MADE 100% IN ITALY

sistematica

A Company in constant evolution

1987 ...... **SISTEMATICA S.r.l.** starts out as an Electronic Engineering Company

1991 ...... The Business expands to the industrial production of Electronic Systems

1995 .... Sistematica's first Radio Remote Control is for the Agricultural sector

2002 ...... The Firm is registered as a research lab accredited by MIUR

2007 ...... First Radio Remote Control System with Sistematica patents (SAFETY POINT™ and TILTING HAND™ technology)

2011 ...... CLOSELINK bidirectional communication is introduced in the products, ensuring constant dialogue between handheld and controller

2016 ...... Product restyling and creation of the CLASSIC Line

2020
Launch of SMARTLINE devices, revolutionizing the concept of Remote Control by managing software updates and online diagnostics via a specific MOBILE APP

Handhelds - Classic Line

Handhelds are moulded in a RESISTANT plastic material that protects them against accidental falls, with an ERGONOMIC rubber shell for a more solid grip. The standard stickers have a specific colour depending on of their field of application and they are all CUSTOMIZABLE also with logos or symbols. SAFETY functions too can be decided, such as the use of a WIRED remote control to limit the user's operating area, or the START & STOP buttons to avoid activating the remote by mistake, or by adding the Emergency button, also called MUSHROOM (on TREND and EGO) to end any activity immediately in case of necessity. Also, the standard software is set with the MAINTAINED function (M= each command is active only while keeping the corresponding key pressed down). The 10mm diameter keys are easy to identify by touch and the backlit keypad is ideal for situations with poor light.

1
The START & STOP keys enable or disable the system, avoiding activation in case of accidental impact

2
Leds that signal activation or malfunction of the system

3
Silicone rubber keys (diameter 10mm) with optional backlit keypad

4
Low consumption electronics (longer duration of batteries and of the electronic components)

5
Moulded rubber shell, ergonomic and waterproof

6
Customizable serigraphy sticker

PHILO

Wired remote control with a smooth 2mt cable and a basic handheld, ergonomic and unbreakable, pocketsize and adaptable to all those applications that require simple handling.

The backlit keypad up to 4 keys with numbers or arrows, is standard. A possible digital input is indicated by the red led, while the green one shows the presence of power.

Among the standard safety features is the Maintained function (M= the operation activates while the button is pressed, otherwise it stops). It does not require a controller on the vehicle since it connects directly to the utilities (e.g. solenoid valve) through the free wires, therefore without the need of connectors.
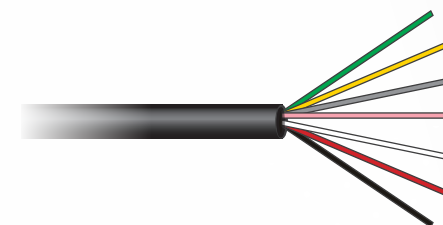
TECHNICAL FEATURES	
KEYS	1 to 4
DIMENSIONS (H x W x D)	109 x 56 x 30 mm
DEGREE OF PROTECTION	IP66
POWER SUPPLY	12 - 24 Vdc ± 10%
MAXIMUM CURRENT PER OUTPUT	4A
MAXIMUM TOTAL CURRENT	8A
OPERATING TEMPERATURE	-20°C to +55°C

STANDARD CONFIGURATIONS	
2 KEYS	4 KEYS
2 OUTPUTS	4 OUTPUTS
1 INPUT	1 INPUT
1 OUTPUT (MO)	/

Maximum cable configuration

BRAVO

Wired remote control with START & STOP safety default and the Maintained function (M= the operation activates while the button is pressed, otherwise it stops). The backlit keypad can be customized up to 4 keys, with numbers or arrows, and has a coiled cable that extends from 60 cm to 2 meters.

The red led indicates an eventual digital input if the light is fixed, while it indicates the anomaly of extra-current if it flashes (the system turns off the output if in overload). The green led indicates the presence of power and the yellow led indicates if the system is activated.

The integration of recirculation diodes on the outputs makes the device particularly suitable for direct piloting of inductive loads such as solenoid valves. It does not require a controller on the vehicle but connects directly to the utilities without a connector (free wires).

