

revolution

Energy-recovery hybrid brake

CE

Operating instructions



 **renova**
WE NEVER LOSE CONTROL

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Questo prodotto è conforme alla Direttiva 2006/42/CE relativa alle macchine

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MANREVENA4V0925

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Introduction

Dear customer,

Thank you for purchasing **revolution – energy-recovery hybrid brakes**.

We also thank you for the preference you have reserved for this innovative product. We are certain it will satisfy you with its technologically advanced solutions, its in-line and elegant design and its professional quality.

In this manual you will find our instructions for a proper use of this product and the necessary technical information, as well as our advices, to ensure excellent performance over time.

All information in this manual has been compiled in accordance with current standards, the current state of knowledge of design and construction, our knowledge and our many years of experience.

The warranty on this product does not apply to products which have been subjected by the customer, as a result of violation of the recommendations for use, to misuse, improper application, negligence (including but not limited to improper maintenance and storage), accidents, improper installation, modifications (including but not limited to the fitting of non-original parts or accessories not authorised by Renova), improper repairs and overhauls. All parts subject to normal wear and tear are excluded from the guarantee.

attention

CAREFULLY READ THE INSTRUCTIONS AND WARNINGS IN THIS MANUAL AND KEEP THEM FOR FURTHER REFERENCE FOR ENTIRE PRODUCT LIFE. THEY SUPPLY IMPORTANT INSTRUCTIONS REGARDING OPERATIONS AND SAFETY FOR INSTALLING, USING AND MAINTAINING THE PRODUCT.

PLEASE TAKE THE TIME TO READ AND UNDERSTAND THE SAFE PRECAUTIONS TO BE RESPECTED FOR A SAFE AND PROPER USE OF THIS PRODUCT.

IN THE EVENT OF A POSSIBLE PRODUCT FAILURE, THE OPERATOR MUST UNDERSTAND THE MANUFACTURER'S INSTRUCTIONS AND BE AWARE OF THE DANGERS BEFORE ANY TECHNICAL INSPECTION OR RECOURSE TO SERVICE

general warnings

- **Revolution** is designed exclusively for regulating the roll unwinding tension, assisting the roll during the **initial splicing phase, and enabling energy recovery**.
- Some fundamental rules must be observed when using any type of electrical equipment.

More specifically:

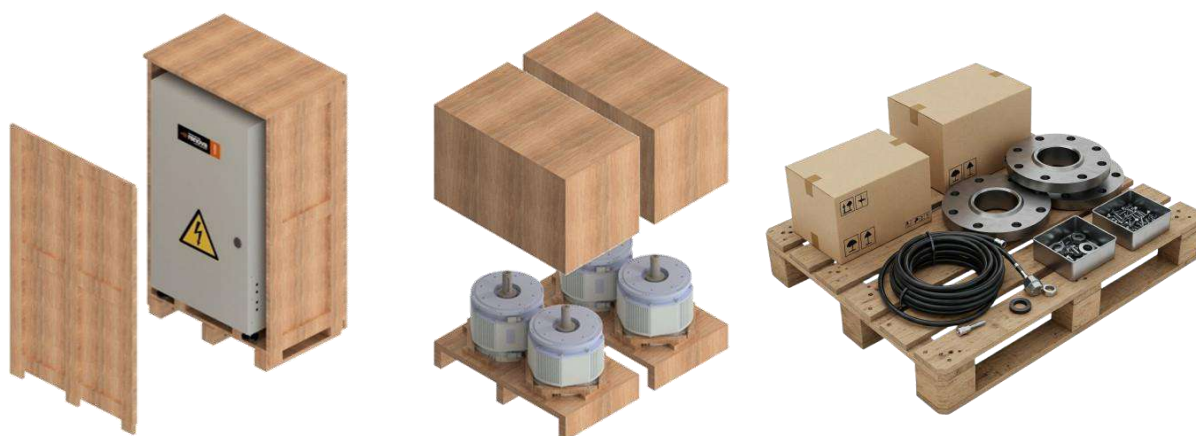
- Do not expose the equipment to weather conditions (rain, direct sunlight, etc.);
- Do not operate the equipment near flammable materials;
- Do not allow unqualified personnel to operate the equipment without supervision;
- Do not allow the equipment to be operated by personnel who have not been properly trained beforehand.

assistance

For assistance, contact **Renova Support**:
support@renova-srl.com

general instructions

CONTENTS OF THE WOODEN CRATES UPON DELIVERY



A	cabinet	x 1
B	motor	x 4
C	supplied pallets	CUSTOM

CONTENTS DESCRIPTION

CABINET CRATE: control cabinet of the Revolution system, complete with mains connection cable (with plug) and Ethernet cable

MOTOR CRATE: each crate contains a pair of right and left motors, complete with corresponding cable kit with connectors.

SUPPLIED PALLET: general accessories, mechanical assembly accessories, display, and pneumatic components. Some parts may vary or may not be required depending on your specific needs.

PACKAGING

Please do not dispose of the wooden packaging of your **revolution** system, as it may be useful for storage, handling, or, in the event of a malfunction, for shipping the system back to renova srl.

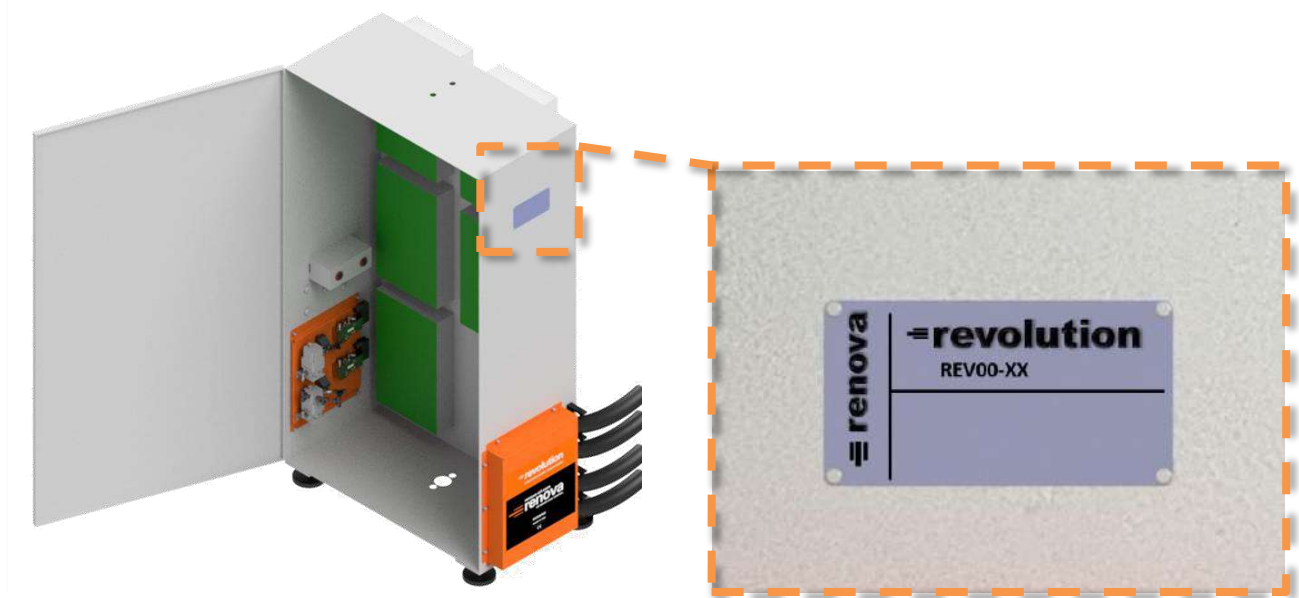
SERIAL NUMBER

Each **revolution** is supplied with its own serial number

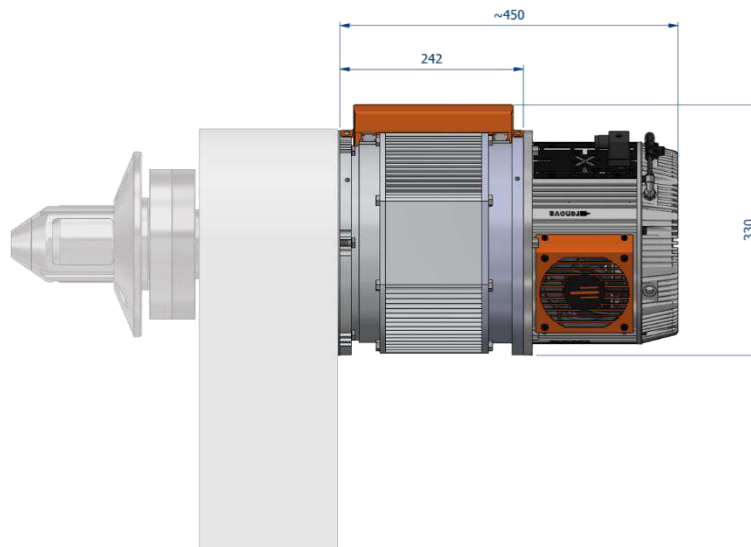
The Serial Number is located on the dedicated stainless steel nameplate riveted to the right side of the cabinet. The Serial Number is also indicated on the Warranty Sheet supplied with the **revolution** system.

IMPORTANT:

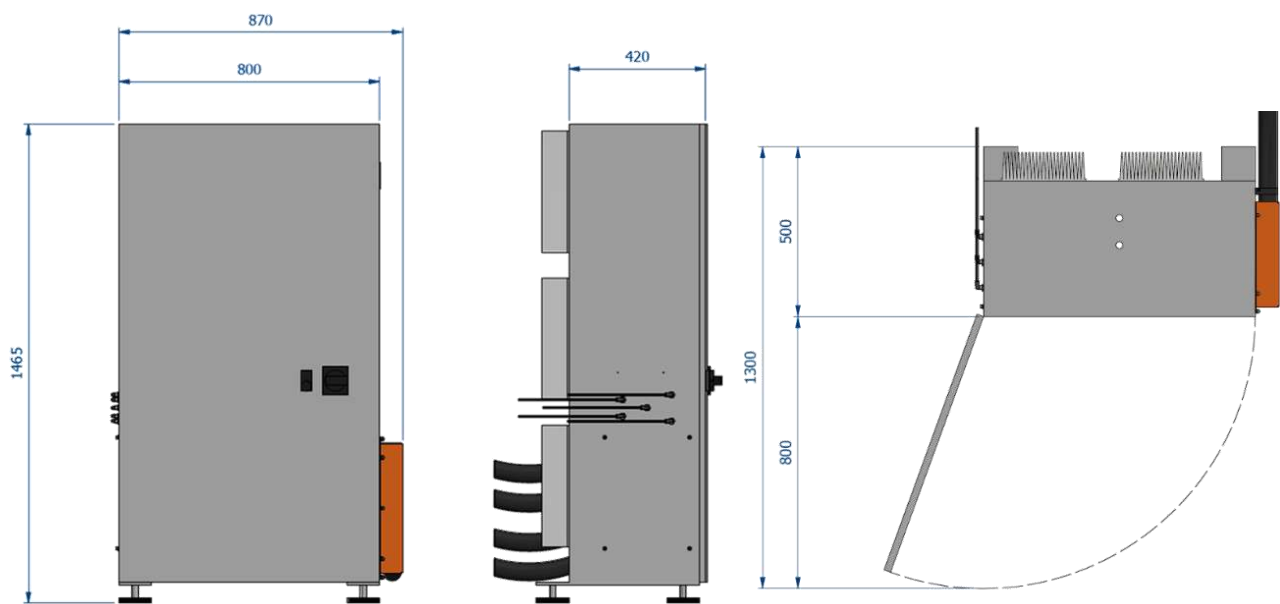
Always provide the Serial Number of your **revolution** system when requesting service or spare parts



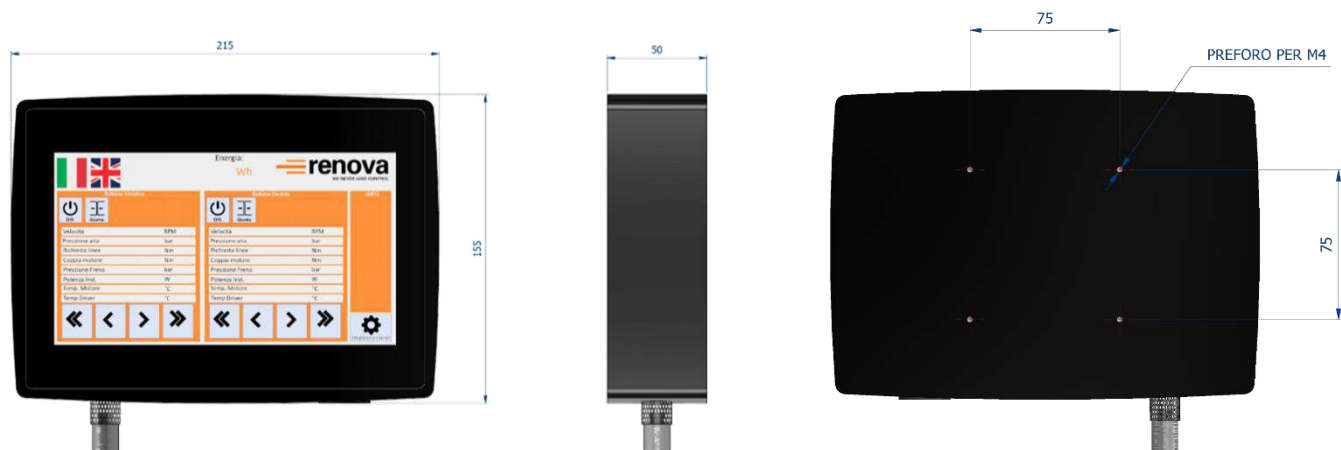
OVERALL DIMENSIONS – MOTOR + BRAKE (AXIAL)



