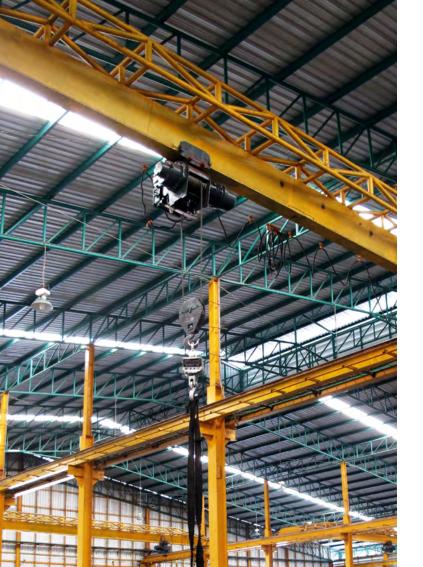


ELCA, engineers, produce and sell its quality radio and cable controls worldwide, providing its customers with full operational satisfaction and services for standard and custom needs.

ELCA FOR: INDUSTRY (LIFTING, LOGISTIC, AUTOMATION, PROCESSES), CONSTRUCTION AND CONCRETE, AGRICULTURE, FORESTRY, LOGISTIC, VEHICLES EQUIPMENT, ECOLOGY, SUSTAINABILITY, MATERIALS MINING, DRILLING OPERATIONS, ...





INDUSTRIAL HOIST

bridge cranes (beam, tripod, flag).

CRANE AND LIFTING WINCHES ARE USUALLY SUPPLIED WITH A STANDARD PENDANT CABLE CONTROL. IN ORDER TO ALLOW **OPERATOR GREATER FREEDOM OF MOVEMENT** A SAFETY RADIO REMOTE CONTROL IS OFTEN THE LOGICAL SOLUTION. IN ADDITION TO FLEXIBILITY OF MOVEMENT, THE MOST IMPORTANT ADVANTAGE OF THE USE OF A RADIO REMOTE CONTROL IS THE ABILITY OF THE OPERATOR **TO CONTROL THE MACHINE AND SUSPENDED LOADS FROM A SAFE DISTANCE AND AWAY FROM HAZARDOUS AREAS.** HANDLED LOADS AND WORKING AREA ARE ALWAYS VISIBLE.

CONSTRUCTION

tower cranes, self-erecting cranes, hoists.

THE CONSTRUCTION INDUSTRY WAS ONE OF THE FIRST AREAS TO BENEFIT FROM THE USE OF RADIO REMOTE CONTROLS IN THE FIELD OF CONSTRUCTION CRANES (SELF-ERECTING, TOWER AND FLAG). THE OPERATOR CAN WORK IN THE SAFEST POSITION AND HAVE VISION OF LOAD BEING HANDLED. THE WORKING AND HANDLING OF THE MATERIAL IS FAST AND EFFECTIVE.

ELCA OFFERS A CHOICE OF HANDHELD AND WAIST-PORTABLE RADIO REMOTE CONTROLS APPLICABLE TO ALL MODELS OF CRANES.

THE RECEIVERS ARE EASY TO WIRE UP (THIS CAN BE DONE BY ELCA AS AN OPTION), CAN BE INSTALLED OUTSIDE THE ELECTRICAL CABINET (IP65) OR INTERNALLY (WITH USE OF EXTERNAL ANTENNA, OPTIONAL).





CONCRETE

concrete pumps, concrete mixers, conveyor belts.

THE MOVEMENT OF THE CONCRETE REQUIRES THE USE OF INDESTRUCTIBLE MACHINES AND TOOLS, WHICH ARE ALWAYS PUT TO THE TEST BY A STRESSFUL WORK ENVIRONMENT.

THE ELCA RADIO REMOTE CONTROLS ARE VERY USEFUL AND EFFECTIVE ON CONCRETE PUMPS (BOTH MOBILE AND STATIONARY).

THE OPERATOR, FROM THE BEST LOCATION AND WITHOUT RESTRICTION FROM A CABLE, CAN SEE AND MEASURE MATERIAL BEING DISCHARGED.

