Our company, as of 27.10.2017 date by the Ministry of Industry and Technology in Industrial Electronics sector 1st in Konya, 41st in Turkey is certified as R & D center.

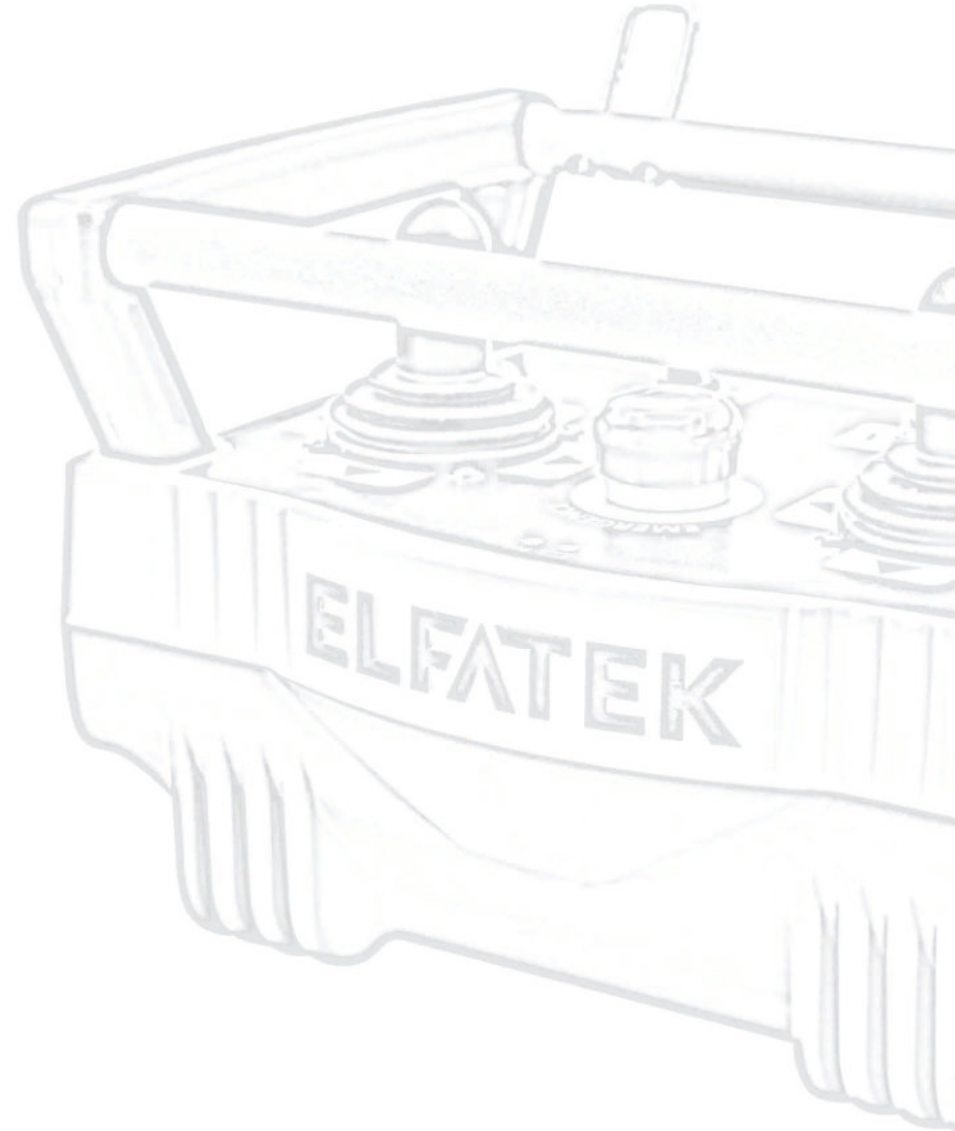
We export to 121 countries on this road, which we have started with the vision of "to develop industrial products at international level and become a leading company in R & D." With its young and dynamic engineers, it continues its activities in order to develop high-performance and high-quality products that the industry needs.