TECHNICAL FEATURES	
KEYS	1 to 4 (besides START & STOP)
DIMENSIONS (H x W x D)	109 x 56 x 30 mm
DEGREE OF PROTECTION	IP66
POWER SUPPLY	12 - 24 Vdc ± 10%
MAXIMUM CURRENT PER OUTPUT	4A
MAXIMUM TOTAL CURRENT	8A
OPERATING TEMPERATURE	from -20°C to + 55°C

STANDARD CONFIGURATIONS (customizable on request)	
2 KEYS	4 KEYS
2 OUTPUTS	4 OUTPUTS
1 INPUT	1 INPUT
1 OUTPUT (MO) 1 OUTPUT EO (START)	/
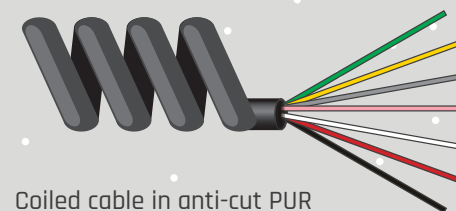
Coiled cable in anti-cut PUR and unsheathed termination

NIMBLE

Radio remote control with START & STOP safety default and the Maintained function (M= each function is only active if keeping the corresponding key pressed down).
The keypad has 2 keys, in addition to the START & STOP functions, and can be customized with numbers or arrows. The red led indicates that the battery is almost empty while the green one indicates that the device is powered correctly, in addition to the presence of radio transmission.
Combinations: it can only be paired with a CNTR4 reciever.

TECHNICAL FEATURES	
KEYS	2 (besides START & STOP)
FREQUENCY	ISM 868 / 915 MHz
POWER SUPPLY	2 AAA alkaline batteries 1,5V
STAND-BY ABSORPTION	approx. 5 µA
AVERAGE ABSORPTION DURING TRANSMISSION	25 mA
OPERATING TEMPERATURES	-20˚C to +55˚C
DIMENSIONS (H X W X D)	109 x 56 x 30 mm

EASY

Radio remote control with START & STOP safety default and the Maintained function (M= each function is only active keypad the corresponding key pressed down). The keyboard can be customized up to 6 keys, with numbers or arrows. The red led indicates that the battery is almost empty while the green one that the handheld is correctly powered, in addition to the presence of radio transmission.

Combinations: it can be paired with a CNTR4, CNTR8, CNTR20 or RADIOCAN; among the options the backlit keypad and its cradle.

TECHNICAL FEATURES	
KEYS	Up to 6 (besides START & STOP)
FREQUENCY	ISM 868 / 915 / 433 MHz
POWER SUPPLY	2 AAA alkaline batteries 1,5V
STAND-BY ABSORPTION	approx. 5 µA
AVERAGE ABSORPTION DURING TRANSMISSION	25 mA
OPERATING TEMPERATURE	-20°C to + 55°C
DIMESIONS (H x W x D)	109 x 56 x 30 mm

! The EASY handheld has two standard configurations, each for a specific field: RESCUE and NEMO

RESCUE

Specific for the **VEHICLE RESCUE** sector, the backlit keypad is a default feature, with 4 arrow keys and two black pre-selection keys to command the 9 controls (such as platform movement, winch actuation, etc.), selectable via the black key on the right, while on the left there is another black key for switching on the headlight. Its controller is a CNTR20 with a specific cable and is supplied as a KIT.

NEMO

Specific for the **NAUTICAL SECTOR**, the shell and sticker print are blue with default START & STOP safety functions. Up to 9 functions can be customized to operate the gangway, anchor, tender, propellers and siren, of all brands and models. Water resistant, its perfect seal and the volumetric ratios are specially designed to allow the handheld to float.
Customizable in 4 models, the version that includes them all is called NEMO PLUS.

TREND

Evolution of the EASY device, this radio remote control can have up to 14 keys on its keypad. Its versatility consists in being able to manage a total of 56 commands through the PAGE CHANGE function.
The red led indicates that the battery is almost empty while the green one indicates that the handheld is powered correctly, in addition to the presence of radio transmission.
Combinations: it can be paired with a CNTR8, CNTR20 or RADIOCAN.