THE JOB IS ALSO MUCH MORE EFFICIENT ON CONCRETE MIXER APPLICATIONS AND OTHER SIMILAR MACHINERY IN THIS APPLICATION.

TIMING PRECISION AND PERFORMANCE CREATED BY THE RADIO REMOTE CONTROL ALLOWS CONFIDENCE IN GETTING THE JOB DONE SUCCESSFULLY.

MOBILE HOIST

hydraulic cranes for trucks, mobile cranes, aerial platforms.

INTHIS FIELD OF APPLICATION OFTEN THE CRANES ARE USED IN DIFFERENT AREAS (NOT FIXED); IT IS THEREFORE IMPORTANT THAT THE RADIO REMOTE CONTROLS RESIST WELL TO POSSIBLE DISTURBANCES IN THE WORKING AREA.

THE MANEUVERS OF LIFTING AND HANDLING PERFORMED WITH A REMOTE-CONTROLLED CRANE CAN BE MADE FROM THE SAFEST, THE MOST PRECISE AND EFFECTIVE POSITION, AVOIDING UNUSEFUL MOVEMENTS.

THE ELCA RANGE IS ABLE TO SATISFY CUSTOM-ERS SPECIFIC NEEDS, WHICH ARE DIFFERENT FROM CASE TO CASE, THEREFORE ALLOWING THE CREATION OF A CUSTOM RADIO FOR THE MOST EFFECTIVE AND OPTIMAL SOLUTION EVEN WITH "PLUG & PLAY" OPTION FOR FAST INSTAL-LATION.





AGRICULTURE

machines, drives and processes.

IN THIS FIELD OF APPLICATION, TRADITION AND MODERNIZATION COME TOGETHER TO OFFER OPERATORS THE BEST AND MOST SUSTAINABLE SOLUTION. THE RADIO REMOTE CONTROL ENABLES TO CONTROL EFFECTIVELY, WITHOUT LOSS OF TIME, COMMANDS WHICH COULD BE FOUND EXTERNALLY FROM THE MACHINE IN USE, AVOIDING OBSTACLES AND EXTENSION CABLES OR INCONVENIENT FIXED STATIONS, CONTINUOUS MOVEMENT (OFTEN LARGE DISTANCES) FOR REPEATED COMMANDS.

IT ALLOWS WORKING ALONE WHERE NORMALLY THE HELP OF A SECOND PERSON IS REQUIRED. IN THIS ASPECT THE ELCA RADIO REMOTE CONTROL BECOMES A RELIABLE PARTNER WHICH MAKES THE JOB EASIER AND MORE PRODUCTIVE.

FORESTRY

wood processing machines.

THE SPECIFIC NATURE AND ENVIRONMENT OF THIS SECTOR REQUIRES TRAINED PROFESSIONALS WHO HAVE THE NECESSARY TOOLS AND RESOURCES AND QUALITY SYSTEMS TO PERFORM THE JOB.

ELCA'S RADIO REMOTE CONTROLS FOR FOREST MACHINES ENABLES THE **OPERATOR TO WORK EFFECTIVELY AND SAFELY**, AVOIDING HAZARDOUS RISKS. A WIRELESS CONTROL SOLUTION ALLOWS YOU TO WORK IN THE SAFEST POSITON, WITH THE BEST VISIBILITY, TO MAINTAIN CONSTANT EYE CONTACT WITH LOADS OR MOVEMENTS IN ACTION.

ELCA RADIO REMOTE CONTROLS ARE CONSTRUCTED WITH TOP QUALITY COMPONENTS AND MATERIALS; THEY ARE LIGHTWEIGHT COMPACT AND MADE TO LAST. THE LOW POWER ELECTRONICS IS POWERED BY A LITHIUM BATTERY WHICH ALLOWS UP TO 50 HOURS OF CONTINUOUS USE AT A 100% DUTY CYCLE (A FULL WORKING WEEK WITHOUT RECHARGING).





INDUSTRIAL AND LOGISTICS

handlers, processing machines, industrial processes.