CABINET OVERALL DIMENSIONS



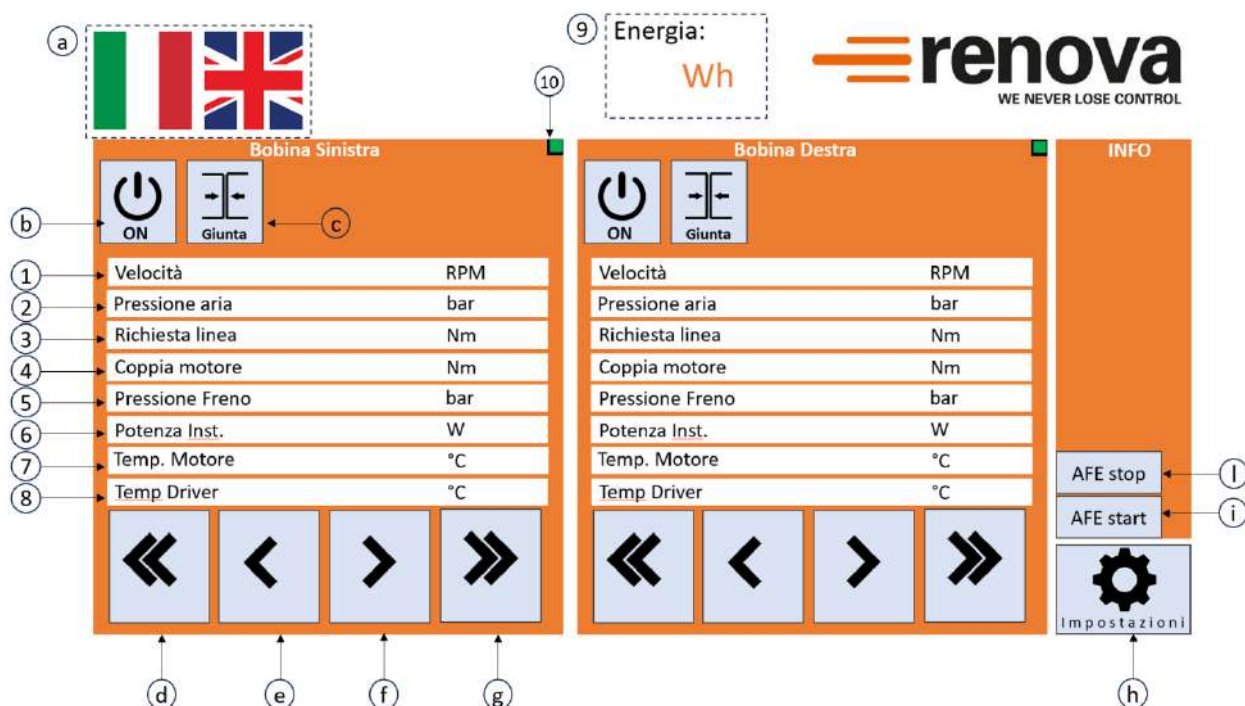
DISPLAY DIMENSIONS - 7"



WARNING: pre-drilled hole depth 10 mm

Letter	Description
x	Cabinet cable connector
y	Ethernet port

MAIN DISPLAY SCREEN

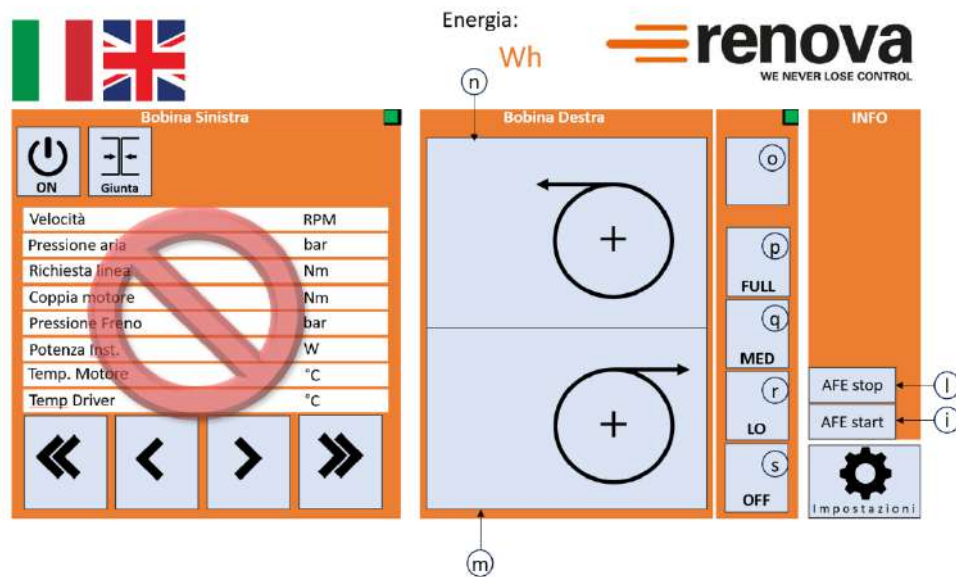


Letter	Button	Action
a	Language selector	Select the desired language
b	System activation key	Motor activation (the key turns green)
c	Splice key	Splice enabling
d	Rewind direction 1 – large rolls	Rewinds the “large roll” in the selected direction
e	Rewind direction 1 – small rolls	Rewinds the “small roll” in the selected direction
f	Rewind direction 2 – small rolls	Rewinds the “small roll” in the selected direction
g	Rewind direction 2 – large rolls	Rewinds the “large roll” in the selected direction
h	Settings	Opening of the Settings panel (for Renova personnel)
i	AFE stop	Stops calculation functions
l	AFE start	Resumes calculation functions

Number	Parameter	Unità di misura	Note
1	Speed	RPM	Motor rotation speed
2	Air pressure	bar	Air pressure managed by EP Converter rollstand and splicer
3	Line request	Nm	Braking torque requested by rollstand and splicer
4	Motor torque	Nm	Torque delivered by the motor
5	Brake pressure	bar	Air pressure of the pneumatic brake
6	Instantaneous power	W	Instantaneous power generated by the motor
7	Motor temperature	°C	Motor temperature
8	Driver temperature	°C	Motor drive temperature
9	Energy	Wh	Total energy fed back into the line by the Revolution system
10	Splice launch status		Red / Yellow / Green

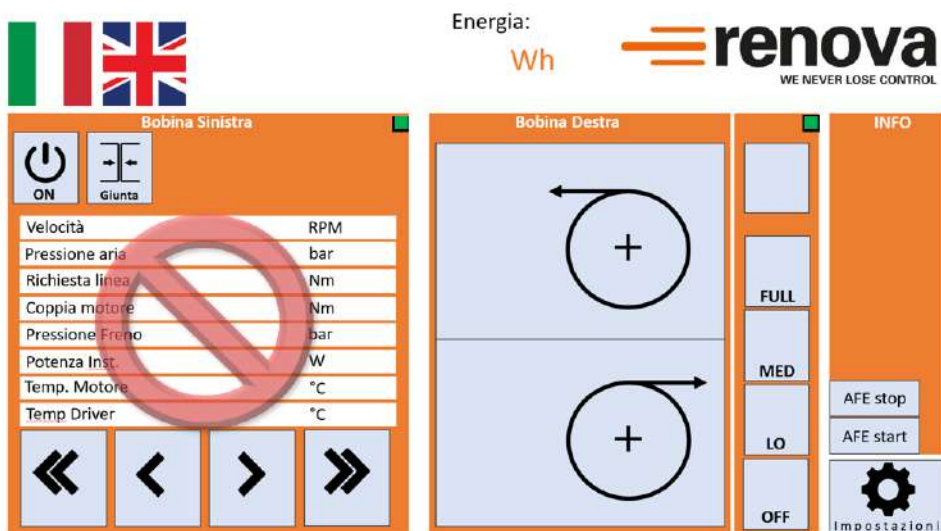
Please note: The parameters shown on the display will change when the Revolution system is in operation.

SPLICE SCREEN



Letter	Button	Action
i	AFE stop	Stop calculation functions
l	AFE start	Resume calculation functions
m	Clockwise roll direction	Select clockwise roll direction
n	Counter-clockwise roll direction	Select counter-clockwise roll direction
o	Back	Return to previous screen with operating values
p	Large roll selector	Set launch parameters for large rolls or high speeds
q	Medium roll selector	Set launch parameters for medium rolls or moderate speeds
r	Small roll selector	Set launch parameters for small rolls or low speeds
s	Launch selector	Disable launch during splice phase

Please note: the left-hand window (Left Roll) must not be used when working on the right roll.
An identical but mirrored screen will appear when the left roll is used:



Operating instructions

- Unpack the device and keep the packaging system;
- After removing each component from the packaging, make sure that everything is intact and free from any visible signs of damage that may have occurred during transport. If in doubt, do not use the equipment and contact renova srl;
- Identify and communicate to the renova installation technician the chosen location for the cabinet installation. It is recommended to install the cabinet as close as possible to the Revolution motors.
- After the mechanical installation carried out by a renova technician, follow the subsequent instructions for starting up the Revolution system.



WARNING: Do not operate or start the revolution with the cabinet open.

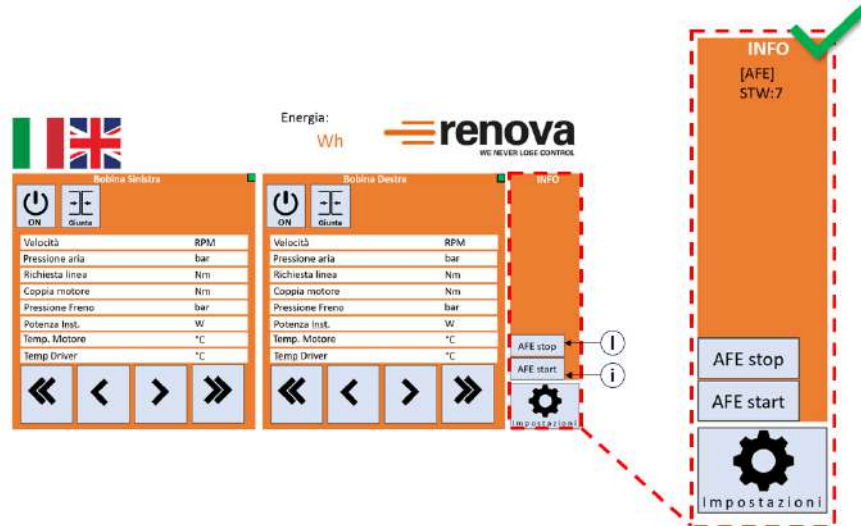
- Set the main switch on the cabinet from 0 to 1. The system will now be energized. Verify that the white indicator light to the left of the switch turns on to confirm that the system is powered



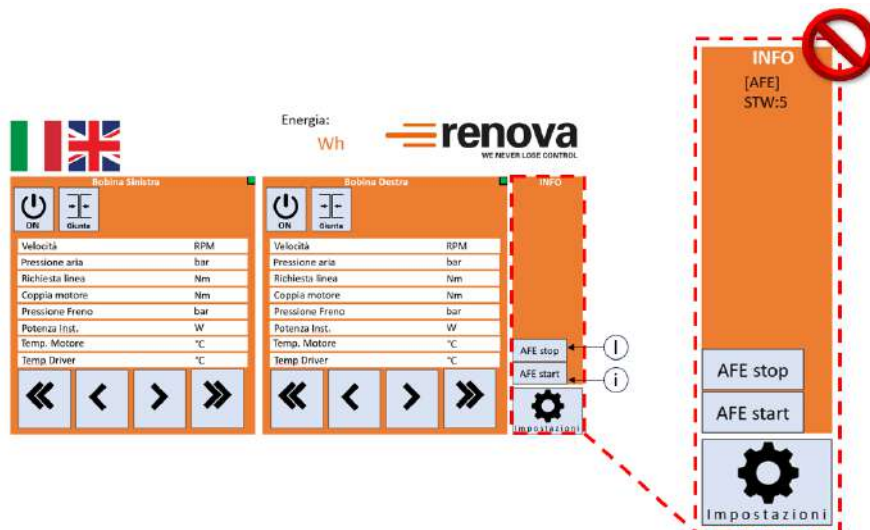
WARNING Activating the revolution while the system is already running may trigger the safety circuit breaker.

- From the display, select the language by pressing one of the two flags, ITA or ENG (button a)
- On the right-hand column of the display (INFO), check that the STW parameter is equal to 7. If so,

initialization has been completed successfully and you may proceed with the next steps



STW different from 7 (THE SYSTEM IS NOT READY FOR USE):

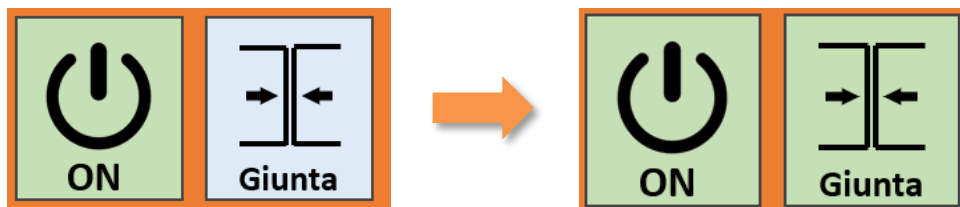


If the STW parameter displayed is not equal to 7, the system requires a restart. Proceed by pressing the AFE STOP button (button l), wait a few seconds, then press the AFE START button (button i) and verify that the STW value has been correctly initialized to 7.

