MADE 100% IN ITALY

sistematica

A Company in constant evolution

1987 ...... SISTEMATICA S.r.l. starts off as an Electronic Engineering Office

1991 ...... The business extends to the industrial production of Electronic Systems

1995 .... First SISTEMATICA radio control created for the Agricultural sector

2002 ...... The Company enters the register of research labs accredited by MIUR

2007 ...... First radio-controlled system equipped with Sistematica SAFETY POINT™ and TILTING HAND™ patents

2011 ...... Sistematica creates CLOSELINK, a bidirectional communication which ensures constant dialogue between handheld and controller

2016 ...... Release of the CLASSIC line

2020 ...... Creation and release of the SmartLine, a 4.0 product meant to revolutionize the world of radio remote controls by managing software and diagnostics online, through a specific APP for tablets and smartphones

2021 ...... Expansion of the WIRED range with SIGNAL and BLAZE. R&D for RADIUS and ANGEL technologies

Handhelds - Classic Line

Our handhelds are moulded in a RESISTANT plastic material to protect them against accidental falls, with an ERGONOMIC rubber shell for a more solid grip. The serigraph's colours change according to field application and may also be CUSTOMIZED with logos or symbols of choice. The 10 mm diameter keys are easy to identify by touch and the backlit keypad is ideal in situations of poor visibility.

As SAFETY options we provide solutions ranging from the WIRED remote, which limits the operator's space of manoeuvre, to the START & STOP buttons or the insertion of an Emergency "MUSHROOM". Our standard software manages the 'Maintained' feature on all keys (M= each command remains active only by keeping the corresponding key pressed down, if released the activity halts).

1 The START & STOP keys help to avoid accidental activation of a command

2 LEDs that provide information on the system

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

4 Low consumption electronics

5 Moulded rubber shell, ergonomic and waterproof

6 Customizable serigraphy sticker

SIGNAL

SIGNAL wired remote control is our solution for the requirement of a direct connection to our Client's set-ups. Unlike other Sistematica products that connect to the vehicle's utilities, SIGNAL interacts with the Customer's electronics first, which in turn connects to the utilities.

Operation is guaranteed from -20°C to + 55°C and its black serigraph highlights the standard backlit keypad that is featured on all ClassicLine handhelds. It is equipped with an anti-cut PUR spiral harness and 6-wire stripped termination, 60 cm long and extendable up to 2 meters.
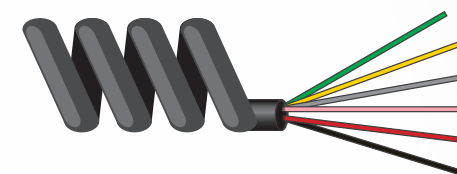
TECHNICAL FEATURES	
KEYS	2 or 4
DIMENSIONS (H x W x D)	109 x 56 x 30 mm
DEGREE OF PROTECTION	IP67
POWER SUPPLY	10 - 30 Vdc ± 10%
MAXIMUM CURRENT PER OUTPUT	100 mA
MAXIMUM TOTAL CURRENT	150 mA
OPERATING TEMPERATURE	-20°C to +55°C

STANDARD CONFIGURATIONS	
2 KEYS	4 KEYS
2 OUTPUTS	4 OUTPUTS

Maximum cable configuration

PHILO

Wired remote control with 2 or 4 keys and a 7-wire spiral cable extendable up to 2 meters. Ergonomic and unbreakable, its pocket size makes it adaptable to all those applications that require simple handling.
The keypad is backlit as for all the wired range, and it does not require a controller on the vehicle as it connects directly to the utilities (eg solenoid valve). It is equipped with two LEDs that indicate the digital input (⇒▢ red LED) and the presence of power (▢N green LED).
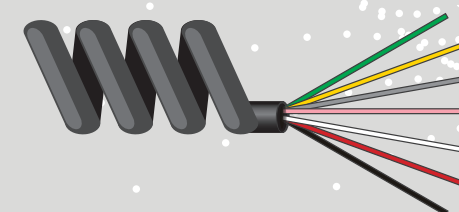
TECHNICAL FEATURES	
KEYS	2 or 4
DIMENSIONS (H x W x D)	109 x 56 x 30 mm
DEGREE OF PROTECTION	IP67
POWER SUPPLY	10 - 30 Vdc ± 10%
MAXIMUM CURRENT PER OUTPUT	4 A
MAXIMUM TOTAL CURRENT	8 A
OPERATING TEMPERATURE	-20˚C to +55˚C