THE GOAL IN INDUSTRY IS TO ACHIEVE THE BEST BALANCE BETWEEN COST AND BENEFITS AND WITHOUT LOSS OF QUALITY, TO BE MORE COMPETITIVE AND SUCCESSFUL. ELCA RADIO REMOTE CONTROLS, WHEN INSTALLED ON DIFFERENT TYPE OF MACHINES AND INDUSTRIAL PROCESSES, ALLOW THE OPERATOR TO BE EFFECTIVE AND INDEPENDENT IN EXECUTING THE COMMANDS, TO FINDING THE BEST WORKING POSITION, TO BE ABLE TO REACT QUICKLY IN FRONT OF VISUAL OR ACOUSTIC SIGNALS ACTIVATED BY THE CONTROL SYSTEM AND TO WORK IN A GENERALLY MORE EFFECTIVE MANNER.

COMMANDS ARE MADE WITHOUT TIME LOSS, WITH MORE PRECISION AND ACCURACY AND GREATER WORKING SAFETY.

VEHICLE EQUIPMENT

tow trucks, mobile food or shop trucks and tail lifts.

MOBILE VEHICLES, TYPICALLY, ARE INSTALLED WITH SIMPLE RADIO REMOTE CONTROLS, WHICH IN ANY CASE, STILL NEED TO PERFORM COMPLEX COMMANDS AND TO BE RELIABLE, **TO WORK** "24H" AND RUGGED.

TOW TRUCKS, HANDLING THE REMOVAL AND TRANSPORT OF VEHICLES, TEND TO REQUIRE COMPACT HANDSETS AND **IMMUNE TO RADIO INTERFERENCE AS THEY OFTEN OPERATE IN AREAS OF CONGESTED SIGNALS**. THEY ARE ALSO REQUIRED TO HAVE SIGNIFICANT AUTONOMY (LITHIUM BATTERY).

CATTLE OR LIVESTOCK TRAILERS OFTEN REQUIRE RADIOS WITH HIGH NUMBER OF COMMANDS OR MOVEMENTS WHICH ALLOWS WORK TO BE DONE INDEPENDENTLY AND SAFELY BY WORKING AROUND THE TRAILER OR VEHICLE IN THE MOST EFFECTIVE AND SAFE POSITION.





MATERIAL EXTRACTION OR MINING

machines for quarries, sawing machines, mills, screeners, conveyors and demolishers.

THE MACHINERY USED IN THIS SECTOR HEAV-ILY TEST THE RESISTANCE AND STRUCTURE OF THE RADIO. ALMOST ALL APPLICATIONS WORK IN HARSH CONDITIONS (DUST, WATER, OIL, VI-BRATIONS) AND THEREFORE IT IS VITAL THAT RADIO RESISTS AND CAN BE EASILY SERVICED AND MAINTAINED. ELCA RADIO REMOTE CON-TROLS ARE MADE IN ITALY AND USE ONLY PRE-MIUM QUALITY MATERIALS. WORN OUT PARTS OR SERVICING CAN BE DONE EASILY WITHOUT THE NEED OF SPECIAL TOOLS OR DEVICES. IT CAN BE DONE QUICKLY AND DIRECTLY ON THE WORKING SITE, FLCA RADIO REMOTE CONTROLS OPTIMIZES THE JOB TO BE DONE AND ALLOWS OPERATOR TO WORK IN A SAFE DISTANCE, AWAY FROM DANGER AND ELEMENTS, WITHOUT LOOS-ING SIGHT OF MACHINE ACTIVITY.

DRILLING ACTIVITY

drilling and tunneling machines.

THIS IS A CHALLENGING ENVIRONMENT, BOTH, FOR MACHINE AND MAN.