- To activate the motors and the regenerative brake function, press ON (button b) on both windows from the display (each window corresponds to one of the two rolls, right and left). The pressed button will change from grey to green.

SPLICE FUNCTION ENABLE

- Press both **splice** keys (button c and its counterpart) on the display on both sides to enable the system for splicing.



- Carry out the roll loading and splice preparation procedure according to your standard operating procedure. Then, check on the display that the system has correctly detected the unwinding direction.



WARNING: Check and, if necessary, correct the proposed rotation direction. The selected direction will always be highlighted in green.

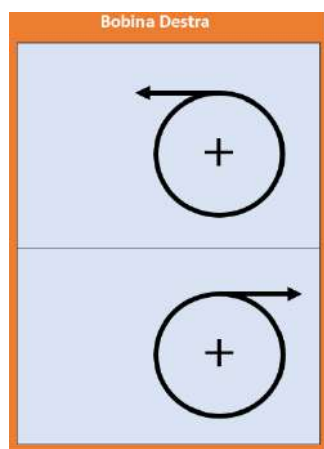


ATTENZIONE: If operations are carried out with a rotation direction opposite to the actual operating one, issues may occur, such as paper breakage

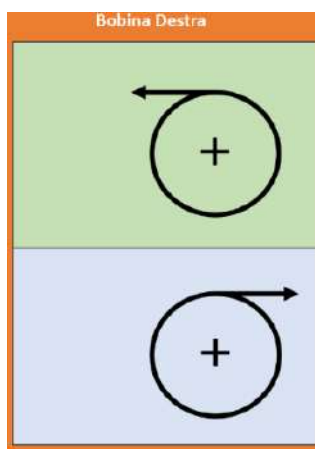
- Check the roll rotation direction:** in the window corresponding to the newly threaded roll, the button indicating the detected rotation direction will be highlighted in green.

If the rotation direction is not the actual/desired one, select the grey button.

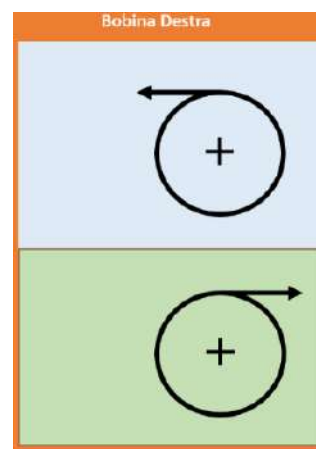
Once selected, the button will change from grey to green.



Direction not detected



Counter-clockwise direction detected



Clockwise direction detected

- The Revolution is now ready to perform the splice; the splice will only start when initiated manually by the operator or automatically by the splicer.



WARNING: Select the rotation direction just before the launch phase. Perform the paper threading procedure and lock the brake. Then select the rotation direction; the motor will not store the selected direction if no pressure is detected in the brake (brake not locked).

If the rotation direction is not detected (the buttons will remain grey) and the machine is started, the motor will not provide assistance for the roll launch.

▪ **Note on buttons (p), (q), (r) e (s):**

The four buttons (**FULL**, **MEDIUM**, **LOW** and **OFF**) are automatically selected by the system through the diameter sensor reading. By detecting the variation of the roll diameter over time, the system calculates the most suitable launch speed to ensure a correct splicing phase.:

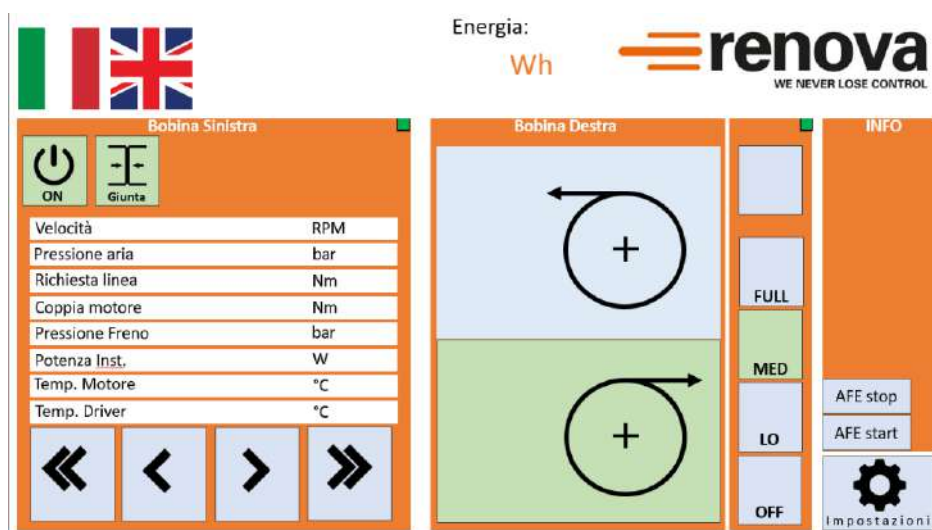
- **FULL (p)**: for large rolls.
- **MEDIUM (q)**: for medium rolls.
- **LOW (r)**: for small rolls.
- **OFF (s)**: for low line speeds where revolution intervention is not required.

La stessa selezione è applicabile alla velocità della linea:

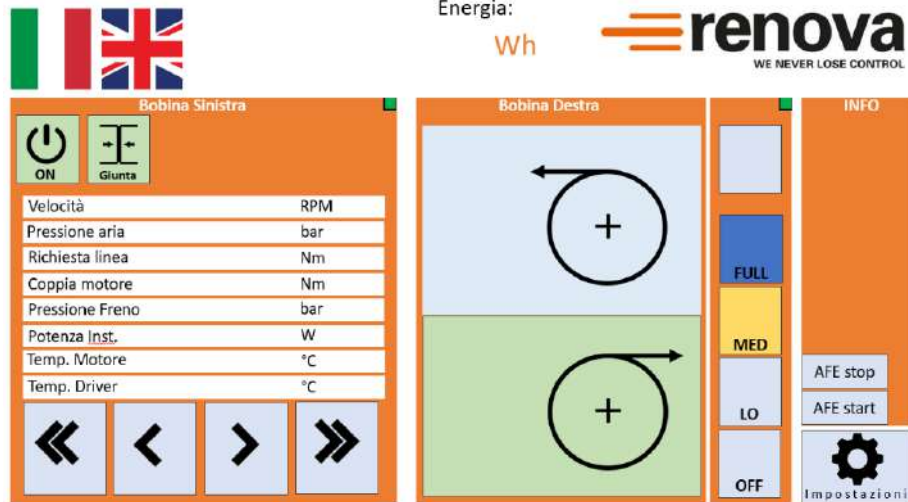
- Use **LOW (r)** for low speeds, **MEDIUM (q)** for moderate speeds, and **FULL (p)** for high speeds. A correct selection ensures the maintenance of optimal tension throughout the entire process.

Manual speed selection is possible:

the system will display the detected speed, highlighted in green. To manually set a different speed, press and hold the button associated with the desired speed. The window corresponding to the system-recommended speed will turn yellow, while the one corresponding to the speed manually selected by the operator will be marked in blue.



Automatically detected speed highlighted in green



Manual selection in blue, system-recommended speed in yellow.

▪ **Note on launch status LEDs (10):**

- **GREEN + NUMBER:** launch successfully completed. The number indicates the launch time in tenths of a second.

Example: 32 = 3,2 sec.



- **YELLOW** the splice signal has been correctly received, but the motor does not deliver torque.



- **RED + LETTER "D":** splice direction not detected or not set.
- **RED + LETTER "I":** Splice signal not detected.
- **RED + LETTER "P":** the pressure drop (within the braking system) required for a correct splice has not been detected / has not occurred properly.





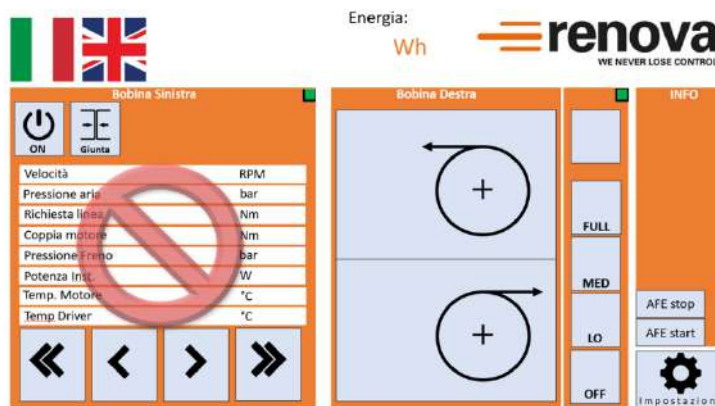
WARNING: With the diameter sensor only, the selection of launch settings is automatic and based exclusively on the roll diameter. This results in lower accuracy during the launch phase. Adding the machine light sensor allows for a more accurate weight estimation, also taking into account the usable width—essential in the case of rolls with the same diameter but different lengths.

POSSIBLE ISSUES

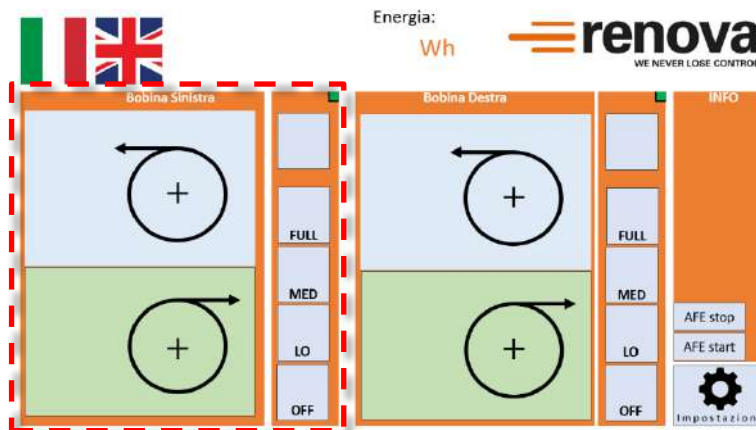
- On the display screen, splices are enabled on both axes
If the machine stops accidentally, the system may detect a false splice preparation request even on the axis currently in operation (already spliced roll).

Below is an example of a machine stop while the left roll is in operation:

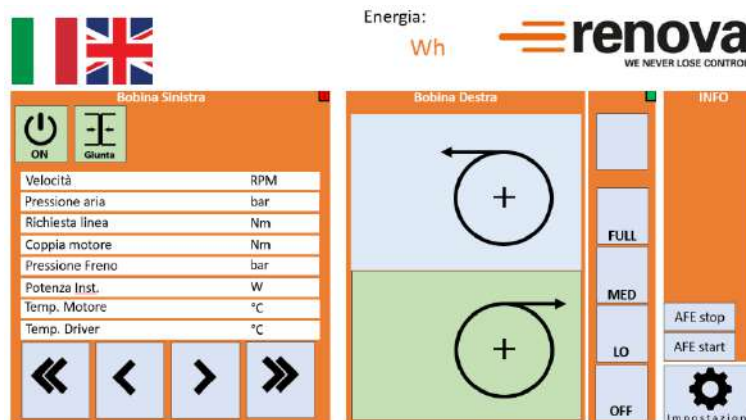
- 1) Left roll in operation. Right roll not in use.



- 2) Accidental stop. The system will automatically display the screen for selecting the rotation direction of the unwinding roll.



3) Once the machine is restored, the screen for the roll in use will close automatically.



WARNING: Once line operation has been restored, the screen will close automatically. The launch status LED (10) will be red with the letter “i”, but it is still possible to continue until the roll is finished. Nothing will change for the roll not in us.

I am having problems with splices and the system does not launch

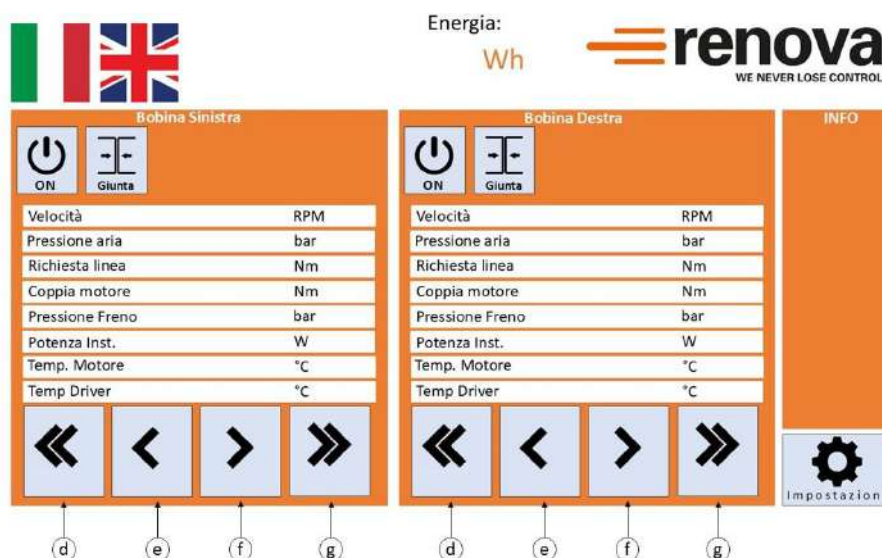
Deactivate only the splice function using the dedicated key (c) and continue working with the motors enabled. Contact support for assistance.