STANDARD CONFIGURATIONS	
2 KEYS	4 KEYS
2 OUTPUTS	4 OUTPUTS
1 INPUT	1 INPUT

Maximum cable configuration

BRAVO

Wired remote control with START & STOP keys and the standard backlit keypad. It is equipped with 3 LEDs that indicate the presence of power (□N green LED), the digital input (⇒□ red LED) and an eventual extra current anomaly (⚠ yellow LED). The integration of recirculation diodes on the outputs makes the device particularly suitable for the direct driving of inductive loads such as solenoid valves. It does not require a controller on the vehicle as it connects directly to the utilities via a 7-wire 60 cm spiral cable, extendable up to 2 meters.
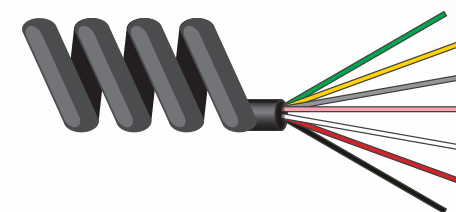
TECHNICAL FEATURES	
KEYS	2 or 4 (besides START & STOP)
DIMENSIONS (H x W x D)	109 x 56 x 30 mm
DEGREE OF PROTECTION	IP67
POWER SUPPLY	10 - 30 Vdc ± 10%
MAXIMUM CURRENT PER OUTPUT	4A
MAXIMUM TOTAL CURRENT	8A
OPERATING TEMPERATURE	from -20°C to + 55°C

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

Coiled cable in anti-cut PUR and unsheathed termination

BLAZE

This wired remote control is top of its range coming to options: START & STOP buttons, the backlit keypad with 8 standard key functions and a meter long 10-wire coiled cable that extends up to 2 meters. It has 4 LEDs that indicate the presence of power (⬜N green LED) from the vehicle, a digital input (⇨⬜ Red LED), an eventual generic warning (⚠ yellow LED) and a white LED that flashes from pressing the START button until termination of activities.

TECHNICAL FEATURES	
KEYS	8 (besides START & STOP)
DIMENSIONS (H x W x D) (with mushroom)	180 x 80 x 40 mm
DEGREE OF PROTECTION	IP67
POWER SUPPLY	10 - 30 Vdc ± 10%
MAXIMUM CURRENT PER OUTPUT	3A
MAXIMUM TOTAL CURRENT	6A
OPERATING TEMPERATURE	from -20˚C to + 55˚C

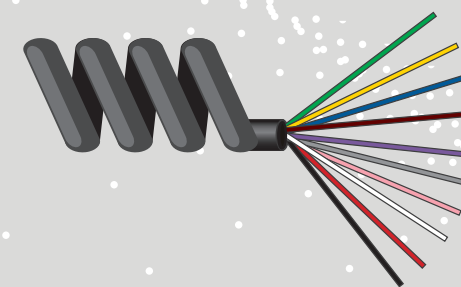❗ The Emergency MUSHROOM button is on demand

STANDARD CONFIGURATIONS
8 OUTPUTS ❗ the addition of M0 uses 1 output
1 INPUT ❗ as an alternative to 1 output

Coiled cable in anti-cut PUR and unsheathed termination

NIMBLE

Remote control with 2 keys that can be customized with numbers or arrows. START & STOP is a standard feature and the two LEDs indicate low battery and radio transmission.
Combinations: it only pairs with the CNTR4 controller.

TECHNICAL FEATURES	
KEYS	2 (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
DIMENSIONS (H x W x D)	109 x 56 x 30 mm
DEGREE OF PROTECTION	IP67

EASY

Remote control up to 6 keys with START & STOP safety features, customizable with numbers or arrows. Equipped with 4 LEDs which indicate battery, presence of radio transmission, the SafetyPoint option and a twilight sensor.

Combinations: CNTR4, CNTR8, CNTR20 or RADIOCAN.

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
DIMENSIONS (H x W x D)	109 x 56 x 30 mm
DEGREE OF PROTECTION	IP67

EASY has two standard field applications:

RESCUE, with the standard backlit keypad, 4 arrow keys and two preselection black keys for the 9 commands (platform or winch via the one on the right, flashlight via left key).
Combinations: CNTR20 and specific cable.

NEMO, NAUTICAL sector, has a blue shell and serigraph and can be customized up to 9 functions (gangway, anchor, tender, propellers and siren). Waterproof, its volumetric ratios are designed to allow the handheld to float. The version that includes all 4 models is called **NEMO PLUS**.