## Our mission

"Developing research and development based industrial products with high added value for increasing competitive power of our country."

## Our vision

"Developing industrial products at international level and becoming a leader firm in research and development filed."





#### DESIGN

It is designed ergonomically, for ease of use.



#### REMOVABLE BATTERY

Thanks to its special design it can be removed easily.

Works with 6 AA battery



#### I-CHIP

Easily transfer channel and ID data to spare transmitter or receiver thanks to I-chip technology.



#### START BUTTON

Start button also can be used as a horn button

\*Start/ horn is same button on Joystick Remote Control.



#### SELECTOR SWITCH

$\begin{pmatrix} 0-1 \\ 1-0-2 \end{pmatrix}$  Selected Switch



#### ANALOG POT

0-10 V Analog pot



#### ROTARY SWITCH

1/2/1+2 Rotary switch  
( Permanent or Momentary )



#### ROTARY SWITCH

1/2/1+2 Rotary switch  
( Permanent or Momentary )



#### ROTARY SWITCH

From 1 to 12 rotary permanent switch

## ANKA SERIES JOYSTICK REMOTE CONTROL

Anka series joystick remote control systems have been specially designed for ease of use by Elfatek Electronic. Crash-Proof equipment has been used in order to enhance the crashworthiness of outer body in case of external impacts.

## AREAS OF USAGE JOYSTICK REMOTE CONTROL

- \* Overhead travelling Cranes
- \* Mobile Cranes and Lifts
- \* Tow Trucks Cranes
- \* Hydraulic equipments
- \* Tower Cranes
- \* Chain hoist systems
- \* Sectional Door
- \* Special Machine Applications

# ANKA SERIES

## JOYSTICK REMOTE CONTROL SYSTEMS

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### ABOUT JOYSTICK REMOTE CONTROL

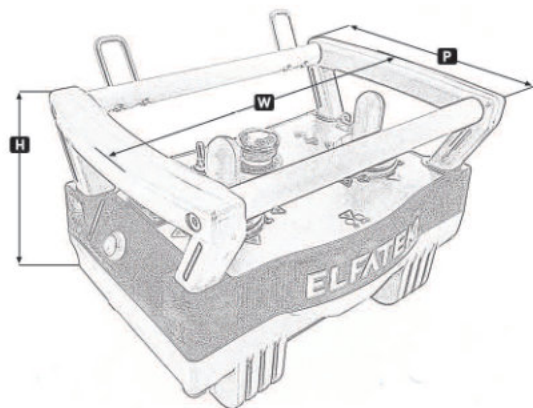
- ANKA SERIES JOYSTICK Remote Control Systems are designed to control industrial equipments. ( lifts, overhead cranes, tower cranes etc. )
- Receiver and transmitter communicate constantly. If there is no operation within 5 minutes ( can change 15, 30, 45 min ) ,100 meters communication distance is exceeded or battery is unexpectedly removed from joystick transmitter passes emergency stop mode.
- In all series of joysticks have low battery signal and frequency transmission signal.
- I- Chip removable frequency chip involves ID data channel and code informations of remote control which has been programmed distinctively for every different model. In case of any malfunction, I-Chip can be transferred to any Anka series spare joystick transmitter or receiver and there will be no work loss.
- By using selector switches (0-1), (1-0-2), and (Aux) button output different configurations can be made and joystick can be upgraded as multiple control systems.
- Safety and precision with ANKA series Joystick Remote Control Systems at the highest level.
- ANKA series Joystick Remote Control Systems are designed to provide economical solutions to the user.
- Battery using limit is 700 hours for constant using for JD type joystick.