➤ I am having braking problems with the motors enabled

Deactivate the motors and the splice function using keys (b) and (c), switch off the electrical cabinet, and contact support for assistance

ROLL WINDING / REWINDING

For each axis (right/left), four buttons for roll rewinding are located on the bottom row. The buttons with double arrows are to be used for heavy rolls, while those with a single arrow are to be used for light rolls.



Number	Action
d	Rewind direction 1 – large rolls
e	Rewind direction 1 – small rolls
f	Rewind direction 2 – small rolls
g	Rewind direction 2 – large rolls

Please Note: press and hold each button to activate it; a light and/or brief press will have no effect. **The buttons are enabled and functional only when braking is disengaged.**

Industry 4.0 and 5.0 Regulations

COMPLIANCE WITH INDUSTRY 4.0 AND 5.0 REGULATIONS

This product complies with the requirements for capital goods under the **Industry 4.0 and Industry 5.0 Plans**, ensuring digital integration, advanced automation, and sustainability.

GENERAL COMPLIANCE – INDUSTRY 4.0

The device meets the general criteria required to access Industry 4.0 tax incentives, in compliance with the **National Transition Plan 4.0**, thanks to:

- **IT Interconnection and Integration:** Support for standard protocols for communication with SCADA, MES, and ERP systems.
- **Remote Control and Monitoring:** Accessible via web interface, REST API, or proprietary software for real-time management.
- **Data Acquisition and Big Data Analytics:** Integrated advanced sensors for process data collection and processing, enabling predictive maintenance and performance optimization.

GENERAL COMPLIANCE – INDUSTRY 5.0

In addition to digitalization, the product incorporates the principles of the Industry 5.0 transition, with a focus on:

- **Human–Machine Collaboration:** Integration of advanced HMI interfaces (touchscreens) for intuitive and safe interaction.
- **Energy Sustainability:** Optimization of consumption through energy efficiency algorithms and the use of low environmental impact materials.
- **Customization and Modularity:** Flexible configuration to adapt to specific production requirements, ensuring scalability and compatibility with existing processes.

The product complies with European directives on digitalization and sustainability, meeting the requirements for potential tax incentives.



Telematic connection

This instruction section is intended for personnel experienced in software, PCs, and Ethernet networks

INSTRUCTIONS FOR NETWORK CONNECTION VIA ETHERNET PORT

IMPORTANT

The connection to the company management system can be established through the Ethernet port available on the Revolution display.

With this connection, the data displayed on the screen can be transferred to the company server.

COMMUNICATION PROTOCOLS AND DATA EXCHANGE

- IP MOD BUS (preferred)
- JSON J4

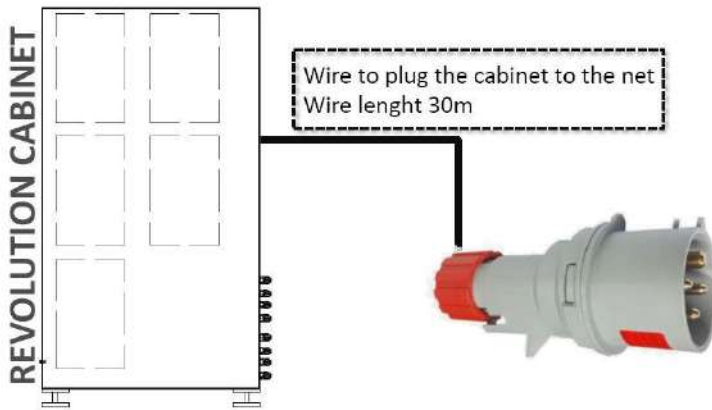
CONNECTION FOR TELEMATIC SUPPORT

It is possible to receive remote assistance from Renova by connecting a laptop to the Revolution via the Ethernet port, using the supplied network cable. Remote support allows the analysis of any anomalies, software updates, and additional technical operations.

Procedure to follow:

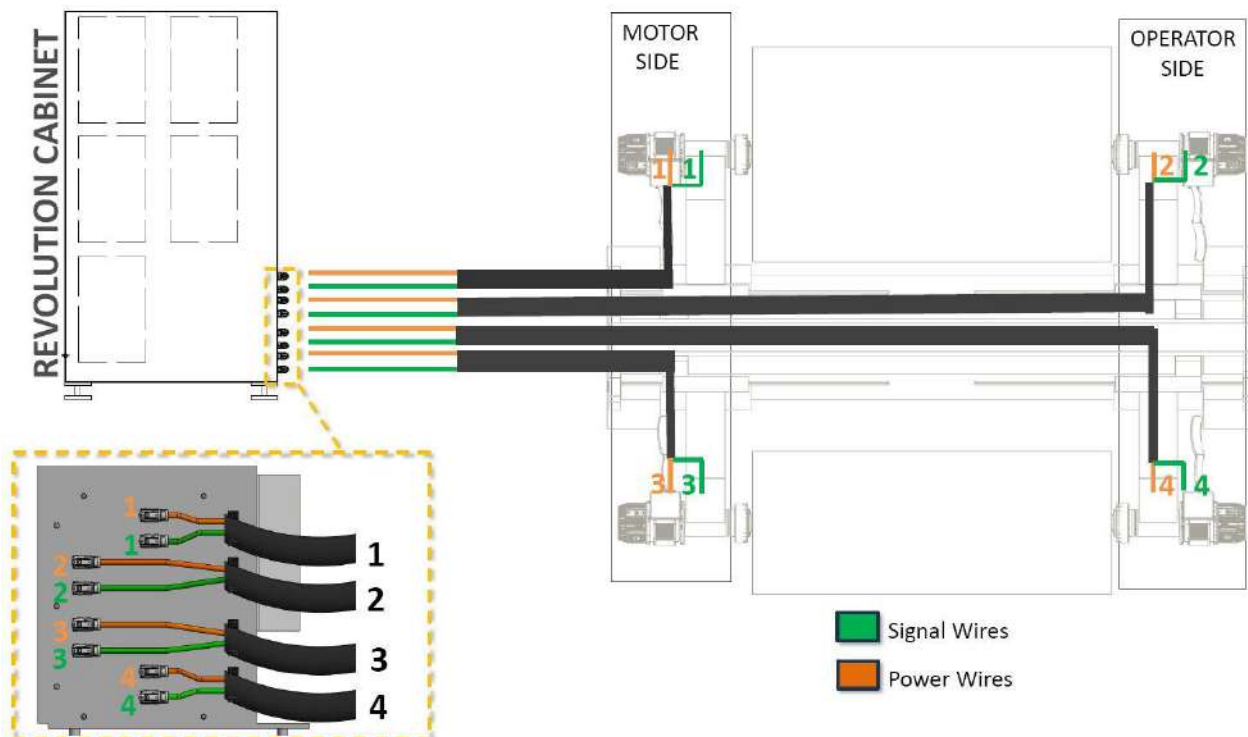
1. Contact Renova at +39 02 27007394, request remote assistance, and provide a mobile phone number for the technician to call back;
2. Connect a laptop (with AnyDesk already installed) to the Revolution display using the supplied network cable;
3. Wait to be contacted by Renova technical support to start the assistance session.

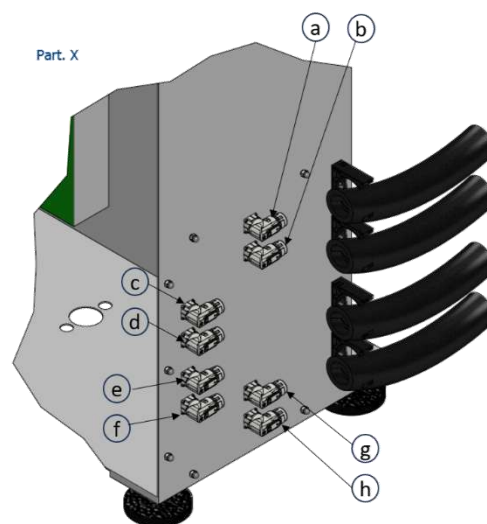
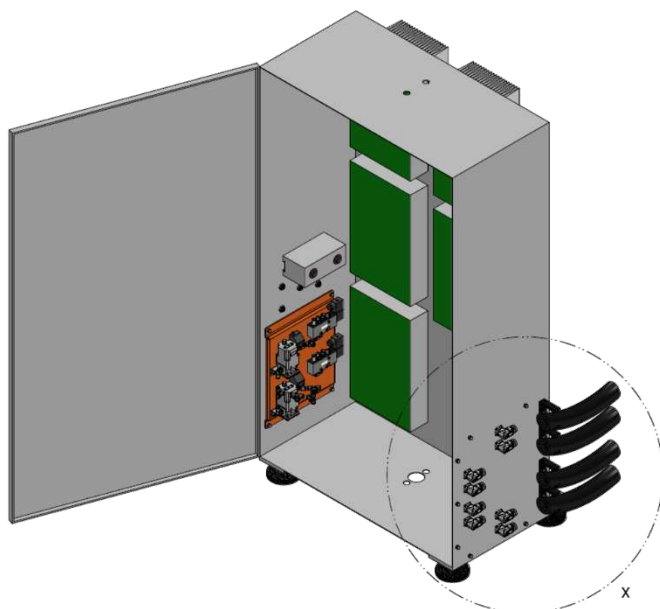
Installation Layout



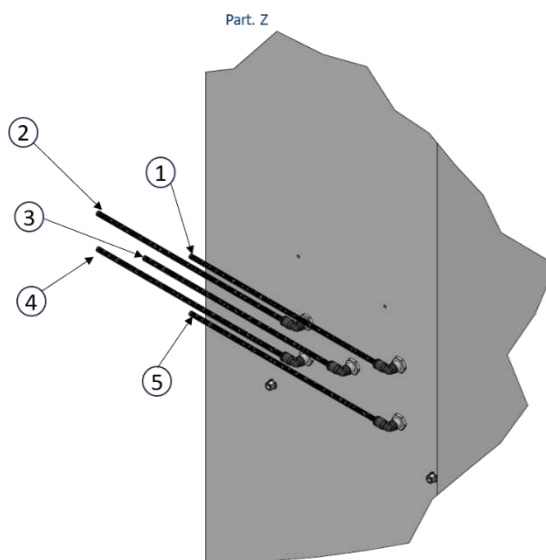
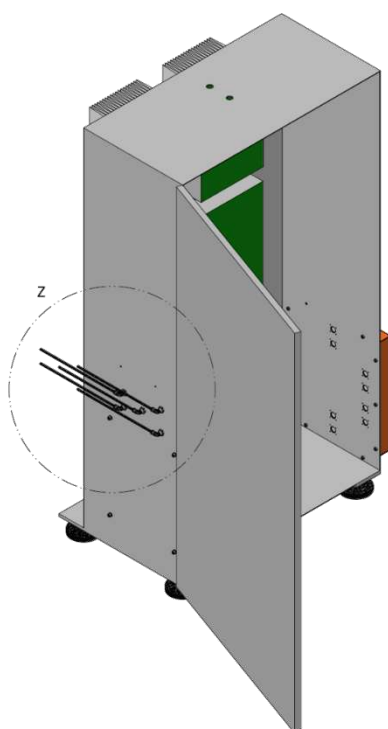
- Interchangeable with all other makes of industrial plugs and sockets
- High corrosion resistance
- Standards: BS EN 60309 and IEC60309

Amps	16A
Voltage	380 - 415V
Pin Configuration	3 Pin + Earth or 4 Pin
IP Rating	IP44, waterproof
Frequency	50-60Hz
Mechanical Ristance	IK 08
Self Extinguishing	V2
Operating Temperature	-25 to + 50 °C
Cable diameter	8,5 - 14 mm
TOT. Lenght	134 mm