TECHNICAL FEATURES	
COMMANDS	From 4 to 56
FREQUENCY	ISM 433 / 868 / 915 MHz
POWER SUPPLY	2 AA 1.5V alkaline batteries
STAND-BY ABSORPTION	approx. 10 µA
AVERAGE ABSORPTION DURING TRANSMISSION	30 mA
OPERATING TEMPERATURE	-20˚C to + 55˚C
DIMENSIONS (H x W x D)	165 x 80 x 40 mm

! The Emergency MUSHROOM button is an option on TREND and EGO handhelds, that helps ensure complete control of operations any time an emergency stop of the application is required.
To reactivate the system it is therefore necessary to release the button and then press START.

EGO

EGO is a radio remote control generation of its own. Born with a programmable LCD graphic screen, its display is very visible as it manages so many functions, the user has to be able to call them up and view them with simplicity.

Li-PO rechargeable batteries ensure full functionality, including the backlight of both screen and keypad.

To recharge them, the handheld is equipped with a specific cradle that also acts as a table support.

Combinations: it can be paired with a CNTR20, CNTR32 or RADIOCAN.

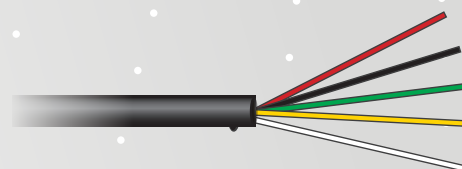| TECHNICAL FEATURES	
UNLIMITED COMMANDS	Unlimited
FREQUENCY	ISM 433 / 868 / 915 MHz
POWER SUPPLY	Li-PO battery 3,27Vdc
STAND-BY ABSORPTION	approx. 150 µA
AVERAGE ABSORPTION DURING TRANSMISSION	127 mA
OPERATING TEMPERATURE	-20°C to + 55°C
DIMENSIONS (H x W x D)	180 x 78 x 40 mm

Controllers - Classic Line

CLASSIC LINE Controllers have an integrated INTERNAL ANTENNA (excluding CNTR4, as per photo below, and CNTR32), the EMERGENCY OUTPUT (EO= active for the entire working session) and the MASTER OUTPUT (MO= which activates together with each key, suitable for piloting bypass valves or remote switches for the activation of the pump, present in most hydraulic systems).

Each Controller also has a unique code (over 4 billion of identifiers) defined at origin, that prevents interaction with other systems. Multiple devices can therefore operate in the same area, without interfering with each other.

CNTR4

This Controller's circuit board is completely resinated so it is absolutely waterproof (IP68) and has three outputs, an external antenna and an integrated 1.5 meter long cable with no final connector (free wires). Ideal for all pocketsize radio remote control models.

Maximum cable configuration

TECHNICAL FEATURES	
N. OUTPUTS	2 + MO
FREQUENCY	ISM 868 / 915 MHz
PROTECTION LEVEL	IP68
SUPPLY VOLTAGE	12 - 24 Vdc ± 10%
MAXIMUM CURRENT PER OUTPUT	5A
MAXIMUM TOTAL CURRENT	7A
OPERATING TEMPERATURE	-20°C to + 55°C
DIMENSIONS (ANTENNA EXCLUDED)	58 x 80 x 22 mm

CNTR8

Controller with up to 8 outputs
plus a digital input.

TECHNICAL FEATURES	
N. OUTPUTS	6 + MO + EO (on START)
N. DIGITAL INPUTS	1 (losing 1 output)
N. PROPORTIONAL OUTPUTS	1 (2 outputs are lost)
FREQUENCY	ISM 868 / 915 / 433 MHz
PROTECTION	IP66
SUPPLY VOLTAGE	12 - 24 Vdc ± 10%
OPERATING TEMPERATURE	-20˚C to + 55˚C
MAXIMUM CURRENT PER OUTPUT	5A
MAXIMUM TOTAL CURRENT	10A
DIMENSIONS (H X W X D)	108 x 110 x 44 mm

CNTR20

Controller with up to 20 outputs,
one of which, reversible, is configurable
as a digital input.