TO ENSURE SAFETY AND THE OPTIMAL RESULT OF THE PERFORMED OPERATIONS, INSTRUMENTS OF HIGH AND PROVEN QUALITY MUST BE USED. ELCA RADIO REMOTE CONTROLS WITH THEIR SPECIFIC SOLUTIONS FOR EVERY MACHINE (OFTEN CUSTOM MADE) HELP TO WORK EFFICIENTLY AND ALLOW OPERATORS FREEDOM OF MOBILITY AROUND THE MACHINE AND GENERAL WORK AREA. THE COMPONENTS OF THE RADIO REMOTE CONTROL, SWITCHES, CASING ECT. ARE CHOSEN TO LAST LONG AND TO BE QUICKLY AND EFFICIENTLY REPLACED, WHEN NECESSARY.





ENVIRONMENTAL, SUSTAINABILITY

septic pumps, dust suppressors, compact presses.

THE ACTIVITIES RELATED TO THIS APPLICATION FIFLD ARE OFTEN PERFORMED IN PLACES DIFFICULT TO ACCESS THAT PUT TO THE TEST EVEN THE PROPAGATION OF THE RADIO SIGNAL: COMPACT, STRONG AND LIGHT SHAPES ARE TO BE PREFERRED. PREPARATION, CLEANING AND INSPECTION OPERATIONS ARE EASIER AND FASTER; TECHNICIAN REMAINS AT THE CORRECT DISTANCE FROM DANGEROUS OR ANNOYING MANEUVERS. THE CONSTANT POSSIBILITY OF CONTACT WITH WATER AND OTHER LIQUIDS CALLS FOR THE CHOICE OF WELL PROTECTED SYSTEMS (IP65), MADE WITH DURABLE MATERIALS.

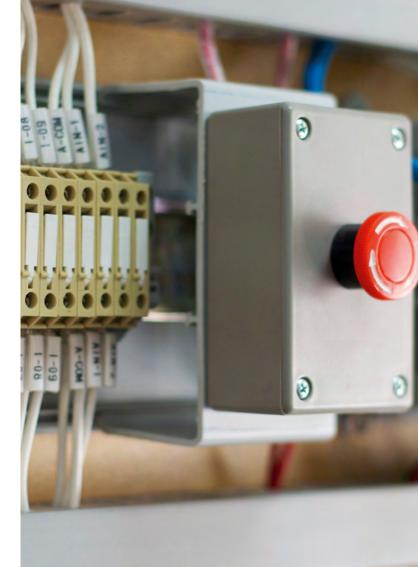
INDUSTRIAL AUTOMATION

PLC, relay control, contactors.

SOLUTIONS TO INCREASE THE PRODUCTIVITY OF WORKING PROCESSES WITH EASE AND CONTROL OF RESOURCES, EVEN IN THE MOST TRADITIONAL AND MECHANICAL SECTORS. THE RADIO REMOTE CONTROLS ARE PRESENT IN THE LIST OF "INGREDIENTS" OF THE TECHNICIANS WHO WANT TO PROVIDE WINNING SOLUTIONS!

ELCA'S CUSTOMERS CAN CHOOSE CASES, HAND-HELD AND WAIST PORTABLE RADIO REMOTE CONTROLS WITH DIFFERENT SHAPES AND SIZES ON WHICH YOU CAN INSTALL THE MOST SUIT-ABLE CONTROL ACTUATORS (BUTTONS, TOGGLE SWITCHES, JOYSTICKS, POTENTIOMETERS, ...) AND DEDICATED OPERATING LOGICS.

THE RADIO REMOTE CONTROL, WHEN PROVIDED IN THE EARLY STAGES OF THE PROJECT, ALLOWS TO HAVE MACHINES EASIER TO USE AND LESS EXPENSIVE (REDUCING COMMANDS, FIXED LOCATIONS, DUPLICATION OF ACTUATORS AND RESOURCES ...).





THE ELCA RADIO REMOTE CONTROL FAMILY

ELCA strives for **continuous improvement** and innovation, and uses its experience and professional staff for advancement in products, solutions, and processes.

ELCA "must": provide the highest standard of service, quality components, reliable and easy to operate products, safety and design.