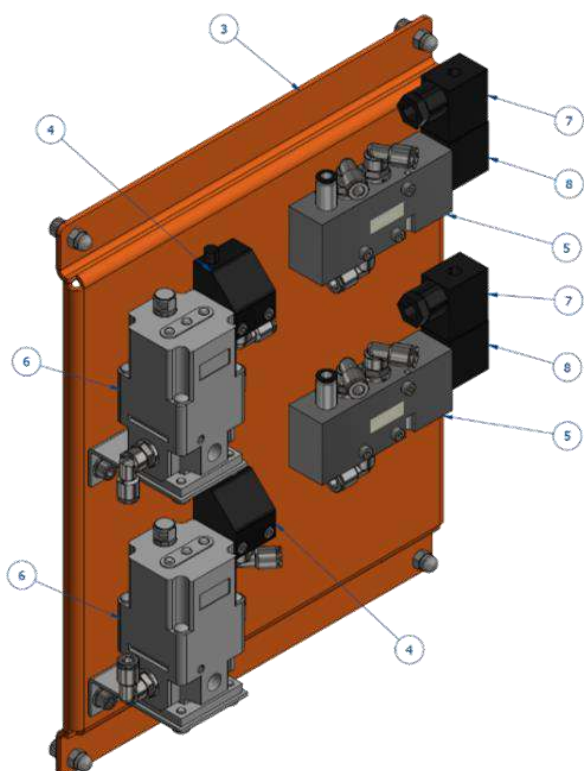
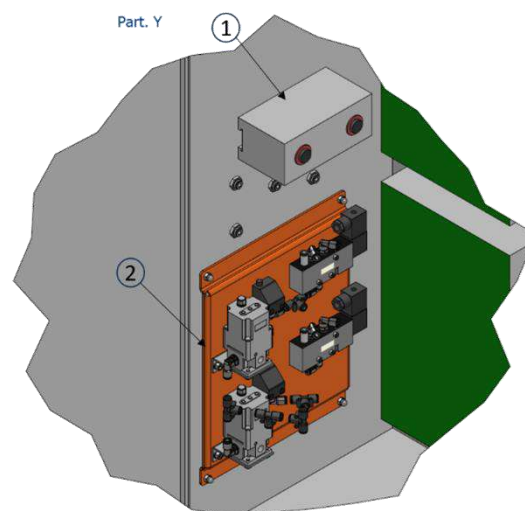
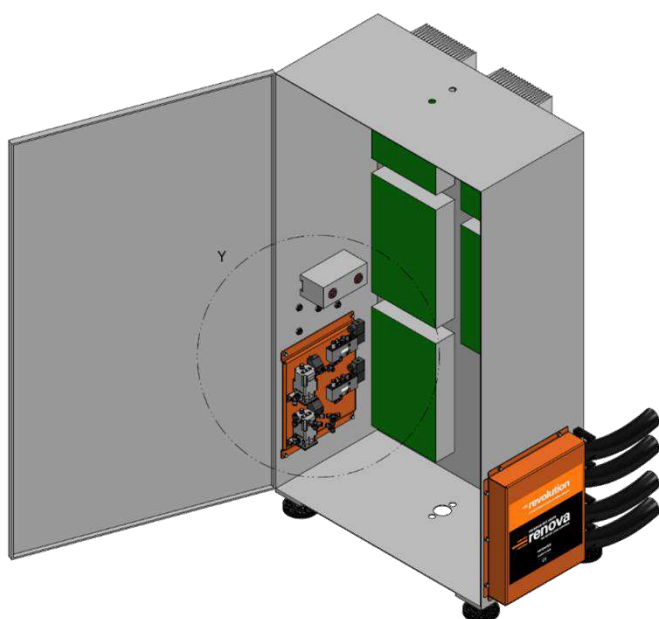




Letter	Description
a	Power cable (orange) motor no. 1
b	Signal cable (green) motor no. 1
c	Power cable (orange) motor no. 2
d	Signal cable (green) motor no. 2
e	Power cable (orange) motor no. 3
f	Signal cable (green) motor no. 3
g	Power cable (orange) motor no. 4
h	Signal cable (green) motor no. 4



Number	Description
1	OUT to rollstand A brakes
2	IN from rollstand A EP
3	Line connection 6 bar
4	IN from rollstand B EP
5	OUT to rollstand B brakes



Number	Description
1	Master board
2	Internal pneumatic panel

Number	Description
3	Pneumatic panel support
4	Internal pneumatic panel
5	Pressure transducer, S20-0024
6	EP Converter with display, S20-0041
7	22 mm connector
8	24V DC solenoid coil

IMPORTANT

The cabinet is supplied with four adjustable insulating feet. **Installation cannot be carried out without their use, therefore it is important not to remove them.**

Do not drill, fasten, or weld ducts and/or other objects to the cabinet.

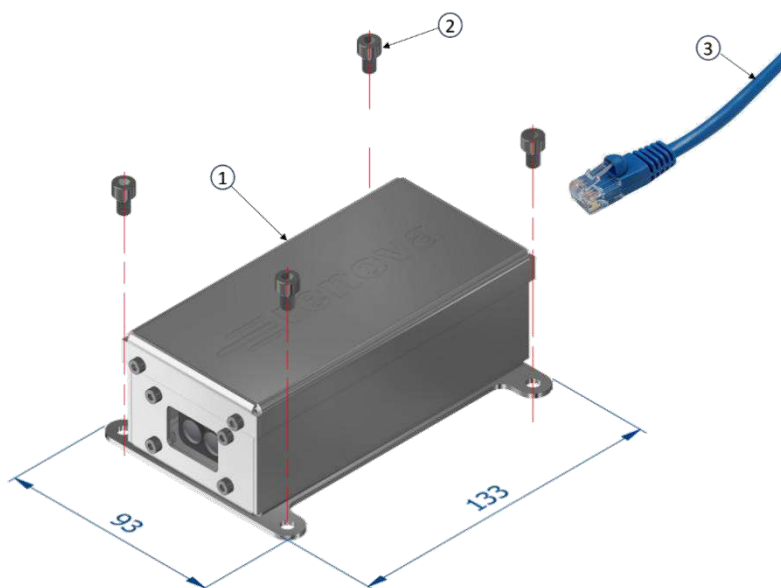
AVAILABLE OPTIONS

- **MACHINE WIDTH SENSOR REVK0008:**

infrared sensor (ToF) for detecting roll length.

In addition to the diameter sensor, the width sensor provides a more accurate estimation of roll weight by considering its length, essential in the case of rolls with the same diameter but different length.

Available as a retrofit only if the diameter kit is already installed

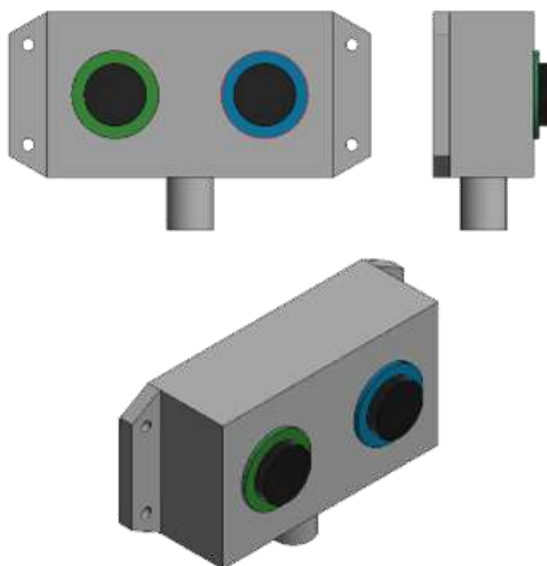


Number	Code	Description
1	REVA0028	Sensor
2	V50-0027	M5x8 screw
3	E50-0029	Ethernet cable

- **ROLL REWINDING/UNWINDING PUSH-BUTTON PANEL REVK0009:**

To facilitate the roll rewinding/unwinding phase, it is possible to purchase (as an optional) and install the push-button panel for roll unwinding at the desired location.

Available as a retrofit only if the diameter kit is already installed

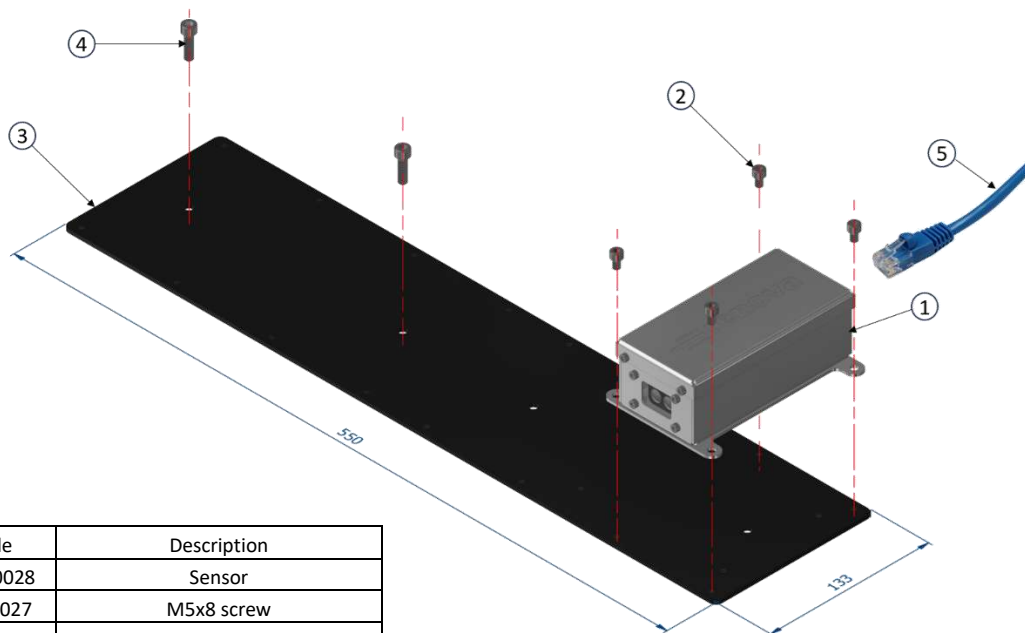


OPTIONAL FOR RETROFIT

- **DIAMETER MEASUREMENT SENSOR REVK0007:**

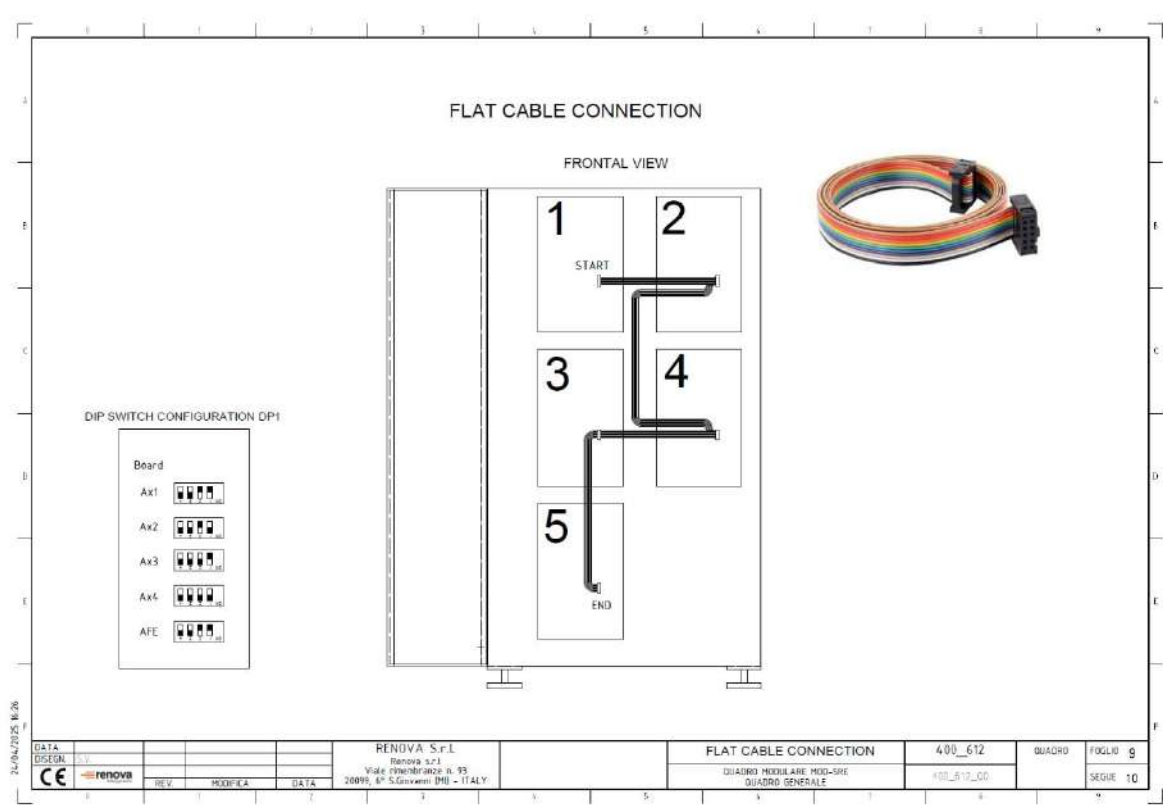
Infrared sensor (ToF) for detecting roll diameter per rilevare il diametro delle bobine.

Included as standard in the latest versions, but it can also be purchased and implemented on earlier versions of the syste.