TECHNICAL FEATURES	
N. OUTPUTS	18 + MO + EO (on START)
N. DIGITAL INPUTS	1 (1 output is lost)
N. PROPORTIONAL OUTPUTS	1 (2 outputs are lost)
FREQUENCY	ISM 868 / 915 / 433 MHz
PROTECTION	IP66
SUPPLY VOLTAGE	12 - 24 Vdc ± 10%
OPERATING TEMPERATURE	-20˚C to + 55˚C
MAXIMUM CURRENT PER OUTPUT	5A
MAXIMUM TOTAL CURRENT	10A
DIMENSIONS (H X W X D)	133 x 154 x 44 mm

CNTR32

Controller with default Light Guide, up to 32 outputs (one of which proportional) and 4 digital inputs.
A 40 conductor wiring.

TECHNICAL FEATURES	
N. OUTPUTS	30 + MO + EO (on START)
N. DIGITAL INPUTS	4
N. PROPORTIONAL OUTPUTS	1 (2 outputs are lost)
FREQUENCY	ISM 868 / 915 MHz
PROTECTION	IP66
SUPPLY VOLTAGE	12 - 24 Vdc ± 10%
OPERATING TEMPERATURE	da -20°C a +55°C
MAXIMUM CURRENT PER OUTPUT	5A
MAXIMUM TOTAL CURRENT	20A
DIMENSIONS (H X W X D)	182 x 139 x 38 mm

RADIOCAN

Controller that receives a radio signal from a transmitter (EASY-TREND-EGO) and retransmits it on a serial Canbus line. This allows the Can outputs to go into a second programmed control unit, also equipped with a Canbus line (e.g. ECU, PLC, etc.). Sistematica Canbus communication is a proprietary protocol. The 4-pole M12 male connector is standard.

CABLES

The standard cable (free wire terminal with connector on demand) is cabled with a SICMA 24 or 56 connector. A restraint slide ensures set-up operations to be quick and easy, as well as a resistant and durable connection.

CNTR8 - 20

12 CONDUCTOR CABLE: XCBLSEC12RXX_L	
COLOUR OF EACH CONDUCTOR	STD
RED	+BATT
BLACK	-BATT
WHITE	MO
GREEN/WHITE	EO
GREEN	OUT1
YELLOW	OUT2
GREY	OUT3
PINK	OUT4
ORANGE	OUT5
VIOLET	OUT6
BROWN	RISERVE (+BATT)
BLUE	RISERVE (-BATT)

17 CONDUCTOR CABLE: XCBLSEC17RXX_L	
COLOUR OF EACH CONDUCTOR	STD
RED	+BATT
BLACK	-BATT
WHITE	MO
GREEN/WHITE	EO
GREEN	OUT1
YELLOW	OUT2
GREY	OUT3
PINK	OUT4
ORANGE	OUT5
VIOLET	OUT6
GREY/WHITE	OUT7
RED/WHITE	OUT8
VIOLET/WHITE	IN DIG
BROWN/WHITE	-
YELLOW/WHITE	-
BROWN	RISERVE (+BATT)
BLUE	RISERVE (-BATT)

25 CONDUCTOR CABLE: XCBLSEC25RXX_L	
COLOUR OF EACH CONDUCTOR	STD
RED	+BATT
BLACK	-BATT
WHITE	MO
GREEN/WHITE	EO
GREEN	OUT1
YELLOW	OUT2
GREY	OUT3
PINK	OUT4
ORANGE	OUT5
VIOLET	OUT6
GREY/WHITE	OUT7
RED/WHITE	OUT8
BEIGE/WHITE	OUT9
LIGHT BLUE	OUT10
BLACK/WHITE	OUT11
BLUE/WHITE	OUT12
LIGHT BLUE/WHITE	OUT13
ORANGE/WHITE	OUT14
VIOLET/WHITE	OUT15
	INDIG
PINK/WHITE	OUT16
BROWN/WHITE	OUT17
YELLOW/WHITE	OUT18
BROWN	RISERVE (+BATT)
BLUE	RISERVE (-BATT)
BEIGE	unused