TREND

This radio remote control can have up to 14 keys: its versatility consists in being able to manage up to 56 commands through the PAGE CHANGE function (4 pages). Standard LEDs indicate battery, presence of radio transmission, eventual SafetyPoint and twilight sensor.
Combinations: CNTR8, CNTR20, CNTR32 o RADIOCAN.

TECHNICAL FEATURES	
COMMANDS	From 2 to 56
FREQUENCY	ISM 868 / 915 / 433 MHz
POWER SUPPLY	2 AA alkaline batteries 1,5V
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) (no mushroom)	165 x 80 x 40 mm
DEGREE OF PROTECTION	IP67

! The Emergency MUSHROOM button is on demand

EGO

EGO is a fully programmable radio remote control with LCD graphic screen. The rechargeable Li-PO batteries ensure operativity of all functions, including the backlighting of screen and keypad. To recharge them, the handheld is equipped with a specific charger that also acts as a support.
Combinations: CNTR20, CNTR32 or RADIOCAN.

TECHNICAL FEATURES	
COMMANDS	on demand
FREQUENCY	ISM 868 / 915 / 433 MHz
POWER SUPPLY	Li-PO battery 3,7Vdc
STAND-BY ABSORPTION	approx. 150 µA
AVERAGE ABSORPTION DURING TRANSMISSION	120 mA
OPERATING TEMPERATURE	-20˚C to + 55˚C
DIMENSIONS (H x W x D) (with mushroom)	180 x 80 x 40 mm
DEGREE OF PROTECTION	IP67

! The Emergency MUSHROOM button is on demand

OPTIONS

LEFT ROTATION, REMOTE TILTS LEFT

SLOWS DOWN

ACCELERATES

STARTING POSITION

RIGHT ROTATION, REMOTE TILTS RIGHT

SLOWS DOWN

STARTING POSITION
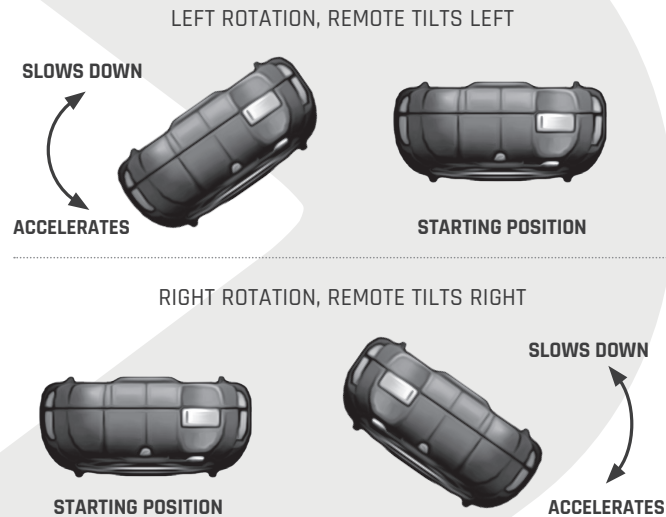
ACCELERATES

TILTING HAND

Receivers have the ability to control an output proportionally. When the desired key is pressed, with the handheld in a horizontal (starting) position, the proportional solenoid valve is activated at the minimum value. To increase the speed relative to the button pressed, it is necessary to tilt the handheld left or right by rotating one's wrist while keeping the key on the handheld pressed down. As the inclination increases, the speed increases too. In the event of inactivity, the system automatically exits the calibration mode after 30 seconds, without changing the current settings.

> Leaving the handheld inclination range, the YELLOW LED flashes indicating that it is over the MINIMUM
  or MAXIMUM value that can be set.
> For easier calibration, it is preferable to first set the MAXIMUM value and then the MINIMUM value.
> The system is supplied with default proportional solenoid valve values (customizable through specifications
  on demand).

EMERGENCY BUTTON (IP65)

Also called Emergency "Mushroom", it is an option on handhelds that helps ensure complete control of operations whenever an emergency stop of the application is required.
> By pressing the red button, the CONTROLLER switches off thus resetting all outputs.
> To reactivate the system it is necessary to release the button and only then, to press START.

> [!] In this mode it is not possible to have the BUZZER, VIBRACALL or SafetyPoint options

EXTERNAL ANTENNA

The external antenna has the function of increasing the Controller's reception capacity in cases where the latter is in a position not ideal for operating applications based on radio transmission. It is connected via an SMA screw connector. The material required for fixing is supplied in the kit.