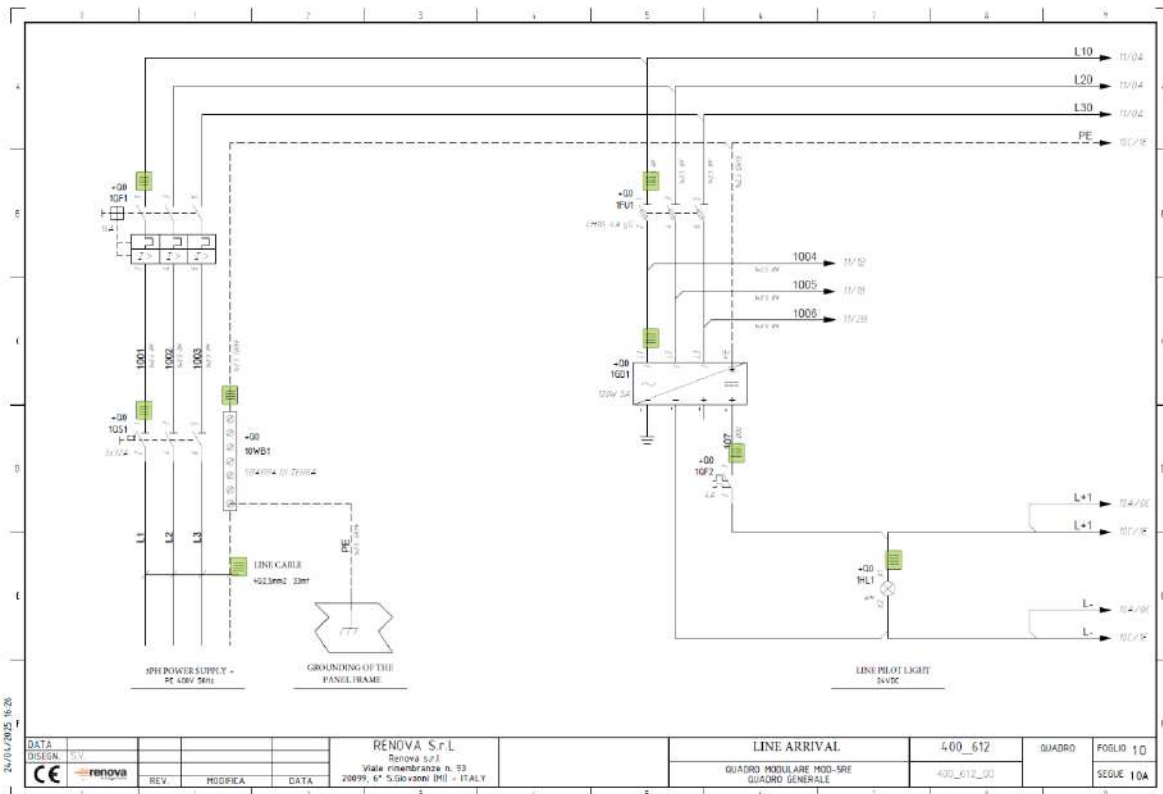


Number	Code	Description
1	REVA0028	Sensor
2	V50-0027	M5x8 screw
3	REVP0055	Sensor box mounting plate
4	V50-0014	M6x20 screw
5	E50-0029	Ethernet cable