CNTR32

40 CONDUCTOR CABLE: XCBLSEC40RXX_L	
COLOUR OF EACH CONDUCTOR	STD
RED	+BATT
BLACK	-BATT
BIANCO	MO
RED/BROWN	EO
BLUE	OUT1
BROWN	OUT2
GREY	OUT3
VIOLET	OUT4
PINK	OUT5
ORANGE	OUT6
TRANSPARENT	OUT7
BEIGE	OUT8
BLACK/WHITE	OUT9
BLUE/WHITE	OUT10
BROWN/WHITE	OUT11
GREY/WHITE	OUT12
RED/WHITE	OUT13
VIOLET/WHITE	OUT14
PINK/WHITE	OUT15
ORANGE/WHITE	OUT 16
TRANSPARENT/WHITE	OUT 17
BEIGE/WHITE	OUT 18
BLUE/BLACK	OUT 19
BROWN/BLACK	OUT 20
GREY/BLACK	OUT 21
RED/BLACK	OUT 22
VIOLET/BLACK	OUT 23
PINK/BLACK	OUT 24
ORANGE/BLACK	OUT 25
TRANSPARENT/BLACK	OUT 26
BEIGE/BLACK	OUT 27
BROWN/BLUE	OUT 28
GREY/BLUE	OUT29
RED/BLUE	OUT30
PINK/BLUE	INDIG
ORANGE/BLUE	INDIG
TRANSPARENT/BLUE	INDIG
YELLOW/GREEN	INDIG
BEIGE/BLUE	CAN H
GREY/BROWN	CAN L

OPTIONS

TILTING HAND (only on EASY or TREND)

It has the ability to control an output proportionally by pressing the desired button while rotating the handheld to adjust, for example, the velocity of the operation.

LEFT ROTATION, REMOTE TILTS LEFT

SLOWS DOWN

ACCELERATES

STARTING POSITION

RIGHT ROTATION, REMOTE TILTS RIGHT

SLOWS DOWN

STARTING POSITION

ACCELERATES
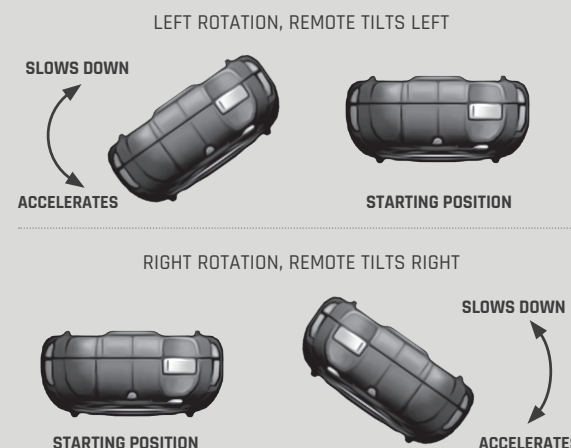
EMERGENCY KEYBOARD (only on CNTR8 or CNTR20)

Positioned on the Controller, it allows to operate the system when it is not possible to use the handheld (e.g. dead batteries, loss of handheld). Through the emergency keyboard it is also possible to carry out the pairing procedure without opening the Controller and therefore losing its warranty.

CRADLE

Generic handheld support. Valid for all versions of wired and pocketsize handhelds. Also for TREND. The EGO has its own specific support sold together with the product as a table charger.

SAFETYPOINT (only on radio remote controls)

This technology reduces the risk of accidents or damages to things or people near the moving parts, and to the operator too. The handheld equipped with SafetyPoint™ performs the commands related to the safety function only if it is located near the SafetypointPlate plate, which can also be applied directly on the support (CRADLE) of the handheld.

On the EASY, TREND and EGO versions, you can activate the **BUZZER** option or alternatively the **VIBRACALL** option. In the event that the **BACKLIT KEYPAD** is not a default option (EASY - TREND) it can be requested, as well as for the **LIGHT GUIDE** on the CNTR8 and CNTR20 controllers. The serigraphy stickers and KEYS can be customized with colours, pictograms or symbols (NIMBLE excluded). All **SOFTWARE** can be customized too, with the exception of PHILO handheld and of the CNTR4 Controller.

PARTNERS

sistematica.it

CL-SSM-CTL-1-0002-1.0

> sistematica

Sistematica S.r.l. - Via Andrea Sansovino 217 - 10151 - Torino - Italia

info@sistematica.it