EMERGENCY KEYBOARD (only on CNTR8 & CNTR20)

Positioned on the Controller, it allows to operate the system when it is not possible to use the handheld (eg flat batteries, loss of handheld). Using the emergency keyboard it is also possible to carry out the encoding procedure (pairing).

CRADLE

Generic handheld support. Valid for all versions of wired remote control, pocketsized radio remotes and TREND.
The EGO has its own specific support (see photo) sold together with the product as a battery charger.

SAFETYPOINT (on handhelds only)

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

On EASY, TREND and EGO versions, the **BUZZER** option (sound) or alternatively the **VIBRACALL** option can be activated. If the **BACKLIT KEYPAD** is not standard (EASY - TREND) it can be requested, as well as for the **LIGHT GUIDE** on CNTR8 and CNTR20. SERIGRAPHS and KEYS can be customized with colours, pictograms or symbols (NIMBLE excluded).

Controllers - Classic Line

The CLASSIC Line Controllers have an integrated INTERNAL ANTENNA (excluding CNTR4 and CNTR32), the EMERGENCY OUTPUT (EO = output active for the entire work session) and the MASTER OUTPUT (MO = output that is activated simultaneously with keys, indicated for piloting bypass valves or contactors for pump activation, present in most hydraulic systems).

Each Controller also has a unique code (over 4 billion identifiers) defined at origin, which prevents interaction with other systems. More devices can operate in the same area without interfering with one another.
All Sistematica controllers have the ability to manage an AUTOMATIC PAIRING.

1
The Receiver: a controller mounted and connected to the car/vehicle via PlugIn cable

2
The connector is equipped with a retaining slide that ensures quick & easy installation and maintenance operations, ensuring a resistant and durable connection
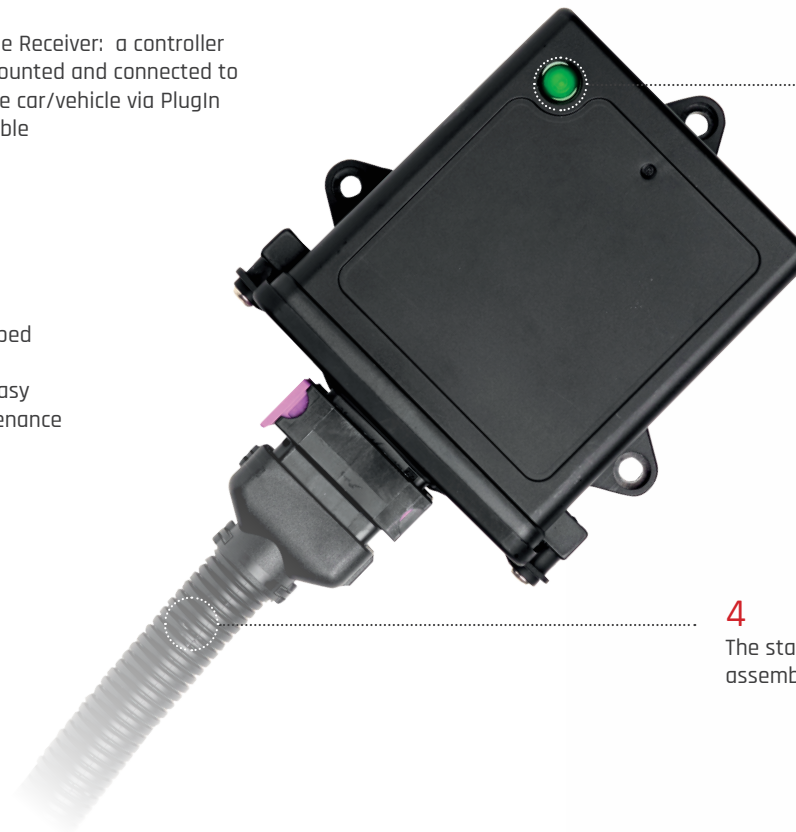
3
The Light Guide is an option on demand

4
The standard cable is 1 meter long and pre-assembled with 24 or 56 pin SICMA connector

NEW CNTR4

This controller has an integrated external antenna and 1.5 meter long cable free wired termination. Ideal for all pocket sized remote control models, for simple handling. Its electronic board is completely resinated to make it absolutely waterproof.