SERIES MITO

HANDHELD: MINI, MINI+ (Plus) WAIST PORTABLE: PIC, VETTA

SERIES E1

HANDHELD: MINI+ (Plus), MIA WAIST PORTABLE: PIC, VETTA,

PUNTO, SFERA, M

SERIES MAGO HANDHELD: EVO

SERIES BRAVO

WAIST PORTABLE: M

compact handheld MINI

DIM. 60X110X25 mm LIGHTWEIGHT: 100 g COMMANDS 4-8-10 STATUS LED LITHIUM BATTERY



MINI is a compact, robust radio system with IP67 degree of protection, ideal for use in the harshest working conditions. It has been used in an array of applications and is versatile with possibility of customized layouts and flexible settings.

The MINI transmitter is powered by a long lasting internal Lithium Battery ad it's LBT (Listen Before Transmit) feature, basically, eliminates frequency interruption.

Easy pairing of multiple transmitter, and bi-directional technology is just a few of the added features of this "MINI".

APPLICATIONS

recovery vehicles - concrete - pumps - industrial automation - logistic

compact handheld MINI+ (Plus)

DIM. 62X137X35/50/72 mm COMMANDS 4-6-8 STOP Cat. 3 Pld * 4 LED Feedback * single/double action *



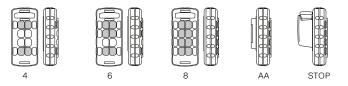


E1 series *

MINI+ (Plus) is the new compact pushbutton (200 g) that extends the range of model MINI. Configurations with 4-6-8 commands, clearly indicated; ergonomic shape with easy use with protection gloves, too.

The electronic E1 is supplied with single or two speed pushbuttons, category 3 PLd EN ISO 13849-1 stop function; 4 data feedback programmable Led.

Powered by Lithium battery; USB power supply; USB cable Elca-Clip (AA batteries also available optional).



APPLICATIONS

logistic - vehicle equipment - lift - industrial applications

compact waist portable PIC

DIM. 125X87X62 mm 3 TOGGLE SWITCHES 2-3 POS. STOP Cat. 3 PId POTENTIOMETER 4 LED Feedback



E1 series *

PIC is a compact waist portable radiocontrol with E1 and MITO technology. 3 positions toggle switch commands, customizable.

Powered by Lithium battery, rechargeable, long lasting battery (up to 50 hrs. with series MITO, up to 20 with E1. New series E1 electronic, allows to implement new functionalities, such as: analogic potentiometer, 4 datafeedback LEDs and up to category 3 PI d EN ISO 13849-1 safety stop circuit.

PIC is supplied with a very comfortable waist belt.

compact waist portable VETTA

DIM. 170X81X74 mm 5 TOGGLE SWITCHES 3 POS. STOP Cat. 3 PId POTENTIOMETER 4 LED Feedback



F1 series *

VETTA is a compact and reliable radiocontrol with reduced dimensions and weight. It can control up to 9 functions, plus Start and Stop.

Available with proportional adjusting speed and 4 feedback LED (series E1).

Replaceable internal Lithium battery with ELCA-CLIP power supply.

Customized control panels and functional modes, available as option.

APPLICATIONS

forest winches - concrete mixers - generic controls

APPLICATIONS

forest winches - logistic - industry - concrete mixers

E1 SERIES

handheld EVO

DIM. 71X193X43 mm DOUBLE STEP PUSH-BUTTONS 6 4 LED Feedback



EVO is a smart handheld radio remote control made for industrial use and resistant to harsh operating conditions. 6 Double-Step pushbuttons; programmable single step button; Stop and electronic Start key.

Programmable auto shut-down; IP65 protection degree; internal rechargeable Lithium battery with up to 40 hours of continuous usage; 4 LED feedback indicators. Exclusive ELCA-CLIP power supply.

handheld MIA

DIM. 75X237X57 mm
DOUBLE STEP
PUSH-BUTTONS 10
4 LED Feedback
+ SIDE FUNCTIONS (opt.)





MIA is the new industrial handheld radiocontrol with up to 23 on/off commands, 10 double-step pushbuttons, 2 programmable single-step push-buttons, Start and Stop, IP65 and LBT, all in a unique stylish ergonomic transmitter design.