### STANDARD SET

- 1 Receiver Unit
- 1,5 Meter Cable
- 1 Joystick Transmitter
- 1 Strap
- 6 (AA) Alkaline Batteries
- 2 battery boxes
- 4 Receiver Monunting Screws
- 2 Pieces Spare Glass Fuse ( 6A)
- User manual,Certificate of Warranty, Wiring Diagram, CE Certificate
- External antenna 5 dBi ( Optional )







Design patent belongs to  
**ELFATEK**

#### Dimensions of the Transmitter

MODEL	H [Height]	W [Width]	P [Depth]
<b>ANKA SERIES</b>	164 mm	247 mm	170 mm

#### TRANSMITTER UNIT

SPECIFICATIONS	ANKA
OPERATING FREQUENCY	2.4 GHz
NUMBER OF CHANNEL	80
OPERATING DISTANCE	≈ 100 m
RF SYSTEM POWER	10 mW ERP [Internal antenna]
DATA ENCRYPTION CODE	16 Bit
DELAY OF THE TRANSMITTER	< 1 s
RESPONSE TIME	< 25 ms
RT FOR EMERGENCY	< 25 ms
OPERATING - STORAGE TEMPERATURE RANGE	-40 °C - +85 °C
ENCLOSURE PROTECTION RATING	IP 65
NUMBER OF DIGITAL INPUT	40
BODY STRUCTURE	POLYAMID
SUPPLY VOLTAGE	3 VDC
JOYSTICK DIAMETER	SINGLE AXIS - DOUBLE AXIS
ACCELERATION SELECTABLE KEY	-
CURRENT REQUIREMENT	10 mA
BATTERY	6xAA ALKALI BATTERY
CONTINUOUS OPERATING TIME	≥ 700 hour
OPERATING TIME AFTER LOW BATTERY WARNING	5 dk [DURACELL BATTERY]
TRANSMITTER UNIT WEIGHT	≈1800 GR - 2100 GR DEPANDS ON THE MODEL

#### DIMENSIONS OF THE RECEIVER

MODEL	H [HEIGHT]	W [WIDTH]	D [DEPTH]
<b>MEDIUM RECEIVER</b>	246 mm	130 mm	61 mm
<b>LARGE RECEIVER</b>	275 mm	145 mm	66 mm

#### RECEIVER UNIT

SPECIFICATIONS	ANKA
OPERATING FREQUENCY	2.4 GHz
CHANNEL NUMBERS	80
OPERATING DISTANCE	≈100 m
DATA ENCRYPTION CODE	16 Bit
DELAY OF THE RECEIVER	< 1 s
RESPONSE TIME	< 25 ms
RT FOR EMERGENCY	< 25 ms
RECEIVER LINK TYPE	-
NUMBER OF PROCESSOR	1
NUMBER OF DIGITAL OUTPUT	19
NUMBER OF ANALOG OUTPUT	4
EXTRA AERIAL	OPTIONAL
OPERATING - STORAGE TEMPERATURE RANGE	-40 °C - +85 °C
ENCLOSURE PROTECTION RATING	IP 65
BODY STRUCTURE	POLYAMID
SUPPLY VOLTAGE	48-110-2250 VAC or [7- 35VAC -10-50VDC]
CURRENT POWER	5 W
OUTPUT RELAY IGNITION CAPACITY	10A 230 V
STOP RELAY IGNITION CAPACITY	10A 230 V
DIMENSIONS	DEPANDS ON THE MODEL
MAXIMUM WEIGHT	DEPANDS ON THE MODEL

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# ANKA SERIES

## JOYSTICK REMOTE CONTROL SYSTEMS

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### DIGITAL



#### JPD00001

- \* 6 movement double step digital output
- \* Double start button
- \* Light on/off switch
- \* Start/horn output
- \* Run output

(The relay activates an output signal when any key is pressed)



#### JPD00021

- \* 8 movement digital output
- \* 4 permanent digital output
- \* Light on/off switch
- \* Start/horn output
- \* Run output