TECHNICAL FEATURES	
FREQUENCY	ISM 868 / 915 / 433 MHz
PROTECTION LEVEL	IP68
SUPPLY VOLTAGE	10 - 30 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

GREEN	out 1
YELLOW	out 2
GREY	out 3 or MO
PINK	out 4 or EO
WHITE	IN 1
RED	+ power
BLACK	- power
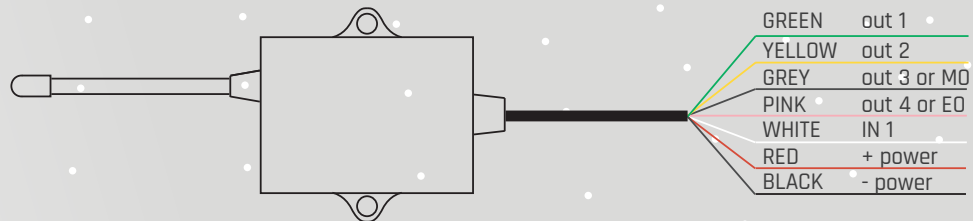
CNTR8

Controller up to 8 outputs plus one digital input.

TECHNICAL FEATURES	
OUTPUTS	6 + MO + EO (on START)
DIGITAL INPUTS	1
FREQUENCY	ISM 868 / 915 / 433 MHz
PROTECTION	IP67
SUPPLY VOLTAGE	10 - 30 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 up to 20 outputs, 8 reversible which can be configured as digital inputs (losing relative outputs).

TECHNICAL FEATURES	
OUTPUTS	18 + MO + EO (on START)
DIGITAL INPUTS	8 (losing outputs)
PROPORTIONAL OUTPUTS	1 (2 outputs are lost)
CANBUS	1
FREQUENCY	ISM 868 / 915 / 433 MHz
PROTECTION	IP67
SUPPLY VOLTAGE	10 - 30 Vdc ± 10%
OPERATING TEMPERATURE	-20˚C to + 55˚C
MAXIMUM CURRENT PER OUTPUT	5A
MAXIMUM TOTAL CURRENT	20A
DIMENSIONS (H X W X D)	133 x 154 x 44 mm

CNTR32

Controller with standard light guide, up to 32 outputs (one of which is proportional) and 4 digital inputs. 40-conductor wiring.

TECHNICAL FEATURES	
OUTPUTS	30 + MO + EO (on START)
DIGITAL INPUTS	4
PROPORTIONAL OUTPUTS	1 (2 outputs are lost)
CANBUS	1
FREQUENCY	ISM 868 / 915 / 433 MHz
PROTECTION	IP67
SUPPLY VOLTAGE	10 - 30 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

Controllers can manage CANBUS communication (J1939 or CUSTOM) within their hardware configuration. The peculiarity is to be able to receive the radio signal from a handheld and to communicate via CANBUS bidirectionally with an external device (ECU, PLC, etc). The 4-pole M12 male connector is standard.

CABLES

The standard cable (free wire termination) is pre-assembled with a SICMA 24 or 56 connector and retaining slide that ensures quick & easy installation or maintenance operations, guaranteeing a robust and long-lasting connection.

CNTR32							
40 CONDUCTOR CABLE: XCBLSEC40RXX_L							
COLOUR OF EACH CONDUCTOR	PIN	STD	CNTR 32	COLOUR OF EACH CONDUCTOR	PIN	STD	CNTR 32
RED	1	+BATT	✓	BEIGE/WHITE	35	OUT 18	✓
BLACK	29	-BATT	✓	BLUE/BLACK	36	OUT 19	✓
WHITE	2	MO	✓	BROWN/BLACK	38	OUT 20	✓
RED/BROWN	4	EO	✓	GREY/BLACK	39	OUT 21	✓
BLUE	5	OUT 1	✓	RED/BLACK	41	OUT 22	✓
BROWN	7	OUT 2	✓	VIOLET/BLACK	42	OUT 23	✓
GREY	8	OUT 3	✓	RED/BLACK	44	OUT 24	✓
VIOLET	10	OUT 4	✓	ORANGE/BLACK	45	OUT 25	✓
PINK	11	OUT 5	✓	TRANSPARENT/BLACK	47	OUT 26	✓
ORANGE	13	OUT 6	✓	BEIGE/BLACK	48	OUT 27	✓
TRANSPARENT	14	OUT 7	✓	BROWN/BLUE	50	OUT 28	✓
BEIGE	16	OUT 8	✓	GREY/BLUE	51	OUT29 ----------or---------- PROP IN	✓ ✓
BLACK/WHITE	17	OUT 9	✓				
BLUE/WHITE	19	OUT 10	✓	RED/BLUE	53	OUT30 ----------or---------- PROP IN	✓ ✓
BROWN/WHITE	20	OUT 11	✓				
GREY/WHITE	22	OUT 12	✓	PINK/BLUE	26	INDIG	✓
RED/WHITE	23	OUT 13	✓	ORANGE/BLUE	27	INDIG	✓
VIOLET/WHITE	25	OUT 14	✓	TRANSPARENT/BLUE	55	INDIG	✓
PINK/WHITE	30	OUT 15	✓	YELLOW/GREEN	54	INDIG	✓
ORANGE/WHITE	32	OUT 16	✓	BEIGE/BLUE	28	CAN H	✓
TRANSPARENT/WHITE	33	OUT 17	✓	GREY/BROWN	56	CAN L	✓