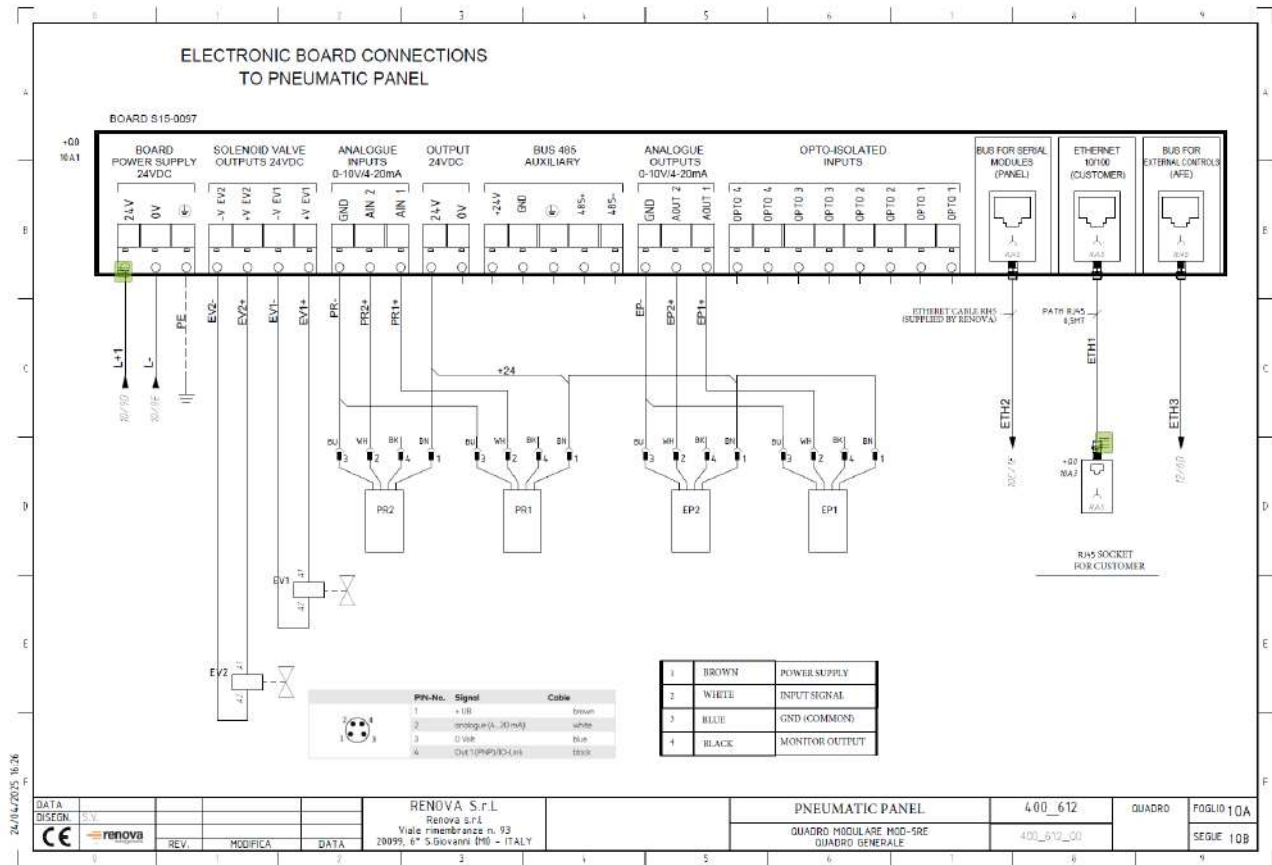
Electrical diagram



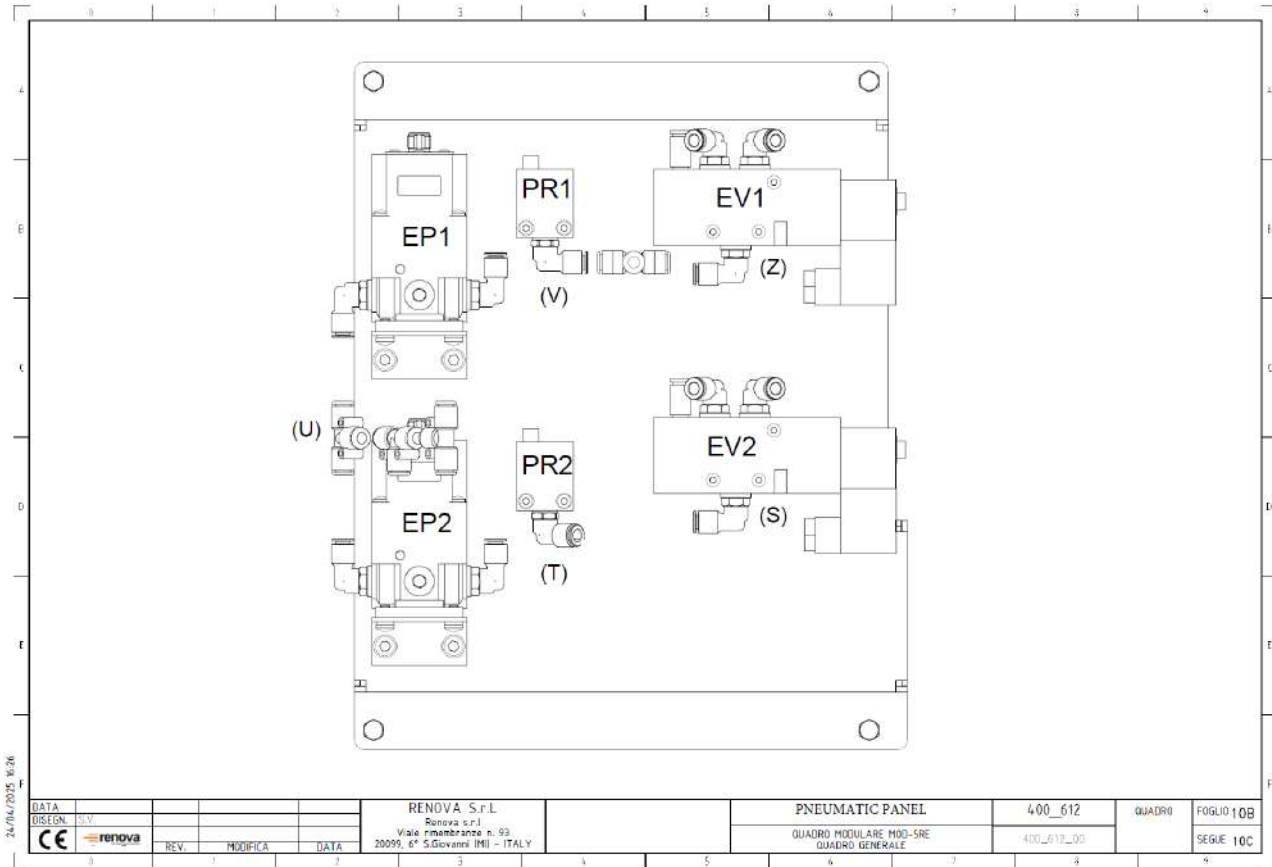
LINE ARRIVAL



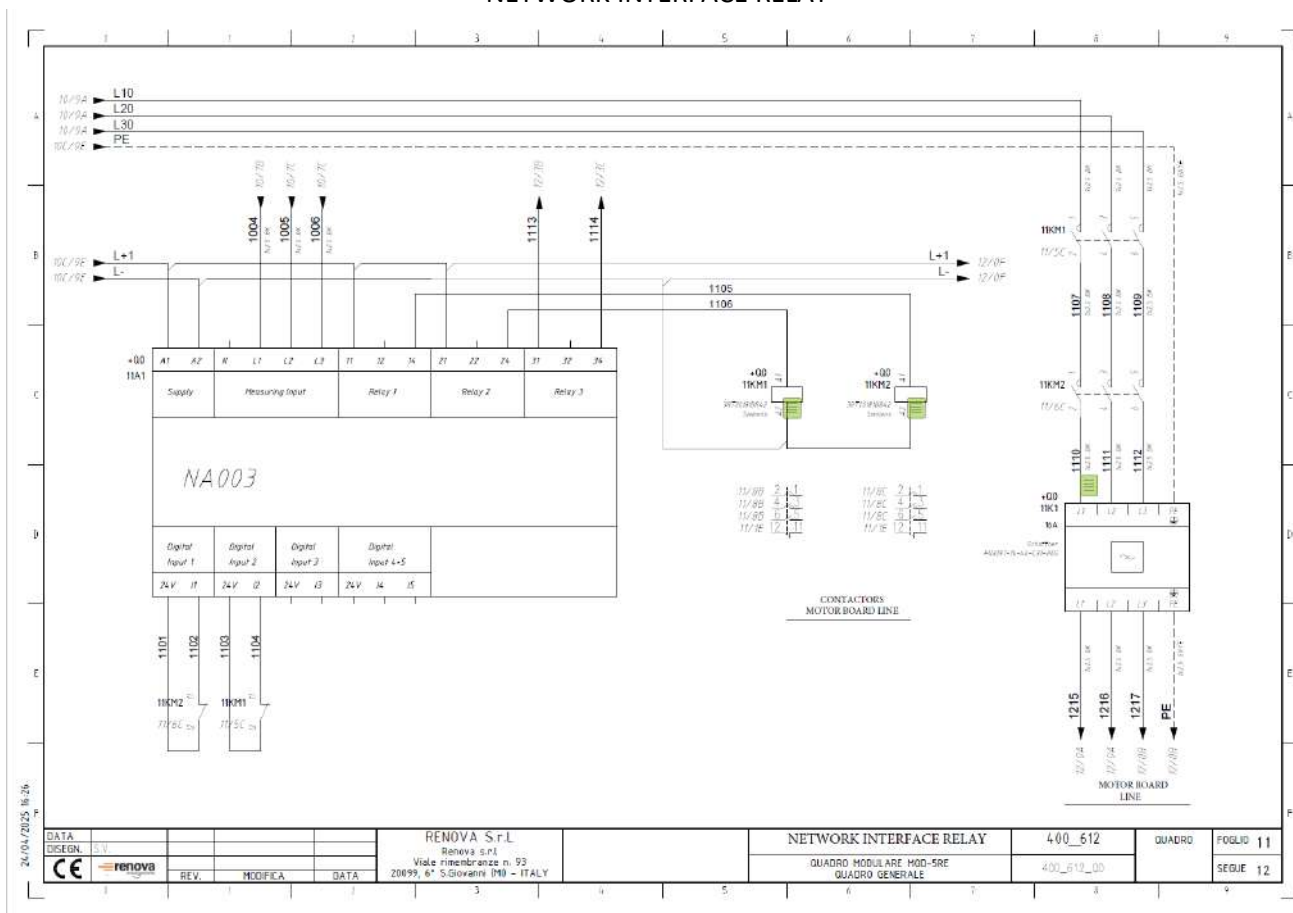
ELECTRONIC BOARD CONNECTIONS TO PNEUMATIC PANEL



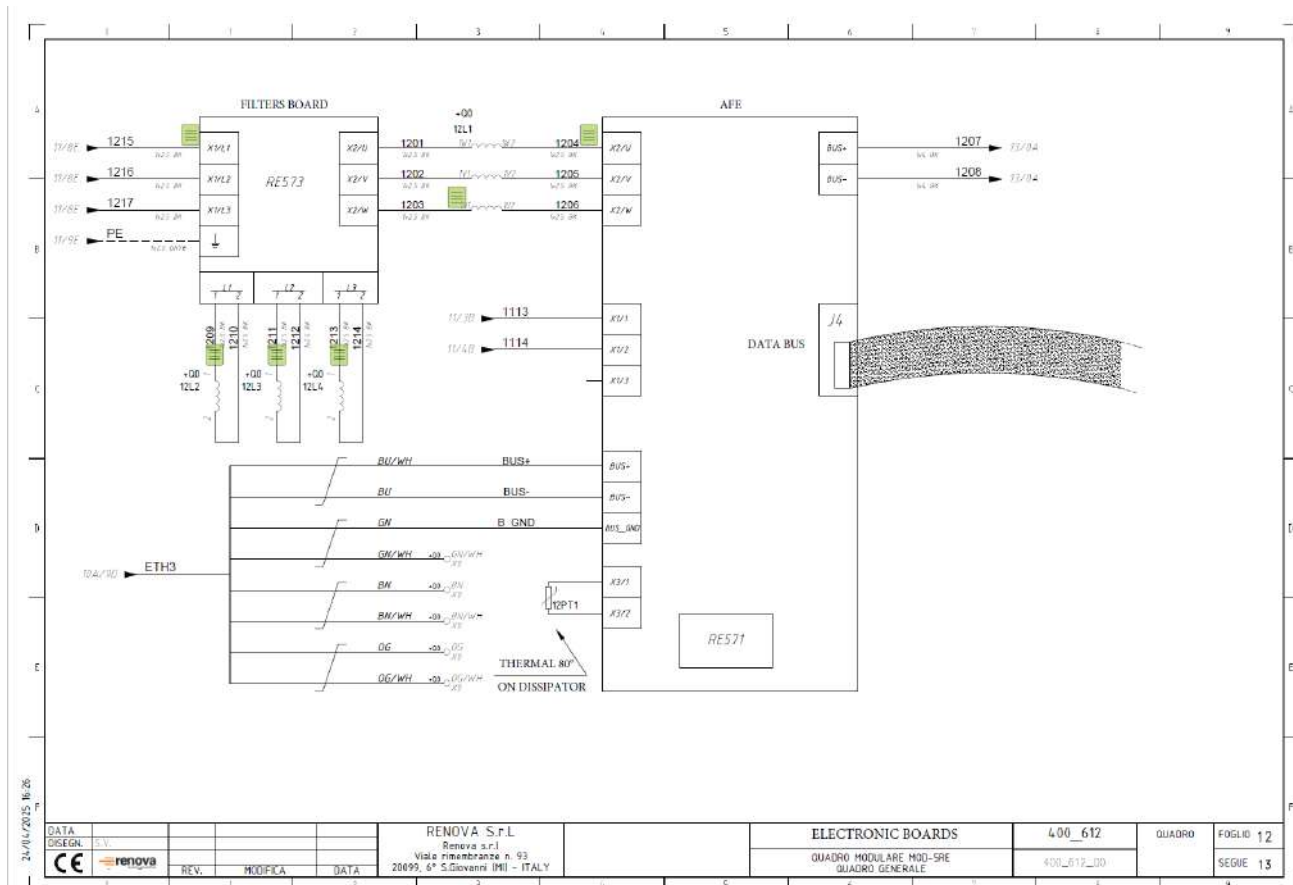
PNEUMATIC PANEL



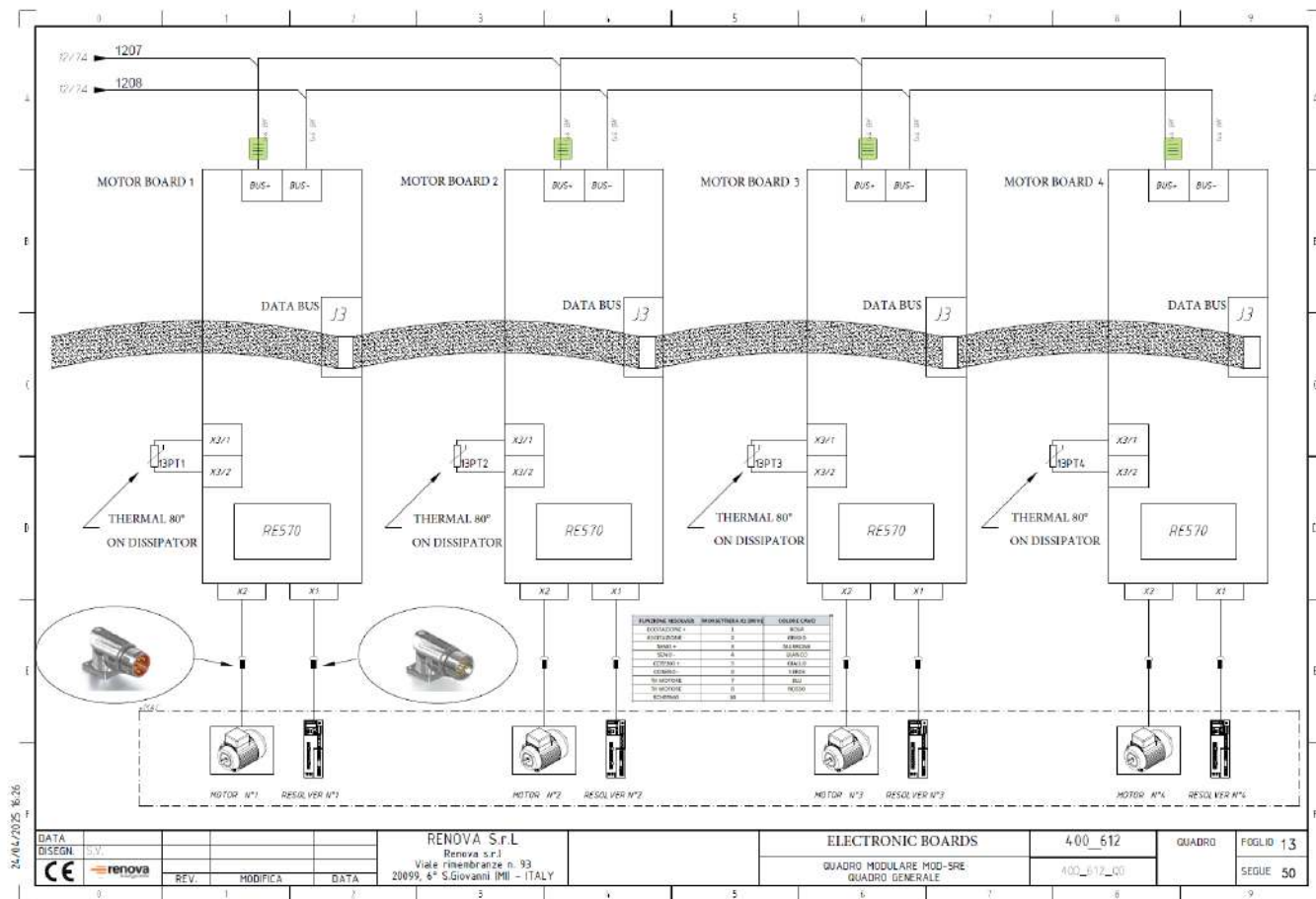
NETWORK INTERFACE RELAY

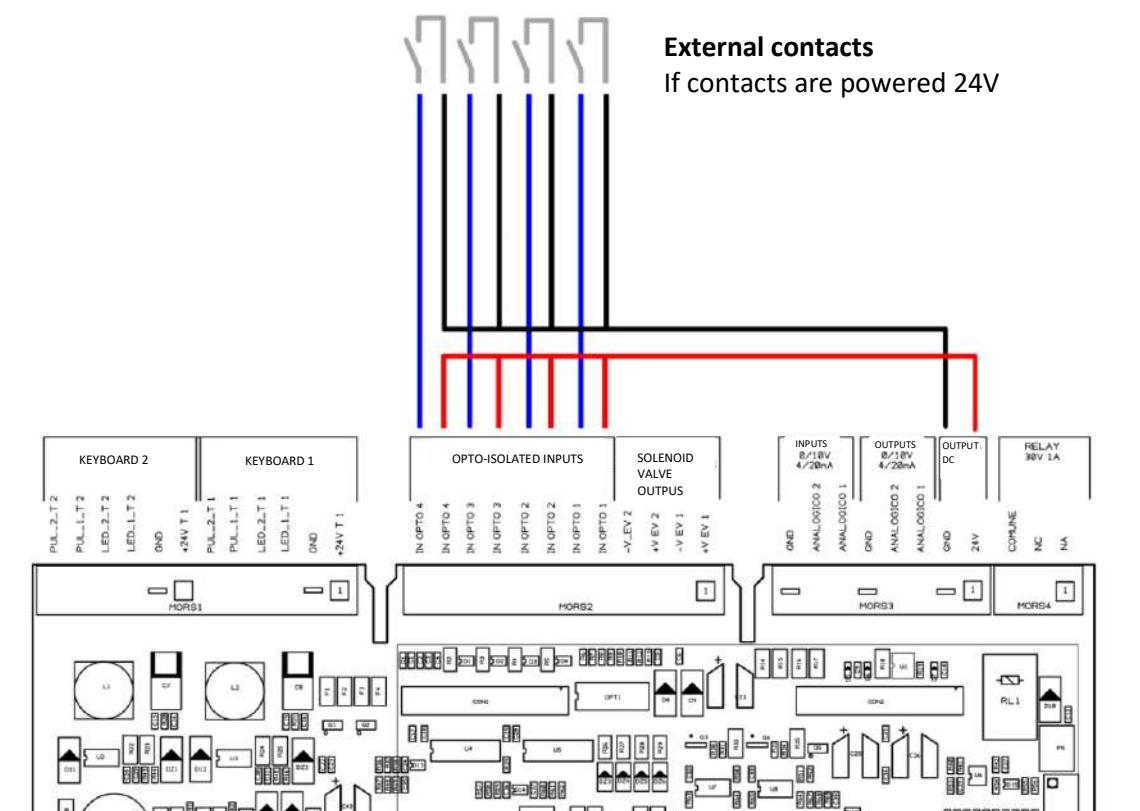
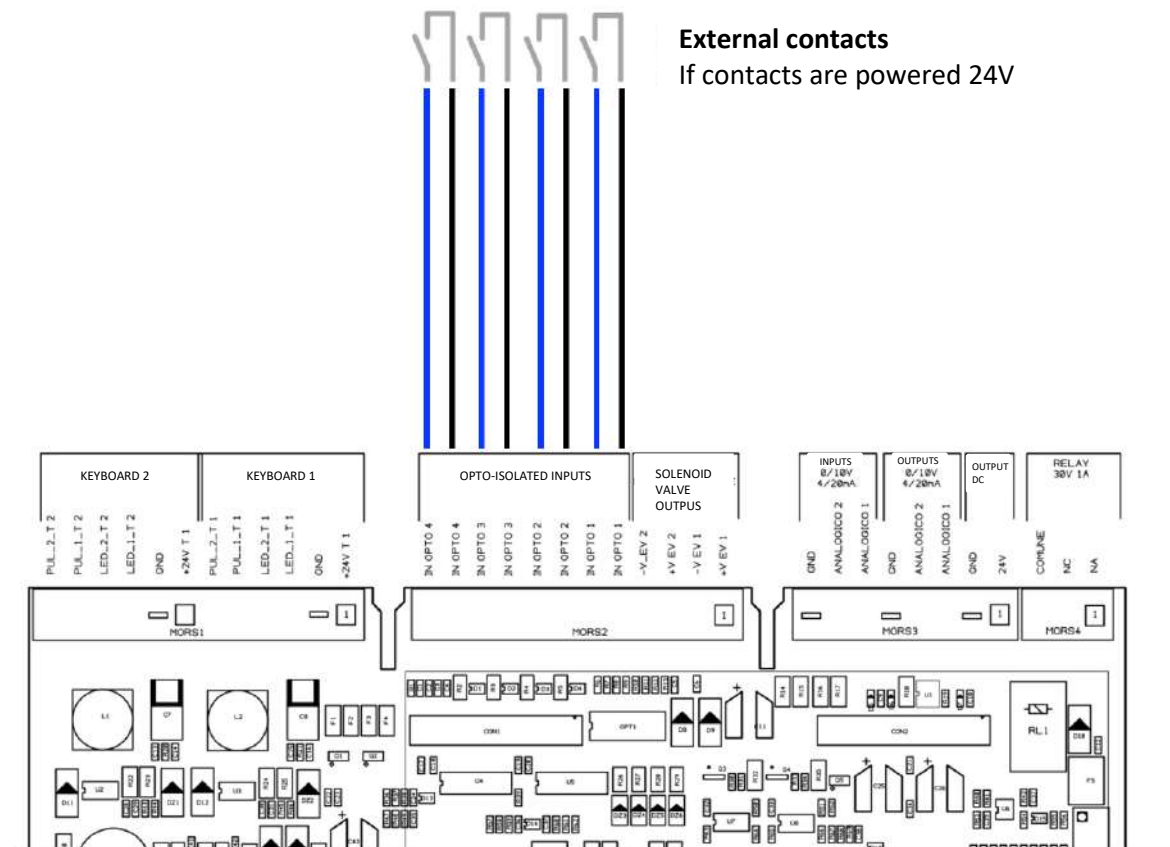