(The relay activates an output signal when any key is pressed)



#### JPD 00022

- \* 8 permanent digital output
- \* Double start button
- \* Start/ output
- \* Run output

(The relay activates an output signal when any key is pressed)



#### JPD00023

- \* 6 movement 5 step digital output
- \* Double start button
- \* Light on/off output
- \* 2/1/1+2 tandem or multiple control selecting
- \* Start/horn output
- \* Run output

(The relay activates an output signal when any key is pressed)



#### JPD00024

- \* 6 movement 2 step digital output
- \* Double start button
- \* Light on/off switch
- \* 2/2/1+2 tandem or multiple control selecting
- \* Start/horn output
- \* Run output

(The relay activates an output signal when any key is pressed)



#### JPD00025

- \* 18 digital output
- \* Double start button
- \* Start/horn output
- \* Run output

(The relay activates an output signal when any key is pressed)



#### JPD00026

- \* 22 digital output
- \* Double start button
- \* Start/horn output
- \* Run output

(The relay activates an output signal when any key is pressed)



#### JPD00028

- \* 8 movement 2 step digital output
- \* Double start button
- \* Light on/off switch
- \* Start/horn output
- \* Run output

(The relay activates an output signal when any key is pressed)



#### JPD00029

- \* 12 digital output
- \* Start/horn
- \* Run output

(The relay activates an output signal when any key is pressed)



**ANALOG**



**JPA00001**

- \* 6 movement 0-10 analog output
- \* Double start button
- \* Light on/off switch
- \* Run output  
(The relay activates an output signal when any key is pressed)



**JPA00021**

- \* 4 analog output
- \* 2 units 0-10 V analog speed control
- \* 2/2/1/+2 Tandem or multiple control selecting
- \* Start/horn output
- \* Run output  
(The relay activates an output signal when any key is pressed)



**JPA00022**

- \* 6 movement 2 steps digital output
- \* Double start button
- \* Light on/off switch
- \* 2/1/1+2 tandem or multiple control selecting
- \* Start/horn output
- \* Run output (The relay activates an output signal when any key is pressed)





**JPA00023**

- \* 2 units 0-10 V analog output
- \* 14 digital output
- \* Double start button
- \* Start/horn output
- \* Run output  
(The relay activates an output signal when any key is pressed)



**JPA00025**

- \* 8 units 0-10 V analog output
- \* Double start button
- \* Light on/off switch
- \* Start/horn output
- \* Aux button
- \* Adjustable output options (  slow-fast  )
- \* 0-1 selector switch
- \* Run output (The relay activates an output signal when any key is pressed)



**JPA00028**

- \* 4 pcs of 0-10V analog output (8 movement)
- \* Double start button
- \* Lamp on / off switch
- \* Start / horn output \* Aux output (optional)
- \* (2), (1), (1 + 2) tandem or multiple control selection (optional)
- \* Run output (The relay activates an output signal when any key is pressed)



# ANKA SERIES

## JOYSTICK REMOTE CONTROL SYSTEMS

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### EN SERIES RADIO REMOTE CONTROL

EN X, ESX, MID and MAX concepts was specially designed for ease of use. EN Series Remotes are mainly used in construction cranes, overhead travelling cranes and in different kinds of applications. New series can be used in rolling plant, iron & steel, marble and many different industries. The remote body case is designed to stand impacts and harsh environment. Remote buttons are single & double step and can be used with gloves.