CNTR8 - 20

12 CONDUCTOR CABLE: XCBLSEC12RXX_L

COLOUR OF EACH CONDUCTOR	PIN	STD	CNTR 8	CNTR 20
RED	B8	+BATT	✓	✓
BLACK	B1	-BATT	✓	✓
WHITE	A8	MO	✓	✓
GREEN/WHITE	A7	EO	✓	✓
GREEN	B7	OUT1	✓	✓
YELLOW	C7	OUT2	✓	✓
GREY	A6	OUT3	✓	✓
PINK	B6	OUT4	✓	✓
ORANGE	A5	OUT5	✓	✓
VIOLET	B5	OUT6	✓	✓
BROWN	C8	+BATT	✓	✓
BLUE	C1	-BATT	✓	✓

17 CONDUCTOR CABLE: XCBLSEC17RXX_L

COLOUR OF EACH CONDUCTOR	PIN	STD	CNTR 8	CNTR 20
RED	B8	+BATT	✓	✓
BLACK	B1	-BATT	✓	✓
WHITE	A8	MO	✓	✓
GREEN/WHITE	A7	EO	✓	✓
GREEN	B7	OUT1	✓	✓
YELLOW	C7	OUT2	✓	✓
GREY	A6	OUT3	✓	✓
PINK	B6	OUT4	✓	✓
ORANGE	A5	OUT5	✓	✓
VIOLET	B5	OUT6	✓	✓
GREY/WHITE	A4	OUT7		✓
RED/WHITE	B4	OUT8		✓
VIOLET/WHITE	C2	IN DIG	✓	✓
BROWN/WHITE	C4	CANH		✓
YELLOW/WHITE	C3	CANL		✓
BROWN	C8	+BATT	✓	✓
BLUE	C1	-BATT	✓	✓

25 CONDUCTOR CABLE: XCBLSEC25RXX_L

COLOUR OF EACH CONDUCTOR	PIN	STD	CNTR 8	CNTR 20
RED	B8	+BATT	✓	✓
BLACK	B1	-BATT	✓	✓
WHITE	A8	MO	✓	✓
GREEN/WHITE	A7	EO	✓	✓
GREEN	B7	OUT1	✓	✓
YELLOW	C7	OUT2	✓	✓
GREY	A6	OUT3	✓	✓
PINK	B6	OUT4	✓	✓
ORANGE	A5	OUT5	✓	✓
VIOLET	B5	OUT6	✓	✓
GREY/WHITE	A4	OUT7		✓
RED/WHITE	B4	OUT8		✓
BEIGE/WHITE	C6	OUT9		✓
LIGHT BLUE	C5	OUT10		✓
BLACK/WHITE	A2	OUT11		✓
BLUE/WHITE	A1	OUT12		✓
LIGHT BLUE/WHITE	A3	OUT13		✓
ORANGE/WHITE	B3	OUT14		✓
VIOLET/WHITE	C2	OUT15		✓
		INDIG	✓	✓
PINK/WHITE	B2	OUT16		✓
BROWN/WHITE	C4	OUT17 or CANH or PROP IN		✓
YELLOW/WHITE	C3	OUT18 or CANL or PROP OUT		✓
BROWN	C8	+BATT	✓	✓
BLUE	C1	-BATT	✓	✓
BEIGE		NOT USED		

CE (E24) FC

sistematica.it

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

info@sistematica.it

PARTNERS

CL-SSM-CTL-1-0002-1.2