ELECTRONIC BOARDS

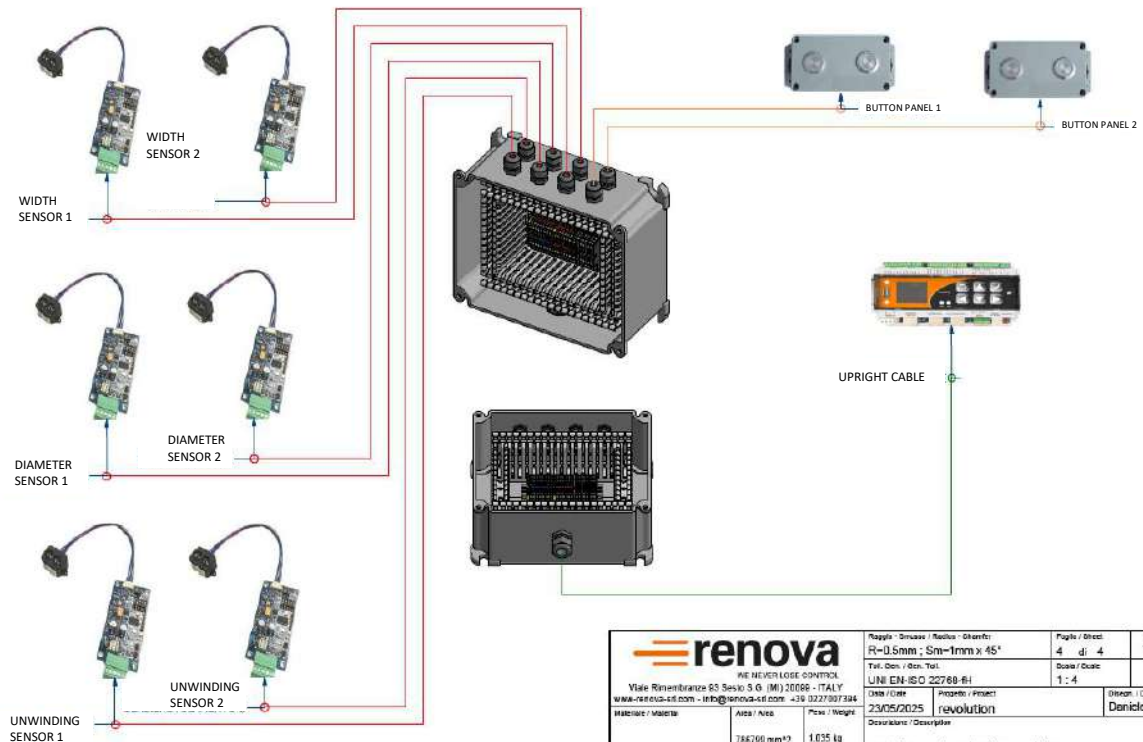


ELECTRONIC BOARDS



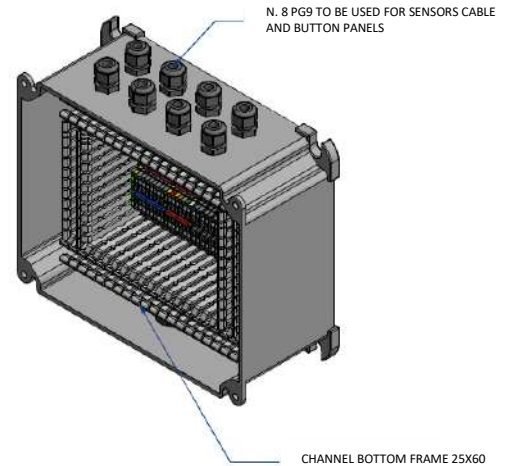
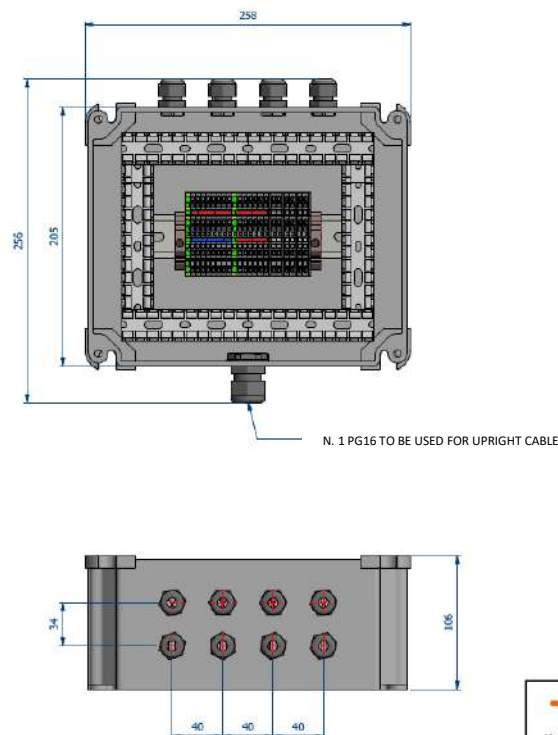


LAYOUT FOR CABLE INSTALLATIONS



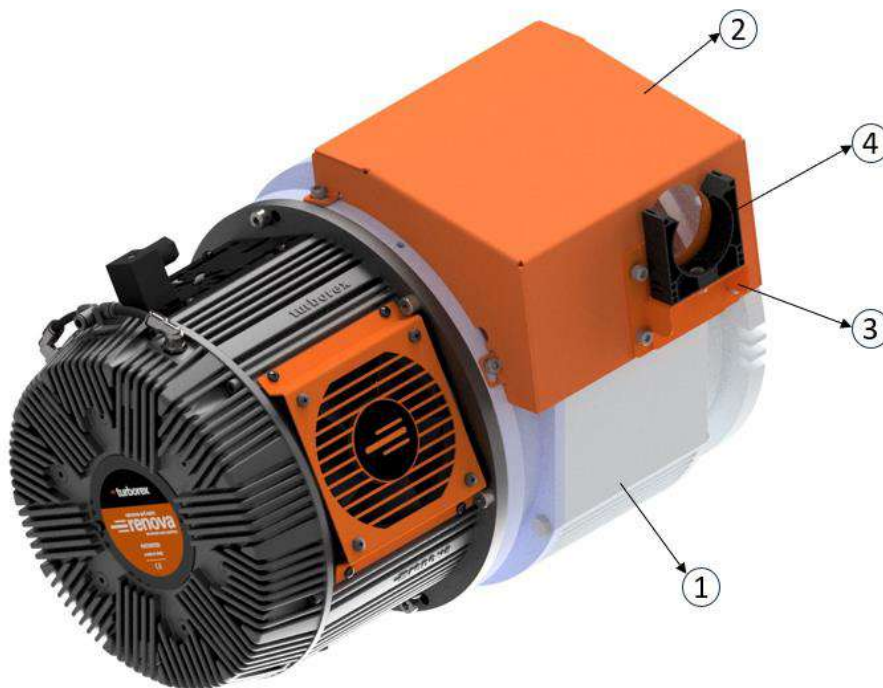
 renova THE NEVER LOOSE CONTROL		Raglia - Orusso / Radius - Orusso: R=0.5mm ; Sm=1mm x 45° Tril. Den. / Den. Tril. UNI EN-ISO 22789-B1	Foglio / Sheet 4 di 4 Scale / Scale 1:4	 A3
Viale Rimembranza 63 Sesto S.G. (MI) 20090 - ITALY www.renova-srl.com - info@renova-srl.com +39 0227007346		UNI EN-ISO 22789-B1 Sm=1mm x 45° / Radius - Orusso: 0.5mm 23/05/2025 revolution	Disegnato / Drawn Daniele Pagnoni	
Materiale / Material 786766 mm ²	Area / Area 1.035 kg	Prezzo / Price 23/05/2025	Disegnato / Drawn Daniele Pagnoni	
Tril. Tension - Superficie / Lead - Surface Treatment Cassetta sensori e pulsantiere revolution		Descrizione / Description Cassetta revolution		Rev. 1

BOX DIMENSIONS AND SPECIFICATIONS



 renova THE NEVER LOOSE CONTROL		Raglia - Orusso / Radius - Orusso R=0.5mm ; Sm=1mm x 45° Tril. Den. / Den. Tril. UNI-EN-ISO 22789-B1		Foglio / Sheet 1 di 4 Scale / Scale 1:2.5	 A3	
Viale Rimembranza 63 Sesto S.G. (MI) 20090 - ITALY www.renova-srl.com - info@renova-srl.com +39 0227007346		Data / Date 23/05/2025		Progetto / Project revolution		Disegnato / Drawn Daniele Pagnoni
Materiale / Material 786766 mm ²		Area / Area 1.035 kg		Cassetta sensori e pulsantiere revolution		
Tril. Tension - Superficie / Lead - Surface Treatment		Codice / Code Cassetta revolution		Rev. 1		

Component Description and Codes



position	Right side	Left side	Description
1	M65-0044	M65-0045	MOTOR
2	REVP0003	REVP0005	MOTOR CABLE COVER
3	REVP0004	REVP0004	SUPPORT
4	E50-0096	E50-0096	STOP GUARD

SPARE PARTS REQUEST

Always provide the **Serial Number** of your product when requesting spare parts, together with the code of the required spare parts.

Each Revolution system is supplied with its own Serial Number.

The Serial Number is shown on the nameplate located on the side of the cabinet.

The Serial Number is also indicated on the Warranty Sheet supplied with the **revolution** and on the Declaration of Conformity included in this manual.

Quick instructions for proper use

Do not switch on the Revolution while the machine is running.

After setting the main switch (located on the cabinet door) to position 1 and checking that the white indicator next to it is lit, press the two ON buttons on the display; they will change from grey to **green**.

At this point, the Revolution is ready for use in brake mode, which operates fully automatically without any intervention from the operator.

On the display, the parameters related to the unwinding roll will begin to change in real time.

By pressing the two **splicing** buttons, the Revolution sets itself up for the splicing operation.

The operator must not perform any operation if the direction of rotation shown in green on the display is correct. If the direction is not correct, the operator must press the button that appears in grey on the display to reverse the direction of rotation.

At this point the Revolution is ready to launch the new reel and start unwinding it for production.

SECURITY

The Revolution cabinet complies with the following standards:

-  (European regulations)
- UL (USA regulations)



ATTESTAZIONE DI VERIFICA DELLA CONFORMITÀ CONFORMITY VERIFICATION STATEMENT

in accordo all'ultima revisione del Fascicolo Tecnico costituito dall'azienda di seguito riportata.
according to the last revision of the Technical File issued, by the following company.

Verifica effettuata secondo i requisiti sotto riportati.
Verification done according to the below requirements.

RENOVA S.r.l.

Sede legale / Registered site: Via Palmanova 24 20132 Milano

Sede operativa e amministrativa / Operative and Admin. site:

Viale Rimembranze 93, 20099 Sesto San Giovanni – Italia

dichiara che il/i seguente/i prodotto/i: / declares that the following product(s)

Descrizione description	FRENO CON RECUPERO / brake with energy recovery
----------------------------	---

è/sono conforme/i ai seguenti requisiti: / fulfil(s) the following requirements
alla Direttiva 2006/42/CE relativa alle macchine (procedura di valutazione in accordo all'allegato VIII)
directive 2006/42/EC "Machinery directive" (conformity assessment according to annex VIII)

Norme applicate/applied standards
EN ISO 12100; EN 60204-1

Altre direttive applicabili/other applicable directives
Direttiva relativa alla bassa tensione 2014/35/UE
LVD "Low Voltage Directive" 2014/35/EU

Direttiva relativa alla compatibilità elettromagnetica 2014/30/UE
EMC "Electromagnetic Compatibility directive" 2014/30/EU

Controllo interno della fabbricazione in accordo alla ISO 9001:2015
Internal Fabrication Control according to ISO 9001:2015

Revisione / Revision: A
Prima Emissione / First issue: 07/05/2021
Data di Revisione / Revision date: 07/05/2021

Procuratore Speciale
EUROCERTIFICATIONS S.r.l.
Eleonora Angioletti



EUROCERTIFICATIONS S.r.l. (P.IVA: 04336060167)

Sede Legale: e Uffici Operativi: via Puccini, 1 - 24040 – Madone (BG)

tel. 035 4997726 fax. 035 4943471 e-mail: info@eurocertifications.it website: www.eurocertifications.it



	DICHIARAZIONE DI CONFORMITÀ UE EU DECLARATION OF CONFORMITY
---	---

Ragione sociale / manufacturer	RENOVA SRL Sede legale/legal site: Via Palmanova 24 20132 Milano Sede operativa/operative site: Viale Rimembranze 93 20099 Sesto San Giovanni(MI)-Italy
---	--

dichiara che / declare that

Prodotto/Product Name	FRENO CON RECUPERO <i>brake with energy recovery</i>
Codice-Matricola code / serial number	XXX (se prototipo in fase di validazione potrebbe essere possibile mettere NA oppure indicare prototipo o campione n° 2 , n° 3 ecc.)

E' CONFORME
FULFILS

alla Direttiva 2006/42/CE relativa alle macchine
(procedura di valutazione in accordo all'allegato VIII)
directive 2006/42/EC "Machinery directive"
(conformity assessment according to annex VIII)

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Altre direttive applicabili/other applicable directives
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 LVD "Low Voltage Directive" 2014/35/EU
 EMC "Electromagnetic Compatibility directive" 2014/30/EU

Controllo interno della fabbricazione in accordo alla ISO 9001:2015
Internal Fabrication Control according to ISO 9001:2015

RENOVA applicando il marchio **CE** garantisce che il progetto, la costruzione delle attrezzature sopra menzionate rispondono ai requisiti della Direttiva **2006/42/CE**
 La presente dichiarazione di conformità è rilasciata sotto la responsabilità esclusiva del fabbricante.

RENOVA by using the **CE** marking guarantee that design, construction of equipment mentioned above fulfil the requirements of the Directive **2006/42/EC**
 This declaration of conformity is issued under the sole responsibility of the manufacturer.

Luogo/place Data/date

Timbro e firma/ Stamp & signature



Renova srl – viale Rimembranze 93 – 20099 Sesto San Giovanni - Italy – tel: +39.02.2700.7394

www.renova-srl.com – email: support@renova-srl.com