Foot-treadle remote control  
Code: PEDAL-101

- EN Series are manufactured 2,4,6,8,10 & 12 buttons. EN Series have 4 different models **EN-X**, **EN-ESX**, **EN-MID** and **EN-MAX** have 250 hours battery life.
- In all series emergency stop button, low battery signal, emergency and status LEDs are available.
- In all remote control models that have removable safety key are only used by authorized person. The iChip allows to continue without interruption if you have plugged into another **EN-X**, **EN-MAX**, **EN-MAX** and **EN-MAX** models.
- In the **EN-MAX** model, when the "start" button is momentarily pressed it gives the horn output, when the same button is pushed, the receiver switches to the starting position. All models are manufactured in accordance with the directives of the new generation technology SIL3 safety features.
- **EN-ESX**, **EN-MAX** receiver and transmitter are in continuous communication. If no operation is performed for 3 minutes and the shooting distance of 100 meters is exceeded or the battery is removed, it goes into emergency stop mode
- **EN-MAX** has 3 microprocessors with double safety relays.
- With **EN-MAX** Remote Control Series, safety and sensitivity are at the highest level.
- In **EN-X** remote control models are available for 6, 8, 10 buttons, in addition **EN-ESX** and **EN-MAX** remote control models are available 6, 8, 10, 12 buttons remote control systems.
- All movements of the **EN-X** series remote control models have dual-output.

IMAGINE, DESIGN, MANUFACTURE.

## EN SERIES TECHNICAL FEATURES

TRANSMITTER UNIT				
MODEL	ESX	MID	MAX	X
FREQUENCY	2.4 GHz I.S.M. BAND			
BUTTON UNIT	6,8,10	2,4,6,8,10,12	2,4,6,8,10,12	6,8,10
NUMBER OF CHANNEL	80			
OPERATING DISTANCE	≈ 100 m			
EMISSION POWER OF THE R.F. SYSTEM	10 mW ERP (INTERNAL ANTENNA)			
AVAILABLE PAIRING ADDRESS	65536			
DELAY TIME ON RECEIVER START	< 1 s			
COMMAND RESPONSE TIME	< 20 ms			
EMERGENCY RESPONSE TIME	< 20 ms			
OPERATING TEMPERATURE RANGE	-40 °C ~ +85 °C			
ENCLOSURE PROTECTION RATING	IP 65			
MATERIAL	POLYAMID			
POWER REQUIREMENTS	3 VDC			
BUTTON DIAMETER	20 MM			
DRAWN CURRENT	10mA			
BATTERY	2xAA BATTERY			
CONTINUOUS OPERATION	≥250 hours			
ADVISED TIME BATTERY LOW SIGNAL	30 min (DURACELL BATTERY)			
BUTTON 2 (INCLUDED BATTERY)	≈ 277 GR			
BUTTON 4 (INCLUDED BATTERY)	≈ 290 GR			
BUTTON 6 (INCLUDED BATTERY)	≈ 330 GR			
BUTTON 8 (INCLUDED BATTERY)	≈ 370 GR			
BUTTON 10 (INCLUDED BATTERY)	≈ 410 GR			
BUTTON 12 (INCLUDED BATTERY)	≈ 450 GR			

RECEIVER UNIT	
FREQUENCY	2.4 GHz I.S.M BAND
NUMBER OF CHANNEL	80
OPERATING DISTANCE	≈100 m
ON/OFF UNIT	MODELS HAVE DIFFERENT SIZES
AVAILABLE PAIRING ADRESSES	65536
DELAY TIME ON RECEIVER START	< 1 s
COMMAND RESPONSE TIME	< 20 ms
EMERGENCY RESPONSE TIME	< 20 ms
OPERATING TEMPERATURE RANGE	-40 °C ~ +85 °C
ENCLOSURE PROTECTION RATING	IP 65
MATERIAL	POLYAMID
POWER REQUIREMENTS	48-110-220 VAC or (7-35VAC~10-50VDC)
POWER DEMAND	3.2W MAX.
OUTPUT RELAY CONTACT CAPACITY	10A 230 V
STOP RELAY CONTACT CAPACITY	10A 230 V
SIZES	MODELS HAVE DIFFERENT SIZES
MAX. WEIGHT	MODELS HAVE DIFFERENT SIZES