Options include: 1-0-1 toggle switch; dead-man function; pushbuttons or a potentiometer with proportional output on lateral side; up to 4 LED feedback indicators and versionwith Display. Easy pairing code key; Interchangeable Lithium battery and integrated battery charger ELCA-CLIP.

APPLICATIONS

hoists - tower cranes - industrial applications

APPLICATIONS

hoists - lift - cranes - tower cranes - recovery vehicles

waist portable **PUNTO**

DIM. 170X140X125 mm 2 PROPORT, JOYSTICK "or" 4 SINGLE AXIS JOYSTICK 3 TOGGLE SWITCHES CUSTOMIZABLE



PUNTO is a compact waist portable transmitter supplied with 2 double or 4 single axis joysticks, on/off or proportional, 3 toggle switches, removable Start key and Stop button. Any transmitter can be customized with rotary switches, buttons, and toggles in different areas of the control unit

A comfortable waist belt, 2 rechargeable NiMh batteries and power supply are included in each set.





2 ON/OFF

4 PROPORTIONAL

APPLICATIONS

cranes - hoists - tower cranes - customizable

waist portable SFERA

DIM. 234X140X145 mm 3 PROP. JOYSTICK "or" 6 SINGLE AXIS JOYSTICK 5 TOGGLE SWITCHES CUSTOMIZABLE



The SFFRA has the same characteristics as the PUNTO but is slightly larger with the possibility of mounting up to 3 double axis or 6 single axis joysticks, on/off or proportional, 5 toggle switches, removable start key and Stop button.

A larger surface makes SFERA a must for customization. Very comfortable and easy to handle by the operator, thanks to It's ergonomic shape, lightweight and comfortable waist belt





3 ON/OFF

6 PROPORTIONAL

APPLICATIONS

concrete pumps - tower cranes - hoists - lift - cranes

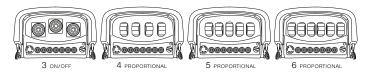
waist portable M

DIM. 282X175X180 mm 3 PROPORT. JOYSTICK "or" 4-5-6 SINGLE AXIS JOYSTICK 7 TOGGLE SWITCHES CUSTOMIZABLE



The M Transmitter (BRAVO proportional and E1 on/off systems), is a popular choice for flexibility and space. With a larger working area, the M can mount single/double axis joysticks and a variation of layouts with potentiometer, toggles, switches and buttons. 7 voltage and 6 PWM outputs are available along with a mix of 28 on/off commands.

Rechargeable Lithium battery with 20 hrs. autonomy, automatic frequency hopping, as well as remote modification of analog settings makes it one of ELCA's best selling systems.



APPLICATIONS

proportional commands - concrete mixers - cutomizable





Cable controls can drive machinery at a distance in several situations: in place of a radio control in situations where radio usage is limited (airports, military areas, etc.), as a backup system to avoid machine down time (with a kit radio/cable with exact same layout, where a fixed control panel on the machine is not possible or where a control via cable is preferred.

Controls modes, on/off or proportional technology, cable length, available on request.

APPLICATIONS

airports - military areas - concrete pumps

RECEIVING UNITS





The receiver is an integral part of the remote control. Connected to electrical box of the machine to control and following a pairing verification it is activated by the start function of the transmitter, ready to receive commands or send data feedbacks.

ELCA uses an array of receivers based on the number of functions, type of electronic, on/off or proportional outputs and power supply (Vac, Vdc).

They are supplied with standard cable gland outputs and can be completely wired to customer specifications.

All receivers are designed to be installed quickly and to work in extreme conditions. Fixing plates or external antennas are available upon request.

STANDARD SYSTEM

1 Transmitter Unit + 1 Receiver Unit

MULTI KEY SYSTEMS

on request multi-transmitter and multi-receiver systems

ACCESSORIES and SPARE PARTS



Accessories and spare parts selection is simple.

Businnes Partner section:

dedicated to OEM's and resellers; to enter this section an access code is required. After which it is possible to visualize, select and buy spare parts and accessories.

ELCA Store section:

available to any end user; here you can buy ELCA accessories, such as batteries, belts, covers, power supplies.

CONTACTS

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WHERE WE ARE

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