# ANKA SERIES

## JOYSTICK REMOTE CONTROL SYSTEMS

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### EN MID SERIES PRODUCTS

201	2 Buttons Single Step Radio Remote Crane Control System
201 - A	2 Buttons Single Step + AUX Output Radio Remote Crane Control System
202	2 Buttons Double Step Radio Remote Crane Control System
202 - A	2 Buttons Double Step + AUX Output Radio Remote Crane Control System
401	4 Buttons Single Step Radio Remote Crane Control System
401 - A	4 Buttons Single Step + AUX Output Radio Remote Crane Control System
402	4 Buttons Double Step Radio Remote Crane Control System
402 - A	4 Buttons Double Step + AUX Output Radio Remote Crane Control System
601	6 Buttons Single Step Radio Remote Crane Control System
601 - A	6 Buttons Single Step + AUX Output Radio Remote Crane Control System
602	6 Buttons Double Step Radio Remote Crane Control System
602 - A	6 Buttons Double Step + AUX Output Radio Remote Crane Control System
601 - S1	6 Buttons Single Step, With 0-1 Selector Switch RRCCS
602 - S1	6 Buttons Double Step, With 0-1 Selector Switch RRCCS
601 - S2	6 Buttons Single Step, With 1-0-2 Selector Switch RRCCS
602 - S2	6 Buttons Double Step, With 1-0-2 Selector Switch RRCCS
801	8 Buttons Single Step Radio Remote Crane Control System
801 - A	8 Buttons Single Step + AUX Output Radio Remote Crane Control System
802	8 Buttons Double Step Radio Remote Crane Control System
802 - A	8 Buttons Double Step + AUX Output Radio Remote Crane Control System
801 - S1	8 Buttons Single Step, With 0-1 Selector Switch RRCCS
802 - S1	8 Buttons Double Step, With 0-1 Selector Switch RRCCS
801 - S2	8 Buttons Single Step, With 1-0-2 Selector Switch RRCCS
802 - S2	8 Buttons Double Step, With 1-0-2 Selector Switch RRCCS
1001	10 Buttons Single Step Radio Remote Crane Control System
1001 - A	10 Buttons Single Step + AUX Output Radio Remote Crane Control System
1002	10 Buttons Double Step Radio Remote Crane Control System
1002 - A	10 Buttons Double Step + AUX Output Radio Remote Crane Control System
1001 - S1	10 Buttons Single Step, With 0-1 Selector Switch RRCCS
1002 - S1	10 Buttons Double Step, With 0-1 Selector Switch RRCCS
1001 - S2	10 Buttons Single Step, With 1-0-2 Selector Switch RRCCS
1002 - S2	10 Buttons Double Step, With 1-0-2 Selector Switch RRCCS
1201	12 Buttons Single Step Radio Remote Crane Control System
1201 - A	12 Buttons Single Step + AUX Output Radio Remote Crane Control System
1202	12 Buttons Double Step Radio Remote Crane Control System
1202 - A	12 Buttons Double Step + AUX Output Radio Remote Crane Control System
1201 - S1	12 Buttons Single Step, With 0-1 Selector Switch RRCCS
1202 - S1	12 Buttons Double Step, With 0-1 Selector Switch RRCCS
1201 - S2	12 Buttons Single Step, With 1-0-2 Selector Switch RRCCS
1202 - S2	12 Buttons Double Step With 1-0-2 Selector, Switch RRCCS

### EN ESX - EN MAX SERIES PRODUCTS

601	6 Buttons Single Step Radio Remote Crane Control System
601 - A	6 Buttons Single Step + AUX Output Radio Remote Crane Control System
602	6 Buttons Double Step Radio Remote Crane Control System
602 - A	6 Buttons Double Step + AUX Output Radio Remote Crane Control System
601 - S1	6 Buttons Single Step, With 0-1 Selector Switch RRCCS
602 - S1	6 Buttons Double Step, With 0-1 Selector Switch RRCCS
601 - S2	6 Buttons Single Step, With 1-0-2 Selector Switch RRCCS
602 - S2	6 Buttons Double Step, With 1-0-2 Selector Switch RRCCS
801	8 Buttons Single Step Radio Remote Crane Control System
801 - A	8 Buttons Single Step + AUX Output Radio Remote Crane Control System
802	8 Buttons Double Step Radio Remote Crane Control System
802 - A	8 Buttons Double Step + AUX Output Radio Remote Crane Control System
801 - S1	8 Buttons Single Step, With 0-1 Selector Switch RRCCS
802 - S1	8 Buttons Double Step, With 0-1 Selector Switch RRCCS
801 - S2	8 Buttons Single Step, With 1-0-2 Selector Switch RRCCS
802 - S2	8 Buttons Double Step, With 1-0-2 Selector Switch RRCCS
1001	10 Buttons Single Step Radio Remote Crane Control System
1001 - A	10 Buttons Single Step + AUX Output Radio Remote Crane Control System
1002	10 Buttons Double Step Radio Remote Crane Control System
1002 - A	10 Buttons Double Step + AUX Output Radio Remote Crane Control System
1001 - S1	10 Buttons Single Step, With 0-1 Selector Switch RRCCS
1002 - S1	10 Buttons Double Step, With 0-1 Selector Switch RRCCS
1001 - S2	10 Buttons Single Step, With 1-0-2 Selector Switch RRCCS
1002 - S2	10 Buttons Double Step, With 1-0-2 Selector Switch RRCCS
1201	12 Buttons Single Step Radio Remote Crane Control System
1201 - A	12 Buttons Single Step + AUX Output Radio Remote Crane Control System
1202	12 Buttons Double Step Radio Remote Crane Control System
1202 - A	12 Buttons Double Step + AUX Output Radio Remote Crane Control System
1201 - S1	12 Buttons Single Step, With 0-1 Selector Switch RRCCS
1202 - S1	12 Buttons Double Step, With 0-1 Selector Switch RRCCS
1201 - S2	12 Buttons Single Step, With 1-0-2 Selector Switch RRCCS
1202 - S2	12 Buttons Double Step With 1-0-2 Selector, Switch RRCCS

### EN X SERIES PRODUCTS

X6	6 Buttons Double Step Radio Remote Crane Control System
X6 - A	6 Buttons Double Step + Aux Output Radio Remote Crane Control System
X6 - S1	6 Buttons Double Step With 0-1 Selector Switch RRCCS
X6 - S2	6 Buttons Double Step With 1-0-2 Selector Switch RRCCS
X8	8 Buttons Double Step Radio Remote Crane Control System
X8 - A	8 Buttons Double Step Radio Remote Crane Control System
X8 - S1	8 Buttons Double Step With 0-1 Selector Switch RRCCS
X8 - S2	8 Buttons Double Step With 1-0-2 Selector Switch RRCCS
X10	10 Buttons Double Step Radio Remote Crane Control System
X10 - A	10 Buttons Double Step Radio Remote Crane Control System
X10 - S1	10 Buttons Double Step With 0-1 Selector Switch RRCCS
X10 - S2	10 Buttons Double Step With 1-0-2 Selector Switch RRCCS



# ELFATEK®

• E L E C T R O N I C •



**ELFATEK®**

## ELFATEK ELEKTRONİK LTD. ŞTİ.

Fevzi Çakmak Mahallesi Modesa Sanayi Sitesi 10735 Sokak No: 10 Karatay / Konya / TÜRKİYE  
Tel: +90 332 345 38 83 (Pbx) Fax: +90 332 345 38 84  
Mail: [elfatek@elfatek.com.tr](mailto:elfatek@elfatek.com.tr) Mail: [export@elfatek.com.tr](mailto:export@elfatek.com.tr)  
[www.elfatek.com.tr](http://www.elfatek.com.tr)

